

# HAND TOOLS



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**Scan to learn about innovations in hand tools from Snap-on**

[www.snapon.com/1200/handtools](http://www.snapon.com/1200/handtools)





# REACH FOR THE LEGENDARY BRAND OF PROFESSIONALS

For more than 90 years, Snap-on has served the serious professional with hand tools that deliver quality, innovation and performance

## Reach for Quality

Snap-on® hand tools are crafted from the highest quality materials and built to the most rigorous standards

---

**STRONG AND LONG LASTING** – Born of special steel with higher alloy content than most

---

**PRECISE FIT** – Upheld to stringent tolerances during manufacture for tight fit to fastener

---

**CORROSION RESISTANT** – Finished with Snap-on's signature nickel-chrome plating

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## Reach for Innovation

Since 1920, Snap-on has taken the most basic of hand tools and made them more productive, more versatile and more comfortable to use

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### FLANK DRIVE® WRENCHING SYSTEM —

Adds up to 15-20% more torque, preventing rounding off of fasteners

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### POWEREDGE™ CUTTERS AND TALON GRIP™

PLIERS — Cleaner cuts, more pulling power and increased durability, with greater comfort and leverage

---

### TECHANGLE® TORQUE WRENCH —

Most accurate way to achieve torque and angle tightening sequences, using aircraft technology

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## Reach for Performance

*Snap-on* hand tools are unsurpassed in performing the job quickly and accurately

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**STRENGTH** — Open end jaws that don't spread, ratchets that don't slip and screwdrivers that stand up to today's torque requirements

---

**ACCESSIBILITY** — Ability to access and perform work in the tightest quarters

---

**VERSATILITY** — Broad and deep hand tool lines ensure the right tool for the job

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# RATCHETS

## Designed to Last a Lifetime.

**Snap-on® ratchets perform day after day, year after year, generation after generation.**

**Highest quality materials** — Each ratchet is built with our proprietary alloy steel and precision-crafted gears, springs and pawls.

**Sealed mechanism** — Ratchet heads are sealed to protect gears from debris and liquids to provide trouble-free performance.

**Tested under extreme conditions** — *Snap-on* ratchets are put through rigorous testing to perform in the real world.

## The Ultimate System.

**Snap-on ratchets and sockets are synonymous with productivity. They get into the tightest spots—and work with the shortest swing arc.**

**Lowest combined height** — Combined with *Snap-on* sockets, our ratcheting systems have the lowest profile, giving you better access to restricted areas.

**Dual 80° Technology** — Dual pawls and an 80 tooth gear provide more power in less lateral space.

**Variety** — Snap-on offers a wide range of ratchets including flex-head, long handle, swivel head, palm ratchets and more.





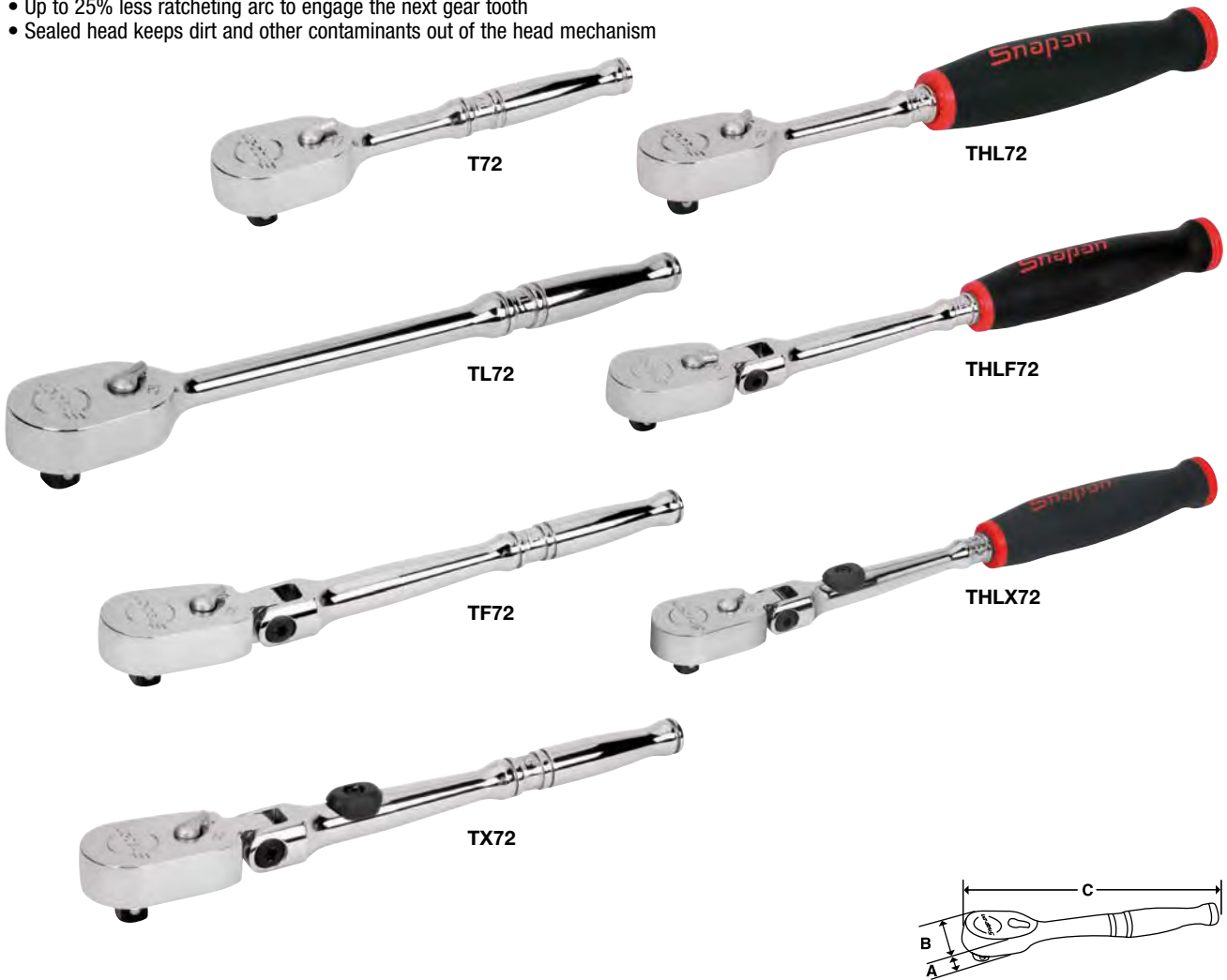


### Dual 80® Technology Based Ratchets

Stop, Turn and Listen. A smoother, stronger ratchet.  
Try them to believe them.

**Dual 80 Technology Ratchets Feature:**

- 72 tooth gear
- 7 teeth in contact with gear to provide strength and durability
- Up to 25% less ratcheting arc to engage the next gear tooth
- Sealed head keeps dirt and other contaminants out of the head mechanism



Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
T72	1/4	Standard Handle	72	5°	7/16	15/16	4 7/16	RKRT72A
GT72	1/4	Standard Handle, Industrial Finish	72	5°	7/16	15/16	4 7/16	RKRT72A
THL72	1/4	Long Handle	72	5°	7/16	15/16	6 7/8	RKRT72A
TL72	1/4	Long Handle	72	5°	7/16	15/16	6 1/2	RKRT72A
TF72*	1/4	Long Flex Head	72	5°	7/16	15/16	6 1/4	RKRT72A
THLF72*	1/4	Long Flex Head	72	5°	7/16	15/16	8 1/4	RKRT72A
TX72**	1/4	Locking Flex Head	72	5°	7/16	15/16	6 1/4	RKRT72A
THLX72	1/4	Locking Flex Head	72	5°	7/16	15/16	8 1/4	RKRT72A

ASME®/ANSI® B107.10

\*Uses RKRT841JT Flex Joint Repair Kit.

\*\*Uses RKRT841JT Flex Joint Repair Kit and RKRT841LM Locking Mechanism Repair Kit.

**TH936-12 Soft Grip Replacement Handle.**



**WARNING**



- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4

# RATCHETS

3/8" Drive



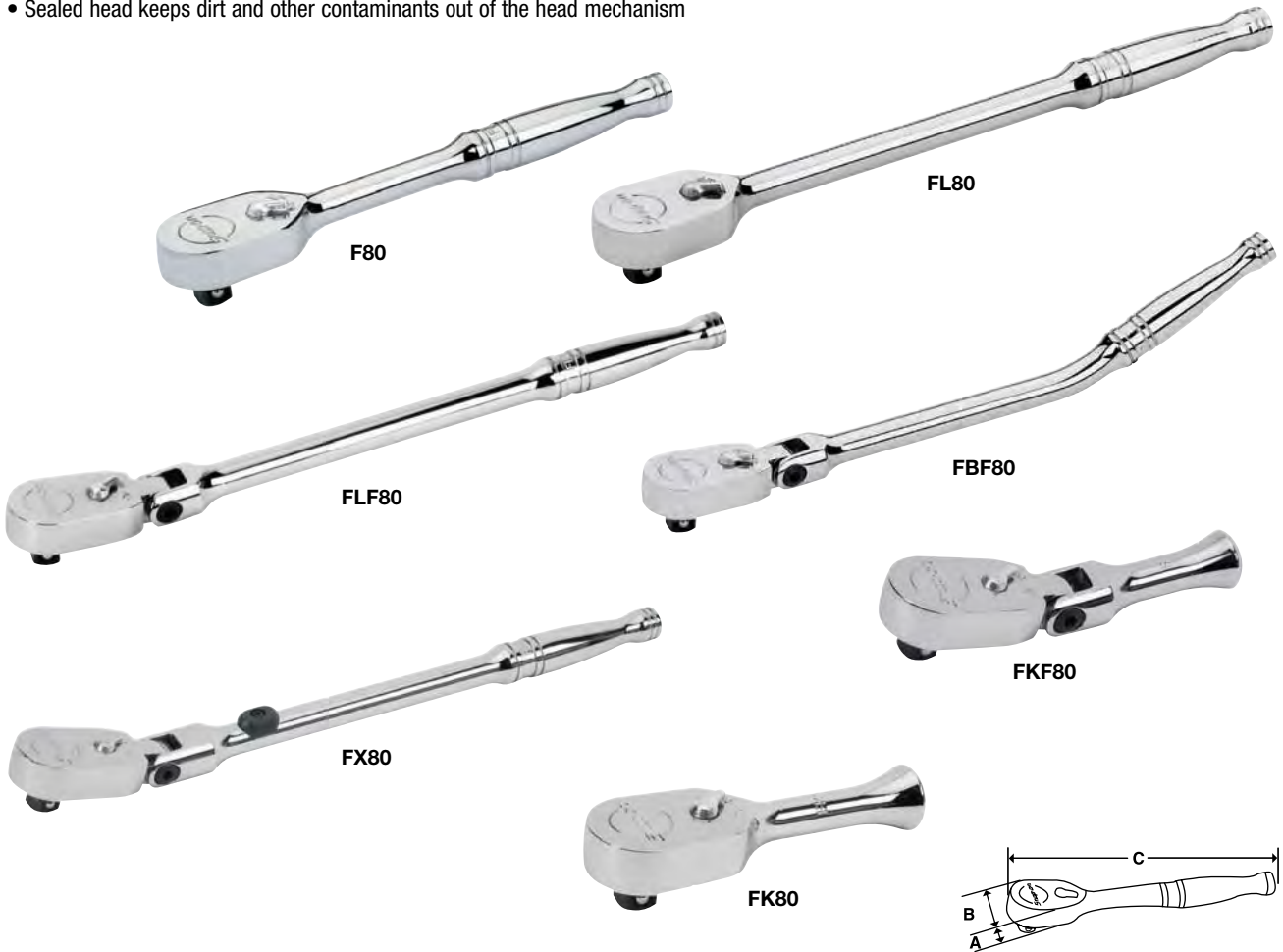
## Dual 80® Technology Ratchets

Stop, Turn and Listen. A smoother, stronger ratchet.

Try them to believe them.

### Dual 80 Technology Ratchets Feature:

- 80 tooth gear
- 7 teeth in contact with gear to provide strength and durability
- Up to 25% less ratcheting arc to engage the next gear tooth
- Sealed head keeps dirt and other contaminants out of the head mechanism



Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
F80	3/8	Standard Handle	80	4.5°	9/16	1 1/4	7 7/16	RKRF80
FL80	3/8	Long Handle	80	4.5°	9/16	1 1/4	10 5/16	RKRF80
GF80	3/8	Standard Handle, Black Industrial	80	4.5°	9/16	1 1/4	7 7/16	RKRF80
FLF80*	3/8	Long Flex Head	80	4.5°	9/16	1 1/4	11 1/2	RKRF80
FBF80*	3/8	Bent Handle Flex Head	80	4.5°	9/16	1 1/4	11 1/4	RKRF80
FX80**	3/8	Locking Flex Head	80	4.5°	9/16	1 1/4	11 1/2	RKRF80
FKF80*	3/8	Stubby Flex Head	80	4.5°	9/16	1 1/4	4 3/4	RKRF80
FK80	3/8	Stubby Handle	80	4.5°	9/16	1 1/4	4 3/16	RKRF80

ASME®/ANSI® B107.10

\*Uses RKRF841JT Flex Joint Repair Kit.

\*\*Uses RKRF841JT Flex Joint Repair Kit and RKRFX936ALM Locking Mechanism Repair Kit.





FH80



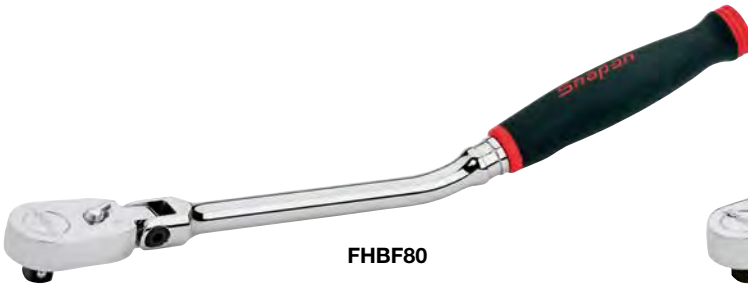
FHL80



FHF80



FHLF80



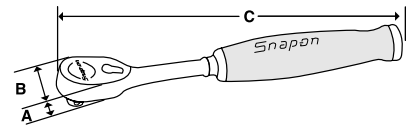
FHBF80



FHOF80



FHX80



Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
FH80	3/8	Standard Length	80	4.5°	9/16	1 1/4	9 9/16	RKRF80
FHL80	3/8	Long Handle	80	4.5°	9/16	1 1/4	12 7/16	RKRF80
FHF80*	3/8	Flex Head	80	4.5°	9/16	1 1/4	9 5/8	RKRF80
FHLF80*	3/8	Long Flex Head	80	4.5°	9/16	1 1/4	13 11/16	RKRF80
FHBF80*	3/8	Bent Handle Flex Head	80	4.5°	9/16	1 1/4	13 5/16	RKRF80
FHOF80*	3/8	Offset Flex Head	80	4.5°	9/16	1 1/4	9 15/16	RKRF80
FHX80**	3/8	Locking Flex Head	80	4.5°	9/16	1 1/4	11 15/16	RKRF80

ASME®/ANSI® B107.10

\*Uses RKRF841JT Flex Joint Repair Kit.

\*\*Uses RKRF841JT Flex Joint Repair Kit and RKRF936ALM Locking Mechanism Repair Kit.

**FH936-12 Soft Grip Replacement Handle.**



**WARNING**



- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4

# RATCHETS

1/2" Drive



## Dual 80® Technology Ratchets

Stop, Turn and Listen. A smoother, stronger ratchet.

Try them to believe them.

### Dual 80 Technology Ratchets Feature:

- 80 tooth gear
- 7 teeth in contact with gear to provide strength and durability
- Up to 25% less ratcheting arc to engage the next gear tooth
- Sealed head keeps dirt and other contaminants out of the head mechanism



Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
S80A	1/2	Standard Handle	80	4.5°	3/4	1 5/8	10 5/16	RKRS80A
GS80A	1/2	Industrial Finish	80	4.5°	3/4	1 5/8	10 5/16	RKRS80A
SH80A	1/2	Standard Handle	80	4.5°	3/4	1 5/8	12	RKRS80A
SL80A	1/2	Long Handle	80	4.5°	3/4	1 5/8	15	RKRS80A
SHL80A	1/2	Long Handle	80	4.5°	3/4	1 5/8	16 5/8	RKRS80A
SF80A*	1/2	Flex Head	80	4.5°	3/4	1 5/8	17 11/16	RKRS80A
SHF80A*	1/2	Long Handle	80	4.5°	3/4	1 5/8	17 11/16	RKRS80A
SLF80A*	1/2	Long Flex Head	80	4.5°	3/4	1 5/8	24 13/16	RKRS80A
SHLF80A*	1/2	Long Flex Head	80	4.5°	3/4	1 5/8	25 3/4	RKRS80A
SX80B**	1/2	Locking Flex Head	80	4.5°	3/4	1 5/8	17 5/8	RKRS80A
SLX80A**	1/2	Locking Flex Head	80	4.5°	3/4	1 5/8	24 13/16	RKRS80A

ASME®/ANSI® B107.10

\*Uses RKRSX936JT Flex Joint Repair Kit

\*\*Uses RKRSX80AJT Flex Joint Repair Kit and RKRSX80ALM Locking Mechanism Repair Kit

SH936-12 Soft Grip Replacement Handle.



### Round Head

The Snap-on® Round Head features up to 100 teeth to achieve the lowest possible swing arc. Slim round head ratchets are perfect for the tightest of space constraints.



### Round Head Ratchets

Feature a slim design plus a strong 60, 72 or 100 tooth gear action for use in confined areas.

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
TKN72	1/4	Short Handle	72	5°	7/16	1 1/4	3 1/16	RKRTHNF72
THNF72*	1/4	Swivel Head	72	5	7/16	1 1/4	6 7/8	RKRTHNF72
TN72	1/4	Round Head	72	5	7/16	1 1/4	4 1/2	RKRTHNF72
TMR860	1/4	Fingertip	60	6°	7/16	1 1/2	4 1/2	RKR860
FHN72**	3/8	Swivel Head	100	3.6°	11/16	1 3/4	12 1/2	RKRTHNF100
FN100	3/8	Round Head	100	3.6°	11/16	1 3/4	7 7/8	RKRTHNF100
FHCNF72**	3/8	Compact Swivel Head	72	5°	7/16	1 1/4	6 7/8	RKRTHNF72

ASME®/ANSI® B107.10

\*TH936-12 Soft Grip Replacement Handle.

\*\*FH936-12 Soft Grip Replacement Handle.

## Specialty



### Ratchet Features:

- Compact head design offers greater accessibility
- Swivel head ratchets provide a variety of ratcheting positions



### Specialty Ratchets

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
SKF80A	1/2	Stubby Handle	80	4.5	3/4	1 5/8	7 9/16	RKRS80A
FC72	3/8	Compact Head	72	5°	7/16	15/16	4 7/16	RKRFC72
FCF72	3/8	Compact Flex Head	72	5°	7/16	15/16	6 1/4	RKRFC72

ASME/ANSI B107.10



**WARNING**



- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4

# RATCHETS

## Quick Release

- Quick release button for rapid socket/accessory changes, even with greasy or oily hands
- Contoured handle for comfort and control
- Chrome finish for easy cleanup



## Quick Release Ratchets

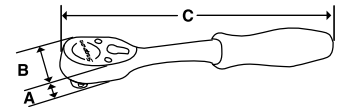
Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
TR72	1/4	Quick Release	72	5°	7/16	15/16	7 7/16	RKRTR72
THR72*	1/4	Quick Release	72	5°	7/16	15/16	9 9/16	RKRTR72
THRLF72*	1/4	Quick Release	72	5°	7/16	15/16	8 1/4	RKRTR72
FR80	3/8	Quick Release	80	4.5	9/16	1 1/4	7 7/16	RKRFR80
FHR80**	3/8	Quick Release	80	4.5	9/16	1 1/4	9 9/16	RKRFR80
FHRLF80**	3/8	Quick Release	80	4.5	9/16	1 1/4	13 11/16	RKRFR80
SR80A	1/2	Quick Release	80	4.5	3/4	1 5/8	10 5/16	RKRSR80A
SHR80A***	1/2	Quick Release	80	4.5	3/4	1 5/8	10 5/16	RKRSR80A
SHRLF80A***	1/2	Quick Release	80	4.5	3/4	1 5/8	25 3/4	RKRSR80A

ASME/ANSI B107.10

\*TH936-12 Soft Grip Replacement Handle.

\*\*FH936-12 Soft Grip Replacement Handle.

\*\*\*SH936-12 Soft Grip Replacement Handle.



## Quick Release Ratchets (Blue-Point®)

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit		
BPRTR936	1/4	Standard Handle	36	10°	15/32	31/32	5 5/8	RKRBPTR936	•	
BPRTR936SG	1/4	Soft Grip Handle	36	10°	15/32	31/32	5 5/8	RKRBPTR936	•	•
BPRFR938	3/8	Standard Handle	38	9.5°	9/16	1 9/32	7 3/4	RKRBPFR938	•	
BPRFR938SG	3/8	Soft Grip Handle	38	9.5°	9/16	1 9/32	7 3/4	RKRBPFR938	•	•
BPRSR940	1/2	Standard Handle	40	9°	23/32	1 23/32	9 7/8	RKRBP SR940	•	
BPRSR940SG	1/2	Soft Grip Handle	40	9°	23/32	1 23/32	9 7/8	RKRBP SR940	•	•

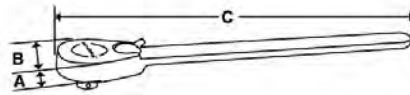
Set Contains:

BPR703

BPR703SG

ASME/ANSI B107.10





### Low Profile Ratchets

- Square drive design works with low profile sockets to access restricted clearance areas without loss of strength
- Use with standard 3/8" drive sockets or other attachments
- Thin handle cross section allows for increased accessibility in tight quarters
- Dual 80® Technology requires less arc to engage the next gear tooth
- 7 teeth in contact with gear to provide strength and durability
- See low profile sockets on p. 28



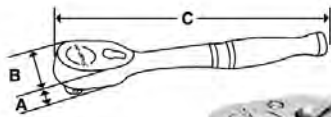
RAT72



RAF80

Stock No.	Drive Size	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
RAT72	11 mm Internal Hex	Low Profile	72	5	3/8	15/16	4 7/8	
RAF80	3/8" Square Drive	Low Profile	80	4.5°	7/16	1 1/4	7 1/2	RKRAF80

### FOD (Foreign Object Damage)



F936FOD



S936FOD

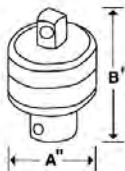
### FOD (Foreign Object Damage) Ratchets

- Designed to help prevent foreign object damage in sensitive work environments
- Coverplate and reverse lever permanently affixed to ratchet head with rivets to prevent chance of small parts debris

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
T936FOD	1/4	Standard Handle	36	10°	3/8	1 7/32	4 7/16	
F936FOD	3/8	Standard Handle	36	10°	5/8	1 3/16	7 7/16	
S936FOD	1/2	Standard Handle	36	10°	3/4	1 5/8	10 5/16	

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### Adaptors



TM77



F77



S77A



L672B

### Ratchet Adaptors

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	Repair Kit
TM77	1/4	Ratchet Adaptor	20	18°	15/16	1 5/8	
F77	3/8	Ratchet Adaptor	20	18°	13/16	2 3/16	
S77A	1/2	Ratchet Adaptor	20	18°	1 5/8	3	RKRS77
L672B	3/4	Ratchet Adaptor	44	8.2°	2 1/2	3 15/16	RKR881B

ASME/ANSI B107.10



**WARNING**



- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4

# RATCHETS

## Special Application



## Special Application Ratchets

Stock No.	Square Drive, inches	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
TFY936*	1/4	HY-LOK® Ratchet	36	10°	7/16	7/8	6 1/4	
FZ936A	3/8	MultiPurpose	36	10°	5/8	1 3/16	3 1/4	RKRF936
PALMRAT	3/8	Palm Style	20	18°	1 3/16		2 5/8	RKRPALMRAT
SA936A	1/2	Scaffold	36	10°	4 3/16	1 5/8	10 5/16	RKSA936
GSP936*	1/2	Spud	36	10°	3/4	1 5/8	15 5/8	RKRGSP936-1

\*ASME/ANSI B107.10

**GSP936 Spud Ratchet.** The spud ratchet is ideal for lining up holes in scaffolding and other construction jobs. A long reverse lever provides easy reversing even while wearing heavy work gloves. Locking button retention. Taper diameter is 3/16 to 7/8". Taper length is 8".

## Spinners



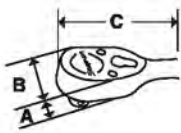
## Ratchet Spinners

Stock No.	Square Drive, inches	Description	A	B	Set Contains:	Blue-Point
TMS70A	1/4	Ratchet Spinner	1	7/8		
FSDR	1/4 male to 1/4 female	Finger Ratchet	—	—		•
BLPSD14	1/4	Ratchet Spinner	7/8	27/32		
FRS70A	3/8	Ratchet Spinner	1 1/4	1 5/16		
FSD1	3/8 male to 3/8 female	Spinner Adaptor	—	—	•	•
FSD14	3/8 male to 1/4 female	Spinner Adaptor	—	—	•	•
FSD38	1/4 male to 3/8 female	Spinner Adaptor	—	—	•	•
LRS70A	1/2	Ratchet Spinner	1 3/4	1 5/8		

ASME/ANSI B107.10

**FSDR Finger Ratchet (Blue-Point®).** Reversible finger ratchet. Small size works great for extremely tight areas. Aluminum knurled outer ring for sure grip. 1/4" external square drive on one side and 1/4" internal hex drive on other side.

## Heads & Handles



L872



GL872



L873



GL873

### Heads

Stock No.	Drive Size	Description	Gear Teeth	Swing Arc	A	B	C	Repair Kit
L872	3/4	Sealed	32	11°	1 1/4	2 1/2	5 15/16	RKRQC4
GL872	3/4	Sealed Industrial Finish	32	11°	1 1/4	2 1/2	5 15/16	RKRQC4
L873	1	Sealed	30	12°	1 1/2	3 1/8	7 7/8	RKRQC5
GL873	1	Sealed Industrial Finish	30	12°	1 1/2	3 1/8	7 7/8	RKRQC5



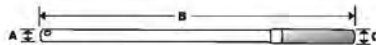
L872H



L872RM

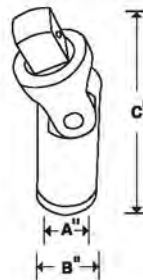


L872RJ



### 3/4" Handles

Stock No.	Description	A	B	C
L872H	Plain w/locking Button	13/16	19 1/4	15/16
L872RM	Knurled	15/16	36	1 1/8
L872RJ	Knurled	15/16	19 1/4	1 1/8



L8112A

### 3/4" Head and Handle Combinations

	Heads using 13/16" (small) diameter handle holes	Heads using 15/16" (large) diameter handle holes	
	L52B Sliding T-handle Head	L872 Ratchet Head	L8112A Breaker Bar Head
Short 19 1/4" Handle (Lock Button Both Ends)	L872H		
Short 19 1/4" Handle (Lock Button End/Knurled End)		L872RJ	L872RJ
Long 36" Handle (Lock Button End/Knurled End)		L872RM	L872RM

ASME®/ANSI® B107.10



L53HB



L853HA1

### 1" Handle/Handle Extension

Stock No.	A	B
L53HB	1 1/8	29
L853HA1	1 3/8	36

#### L53HB Handle.

- Plain handle with locking buttons at both ends
- Use on 1" drive ratchet heads, breaker bar heads and sliding T-heads

#### L853HA1 Handle Extension.

- Knurled grip extension handle attaches to L53HB handle for added leverage
- Only used with L53HB handle; L853HA1 will not connect directly to L873 ratchet head

### 1" Head and Handle Combinations

Stock No.	Description	Required Handle	Optional Handle Extension
L873	Ratchet Head	L53HB	L853HA1
L113H	Breaker Bar Head	L53HB	
L53A	Sliding T-handle Head	L53HB	

ASME/ANSI B107.10



L113H

### Breaker Bar/Breaker Bar Head

Drive Size	Handle w/Head	Length	Head Only	A	B	C	Handle Only
3/4			L8112A	15/16	1 9/16	3 11/16	
1	L113H	32 13/16	L113		2 1/8	6 7/16	L53HB



**WARNING**

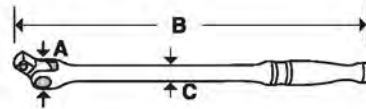


- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4



# BREAKER BARS

## Breaker Bars



(Blue-Point®)

## Breaker Bars

Stock No.	Square Drive, inches	Description	A	B	C	Repair Kit	
TM10G*	1/4	Standard Handle	5/8	6	5/16	RKBB1	
THBB10*	1/4	Comfort Handle	5/8	6 1/2	5/16	RKBB1	
F10LC*	3/8	Standard Handle	13/16	9 9/16	1/2	RKBB2	
F12LA*	3/8	Long Handle	13/16	11 9/16	1/2	RKBB2	
FHBB12*	3/8	Comfort Handle	13/16	13	1/2	RKBB2	
SN15B*	1/2	Standard Handle	1 1/8	15	11/16	RKBB3	
SN18B*	1/2	Standard Handle	1 1/8	18	11/16	RKBB3	
GSN18B*	1/2	Standard Handle, Industrial Finish	1 1/8	18	11/16	RKBB3	
SN24C*	1/2	Standard Handle	1 1/8	24	11/16	RKBB3	
SHBB24*	1/2	Comfort Handle	1 1/8	24	11/16	RKBB3	
SN25A*	1/2	45° Offset Square	1 1/8	24	11/16	RKBB3	
BLPBB146	1/4	Standard Handle	5/8	6	3/8		•
BLPBB3810	3/8	Standard Handle	7/8	9 31/32	1/2		•
BLPBB1215	1/2	Standard Handle	1 1/8	15	3/4		•
BLPBB1224	1/2	Telescoping Handle	1 1/16	1224	5/8 7/8		•

\*ASME®/ANSI® B107.10



## From Start to Finish, Strong, Powerful Sockets.

**Snap-on® sockets are designed to fit and built to perform for a lifetime.**

**Special alloy steel** — Made with proprietary alloy content steel for a stronger, more durable tool.

**Thin wall design** — Uniform wall thickness provides greater access and improved performance where you need it most.

**Broach depth** — *Snap-on* sockets have a broach depth that allows rethreading a nut without removing it from the socket. Just another way *Snap-on* pays attention to the details.

**Flank Drive® wrenching system** — Grabs fasteners on the flats, increasing torque and preventing fastener corners from rounding off.

## Yes, We Have That.

**Snap-on offers a full range of sockets to meet customer needs.**

Sizes ranging from 1/4" to 2 1/2" drive

Standard, semi-deep and deep

Single and double hex

Chrome/impact/swivel: deep, semi-deep and shallow

Specialty sockets such as low profile, twist and magnetic

***Snap-on* bit sockets are available in a variety of configurations**

Bit lengths ranging from 3/4" to 7"

Standard, stubby and long lengths

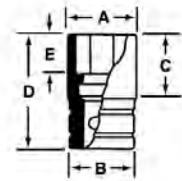
Hex, double hex and ball hex





# SOCKETS

## 1/4" Drive (Flank Drive®)



### Shallow, mm

Set Contains:

mm	Set Contains:		112TMMY					111TMMDY	
	6	12	A	B	C	D	E	6	12
4	TMM4*		6.7	12.1	13.3	22.2	4.6		
4.5	TMM4.5*		7.2	12.1	13.3	22.2	4.3		
5	TMM5*	TMMD5*	7.7	12.1	13.3	22.2	4.3	•	•
5.5	TMM5.5	TMMD5.5	8.3	12.1	13.3	22.2	4.6	•	•
6	TMM6	TMMD6	9.3	12.1	13.3	22.2	5.6	•	•
7	TMM7	TMMD7	10.5	12.1	13.3	22.2	6.1	•	•
8	TMM8	TMMD8	11.5	12.1	13.3	22.2	6.9	•	•
9	TMM9	TMMD9	12.7	12.1	13.3	22.2	7.4	•	•
10	TMM10	TMMD10	13.2	13.2	13.3	22.2	7.4	•	•
11	TMM11	TMMD11	15.2	14.6	13.3	22.2	9.4	•	•
12	TMM12	TMMD12	16.5	15.6	13.3	22.2	9.4	•	•
13	TMM13	TMMD13	17.6	16.7	13.3	22.2	9.4	•	•
14	TMM14	TMMD14	18.8	17.8	14.1	22.2	9.7	•	•
15	TMM15		20.4	19.4	14.1	23.0	9.1	•	
16	TMM16		21.0	20.2	16.1	25.0	10.2		

\*Conventional hex  
\*ASME® B107.5m

Sets shown include magnetic storage tray

### Shallow, inches

Set Contains:

Inches	Set Contains:		110TMY					110TMDY			
	6	12	A	B	C	D	E	6	12		
1/8	TM04		7/32	7/16	1/2	7/8	1/8				
5/32	TM05*		9/32	15/32	1/2	7/8	5/32				
3/16	TM6*	TMD6*	GTM6	GTMD6	9/32	15/32	1/2	7/8	5/32	•	•
7/32	TM7*	TMD7*	GTM7	GTMD7	11/32	15/32	1/2	7/8	3/16	•	•
1/4	TM8	TMD8	GTM8	GTMD8	3/8	15/32	1/2	7/8	7/32	•	•
9/32	TM9	TMD9	GTM9	GTMD9	13/32	15/32	1/2	7/8	1/4	•	•
5/16	TM10	TMD10	GTM10	GTMD10	15/32	15/32	1/2	7/8	9/32	•	•
11/32	TM11	TMD11	GTM11	GTMD11	1/2	15/32	5/16	7/8	9/32	•	•
3/8	TM12	TMD12	GTM12	GTMD12	17/32	1/2	1/2	7/8	9/32	•	•
7/16	TM14	TMD14	GTM14	GTMD14	19/32	9/16	1/2	7/8	3/8	•	•
1/2	TM16	TMD16	GTM16	GTMD16	11/16	21/32	1/2	7/8	3/8	•	•
9/16	TM18	TMD18		GTMD18	25/32	23/32	1/2	29/32	3/8	•	•
5/8	TM20				27/32	25/32	19/32	31/32	13/32		

\*Conventional hex  
ASME B107.1

Sets shown include magnetic storage tray

### 120STTM 6 Point Shallow/Deep Set.

- TM6 to TM18 shallow sockets (pg. 18) and STM6 to STM18 deep sockets (pg. 19)
- (20 pcs) 3/16 to 9/16"



### Semi Deep, mm

Set Contains:

mm	Set Contains:		112TMMSY					111TMMSDY	
	6	12	A	B	C	D	E	6	12
5	TMMS5*	TMMSD5*	7.7	12.1	22.9	31.8	5.1	•	•
5.5	TMMS5.5*	TMMSD5.5	8.3	12.1	22.9	31.8	5.3	•	•
6	TMMS6	TMMSD6	9.3	12.1	22.9	31.8	5.8	•	•
7	TMMS7	TMMSD7	10.5	12.1	22.9	31.8	6.1	•	•
8	TMMS8	TMMSD8	11.5	12.1	18.4	31.8	6.9	•	•
9	TMMS9	TMMSD9	12.7	12.1	18.4	31.8	7.4	•	•
10	TMMS10	TMMSD10	14.0	13.2	18.4	31.8	7.4	•	•
11	TMMS11	TMMSD11	15.4	14.6	18.4	31.8	9.4	•	•
12	TMMS12	TMMSD12	16.5	15.6	18.4	31.8	9.4	•	•
13	TMMS13	TMMSD13	17.6	16.7	18.4	31.8	9.4	•	•
14	TMMS14	TMMSD14	18.8	17.8	18.4	31.8	9.7	•	•
15	TMMS15	TMMSD15	20.4	19.4	18.4	31.8	9.7	•	•

\*Conventional hex

Sets shown include magnetic storage tray

### Semi Deep, inches

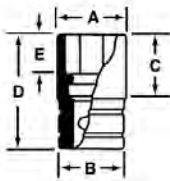
Set Contains:

Inches	Set Contains:		110TMMSY					110TMMSDY	
	6	12	A	B	C	D	E	6	12
3/16	TMS6*	TMDS6*	5/16	15/32	29/32	1 1/4	7/32	•	•
7/32	TMS7*	TMDS7*	11/32	15/32	29/32	1 1/4	7/32	•	•
1/4	TMS8	TMDS8	3/8	15/32	29/32	1 1/4	1/4	•	•
9/32	TMS9	TMDS9	13/32	15/32	23/32	1 1/4	1/4	•	•
5/16	TMS10	TMDS10	15/32	15/32	23/32	1 1/4	9/32	•	•
11/32	TMS11	TMDS11	1/2	15/32	23/32	1 1/4	5/16	•	•
3/8	TMS12	TMDS12	9/16	1/2	23/32	1 1/4	5/16	•	•
7/16	TMS14	TMDS14	5/8	19/32	23/32	1 1/4	3/8	•	•
1/2	TMS16	TMDS16	11/16	21/32	23/32	1 1/4	3/8	•	•
9/16	TMS18	TMDS18	3/4	23/32	23/32	1 1/4	3/8	•	•

\*Conventional hex  
\*ASME B107.1

Sets shown include magnetic storage tray





Deep, mm

		Set Contains:							111STMMDY 112STMMY	
mm	Hex	6	12	A	B	C	D	E	6	12
4	STMM4*			6.7	12.1	42.2	50.8	4.6		
4.5	STMM4.5*			7.2	12.1	42.2	50.8	4.6		
5	STMM5*	STMMD5*		7.7	12.1	42.2	50.8	5.1	•	•
5.5	STMM5.5	STMMD5.5		8.3	12.1	42.2	50.8	5.3	•	•
6	STMM6	STMMD6		9.3	12.1	42.2	50.8	5.8	•	•
7	STMM7	STMMD7		10.5	12.1	42.2	50.8	6.1	•	•
8	STMM8	STMMD8		11.5	12.1	42.2	50.8	6.9	•	•
9	STMM9	STMMD9		12.7	12.1	38.1	50.8	7.4	•	•
10	STMM10	STMMD10		14.0	13.2	38.1	50.8	7.4	•	•
11	STMM11	STMMD11		15.2	14.6	38.1	50.8	9.4	•	•
12	STMM12	STMMD12		16.5	15.6	38.1	50.8	9.4	•	•
13	STMM13	STMMD13		17.6	16.7	38.1	50.8	9.4	•	•
14	STMM14	STMMD14		18.8	17.8	38.1	50.8	9.7	•	•
15	STMM15			20.4	19.4	38.1	50.8	9.1	•	•



112STMMY



STMMD14

\*Conventional hex Sets shown include magnetic storage tray

### 124STTMM Metric 6 Point Shallow/Deep Set.

- TMM4 to TMM14 shallow sockets (except TMM4.5) (pg 18) plus STM4 to STM14 Deep Sockets (except STM4.5) (pg 19)
- 24 pcs
- 4, 5 to 14 mm

Deep, inches

		Set Contains:							110STMDY 110STMY	
Hex	Hex	6	12	A	B	C	D	E	6	12
1/8	STM04*			7/32	7/16	1 21/32	2	1/8		
5/32	STM05*			1/4	15/32	1 21/32	2	3/16		
3/16	STM6*	STMD6*	GSTM6	GSTMD6*	9/16	15/32	1 21/32	2	3/16	•
7/32	STM7*	STMD7*	GSTM7	GSTMD7*	11/32	15/32	1 21/32	2	7/32	•
1/4	STM8	STMD8	GSTM8	GSTMD8	3/8	15/32	1 21/32	2	7/32	•
9/32	STM9	STMD9	GSTM9	GSTMD9**	13/32	15/32	1 21/32	2	1/4	•
5/16	STM10	STMD10	GSTM10	GSTMD10**	15/32	15/32	1 21/32	2	7/32	•
11/32	STM11	STMD11	GSTM11	GSTMD11	1/2	15/32	1 21/32	2	9/32	•
3/8	STM12	STMD12	GSTM12	GSTMD12	17/32	9/16	1 21/32	2	9/32	•
7/16	STM14	STMD14	GSTM14	GSTMD14	5/8	9/16	1 21/32	2	3/8	•
1/2	STM16	STMD16	GSTM16	GSTMD16	11/16	21/32	1 21/32	2	3/8	•
9/16	STM18	STMD18		GSTMD18	3/4	23/32	1 21/32	2	3/8	•



110STMY



STMD16 GSTMD14

\*Conventional hex Sets shown include magnetic storage tray

\*\*Larger bolt clearance diameter for servicing aerospace fasteners

Long, mm

		Set Contains:							102STMML
mm	Hex	A	B	C	D	E	Hex		
10	STMML10	14	13.2	33.0	101.6	7.4	•		
11	STMML11	15.2	14.6	33.0	101.6	9.4	•		

Set shown includes storage tray

Application:  
For bumper cover bolts found on most European, Asian and U.S. vehicles.



102STMML



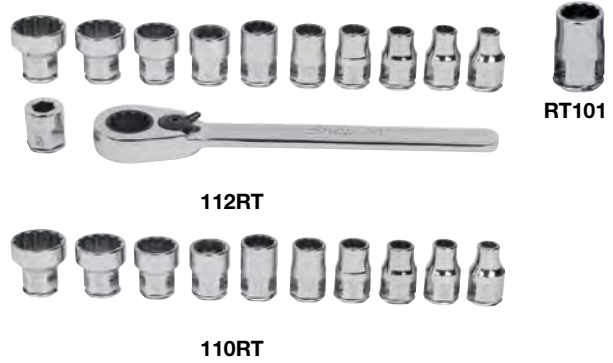
**WARNING**



- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages W1 to W4

# SOCKETS

## 1/4" Drive Low Profile



### Low Profile, mm

mm	Hex	A	B	C	D	E	Set Contains:			
							6	6	12	
5	RTSM5	7.7	12.1	-	20.2	2.2	•	•	•	
5.5	RTSM5.5	8.3	12.1	-	20.2	2.6	•	•	•	
6	RTSM6	9.3	12.1	-	19.3	2.7	•	•	•	
7	RTSM7	10.5	12.1	-	19.0	2.8	•	•	•	
8	RTSM8	11.5	12.1	-	19.0	3.6	•	•	•	
9	RTSM9	12.7	12.1	9.2	18.7	3.9	•	•	•	
10	RTSM10	14.0	12.1	9.4	19.0	4.7	•	•	•	
11	RTSM11	15.4	12.1	6.2	17.3	4.5	•	•	•	
12	RTSM12	16.5	12.1	6.1	17.8	4.9	•	•	•	
13	RTSM13	17.6	12.1	5.9	18.1	5.1	•	•	•	
14	RTSM14	18.7	12.1	6.4	19.3	5.8				
15	RTSM15	20.3	12.1	6.3	20.3	6.4				
	RAT72	Low Profile Ratchet						•		•
	RTMBS8	Low Profile Magnetic Bit Holder						•		•

Sets shown include storage tray

### Low Profile, inches

Inch	Hex	A	B	C	D	E	Set Contains:			
							12	12	12	
3/16	RT61	5/16	15/32	11/32	25/32	3/32	•		•	
7/32	RT71	11/32	15/32	3/8	13/16	3/32	•		•	
1/4	RT81	3/8	15/32	5/16	3/4	1/8	•		•	
9/32	RT91	13/32	15/32	5/16	3/4	1/8	•		•	
5/16	RT101	15/32	15/32	5/16	3/4	5/32	•		•	
11/32	RT111	1/2	15/32	13/32	9/32	3/16	•		•	
3/8	RT121	17/32	15/32	9/32	11/16	3/16	•		•	
7/16	RT141	19/32	15/32	1/4	11/16	7/32	•		•	
1/2	RT161	11/16	15/32	7/32	23/32	7/32	•		•	
9/16	RT181	3/4	15/32	1/4	3/4	1/4	•		•	
	RAT72	Low Profile Ratchet						•		•
	RTMBS8	Low Profile Magnetic Bit Holder						•		•

Sets shown include storage tray



SDMS17



RTMBS8

### Stubby Bits and Bit Holder

	Stock No.	Size	Set Contains:
Flat Tip	SDMS213	1/4"	•
Phillips	SDMS222IR	#2	•
Metric Hex	SDMSM3	3 mm	•
	SDMSM4	4 mm	•
	SDMSM5	5 mm	•
	SDMSM6	6 mm	•
	SDMSM8	8 mm	•
Inch Hex	SDMS8	1/8"	•
	SDMS9	9/64"	•
	SDMS10	5/32"	•
	SDMS12	3/16"	•
	SDMS16	1/4"	•
	Torx	SDMST15	T15
SDMST20		T20	•
SDMST25		T25	•
SDMST27		T27	•
SDMST30		T30	•

### RTMBS8 Low Profile Magnetic Bit Holder.

- Magnetic Bit Holder for the Low Profile RAT72 Ratcheting Wrench
- Special alloy steel provides the highest match of strength and durability
- Nickel-chrome plating provides corrosion resistance
- Holds any 1/4" shank bit: fractional and metric hex bits, TORX® and ball TORX, Phillips and straight bits
- Fits in any 11 mm ratcheting wrench

#### Applications:

Perfect for tight and compact applications found on automotive, motorcycle, ATV and aviation.

Examples of some automotive applications: heater boxes and motor actuators in dash of vehicle, air conditioning work and on top of dash board where the windshield meets the dash.

1/4" Drive (Blue-Point®)



BLPSM145



BLPSM149



BLPSM1412



BLPLS1414



BLPLS14716

## Shallow, mm

mm	6	Length, mm
4	BLPSM144	24.8
4.5	BLPSM144.5	24.8
5	BLPSM145	24.8
5.5	BLPSM145.5	24.8
6	BLPSM146	24.8
7	BLPSM147	24.8
8	BLPSM148	24.8
9	BLPSM149	24.8
10	BLPSM1410	24.8
11	BLPSM1411	24.8
12	BLPSM1412	24.8
13	BLPSM1413	24.8
14	BLPSM1414	24.8

## Shallow, inches

#	6	Length, inches
3/16	BLPS14316	1
7/32	BLPS14732	1
1/4	BLPS1414	1
9/32	BLPS14932	1
5/16	BLPS14516	1
11/32	BLPS141132	1
3/8	BLPS1438	1
7/16	BLPS14716	1
1/2	BLPS1412	1
9/16	BLPS14916	1
5/8	BLPS1458	1



BLPLSM145



BLPLSM1412

## Deep, mm

mm	6	Length, mm
4	BLPLSM144	50
5	BLPLSM145	50
6	BLPLSM146	50
7	BLPLSM147	50
8	BLPLSM148	50
9	BLPLSM149	50
10	BLPLSM1410	50
11	BLPLSM1411	50
12	BLPLSM1412	50
13	BLPLSM1413	50
14	BLPLSM1414	50



BLPLS1414



BLPLS1412

## Deep, inches

#	6	Length, inches
3/16	BLPLS14316	1 31/32
7/32	BLPLS14732	1 31/32
1/4	BLPLS1414	1 31/32
9/32	BLPLS14932	1 31/32
5/16	BLPLS14516	1 31/32
11/32	BLPLS141132	1 31/32
3/8	BLPLS1438	1 31/32
7/16	BLPLS14716	1 31/32
1/2	BLPLS1412	1 31/32
9/16	BLPLS14916	1 31/32
5/8	BLPLS1458	1 31/32



BLPS81438



BLPTE145

## Double Square

#	8	Length, inches
1/4	BLPS81414	1
5/16	BLPS814516	1
3/8	BLPS81438	1

## External Torx®

#	Stock No.	Length, inches
E4	BLPTE144	1
E5	BLPTE145	1
E6	BLPTE146	1
E7	BLPTE147	1
E8	BLPTE148	1



**WARNING**



- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages W1 to W4



# SOCKETS

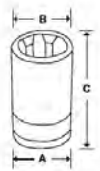
## 1/4" Drive



213AFLEY



STLE50



### Torx®/Shallow

#	Stock No.	A	B	C
E4	<b>TLE40A</b>	7/16	7/8	17/64
E5	<b>TLE50A</b>	7/16	7/8	19/64
E6	<b>TLE60A</b>	7/16	7/8	21/64
E7	<b>TLE70A</b>	7/16	7/8	23/64
E8	<b>TLE80A</b>	7/16	7/8	27/64
E10	<b>TLE100A</b>	1/2	7/8	7/16

### Torx/Deep

#	Stock No.	A	B	C
E4	<b>STLE40</b>	15/32	9/32	2
E5	<b>STLE50</b>	15/32	5/16	2
E8	<b>STLE80</b>	15/16	13/32	2

### 213AFLEY Combination Drive Shallow Torx Set.

- 1/4" drive TLE40A to TLE100A (pg 22), 3/8" drive FLE110A to FLE140A (pg. 30) and 1/2" drive SLE160A to SLE240A (pg 40) (13 pcs) (E4 to E24)

### 210AFLEY Combination Drive Shallow Torx Set.

- 1/4" drive TLE40A to TLE80A (pg 22) plus 3/8" drive FLE100A to FLE180A (except FLE110A) (pg 30) (10 pcs) (E4 to E18).

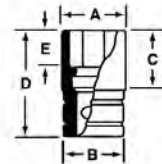
Note: Sets shown include magnetic storage tray



106RTL



TM412



### Low Profile Inverted Torx

Set Contains:

106RTL

#	Stock No.	A (mm)	B (mm)	C (mm)
E4	<b>RTL40</b>	12.1	6.7	16.5
E5	<b>RTL50</b>	12.1	7.7	16.5
E6	<b>RTL60</b>	12.1	8.4	16.5
E7	<b>RTL70</b>	12.1	9.3	16.5
E8	<b>RTL80</b>	12.1	10.5	16.6
E10	<b>RTL100</b>	12.1	12.1	17.4

Set shown includes storage tray

### Double Square

#	Stock No.	A (inches)	B (inches)	C (inches)	D (inches)	E (inches)
1/4	<b>TM408</b>	15/32	15/32	17/32	7/8	1/4
5/16	<b>TM410</b>	9/16	17/32	17/32	7/8	9/32
3/8	<b>TM412</b>	21/32	5/8	17/32	7/8	5/16

## 1/4" and 3/8" Drive Shallow/Deep Combination Sets



120STTM



124STTMM



222SFFS



224SFFSM

### 1/4" Drive

**120STTM 6 Point Shallow/Deep Set.** TM6 to TM18 shallow sockets (pg 18) and STM6 to STM18 deep sockets (pg 19) (20 pcs) (3/16 to 9/16").

**124STTMM Metric 6 Point Shallow/Deep Set.** TMM4 to TMM14 shallow sockets (except TMM4.5) (pg 18) plus STMM4 to STMM14 deep sockets (except STMM4.5) (pg 19) (24 pcs) (4.5 to 14 mm).

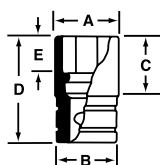
### 3/8" Drive

**222SFFS 6 Point Shallow/Deep Set.** FS081 to FS281 shallow sockets (except FS111) (pg 26) plus SFS081 to SFS281 deep sockets (except SFS111) (1/4 to 7/8") (22 pcs) (pg 27).

**224SFFSM Metric 6 Point Shallow/Deep Set.** FSM81 to FSM191 shallow sockets (pg 26) plus SFSM8 to SFSM19 deep sockets (pg 27) (24 pcs) (8 to 19 mm).

# SOCKETS

## 1/4" Drive Impact



112IMTMM



112SITMM

### Shallow, mm

Set Contains: 112IMTMM

mm	6	A	B	C	D	E	6
5	IMTMM5	8.5	12.1	13.1	22.2	4.1	•
5.5	IMTMM5.5	9.3	12.1	13.1	22.2	4.1	•
6	IMTMM6	10.2	12.1	13.1	22.2	6.1	•
7	IMTMM7	11.5	12.1	13.1	22.2	6.1	•
8	IMTMM8	12.7	12.7	13.1	22.2	6.1	•
9	IMTMM9	14.0	14.0	13.1	22.2	6.1	•
10	IMTMM10	15.2	15.2	13.0	22.2	6.1	•
11	IMTMM11	16.4	16.4	12.8	22.2	6.4	•
12	IMTMM12	17.3	17.3	12.7	22.2	7.1	•
13	IMTMM13	18.7	18.7	12.5	22.2	7.4	•
14	IMTMM14	20.3	20.3	13.1	23.0	8.6	•
15	IMTMM15	21.1	21.1	13.9	23.8	8.9	•

Set includes magnetic storage tray

### Deep, mm

Set Contains: 112SITMM

mm	6	A	B	C	D	E	6
5	SITMM5	8.5	12.1	41.9	50.8	4.1	•
5.5	SITMM5.5	9.3	12.1	41.9	50.8	4.1	•
6	SITMM6	10.2	12.1	41.9	50.8	6.1	•
7	SITMM7	11.5	12.1	41.9	50.8	6.1	•
8	SITMM8	12.7	12.7	41.9	50.8	6.1	•
9	SITMM9	14.0	14.0	41.9	50.8	6.1	•
10	SITMM10	15.2	15.2	41.9	50.8	6.1	•
11	SITMM11	16.4	16.4	41.9	50.8	6.4	•
12	SITMM12	17.3	17.3	41.9	50.8	7.1	•
13	SITMM13	18.7	18.7	41.9	50.8	7.4	•
14	SITMM14	20.3	20.3	41.9	50.8	8.6	•
15	SITMM15	21.1	21.1	41.9	50.8	8.9	•

Set includes magnetic storage tray



106IMTM

### Shallow, inches

Set Contains: 106IMTM

#	6	A	B	C	D	E	6
1/4	IMTM8A	13/32	1/2	17/32	7/8	1/4	•
5/16	IMTM10A	1/2	1/2	17/32	7/8	1/4	•
3/8	IMTM12A	9/16	1/2	17/32	7/8	1/4	•
7/16	IMTM14A	21/32	1/2	17/32	7/8	1/4	•
1/2	IMTM16A	23/32	1/2	17/32	7/8	9/32	•
9/16	IMTM18A	13/16	1/2	9/16	29/32	11/32	•

ASME®/ANSI® B107.2



106SITM

### Deep, inches

Set Contains: 106SITM

#	6	A	B	C	D	E	6
1/4	SITM8	13/32	15/32	1 1/2	2	1/4	•
5/16	SITM10	1/2	1/2	1 1/2	2	1/4	•
3/8	SITM12	9/16	9/16	1 1/2	2	1/4	•
7/16	SITM14	21/32	21/32	1 1/2	2	1/4	•
1/2	SITM16	11/16	11/16	1 1/2	2	9/32	•
9/16	SITM18	13/16	13/16	1 1/2	2	11/32	•

ASME/ANSI B107.2

Set includes magnetic storage tray

## 1/4" Drive Torx® Impact

### Torx/Shallow

#	6	A	B	C	D	E
E4	IMTLE40A	9/32	1/2	17/32	7/8	5/32
E5	IMTLE50A	5/16	1/2	17/32	7/8	3/16
E6	IMTLE60A	11/32	1/2	17/32	7/8	3/16
E7	IMTLE70A	3/8	1/2	17/32	7/8	1/4
E8	IMTLE80A	7/16	1/2	17/32	7/8	1/4



IMTLE40A

## 1/4" Drive (Flank Drive®) Magnetic Power



MGMM10

### Shallow Magnetic, mm

mm	6	A	B	D	E
5.5	MGMM5.5	9.9	12.4	22.2	1.9
7	MGMM7	11.5	14.0	22.2	2.0
8	MGMM8	12.7	14.0	22.2	2.4
10	MGMM10	14.8	14.8	23.8	3.1



MGM8D

### Shallow Magnetic, inches

#	6	A	B	D	E
1/4	MGM8D	7/16	1/2	7/8	3/32
5/16	MGM10C	1/2	1/2	15/16	3/32
3/8	MGM12C	9/16	19/32	15/16	1/8
7/16	MGM14C	11/16	11/16	15/16	1/8



**WARNING**



- Do not use chrome or industrial finish hand or power tools with impact drivers
- Read safety precautions on pages W1 to W4

# SOCKETS

## 1/4" Drive (Flank Drive®) Magnetic Power



MGMMS11B

### Deep Magnetic, mm

mm	6	A	B	D	E
7	MGMMS7A	10.7	12.4	50.8	5.8
8	MGMMS8A	11.8	12.4	50.8	5.8
10	MGMMS10A	14.1	14.1	50.8	6.4
11	MGMMS11B	15.6	15.6	50.8	6.4
12	MGMMS12B	17.3	17.3	50.8	7.1
13	MGMMS13A	18.1	18.1	50.8	7.6



MGMS10A

### Deep Magnetic, inches

in	6	A	B	D	E
1/4	MGMS8A	3/8	7/16	2	3/32
5/16	MGMS10A	3/8	15/32	2	5/16

## 1/4" Drive (Flank Drive) Universal



TMUM8A



TMUS161A



GTMU141A



111TMUSMA



106TMUSA

### Shallow Universal, mm

mm	Set Contains:		A	B	D	E	111TMUSMA	
	6	12					6	6
5	TMUSM5A*	TMUM5A*	8.1	12.7	29.2	3.3		
5.5	TMUSM5.5A		8.5	12.7	29.2	3.6	•	
6	TMUSM6A	TMUM6A	9.6	12.7	29.7	3.8	•	
7	TMUSM7A	TMUM7A	10.7	12.7	30.5	4.3	•	
8	TMUSM8A	TMUM8A	11.8	12.7	30.5	4.8	•	•
9	TMUSM9A	TMUM9A	12.7	12.7	31.2	4.8	•	
10	TMUSM10A	TMUM10A	14.0	12.7	32.5	5.8	•	•
11	TMUSM11A		15.4	12.7	33.0	6.6	•	
12	TMUSM12A	TMUM12A	16.5	12.7	34.5	6.9	•	•
13	TMUSM13A	TMUM13A	17.3	12.7	36.8	7.6	•	•
14	TMUSM14A		18.8	12.7	38.6	8.6	•	•
15	TMUSM15A		20.4	12.7	41.1	8.9	•	•

\*Conventional hex

Sets shown include storage tray

### Shallow Universal, inches

in	Set Contains:			A	B	D	E	106TMUSA	
	6	12	12					6	12
3/16		TMU61A*		19/64	1/2	1 17/64	1/4		
7/32		TMU71A*	GTMU71A	11/32	1/2	1 17/64	1/4		
1/4	TMUS81A	TMU81B		3/8	1/2	1 17/64	1/4	•	•
9/32		TMU91A		27/64	1/2	1 5/16	9/32		
5/16	TMUS101A	TMU101A		15/32	1/2	1 11/32	9/32	•	•
11/32		TMU111A		1/2	1/2	1 3/8	9/32		
3/8	TMUS121A	TMU121A		17/32	1/2	1 27/64	9/32	•	•
7/16	TMUS141A	TMU141A	GTMU141A	19/32	1/2	1 29/64	13/32	•	•
1/2	TMUS161A	TMU161A		11/16	1/2	1 33/64	13/32	•	•
9/16	TMUS181A	TMU181A		3/4	1/2	1 35/64	13/32	•	•

\*Conventional hex

Sets shown include storage tray



## 1/4" Drive (Flank Drive®) Universal



Deep Universal, mm

STMUM10A

mm	12	A	B	D	E
10	STMUM10A	14.0	12.7	41.4	5.8

Deep Universal, inches

GSTMU101A

11	12	A	B	D	E
5/16	GSTMU101A	15/32	15/32	1 11/16	9/32

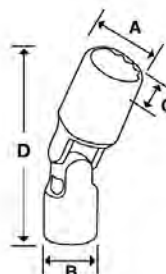
## 1/4" Drive Torx® Universal

### Torx/Universal

#	Stock No.	A	B	D
E8	TSE80	13/32	1/2	1 3/8
E10	TSE100	1/2	1/2	1 3/8
E12	TSE120	1/2	1/2	1 3/8

**TSE80** Applications: Mercedes-Benz® turbo chargers, crankshaft position sensor, sensors and intake bolts, bell housing bolts and ignitions switch.

**TSE100 and TSE120** Applications: Mercedes-Benz oil pan bolts, interior and engine fasteners, water pumps, power steering pumps and engine covers on newer models.



TSE120

## 1/4" Drive (Flank Drive) Impact Swivel



106IPTMM



106IPTM

Shallow Swivel, mm

Set Contains: 106IPTMM

mm	6	A	B	D	E	6
5	IPTMM5	8.6	15.4	35.4	4.1	
5.5	IPTMM5.5	9.5	15.4	35.8	4.1	
6	IPTMM6	10.7	15.4	36.2	4.1	
7	IPTMM7	11.5	15.4	37.4	4.3	
8	IPTMM8	12.7	15.4	38.6	4.8	•
9	IPTMM9	13.9	15.4	39.7	5.3	
10	IPTMM10	15.2	15.4	41.0	5.8	•
11	IPTMM11	16.4	15.4	42.5	6.4	
12	IPTMM12	17.3	17.9	44.9	6.9	•
13	IPTMM13	18.7	17.9	46.1	7.4	•
14	IPTMM14	20.4	17.9	47.6	7.8	•
15	IPTMM15	21.1	17.9	48.1	7.8	•

Set includes storage tray (not magnetic)

Shallow Swivel, inches

Set Contains: 106IPTM

11	6	A	B	D	E	6
1/4	IPTM8	27/64	39/64	1 27/64	5/32	•
5/16	IPTM10	1/2	39/64	1 1/2	3/16	•
3/8	IPTM12	35/64	39/64	1 13/16	7/32	•
7/16	IPTM14	41/64	39/64	1 13/16	1/4	•
1/2	IPTM16	45/64	46/64	1 13/16	19/64	•
9/16	IPTM18	51/64	45/64	1 7/8	5/16	•

Set includes storage tray (not magnetic)



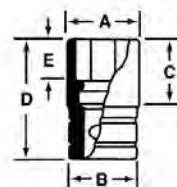
**WARNING**



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages W1 to W4

# SOCKETS

## 3/8" Drive (Flank Drive®)



FM14



GFM9A

Shallow, mm

212FSMY

Set Contains:

212FSMY  
212FMY

mm	6	12	12	A	B	C	D	E	6	12
6	FSM61			9.1	17.2	11.1	23.0	5.6		
7	FSM71			10.4	17.2	11.1	23.0	5.6		
8	FSM81	FM8		11.6	17.2	11.1	23.0	6.4	•	•
9	FSM91	FM9	GFM9A	13.1	17.2	11.0	23.0	7.1	•	•
10	FSM101	FM10		14.3	17.2	11.0	23.0	7.1	•	•
11	FSM111	FM11		15.4	17.2	11.0	23.0	7.1	•	•
12	FSM121	FM12		16.5	17.2	11.9	23.8	8.1	•	•
13	FSM131	FM13		18.0	17.2	12.6	24.6	8.1	•	•
14	FSM141	FM14		19.6	18.6	13.2	26.2	9.1	•	•
15	FSM151	FM15		20.3	19.4	13.7	27.0	9.1	•	•
16	FSM161	FM16		21.1	20.2	15.0	27.8	10.4	•	•
17	FSM171	FM17		22.7	21.8	15.0	28.6	10.4	•	•
18	FSM181	FM18		24.3	23.2	15.7	28.6	10.9	•	•
19	FSM191	FM19		25.1	24.0	16.3	30.2	11.9	•	•
20	FSM201	FM20		26.3	25.3	16.6	30.9	12.4		
21	FSM211	FM21		27.4	26.4	17.4	31.8	12.2		
22	FSM221	FM22		28.3	27.2	17.4	32.5	13.2		
23	FSM231	FM23		29.9	28.8	18.2	33.8	13.2		
24	FSM241	FM24		31.5	30.5	19.0	35.0	14.4		
25	FSM251			32.3	31.3	19.8	35.3	14.5		
26	FSM261	FM26		33.8	32.9	20.6	37.0	14.3		

Sets shown include magnetic storage tray

**224SFFSM Metric 6 Point Shallow/Deep Set.** FSM81 to FSM191 shallow sockets (pg 26) plus SFSM8 to SFSM19 deep sockets (pg 27) (24 pcs) (8 to 19 mm).



211FSY



F201



GF201

Shallow, inches

Set Contains:

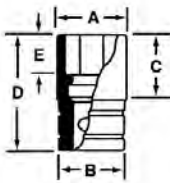
211FSY  
214FSY  
211FY

	6	12	6	12	A	B	C	D	E	6	6	12
1/4	FS081	F081	GFS081	GF081	13/32	11/16	7/16	29/32	7/32	•	•	•
5/16	FS101	F101	GFS101	GF101	15/32	11/16	7/16	29/32	1/4	•	•	•
11/32	FS111	F111		GF111	1/2	11/16	7/16	29/32	9/32	•	•	
3/8	FS121	F121	GFS121	GF121	9/16	11/16	7/16	29/32	9/32	•	•	•
7/16	FS141	F141	GFS141	GF141	5/8	11/16	7/16	29/32	9/32	•	•	•
1/2	FS161	F161	GFS161	GF161	23/32	11/16	1/2	15/16	5/16	•	•	•
9/16	FS181	F181	GFS181	GF181	25/32	3/4	1/2	1 1/32	3/8	•	•	•
19/32				GF191	13/16	25/32	9/16	1 1/16	3/8			
5/8	FS201	F201	GFS201	GF201	27/32	25/32	19/32	1 3/32	1/2	•	•	•
11/16	FS221	F221	GFS221	GF221	15/16	7/8	5/8	1 1/8	17/32	•	•	•
3/4	FS241	F241	GFS241	GF241	1	15/16	11/16	1 3/16	15/32	•	•	•
13/16	FS261	F261	GFS261	GF261	1 1/16	1	11/16	1 7/32	1/2	•	•	•
7/8	FS281	F281	GFS281	GF281	1 5/32	1 1/32	23/32	1 9/32	9/16	•	•	•
15/16	FS301	F301	GFS301	GF301	1 1/4	1 3/16	25/32	1 11/32	9/16	•	•	•
1	FS321	F321	GFS321	GF321	1 5/16	1 1/4	13/16	1 3/8	19/32	•	•	•

Sets shown include magnetic storage tray

**222SFFS 6 Point Shallow/Deep Set.** FS081 to FS281 shallow sockets (except FS111) (pg 26) plus SFS081 to SFS281 deep sockets (except SFS111) (1/4 to 7/8") (22 pcs) (pg 27).





### Semi Deep, mm

Set Contains:

mm	6	12	A	B	C	D	E	6
8	FSMS8	FMS8	11.4	17.2	29.3	41.3	7.1	•
9	FSMS9	FMS9	12.8	17.2	29.3	41.3	7.1	•
10	FSMS10	FMS10	14.3	17.2	29.3	41.3	7.9	•
11	FSMS11		15.7	17.2	29.3	41.3	9.7	•
12	FSMS12	FMS12	16.5	17.2	29.3	41.3	9.9	•
13	FSMS13	FMS13	17.9	17.2	23.2	41.3	10.7	•
14	FSMS14	FMS14	19.6	18.6	23.2	41.3	10.7	•
15	FSMS15	FMS15	20.3	19.4	23.2	41.3	10.7	•
16	FSMS16	FMS16	21.1	20.2	23.0	41.3	10.7	•
17	FSMS17	FMS17	22.6	21.8	23.0	41.3	11.2	•
18	FSMS18	FMS18	24.2	23.2	23.0	41.3	11.2	•
19	FSMS19		25.1	24.0	22.7	41.3	11.7	•

Sets shown include magnetic storage tray

### Semi Deep, inches

Set Contains:

11	6	12	A	B	C	D	E	6
1/4	FSS081		13/32	11/16	1 1/8	1 5/8	7/32	•
9/32		FDS091	7/16	11/16	3/4	1 1/4	7/32	
5/16	FSS101	FDS101	15/32	11/16	1 1/8	1 5/8	9/32	•
3/8	FSS121	FDS121	9/16	11/16	1 1/8	1 5/8	5/16	•
7/16	FSS141	FDS141	5/8	11/16	1 1/8	1 5/8	3/8	•
1/2	FSS161	FDS161	23/32	11/16	31/32	1 5/8	13/32	•
9/16	FSS181	FDS181	25/32	23/32	31/32	1 5/8	13/32	•
5/8	FSS201	FDS201	27/32	51/64	31/32	1 5/8	13/32	•
11/16	FSS221	FDS221	15/16	7/8	31/32	1 5/8	7/16	•
3/4	FSS241	FDS241	1	15/16	31/32	1 5/8	15/32	•
25/32		FDS251	1 1/16	1 1/32	1 1/16	1 5/8	5/8	
13/16	FSS261	FDS261	1 1/16	1	31/32	1 5/8	1/2	•
7/8	FSS281		1 5/32	1 3/32	31/32	1 5/8	17/32	•
15/16		FDS301	1 1/4	1 7/32	1 3/16	1 3/4	23/32	
1		FDS321	1 5/16	1 9/32	1 1/4	1 3/4	3/4	

Set shown includes magnetic storage tray



### Deep, mm

Set Contains:

mm	6	12	A	B	C	D	E	6	12
6	SFSM6	SFM6	9.1	17.2	42.0	54.0	5.6		
7	SFSM7	SFM7	10.5	17.2	42.0	54.0	5.6		
8	SFSM8	SFM8	11.4	17.7	42.0	54.0	7.1	•	•
9	SFSM9	SFM9	12.8	17.2	42.0	54.0	7.1	•	•
10	SFSM10	SFM10	14.3	17.2	42.0	54.0	7.9	•	•
11	SFSM11	SFM11	15.7	17.2	42.0	54.0	9.7	•	•
12	SFSM12	SFM12	16.5	17.2	42.0	54.0	9.9	•	•
13	SFSM13	SFM13	18.0	17.2	42.0	54.0	10.7	•	•
14	SFSM14	SFM14	19.6	18.6	43.3	60.3	10.7	•	•
15	SFSM15	SFM15	20.3	19.4	43.3	60.3	10.7	•	•
16	SFSM16	SFM16	21.1	20.0	43.3	60.3	10.7	•	•
17	SFSM17	SFM17	22.7	21.8	43.6	66.7	11.2	•	•
18	SFSM18	SFM18	24.3	23.2	49.0	66.7	11.2	•	•
19	SFSM19	SFM19	25.1	24.0	49.0	66.7	15.5	•	•
20	SFSM20		26.3	25.3	48.1	66.7	12.2		
21	SFSM21		27.5	26.4	47.6	66.7	12.4		

Sets shown include magnetic storage tray

### Deep, inches

Set Contains:

11	6	12	6	12	A	B	C	D	E	6	12	12
1/4	SFS081	SF081	GSFS081	GSF081	15/32	11/16	1 11/16	2 1/8	1/4	•	•	•
9/32		SF091			7/16	11/16	1 5/8	2 1/8	7/32			
5/16	SFS101	SF101	GSFS101	GSF101	15/32	11/16	1 11/16	2 1/8	7/32	•	•	•
11/32	SFS111	SF111			1/2	11/16	1 11/16	2 1/8	9/32			
3/8	SFS121	SF121	GSFS121	GSF121	9/16	11/16	1 11/16	2 1/8	5/16	•	•	•
7/16	SFS141	SF141	GSFS141	GSF141	5/8	11/16	1 11/16	2 1/8	3/8	•	•	•
1/2	SFS161	SF161	GSFS161	GSF161	23/32	11/16	1 11/16	2 1/8	7/16	•	•	•
9/16	SFS181	SF181	GSFS181	GSF181	25/32	23/32	1 29/32	2 3/8	7/16	•	•	•
19/32		SF191			13/16	25/32	1 29/32	2 3/8	7/16			•
5/8	SFS201	SF201	GSFS201	GSF201	27/32	13/16	1 29/32	2 3/8	15/32	•	•	•
11/16	SFS221	SF221	GSFS221	GSF221	15/16	7/8	2 3/16	2 5/8	1/2	•	•	•
3/4	SFS241	SF241	GSFS241	GSF241	1	1	2 3/16	2 5/8	5/8	•	•	•
25/32		SF251			1 1/16	1 1/32	1 3/4	2 5/8	5/8			
13/16	SFS261	SF261	GSFS261	GSF261	1 1/16	1	2 1/4	2 3/4	5/8	•	•	•
7/8	SFS281	SF281	GSFS281	GSF281	1 5/32	1 1/8	2 1/4	2 3/4	23/32	•	•	•
15/16	SFS301	SF301	GSFS301	GSF301	1 1/4	1 3/16	2 1/4	2 3/4	23/32			•
1	SFS321	SF321	GSFS321	GSF321	1 5/16	1 1/4	2 1/4	2 3/4	13/16			•

Sets shown include magnetic storage tray



**WARNING**

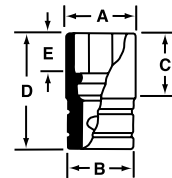


- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages W1 to W4



# SOCKETS

## 3/8" Drive Low Profile



### Low Profile, mm

mm	Set Contains:		A	B	C	D	E	210RAFSM	210RAFM	209RFSM
	6	12						6	12	6
8	RFSM8	RFM8	11.6	16.5		16.8	3.8	•	•	•
9	RFSM9	RFM9	13	16.5		17	4.1			
10	RFSM10	RFM10	14.3	16.5		17.3	4.3	•	•	•
11	RFSM11	RFM11	16	16.5		17.7	4.8			
12	RFSM12	RFM12	17.2	16.5	9.8	18.1	5.1	•	•	•
13	RFSM13	RFM13	18	17.2	10.3	18.5	5.6	•	•	•
14	RFSM14	RFM14	19.6	18.8	10.5	18.7	6.1	•	•	•
15	RFSM15	RFM15	20.4	19.6	10.8	19.1	6.6	•	•	•
16	RFSM16	RFM16	21.1	20.4	11.4	19.6	7.1	•	•	•
17	RFSM17	RFM17	22.8	22	11.9	20.1	7.4	•	•	•
18	RFSM18	RFM18	24.3	23.6	12.5	20.8	7.9	•	•	•
19	RFSM19	RFM19	25.1	16.5	13.3	21.5	8.2			
20	RAF80	Low Profile Ratchet						•	•	

Sets shown include storage tray



### Low Profile, inches

in	Set Contains:		A	B	C	D	E	210RARF	209RF
	12							12	12
1/4	RF081		.46	.65		.66	.11	•	•
5/16	RF101		.46	.65		.66	.15	•	•
11/32	RF111		.49	.65		.68	.17		
3/8	RF121		.56	.65		.69	.18	•	•
7/16	RF141		.61	.65		.70	.19	•	•
1/2	RF161		.71	.69	.39	.72	.21	•	•
9/16	RF181		.77	.74	.42	.75	.24	•	•
5/8	RF201		.83	.80	.47	.79	.28	•	•
11/16	RF221		.93	.90	.49	.81	.30	•	•
3/4	RF241		.99	.96	.50	.82	.31	•	•
	RAF80	Low Profile Ratchet						•	

Sets shown include storage tray

## 3/8" Drive (Blue-Point®)



BLPSM389



BLPSM3815



BLPSM3822



BLPS3838



BLPS3878



BLPLM3810



BLPLM3816



BLPLM3822

### Shallow, mm

mm	6	Length, mm
6	BLPSM386	25.5
7	BLPSM387	25.5
8	BLPSM388	25.5
9	BLPSM389	25.5
10	BLPSM3810	25.5
11	BLPSM3811	25.5
12	BLPSM3812	25.5
13	BLPSM3813	25.5
14	BLPSM3814	27
15	BLPSM3815	27
16	BLPSM3816	27
17	BLPSM3817	27
18	BLPSM3818	27
19	BLPSM3819	29
20	BLPSM3820	29
21	BLPSM3821	29
22	BLPSM3822	31
23	BLPSM3823	31
24	BLPSM3824	31

### Shallow, inches

mm	6	Length, inches
1/4	BLPS3814	1
5/16	BLPS38516	1
3/8	BLPS3838	1
7/16	BLPS38716	1
1/2	BLPS3812	1
9/16	BLPS38916	1 1/16
5/8	BLPS3858	1 1/16
11/16	BLPS381116	1 1/16
3/4	BLPS3834	1 5/32
13/16	BLPS381316	1 5/32
7/8	BLPS3878	1 7/32
15/16	BLPS381516	1 7/32
1	BLPS381	1 7/32

### Deep, mm

mm	12	Length, mm
6	BLPLM386	64
7	BLPLM387	64
8	BLPLM388	64
9	BLPLM389	64
10	BLPLM3810	64
11	BLPLM3811	64
12	BLPLM3812	64
13	BLPLM3813	64
14	BLPLM3814	64
15	BLPLM3815	64
16	BLPLM3816	64
17	BLPLM3817	64
18	BLPLM3818	64
19	BLPLM3819	64
20	BLPLM3820	64
21	BLPLM3821	64
22	BLPLM3822	64
23	BLPLM3823	64
24	BLPLM3824	64

### Deep, inches

mm	12	Length, inches
1/4	BLPL3814	2 17/32
5/16	BLPL38516	2 17/32
3/8	BLPL3838	2 17/32
7/16	BLPL38716	2 17/32
1/2	BLPL3812	2 17/32
9/16	BLPL38916	2 17/32
5/8	BLPL3858	2 17/32
11/16	BLPL381116	2 17/32
3/4	BLPL3834	2 17/32
13/16	BLPL381316	2 17/32
7/8	BLPL3878	2 17/32
15/16	BLPL381516	2 17/32
1	BLPL381	2 17/32



BLPL3838



BLPL3834

## 3/8" Drive Torx® and Special Application



#	Stock No.	Length, inches
E4	BLPTE384	1 7/32
E5	BLPTE385	1 7/32
E6	BLPTE386	1 7/32
E7	BLPTE387	1 7/32
E8	BLPTE388	1 7/32
E10	BLPTE3810	1 7/32
E12	BLPTE3812	1 7/32
E14	BLPTE3814	1 7/32
E16	BLPTE3816	1 7/32
E18	BLPTE3818	1 7/32
E20	BLPTE3820	1 7/32



BLPTE3810



BLPTE3818



**WARNING**



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages W1 to W4

# SOCKETS

## 3/8" Drive Torx® and Special Application



FLE180A

213AFLEY

Set Contains:

213AFLEY  
210AFLEY

### Torx/Shallow

#	Stock No.	A	B	C		
E8	FLE80A	15/32	11/16	1 5/32		
E10	FLE100A	1/2	11/16	1 5/32		•
E11	FLE110A	9/16	11/16	1 5/32	•	
E12	FLE120A	9/16	11/16	1 5/32	•	•
E14	FLE140A	5/8	11/16	1 5/32	•	•
E16	FLE160A	3/4	11/16	1 1/4		•
E18	FLE180A	13/16	25/32	1 5/16		•

Sets shown include magnetic storage tray

#### 213AFLEY Combination Drive Shallow Torx Set.

Includes 1/4" drive TLE40A to TLE100A (pg 22), 3/8" drive FLE110A to FLE140A (pg 30) and 1/2" drive SLE160A to SLE240 (pg 40) (13 pcs) (E4 to E24).

#### 210AFLEY Combination Drive Shallow Torx Set.

1/4" drive TLE40A to TLE80A (pg. 21) plus 3/8" drive FLE100A to FLE180A (except FLE110A) (pg 30) (10 pcs) (E4 to E18).



FLEL80

### Long Torx Socket

#	Stock No.	Dimension A, Drive End Dia., inches	Dimension B, Socket End Dia., inches	Dimension C, Length, inches
E8	FLEL80	19/32	7/16	5

Application: Fits Delco® alternator Model CS130 found on both GM passenger and light trucks.



FRXM19

210FRXM

### Flank Drive® Flare Nut, mm

Set Contains:

mm	Stock No.	A	B	C	D	
10	FRXM10	16.9	18.3	53.3	7.2	•
11	FRXM11	18.1	18.7	53.3	8.3	•
12	FRXM12	19.3	18.3	53.3	8.8	•
13	FRXM13	20.4	19.1	62.5	9.4	•
14	FRXM14	22.0	20.5	62.5	10.4	•
15	FRXM15	22.6	21.0	71.6	11.2	•
16	FRXM16	23.5	21.9	71.6	11.7	•
17	FRXM17	25.1	23.5	78.0	12.7	•
18	FRXM18	25.9	24.3	83.8	13.5	•
19	FRXM19	26.7	25.1	89.9	14.2	•

207FRX

### Flank Drive/Flare Nut, inches

Set Contains:

#	Stock No.	A	B	C	D	
3/8	FRX121	5/8	3/4	2 3/32	9/32	•
7/16	FRX141	23/32	3/4	2 3/32	11/32	•
1/2	FRX161	13/16	3/4	2 1/8	3/8	•
9/16	FRX181	7/8	13/16	2 15/32	13/32	•
5/8	FRX201	15/16	7/8	2 27/32	15/32	•
11/16	FRX221	1	15/16	3 7/32	1/2	•
3/4	FRX241	1 1/16	1	3 11/32	9/16	•

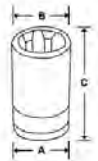
Set shown includes magnetic storage tray



FLEP180



FLEPL100



### Torx Plus®

#	Stock No.	A	B	C
EP18	FLEP180	3/4	13/16	1 5/16

**FLEP180 Torx Plus Socket.** Use to remove seat hold down nuts on 1999 and later GM® full size pickup trucks. 3/8" square drive.

**FLEPL100 Torx Plus Socket.** For removal and installation of low profile transmission bolts that secure the valve body to the inside of the transmission. To access the valve body, the bottom pan and filter, which are secured by 6 low profile Torx Plus 10EPL bolts, need to be removed. The low profile fasteners are used on the following GM 6 speed automatic transmissions: 6L50, 6L80, 6L90 and the BMW® model 6L45.



FLCE120

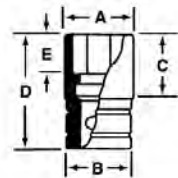
### Shallow Torx with Countersink

#	Stock No.	Dimension A, Drive End Dia., inches	Dimension B, Socket End Dia., inches	Dimension C, Length, inches
E12	FLCE120	19/32	11/16	1 5/32

Application: Remove/install shallow countersink Torx fasteners that hold window regulators in place for BMW 5 & 7 Series.



F318



### Double Square, inches

#	Stock No.	A	B	C	D	E
1/4	F308	1/2	21/32	3/8	27/32	7/32
5/16	F310	9/16	21/32	3/8	27/32	1/4
3/8	F312	21/32	11/16	15/32	15/16	9/32
7/16	F314	25/32	11/16	17/32	1	5/16
1/2	F316	7/8	25/32	17/32	1	5/16
9/16	F318	1	29/32	19/32	1 1/8	7/16
5/8	F320	1 1/16	31/32	19/32	1 1/8	7/16



207FRX



## 3/8" Drive Torx® Special Application



PMM406A

PMP406A

### Pipe Plug, mm

mm	Stock No.	A	B	Stock No.	A	B
6	PMM406A	16.4	31.0	PMP406A	17.2	25.8
8	PMM408A	17.2	31.0		17.2	28.6
10	PMM410A	17.2	28.4	PMP410A	18.8	25.4

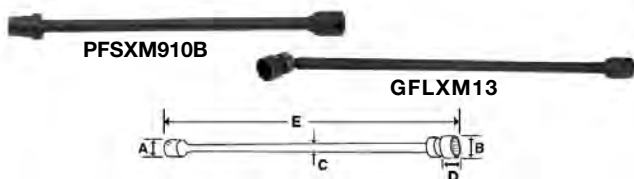
### Flank Drive®/Pentagon (5 Point)

Stock No.	A	B	C
B2190	1 1/8	1/2	1 1/16



B2190

A specialty socket for servicing recessed 5 point nuts found on tamper resistant Buffalo covers used by gas, electric and some water companies to protect shutoff gates.



PFSXM910B

GFLXM13

### Swivel Ball Extension, mm

mm	6	12	A	B	C	D	E
10	PFSXM910B		19.1	14.4	9.5	5.6	243.4
11	PFSXM911B		19.1	15.6	9.5	6.3	243.8
12	PFSXM912B		19.1	16.9	9.5	6.8	244.6
13	PFSXM913B		19.1	18.4	12.4	7.6	245.9
14	PFSXM914B		19.1	19.8	12.4	9.1	247.9
15	PFSXM915B		19.1	20.4	12.4	9.1	247.4
13		GFLXM13	19.1	19.1	17.3	9.5	320.3

**PFSXM910B and PFSXM912B** Applications: Toyota® and Lexus® vehicles transmission pan bolts plus several underdash applications. Volvo® vehicle: removing intake faster and easier.

**GFLXM13** Applications: Removing water pumps and transmission bolts for Mercedes-Benz® vehicles. Various applications for Caterpillar® engines.



211PPPMY

### Pipe Plug, inches

Size	Stock No.	B	Stock No.	B
3/16	PPM406A	1 1/8		1
1/4	PPM408A	1 1/8	PP408A	1
9/32	PPM409A	1 1/8	PP409A	1
5/16	PPM410A	1 1/8	PP410A	1
11/32	PPM411A	1 1/8	PP411A	1
3/8	PPM412A	1 1/8	PP412A	1

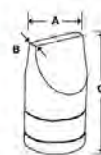
**211PPPMY Internal/External Set.** PPM406 to PPM412 external sockets plus PP408 to PP412 internal sockets (11 pcs) (3/16 to 3/8").

### Drag Link

Stock No.	A	B	C
GF22	11/16	7/64	1 1/4



GF22



Applications include use on the engine oil fill cap on Kawasaki® UN1500, UN1600 and UN2000 motorcycles.



FD150



### Weatherhead®

Size, inches	Stock No.	Finish	A	B
3/8	FD120	Chrome	11/16	1 1/4
7/16	FD140	Chrome	13/16	1 1/4
15/32	FD150	Chrome	7/8	1 1/4
1/2	FD160	Chrome	15/16	1 1/4
17/32	FD170	Chrome	1	1 1/4
9/16	FD180	Chrome	1 1/16	1 1/4
19/32	FD190	Chrome	1 1/16	1 1/4
21/32	FD210	Chrome	1 3/16	1 3/8
9/16	FD220	Chrome	1 3/16	1 3/8
3/4	FD240	Chrome	1 1/4	1 3/8
25/32	FD250	Chrome	1 1/4	1 3/8

## 3/8" Drive Torx Impact



#	Stock No.	Square Drive, In.	A	B	C	207IMFLE
E8	IMFLE80A	3/8	15/32	11/16	1 5/32	•
E10	IMFLE100A	3/8	1/2	11/16	1 5/32	•
E12	IMFLE120A	3/8	19/32	11/16	1 5/32	•
E14	IMFLE140A	3/8	5/8	11/16	1 5/32	•
E16	IMFLE160A	3/8	3/4	3/4	1 1/4	•
E18	IMFLE180A	3/8	25/32	25/32	1 5/16	•
E20	IMSLE200	1/2	15/16	15/16	1 1/2	•

Set shown includes magnetic storage tray

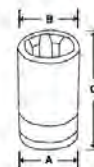
Various applications on heavy duty trucks with Mercedes-Benz engines.

Use E18 size for F550 brake rotor.

Use E20 size for rear brake caliper bolts on BMW® X5.



207IMFLE



- Impact sockets are heat treated to a lower hardness to add impact resistance
- Black oxide finish
- Designed to absorb repeated impact cycling
- Various applications on European vehicles found on BMW® and Mercedes-Benz European vehicles
- Various applications on heavy duty trucks with Mercedes-Benz engines
- E18 for F550 brake rotor
- E20 for rear brake caliper bolts on BMW X5



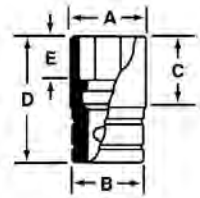
**WARNING**



- Do not use chrome or industrial finish hand sockets with impact drivers
- Use only moderate force on flare nut sockets
- Read safety precautions on pages W1 to W4

# SOCKETS

## 3/8" Drive (Flank Drive®) Impact



### Shallow, mm

mm	Set Contains:		214IMFMYA						
	6	12	A	B	C	D	E	6	12
8	IMFM8A	IMDFM8A	12.8	17.2	11.1	23.0	6.4	•	
9	IMFM9A		14.0	17.2	11.0	23.0	7.1	•	
10	IMFM10A	IMDFM10A	15.1	17.2	11.0	23.0	7.1	•	•
11	IMFM11A	IMDFM11A	16.7	18.8	11.6	23.8	7.1	•	•
12	IMFM12	IMDFM12	18.8	18.0	11.6	23.8	7.1	•	•
13	IMFM13	IMDFM13	18.8 (19.4)	18.8 (19.4)	12.4 (10.9)	24.6 (23.8)	7.4 (7.6)	•	•
14	IMFM14	IMDFM14	20.4	20.4	13.5	27.0	9.1	•	•
15	IMFM15	IMDFM15	21.2	21.2	13.5	27.0	9.1	•	•
16	IMFM16	IMDFM16	22.7	22.7	14.1	27.8	10.4	•	
17	IMFM17	IMDFM17	24.3	24.3	14.4	28.2	10.2	•	•
18	IMFM18	IMDFM18	25.1	25.1	14.3	29.0	10.9	•	•
19	IMFM19	IMDFM19	26.7	26.7	15.6	30.6	11.7	•	
20	IMFM20	IMDFM20	28.3	28.3	16.5	30.9	12.2		
21	IMFM21	IMDFM21	28.8 (29.1)	28.8 (29.1)	17.5	29.5 (32.1)	12.2 (12.4)	•	
22	IMFM22	IMDFM22	29.9	29.9	18.3	32.9	13.0		
23	IMFM23		31.5	31.5	19.3	31.5	13.2		
24	IMFM24		32.6	32.6	21.1	33.0	14.5	•	

### Shallow, inches

in	Set Contains:		212IMFYA						
	6	12	A	B	C	D	E	6	12
5/16	IMF100A		1/2	11/16	3/8	7/8	1/4	•	
3/8	IMF120A	IMDF120A	9/16	11/16	7/16	7/8	3/16	•	•
7/16	IMF140A	IMDF140A	21/32	3/4	7/16	15/16	9/32	•	•
1/2	IMF160	IMDF160	3/4	3/4	7/16	15/16	9/32	•	•
9/16	IMF180	IMDF180	13/16	13/16	7/16	15/16	9/32	•	•
5/8	IMF200	IMDF200	29/32	29/32	7/16	15/16	9/32	•	•
11/16	IMF220	IMDF220	31/32	31/32	9/16	11/32	3/8	•	•
3/4	IMF240	IMDF240	11/16	11/16	9/16	13/32	13/32	•	•
13/16	IMF260		11/8	11/8	11/16	13/16	1/2	•	
7/8	IMF280		13/16	13/16	3/4	19/32	1/2	•	
15/16	IMF300		19/32	19/32	13/16	15/16	17/32	•	
1	IMF320		111/32	19/32	13/16	15/16	9/16	•	

Sets shown include magnetic storage tray

Dimensions in ( ) apply to 12 point sockets only. Sets shown include magnetic storage tray



### Semi Deep, mm

mm	Set Contains:		212IMFMSYA						
	6	12	A	B	C	D	E	6	12
8	IMFMS8A		12.8	17.2	29.3	41.3	6.4	•	
9	IMFMS9A		14.0	17.2	29.3	41.3	7.1	•	
10	IMFMS10A		15.1	17.2	29.3	41.3	9.7	•	
11	IMFMS11A		17.2	17.2	29.3	41.3	9.7	•	
12	IMFMS12		18.0	18.0	29.3	41.3	9.7	•	
13	IMFMS13		19.6	19.6	29.3	41.3	10.4	•	
14	IMFMS14		20.4	20.4	29.3	41.3	10.4	•	
15	IMFMS15		21.2	21.2	29.3	41.3	10.4	•	
16	IMFMS16		22.7	22.7	29.3	41.3	10.4	•	
17	IMFMS17		24.3	24.3	29.3	41.3	11.2	•	
18	IMFMS18		25.1	25.1	29.3	41.3	11.2	•	
19	IMFMS19		26.7	26.7	29.3	41.3	11.7	•	
21	IMFMS21		29.2	25.1	29.3	65.7	12.4	•	

### Semi Deep, inches

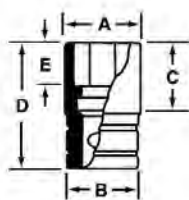
in	Set Contains:		210IMFSYA						
	6	12	A	B	C	D	E	6	12
5/16	IMFS10A		1/2	11/16	1 5/32	1 5/8	1/4	•	
3/8	IMFS12A		9/16	11/16	1 5/32	1 5/8	9/32	•	
7/16	IMFS14A		21/32	3/4	1 5/32	1 5/8	11/32	•	
1/2	IMFS16		3/4	3/4	1 5/32	1 5/8	13/32	•	
9/16	IMFS18		13/16	13/16	1 5/32	1 5/8	13/32	•	
5/8	IMFS20		29/32	29/32	1 5/32	1 5/8	13/32	•	
11/16	IMFS22		31/32	31/32	1 5/32	1 5/8	7/16	•	
3/4	IMFS24		1 1/16	1 1/16	1 5/32	1 5/8	15/32	•	
13/16	IMFS26		1 1/8	1 1/8	1 5/32	1 5/8	1/2	•	
7/8	IMFS28		1 3/16	1 3/16	1 5/32	1 5/8	17/32	•	

Set shown includes magnetic storage tray

Set shown includes magnetic storage tray



## 3/8" Drive (Flank Drive®) Impact



214SIMFMYA



SIMDFM14



212SIMFYA

SIMF260

Deep, mm

mm	Set Contains:		A	B	C	D	E	214SIMFMYA	
	6	12						6	12
8	SIMFM8A	SIMDFM8A	12.8	17.2	38.1	54.0	6.4	•	•
9	SIMFM9A	SIMDFM9A	14.0	17.2	38.1	54.0	7.1	•	•
10	SIMFM10A	SIMDFM10A	15.1	17.2	38.1	54.0	9.7	•	•
11	SIMFM11A	SIMDFM11A	17.2	17.2	38.1	54.0	9.7	•	•
12	SIMFM12	SIMDFM12	18.0	18.0	38.1	54.0	9.7	•	•
13	SIMFM13	SIMDFM13	19.6	19.6	38.1	54.0	10.4	•	•
14	SIMFM14	SIMDFM14	20.4	20.4	42.7	60.3	10.4	•	•
15	SIMFM15	SIMDFM15	21.2	21.2	42.7	60.3	10.4	•	•
16	SIMFM16	SIMDFM16	22.7	22.7	42.7	60.3	10.4	•	•
17	SIMFM17	SIMDFM17	24.3	24.3	47.0	66.7	11.2	•	•
18	SIMFM18	SIMDFM18	25.1	25.1	47.0	66.7	11.2	•	•
19	SIMFM19	SIMDFM19	26.7	26.7	47.0	66.7	14.2	•	•
20	SIMFM20		28.3	28.3	47.0	66.7	12.2		
21	SIMFM21	SIMDFM21	28.9	28.9	47.0	66.7	12.4	•	•
22	SIMFM22		29.9	29.9	51.6	73.0	13.0		
23	SIMFM23		31.5	31.5	51.6	73.0	13.0		
24	SIMFM24	SIMDFM24	33.0	33.0	58.2	73.0	14.7	•	•

Sets shown include magnetic storage tray

Deep, inches

Inches	Set Contains:		A	B	C	D	E	212SIMFYA	
	6	12						6	12
5/16	SIMF100A		1/2	11/16	1 1/2	2 1/8	3/16	•	•
3/8	SIMF120A		9/16	11/16	1 1/2	2 1/8	9/32	•	•
7/16	SIMF140A		21/32	3/4	1 1/2	2 1/8	5/16	•	•
1/2	SIMF160		3/4	3/4	1 1/2	2 1/8	3/8	•	•
9/16	SIMF180		13/16	13/16	1 1/2	2 3/8	7/16	•	•
5/8	SIMF200		29/32	29/32	1 1/2	2 3/8	7/16	•	•
11/16	SIMF220		31/32	31/32	1 1/2	2 5/8	1/2	•	•
3/4	SIMF240		1 1/16	1 1/16	1 1/2	2 5/8	9/16	•	•
13/16	SIMF260		1 1/8	1 1/8	2 1/16	2 3/4	9/16	•	•
7/8	SIMF280		1 3/16	1 3/16	2 1/16	2 3/4	9/16	•	•
15/16	SIMF300		1 9/32	1 9/32	2 1/32	2 3/4	9/16	•	•
1	SIMF320		1 11/32	1 11/32	2 3/16	2 3/4	5/8	•	•

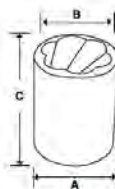
Sets shown include magnetic storage tray

## 3/8" Drive Impact/Special Purpose

Twist sockets remove rounded/damaged fasteners



209TFSMYA



213TFSYA

Twist, Shallow, inches/mm

Inches/mm	Set Contains:		A	B	C	209TFSMYA	
	6	6				6	6
3/8	TFSY121A		11/16 (17.5)	9/16 (14.3)	1 1/4 (31.8)	•	•
7/16 (11)	TFSY141A		11/16 (17.5)	21/32 (16.7)	1 1/4 (31.8)	•	•
1/2	TFSY161A		3/4 (19.1)	3/4 (19.1)	1 1/4 (31.8)	•	•
9/16	TFSY181A		13/16 (20.6)	13/16 (20.6)	1 1/4 (31.8)	•	•
5/8 (16)	TFSY201A		29/32 (23.0)	29/32 (23.0)	1 1/4 (31.8)	•	•
11/16	TFSY221A		31/32 (24.6)	31/32 (24.6)	1 3/8 (35.0)	•	•
3/4 (19)	TFSY241A		1 1/16 (27.0)	1 1/16 (27.0)	1 3/8 (35.0)	•	•
10	TFSY10A		11/16 (17.5)	19/32 (15.1)	1 1/4 (31.8)	•	•
12	TFSY12A		11/16 (17.5)	11/16 (17.5)	1 1/4 (31.8)	•	•
13	TFSY13A		3/4 (19.1)	3/4 (19.1)	1 1/4 (31.8)	•	•
14	TFSY14A		13/16 (20.6)	13/16 (20.6)	1 1/4 (31.8)	•	•
15	TFSY15A		13/16 (20.6)	27/32 (21.4)	1 1/4 (31.8)	•	•
17	TFSY17A		31/32 (24.6)	31/32 (24.6)	1 3/8 (35.0)	•	•

Sets shown include storage tray

Twist, Deep, inches/mm

Inches/mm	Set Contains:		A	B	C	213TFSYA	
	6	6				6	6
3/8	TFSY121A		11/16 (17.5)	9/16 (14.3)	2 1/8 (54.0)	•	•
7/16 (11)	TFSY141A		11/16 (17.5)	21/32 (16.7)	2 1/8 (54.0)	•	•
1/2	TFSY161A		3/4 (19.1)	3/4 (19.1)	2 1/8 (54.0)	•	•
9/16	TFSY181A		13/16 (20.6)	13/16 (20.6)	2 3/8 (60.3)	•	•
5/8 (16)	TFSY201A		29/32 (23.0)	29/32 (23.0)	2 3/8 (60.3)	•	•
11/16	TFSY221A		31/32 (24.6)	31/32 (24.6)	2 5/8 (66.7)	•	•
3/4 (19)	TFSY241A		1 1/16 (27.0)	1 1/16 (27.0)	2 5/8 (66.7)	•	•
10	TFSY10A		11/16 (17.5)	19/32 (15.1)	2 1/8 (54.0)	•	•
12	TFSY12A		11/16 (17.5)	11/16 (17.5)	2 1/8 (54.0)	•	•
13	TFSY13A		3/4 (19.1)	3/4 (19.1)	2 1/8 (54.0)	•	•
14	TFSY14A		13/16 (20.6)	13/16 (20.6)	2 3/8 (60.3)	•	•
15	TFSY15A		13/16 (20.6)	27/32 (21.4)	2 3/8 (60.3)	•	•
17	TFSY17A		31/32 (24.6)	31/32 (24.6)	2 5/8 (66.7)	•	•

Set shown includes storage tray



**WARNING**

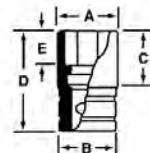


• Read safety precautions on pages W1 to W4



# SOCKETS

## 3/8" Drive Magnetic/Surface Drive/Special Purpose



MFIMM15



MFIM101

### Shallow Magnetic, mm

mm	6	12	A	B	D	E
10	MFIMM10A	MFIMMD10	15.1	17.2	29.1 (28.6)	4.7 (7.1)
12	MFIMM12		18.1	19.1	28.6	3.7
13	MFIMM13		19.4	19.4	28.6	3.9
15	MFIMM15		21.6	21.8	28.6	3.9

Dimensions in ( ) apply to 12 point sockets only.

**MFIMMD10** Applications: For use on Detroit Diesel® 60 series. Use on the 3 camshaft gear thrust plate bolts located inside the camshaft gear cover within the front gear case on the engine. The technician has to go through the cover to start the bolts. If one is dropped, it is very labor intensive and time consuming to retrieve. Applies to 2002 and later 60 series *Detroit Diesel* engines with the compact gear case. Earlier engines with the tall gear case have 13 mm 6 point bolts. Please use MFIMM13 for this application.

### Shallow Magnetic, inches

in	6	A	B	D	E
5/16	MFIM101	15/32	11/16	1 1/16	3/32
3/8	MFIM121	17/32	11/16	1 1/16	1/8
7/16	MFIM141	5/8	11/16	1 1/16	5/32
1/2	MFIM161	25/32	25/32	1 1/16	5/32
9/16	MFIM181	7/8	7/8	1 1/16	5/32



SMFIMM13B

### Deep Magnetic Spring Loaded, mm

mm	6	A	B	D	E
10	SMFIMM10B	15.1	17.2	50.8	7.1
12	SMFIMM12B	18.1	19.1	50.8	7.1
13	SMFIMM13B	19.4	19.4	50.8	7.6



DFSM10



DFSM14

### Deep, mm

mm	6	A	B	C	D	E
10	DFSM10	14.5	17.2	42.5	54.0	8.4

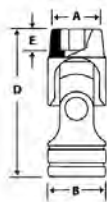
### Deep, inches

in	6	A	B	C	D	E
7/16	DFSM14	21/32	11/16	1 21/32	2 1/8	11/32

### Deep Surface Drive

Use in the industrial market for assembly line work. The lead in chamfer and special design of these sockets will engage with a fastener while rotating on a power nut runner.

## 3/8" Drive (Flank Drive®) Universal



206FSUMA



FUM18A



206AFSA



FU16B

### Shallow, mm

Set Contains:

206FSUMA  
206FUMV

mm	6	12	A	B	D	E	6	12
8	FSUM8A		11.9	17.2	43.1	6.4		
10	FSUM10A	FUM10A	14.0	18.1	43.5	6.4	•	•
11	FSUM11A		15.3	18.1	43.5	7.1		
12	FSUM12A	FUM12A	16.8	18.1	45.5	7.9	•	•
13	FSUM13A	FUM13A	18.1	18.1	45.5	7.9	•	•
14	FSUM14A	FUM14A	18.9	18.1	47.9	8.9	•	•
15	FSUM15A	FUM15A	20.5	18.1	47.9	8.9	•	•
16	FSUM16A	FUM16A	21.3	18.1	47.9	10.2		•
17	FSUM17A	FUM17A	22.9	18.9	50.7	10.4	•	•
18	FSUM18A	FUM18A	24.5	18.9	50.7	10.7		•
19	FSUM19A	FUM19A	25.3	18.9	52.5	11.7		•
22	FSUM22A		28.4	18.9	53.9	13.0		

Sets shown include storage tray

### Shallow, inches

Set Contains:

206AFSA  
206FUA

in	6	12	A	B	D	E	6	12
5/16		FU10B	15/32	11/16	1 5/8	1/4		
3/8	FS12B	FU12B	17/32	11/16	1 5/8	1/4		
7/16	FS14B	FU14B	5/8	11/16	1 5/8	9/32	•	•
1/2	FS16B	FU16B	23/32	11/16	1 11/16	9/32	•	•
9/16	FS18B	FU18B	25/32	11/16	1 23/32	11/32	•	•
5/8	FS20B	FU20B	27/32	11/16	1 25/32	3/8	•	•
11/16	FS22B	FU22B	15/16	3/4	2	3/8	•	•
3/4	FS24B	FU24B	1	3/4	2 1/16	7/16	•	•
13/16		FU26B	1 3/32	3/4	2 3/32	15/32		
7/8		FU28B	1 5/32	3/4	2 3/32	1/2		
15/16		FU30A	1 1/4	3/4	2 9/32	9/16		
1		FU32A	1 5/16	3/4	2 9/32	9/16		

Sets shown include storage tray



206SFSUM



207FSU

### Deep, mm

Set Contains:

206SFSUM

mm	6	A	B	D	E	6
8	SFSUM8	11.9	17.2	63.6	6.9	
10	SFSUM10	14.4	18.1	63.6	7.4	•
11	SFSUM11	15.6	18.1	63.6	7.6	
12	SFSUM12	17.1	18.1	63.6	8.1	•
13	SFSUM13	18.1	18.1	63.6	8.4	•
14	SFSUM14	18.9	18.1	63.6	9.1	•
15	SFSUM15	20.5	18.1	63.6	9.7	•
16	SFSUM16	21.3	18.1	63.6	10.4	
17	SFSUM17	22.9	18.9	63.6	10.9	•
18	SFSUM18	24.5	18.9	63.6	10.9	
19	SFSUM19	25.3	18.9	63.6	11.9	

Set shown includes storage tray

### Deep, inches

Set Contains:

207FSU

in	6	A	B	D	E	6
3/8	FSU12	9/16	11/16	2 13/32	3/8	•
7/16	FSU14	5/8	11/16	2 13/32	7/16	•
1/2	FSU16	23/32	11/16	2 13/32	15/32	•
9/16	FSU18	25/32	11/16	2 13/32	17/32	•
5/8	FSU20	27/32	11/16	2 13/32	9/16	•
11/16	FSU22	15/16	3/4	2 15/32	9/16	•
3/4	FSU24	1	3/4	2 15/32	9/16	•

Set shown includes storage tray



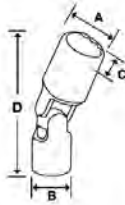
**WARNING**



- Do not use chrome or industrial finish sockets with impact drivers
- Read safety precautions on pages W1 to W4

# SOCKETS

## 3/8" Drive Torx®/Universal



### Torx/Universal

#	Stock No.	A	B	C	D
E8	FSE80	3/8	11/16	9/32	1 5/8
E10	FSE100	15/32	11/16	5/16	1 11/16
E12	FSE120	9/16	11/16	11/32	1 25/32
E14	FSE140	5/8	11/16	13/32	1 7/8
E16	FSE160	23/32	3/4	15/32	2 1/16
E18	FSE180	13/16	3/4	1/2	2 1/16
E20	FSE200	15/16	3/4	9/16	2 1/8

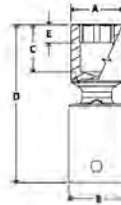
## 3/8" Drive (Flank Drive®)/Impact Swivel



207IPFM



IPDFM12A



205IPF

### Shallow, mm

Set Contains:

207IPFM  
212IPFM

mm	6	12	A	B	D	E	6	6
8	IPFM8C		13.2	22.2	49.8	6.4		•
9	IPFM9C		14.0	22.2	49.8	6.4		
10	IPFM10C	IPDFM10A	15.4	22.2	50.8	7.1	•	•
11	IPFM11C		16.7	22.2	52.1	7.1	•	•
12	IPFM12C	IPDFM12A	18.1	22.2	53.1	7.1	•	•
13	IPFM13C	IPDFM13A	18.9	22.2	54.1	7.9	•	•
14	IPFM14B	IPDFM14A	20.5	22.2	55.4	7.9	•	•
15	IPFM15C	IPDFM15A	21.2	22.2	56.4	7.9	•	•
16	IPFM16C	IPDFM16A	22.6	22.2	57.4	8.6		•
17	IPFM17C	IPDFM17A	23.4	23.0	62.2	8.6	•	•
18	IPFM18C	IPDFM18A	25.1	23.0	64.0	9.7	•	•
19	IPFM19C		26.4	23.0	65.0	10.4		•
21	IPFM21C		29.2	25.1	65.7	12.4		•
22	IPFM22C		29.9	23.0	68.1	13.0		

Sets shown include storage tray



IPFM21C



207IPFM

### Semi Deep, mm

Set Contains:

207IPFM

mm	6	A	B	D	E	6
8	IPSM8A	12.8	22.2	62.5	6.4	
10	IPSM10A	15.1	22.2	64.1	9.7	•
11	IPSM11A	17.2	22.2	65.6	9.7	
12	IPSM12A	18.0	23.0	70.9	9.7	•
13	IPSM13A	19.6	23.0	71.9	10.4	•
14	IPSM14A	20.4	23.0	72.9	10.4	•
15	IPSM15A	22.0	23.0	74.4	10.4	•
16	IPSM16A	22.7	23.0	74.9	10.4	
17	IPSM17A	24.3	23.0	76.0	11.2	•
18	IPSM18A	25.1	23.0	77.5	11.2	•
19	IPSM19A	26.7	23.0	79.0	14.2	
21	IPSM21A	29.2	25.1	77.7	12.4	

Set includes magnetic tray

### Shallow, inches

Set Contains:

205IPF

in	6	12	A	B	D	E	6
3/8	IPF12C	IPDF12A	9/16	7/8	1 31/32	1/4	
7/16	IPF14C		21/32	7/8	2 1/16	9/32	•
1/2	IPF16C		3/4	7/8	2 1/8	5/16	•
9/16	IPF18C		13/16	7/8	2 3/16	5/16	•
5/8	IPF20C		7/8	7/8	2 1/4	11/32	•
11/16	IPF22C		31/32	29/32	2 17/32	13/32	
3/4	IPF24C		1 1/16	29/32	2 19/32	7/16	•

Set shown includes storage tray



IPLFM12B



IPLF18B

### Deep, mm

Set Contains:

207IPFM

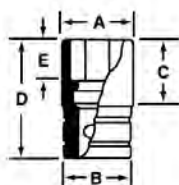
mm	6	A	B	D	E	6
8	IPLFM8B	15.8	24.9	70.1	9.1	
10	IPLFM10B	15.8	24.9	70.1	9.1	•
12	IPLFM12B	16.6	24.9	70.1	9.7	•
13	IPLFM13A	18.8	22.2	79.5	10.4	•
14	IPLFM14A	20.4	22.2	81.0	10.4	•
15	IPLFM15A	21.2	22.2	82.6	10.4	•
16	IPLFM16A	23	25	86.1	10.4	
17	IPLFM17A	23.4	23.0	88.3	10.2	•
18	IPLFM18A	25.1	23.0	90.1	10.7	•
19	IPLFM19A	26.7	23.0	91.2	14.2	
21	IPLFM21A	29.2	25.3	92.2	12.4	

Set includes magnetic tray

### Deep, inches

in	6	A	B	D	E
3/8	IPLF12B	9/16	7/8	2 15/16	1/4
7/16	IPLF14B	21/32	7/8	2 3/4	9/32
1/2	IPLF16B	3/4	7/8	2 3/4	5/16
9/16	IPLF18B	13/16	7/8	3 3/16	5/16
5/8	IPLF20B	7/8	7/8	3 1/4	11/32





310TWMYA

SWM241

### Shallow, mm

mm	Set Contains:							Set Contains:					
	6	12	A	B	C	D	E	6	6	6	12	12	12
10	TWM10A	SWM101A	15.0	23.2	22.2	38.1	7.9	•	•	•			
11	TWM11A	SWM111A	16.6	23.2	22.2	38.1	8.7	•	•	•			
12	TWM12A	SWM121A	18.2	23.2	22.2	38.1	9.5	•	•	•	•	•	•
13	TWM13A	SWM131A	19.0	23.2	22.2	38.1	10.3	•	•	•	•	•	•
14	TWM14A	SWM141A	20.6	23.2	22.2	38.1	10.3	•	•	•	•	•	•
15	TWM15A	SWM151A	22.2	22.2	22.2	38.1	10.3	•	•	•	•	•	•
16	TWM16	SWM161	23.8	22.2	22.2	38.1	11.9	•	•	•	•	•	•
17	TWM17	SWM171	24.6	23.2	22.2	38.1	12.7	•	•	•	•	•	•
18	TWM18	SWM181	25.4	23.8	21.4	38.1	14.2	•	•	•	•	•	•
19	TWM19	SWM191	26.3	24.8	21.3	38.1	13.9	•	•	•	•	•	•
20	TWM20	SWM201	26.7	26.1	21.2	38.1	14.0		•	•	•	•	•
21	TWM21	SWM211	28.3	27.5	21.1	38.1	14.0		•	•	•	•	•
22	TWM22	SWM221	29.9	28.6	20.9	38.1	14.2		•	•	•	•	•
23	TWM23	SWM231	31.2	29.9	20.8	38.1	14.5		•	•	•	•	•
24	TWM24	SWM241	32.5	30.9	22.2	38.8	15.8		•	•	•	•	•
25	TWM25	SWM251	33.3	31.7	22.2	38.8	15.8		•	•	•	•	•
26	TWM26	SWM261	34.9	33.3	23.8	41.2	15.8		•	•	•	•	•
27	TWM27	SWM271	36.5	34.9	25.4	42.8	17.4		•	•	•	•	•
28	TWM28	SWM281	38.1	36.5	26.9	44.4	17.4		•	•	•	•	•
29	TWM29	SWM291	39.3	38.0	26.1	44.5	17.8		•	•	•	•	•
30	TWM30	SWM301	41.0	39.6	26.1	44.5	18.5		•	•	•	•	•
31	TWM31	SWM311	42.5	41.2	29.1	47.6	19.1		•	•	•	•	•
32	TWM32	SWM321	42.5	41.2	28.9	47.6	19.8		•	•	•	•	•



313TWYA

SW241

Sets shown include storage tray unless noted  
\*Does not include storage tray

### Shallow, inches

Inches	Set Contains:							Set Contains:				
	6	12	6	12	A	B	C	D	E	6	6	12
3/8	TW121A	SW121A	GTW121A	GSW121A	19/32	29/32	7/8	1 1/2	5/16	•	•	•
7/16	TW141A	SW141A	GTW141A	GSW141A	11/16	29/32	7/8	1 1/2	11/32	•	•	•
1/2	TW161A	SW161A	GTW161A	GSW161A	3/4	29/32	7/8	1 1/2	13/32	•	•	•
9/16	TW181A	SW181A	GTW181A	GSW181A	13/16	29/32	7/8	1 1/2	13/32	•	•	•
5/8	TW201	SW201	GTW201	GSW201	15/16	7/8	7/8	1 1/2	15/32	•	•	•
11/16	TW221	SW221	GTW221	GSW221	31/32	29/32	7/8	1 1/2	1/2	•	•	•
3/4	TW241	SW241	GTW241	GSW241	1 1/32	31/32	7/8	1 1/2	9/16	•	•	•
13/16	TW261	SW261	GTW261	GSW261	1 1/8	1 1/16	7/8	1 1/2	9/16	•	•	•
7/8	TW281	SW281	GTW281	GSW281	1 3/16	1 1/8	7/8	1 1/2	25/32	•	•	•
15/16	TW301	SW301	GTW301	GSW301	1 9/32	1 7/32	27/32	1 17/32	3/4	•	•	•
1	TW321	SW321	GTW321	GSW321	1 11/32	1 9/32	7/8	1 9/16	3/4	•	•	•
1 1/16	TW341	SW341	GTW341	GSW341	1 7/16	1 3/8	1 1/16	1 11/16	3/4	•	•	•
1 1/8	TW361	SW361	GTW361	GSW361	1 1/2	1 7/16	1 31/32	1 3/4	1 3/16	•	•	•
1 3/16	TW381	SW381		GSW381	1 5/8	1 9/16	1 1/8	1 3/4	3/4			
1 1/4	TW401	SW401	GTW401	GSW401	1 11/16	1 5/8	1 1/4	1 7/8	3/4		•	
1 5/16	TW421	SW421		GSW421	1 3/4	1 11/16	1 1/4	1 7/8	1			
1 3/8	TW441	SW441		GSW441	1 13/16	1 3/4	1 7/16	2 1/16	1			
1 7/16	TW461	SW461			1 15/16	1 7/8	1 5/8	2 1/4	1			
1 1/2	TW481	SW481		GSW481	2	1 15/16	1 5/8	2 1/4	1			

Sets shown include storage tray



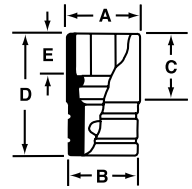
**WARNING**



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages W1 to W4

# SOCKETS

## 1/2" Drive (Flank Drive®)



313TSMYA

SM24

Set Contains:

313TSMYA  
310TSM  
313SMYA

Deep, mm

mm	6	12	A	B	C	D	E	6	6	12
10	TSM10A	SM10A	15.0	23.2	66.7	82.6	7.9		•	
11		SM11A	16.6	23.2	66.7	82.6	8.7			
12	TSM12A	SM12B	18.2	23.2	66.7	82.6	9.5	•	•	•
13	TSM13A	SM13A	19.0	23.2	66.7	82.6	10.3	•	•	•
14	TSM14A	SM14A	20.6	23.2	66.7	82.6	10.3	•	•	•
15	TSM15A	SM15A	22.2	22.2	66.7	82.6	10.3	•	•	•
16	TSM16	SM16	23.8	22.2	51.0	82.6	11.9	•	•	•
17	TSM17	SM17	24.6	23.2	51.0	82.6	12.7	•	•	•
18	TSM18	SM18	25.4	23.8	51.0	82.6	14.3	•	•	•
19	TSM19	SM19	26.3	24.6	52.5	82.6	14.2	•	•	•
20	TSM20	SM20	26.7	26.1	58.5	82.6	14.0	•	•	•
21	TSM21	SM21	28.3	27.5	58.5	82.6	14.0	•	•	•
22	TSM22	SM22	29.9	28.6	58.5	82.6	14.2	•		•
23	TSM23	SM23	31.2	29.9	58.0	82.6	14.5	•		•
24	TSM24	SM24	32.5	30.9	50.0	82.6	15.8	•		•
25	TSM25	SM25	33.3	31.7	50.0	82.6	15.8			
26	TSM26	SM26	34.9	33.3	50.0	82.6	15.8			
27	TSM27	SM27	36.2	34.9	50.0	82.6	17.5			
28	TSM28	SM28	37.8	36.5	50.0	82.6	17.5			
29	TSM29	SM29	39.3	38.0	64.3	82.6	17.8			
30	TSM30	SM30	41.0	39.6	64.0	82.6	18.5			
31	TSM31	SM31	42.5	41.2	64.0	82.6	19.1			
32	TSM32	SM32	42.5	41.2	63.8	82.6	19.8			

Sets shown include storage tray



313TSYA

S241

GS201

Set Contains:

313TSYA  
313TSYA  
313SYA

Deep, inches



in	6	12	6	12	A	B	C	D	E	6	6	12
3/8	TS121A	S121A	GTS121A		19/32	29/32	2 5/8	3 1/4	5/16	•	•	•
7/16	TS141A	S141A	GTS141A		3/4	29/32	2 5/8	3 1/4	11/32	•	•	•
1/2	TS161A	S161A	GTS161A	GS161A	3/4	29/32	2 5/8	3 1/4	13/32	•	•	•
9/16	TS181A	S181A	GTS181A	GS181A	13/16	29/32	2 5/8	3 1/4	13/32	•	•	•
5/8	TS201	S201	GTS201	GS201	15/16	7/8	1 31/32	3 1/4	15/32	•	•	•
11/16	TS221	S221	GTS221	GS221	31/32	29/32	1 31/32	3 1/4	1/2	•	•	•
3/4	TS241	S241	GTS241	GS241	1 1/32	31/32	2 5/8	3 1/4	9/16	•	•	•
25/32		S251			1 1/16	1 1/32	2 1/8	3 1/4	5/8			
13/16	TS261	S261	GTS261	GS261	1 1/8	1 1/16	2 5/8	3 1/4	9/16	•	•	•
7/8	TS281	S281	GTS281	GS281	1 3/16	1 1/8	2 5/8	3 1/4	9/16	•	•	•
15/16	TS301	S301	GTS301	GS301	1 9/32	1 7/32	1 31/32	3 1/4	3/4	•	•	•
1	TS321	S321	GTS321	GS321	1 11/32	1 9/32	1 31/32	3 1/4	3/4	•	•	•
1 1/16	TS341	S341	GTS341	GS341	1 7/16	1 3/8	1 31/32	3 1/4	3/4	•	•	•
1 1/8	TS361	S361	GTS361	GS361	1 1/2	1 7/16	1 31/32	3 1/4	1 3/16	•	•	•
1 3/16	TS381	S381	GTS381	GS381	1 5/8	1 9/16	2 5/8	3 1/4	1 3/16			
1 1/4	TS401	S401	GTS401	GS401	1 11/16	1 5/8	2 5/8	3 1/4	1			
1 5/16	TS421	S421			1 3/4	1 11/16	2 9/16	3 1/4	1			
1 3/8	TS441	S441			1 13/16	1 3/4	2 9/16	3 1/4	1			
1 7/16	TS461	S461			1 15/16	1 7/8	2 5/8	3 1/4	1			
1 1/2	TS481	S481			2	1 15/16	2 5/8	3 1/4	1 1/16			

Sets shown include storage tray

ASME®/ANSI® B107.1

## 1/2" Drive (Flank Drive®)

### Semi Deep, inches

		A	B	C	D	E
3/8	<b>SDH121</b>	19/32	7/8	13/16	1 1/2	9/32
7/16	<b>SDH141</b>	11/16	29/32	13/16	1 1/2	11/32
1/2	<b>SDH161</b>	3/4	29/32	13/16	1 1/2	3/8
9/16	<b>SDH181</b>	27/32	29/32	13/16	1 1/2	13/32
5/8	<b>SDH201</b>	29/32	7/8	13/16	1 1/2	15/32
11/16	<b>SDH221</b>	31/32	15/16	1 1/16	1 3/4	1/2
3/4	<b>SDH241</b>	1 1/16	1 1/32	1 1/16	1 3/4	19/32
13/16	<b>SDH261</b>	1 1/8	1 3/32	1 1/16	1 3/4	21/32
7/8	<b>SDH281</b>	1 3/16	1 5/32	1 1/8	1 3/4	23/32
15/16	<b>SDH301</b>	1 9/32	1 1/8	1 5/32	1 13/16	23/32
1	<b>SDH321</b>	1 11/32	1 5/16	1 7/32	1 7/8	3/4
1 1/16	<b>SDH341</b>	1 7/16	1 13/32	1 7/32	1 15/16	3/4
1 1/8	<b>SDH361</b>	1 1/2	1 15/32	1 1/4	1 31/32	25/32
1 3/16	<b>SDH381</b>	1 9/16	1 17/32	1 5/16	2	25/32
1 1/4	<b>SDH401</b>	1 9/16	1 17/32	1 9/32	2 1/32	13/16
1 5/16	<b>SDH421</b>	1 21/32	1 5/8	1 5/16	2 1/32	27/32



SDH201



320TSWMA

**320TSWMA Metric 6 Point Shallow/Deep Set.** Includes TWM10A to TWM19 shallow sockets (pg 37) and TSM10A to TSM20 deep sockets (pg 38) (20 pcs) (10 to 20 mm).

## 1/2" Drive (Blue-Point®)





BLPSM1216





BLPS1234

### Shallow, mm

		Length
12	<b>BLPSM1212</b>	38.1
13	<b>BLPSM1213</b>	38.1
14	<b>BLPSM1214</b>	38.1
15	<b>BLPSM1215</b>	38.1
16	<b>BLPSM1216</b>	38.1
17	<b>BLPSM1217</b>	38.1
18	<b>BLPSM1218</b>	38.1
19	<b>BLPSM1219</b>	38.1
20	<b>BLPSM1220</b>	38.1
21	<b>BLPSM1221</b>	38.1
22	<b>BLPSM1222</b>	38.1
24	<b>BLPSM1224</b>	38.1

### Shallow, inches

		Length
3/8	<b>BLPS1238</b>	1 1/2
7/16	<b>BLPS12716</b>	1 1/2
1/2	<b>BLPS1212</b>	1 1/2
9/16	<b>BLPS12916</b>	1 1/2
5/8	<b>BLPS1258</b>	1 1/2
11/16	<b>BLPS121116</b>	1 1/2
3/4	<b>BLPS1234</b>	1 1/2
13/16	<b>BLPS121316</b>	1 1/2
7/8	<b>BLPS1278</b>	1 1/2
15/16	<b>BLPS121516</b>	1 9/16
1	<b>BLPS121</b>	1 9/16
1 1/16	<b>BLPSB121116</b>	1 9/16
1 1/8	<b>BLPSB12118</b>	1 3/4
1 3/16	<b>BLPSB121316</b>	1 3/4
1 1/4	<b>BLPSB12114</b>	1 3/4



**WARNING**



- Do not use chrome or industrial finish sockets with impact drivers
- Read safety precautions on pages W1 to W4



# SOCKETS

## 1/2" Drive (Flank Drive®) Impact



SLEPL200

### Torx Plus®/External

**SLEPL200 Low Profile Torx Plus Socket.** For removal and installation of low profile drive plate and flywheel bolts on QR25 Nissan® motors with automatic transmissions. It is similar to the J-45816 Nissan specialty tool. Size is 20EPL. 1/2" drive.

Please note: For flywheel bolts on QR25 Nissan motors with manual transmissions, use the 3/8" drive FTX50TPE T50 Torx Plus bit socket (pg 58).



213AFLEY

### Torx®/Shallow

#	Stock No.	A	B	D
E14	<b>SLE140</b>	21/32	7/8	1 1/2
E16	<b>SLE160A</b>	23/32	27/32	1 1/2
E18	<b>SLE180A</b>	27/32	7/8	1 1/2
E20	<b>SLE200A</b>	15/16	7/8	1 1/2
E24	<b>SLE240</b>	1 1/16	1	1 1/2

### 213AFLEY Combination Drive Shallow Torx Set.

Includes 1/4" drive TLE40A to TLE100A (pg 22), 3/8" drive FLE110A to FLE140A (pg 30) and 1/2" drive SLE160A to SLE240 (pg 40) (13 pcs) (E4 to E24).



IMSLE200

### Torx, Impact

#	Stock No.	A	B	D
E18	<b>IMSLE180</b>	29/32	29/32	1 1/2
E20	<b>IMSLE200</b>	15/16	15/16	1 1/2



BLPTE1220

### Torx Plus®/External (Blue Point®)

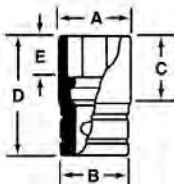
#	Stock No.	Length, inches
E18	<b>BLPTE1218</b>	1 1/2
E20	<b>BLPTE1220</b>	1 1/2
E22	<b>BLPTE1222</b>	1 1/2
E24	<b>BLPTE1224</b>	1 1/2

## 1/2" Drive Special Application

### Double Square, inches



SW420



#	Stock No.	A	B	C	D	E
3/8	<b>SW412</b>	23/32	7/8	7/8	1 1/2	5/16
7/16	<b>SW414</b>	51/64	7/8	7/8	1 1/2	3/8
1/2	<b>SW416</b>	29/32	7/8	7/8	1 1/2	13/32
9/16	<b>SW418</b>	31/32	29/32	7/8	1 1/2	7/16
5/8	<b>SW420</b>	1 1/16	1	7/8	1 1/2	1/2
11/16	<b>SW422</b>	1 3/16	1 1/8	7/8	1 1/2	1/2
3/4	<b>SW424</b>	1 9/32	1 3/16	7/8	1 1/2	9/16
13/16	<b>SW426</b>	1 7/16	1 3/8	1	1 5/8	5/8
7/8	<b>SW428</b>	1 1/2	1 7/16	1 1/8	1 3/4	5/8
15/16	<b>SW430</b>	1 5/8	1 9/16	1 1/8	1 13/16	11/16
1	<b>SW432</b>	1 11/16	1 5/8	1 1/4	1 7/8	11/16

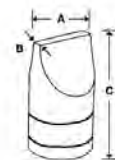
ASME®/ANSI® B107.1



WH290



A26A



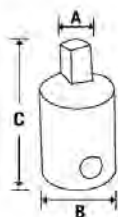
### Weatherhead®, inches

#	Stock No.	A	B
7/8	<b>WH280</b>	1 3/8	1 13/16
29/32	<b>WH290</b>	1 7/16	1 13/16
15/16	<b>WH300</b>	1 1/2	1 13/16

### Drag Link

Stock No.	A	B	C
<b>A26A</b>	3/4	.109	1 11/16
<b>A17A</b>	15/16	.150	1 11/16
<b>A15A</b>	1 3/16	.150	1 11/16

## 1/2" Drive Special Application



PPM516A

### Pipe Plug, inches

Stock No.	A	B	C
PPM516A	1/2	15/16	1 7/16



B2191

### Flank Drive® Pentagon

Stock No.	A	B	C
B2191	1 1/8	1/2	1 1/16

**B2191 Pentagon Socket.** Services recessed 5 point nuts found on tamper resistant Buffalo covers used by gas, electric and water companies to protect shutoff gates.



SU24

### Universal, inches

11	6	A	B	D	E
9/16	SU18	27/32	15/16	2 7/16	11/32
5/8	SU20	15/16	15/16	2 15/32	3/8
11/16	SU22	1 1/16	1 1/16	2 9/16	7/16
3/4	SU24	1 1/8	1 1/8	2 7/8	1/2
13/16	SU26	1 3/16	1 1/8	2 15/16	9/16
7/8	SU28	1 1/4	1 1/8	2 15/16	9/16
15/16	SU30	1 5/16	1 1/8	3	9/16

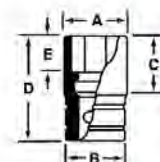
ASME/ANSI® B107.1

## 1/2" Drive Flank Drive Impact



315IMMYA

IMDM150A



### Shallow, mm

mm	Set Contains:		A	B	C	D	E	315IMMYA				
	6	6						6	6	6	6	6
10	IMM100A	IMDM100A	15	22.6	22.2	38.1	7.9	•			•	•
11	IMM110A	IMDM110A	18.2	22.6	22.2	38.1	8.7	•			•	•
12	IMM120A	IMDM120A	19	24.3	22.2	38.1	9.5	•			•	•
13	IMM130A	IMDM130A	20.6	24.3	22.2	38.1	10.3	•			•	•
14	IMM140A	IMDM140A	22.2	24.3	22.2	38.1	10.3	•			•	•
15	IMM150A	IMDM150A	23.8	26.4	22.2	38.1	10.3	•	•		•	•
16	IMM160A	IMDM160A	24.6	26.4	22.2	38.1	11.9	•	•		•	•
17	IMM170A	IMDM170A	25.4	26.7	22.2	38.1	12.7	•	•		•	•
18	IMM180	IMDM180	26.7	26.7	19.1	38.1	12.7	•	•		•	•
19	IMM190	IMDM190	28.3	28.3	21.3	38.1	12.7	•	•		•	•
20	IMM200	IMDM200	29.9	29.9	21.1	38.1	14.2	•	•		•	•
21	IMM210	IMDM210	31.5	31.5	21	38.1	14.2	•	•		•	•
22	IMM220	IMDM220	33.3	33.3	21.4	38.1	15.9	•	•		•	•
23	IMM230	IMDM230	34.1	34.1	27.8	44.5	15.9	•	•		•	•
24	IMM240	IMDM240	34.9	34.9	27.8	44.5	15.9	•	•		•	•
25	IMM250		29.8	29.8	27	44.5	15.9		•			
26	IMM260		38.1	38.1	33.3	50.8	15.9					
27	IMM270		39.4	39.4	27.1	50.8	20.3		•			
29	IMM290		41.1	41.1	33.3	50.8	21.1					
30	IMM300		42.7	42.7	32.1	50.8	21.6					
32	IMM320	IMDM320	45.8 (45.7)	45.8 (45.7)	32.1 (36.8)	50.8	22.4 (20.6)					
34	IMM340		47.6	42.9	40.5	52.4	22.4					
36	IMM360	IMDM360	50.5 (50.8)	45.8 (46.0)	40.5 (41.3)	57.2	22.4 (22.2)					
39		IMDM390	53.8	39.6	36.8	50.8	22.3					
46	IMM460		64.8	47.6	50.3	69.9	29.7					

Dimensions in ( ) apply to 12 point sockets only.

Sets include storage tray

**IMDM320 Applications:** Uses include axle nuts on Mercedes-Benz® W140 chassis 1992 to 1999 SC and SL Class, Porsche® Boxster, Cayenne and 944 plus BMW® X3, X5 and X6 Series 2007 and later. Other uses include drive shaft nuts on VW® Touareg 2003 and later.

**IMDM360 Applications:** Use to remove pinion nuts on 2003 GM® and 2004 Dodge® Trucks with 11.5 AAM axles. Other uses include Duramax® Diesel Front Crankshaft bolts and late model BMW axle shafts.

**IMDM390 Applications:** Use on front axle hub of 2007 Toyota® Tundra.



**WARNING**



- Do not use chrome or industrial finish sockets with impact drivers
- Read safety precautions on pages W1 to W4

# SOCKETS

## 1/2" Drive (Flank Drive®) Impact



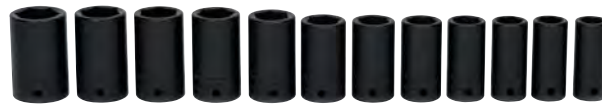
311IMYA

IMD200

### Shallow, inches

11	6	12	A	B	C	D	E	Set Contains:		
								311IMYA	313IMD	307IMDYA
3/8	IM120A	IMD120A	19/32	29/32	7/8	1 1/2	5/16	•	•	•
7/16	IM140A	IMD140A	23/32	29/32	7/8	1 1/2	11/32	•	•	•
1/2	IM160A	IMD160A	13/16	29/32	7/8	1 1/2	13/32	•	•	•
9/16	IM180A	IMD180A	7/8	29/32	7/8	1 1/2	13/32	•	•	•
5/8	IM200	IMD200	15/16	1	7/8	1 1/2	15/32	•	•	•
11/16	IM220	IMD220	1 1/16	1 1/16	3/4	1 1/2	1/2	•	•	•
3/4	IM240	IMD240	1 1/8	1 1/8	3/4	1 1/2	1/2	•	•	•
13/16	IM260	IMD260	1 1/4	1 1/4	3/4	1 1/2	1/2	•	•	
7/8	IM280	IMD280	1 5/16	1 5/16	13/16	1 1/2	9/16	•	•	
15/16	IM300	IMD300	1 3/8	1 3/8	1 1/16	1 3/4	3/4	•	•	
1	IM320	IMD320	1 7/16	1 7/16	1 1/16	1 3/4	3/4	•	•	
1 1/16	IM340		1 9/16	1 9/16	1	2	13/16			
1 1/8	IM360	IMD360	1 5/8	1 5/8	1	2	13/16		•	
1 3/16	IM380		1 11/16	1 1/2	1 3/32	2	13/16			
1 1/4	IM400	IMD400	1 3/4	1 1/2	1 5/32	2	13/16		•	
1 5/16	IM420H		1 7/8	1 1/2	1 3/8	2	7/8			
1 3/8	IM440		1 15/16	1 1/2	1 3/8	2	7/8			
1 7/16	IM460		2	1 1/2	1 3/8	2	15/16			
1 1/2	IM480		2 1/8	1 9/16	1 3/8	2	15/16			
1 9/16	IM500		2 1/4	1 5/8	1 11/16	2 5/16	15/16			

Sets shown include storage tray



312IMMS

### Semi Deep, mm

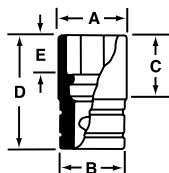
mm	6	A	B	D	E	Set Contains:
						312IMMS
15	IMMS150	23.7	23.7	55.9	10.7	•
16	IMMS160	24.4	24.4	55.9	11.9	•
17	IMMS170	25.3	25.3	55.9	11.2	•
18	IMMS180	26.8	26.8	55.9	12.7	•
19	IMMS190	28.5	28.5	55.9	14.2	•
20	IMMS200	30.0	30.0	55.9	14.2	•
21	IMMS210	31.6	31.6	55.9	14.2	•
22	IMMS220	33.2	33.2	60.4	14.2	•
23	IMMS230	34.0	34.0	60.4	16.2	•
24	IMMS240	34.9	34.9	60.4	15.5	•
25	IMMS250	36.3	36.3	60.4	16.2	•
27	IMMS270	39.6	39.6	60.4	20.3	•

Set shown includes storage tray



# SOCKETS

## 1/2" Drive (Flank Drive®) Impact



Deep, mm

mm	6	Set Contains:					6	6	6	6	6
		A	B	C	D	E					
10	SIMM100A	15.0	23.2	66.7	82.6	7.9	•		•	•	
11	SIMM110A	18.2	23.2	66.7	82.6	8.7	•		•	•	
12	SIMM120A	19.0	23.2	66.7	82.6	9.5	•		•	•	
13	SIMM130A	20.6	23.2	66.7	82.6	10.3	•		•	•	
14	SIMM140A	22.2	23.2	66.7	82.6	10.3	•		•	•	
15	SIMM150A	23.8	23.8	50.0	82.6	10.3	•	•	•	•	
16	SIMM160A	24.6	24.6	50.0	82.6	11.9	•	•	•	•	
17	SIMM170A	25.1	25.1	57.9	82.6	11.2	•	•	•	•	
18	SIMM180	26.7	26.7	61.0	82.6	12.7	•	•	•	•	
19	SIMM190	28.3	28.3	61.0	82.6	14.2	•	•	•	•	
20	SIMM200	29.9	29.9	61.0	82.6	14.2	•	•		•	
21	SIMM210	31.5	31.5	61.0	82.6	14.2	•	•		•	
22	SIMM220	33.1	33.1	71.6	88.9	15.7	•	•		•	
23	SIMM230	33.1	33.1	64.3	88.9	15.9	•	•		•	
24	SIMM240	34.9	34.9	63.5	88.9	15.9	•	•		•	
25	SIMM250	36.5	36.5	63.5	88.9	15.9	•	•		•	
26	SIMM260	34.9	33.3	50.0	88.9	19.8				•	
27	SIMM270	39.4	39.4	71.0	88.9	20.3		•		•	
28	SIMM280A	41.0	41.0	71.0	88.9	20.8				•	
29	SIMM290	41.3	41.3	71.6	88.9	21.3			•	•	
30	SIMM300	42.9	42.9	71.1	88.9	21.6			•	•	
32	SIMM320	45.8	45.8	71.1	88.9	22.4				•	
33	SIMM330	46.0	44.5	72.8	88.9	22.4				•	
34	SIMM340	49.3	44.5	72.8	88.9	22.6			•	•	
35	SIMM350	50.8	45.8	72.8	88.9	22.9			•	•	
36	SIMM360	50.8	45.8	72.8	88.9	22.9			•	•	

Sets shown include storage tray



Deep, inches

11	6	Set Contains:					6	6	6
		A	B	C	D	E			
3/8	SIM120A	19/32	29/32	2 5/8	3 1/4	5/16			•
7/16	SIM140A	23/32	29/32	2 5/8	3 1/4	11/32			•
1/2	SIM160A	13/16	29/32	2 5/8	3 1/4	3/8	•	•	•
9/16	SIM180A	7/8	29/32	2 5/8	3 1/4	13/32	•	•	•
5/8	SIM200	31/32	29/32	2 5/8	3 1/4	15/32	•	•	•
11/16	SIM220	1 1/16	1 1/16	2 5/8	3 1/4	1/2	•	•	•
3/4	SIM240	1 1/8	1 1/8	2 5/8	3 1/4	9/16	•	•	•
13/16	SIM260	1 1/4	1 1/4	2 5/8	3 1/4	19/32	•	•	•
7/8	SIM280	1 5/16	1 5/16	2 3/32	3 1/2	9/16	•	•	•
15/16	SIM300	1 3/8	1 3/8	2 3/32	3 1/2	3/4	•	•	•
1	SIM320	1 7/16	1 7/16	2 7/8	3 1/2	3/4	•	•	•
1 1/16	SIM340	1 9/16	1 9/16	2 11/16	3 1/2	25/32	•	•	•
1 1/8	SIM360	1 5/8	1 5/8	2 11/16	3 1/2	25/32	•	•	•
1 3/16	SIM380	1 11/16	1 1/2	2 11/16	3 1/2	25/32	•	•	•
1 1/4	SIM400	1 3/4	1 1/2	2 11/16	3 1/2	1	•	•	•
1 5/16	SIM420H	1 7/8	1 1/2	2 11/16	3 1/2	15/16			•
1 3/8	SIM440	2	1 1/2	2 11/16	3 1/2	15/16			•
1 7/16	SIM460	2	1 1/2	2 21/32	3 1/2	15/16			•
1 1/2	SIM480	2 1/8	1 9/16	2 5/8	3 1/2	15/16			•
1 9/16	SIM500	2 1/4	1 5/8	2 5/8	3 1/2	15/16			•

Sets shown include storage tray unless noted

\*Does not include storage tray



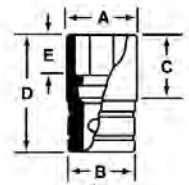
**WARNING**



• Read safety precautions on pages W1 to W4

# SOCKETS

## 1/2" Drive (Flank Drive®) Impact



Set Contains:  
311IMFSY

### Shallow Thin Wall, inches

311IMFSY

		A	B	C	D	E	
3/8	IMFS120	19/32	7/8	3/8	1 1/2	7/32	•
7/16	IMFS140	11/16	7/8	9/16	1 1/2	11/32	•
1/2	IMFS160	3/4	7/8	5/8	1 1/2	3/8	•
9/16	IMFS180	13/16	7/8	11/16	1 1/2	13/32	•
5/8	IMFS200	29/32	29/32	3/4	1 1/2	15/32	•
11/16	IMFS220	1	1	13/16	1 1/2	1/2	•
3/4	IMFS240	1 1/16	1 1/16	13/16	1 1/2	1/2	•
13/16	IMFS260	1 1/8	1 1/8	25/32	1 1/2	1/2	•
7/8	IMFS280	1 7/32	1 7/32	29/32	1 1/2	9/16	•
15/16	IMFS300	1 5/16	1 5/16	1 3/16	1 17/32	3/4	•
1	IMFS320	1 3/8	1 3/8	1 3/16	1 9/16	3/4	•
1 1/16	IMFS340	1 7/16	1 7/16	1 1/4	1 11/16	13/16	•
1 1/8	IMFS360	1 1/2	1 1/2	1 1/4	1 3/4	13/16	•
1 3/16	IMFS380	1 5/8	1 5/8	1 1/4	1 3/4	13/16	•
1 1/4	IMFS400	1 11/16	1 11/16	1 1/4	1 7/8	13/16	•
1 5/16	IMFS420	1 3/4	1 3/4	1 1/4	1 7/8	13/16	•
1 3/8	IMFS440	1 13/16	1 13/16	1 1/4	2 1/16	13/16	•
1 7/16	IMFS460	1 29/32	1 29/32	1 3/8	2 1/16	13/16	•
1 1/2	IMFS480	2	2	1 3/8	2 1/16	13/16	•



SIMML150

### Extra Deep, mm

		A	B	C	D	E
15	SIMML150	23.2	26.4	91.4	127.0	10.7



SIMMF21A

### Extra Deep/Thin Wall, mm

Sockets are 34% thinner than a standard thin wall socket. Use to access nut on long studs and other hard to reach areas. Ideal for wheel lugs.

		A	B	C	D	E
14	SIMMF14A	20.6	23.8	50.8	76.2	25.4
17	SIMMF17A	23.8	23.8	50.8	76.2	25.4
19	SIMMF19A	25.4	25.4	50.8	76.2	25.4
21	SIMMF21A	28.6	28.6	50.8	76.2	25.4
22	SIMMF22A	30.2	30.2	50.8	76.2	25.4

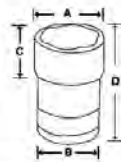
## 1/2" Drive Special Application Impact



TTWY281A

### Twist/Shallow, inches

Removes rounded/damaged fasteners



SPS10



A172A



	Stock No.	A	B	C	D
3/4	TTWY241A	1 1/32	1	1	1 5/8
13/16	TTWY261A	1 1/8	1	1	1 5/8
7/8	TTWY281A	1 3/16	1 1/16	1	1 5/8
15/16	TTWY301A	1 1/4	1 3/16	1	1 5/8
1	TTWY321A	1 5/16	1 1/4	1	1 5/8

305TTWYA Shallow Twist Set. TTWY241A to TTWY321A (5 pcs) (3/4 to 1").

### Shackle Pin

Designed with an oval configuration to service shackle pins on International Harvester® and Kenworth® semi trucks.  
SPS10 41/64" x 1 3/32" x 1 3/4" long.  
SPS11 21/32" x 1 17/32" x 1 3/4" long

### Drum Plug

A172A One socket removes virtually all screws in drum plugs or caps. Spring loaded inner wrench handles smaller plugs and recesses automatically when removing large plugs. Use with a 1/2" drive ratchet or impact wrench.

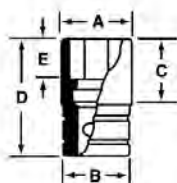
Set shown includes storage tray

### Extra Deep, inches SIML200

		A	B	C	D	E
1/2	SIML160*	25/32	15/16	4 1/4	5	3/8
9/16	SIML180	7/8	15/16	4 1/4	5	13/32
5/8	SIML200	31/32	1	4 1/4	5	15/32
11/16	SIML220	1 1/16	1 1/16	4 1/4	5	1/2
3/4	SIML240	1 1/8	1 1/8	4 1/4	5	9/16
13/16	SIML260	1 1/4	1 1/4	4 1/4	5	19/32
7/8	SIML280	1 5/16	1 5/16	4 1/4	5	21/32
15/16	SIML300	1 3/8	1 3/8	4 1/4	5	23/32
1	SIML320	1 7/16	1 7/16	4 3/8	5	3/4
1 1/16	SIML340	1 9/16	1 9/16	4 3/8	5	25/32
1 1/8	SIML360	1 5/8	1 5/8	4 3/8	5	25/32

\*ASME®/ANSI® B107.2

- Use for removing or replacing fuel tank retaining strap nuts
- Also has applications on emergency brake adjustment nuts and stabilizer retainers



SIP18A

## Deep Swivel, inches

		A	B	D	E
9/16	<b>SIP18A</b>	13/16	1 3/16	3 13/16	11/32
3/4	<b>SIP24A</b>	1 1/32	1 3/16	4 1/4	7/16

## 1/2" Drive Special Application Impact

### Semi Deep Swivel, mm

		A	B	C	D	E
15	<b>IPSM15</b>	23.0	25.1		65.7	12.4
18	<b>IPSM18</b>	26.5	31.5		89.1	12.7
21	<b>IPSM21</b>	30.0	31.5	33.8	89.2	12.7
22	<b>IPSM22</b>	32.4	31.5		89.1	12.7



IPSM21

### IPSM21 Metric Semi Deep Impact Swivel Socket.

Designed for GM® and Ford® upper control arm bolts. Welded pivot pin reinforces socket wall and allows full 30° of uninterrupted smooth action for efficient power transfer at any angle.

## 1/2" Drive (Flank Drive®)/Surface Drive



SPM19

### Flank Drive Deep, mm

		A	B	C	D	E
17	<b>SPM17</b>	24.6	24.6	66.6	82.6	12.7
19	<b>SPM19</b>	26.4	26.4	64.8	82.6	11.9
21	<b>SPM21</b>	28.3	28.3	64.8	82.6	12.3



DTM15A

### Surface Drive Shallow, mm

		A	B	C	D	E
15	<b>DTM15A</b>	22.3	22.9	21.3	38.1	10.7



DTSM13A

### Surface Drive Deep, mm

Surface drive sockets will engage with a fastener while rotating on a power nut runner

		A	B	C	D	E
13	<b>DTSM13A</b>	19.3	21.8	65.8	82.6	10.2
15	<b>DTSM15A</b>	22.3	21.8	65.8	82.6	10.7



DTS16A

### Surface Drive Deep, inches

		A	B	C	D	E
1/2	<b>DTS16A</b>	3/4	29/32	2 19/32	3 1/4	13/32
9/16	<b>DTS18A</b>	13/16	29/32	2 19/32	3 1/4	13/32

## 1/2" Drive Special Application Power



P412

### Shallow Double Square, inches

		A	B	C	D	E
3/8	<b>P412</b>	13/32	7/8	7/8	1 1/2	5/16
7/16	<b>P414</b>	13/16	15/16	7/8	1 1/2	3/8
1/2	<b>P416</b>	29/32	1	7/8	1 1/2	5/16
9/16	<b>P418</b>	1	1 1/8	7/8	1 1/2	1/2
5/8	<b>P420</b>	1 3/32	1 3/16	7/8	1 1/2	1/2
11/16	<b>P422</b>	1 7/32	1 1/4	7/8	1 1/2	13/32
3/4	<b>P424</b>	1 5/16	1 3/8	7/8	1 1/2	9/16
13/16	<b>P426</b>	1 7/16	1 7/16	7/8	1 1/2	5/8
7/8	<b>P428</b>	1 1/2	1 1/2	1 1/32	1 3/4	5/8
1	<b>P432</b>	1 23/32	1 3/4	1 1/8	1 3/4	3/4



SIPR426

### Deep Double Square, inches

		A	B	C	D	E
13/16	<b>SIPR426</b>	1 7/16	1 3/8	2 9/16	3 1/4	5/8
1	<b>SIPR432</b>	1 3/4	1 1/2	2 11/16	3 1/2	3/4
1 1/8	<b>SIPR436</b>	1 15/16	1 51/64	2 23/32	3 1/2	27/32



SIPRL436

### Extra Deep Double Square, inches

		A	B	C	D	E
1 1/8	<b>SIPRL436</b>	1 15/16	1 1/2	4 13/32	5	27/32



MPK121A

### Flank Drive/Magnetic, inches

		A	B	D	E
3/8	<b>MPK121A</b>	19/32	7/8	1 1/2	1/8
7/16	<b>MPK141A</b>	11/16	7/8	1 1/2	5/32
1/2	<b>MPK161A</b>	25/32	15/16	1 1/2	5/32
9/16	<b>MPK181A</b>	7/8	15/16	1 1/2	5/32



**WARNING**



- Do not use chrome or power sockets with impact drivers
- Read safety precautions on pages W1 to W4



# SOCKETS

## 1/2" Drive (Flank Drive®) Impact Swivel



307IPLMY

IPDLM12

### Shallow Swivel, mm

Set Contains:

mm	6	12	A	B	D	E	6	6
10	IPLM10C		15.6	23.8	73.7	9.7		•
11	IPLM11C		17.8	23.8	73.7	9.7		•
12	IPLM12C	IPDLM12	18.9	23.8	73.7	9.7		•
13	IPLM13C	IPDLM13A	19.7	23.8	73.7	8.6		•
14	IPLM14C		21.3	23.8	73.7	8.6	•	•
15	IPLM15C		22.6	23.8	73.7	8.6	•	•
16	IPLM16C	IPDLM16A	24.1	30.2	77.8	10.4		•
17	IPLM17C	IPDLM17A	25.6	30.2	77.7	10.4	•	•
18	IPLM18C	IPDLM18A	26.7	30.2	77.7	10.4	•	•
19	IPLM19C		28.3	30.2	77.7	11.2	•	•
21	IPLM21C		31.5	30.2	77.7	12.7	•	•
22	IPLM22C		33.1	30.2	77.8	14.2		•
24	IPLM24C		34.8	30.2	81.0	15.0	•	•

Sets shown include storage tray



307IPLY

### Shallow Swivel, Inches

Set Contains:

11	6	12	A	B	D	E	6	6
1/2	IPL16C	IPDL16	25/32	1 1/16	2 29/32	11/32		•
9/16	IPL18C		7/8	1 1/16	2 29/32	11/32	•	•
5/8	IPL20C	IPDL20	31/32	1 1/16	2 31/32	11/32	•	•
11/16	IPL22C		1 1/16	1 1/4	3 1/16	7/16	•	•
3/4	IPL24C		1 1/8	1 1/4	3 1/16	15/32	•	•
13/16	IPL26C		1 3/16	1 1/4	3 1/16	1/2		•
7/8	IPL28C		1 9/32	1 1/4	3 7/32	9/16	•	•
15/16	IPL30C		1 11/32	1 1/4	3 7/32	5/8	•	•
1	IPL32C		1 11/32	1 1/4	3 3/16	11/16		•
1 1/16	IPL34C		1 7/16	1 1/4	3 7/32	23/32		•
1 1/8	IPL36C		1 9/16	1 1/4	3 11/32	3/4	•	•
1 3/16	IPL38C		1 9/16	1 1/4	3 3/8	3/4		•
1 1/4	IPL40C		1 5/8	1 1/4	3 7/16	13/16		
1 5/16	IPL42C		1 3/4	1 1/4	3 7/16	7/8		

Sets shown include storage tray

## 3/4" Drive (Flank Drive)

### Shallow, inches

11	12	A	B	C	D	E
3/4	LDH242	1 1/8	1 7/16	1 1/4	2	17/32
13/16	LDH262	1 7/32	1 7/16	1 1/4	2	11/16
7/8	LDH282	1 5/16	1 7/16	1 1/4	2	11/16
15/16	LDH302	1 3/8	1 7/16	1 1/4	2	23/32
31/32	LDH312	1 13/32	1 7/16	1 1/4	2	23/32
1	LDH322	1 15/32	1 1/2	1 5/16	2 1/16	3/4
1 1/16	LDH342	1 9/16	1 1/2	1 3/8	2 1/8	3/4
1 1/8	LDH362	1 5/8	1 1/2	1 7/16	2 3/16	13/16
1 3/16	LDH382	1 11/16	1 1/2	1 1/2	2 1/4	7/8
1 1/4	LDH402	1 3/4	1 1/2	1 1/2	2 1/4	15/16
1 5/16	LDH422A	1 7/8	1 3/4	1 9/16	2 1/2	7/8
1 3/8	LDH442	1 15/16	1 3/4	1 9/16	2 1/2	7/8
1 7/16	LDH462	2	1 3/4	1 5/8	2 1/2	15/16

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### Shallow, inches



LDH482

11	12	A	B	C	D	E
1 1/2	LDH482	2 1/8	1 3/4	1 11/16	2 1/2	1 1/16
1 9/16	LDH502	2 3/16	1 3/4	1 7/8	2 5/8	1 5/32
1 5/8	LDH522	2 1/4	1 3/4	1 7/8	2 5/8	1 5/32
1 11/16	LDH542	2 3/8	1 3/4	2	2 3/4	1 3/16
1 3/4	LDH562	2 7/16	1 3/4	2	2 3/4	1 3/16
1 13/16	LDH582	2 1/2	1 3/4	2 1/8	2 7/8	1 1/4
1 7/8	LDH602	2 9/16	1 3/4	2 1/4	3	1 5/16
2	LDH642	2 3/4	1 3/4	2 3/8	3 1/8	1 3/8
2 1/16	LDH662	2 15/16	1 3/4	2 3/8	3 1/8	1 3/8
2 1/8	LDH682	2 15/16	1 3/4	2 1/2	3 1/4	1 7/16
2 3/16	LDH702	2 15/16	1 3/4	2 1/2	3 1/4	1 1/2
2 1/4	LDH722	3 1/8	1 3/4	2 5/8	3 3/8	1 1/2
2 3/8	LDH762	3 1/4	1 3/4	2 7/8	3 5/8	1 3/4

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## 3/4" Drive Special Application



LDHM362

### Shallow, mm

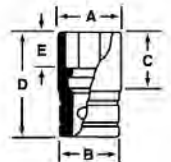
mm	12	A	B	C	D	E
22	LDHM222	31.1	34.6	30.2	50.8	17.1
24	LDHM242	33.4	34.6	31.8	50.8	17.9
27	LDHM272	37.3	39.5	31.8	54.0	19.9
30	LDHM302	41.0	39.8	34.0	57.2	21.8
36	LDHM362	49.3	41.2	35.1	58.7	22.1
41	LDHM412	55.1	44.5	42.9	66.5	26.7



GLD139



LS342



### Deep, inches

11	6	A	B	C	D	E
1 1/16	LS342	1 9/16	1 1/2	2 3/4	3 1/2	1

### Drag Link, inches

Stock No.	B x A	A	B	C
GLD138	13/64 x 1 3/8	1 3/8	13/64	2 3/16
GLD139	1/4 x 1 11/16	1 11/16	1/4	2 3/16

## 3/4" Drive (Flank Drive®) Impact



IMM302

### Shallow, mm

Set Contains: 425MM

mm	6	12	A	B	C	D	E	6
17	IMM172A		29.2	41.1	27.2	50.8	13.7	•
18	IMM182A		31.6	41.1	27.2	50.8	12.7	•
19	IMM192A		31.8	41.1	27.2	50.8	13.7	•
20	IMM202A	IMMD202B	35.1	41.1	27.2	50.8	14.0	•
21	IMM212A		34.9	41.1	27.2	50.8	15.2	•
22	IMM222A		38.1	41.1	27.2	50.8	15.2	•
23	IMM232A		36.3	41.1	27.2	50.8	16.5	•
24	IMM242A		39.5	41.1	26.4	50.8	16.5	•
25	IMM252A		39.6	41.1	26.4	50.8	16.3	•
26	IMM262A		39.6	41.1	26.4	50.8	17.5	•
27	IMM272A		42.6	41.1	26.4	50.8	19.0	•
28	IMM282		44.7	41.1	32.8	57.2	17.5	•

Set Contains: 425MM

mm	6	12	A	B	C	D	E	6
29	IMM292		46.0	41.1	32.8	57.2	18.0	•
30	IMM302		47.0	44.5	32.8	57.2	19.1	•
31	IMM312		49.2	44.5	32.8	57.2	19.1	•
32	IMM322		50.8	44.5	32.8	57.2	20.6	•
33	IMM332		50.8	44.5	32.8	57.2	20.3	•
34	IMM342		50.8	44.5	32.8	57.2	22.4	•
35	IMM352		54.0	44.5	32.8	57.2	22.4	•
36	IMM362		54.0	44.5	32.8	57.2	22.4	•
38	IMM382		57.2	44.5	32.8	57.2	23.9	•
40	IMM402		59.7	44.5	45.5	69.9	28.4	•
41	IMM412		60.5	44.5	33.5	57.2	26.2	•
46	IMM462		66.7	44.5	45.5	69.9	29.0	•
50	IMM502		71.4	44.5	52.6	76.2	31.0	•

**IMMD202B 12 Point Metric Shallow Impact Socket.**  
Specific applications include removing the head bolts on Caterpillar® C7, C8, C9 and C10 engines.



IM402



IMD302A

### Shallow, inches

Set Contains: 425MM 417MM 418MM 429MM 417MM 418MM

TI	6	12	A	B	C	D	E	6	6	6	12	12	12
9/16	IM182A	IMD182A	1	1 5/8	1	1 3/4	7/16	•	•	•	•	•	•
5/8	IM202A	IMD202A*	1 3/32	1 5/8	1	1 3/4	1/2	•	•	•	•	•	•
11/16	IM222A	IMD222A	1 5/32	1 5/8	1	1 3/4	9/16	•	•	•	•	•	•
3/4	IM242A	IMD242A	1 1/4	1 5/8	1	1 3/4	9/16	•	•	•	•	•	•
13/16	IM262A	IMD262A	1 3/8	1 5/8	1 1/8	1 7/8	5/8	•	•	•	•	•	•
7/8	IM282A	IMD282A	1 1/2	1 5/8	1 1/8	1 7/8	5/8	•	•	•	•	•	•
15/16	IM302A	IMD302A*	1 9/16	1 5/8	1 1/8	1 7/8	3/4	•	•	•	•	•	•
1	IM322A	IMD322A*	1 5/8	1 5/8	1 1/4	2	3/4	•	•	•	•	•	•
1 1/16	IM342A	IMD342A	1 11/16	1 5/8	1 1/4	2	3/4	•	•	•	•	•	•
1 1/8	IM362	IMD362A	1 7/8	1 5/8	1 3/8	2 1/8	3/4	•	•	•	•	•	•
1 3/16	IM382	IMD382	1 7/8	1 5/8	1 5/16	2 1/8	3/4	•	•	•	•	•	•
1 1/4	IM402	IMD402	2	1 3/4	1 3/8	2 1/8	13/16	•	•	•	•	•	•
1 5/16	IM422	IMD422	2 1/8	1 3/4	1 1/2	2 1/4	7/8	•	•	•	•	•	•
1 3/8	IM442	IMD442	2 1/8	1 3/4	1 1/2	2 1/4	7/8	•	•	•	•	•	•
1 7/16	IM462	IMD462	2 1/4	1 3/4	1 1/2	2 1/4	7/8	•	•	•	•	•	•
1 1/2	IM482	IMD482	2 1/4	1 3/4	1 1/2	2 1/4	15/16	•	•	•	•	•	•
1 9/16	IM502	IMD502	2 7/16	1 3/4	1 9/16	2 3/8	15/16	•	•	•	•	•	•
1 5/8	IM522	IMD522	2 7/16	1 3/4	1 5/8	2 3/8	7/8	•	•	•	•	•	•
1 11/16	IM542	IMD542	2 1/2	1 3/4	1 13/16	2 9/16	1	•	•	•	•	•	•
1 3/4	IM562	IMD562	2 1/2	1 3/4	1 13/16	2 9/16	1	•	•	•	•	•	•
1 13/16	IM582	IMD582	2 5/8	1 3/4	1 5/8	2 5/8	1 1/4	•	•	•	•	•	•
1 7/8	IM602	IMD602	2 5/8	1 3/4	1 3/4	2 3/4	1 1/8	•	•	•	•	•	•
1 15/16	IM622A	IMD622	2 3/4	1 3/4	1 9/16	2 27/32	1 3/32	•	•	•	•	•	•
2	IM642A	IMD642	2 7/8	1 3/4	1 15/16	2 7/8	1 1/8	•	•	•	•	•	•
2 1/16	IM662A	IMD662	3	1 3/4	1 7/8	2 7/8	1 3/16	•	•	•	•	•	•
2 1/8	IM682A	IMD682	3	1 3/4	1 3/4	3	1 1/4	•	•	•	•	•	•
2 3/16	IM702A	IMD702	3 1/4	1 3/4	2 3/16	3 3/16	1 5/16	•	•	•	•	•	•
2 1/4	IM722A	IMD722	3 1/4	1 3/4	2 3/16	3 3/16	1 3/8	•	•	•	•	•	•
2 3/8	IM762A	IMD762	3 1/2	1 3/4	2 3/8	3 1/2	1 7/16	•	•	•	•	•	•

\* Applications include repair of heavy duty trucks and off road equipment, most diesel engines including Caterpillar and Cummins plus head bolts and bearing cap bolts.

**IMD242A** Applications: Most Caterpillar head bolts, Detroit Diesel® main bearing cap bolts, K19 Cummins® head bolts.



**WARNING**



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages W1 to W4

# SOCKETS

## 3/4" Drive (Flank Drive®) Impact



**SIMDM212**

Deep, mm

mm	6	12	A	B	C	D	E
17	<b>SIMM172</b>		28.9	41.1	52.6	76.2	12.7
19	<b>SIMM192</b>		32.4	41.1	51.8	76.2	14.2
21	<b>SIMM212</b>	<b>SIMDM212</b>	34.2 (33.3)	41.1 (41.3)	37.5 (19)	76.2	14.2 (18.3)
22	<b>SIMM222</b>		35.8	41.1	37.4	76.2	14.2
23	<b>SIMM232</b>		35.8	41.1	37.2	76.2	16.3
24	<b>SIMM242</b>		37.7	41.1	37.0	76.2	16.5
26	<b>SIMM262</b>		39.6	41.1	36.7	76.2	16.3
27	<b>SIMM272</b>		42.8	41.1	38.4	76.2	19.1
30	<b>SIMM302</b>		46.8	41.1	58.2	82.6	18.5
32	<b>SIMM322</b>		50.8	44.5	58.9	82.6	19.1
33	<b>SIMM332</b>		52.4	44.5	57.4	82.6	22.4
35	<b>SIMM352</b>		52.7	44.5	57.2	82.6	21.6
36	<b>SIMM362</b>		54.0	44.5	62.5	88.9	22.9
38	<b>SIMM382</b>		57.2	44.5	65.3	88.9	23.8
41	<b>SIMM412*</b>		55.1	44.5	74.9	100.1	26.7

\* Applications include usage on stud piloted, budd style wheels.

Dimensions in ( ) apply to 12-point sockets only.

**SIMDM212** Application: Flywheel bolts on Cummins® ISX engines.



**423SIM**

Deep, inches

11	6	A	B	C	D	E	6
9/16	<b>SIM182</b>	1	1 5/8	2 1/16	3	9/16	•
5/8	<b>SIM202</b>	1 1/16	1 5/8	2 1/16	3	9/16	•
11/16	<b>SIM222</b>	1 1/8	1 5/8	2 1/16	3	9/16	•
3/4	<b>SIM242</b>	1 1/4	1 5/8	2	3	9/16	•
13/16	<b>SIM262</b>	1 3/8	1 5/8	2	3	5/8	•
7/8	<b>SIM282</b>	1 1/2	1 5/8	2	3	5/8	•
15/16	<b>SIM302</b>	1 5/8	1 5/8	2	3	5/8	•
1	<b>SIM322</b>	1 5/8	1 5/8	2	3	11/16	•
1 1/16	<b>SIM342</b>	1 3/4	1 5/8	2	3	11/16	•
1 1/8	<b>SIM362</b>	1 3/4	1 5/8	2	3	3/4	•
1 3/16	<b>SIM382</b>	2	1 3/4	2 1/4	3 1/4	3/4	•
1 1/4	<b>SIM402</b>	2	1 3/4	2 1/4	3 1/4	7/8	•
1 5/16	<b>SIM422</b>	2 1/8	1 3/4	2 9/16	3 1/4	7/8	•
1 3/8	<b>SIM442</b>	2 1/8	1 3/4	2 1/4	3 1/4	7/8	•
1 7/16	<b>SIM462</b>	2 3/16	1 3/4	2 1/2	3 1/2	7/8	•
1 1/2	<b>SIM482</b>	2 1/4	1 3/4	2 1/2	3 1/2	15/16	•
1 9/16	<b>SIM502</b>	2 5/16	1 3/4	2 1/2	3 1/2	15/16	•
1 5/8	<b>SIM522</b>	2 7/16	1 3/4	2 1/2	3 1/2	15/16	•
1 11/16	<b>SIM542</b>	2 1/2	1 3/4	2 1/2	3 1/2	1	•
1 3/4	<b>SIM562</b>	2 1/2	1 3/4	2 1/2	3 1/2	1	•
1 13/16	<b>SIM582</b>	2 5/8	1 3/4	2 3/4	3 3/4	1 1/16	•
1 7/8	<b>SIM602</b>	2 11/16	1 3/4	2 3/4	3 3/4	1 1/8	•
2	<b>SIM642A</b>	2 13/16	1 3/4	2 3/4	3 3/4	1 1/8	•

Set Contains:

**423SIM**

Larger sizes available on special order.





### Thin Wall, inches

		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
3/4	<b>IMFDL242</b>	1 3/8	1 5/8	4 3/4	5 3/4	1/2

Larger sizes available on special order.

#### IMFDL242 Deep Thin Wall Impact Socket

- Clearance on certain Caterpillar® head bolts requires a thin walled socket that needs to be a certain length
- Designed to remove the head bolts on *Caterpillar* C12, C15, C16 and 3406Es where the front 2 and back 2 head bolts are positioned under the valve covers
- Additional applications include Detroit Diesel® main bearing cap bolts and 19 mm head bolts on Mercedes-Benz® MBE904/MBE906 E R engines (2007 and later)



**IMFDL242**



**IM243R**



**IM243P**

### 3/4" Locking Rings and Pins

For use on SIM, IM, IMM and SIMM sockets and other sockets on this page.

Stock No.	Drive Size	Description	Use with
<b>IM182R</b>	3/4"	Rubber Locking Ring	All 3/4" Drive Sockets/Accessories
<b>IMR2</b>	3/4"	Socket Retainer	All 3/4" Drive Sockets/Accessories
Use the following for the IM124B Adaptor:			
<b>IM243R</b>	1"	Locking Ring	1" Drive Sockets/Accessories Up to 1 3/8"
<b>IM243P</b>	1"	Steel Locking Pin	1" Drive Sockets/Accessories Up to 1 3/8"

## 1" Drive (Flank Drive) Impact



**IMM503**

### Shallow, 6 Point, mm

Set Contains: **516IMM**

mm		<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	
27	<b>IMM273</b>	44.5	53.8	27.0	57.2	17.5	•
30	<b>IMM303</b>	47.8	53.8	27.0	57.2	17.5	•
32	<b>IMM323</b>	50.8	53.8	33.3	63.5	19.1	•
33	<b>IMM333</b>	52.3	53.8	33.3	63.5	22.4	•
36	<b>IMM363</b>	57.2	57.2	34.3	63.5	22.4	•
35	<b>IMM353</b>	53.8	53.8	33.5	63.5	22.4	•
38	<b>IMM383</b>	59.7	57.2	40.1	69.9	23.6	•
41	<b>IMM413A</b>	59.9	57.2	39.6	69.9	26.4	•
46	<b>IMM463</b>	69.9	60.5	44.2	76.2	30.0	•
50	<b>IMM503</b>	69.9	60.5	49.3	82.6	31.2	•
55	<b>IMM553</b>	82.6	60.3	46.7	82.6	31.8	•
60	<b>IMM603</b>	88.9	57.2	51.6	88.9	38.1	•
65	<b>IMM653</b>	92.1	60.5	63.8	101.6	45.7	•
70	<b>IMM703</b>	95.3	60.5	62.2	101.6	45.7	•
75	<b>IMM753</b>	104.8	60.5	67.1	108.0	51.6	•
80	<b>IMM803</b>	108.7	61.1	65.9	108.7	47.6	•



**WARNING**



• Read safety precautions on pages W1 to W4

# SOCKETS

## 1" Drive (Flank Drive®) Impact



IM703

### Shallow, 6 Point, inches

H	6	A	B	C	D	E	Set Contains:		
							521IM	516IM	522IM
3/4	IM243	1 7/16	2 1/8	1	2 1/8	1 1/16	•		
13/16	IM263	1 7/16	2 1/8	1	2 1/8	1 1/16	•		
7/8	IM283	1 1/2	2 1/8	1	2 1/8	1 1/16	•		
15/16	IM303	1 19/32	2 1/8	1	2 1/8	1 1/16	•		
1	IM323	1 11/16	2 1/8	1 1/16	2 1/4	1 1/16	•		
1 1/16	IM343	1 3/4	2 1/8	1 1/16	2 1/4	1 1/16	•		
1 1/8	IM363	1 7/8	2 1/8	1 1/16	2 1/4	1 1/16	•		
1 3/16	IM383	1 7/8	2 1/8	1 1/16	2 1/4	1 1/16	•		
1 1/4	IM403	2	2 1/8	1 3/16	2 3/8	3/4	•		
1 5/16	IM423	2 1/16	2 1/8	1 15/16	2 1/2	7/8	•		
1 3/8	IM443	2 1/8	2 1/8	1 15/16	2 1/2	7/8	•		
1 7/16	IM463	2 1/4	2 1/4	1 7/16	2 1/2	15/16	•		
1 1/2	IM483B	2 3/8	2 1/4	1 7/16	2 5/8	15/16	•		
1 9/16	IM503A	2 3/8	2 1/4	1 7/16	2 5/8	15/16	•		
1 5/8	IM523A	2 3/8	2 1/4	1 5/8	2 3/4	1 1/16	•		
1 11/16	IM543	2 9/16	2 3/8	1 5/8	2 3/4	1 1/16	•		
1 3/4	IM563	2 5/8	2 3/8	1 23/32	2 7/8	1 5/32	•		
1 13/16	IM583	2 3/4	2 3/8	1 23/32	2 15/16	1 3/16	•		
1 7/8	IM603	2 3/4	2 3/8	1 23/32	2 15/16	1 3/16	•		
1 15/16	IM623	2 3/4	2 3/8	1 23/32	2 15/16	1 3/16	•		
2	IM643	3	2 3/8	1 31/32	3 1/8	1 9/32	•		
2 1/16	IM663	3	2 3/8	1 31/32	3 1/8	1 9/32	•		
2 1/8	IM683	3 1/8	2 3/8	2 3/32	3 1/4	1 9/32	•		
2 3/16	IM703	3 1/4	2 3/8	2 5/32	3 11/32	1 7/16	•		
2 1/4	IM723	3 1/4	2 3/8	2 5/32	3 11/32	1 7/16	•		
2 5/16	IM743	3 3/8	2 3/8	2 5/32	3 1/2	1 1/2	•		
2 3/8	IM763	3 1/2	2 3/8	2 5/32	3 1/2	1 1/2	•		
2 7/16	IM783	3 1/2	2 3/8	2 5/32	3 1/2	1 1/2	•		
2 1/2	IM803	3 1/2	2 3/8	2 1/8	3 5/8	1 5/8	•		
2 9/16	IM823	3 5/8	2 3/8	2 1/8	3 5/8	1 5/8	•		
2 5/8	IM843	3 3/4	2 3/8	2 5/16	3 3/4	1 5/8	•		
2 11/16	IM863	3 3/4	2 3/8	2 1/2	4	1 13/16	•		

### Shallow, 6 Point, inches

H	6	A	B	C	D	E	Set Contains:		
							521IM	516IM	522IM
2 3/4	IM883	3 3/4	2 3/8	2 7/16	4	1 13/16	•		
2 13/16	IM903	4	2 3/8	2 7/16	4	1 13/16	•		
2 7/8	IM923	4	2 3/8	2 7/16	4	1 13/16	•		
2 15/16	IM943	4 1/8	2 3/8	2 5/8	4 1/4	2	•		
3	IM963	4 1/4	2 3/8	2 5/8	4 1/4	2 1/16	•		
3 1/8	IM1003	4 1/4	2 3/8	2 9/16	4 1/4	2 1/16	•		
3 1/4	IM1043	4 1/2	2 3/8	2 9/16	4 1/4	2 1/16	•		
3 3/8	IM1083	4 5/8	2 3/8	2 3/4	4 1/2	2 1/4	•		
3 1/2	IM1123	4 3/4	2 3/8	3	4 3/4	2 1/4	•		
3 5/8	IM1163	5	2 3/8	2 15/16	4 3/4	2 5/16	•		
3 11/16	IM1183	5 5/16	2 3/8	3 3/16	5	2 7/16	•		
3 3/4	IM1203	5 1/8	2 3/8	2 7/8	4 3/4	2 3/8	•		
3 13/16	IM1223	5 3/8	2 3/8	3 1/8	5	2 1/2	•		
3 7/8	IM1243	5 1/4	2 3/8	3 1/8	5	2 9/16	•		
3 15/16	IM1263	5 3/8	2 3/8	3 3/8	5 1/4	2 9/16	•		
4	IM1283	5 1/2	2 3/8	3 1/16	5	2 9/16	•		
4 1/16	IM1303	5 1/2	2 3/8	3 1/16	5	2 9/16	•		
4 1/8	IM1323	5 9/16	2 3/8	3 1/16	5	2 9/16	•		
4 3/16	IM1343	6	2 3/8	3	5	2 9/16	•		
4 1/4	IM1363	5 3/4	2 3/8	3 1/4	5 1/4	2 5/8	•		
4 5/16	IM1383	5 25/32	2 3/8	3 7/16	5 1/2	2 5/8	•		
4 3/8	IM1403	5 13/16	2 3/8	3 3/16	5 1/4	2 5/8	•		
4 7/16	IM1423	6	2 3/8	3 3/16	5 1/4	2 11/16	•		
4 1/2	IM1443	6	2 3/8	3 3/16	5 1/4	2 5/8	•		
4 9/16	IM1463	6 1/2	2 3/8	3 7/16	5 1/2	2 3/4	•		
4 5/8	IM1483	6 7/16	2 3/8	3 7/8	6	3 1/16	•		
4 3/4	IM1523	6 5/8	2 3/8	3 5/8	5 3/4	2 7/8	•		
4 7/8	IM1563	7	2 3/8	3 9/16	5 3/4	3	•		
5	IM1603	7	2 3/8	3 1/2	5 3/4	3	•		
5 3/8	IM1723	7 1/2	2 3/8	4 7/16	6 3/4	3 9/16	•		
5 3/4	IM1843	8 1/4	2 3/8	4 5/16	6 3/4	3 9/16	•		



SIMM323

### Deep, mm

mm	6	A	B	C	D	E
30	SIMM303	46.0	53.7	46.0	76.2	19.1
32	SIMM323	52.3	53.7	76.2	82.6	22.4
33	SIMM333*	52.3	53.7	53.3	82.5	22.4
38	SIMM383	60.3	57.2	59.7	88.9	25.4

\* Applications include use on wheel lug nuts on Hub Piloted wheel systems.



SIM563

Deep, inches

Set Contains:  
 519SIM  
 520SIM  
 517SIM

II	6	A	B	C	D	E			
7/8	<b>SIM283</b>	1 19/32	2 1/8	1 13/16	3	5/8	•		
15/16	<b>SIM303</b>	1 19/32	2 1/8	1 13/16	3	11/16	•		
1	<b>SIM323</b>	1 19/32	2 1/8	1 13/16	3	3/4	•		
1 1/16	<b>SIM343</b>	1 13/16	2 1/8	1 13/16	3	3/4	•		
1 1/8	<b>SIM363</b>	1 13/16	2 1/8	1 13/16	3	3/4	•		
1 3/16	<b>SIM383</b>	1 13/16	2 1/8	1 13/16	3	3/4	•		
1 1/4	<b>SIM403</b>	2 1/16	2 1/8	2 1/16	3 1/4	7/8	•		
1 5/16	<b>SIM423*</b>	2 1/16	2 1/8	2 1/16	3 1/4	7/8	•		
1 3/8	<b>SIM443</b>	2 1/16	2 1/8	2 1/16	3 1/4	7/8	•		
1 7/16	<b>SIM463A</b>	2 1/4	2 1/8	2 3/32	3 1/4	29/32	•		
1 1/2	<b>SIM483B**</b>	2 3/8	2 1/4	2 11/32	3 1/2	1	•		
1 9/16	<b>SIM503A</b>	2 3/8	2 1/4	2 11/32	3 1/2	1	•		
1 5/8	<b>SIM523B</b>	2 3/8	2 1/4	2 1/2	3 5/8	1	•		
1 11/16	<b>SIM543</b>	2 1/2	2 3/8	2 7/16	3 5/8	1 1/8	•		
1 3/4	<b>SIM563</b>	2 3/4	2 3/8	2 11/16	3 7/8	1 1/8	•		
1 13/16	<b>SIM583</b>	2 3/4	2 3/8	2 11/16	3 7/8	1 3/16	•		
1 7/8	<b>SIM603</b>	2 3/4	2 3/8	2 11/16	3 7/8	1 3/16	•		
1 15/16	<b>SIM623</b>	3	2 3/8	2 15/16	4 1/8	1 1/4	•		
2	<b>SIM643</b>	3	2 3/8	2 15/16	4 1/8	1 5/16	•		
2 1/16	<b>SIM663</b>	3	2 1/4	2 15/16	4 1/4	1 5/16		•	
2 1/8	<b>SIM683</b>	3 1/8	2 1/4	2 7/8	4 1/4	1 5/16		•	
2 3/16	<b>SIM703</b>	3 1/4	2 1/4	3 1/8	4 1/2	1 1/2		•	
2 1/4	<b>SIM723</b>	3 1/4	2 3/8	3 1/8	4 1/2	1 1/2		•	
2 5/16	<b>SIM743</b>	3 3/8	2 3/8	3 1/16	4 1/2	1 1/2		•	
2 3/8	<b>SIM763</b>	3 1/2	2 3/8	3 1/16	4 1/2	1 1/2		•	
2 7/16	<b>SIM783</b>	3 1/2	2 3/8	3 1/16	4 1/2	1 1/2		•	
2 1/2	<b>SIM803</b>	3 1/2	2 3/8	3 1/4	4 3/4	1 5/8		•	
2 9/16	<b>SIM823</b>	3 5/8	2 3/8	3 1/4	4 3/4	1 5/8		•	
2 5/8	<b>SIM843</b>	3 3/4	2 3/8	3 1/4	4 3/4	1 5/8		•	
2 11/16	<b>SIM863</b>	3 3/4	2 3/8	3 1/2	5	1 13/16		•	
2 3/4	<b>SIM883</b>	3 3/4	2 3/8	3 7/16	5	1 13/16		•	
2 13/16	<b>SIM903</b>	4	2 3/8	3 7/16	5	1 3/4		•	
2 7/8	<b>SIM923</b>	4	2 3/8	3 7/16	5	1 3/4		•	
2 15/16	<b>SIM943</b>	4 1/8	2 3/8	3 9/16	5	1 3/4		•	
3	<b>SIM963</b>	4 1/4	2 3/8	3 5/8	5 1/4	1 3/4		•	
3 1/8	<b>SIM1003</b>	4 1/4	2 3/8	3 9/16	5 1/4	1 7/8		•	
3 1/4	<b>SIM1043</b>	4 1/2	2 3/8	3 9/16	5 1/4	1 7/8		•	
3 3/8	<b>SIM1083</b>	4 1/2	2 3/8	4	5 3/4	2 1/4		•	
3 1/2	<b>SIM1123</b>	4 3/4	2 3/8	4	5 3/4	2 1/4		•	
3 5/8	<b>SIM1163</b>	5	2 3/8	3 15/16	5 3/4	2 1/4		•	
3 11/16	<b>SIM1183</b>	5 5/16	2 3/8	3 15/16	5 3/4	2 7/16		•	
3 3/4	<b>SIM1203</b>	5 1/8	2 3/8	3 7/8	5 3/4	2 1/4		•	
3 13/16	<b>SIM1223</b>	5 3/8	2 3/8	4 1/8	6	2 1/2		•	
3 7/8	<b>SIM1243</b>	5 1/4	2 3/8	4 3/8	6 1/4	2 9/16		•	
3 15/16	<b>SIM1263</b>	5 1/2	2 3/8	4 3/8	6 1/4	2 3/8		•	
4	<b>SIM1283</b>	5 1/2	2 3/8	4 5/16	6 1/4	2 9/16		•	
4 1/16	<b>SIM1303</b>	5 1/2	2 3/8	4 5/16	6 1/4	2 1/2		•	
4 1/8	<b>SIM1323</b>	5 9/16	2 3/8	4 5/16	6 1/4	2 9/16		•	
4 3/16	<b>SIM1343</b>	6	2 3/8	4 1/4	6 1/4	2 1/2		•	
4 7/16	<b>SIM1423</b>	6	2 3/8	4 3/16	6 1/4	2 11/16		•	
4 1/2	<b>SIM1443</b>	6	2 3/8	4 7/16	6 1/2	2 3/4		•	
4 9/16	<b>SIM1463</b>	6 1/2	2 3/8	4 7/16	6 1/2	2 3/4		•	
4 5/8	<b>SIM1483</b>	6 5/8	2 3/8	4 3/8	6 1/2	2 13/16		•	
4 3/4	<b>SIM1523</b>	6 5/8	2 3/8	4 5/8	6 3/4	2 7/8		•	
4 7/8	<b>SIM1563</b>	7	2 3/8	4 9/16	6 3/4	3		•	
5	<b>SIM1603</b>	7	2 3/8	4 1/2	6 3/4	3		•	
5 3/8	<b>SIM1723</b>	7 1/2	2 3/8	5 7/16	7 3/4	3 9/16		•	
5 3/4	<b>SIM1843</b>	8 1/4	2 3/8	5 5/16	7 3/4	3 9/16		•	

\* Applications include use on heavy duty wheel lug nuts.

\*\* Applications include use on wheel lug nuts on stud piloted/budd style wheel systems.



**WARNING**



• Read safety precautions on pages W1 to W4




# SOCKETS

## 1" Drive Special Application Impact



IM724

### Shallow Single Square, inches

	<b>4</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
3/4	<b>IM724</b>	1 15/16	2 1/8	31/32	2 1/8	21/32
13/16	<b>IM726</b>	1 15/16	2 1/8	31/32	2 1/8	21/32
7/8	<b>IM728</b>	2 1/16	2 1/8	31/32	2 1/8	21/32
15/16	<b>IM730</b>	2 1/16	2 1/8	15/16	2 1/8	5/8
1	<b>IM732</b>	2 1/8	2 1/8	1 3/32	2 1/4	25/32
1 1/8	<b>IM736</b>	2 1/4	2 1/4	1 3/32	2 1/4	25/32



IM740

### Shallow Double Square, inches

	<b>8</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
1 1/4	<b>IM740</b>	2 3/8	2 3/8	1 1/8	2 3/8	13/16



IM243R



IM243P

## 1" Drive Locking Rings and Pins


Stock No.	Drive Size	Description	Use with
<b>IM483R</b>	1" Spline	Rubber Locking Pin, use with <b>IM243R</b>	All Spline Drive Sockets/Accessories 1" Drive Sockets from 1 7/16" and from 35mm
<b>IM243R</b>	1"	Synthetic Rubber Locking Ring for <b>IM243</b> to <b>IM443</b> , and <b>SIM233</b> to <b>SIM353</b>	1" Drive Sockets/Accessories up to 1 3/8" and up to 35mm
<b>IM243P</b>	1"	Steel Locking Pin, use with <b>IM243R</b>	1" Drive Sockets/Accessories up to 1 3/8" and up to 35mm
<b>IMR3</b>	1" Spline	Socket Retainer	All Spline Drive Sockets/Accessories All 1" Drive Sockets/Accessories
<b>IM483P</b>	1" Spline	Steel Locking Pin	All Spline Drive Sockets/Accessories 1" Drive Sockets from 1 7/16" and from 35mm

## 1 1/2" Drive Flank Drive® Impact

### Shallow, mm



IMM365

	<b>6</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>
36	<b>IMM365</b>	73.0	82.6	34.5	76.2	25.4
38	<b>IMM385</b>	73.0	82.6	34.5	76.2	25.4
41	<b>IMM415</b>	73.0	82.6	34.5	76.2	27.7
46	<b>IMM465</b>	79.4	82.6	40.9	82.6	29.7
50	<b>IMM505</b>	79.4	82.6	47.2	88.9	31.8
55	<b>IMM555</b>	88.9	82.6	47.2	88.9	35.6
60	<b>IMM605</b>	94.5	82.6	58.2	101.6	38.6
65	<b>IMM655</b>	99.2	82.6	56.6	101.6	41.4
70	<b>IMM705</b>	105.6	82.6	61.7	108.0	45.7
75	<b>IMM755</b>	111.1	82.6	66.5	114.3	47.2



## 1 1/2" Drive (Flank Drive®) Impact



IM445

Shallow, inches

Set Contains: 619MM 616MM 618MM 609MM

		A	B	C	D	E				
1 3/8	<b>IM445</b>	2 7/8	3 1/4	1 3/8	3	1	•			
1 7/16	<b>IM465</b>	2 7/8	3 1/4	1 3/8	3	1	•			
1 1/2	<b>IM485</b>	3	3 1/4	1 3/8	3	1	•			
1 9/16	<b>IM505</b>	3	3 1/4	1 3/8	3	1	•			
1 5/8	<b>IM525</b>	2 7/8	3 1/4	1 3/8	3	1 1/16	•			
1 11/16	<b>IM545</b>	3	3 1/4	1 3/8	3	1 1/16	•			
1 3/4	<b>IM565</b>	3 1/8	3 1/4	1 5/8	3 1/4	1 1/8	•			
1 13/16	<b>IM585</b>	3 1/8	3 1/4	1 5/8	3 1/4	1 3/16	•			
1 7/8	<b>IM605</b>	3 1/8	3 1/4	1 7/8	3 1/2	1 3/16	•			
1 15/16	<b>IM625A</b>	3 1/8	3 1/4	1 7/8	3 1/2	1 1/4	•			
2	<b>IM645</b>	3 1/2	3 1/4	1 7/8	3 1/2	1 1/4	•			
2 1/16	<b>IM665</b>	3 1/2	3 1/4	1 7/8	3 1/2	1 7/16	•			
2 1/8	<b>IM685</b>	3 1/2	3 1/4	1 7/8	3 1/2	1 7/16	•			
2 3/16	<b>IM705</b>	3 1/2	3 1/4	1 7/8	3 1/2	1 1/2	•			
2 1/4	<b>IM725A</b>	3 3/4	3 1/4	2 1/8	3 3/4	1 7/16	•			
2 5/16	<b>IM745</b>	3 3/4	3 1/4	2	3 3/4	1 1/2	•			
2 3/8	<b>IM765</b>	3 7/8	3 1/4	2 1/4	4	1 1/2	•			
2 7/16	<b>IM785</b>	3 7/8	3 1/4	2 1/4	4	1 9/16	•			
2 1/2	<b>IM805</b>	3 7/8	3 1/4	2 1/4	4	1 5/8	•			
2 9/16	<b>IM825</b>	3 7/8	3 1/4	2 1/4	4	1 5/8		•		
2 5/8	<b>IM845</b>	4 1/16	3 1/4	2 1/2	4 1/4	1 11/16		•		
2 11/16	<b>IM865</b>	4 1/8	3 1/4	2 1/2	4 1/4	1 11/16		•		
2 3/4	<b>IM885</b>	4 1/4	3 1/4	2 3/8	4 1/4	1 13/16		•		
2 13/16	<b>IM905</b>	4 3/8	3 1/4	2 3/8	4 1/4	1 13/16		•		
2 7/8	<b>IM925</b>	4 3/8	3 1/4	2 3/8	4 1/4	1 13/16		•		
2 15/16	<b>IM945</b>	4 3/8	3 1/4	2 5/8	4 1/2	1 15/16		•		
3	<b>IM965</b>	4 7/16	3 1/4	2 5/8	4 1/2	1 15/16		•		
3 1/16	<b>IM985</b>	4 11/16	3 1/4	2 5/8	4 1/2	1 15/16		•		
3 1/8	<b>IM1005</b>	4 3/4	3 1/4	2 7/8	4 3/4	2		•		
3 3/16	<b>IM1025</b>	4 3/4	3 1/4	2 1/2	4 1/2	2		•		
3 1/4	<b>IM1045</b>	4 3/4	3 1/4	2 3/4	4 3/4	2 1/8		•		
3 5/16	<b>IM1065</b>	5	3 1/4	2 3/4	4 3/4	2 1/8		•		
3 3/8	<b>IM1085</b>	5	3 1/4	2 3/4	4 3/4	2 1/4		•		
3 7/16	<b>IM1105</b>	5	3 1/4	3	5	2 1/4		•		
3 1/2	<b>IM1125</b>	5 1/8	3 1/4	3	5	2 1/4		•		
3 9/16	<b>IM1145</b>	5 1/8	3 1/4	2 7/8	5	2 1/4			•	
3 5/8	<b>IM1165</b>	5 1/8	3 1/4	2 7/8	5	2 5/16			•	
3 11/16	<b>IM1185</b>	5 1/4	3 1/4	3 1/8	5 1/4	2 3/8			•	
3 3/4	<b>IM1205</b>	5 3/8	3 1/4	3 1/8	5 1/4	2 1/2			•	
3 13/16	<b>IM1225</b>	5 3/8	3 1/4	3 1/8	5 1/4	2 1/2			•	
3 7/8	<b>IM1245</b>	5 1/2	3 1/4	3 1/8	5 1/4	2 9/16			•	
3 15/16	<b>IM1265</b>	5 1/2	3 1/4	3 1/8	5 1/4	2 9/16			•	
4"	<b>IM1285</b>	5 5/8	3 1/4	3 1/4	5 1/2	2 5/8			•	
4 1/16	<b>IM1305</b>	5 3/4	3 1/4	3 1/4	5 1/2	2 11/16			•	
4 1/8	<b>IM1325</b>	5 13/16	3 1/4	3 1/4	5 1/2	2 3/4			•	
4 1/4	<b>IM1365</b>	6	3 1/4	3 1/2	5 3/4	2 3/4			•	
4 5/16	<b>IM1385</b>	6 1/4	3 1/4	3 1/2	5 3/4	2 7/8			•	
4 3/8	<b>IM1405</b>	6 1/4	3 1/4	3 3/8	5 3/4	2 15/16			•	
4 7/16	<b>IM1425</b>	6 1/4	3 1/4	3 3/8	5 3/4	3			•	
4 1/2	<b>IM1445</b>	6 1/4	3 1/4	3 5/8	6	3 1/8			•	
4 5/8	<b>IM1485</b>	6 1/2	3 1/4	3 7/8	6 1/4	3 1/8			•	
4 3/4	<b>IM1525</b>	6 9/16	3 1/4	3 7/8	6 1/4	3 1/8			•	
4 7/8	<b>IM1565</b>	6 11/16	3 1/4	3 3/4	6 1/4	3 3/16			•	
5	<b>IM1605</b>	6 7/8	3 1/4	3 3/4	6 1/4	3 3/16				•
5 3/8	<b>IM1725</b>	7 5/16	3 1/4	3 5/8	6 1/4	3 7/16				•
5 3/4	<b>IM1845</b>	7 11/16	3 1/4	4 1/2	7 1/4	3 11/16				•
6 1/8	<b>IM1965</b>	8	3 1/4	4 3/8	7 1/4	3 15/16				•
6 1/2	<b>IM2085</b>	8 3/8	3 1/4	5	8	4 3/16				•
6 7/8	<b>IM2205</b>	8 13/16	3 1/4	4 7/8	8	4 3/8				•
7 1/4	<b>IM2325</b>	9 3/16	3 1/4	6 1/8	9 1/4	4 5/8				•
7 5/8	<b>IM2445</b>	9 1/2	3 1/4	6 1/4	9 1/2	4 7/8				•
8	<b>IM2565</b>	10	3 1/4	6 5/8	10	5 1/8				•



**WARNING**



• Read safety precautions on pages W1 to W4



# SOCKETS

## 1 1/2" Drive (Flank Drive®) Impact



SIM485

Deep, inches

		A	B	C	D	E
1 3/16	<b>SIM445</b>	2 7/8	3 1/4	2 5/8	4 1/4	1
1 7/16	<b>SIM465</b>	2 7/8	3 1/4	2 5/8	4 1/4	1
1 1/2	<b>SIM485</b>	2 7/8	3 1/4	2 5/8	4 1/4	1
1 5/8	<b>SIM525</b>	2 7/8	3 1/4	2 5/8	4 1/4	1 1/8
1 11/16	<b>SIM545</b>	3	3 1/4	2 5/8	4 1/4	1 1/8
2	<b>SIM645</b>	3 3/8	3 1/4	3 1/8	4 3/4	1 1/4
2 1/16	<b>SIM665</b>	3 7/16	3 1/4	3 1/8	4 3/4	1 5/16
2 3/16	<b>SIM705</b>	3 1/2	3 1/4	3 3/8	5	1 3/8
2 1/4	<b>SIM725</b>	3 9/16	3 1/4	3 5/8	5 1/4	1 1/2
2 5/16	<b>SIM745</b>	3 5/8	3 1/4	3 1/2	5 1/4	1 9/16
2 3/8	<b>SIM765</b>	3 3/4	3 1/4	3 1/2	5 1/4	1 9/16
2 7/16	<b>SIM785</b>	3 3/4	3 1/4	3 1/2	5 1/4	1 9/16
2 1/2	<b>SIM805</b>	3 7/8	3 1/4	3 1/2	5 1/4	1 5/8
2 9/16	<b>SIM825</b>	3 7/8	3 1/4	3 3/4	5 1/2	1 5/8
2 5/8	<b>SIM845</b>	4	3 1/4	3 3/4	5 1/2	1 11/16
2 11/16	<b>SIM865</b>	4 1/8	3 1/4	3 3/4	5 1/2	1 3/4
2 3/4	<b>SIM885</b>	4 1/8	3 1/4	3 5/8	5 1/2	1 13/16
2 13/16	<b>SIM905</b>	4 1/4	3 1/4	3 7/8	5 3/4	1 13/16
2 7/8	<b>SIM925</b>	4 5/16	3 1/4	3 7/8	5 3/4	1 7/8
2 15/16	<b>SIM945</b>	4 3/8	3 1/4	3 7/8	5 3/4	1 15/16
3	<b>SIM965</b>	4 7/16	3 1/4	4 1/8	6	1 15/16
3 1/16	<b>SIM985</b>	4 9/16	3 1/4	4 1/8	6	2
3 1/8	<b>SIM1005</b>	4 5/8	3 1/4	4 1/8	6	2 1/16
3 3/16	<b>SIM1025</b>	4 11/16	3 1/4	4 1/4	6 1/4	2 1/8
3 1/4	<b>SIM1045</b>	4 3/4	3 1/4	4 1/4	6 1/4	2 1/8
3 5/16	<b>SIM1065</b>	4 7/8	3 1/4	4 1/4	6 1/4	2 3/16
3 3/8	<b>SIM1085</b>	4 15/16	3 1/4	4 1/4	6 1/4	2 1/4
3 7/16	<b>SIM1105</b>	5	3 1/4	4 1/2	6 1/2	2 1/4
3 1/2	<b>SIM1125</b>	5 1/16	3 1/4	4 1/2	6 1/2	2 5/16
3 9/16	<b>SIM1145</b>	5 1/8	3 1/4	4 3/8	6 1/2	2 3/8
3 5/8	<b>SIM1165</b>	5 1/4	3 1/4	4 5/8	6 3/4	2 7/16
3 11/16	<b>SIM1185</b>	5 5/16	3 1/4	4 5/8	6 3/4	2 7/16
3 3/4	<b>SIM1205</b>	5 3/8	3 1/4	4 5/8	6 3/4	2 1/2
3 13/16	<b>SIM1225</b>	5 7/16	3 1/4	4 7/8	7	2 1/2
3 7/8	<b>SIM1245</b>	5 1/2	3 1/4	4 7/8	7	2 9/16
3 15/16	<b>SIM1265</b>	5 5/8	3 1/4	5 1/8	7 1/4	2 9/16
4	<b>SIM1285</b>	5 5/8	3 1/4	5	7 1/4	2 5/8
4 1/16	<b>SIM1305</b>	5 3/4	3 1/4	5 1/4	7 1/2	2 11/16
4 1/8	<b>SIM1325</b>	5 13/16	3 1/4	5 1/4	7 1/2	2 3/4
4 1/4	<b>SIM1365</b>	6	3 1/4	5 1/2	7 3/4	2 13/16
4 5/16	<b>SIM1385</b>	6 1/4	3 1/4	5 1/2	7 3/4	3
4 3/8	<b>SIM1405</b>	6 1/4	3 1/4	5 3/8	7 3/4	3
4 1/2	<b>SIM1445</b>	6 1/4	3 1/4	5 5/8	8	3
4 5/8	<b>SIM1485</b>	6 3/8	3 1/4	5 5/8	8	3 1/16
4 3/4	<b>SIM1525</b>	6 1/2	3 1/4	5 5/8	8	3 1/16



IM243R

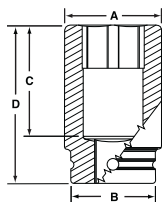


IM243P

## Locking Rings and Pins for 1 1/2" Extensions, Adaptors, Impact Sockets and 2 1/2" Impact Sockets

Stock No.	Drive Size	Description	Use with
<b>IM243R</b>	1 1/2"	Synthetic Rubber Locking Ring, for <b>IM35</b>	1" Drive Sockets/Accessories up to 1 3/8" and up to 35 mm
<b>IM243P</b>	1 1/2" Spline	Steel Locking Pin, for <b>IM35</b>	1" Drive Sockets/Accessories up to 1 3/8" and up to 35 mm
<b>IM445R</b>	1 1/2"	Synthetic Rubber Locking Ring, for <b>IM105, IM205, IM59, IP85, and "IGE Series"</b> sockets	All 1 1/2" Drive Sockets/Accessories
<b>IM729P</b>	2 1/2"	Steel Locking Pin, for <b>IM95</b>	All 2 1/2" Drive Sockets







Shallow, inches

IM2209

Set  
Contains:

716IM 713IM 714IM 711IM

		A	B	C	D	716IM	713IM	714IM	711IM
2	IM649	3 7/16	5	2 31/32	5 1/2	•			
2 3/16	IM709	3 21/32	5	3 7/32	5 3/4	•			
2 1/4	IM729	3 23/32	5	3 7/32	5 3/4	•			
2 3/8	IM769	3 7/8	5	3 15/32	6	•			
2 1/2	IM809	4	5	3 15/32	6	•			
2 9/16	IM829	4 3/32	5	3 15/32	6	•			
2 5/8	IM849	4 5/32	5	3 15/32	6	•			
2 7/8	IM929	4 7/16	5	3 23/32	6 1/4	•			
2 3/4	IM889	4 5/16	5	3 23/32	6 1/4	•			
2 15/16	IM949	4 17/32	5	3 23/32	6 1/4	•			
3	IM969	4 19/32	5	3 23/32	6 1/4	•			
3 1/8	IM1009	4 3/4	5	3 31/32	6 1/2	•			
3 1/4	IM1049	5	5	3 31/32	6 1/2	•			
3 3/8	IM1089	5	5	3 31/32	6 1/2	•			
3 7/16	IM1109	5	5	4 7/32	6 3/4	•			
3 1/2	IM1129	5 3/16	5	4 7/32	6 3/4	•			
3 5/8	IM1169	5 5/16	5	4 7/32	6 3/4		•		
3 3/4	IM1209	5 15/32	5	4 15/32	7		•		
3 7/8	IM1249	5 5/8	5	4 15/32	7		•		
4	IM1289	5 3/4	5	4 15/32	7		•		
4 1/16	IM1309	5 27/32	5	4 15/32	7		•		
4 1/8	IM1329	5 29/32	5	4 23/32	7 1/4		•		
4 1/4	IM1369	6 1/16	5	4 23/32	7 1/4		•		
4 3/8	IM1409	6 7/32	5	4 23/32	7 1/4		•		
4 1/2	IM1449	6 11/32	5	4 31/32	7 1/2		•		
4 5/8	IM1489	6 1/2	5	4 31/32	7 1/2		•		
4 3/4	IM1529	6 21/32	5	4 31/32	7 1/2		•		
4 7/8	IM1569	6 25/32	5	5 7/32	7 3/4		•		
5	IM1609	6 15/16	5	5 7/32	7 3/4		•		
5 1/8	IM1649	7 3/32	5	5 7/32	7 3/4			•	
5 1/4	IM1689	7 7/32	5	5 15/32	8			•	
5 3/8	IM1729	7 3/8	5	5 15/32	8			•	
5 7/16	IM1749	7 7/16	5	5 3/8	8			•	
5 1/2	IM1769	7 17/32	5	5 5/8	8 1/4			•	
5 5/8	IM1809	7 21/32	5	5 19/32	8 1/4			•	
5 3/4	IM1849	7 13/16	5	5 19/32	8 1/4			•	
5 7/8	IM1889	7 31/32	5	5 13/16	8 1/2			•	
6	IM1929	8 3/32	5	5 3/4	8 1/2			•	
6 1/8	IM1969	8 1/4	5	5 3/4	8 1/2			•	
6 1/4	IM20099	8 13/32	5	5 31/32	8 3/4			•	
6 3/8	IM2049	8 17/32	5	5 15/16	8 3/4			•	
6 1/2	IM2089	8 11/16	5	5 15/16	8 3/4			•	
6 5/8	IM2129	8 27/32	5	6 5/32	9			•	
6 3/4	IM2169	8 31/32	5	6 1/8	9				•
6 7/8	IM2209	9 1/8	5	6 1/8	9				•
7	IM2249	9 9/32	5	6 5/16	9 1/4				•
7 1/8	IM2289	9 13/32	5	6 5/16	9 1/4				•
7 1/4	IM2329	9 9/16	5	6 17/32	9 1/2				•
7 3/8	IM2369	9 23/32	5	6 1/2	9 1/2				•
7 1/2	IM2409	9 7/8	5	6 1/2	9 1/2				•
7 5/8	IM2449	10	5	6 23/32	9 3/4				•
7 3/4	IM2489	10 5/32	5	6 11/16	9 3/4				•
7 7/8	IM2529	10 5/16	5	6 11/16	9 3/4				•
8	IM2569	10 7/16	5	6 7/8	10				•



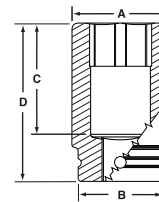
**WARNING**



• Read safety precautions on pages W1 to W4

# SOCKETS

## 2 1/2 Drive (Flank Drive®) Impact



IMM1159

Shallow, mm

Set  
Contains:

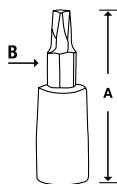
713MM

710MM

709MM

mm	6	A	B	C	D	713MM	710MM	709MM
60	IMM609	97.6	127	88.1	152.4	•		
65	IMM659	104.0	127	88.1	152.4	•		
67	IMM679	105.6	127	88.1	152.4	•		
70	IMM709	109.5	127	94.5	158.8	•		
71	IMM719	110.3	127	94.5	158.8	•		
75	IMM759	115.1	127	94.5	158.8	•		
80	IMM809	121.4	127	100.8	165.1	•		
85	IMM859	127.0	127	100.8	165.1	•		
86	IMM869	127.0	127	100.8	165.1	•		
90	IMM909	132.6	127	107.2	171.5	•		
95	IMM959	138.9	127	107.2	171.5	•		
98	IMM989	142.1	127	113.5	177.8	•		
100	IMM1009	144.5	127	113.5	177.8	•		
105	IMM1059	150.8	127	119.9	184.2		•	
110	IMM1109	156.4	127	119.9	184.2		•	
115	IMM1159	161.9	127	126.2	190.5		•	
120	IMM1209	168.3	127	126.2	190.5		•	
125	IMM1259	173.8	127	132.6	196.9		•	
130	IMM1309	179.4	127	132.6	196.9		•	
135	IMM1359	185.7	127	138.9	203.2		•	
140	IMM1409	191.3	127	142.9	209.6		•	
145	IMM1459	196.9	127	142.1	209.6		•	
150	IMM1509	203.2	127	147.6	215.9		•	
155	IMM1559	208.8	127	146.1	215.9			•
160	IMM1609	215.1	127	151.6	222.3			•
165	IMM1659	215.1	127	150.8	222.3			•
170	IMM1709	226.2	127	156.4	228.6			•
175	IMM1759	232.6	127	161.9	235.0			•
180	IMM1809	238.1	127	160.3	235.0			•
185	IMM1859	243.7	127	165.9	241.3			•
190	IMM1909	250.0	127	165.1	241.3			•
200	IMM2009	261.9	127	169.9	247.7			•

## Torx® Bit Sockets



### Torx/Standard

#	Stock No.	Stock No.	Square Drive, In.	A	B		
T8	TTX8E	GTTX8E	1/4	1 9/16	TTX8E2	•	
T10	TTX10E	GTTX10E	1/4	1 9/16	TTX10E2	•	
T15	TTX15E	GTTX15E	1/4	1 9/16	TTX15E2	•	
T20	TTX20E	GTTX20E	1/4	1 9/16	TTX20E2	•	
T25	TTX25E	GTTX25E	1/4	1 9/16	TTX25E2	•	
T27	TTX27E		1/4	1 9/16	FTX27E2		
T30	TTX30E		1/4	1 9/16	FTX30E2		
T40	TTX40E		1/4	1 9/16	FTX40E2		
T27	FTX27E	GFTX27E	3/8	1 3/4	FTX27E2	•	•
T30	FTX30E	GFTX30E	3/8	1 3/4	FTX30E2	•	•
T40	FTX40E	GFTX40E	3/8	1 3/4	FTX40E2	•	•
T45	FTX45E	GFTX45E	3/8	2 1/16	FTX45E2	•	•
T47	FTX47E		3/8	2 1/16	FTX47E2	•	•
T50	FTX50E	GFTX50E	3/8	2 1/16	FTX50E2	•	•
T55	FTX55E	GFTX55E	3/8	2 1/32	FTX55E2	•	•
T60	FTX60E		3/8	2 5/16	FTX60E2		
T55	STX55E		1/2	2 9/16	FTX55E2		
T60	STX60E		1/2	3 11/32	STX60E2		
T70	STX70E		1/2	3 1/2	STX70E2		
T80	T802E		3/4	4 3/8	T802E2		
T90	T902E		3/4	4 3/8	T902E2		

Sets shown include storage tray

212EFTXY and 207EFTXY sets also include the FTX47SE GM® Style Torx Socket Driver. **STX70E** Applications: include brake rotor retaining bolts on GM C4500 Trucks (2003 and later) and torque converter drain plug on Subaru, Legacy, Impreza and Forester® (2003 and later).



FTXL40E

### Torx/Long

#	Stock No.	Square Drive, In.	A	B
T8	TTXL8E	1/4	4 1/6	TTXL8E2
T10	TTXL10E	1/4	4 1/6	TTXL10E2
T15	TTXL15E	1/4	4 1/6	TTXL15E2
T20	TTXL20E	1/4	4 1/6	TTXL20E2
T25	TTXL25E	1/4	4 1/6	TTXL25E2
T27	FTXL27E	3/8	4 1/4	FTXL27E2
T30	FTXL30E	3/8	4 1/4	FTXL30E2
T40	FTXL40E	3/8	4 1/4	FTXL40E2
T45	FTXL45E	3/8	4 1/4	FTXL45E2
T50	FTXL50E	3/8	4 1/4	FTXL50E2
T45	STXL45E	1/2	4 5/8	STXL45E2
T50	STXL50E	1/2	4 5/8	STXL50E2
T55	STXL55E	1/2	4 5/8	STXL55E2
T60	STXL60E	1/2	4 5/8	STXL60E2



207EFTXYSE

### Torx/Stubby

#	Stock No.	Square Drive, In.	A	B
T27	FTX27SE	3/8	1 13/32	FTX27SE2
T30	FTX30SE	3/8	1 13/32	FTX30SE2
T40	FTX40SE	3/8	1 13/32	FTX40SE2
T45	FTX45SE	3/8	1 13/32	FTX45SE2
T47	FTX47SE	3/8	1 13/32	FTX47SE2
T50	FTX50SE	3/8	1 13/32	FTX50SE2
T55	FTX55SE	3/8	1 7/16	FTX55SE2

Set shown includes magnetic storage tray

207EFTXYSE Applications: BMW® under dash and sensors in engine compartment. Porsche® 911 and Cayenne ignition coil bolts. Honda® airbag control module inside passenger compartment of dashboard. Cadillac® water pump and oil drain plugs. Various applications on motorcycles.



105TUTX

### Torx/Stubby Universal

#	Stock No.	Square Drive, In.	A
T20	TUTX20E	1/4	1 3/4
T25	TUTX25E	1/4	1 3/4
T27	TUTX27E	1/4	1 3/4
T30	TUTX30E	1/4	1 3/4
T40	TUTX40E	1/4	1 3/4

Set shown includes storage tray

105TUTX Applications: T40 for Porsche 2005 and newer 911, Boxster® and Cayenne for ignition coil bolts. T30 for Volvo® turbo return lines. T30 for Honda airbag control module inside passenger compartment of dashboard. T30 for pump alignment on Mitsubishi® F4A51 transmissions (97 and later). Numerous other applications for Mercedes® that require a stubby Torx where a regular Torx bit socket will not fit in T20, T25 and T27.



209EFTXBY

### Torx/Heavy Duty Removal

#	Stock No.	Square Drive, In.	A	B
T15	TTXB15E	1/4	1 9/16	TTXB15E2
T20	TTXB20E	1/4	1 9/16	TTXB20E2
T25	TTXB25E	1/4	1 9/16	TTXB25E2
T27	FTXB27E	3/8	1 13/16	FTXB27E2
T30	FTXB30E	3/8	1 13/16	FTXB30E2
T40	FTXB40E	3/8	1 13/16	FTXB40E2
T45	FTXB45E	3/8	2 1/16	FTXB45E2
T50	FTXB50E	3/8	2 1/16	FTXB50E2
T55	STXB55E	3/8	2 1/16	FTXB55E2

Set shown includes magnetic storage tray



**WARNING**



- Do not use chrome or power sockets with impact drivers
- Read safety precautions on pages W1 to W4



# SOCKETS

## Torx® Bit Sockets



### 210EFTXRY Torx/Tamper Resistant

Set Contains:

#	Stock No.	Square Drive, In.	A	B	
T8	TTXR8E	1/4	1 9/16	TTXR8E2	•
T10	TTXR10E	1/4	1 9/16	TTXR10E2	•
T15	TTXR15E	1/4	1 9/16	TTXR15E2	•
T20	TTXR20E	1/4	1 9/16	TTXR20E2	•
T25	TTXR25E	1/4	1 9/16	TTXR25E2	•
T27	FTXR27E	3/8	1 3/4	FTXR27E2	•
T30	FTXR30E	3/8	1 3/4	FTXR30E2	•
T40	FTXR40E	3/8	1 3/4	FTXR40E2	•
T45	FTXR45E	3/8	2 1/16	FTXR45E2	•
T50	FTXR50E	3/8	2 1/16	FTXR50E2	•

Set shown includes magnetic storage tray



### Torx Plus/Tamper Resistant

211EFTXRTPY

5 lobe configuration. 2 piece pinless design holds bit securely in socket while facilitating quick bit replacement. Cold formed socket delivers a strong, durable tool. Chrome plating resists corrosion and cleans easily. For sale to authorized technicians only.

Set Contains:

#	Stock No.	Square Drive, In.	A	B	
8IPR	TTXR8TPE	1/4	1 9/16	TTXR8TPE2	•
10IPR	TTXR10TPE	1/4	1 9/16	TTXR10TPE2	•
15IPR	TTXR15TPE	1/4	1 9/16	TTXR15TPE2	•
20IPR	TTXR20TPE	1/4	1 9/16	TTXR20TPE2	•
25IPR	TTXR25TPE	1/4	1 9/16	TTXR25TPE2	•
27IPR	FTXR27TPE	3/8	1 3/4	FTXR27TPE2	•
30IPR	FTXR30TPE	3/8	1 3/4	FTXR30TPE2	•
40IPR	FTXR40TPE	3/8	1 3/4	FTXR40TPE2	•
45IPR	FTXR45TPE	3/8	2 1/32	FTXR45TPE2	•
50IPR	FTXR50TPE	3/8	2 5/32	FTXR50TPE2	•
55IPR	FTXR55TPE	3/8	2 11/32	FTXR55TPE2	•

Set shown includes magnetic storage tray

**211EFTXRTPY Applications:** 2003 Ford Mustang transmissions, 2004 Ford F150 transfer case, 2004 Porsche Cayenne turbo air sensor, Delphi® and Stanadyne® pumps, Cummins® B and C engine injection pumps and John Deere® diesel injector pumps.



FTXEL45E

### Special Application Torx (3/8" Drive)

#	Stock No.	Description	Square Drive, inches	A	B
T40	FTXEL40E	Extra Long	3/8	7 1/2	FTXEL40E2
T47	FTX47E	GM Style	3/8	2 1/16	FTX47E2
T45	FTXEL45E	Extra Long	3/8	7 11/16	FTXEL45E2
T40	FTXR40TPE	Tamper Resistant	3/8	1 3/4	FTXR40TPE2
T47	GFTX500E	GM Style	3/8	2 1/16	FTX500E2
T30	FTXEL30TPE	Extra Long	3/8	5	FTXEL30TPEZ

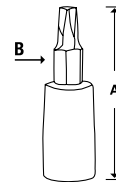
**FTXEL40E Applications** include service on intake manifold bolts on Ford 5.0 L engines with fuel injection, model years 1985 to 1990.

**FTXEL45E** Quickly and easily access intake bolts on Cummins N14 diesel engines without removing the air pump. Can also be used on older Cummins NH Big Cam 4 diesel engines. 3/8" square drive.

**FTX47E** For use on GM door strikers.

**GFTX500E** For use on GM door strikers and seat belt bolts.

**FTXEL30TPE** For removing the engine harness from the firewall on 2007 and newer. For Volvo® trucks with D16, MPT 8 and MPT 10 engines, Cummins ISX fuel timing and metering actuators.



### Torx Plus®

211EFTXTPY

Set Contains:

#	Stock No.	Square Drive, In.	A	B	
8IP	TTX8TPE	1/4	1 9/16	TTX8TPE2	•
10IP	TTX10TPE	1/4	1 9/16	TTX10TPE2	•
15IP	TTX15TPE	1/4	1 9/16	TTX15TPE2	•
20IP	TTX20TPE	1/4	1 9/16	TTX20TPE2	•
25IP	TTX25TPE	1/4	1 9/16	TTX25TPE2	•
27IP	FTX27TPE	3/8	1 3/4	FTX27TPE2	•
30IP	FTX30TPE	3/8	1 3/4	FTX30TPE2	•
40IP	FTX40TPE	3/8	1 3/4	FTX40TPE2	•
45IP	FTX45TPE	3/8	2 1/8	FTX45TPE2	•
50IP	FTX50TPE	3/8	2 1/8	FTX50TPE2	•
55IP	FTX55TPE	3/8	2 5/16	FTX55TPE2	•
555P	STX55TPE	1/2	2 3/4	FTX55TPE2	•

Set shown includes magnetic storage tray

Torx Plus fasteners may be found in almost all vehicles from the 1999 model year to present. Common applications include GM® transmissions bell housing bolts and Ford® seat belt anchors. T27IP size can be used to service Taurus and Sable front spring shields. Use of a standard Torx driver on Torx Plus fasteners may result in a rounded out fastener head or damaged driver.



PFTX30E

### Torx/Power Drivers

#	Stock No.	Square Drive, In.	A	B
T20	PTTX20E	1/4	1 9/16	TTX20E2
T25	PTTX25E	1/4	1 9/16	TTX25E2
T27	PFTX27E	3/8	1 3/4	FTX27E2
T30	PFTX30E	3/8	1 3/4	FTX30E2
T40	PFTX40E	3/8	1 3/4	FTX40E2
T45	PSTX45E	1/2	2 7/16	FTX45E2
T50	PSTX50E	1/2	2 7/16	FT50E2
T50	PSTX500E*	1/2	2 7/16	FTX500E2
T55	PSTX55E	1/2	2 7/16	FTX55E2

\*GM Style



GFTX500E

## Torx® Bit Sockets (Blue-Point®)



BLPTORX1410



BLPTS1425TP



Set Contains:

BLPTORX1410

#	Stock No.	Square Drive, in.	A	
T10	BLPTS1410	1/4	3/4	•
T15	BLPTS1415	1/4	3/4	•
T20	BLPTS1420	1/4	3/4	•
T25	BLPTS1425	1/4	3/4	•
T27	BLPTS1427	1/4	3/4	•
T30	BLPTS1430	1/4	3/4	•
T40	BLPTS1440	1/4	3/4	•
T45	BLPTS1445	1/4	3/4	•
T47	BLPTS1447	1/4	3/4	•
T50	BLPTS1450	1/4	3/4	•

Set shown includes storage tray



Torx/  
Tamper Resistant, Stubby

#	Stock No.	Square Drive, in.	A
T8	BLPTS148TP	1/4	3/4
T10	BLPTS1410TP	1/4	3/4
T15	BLPTS1415TP	1/4	3/4
T20	BLPTS1420TP	1/4	3/4
T25	BLPTS1425TP	1/4	3/4
T27	BLPTS1427TP	1/4	3/4
T30	BLPTS1430TP	1/4	3/4
T40	BLPTS1440TP	1/4	3/4
T45	BLPTS1445TP	1/4	3/4
T50	BLPTS1450TP	1/4	3/4



Torx/  
Tamper Resistant, Long

#	Stock No.	Square Drive, in.	A
T6	BLPTL146TP	1/4	3 15/16
T7	BLPTL147TP	1/4	3 15/16
T8	BLPTL148TP	1/4	3 15/16
T9	BLPTL149TP	1/4	3 15/16
T10	BLPTL1410TP	1/4	3 15/16
T15	BLPTL1415TP	1/4	3 15/16
T20	BLPTL1420TP	1/4	3 15/16
T25	BLPTL1425TP	1/4	3 15/16
T27	BLPTL1427TP	1/4	3 15/16
T30	BLPTL1430TP	1/4	3 15/16
T40	BLPTL3840TP	3/8	4 3/8
T45	BLPTL3845TP	3/8	4 3/8
T50	BLPTL3850TP	3/8	4 3/8
T55	BLPTL1255TP	1/2	4 5/8
T60	BLPTL1260TP	1/2	4 5/8



BLPTL1425TP



Torx/  
Tamper Resistant, Standard

#	Stock No.	Square Drive, in.	A
T6	BLPT146TP	1/4	1 7/16
T7	BLPT147TP	1/4	1 7/16
T8	BLPT148TP	1/4	1 7/16
T9	BLPT149TP	1/4	1 7/16
T10	BLPT1410TP	1/4	1 7/16
T15	BLPT1415TP	1/4	1 7/16
T20	BLPT1420TP	1/4	1 7/16
T25	BLPT1425TP	1/4	1 7/16
T27	BLPT1427TP	1/4	1 7/16
T30	BLPT1430TP	1/4	1 7/16
T10	BLPT3810TP	3/8	1 27/32
T15	BLPT3815TP	3/8	1 27/32
T20	BLPT3820TP	3/8	1 27/32
T25	BLPT3825TP	3/8	1 27/32
T27	BLPT3827TP	3/8	1 27/32
T30	BLPT3830TP	3/8	1 27/32
T40	BLPT3840TP	3/8	2
T45	BLPT3845TP	3/8	2
T50	BLPT3850TP	3/8	2
T55	BLPT3855TP	3/8	2
T55	BLPT1255TP	1/2	2 5/16
T60	BLPT1260TP	1/2	2 5/16



BLPT3820TP



**WARNING**



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages W1 to W4

# SOCKETS

## Metric Hex Bit



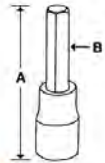
211EFAMY



210EFTAMY



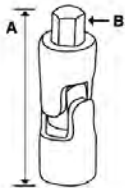
LAWM19E



## Hex/Standard, mm

mm	Hexagon	Square Drive, In.	A	B	Set Contains:					
					106ETMAMY	207EFAMY	210EFTAMY	211EFAMY	307ESAMY	Hexagon
2	TMAM2E	1/4	47.8	TMAM2E2A	•			•		
2.5	TMAM2.5E	1/4	47.8	TMAM2.5E2	•			•		
3	TMAM3E	1/4	47.8	TMAM3E2	•			•		
4	TMAM4E	1/4	47.8	FAM4E2	•			•		
5	TMAM5E	1/4	47.8	FAM5E2	•			•		
6	TMAM6E	1/4	47.8	FAM6E2	•			•		
4	FAM4E	3/8	52.3	FAM4E2			•	•	•	
5	FAM5E	3/8	52.6	FAM5E2			•	•	•	
6	FAM6E	3/8	52.6	FAM6E2			•	•	•	
7	FAM7E	3/8	52.6	FAM7E2			•	•	•	
8	FAM8E	3/8	52.6	FAM8E2			•	•	•	
9	FAM9E	3/8	52.6	FAM9E2			•	•	•	
10	FAM10E	3/8	52.6	SAM10E2		•	•	•		
11	FAM11E	3/8	69.9	FAM11E2			•	•	•	
12	FAM12E	3/8	69.9	FAM12E2			•	•	•	
13	FAM13E	3/8	69.9	FAM13E2			•	•	•	
14	FAM14E	3/8	69.9	FAM14E2			•	•	•	
6	SAM6E	1/2	60.5	FAM6E2						•
8	SAM8E	1/2	62	FAM8E2						•
10	SAM10E	1/2	62.8	SAM10E2						•
12	SAM12E	1/2	81	SAM12E2						•
14	SAM14E	1/2	81	SAM14E2						•
17	SAM17E	1/2	93.7	SAM17E2						•
19	SAM19E	1/2	103.1	SAM19E2						•
17	LAWM17E	3/4	4 1/8"	SAM17E2						•
19	LAWM19E	3/4	4 3/32"	SAM19E2						•

Sets include magnetic storage tray



TUAM6E

## Hex/Universal Stubby, mm

mm	Hexagon	Square Drive, In.	A
5	TUAM5E	1/4	38.1
6	TUAM6E	1/4	38.1

## Ball Hex/Standard, mm

mm	Ball Hexagon	Square Drive, In.	A	B	Set Contains:
					206EFTABMY
3	TMABM3E	1/4	47.7	TMABM3E2	•
4	TMABM4E	1/4	47.6	TMABM4E2	•
5	TMABM5E	1/4	47.9	TMABM5E2	•
6	TMABM6E	1/4	47.9	TMABM6E2	•
7	FABM7E	3/8	52.5	FABM7E2	•
8	FABM8E	3/8	52.5	FABM8E2	•
9	FABM9E	3/8	52.5	FABM9E2	•
10	FABM10E	3/8	52.5	FABM10E2	•

Set includes magnetic storage tray



208EFTAMXSY

## Hex/Stubby, mm

mm	Hexagon	Square Drive, In.	A	B	Set Contains:
					208EFTAMXSY
3	TMAMXS3E	1/4	26.0	TMAMXS3E2	•
4	TMAMXS4E	1/4	27.0	TMAMXS4E2	•
5	TMAMXS5E	1/4	27.0	TMAMXS5E2	•
6	TMAMXS6E	1/4	29.0	TMAMXS6E2	•
7	FAMXS7E	3/8	34.7	FAMXS7E2	•
8	FAMXS8E	3/8	35.7	FAMXS8E2	•
9	FAMXS9E	3/8	36.7	FAMXS9E2	•
10	FAMXS10E	3/8	37.7	FAMXS10E2	•

Set includes magnetic storage tray



206EFAML

## Hex/Long, mm

mm	Hexagon	Square Drive, In.	A	B	Set Contains:
					206EFAML
4	FAML4E	3/8	153.9	FAML4E2	•
5	FAML5E	3/8	153.9	FAML5E2	•
6	FAML6E	3/8	153.9	FAML6E2	•
7	FAML7E	3/8	153.9	FAML7E2	•
8	FAML8E	3/8	153.9	FAML8E2	•
10	FAML10E	3/8	153.4	FAML10E2	•
10	SAM10LE	1/2	152.4	SAM10LE2	
12	SAM12LE	1/2	98.0	SAM12LE2	

**SAM12LE** Applications: Essential for removal or installation of bolt found on the lower forks of 2006 and newer Harley-Davidson® Dyna series. Used when servicing the internal parts of the fork.

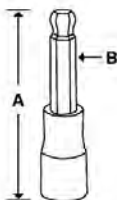


208EFTABMY

## Metric Hex Bit



206EFABLM



### Ball Hex/Long, mm

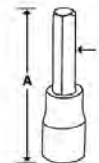
Set Contains: 206EFABLM

mm	Part No.	Square Drive, In.	A	B	End View
4	FABLM4E	3/8	129.3	FABLM4E2	•
5	FABLM5E	3/8	128.5	FABLM5E2	•
6	FABLM6E	3/8	128.5	FABLM6E2	•
7	FABLM7E	3/8	128.5	FABLM7E2	•
8	FABLM8E	3/8	127.3	FABLM8E2	•
10	FABLM10E	3/8	128.3	FABLM10E2	•

Set shown includes storage tray



FADM8E



Double Hex socket drivers and Triple Square socket drivers cannot be interchanged between applications. Triple square socket drivers have 90 corners. Double hex socket drivers have 120 corners. Using a Triple Square tool in a Double Hex application will strip the bolt head. In general, Triple Square tools are used on European vehicles and Double Hex tools are used on Asian vehicles.

### Double Hex, mm

mm	Part No.	Square Drive, In.	A	B
8	FADM8E	3/8	51.3	FADM8E2
8	FADM8LE	3/8	121.9	FADM8LE2
10	SADM10E	1/2	100	SADM10E2

**FADM8E / FADM8LE** Applications: Removal/installation of head bolts on Toyota® Tercel 1995 and later, and Paseo (1992 to 1997).  
**SADM10E** Applications: Removal/installation of head bolts on Toyota Highlander, 4Runner, Camry, Matrix, Corolla and Lexus® IS300, GS300, SC300 vehicles.

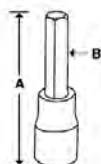
### Hex, mm (Power)

mm	Part No.	Square Drive, In.	A	B
4	PFAM4E	3/8	52.3	FAM4E2
5	PFAM5E	3/8	52.6	FAM5E2
6	PFAM6E	3/8	52.6	FAM6E2
7	PFAM7E	3/8	52.5	FAM7E2
8	PFAM8E	3/8	52.1	FAM8E2
9	PFAM9E	3/8	52.5	FAM9E2
10	PFAM10E	3/8	52.5	SAM10E2



PFAM6E

## Metric Hex Bit (Blue-Point®)



BLPH3810



BLPHEXS1418

### Hex, mm

mm	Part No.	Square Drive, In.	Length, mm
2.5	BLPH1425	1/4	34.9
6	BLPH386	3/8	47
7	BLPH387	3/8	47
8	BLPH388	3/8	50.5
9	BLPH389	3/8	50.5
10	BLPH3810	3/8	50.5
3	BLPH123	1/2	60.3
4	BLPH124	1/2	60.3
5	BLPH125	1/2	60.3
6	BLPH126	1/2	60.3
10	BLPH1210	1/2	60.3
12	BLPHM1212	1/2	60.3
14	BLPH1214	1/2	60.3
17	BLPH1217	1/2	60.3
19	BLPH1219	1/2	60.3

### Hex/Stubby, mm

mm	Part No.	Square Drive, In.	Length, mm
2	BLPHSM142	1/4	19.1
2.5	BLPHSM1425	1/4	19.1
3	BLPHSM143	1/4	19.1
4	BLPHSM144	1/4	19.1
5	BLPHSM145	1/4	19.1
6	BLPHSM146	1/4	19.1
7	BLPHSM147	1/4	19.1
8	BLPHSM148	1/4	19.1
9	BLPHSM149	1/4	19.1
10	BLPHSM1410	1/4	19.1

**BLPHEXS1418 Hex Driver Set.** Includes all BLPHSM metric bit sockets listed above plus all BLPHS fractional bit sockets.



**WARNING**



- Do not use chrome or industrial finish tools with impact drivers
- Read safety precautions on pages W1 to W4



# SOCKETS

## Hex Bit



212EFTAY



208EGFAY



IMA283

## Hex/Standard, inches

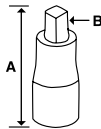
Hex Bit	Hex Bit	Hex Bit	Square Drive, In.	A	B	Length with Opt. Long Bit	Optional Long Bit	Set Contains:				
								110ETMAY	208EFAY	208EGFAY	212EFTAY	307ESAY
1/16	TMA2E		1/4	1 7/8	TMA2E2A	6	TMAL2E2	•				•
5/64	TMA2.5E	GTMA2.5E	1/4	1 7/8	TMA2.5E2	6	TMAL2.5E2	•				•
3/32	TMA3E	GTMA3E	1/4	1 7/8	TMA3E2	6	TMAL3E2	•				•
7/64	TMA3.5E		1/4	1 7/8	TMA3.5E2	6	TMAL3.5E2	•				•
1/8	TMA4E	GTMA4E	1/4	1 7/8	TMA4E2	6	TMAL4E2	•				•
9/64	TMA4.5E		1/4	1 7/8	TMA4.5E2	6	TMAL4.5E2	•				•
5/32	TMA5E	GTMA5E	1/4	1 7/8	FA5E2			•				•
3/16	TMA6E	GTMA6E	1/4	1 15/16	FA6E2			•				•
7/32	TMA7E	GTMA7E	1/4	1 7/8	FA7E2			•				•
1/4	TMA8E	GTMA8E	1/4	1 7/8	FA8E2			•				•
Hex Bit	Hex Bit	Hex Bit	Square Drive, In.	A	B	Fits These Cap Screws	Fits These Set Screws	Hex Bit	Hex Bit	Hex Bit	Hex Bit	Hex Bit
1/8	FA4E	GFA4E	3/8	2 1/16	TMA4E2		1/4		•	•		•
9/64	FA4.5E	GFA4.5E	3/8	2 1/16	TMA4.5E2	#8			•	•		•
5/32	FA5E	GFA5E	3/8	2 1/16	FA5E2	#10	5/16		•	•		•
3/16	FA6E	GFA6E	3/8	2 1/16	FA6E2	1/4	3/8		•	•		•
7/32	FA7E	GFA7E	3/8	2 1/16	FA7E2		7/16		•	•		•
1/4	FA8E	GFA8E	3/8	2 1/16	FA8E2	5/16	1/2		•	•		•
5/16	FA10E	GFA10E	3/8	2 1/16	FA10E2	3/8	5/8		•	•		•
3/8	FA12E	GFA12E	3/8	2 3/32	FA12E2	7/16, 1/2	3/4		•	•		•
5/16	SA10E	GSA10E	1/2	2 3/8	FA10E2							•
3/8	SA12E	GSA12E	1/2	2 1/2	SA12E2							•
7/16	SA14E	GSA14E	1/2	2 7/8	SA14E2							•
1/2	SA16E	GSA16E	1/2	3 1/16	SA16E2							•
9/16	SA18E	GSA18E	1/2	3 3/16	SA18E2							•
5/8	SA20E	GSA20E	1/2	3 11/32	LAW120E2							•
3/4	SA24E	GSA24E	1/2	4 1/16	LAW124E2							•
5/8	LAW120E		3/4	3 3/4	LAW120E2							•
3/4	LAW124E		3/4	4 3/8	LAW124E2							•
7/8	IMA283		1	5 5/8	IMA283-2							•
1	IMA323		1	5 5/8	IMA323-2							•

NOTE: Optional long bits are not included in the listed sets.

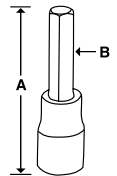
Sets shown include storage tray



208EFTAXSY



206EFAL



## Hex/Stubby, inches

Hex Bit	Hex Bit	Square Drive, In.	A	B	Fits These Cap Screws	Fits These Set Screws	Set Contains:
							208EFTAXSY
1/8	TMAXS4E	1/4	1 1/32	TMAXS4E2			•
9/64	TMAXS4.5E	1/4	1 1/16	TMAXS4.5E2			•
5/32	TMAXS5E	1/4	1 1/16	TMAXS5E2			•
3/16	TMAXS6E	1/4	1 3/32	TMAXS6E2			•
7/32	FAXS7E	3/8	1 5/16	FAXS7E2			•
1/4	FAXS8E	3/8	1 11/32	FAXS8E2	5/16"	1/2"	•
5/16	FAXS10E	3/8	1 13/32	FAXS10E2	3/8"	5/8"	•
3/8	FAXS12E	3/8	1 15/32	FAXS12E2	1/2"	3/4"	•

Set shown includes magnetic storage tray

## Hex/Extra Long, inches

Hex Bit	Hex Bit	Square Drive, In.	A	Fits These Cap Screws	Fits These Set Screws	B	Set Contains:
							206EFAL
5/32	FA5LE	3/8	6 1/16	#10	5/16"	FA5LE2	•
3/16	FA6LE	3/8	6 1/8	1/4"	3/8"	FA6LE2	•
7/32	FA7LE	3/8	6 1/8		7/16"	FA7LE2	•
1/4	FA8LE	3/8	6 1/8	5/16"	1/2"	FA8LE2	•
5/16	FA10LE	3/8	6 1/16	3/8"	5/8"	FA10LE2	•
3/8	FA12LE	3/8	6 1/16	1/4"	3/4"	FA12LE2	•

Set shown includes storage tray



208EFTABY

### Ball Hex/Standard, inches

Set Contains:

Size	Part No.	Square Drive, In.	A	B	Icon
1/8	TMAB4E	1/4	1 7/8	TMAB4E2	•
9/64	TMAB4.5E	1/4	1 7/8	TMAB4.5E2	•
5/32	TMAB5E	1/4	1 7/8	TMAB5E2	•
3/16	TMAB6E	1/4	1 7/8	TMAB6E2	•
7/32	FAB7E	3/8	2 3/32	FAB7E2	•
1/4	FAB8E	3/8	2 3/32	FAB8E2	•
5/16	FAB10E	3/8	2 3/32	FAB10E2	•
3/8	FAB12E	3/8	2 3/32	FAB12E2	•

Sets shown include magnetic storage tray



PFA8E

### Hex, inches (Power)

Size	Part No.	Square Drive, In.	A	Fits These Cap Screws	Fits These Set Screws	B
1/8	PFA4E	3/8	2 1/16		1/4"	TMA4E2
9/64	PFA4.5E	3/8	2 1/16	#8		TMA4.5E2
5/32	PFA5E	3/8	2 1/16	#10	5/16"	FA5E2
3/16	PFA6E	3/8	2 1/16	1/4"	3/8"	FA6E2
7/32	PFA7E	3/8	2 1/16		5/16"	FA7E2
1/4	PFA8E	3/8	2 1/16	7/16"	1/2"	FA8E2
5/16	PFA10E	3/8	2 1/16	3/8"	5/8"	FA10E2
3/8	PFA12E	3/8	2 1/16	1/4", 1/2"	3/4"	FA12E2



206EFABL

### Ball Hex/Long, inches

Set Contains:

Size	Part No.	Square Drive, In.	A	B	Icon
5/32	FABL5E	3/8	5 1/16	FABL5E2	•
3/16	FABL6E	3/8	5 1/16	FABL6E2	•
7/32	FABL7E	3/8	5 1/16	FABL7E2	•
1/4	FABL8E	3/8	5 1/16	FABL8E2	•
5/16	FABL10E	3/8	5 1/16	FABL10E2	•
3/8	FABL12E	3/8	5 1/16	FABL12E2	•

Sets shown include storage tray

### Hex, inches

Size	Part No.	Square Drive, In.	A	B
5/16	PSA10E	1/2	2 7/16	FA10E2
3/8	PSA12E	1/2	2 9/16	SA12E2
7/16	PSA14E	1/2	2 7/8	SA14E2
1/2	PSA16E	1/2	3 1/16	SA16E2
9/16	PSA18E	1/2	3 1/8	SA18E2
5/8	PSA20E	1/2	3 7/16	LAW120E2
3/4	PSA24E	1/2	4 1/16	LAW124E2



PSA10E

### Hex Bit (Blue-Point®)



BLPH1414

### Hex Standard, inches

Size	Part No.	Square Drive, In.	A
1/8	BLPH1418	1/4	1 7/16
9/64	BLPH14964	1/4	1 7/16
5/32	BLPH14532	1/4	1 7/16
3/16	BLPH14316	1/4	1 7/16
7/32	BLPH14732	1/4	1 7/16
1/4	BLPH1414	1/4	1 7/16
5/16	BLPH14516	1/4	1 7/16
7/32	BLPH38732	3/8	1 15/16
1/4	BLPH3814	3/8	1 15/16
5/16	BLPH38516	3/8	1 15/16
3/8	BLPH3838	3/8	1 15/16
7/16	BLPH12716	1/2	2 7/16
1/2	BLPH1212	1/2	2 7/16
9/16	BLPH12916	1/2	2 7/16
5/8	BLPH1258	1/2	2 7/16
3/4	BLPH1234	1/2	2 7/16



BLPHEXS1418

### Hex/Stubby, inches

Size	Part No.	Square Drive, In.	A
5/64	BLPHS14564	1/4	3/4
3/32	BLPHS14332	1/4	3/4
7/64	BLPHS14764	1/4	3/4
5/32	BLPHS14532	1/4	3/4
3/16	BLPHS14316	1/4	3/4
7/32	BLPHS14732	1/4	3/4
1/4	BLPHS1414	1/4	3/4
5/16	BLPHS14516	1/4	3/4
3/8	BLPHS1438	1/4	3/4

### BLPHEXS1418 Hex Driver Set.

Includes all BLPHS bit sockets listed above plus all BLPHSM metric bit sockets in storage tray.



**WARNING**

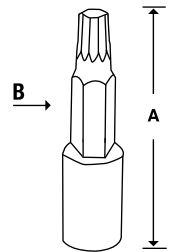


- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages W1 to W4

# SOCKETS

## Triple Square Drivers

Double Hex socket drivers and Triple Square socket drivers cannot be interchanged between applications. Triple square socket drivers have 90 corners. Double hex socket drivers have 120 corners. Using a Triple Square tool in a Double Hex application will strip the bolt head. In general, Triple Square tools are used on European vehicles and Double Hex tools are used on Asian vehicles.



TSSKIT

### Triple Square, mm

	mm	Stock No.	Square Drive, In.	Set Contains:		TSSKIT
				A	B	
Standard Length	4	FTSM4E	3/8	48.5	FTSM4E2	
	5	FTSM5E	3/8	48.5	FTSM5E2	
	6	FTSM6E	3/8	48.5	FTSM6E2	•
	8	FTSM8E	3/8	58	FTSM8E2	•
Long	10	FTSM10E	3/8	67.8	FTSM10E2	•
	8	FTSM8LE	3/8	84.6	FTSM8LE2	
	10	FTSM10LE	3/8	101.6	FTSM10LE2	
	10	STSM10E	1/2	88.9	STSM10E2	
	12	STSM12E	1/2	109.5	STSM12E2	•
	12	STSM12LE	1/2	147.6	STSM12LE2	
	14	STSM14E	1/2	108.0	STSM14E2	•
	16	STSM16E*	1/2	108.0	STSM16E2	•
18	STSM18E	1/2	108.0	STSM18E2		

\*Tamper Resistant

Set shown includes storage tray

#### Applications:

**FTSM6E** (6 mm, 3/8" drive) Various applications on European vehicles.

**FTSM8E** (8 mm, 3/8" drive) Remove and install head and accessory bolts on Mercedes®, and remove and install axle shaft bolts on VW® and Audi® vehicles.

**FTSM10E** (10 mm, 3/8" drive) Used for cylinder head bolts and drive shaft bolts on Mercedes, and remove and install axle shaft bolts on VW and Audi vehicles.

**STSM12E** (12 mm, 1/2" drive) Remove and install cylinder head bolts on Mercedes, rear toe adjustment on 1999 and newer Audi A6, and axle shaft bolts on new VW vehicles.

**STSM14E Metric Triple Square Driver.** Applications include 2003 and later VW Touareg front axle bolts, 2003 and later Porsche® Cayenne front axle bolts, various Audi / VW axle bolts plus Audi TT differential mount bolts and transmission drain plugs.

**STSM16E Metric Triple Square Driver.** Applications include Audi TT Clutch and Belly Pan, various VW / Audi transmission drain plugs (tamper resistant), 2003 and later VW Touareg front and rear brake caliper bolts, 2003 and later Porsche Cayenne brake caliper bolts, plus Detroit Diesel® flywheel bolts and front crank pulley on 900 and 4000 engines and head bolts on 900 engines.

**STSM18E Metric Triple Square Driver.** Applications include removing and installing rear axle bolts of 2006 VW Jetta and Golf.



305STSMSE

### Triple Square/Stubby, mm (1/2" drive)

mm	Stock No.	A	B	Set Contains:	
10	STSM10SE	59.4	STSM10SE2		•
12	STSM12SE	59.4	STSM12SE2		•
14	STSM14SE	63.2	STSM14SE2		•
16	STSM16SE	68.1	STSM16SE2		•
18	STSM18SE	69.8	STSM18SE2		•

Set shown includes storage tray

**STSM10SE** Used for cylinder head bolts, driveshaft bolts and various other applications on VW, Audi and Mercedes vehicles.

**STSM12SE** Access exhaust manifold bolts on DD15 and Mercedes 900/4000 engines. Also for the back of the turbo and some oil pans. Head bolts and axle shaft bolts on VW, Audi and Mercedes vehicles.

**STSM14SE** Brake caliper bolts on Volkswagen®, Jetta, Rabbit, Passat, EOS and Tiquan. There is limited room due to the control arm in the way when backing out the fastener.

**STSM16SE** VW and Audi transmission and differential plug. Porsche Cayenne brake caliper bolts.

**STSM18SE** Rear axle bolts on Volkswagen Jetta and Golf.



BLPXZNM389

## Triple Square, mm

Set Contains: BLPXZNM389

mm	Stock No.	Square Drive, in.	
4	BLPXZNM384	3/8	•
5	BLPXZNM385	3/8	•
6	BLPXZNM386	3/8	•
8	BLPXZNM388	3/8	•
10	BLPXZNM3810	3/8	•
12	BLPXZNM3812	3/8	•
14	BLPXZNM3814	3/8	•
16	BLPXZNM3816	3/8	•
18	BLPXZNM3818	3/8	•

Set shown includes storage tray

## Triple Square Bit (Blue-Point®)



BLPXZN146

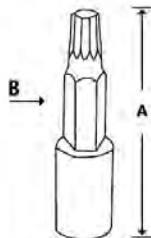
## Triple Square/Stubby, mm

mm	Stock No.	Square Drive, in.	A mm
4	BLPXZN144	1/4	27
5	BLPXZN145	1/4	27
6	BLPXZN146	1/4	27
8	BLPXZN148	1/4	27
10	BLPXZN1410	1/4	27
12	BLPXZN1412	1/4	27

## Special Application



PFMTS4E



SPDL10E

## Mortorq®/Super Bit

#	Stock No.	Square Drive, in.	A	B
MTS-0	PFMTS0E	3/8		PFMTS0E2
MTS-1	PFMTS1E	3/8	1 3/4	PFMTS1E2
MTS-3	PFMTS3E	3/8	2 1/8	PFMTS3E2
MTS-4	PFMTS4E	3/8	2 1/8	PFMTS4E2

**PFMTS1E Socket Driver.** Applications: For seat tracks on 2009 Mazda® 6. Other seat applications: Cadillac® CTS, Nissan® Maxima and Altima.

**PFMTS4E Socket Driver.** Applications: Remove/install the bolts that secure the bell housing to the transmission on GM® 4L60 transmissions.

## Polydrive Head Bolt, mm

mm	Stock No.	Description	A	B
10	SPDL10E	#10 Polydrive Head Bolt Socket Driver	159	SPDL10E2

**SPDL10E Socket Driver.** Use to remove and install #10 Polydrive cylinder head bolts on 1998 and later VW®/Audi® vehicles with 5 valve motors. 1/2" Drive.

## Flat Tip Bit

### Flat Tip, inches

	Stock No.	Industrial Stock No.	Square Drive, in.	A	B
Standard Length	3/16 x .032	TMC104E		1/4	2 7/8
	1/4 x .032	TMC105E		1/4	2 15/16
	3/8 x .042	TMC106E		1/4	2 7/8
	1/4 x 1/32	F23E		3/8	3
	5/16 x 3/64	F25E	GF25E	3/8	3
	3/8 x 1/16	F31E	GF31E	3/8	3 7/16
	7/16 x .050	SW28E		1/2	3 1/16
	1/2 x .075	SW32E		1/2	3 1/16
Short	5/8 x .093	SW40E		1/2	3 1/4
	1/4 x .036	TM82		1/4	7/8
	1/4 x 1/32	F42E		3/8	1 13/16
	5/16 x 1/16	F52E		3/8	1 13/16
	F62E	GF62E	3/8	1 27/32	F62E2



TM82



F23E



GF31E



**WARNING**



- Do not use chrome or industrial finish hand sockets with impact drivers
- Read safety precautions on pages W1 to W4



# SOCKETS

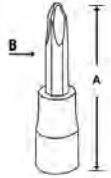
## Flat Tip Bits



### Flat Tip (Blue-Point®), inches

		Stock No.	Square Drive, In.	A
Standard Length	5/32	<b>BLPFT14532</b>	1/4	1 7/16
	7/32	<b>BLPFT14732</b>	1/4	1 7/16
	9/32	<b>BLPFT14932</b>	1/4	1 7/16
Short	1/4	<b>BLPFS1414</b>	1/4	3/4
	3/8	<b>BLPFS1438</b>	1/4	3/4

## Phillips® Bits



### Phillips/Standard

		Stock No.	Industrial Stock No.	Square Drive, In.	A	B
Standard Length	#1	<b>TMP12E</b>	<b>GTMP12E</b>	1/4	1 7/8	<b>TMP12E2</b>
	#2	<b>TMP22E</b>		1/4	1 7/8	<b>FP22E2</b>
	#2	<b>FP22E</b>	<b>GFP22E</b>	3/8	2 1/16	<b>FP22E2</b>
	#3	<b>FP32E</b>		3/8	2 5/16	<b>FP32E2</b>
	#4	<b>FP41E</b>		3/8	1 21/32	<b>FP41E2</b>
	#3	<b>SP32E</b>		1/2	2 3/16	<b>SP32E2</b>
Short	#4	<b>SP42E</b>		1/2	2 5/16	<b>SP42E2</b>
	#2	<b>TMP21E</b>		1/4	1 1/4	<b>TMP21E2</b>
	#2	<b>TMP82</b>		1/4	15/16	<b>TMP82-2B</b>
	#3	<b>FPS32E</b>		3/8	1 29/32	<b>SP32E2</b>
Long	#2	<b>TMP23E</b>		1/4	3 1/16	<b>TMP23E2</b>
	#2	<b>FP24E</b>		3/8	4 1/32	<b>FP24E2</b>
	#3	<b>FP34E</b>		3/8	4 1/32	<b>FP34E2</b>
	#4	<b>FP42E</b>		3/8	2 9/16	<b>FP42E2</b>

### Phillips (Blue-Point)

		Stock No.	Square Drive, In.	A
Standard Length	#0	<b>BLPP140</b>	1/4	1 7/16
	#1	<b>BLPP141</b>	1/4	1 7/16
	#2	<b>BLPP142</b>	1/4	1 7/16
	#3	<b>BLPP383</b>	3/8	1 27/32
	#4	<b>BLPP384</b>	3/8	1 27/32
Stubby	#1	<b>BLPPS141</b>	1/4	3/4
	#2	<b>BLPPS142</b>	1/4	3/4

## Pozidriv® and Clutch® Drivers



### Pozidriv

	Stock No.	Square Drive, In.	A	B
#2	<b>FPD22E</b>	3/8	2 1/16	<b>FPD22E2</b>
#3	<b>FPD32E</b>	3/8	2	<b>FPD32E2</b>

### Pozidriv, (Blue-Point)

Size	Stock No.	Square Drive, In.	A
#3	<b>BLPPD383</b>	3/8	1 27/32
#4	<b>BLPPD384</b>	3/8	1 27/32

### Clutch. Standard Length

		Square Drive, In.	A	B
3/16	<b>TM27E</b>	1/4	3/16	1 3/8
1/4	<b>TM30E</b>	1/4	1/4	1 3/8
5/32	<b>TM31E</b>	1/4	5/32	1 3/8
3/8	<b>F29E</b>	3/8	3/8	1 3/4
5/16	<b>F30E</b>	3/8	19/64	1 3/4

### 3/8" Drive Impact Sets

208EPIT Set. 8 pcs Includes:

Stock No.	Description
PIT120	Impact Driver
F42E	1/4" Flat Tip Driver
F52E	5/16" Flat Tip Driver
F62E	3/8" Flat Tip Driver
FP22E	#2 Phillips Driver
FP32E	#3 Phillips Driver
FP42E	#4 Phillips Driver
FPD22E	#2 Pozidriv Driver
PB108A	Storage Case

#### PIT120 Impact Driver.

Delivers cam action impact when struck with a hammer for loosening or tightening fasteners. Industrial finish.

#### PIT2230E Impact Driver Set.

Includes PIT120 impact driver plus all sockets, screwdrivers and replacement bits (36 pcs) conveniently displayed in a storage tray that fits in the KRA142 metal box.

PIT2230E Set. 36 pcs Includes:

Stock No.	Description
PIT120	Impact Driver
FA6E	3/16" Hex Driver w/extra FA6E2 Bit
FA7E	7/32" Hex Driver w/extra FA7E2 Bit
FA8E	1/4" Hex Driver w/extra FA8E2 Bit
FA10E	5/16" Hex Driver w/extra FA10E2 Bit
FA12E	3/8" Hex Driver w/extra FA12E2 Bit
F42E	1/4" Flat Tip Driver w/extra F42E2 Bit
F52E	5/16" Flat Tip Driver w/extra F52E2 Bit
F62E	3/8" Flat Tip Driver w/extra F62E2 Bit
FP22E	#2 Phillips Driver w/extra FP22E2 Bit
FP32E	#3 Phillips Driver w/extra FP32E2 Bit
FP41E	#4 Phillips Driver w/extra FP41E2 Bit
FP42E	#4 Phillips Driver w/extra FP42E2 Bit
F29E	3/8" Clutch Driver
F30E	5/16" Clutch Driver
FPD22E	#2 Pozidriv Driver
IMF120A	3/8" 6-point Impact Socket
IMF140A	7/16" 6-point Impact Socket
IMF160	1/2" 6-point Impact Socket
IMF180	9/16" 6-point Impact Socket
IMF200	5/8" 6-point Impact Socket
IMF220	11/16" 6-point Impact Socket
IMF240	3/4" 6-point Impact Socket
GF22	11/16" Drag Link Socket
KRA142	Metal Box

### 1/2" Drive Impact Sets

Stock No.	Description
PIT160	Impact Driver
A26A	Drag Link Socket
SA10E	5/16" Hex Head Driver
SA12E	3/8" Hex Head Driver
SA14E	7/16" Hex Head Driver
SA16E	1/2" Hex Head Driver
SA18E	9/16" Hex Head Driver
SA20E	5/8" Hex head Driver
SP32E	#3 Phillips Driver
SP42E	#4 Phillips Driver
SW28E	7/16" x .050" Socket Driver
SW32E	1/2" x .075" Socket Driver
KRA142	Metal Box

Includes:

**PIT160** This 1/2" drive unit delivers cam action impact when struck with a hammer.

**PIT3120EB Impact Driver Set.** PIT160 impact driver plus sockets and socket drivers (12 pcs) in KRA142 metal box.



208EPIT



PIT2230E



PIT160



PIT3120EB



**WARNING**



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages W1 to W4

# SOCKETS

## Combination Bit Sets (Blue-Point®)



BLPBSS40



BLPTSSC43

### 1/4" Drive Stubby Bit Socket Set (40 pcs)

	Stock No.	Size	
<b>Torx Tamper Resistant</b>	BLPTS148TP	TP8	
	BLPTS1410TP	TP10	
	BLPTS1415TP	TP15	
	BLPTS1420TP	TP20	
	BLPTS1425TP	TP25	
	BLPTS1427TP	TP27	
	BLPTS1430TP	TP30	
	BLPTS1440TP	TP40	
	BLPTS1445TP	TP45	
	BLPTS1450TP	TP50	
<b>Triple Square</b>	BLPXZN144	XZN4	
	BLPXZN145	XZN5	
	BLPXZN146	XZN6	
	BLPXZN148	XZN8	
	BLPXZN1410	XZN10	
	BLPXZN1412	XZN12	
<b>Flat Tip</b>	BLPFS1414	1/4" Wide	
	BLPFS1438	3/8" Wide	
<b>Phillips</b>	BLPPS141	P1	
	BLPPS142	P2	
<b>Hex, inches</b>	BLPHS14564	5/64"	
	BLPHS14332	3/32"	
	BLPHS14764	7/64"	
	BLPHS1418	1/8"	
	BLPHS14532	5/32"	
	BLPHS14316	3/16"	
	BLPHS14732	7/32"	
	BLPHS1414	1/4"	
	BLPHS14516	5/16"	
	BLPHS1438	3/8"	
	<b>Hex, mm</b>	BLPHSM142	2 mm
		BLPHSM142.5	2.5 mm
		BLPHSM143	3 mm
		BLPHSM144	4 mm
BLPHSM145		5 mm	
BLPHSM146		6 mm	
BLPHSM147		7 mm	
BLPHSM148		8 mm	
BLPHSM149		9 mm	
BLPHSM1410		10 mm	
BLPCSS400PB Storage Case			

### Combination Torx®/Socket and Bit Socket Set (43 pcs)

	Stock No.	Size	Drive Size, inches
<b>External Torx Sockets</b>	BLPTE144	E4	1/4
	BLPTE145	E5	1/4
	BLPTE146	E6	1/4
	BLPTE147	E7	1/4
	BLPTE148	E8	1/4
	BLPTE3810	E10	3/8
	BLPTE3812	E12	3/8
	BLPTE3814	E14	3/8
	BLPTE3816	E16	3/8
	BLPTE1218	E18	1/2
	BLPTE1220	E20	1/2
	BLPTE1222	E22	1/2
	BLPTE1224	E24	1/2
	<b>Torx Tamper Resistant Bit Sockets</b>	BLPT146TP	T6
BLPT147TP		T7	1/4
BLPT148TP		T8	1/4
BLPT149TP		T9	1/4
BLPT1410TP		T10	1/4
BLPT1415TP		T15	1/4
BLPT1420TP		T20	1/4
BLPT1425TP		T25	1/4
BLPT1427TP		T27	1/4
BLPT1430TP		T30	1/4
BLPT3840TP		T40	3/8
BLPT3845TP		T45	3/8
BLPT3850TP		T50	3/8
BLPT1255TP		T55	1/2
BLPT1260TP	T60	1/2	
<b>Torx Tamper Resistant Long Bit Sockets</b>	BLPTL146TP	T6	1/4
	BLPTL147TP	T7	1/4
	BLPTL148TP	T8	1/4
	BLPTL149TP	T9	1/4
	BLPTL1410TP	T10	1/4
	BLPTL1415TP	T15	1/4
	BLPTL1420TP	T20	1/4
	BLPTL1425TP	T25	1/4
	BLPTL1427TP	T27	1/4
	BLPTL1430TP	T30	1/4
	BLPTL3840TP	T40	3/8
	BLPTL3845TP	T45	3/8
	BLPTL3850TP	T50	3/8
	BLPTL1255TP	T55	1/2
BLPTL1260TP	T60	1/2	
BLPTSSC43PB Storage Case			

### Combination Hex Drive Bit Socket Set

#### BLPHSSC30 Combination Socket Driver Set.

- 30 piece Combination 1/4, 3/8 and 1/2" drive Hex Bit Socket Set
- Set covers a full range of metric hex sizes from 2.5 to 19 mm and fractional from 1/8 to 3/4"
- Drive size increase with bit size to offer maximum strength
- Perfect set for the technician in the shop or for use around the house
- Comes in a durable compact case
- Supported by a full lifetime warranty, no need to replace bits

#### Combination Socket Driver Set (30 pcs)

	Stock No.	Size	Drive Size, inches		Stock No.	Size	Drive Size, inches
Hex, inches	BLPH1418	1/8	1/4	Hex, mm	BLPH1425	2.5	1/4
	BLPH14964	9/64	1/4		BLPH386	6	3/8
	BLPH14532	5/32	1/4		BLPH387	7	3/8
	BLPH14316	3/16	1/4		BLPH388	8	3/8
	BLPH14732	7/32	1/4		BLPH389	9	3/8
	BLPH1414	1/4	1/4		BLPH3810	10	3/8
	BLPH38732	7/32	3/8		BLPH123	3	1/2
	BLPH3814	1/4	3/8		BLPH124	4	1/2
	BLPH38516	5/16	3/8		BLPH125	5	1/2
	BLPH3838	3/8	3/8		BLPH126	6	1/2
	BLPH12716	7/16	3/8		BLPH1210	10	1/2
	BLPH1212	1/2	1/2		BLPHM1212	12	1/2
	BLPH12916	9/16	1/2		BLPH1214	14	1/2
	BLPH1258	5/8	1/2		BLPH1217	17	1/2
	BLPH1234	3/4	1/2		BLPH1219	19	1/2



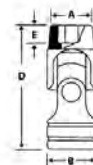
BLPHSSC30

### High Performance 1/4" Drive (Flank Drive®) Sockets

#### Universal, inches

		A	B	D	E
1/4	TDHU81A	3/8	1/2	1 15/64	1/4
5/16	TDHU101A	29/64	1/2	1 23/64	9/32
3/8	TDHU121A	17/32	1/2	1 15/32	11/32

Chrome tools comply with Military Spec. MS-33787 and MIL-W-8982. (Industrial finish tools comply with performance specifications and differ only in finish.) The unique spline wrenching configuration can also be used on ordinary 6 and 12 point fasteners with an advantage similar to the Snap-on® Flank Drive wrenching system.

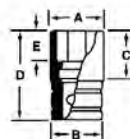


TDHU101A

### 1/4" Drive Spline Sockets

Snap-on spline wrenching tools have been developed to service high tensile strength spline nuts and bolts widely used on both military and commercial aircraft. Precise, radial spline teeth engage the fastener teeth over a wider area to minimize stress, and allow application of high torque to reduce risk of damage to the fastener or to the tool.

Chrome tools comply with Military Spec. MS-33787 and MIL-W-8982. (Industrial finish tools comply with performance specifications and differ only in finish.) The unique spline wrenching configuration can also be used on ordinary 6 and 12 point fasteners with an advantage similar to the Snap-on Flank Drive wrenching system.



TESU10

#### Shallow, inches

		Stock No.	A	B	C	D	E
#7	7/32	TES7	11/32	27/64	29/64	59/64	7/32
#8	1/4	TES8	3/8	27/64	29/64	59/64	17/64
#9	9/32	TES9	7/16	3/16	37/64	59/64	19/64
#10	5/16	TES10	29/64	29/64	19/32	59/64	21/64
#12	3/8	TES12	35/64	35/64	19/32	59/64	23/64
#14	7/16	TES14	5/8	39/64	23/32	1 3/64	7/16



TES10

#### Shallow Universal, inches

		Stock No.	A	B	D	E
#8	1/4	TESU8	3/8	1/2	1 15/64	17/64
#10	5/16	TESU10	29/64	1/2	1 23/64	21/64

#### Deep, inches

		Stock No.	A	B	C	D	E
#7	7/32	TEL7	11/32	27/64	1 43/64	2	7/32
#8	1/4	TEL8	3/8	7/16	1 43/64	2	17/64
#10	5/16	TEL10	29/64	29/64	1 43/64	2	21/64



TEL10

#### Deep, mm

		Stock No.	A	B	C	D	E
#7	7	TELM7A	10.4	10.9	36.3	50.8	7.3
#8	8	TELM8A	11.7	11.7	36.3	50.8	8.8



**WARNING**



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages W1 to W4



# SOCKETS

## 3/8" Drive Spline Sockets



FES200

### Shallow, inches

			Stock No.	A	B	C	D	E
#12	3/8		<b>FES120</b>	35/64	21/32	19/32	1 3/64	23/64
#14	7/16		<b>FES140</b>	5/8	11/16	5/8	1 7/64	7/16
#16	1/2		<b>FES160</b>	23/32	3/4	39/64	1 7/64	29/64
#18	9/16		<b>FES180</b>	53/64	53/64	39/64	1 7/64	15/32
#20	5/8		<b>FES200</b>	57/64	57/64	45/64	1 15/64	35/64



FELM10A

### Deep, mm

			Stock No.	A	B	C	D	E
#10	10		<b>FELM10A</b>	14.5	16.8	40.4	54.0	10.0

### Deep, inches

			Stock No.	A	B	C	D	E
#12	3/8		<b>FEL120</b>	35/64	5/8	1 41/64	2 1/8	23/64
#14	7/16		<b>FEL140</b>	41/64	43/64	1 3/4	2 1/8	7/16
#16	1/2		<b>FEL160</b>	23/32	23/32	1 55/64	2 1/4	15/32
#18	9/16		<b>FEL180</b>	53/64	53/64	1 55/64	2 3/8	15/32
#20	5/8		<b>FEL200</b>	57/64	57/64	1 27/32	2 3/8	35/64



FEL200

## 1/4" Drive Spline Sockets



FESU160



IMFES14

### Shallow Universal, inches

			Stock No.	A	B	D	E
#12	3/8		<b>FESU120</b>	35/64	3/4	1 31/32	23/64
#14	7/16		<b>FESU140</b>	5/8	3/4	2 3/64	7/16
#16	1/2		<b>FESU160</b>	23/32	3/4	2 5/64	29/64
#18	9/16		<b>FESU180</b>	53/64	3/4	2 1/8	15/32

### Impact, inches

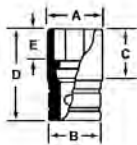
			Stock No.	A	B	C	D	E
#14	7/16		<b>IMFES14</b>	3/4	3/4	5/8	1 7/64	7/16

SAE Spec. MA1547A

## 1/2" Drive Spline Sockets



SES181



### Shallow, inches

			Stock No.	A	B	C	D	E	
#16	1/2		<b>SES161</b>	23/32	55/64	5/8	1 19/64	29/64	•
#18	9/16		<b>SES181</b>	53/64	55/64	5/8	1 19/64	15/32	•
#20	5/8		<b>SES201</b>	57/64	57/64	55/64	1 35/64	35/64	•
#22	11/16		<b>SES221</b>	31/32	31/32	27/32	1 35/64	37/64	•
#24	3/4		<b>SES241</b>	1 3/64	31/32	53/64	1 35/64	37/64	•
#26	13/16		<b>SES261</b>	1 1/8	1 1/8	13/16		37/64	•
#28	7/8		<b>SES281</b>	1 3/16	1 1/8	51/64	1 35/64	37/64	•
#30	15/16		<b>SES301</b>	1 17/64	1 17/64	49/64	1 35/64	37/64	•

Set Contains: 308SES

## 3/4" and 1" Drive Spline Sockets



LES302

### 3/4" Drive Shallow, inches

			Stock No.	A	B	C	D	E
#24	3/4		<b>LES242</b>	1 3/64	1 3/8	1	1 51/64	41/64
#30	15/16		<b>LES302</b>	1 3/8	1 3/8	1 7/64	1 59/64	51/64
#34	1 1/16		<b>LES342</b>	1 35/64	1 19/32	1	2 3/64	57/64
#36	1 1/8		<b>LES362</b>	1 5/8	1 1/2	1 3/16	2 3/16	15/16



LES323

### 1" Drive Shallow, inches

			Stock No.	A	B	C	D	E
#32	1		<b>LES323</b>	1 29/64	1 55/64	1 35/64	2 7/16	53/64
#34	1 1/16		<b>LES343</b>	1 35/64	1 55/64	1 37/64	2 35/64	57/64
#38	1 3/16		<b>LES383</b>	1 23/64	1 63/64	1 25/32	2 51/64	1 1/64

## Built for Performance.

Each Snap-on® extension is constructed from a high performance alloy steel blend and finished with corrosion-resistant nickel-chrome plating.

Smallest diameter shank allows access to tight spaces.

Cold-formed alloy steel frame for strength and durability.

Knurled shaft on some extensions for better control.

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### Wobble

Provides 16° of additional accessibility.

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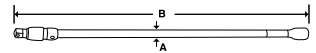
### Wobble Plus

Usable in both wobble and standard functionality, Wobble Plus design provides maximum versatility and flexibility.



# EXTENSIONS

## 1/4" Drive (Chrome/Industrial Finish)



106BTMX

### Knurled

Stock No.	Industrial Stock No.	A	B	
TMX1*		5/16	1 1/4	•
TMX2**	GTMX2*	5/16	2	•
TMX4	GTMX4*	5/16	4	•
TMX60**	GTMX60*	5/16	6	•
TMX80**	GTMX80	5/16	8	•
TMX110	GTMX110	5/16	11	•
TMX140	GTMX140*	5/16	14	
TMX240*		3/8	24	
TMX360		3/8	36	

\*Not knurled

Set shown includes storage tray

\*\*ASME®/ANSI® B107.10

Set Contains:  
106BTMX

GTMXK80



BLPTXK3



### Knurled (Blue-Point®)

Stock No.	B
BLPTXK1.5	1 9/16
BLPTXK2	2 3/32
BLPTXK3	2 15/16
BLPTXK4	4
BLPTXK6	6



103TMXLBP

103TMXLBP

### Locking (Blue-Point)

Stock No.	B	
TMXLBP4	4	•
TMXLBP6	6	•
TMXLBP10	10	•

Set shown includes storage tray

Set Contains:  
103TMXLBP



103TMXKLA

### Locking - Knurled

- Quick release sleeve releases socket quickly and easily
- Knurling at the drive end provides for easy fingertip turning

Set Contains:  
103TMXKLA

Stock No.	A	B	
TMXKL60A	5/16	6	•
TMXKL110A	5/16	11	•

### TMXKLP Locking Pins.

- Locking pins for TMXKLP Series Extensions Set shown includes storage tray

### TMXKLRK Repair Kit.

- Repair kit for TMXKLP Series Extensions
- 5 pack



YA515A

### Locking (Set Screw) (Blue-Point)

Stock No.	Finish	A	B
YA515A	Chrome	1/2	1 11/16

### YA515A Set Screw Locking Extension.

- Allows easy and secure tool stacking
- Securely connects breaker bar, extensions and ratchets to socket and socket drivers for overhead work
- Sliding sleeve for easy removal
- Not for use with power or impact tools



TZ1

### Connectors

#### TZ1 Extension Connector.

- 1/4" drive extension connector adds versatility to extensions, breaker bars, ratchets and crowfoot wrenches
- Connect one or more tools for a variety of ways to reach limited access fasteners
- For use in marine, heavy truck, plumbing and manufacturing applications

#### TZ2 Extension Connector Set.

- Set of 2 TZ1



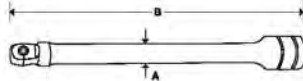
## 1/4" Drive (Chrome/Industrial Finish)



106ATMXW



106ATMXWP



### Wobble

- Provides 16° of additional accessibility
- Knurled shanks for easy fingertip turning

Set Contains:

106ATMXW

Stock No.	A	B	
TMXW1*	5/16	1 1/4	•
TMXWK2	5/16	2	•
TMXWK4	5/16	4	•
TMXWK60	5/16	6	•
TMXWK80	5/16	8	•
TMXWK110	5/16	11	•

\*Not knurled

Set shown includes storage tray

### Wobble Plus

- Provides 16° of additional accessibility
- Useable in both wobble and rigid functionality

Set Contains:

106ATMXWP

Stock No.	A	B	
TMXWP1*	5/16	1 1/4	•
TMXWP2	5/16	2	•
TMXWP4	5/16	4	•
TMXWP6	5/16	6	•
TMXWP8	5/16	8	•
TMXWP11	5/16	11	•

\*Not knurled

Set shown includes storage tray

### Variable Length

- Reach recessed fasteners easier and quicker in limited access applications
- For use under automotive dashboards and aircraft engines
- Spring loaded extension maintains contact with fastener
- Chamfered ends for easy engagement and knurling for easy hand turning

Set Contains:

102TMXKV

Stock No.	Finish	Extended Length, inches	
TMXKV3	Chrome	3	•
TMXKV5	Chrome	5	•

Set shown includes storage tray

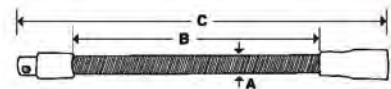


102TMXKV

### Flexible

Stock No.	A	B	C
TM61A*	5/16	5	6
BLPEXTF146	5/16	3 5/8	6

\*ASME®/ANSI® B107.10



TM61A



BLPEXTF146

- Do not use chrome or industrial finish hand tools with impact drivers
- Wobble extensions have about half the torque strength of extensions with conventional square drives
- Read safety precautions on pages W1 to W4



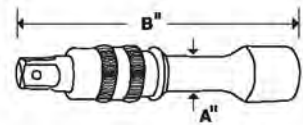
**WARNING**





# EXTENSIONS

## 1/4" Drive (Impact)



TMIXL62

### Impact Locking Extensions

- Quick release locking sleeve provides secure connection and easy socket removal
- Knurled release collar for easy one hand operation, even with slippery hands
- Female drive end recessed to accommodate new style impact guns
- Positive pin lock retains socket securely
- Heavy duty shank for high torque applications

### Impact Locking

Set Contains: 105TMIXL

Stock No.	A	B	
TMIXL32	1 <sup>1</sup> / <sub>32</sub>	2 <sup>7</sup> / <sub>8</sub>	•
TMIXL62	1 <sup>1</sup> / <sub>32</sub>	5 <sup>7</sup> / <sub>8</sub>	•
TMIXL122	1 <sup>1</sup> / <sub>32</sub>	11 <sup>7</sup> / <sub>8</sub>	•
TMIXL182	1 <sup>1</sup> / <sub>32</sub>	17 <sup>3</sup> / <sub>4</sub>	•
TMIXL242	1 <sup>1</sup> / <sub>32</sub>	23 <sup>3</sup> / <sub>4</sub>	•

Set includes storage tray



103ITMX

### Impact Extensions

- Features snap ring anvil for excellent socket to extension engagement
- Designed for use with most 1/4" cordless electric and air operated impact tools

### Impact Extensions

Set Contains: 103ITMX

Stock No.	Finish	A	B	
ITMX20	Industrial Finish	5/16	2	•
ITMX40	Industrial Finish	5/16	4	•
ITMX60	Industrial Finish	5/16	6	•

Set shown includes storage tray

## 3/8" Drive (Chrome/Industrial Finish)



206AFX



GFXK11

### Knurled

Knurling at the drive end provides for easy fingertip turning.

Set Contains:

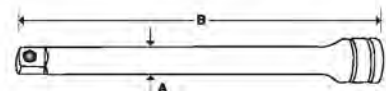
206AFX

206AFX

Stock No.	Industrial Stock No.	A	B		
FX1*	GFX1	1/2	1 1/2	•	•
FXX3	GFXK3	13/32	3	•	•
FXX4		13/32	4	•	•
FXX6	GFXK6	13/32	6	•	•
FXX8	GFXK8	13/32	8	•	•
FXX11	GFXK11	13/32	11	•	•
FX18		1/2	18	•	
FX24A		1/2	24	•	
FX36		1/2	36		

\*Not Knurled

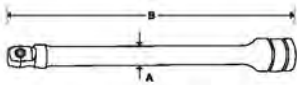
Sets include storage tray



BLPEXTK386

### Knurled (Blue-Point®)

Stock No.	B
BLPEXTK383	2 <sup>31</sup> / <sub>32</sub>
BLPEXTK386	5 <sup>29</sup> / <sub>32</sub>
BLPEXTK3810	9 <sup>29</sup> / <sub>32</sub>



206AFXW

## Wobble

- Wobble function provides 16° of additional accessibility
- Knurled shanks for easy fingertip turning

Set Contains:

206AFXW

Stock No.	A	B	
FXW1*	1/2	1 1/2	•
FXWK3	13/32	3	•
FXWK4	13/32	4	•
FXWK6	13/32	6	•
FXWK8	13/32	8	•
FXWK11	13/32	11	•

\*Not Knurled

Set shown includes storage tray

## 3/8" Drive (Chrome/Industrial Finish)



## Wobble Plus

206AFXWP

- Useable in wobble and rigid functionality
- Wobble function provides 16° additional accessibility
- Knurled shanks for easy fingertip turning

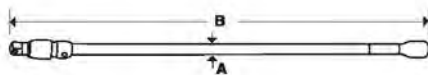
Set Contains:

206AFXWP

Stock No.	A	B	
FXWP1*	1/2	1 1/2	•
FXWP3	13/32	3	•
FXWP4	13/32	4	•
FXWP6	13/32	6	•
FXWP8	13/32	8	•
FXWP11	13/32	11	•

\*Not Knurled

Set shown includes storage tray



203FXWKL

## Locking Wobble Set

- Provides 16° of additional accessibility
- Quick release locking sleeve provides secure connection and easy socket removal
- Knurled release collar for easy one hand operation, even with slippery hands

Set Contains:

203FXWKL

Stock No.	A	B	
FXWKL3	1/2	3	•
FXWKL6	1/2	6	•
FXWKL11	1/2	11	•

Set shown includes storage tray



BLPEXTF388

## Flexible Extensions (Blue-Point®)

Stock No.	Finish	Length, inches
BLPEXTF388	Chrome	8



FXKR6

## Ratcheting Extensions/Speeders

- Allows extension to be used as a speeder to quickly snug fasteners and save time
- Ability to control torque and minimize damage to composite parts and mounts
- One hand operation with built-in forward/reverse lever
- Can be used separately or with Snap-on® 3/8" ratchets
- Machined from a single piece of alloy steel for robust performance
- Knurled shaft provides precise fingertip control

Stock No.	Finish	A	B
FXKR3	Chrome	13/32	3
FXKR6	Chrome	13/32	6

## Connectors

### FZ1 Connector.

- 3/8" drive extension connector adds versatility to extensions, breaker bars, ratchets and crowfoot wrenches
- Connect one or more tools for a variety of ways to reach limited access fasteners
- Use in automotive, aircraft, marine, heavy truck, plumbing and manufacturing applications



FZ1

### FZ2 Connector Set.

- Set of 2 FZ1



**WARNING**



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages W1 to W4

# EXTENSIONS

## 3/8" Drive (Chrome)

### Variable Length

- Reach recessed fasteners easier and quicker in limited access applications
- Applications include limited access areas around water pumps, fuel pumps and turbo mounting bolts
- Spring loaded extension maintains contact with fastener
- Chamfered drive ends for easy engagement and knurling for easy hand turning



202FXKV



202FXKLV



### Variable Length

Set Contains: 202FXKV

Stock No.	Extended Length, inches	
FXKV4	4	•
FXKV7	7	•

Set shown includes storage tray

### Variable Length (Locking)

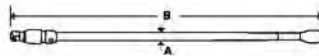
Set Contains: 202FXKLV

Stock No.	Extended Length, inches	
FXKLV5	5	•
FXKLV7	7	•

Set shown includes storage tray



203FXLBP



YA525A

### Locking (Blue-Point®)

Set Contains: 203FXLBP

Stock No.	B	
FXLBP3	3	•
FXLBP6	6	•
FXLBP10	10	•

Set shown includes storage tray

### Locking (Set Screw) (Blue-Point)

- Allows easy and secure tool stacking
- Securely connects breaker bar, extensions and ratchets to socket and socket driver for overhead work
- Sliding sleeve for easy removal
- Not for use with power or impact tools

Stock No.	A	B
YA525A	3/4	2 1/8



204FXKLA



BLPLEXT203



### Quick Release, Locking

- Releases socket from extension quickly and easily
- Knurling at drive end provides easy fingertip turning

Set Contains: 204FXKLA

Stock No.	A	B	
FXKL3A	1/2	3	•
FXKL6A	1/2	6	•
FXKL11A	1/2	11	•
FXKL24A	1/2	24	•

Set shown includes storage tray

### Extra Long Locking (Blue-Point)

- Smooth, durable chrome finish
- Made from tough 6130 steel
- Secure socket retention
- Lifetime warranty on individual extensions
- Do not use with power or impact tools

Set Contains: BLPLEXT203

Stock No.	B	
BLPEXTL3812	12	•
BLPEXTL3818	18	•
BLPEXTL3824	24	•

Set shown includes storage tray

**FXKLP Pins.** Locking pins for FXKL Series Extensions. 5 pack.  
**FXKLRK Repair Kit.** Repair kit for FXKL Series Extensions.

## 3/8" Drive (Power/Industrial Finish)

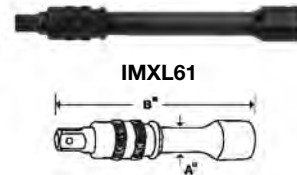
### Locking Button

Use with power or impact sockets with retention holes.

Stock No.	A	B
PF3	1/2	3
PF6	1/2	6
PF11A	1/2	11



## 3/8" Drive (Impact)



### Snap Ring Retention Device

Set Contains:

204IMXA

Stock No.	A	B	
IMX11	1/2	1 3/4	•
IMX31	1/2	3	•
IMX61	1/2	6	•
IMX111	1/2	11	•

Includes storage tray

### Locking

- Quick release locking sleeve provides a secure connection plus easy socket removal
- Knurled release collar for easy one hand operation, even with slippery hands

Stock No.	A	B
IMXL31	1/2	3
IMXL61	1/2	6
IMXL111	1/2	11



### Locking Adaptors

- Quick release locking sleeve at the 3/8" drive

Stock No.	A	B	C	D
IMSFXL18	3/8 (locking)	1/2	21/32	18
IMSFXL24	3/8 (locking)	1/2	21/32	24
IMSFXL33	3/8 (locking)	1/2	21/32	33

## 1/2" Drive (Chrome/Industrial Finish)

### Extensions

Set Contains:

305ASX

Stock No.	Industrial Stock No.	A	B	
SX2		5/8	2 1/8	•
SXK3	GSXK3	5/8	3 1/2	•
SXK5	GSXK5	5/8	5	•
SXK8		5/8	8	•
SXK11	GSXK11	5/8	11	•
SX15		5/8	15	
SX20		5/8	20	
SX24		5/8	24	
SX36		5/8	36	

ASME®/ANSI® B107.10M

Set includes storage tray



- Do not use chrome or industrial finish hand tools with impact drivers
- Wobble extensions have about half the torque strength of extensions with conventional square drives
- Read safety precautions on pages W1 to W4



**WARNING**





# EXTENSIONS

## 1/2" Drive (Chrome/Industrial Finish)



BLPEXTK123

### Extensions (Blue-Point®)

Stock No.	B
BLPEXTK123	3
BLPEXTK126	6
BLPEXTK1210	10



305ASXW

GSXWK5

### Wobble

- Provides 16° of additional accessibility
- Knurled shanks for easy fingertip turning

Set Contains:

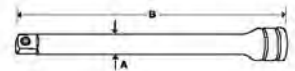
Stock No.	Industrial Stock No.	A	B	
SXW2*	GSXW2	5/8	2	•
SXWK3		5/8	3 1/2	•
SXWK5	GSXWK5	5/8	5	•
SXWK8		5/8	8	•
SXWK11	GSXWK11	5/8	11	•

\*Not Knurled  
ASME/ANSI B107.10

Set shown includes storage tray



303SXWKL



303SXLBP

### Locking/Knurled (Blue-Point)

Set Contains:

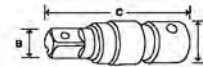
303SXLBP

Stock No.	B	
SXLBP3	3	•
SXLBP6	6	•
SXLBP10	10	•

Set shown includes storage tray



GALX3



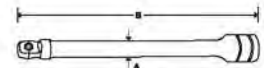
### Locking Adaptors

Stock No.	A	B	C
GALX3	1/2	1/2	3 1/8

ASME®/ANSI® B107.10



305SXWP



### Wobble Plus

- Provides 16° of additional accessibility
- Usable in wobble and rigid functionality
- Knurled shanks for easy fingertip turning

Set Contains:

305SXWP

Stock No.	A	B	
SXWP2*	5/8	2	•
SXWP3	5/8	3	•
SXWP5	5/8	5	•
SXWP8	5/8	8	•
SXWP11	5/8	11	•

\*Not Knurled  
ASME/ANSI B107.10

Set shown includes storage tray

### 1/2" Locking Wobble Set

- Provides 16° of additional accessibility
- Quick release locking sleeve provides secure connection and easy socket removal
- Knurled release collar for easy one hand operation, even with slippery hands

Set Contains:

303SXWKL

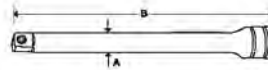
Stock No.	A	B	
SXWKL3	21/32	3	•
SXWKL5	21/32	5	•
SXWKL8	21/32	8	•

Set shown includes storage tray

## 1/2" Drive (Power)

### Lock Button Retention

Stock No.	A	B
PS2	5/8	2
PS3	5/8	3 1/2
PS5	5/8	5
PS10	5/8	10



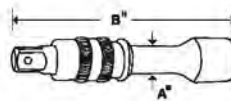
PS2

## 1/2" Drive (Impact)

### Locking Extensions

Stock No.	A	B	Set Contains:	
			303IMXL	303AIMXL
IMXL32	5/8	3 1/2	•	
IMXL52	5/8	5	•	
IMXL102	5/8	10	•	
IMXL182	5/8	18		•
IMXL242	5/8	24		•
IMXL312	5/8	31		•

Sets include storage tray



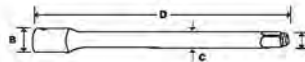
303IMXL

- Ideal for use on transmission bellhousing bolts, transaxle and suspension service
- Pull back collar for fast and easy attachment and removal of sockets
- Knurled release collar provides easy one hand operation
- Single body construction for maximum strength and locking mechanism specifically for impact use
- Female drive end recessed to accommodate newer style impact guns

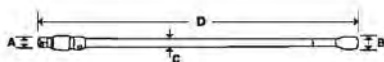
### Snap Ring Retention

Stock No.	A	B	Set Contains:	
			304IMX	304IMX
IMX32B	5/8	3	•	
IMX52	21/32	5 3/32	•	
IMX112	21/32	11 1/4	•	

Set includes storage tray



304IMX



IMSFXL18

### Locking Adaptors

- Quick release locking sleeve at 3/8" drive end provides a secure connection plus easy socket removal

Stock No.	A	B	C	D
IMSFXL18	3/8	1/2	21/32	18
IMSFXL24	3/8	1/2	21/32	24
IMSFXL33	3/8	1/2	21/32	33



IMXA42

### Adaptor

Stock No.	A	B	C	D
IMXA42	3/8	1	1/2	4

- Do not use chrome or industrial finish hand tools with impact drivers
- Wobble extensions have about half the torque strength of extensions with conventional square drives
- Read safety precautions on pages W1 to W4



**WARNING**



# EXTENSIONS

## 3/4" Drive (Chrome/Industrial Finish)



### Extensions with Locking Button

Stock No.	Industrial Stock No.	A	B
L32	GL32	15/16	3
L42	GL42	15/16	5
L62	GL62	15/16	8
L122	GL122	15/16	16

## 3/4" Drive (Impact)



### Extensions

Stock No.	A	B
IM132A	1	3
IM62B	1	7
IM92B	1	10
IM122B	1	13

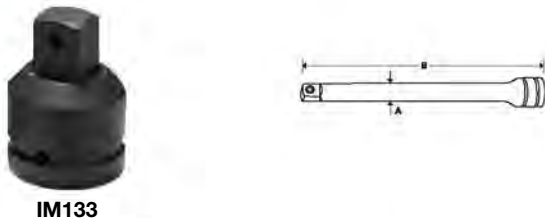
## 1" Drive (Chrome)



### Extension with Locking Button

Stock No.	A	B
L63	1 1/4	8

## 1" Drive (Impact)



### Extensions with Pin Hole

Stock No.	A	B
IM133	1	3
IM63B	1 1/8	7 1/8
IM123	1 3/8	13 1/8



IM243R



IM243P



IMR3

## Master Ring and Pin Chart for Impact Sockets and Accessories

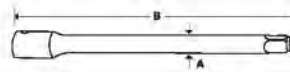
The following are required for tool use:

Stock No.	Description	Used With	See Page:
IM182R	Rubber Locking Ring	All 3/4" drive Sockets/Accessories	47-49, 80, 87, 495
IMR2	Socket Retainer	All 3/4" drive Sockets/Accessories	47-49, 80, 87, 495
IM243R	Rubber Locking Ring (Use with IM243P)	All 1" drive Sockets/Accessories up to 1 3/8" (35 mm) plus 3/4" drive IM124 Adaptor	49-52, 80, 88, 495
IM243P	Steel Locking Pin (Use with IM243R)	All 1" drive Sockets/Accessories up to 1 3/8" (35 mm) plus 3/4" drive IM124 Adaptor	49-52, 80, 88, 495
IMR3	Socket Retainer	All 1" drive Sockets/Accessories, All #5 Spline drive Sockets/Accessories	49-52, 80, 88, 495
IM483R	Rubber Locking Ring (Use with IM483P)	All 1" drive Sockets/Accessories from 1 7/16" (36 mm) and larger, All #5 Spline drive Sockets/Accessories	49-52, 80, 88, 495
IM483P	Steel Locking Pin (Use with IM483R)	All 1" drive Sockets/Accessories from 1 7/16" (36 mm) and larger, All #5 Spline drive Sockets/Accessories	49-52, 80, 88, 495
IM445R	Rubber Locking Ring	All 1 1/2" drive Sockets/Accessories	52-54, 88
IM729P	Steel Locking Pin	All 2 1/2" drive Sockets/Accessories	55-56

## 1 1/2" Drive (Impact)

### Extensions with Pin Hole

Stock No.	A	B
IM105	2	10
IM155	2	15
IM205	2	20



IM105

## 1/4" Drive Accessories (Chrome/Industrial Finish)

### Universal Joint

Stock No.	A	B
TMU8B	1/2	1 5/16
TMUL8	1/2	2 1/4



103UFTS

#### TMU8B Universal Joint.

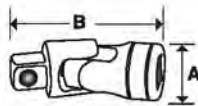
- Universal joints help increase access to hard to reach fastener applications
- Pins in the universal joint are laser welded and won't "walk" out over time

#### TMUL8 Locking Collar Universal Joint.

- Locking pin to ensure better socket retention

#### 103UFTS Combination Drive Universal Joint Set.

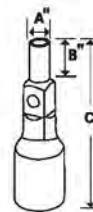
- Includes 1/4" drive TMU8B, 3/8" drive FU8A (pg. 83), and 1/2" drive S8 (pg. 85)
- Universal joints (3 pcs) in storage tray



BLPUJ14

### Universal Joint (Blue-Point®)

Stock No.	A	B
BLPUJ14	5/8	1 1/2



TMXM17

### Magnetic Adaptors

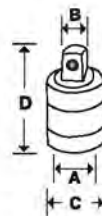
Stock No.	A	B	C
TMXM17	7/32	13/32	1 21/32
TMXM114	7/32	9/32	1 17/32

### Square Drive Adaptors

Stock No.	Industrial Stock No.	A	B	C	D
	GFAT1E	3/8	1/4	11/16	1 1/4
TA3	GTA3	1/4	3/8	1/2	15/16

#### 1206GS Combination Drive Adaptor Set.

- Includes 1/4" drive FAT1E (pg. 83) and TA3 adaptors, 3/8" drive A2A (pg. 83) and SAF1E adaptors and 1/2" drive LA12B (pg. 85) and LAS1E adaptors (6 pcs) in storage tray



1206GS



**WARNING**



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages W1 to W4



# ACCESSORIES

## 1/4" Drive (Chrome/Industrial Finish)



TM40ASA

### Handled Driver/Stubby

Stock No.	C	E
TM40ASA	2 1/8	1 3/4



SGT4BR

### Handled Drivers/Instinct® Handle

- Provides maximum turning power and increased comfort
- 6 specially designed curves and flutes provide fingertip control and aid in spinning
- Nickel-chrome plating helps protect against corrosion and makes cleaning easy

Stock No.	A	B	C
SGT4BR	5/16	2	6 13/16
SGTL4BR	5/16	6 3/8	8 1/8

SGTL4BR Features a locking pin for better socket retention.



TM4CSA

### Handled Drivers/Square Drive Handle

- Internal square drive in handle allows use with various handles

Stock No.	A	B	C
TM4CSA	5/16	2 3/8	6
TM9CSA	5/16	6 3/8	10



BLPCGHD146

### Handled Driver (Blue-Point®)

Stock No.	Description	C
BLPCGHD146	Spinner Handle	6



TMR4



TMRT8



TM615



TM62B

### Ratcheting Driver

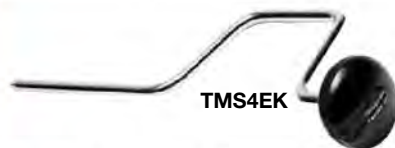
- Use with any 1/4" drive socket to create a ratcheting nut driver
- 3 position ratchet mechanism works in forward, reverse or lock out the ratcheting action completely

Stock No.	Color	B	C	E
TMR4	Black	3 7/8	8 31/32	5 3/32
TMR40	Orange	3 7/8	8 31/32	5 3/32
TMRT8	Black	8	10	2

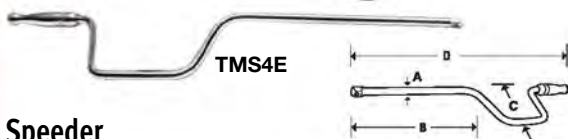
### Flexible Drivers

- For low torque applications

Stock No.	A	B	C
TM62B	1/4	2 7/32	6 3/4
TM63A	1/4	4 21/32	9 3/16
TM615	1/4	15	18 5/8



TMS4EK



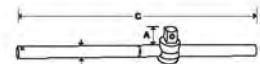
TMS4E

### Speeder

Stock No.	A	B	C	D
TMS4E	5/16	7 1/8	3	16
TMS4EK	5/16	7 1/8	3	15 1/32



TM5



### Sliding T-handle

- Designed for heavier applications
- For use as a T-handle or offset wrench
- Spring and friction ball holds head in position

Stock No.	A	B	C
TM5	13/16	5/16	4 1/2

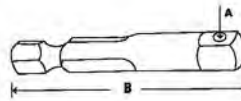
ASME®/ANSI® B107.10

## 1/4" Drive (Power/Impact)



### Swivel Ball Universal Joint (Impact)

Stock No.	Retention Type	A	B
IPM80A	Lock Button	5/8	1 3/8
IPM800A	Friction Ball	5/8	1 3/8



GMB3042

### Hex-To-Square Adaptors (Power)

- 1/4" hex size; 1" length of hex

Stock No.	A	B
GMB3041*	Friction Ball	1
GMB3042	Friction Ball	2
GMB3046	Friction Ball	6
GM3042A	Lock Button	2
GM3043	Lock Button	4
GM3046	Lock Button	6
GM3048	Lock Button	8

\*Insert Bit Style, non impact

### Locking Power Adaptors

- Use with electric/cordless drills and screwdrivers that accept 1/4" shanks
- Manufactured from the highest quality proprietary steel, providing optimum strength and durability
- Knurled sleeve provides easy attachment and removal of sockets even with the greasiest hands
- One handed lock mechanism with ball retention ensures socket retention and allows for faster socket attachment and removal
- Black oxide finish helps protect against corrosion for longer tool life

Stock No.	A	B	Set Contains:
TMLPA2	1/4	2	•
TMLPA4	1/4	4	•
TMLPA6	1/4	6	•

103TMLPA  
Set Contains:



103TMLPA

Set includes storage tray

## 3/8" Drive (Chrome/Industrial Finish)



### Universal Joints

Stock No.	Industrial Stock No.	A	B
FUL8A		3/4	3
FU8A**	GFU8A	3/4	2 1/16
FU80B**		11/16	1 11/16
FUB8A*		3/4	2 5/16

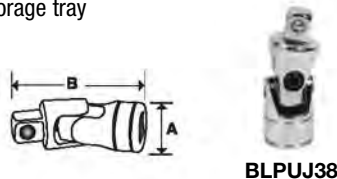
\*Swivel Universal Joint \*\*ASME®/ANSI® B107.10

#### FUL8A Locking Pin.

- Locking pin for better socket retention

#### 103UFTS Combination Drive Universal Joint Set.

- Includes 1/4" drive TMU8B (pg. 81), 3/8" drive FU8A (this page), and 1/2" drive S8 (pg. 85) universal joints (3 pcs) in a storage tray



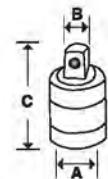
BLPUJ38

### Universal Joints (Blue-Point®)

Stock No.	A	B
BLPUJ38		2 1/32



206EAU



1206GS

### Adaptors

Stock No.	Industrial Stock No.	A	B	C
	GFAT1E	3/8	1/4	1 1/4
TA3	GTA3	1/4	3/8	15/16
A2A	GAF2A	3/8	1/2	1 5/16
	GSAF1E	1/2	3/8	1 13/16

#### 206EAU Adaptor/Extension Set.

- Includes FAT1E and A2A adaptors (this page); FU8A universal joint (this page) and FX1, FXK3 and FXK6 extensions (pg. 74) (6 pcs) in storage tray

#### 1206GS Combination Drive Adaptor Set.

- Includes 1/4" drive FAT1E and TA3 adaptors (pg. 81); 3/8" drive A2A and SAF1E adaptors (this page) and 1/2" drive LA12B and LAS1E adaptors (pg. 85) (6 pcs)



**WARNING**



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages W1 to W4

# ACCESSORIES

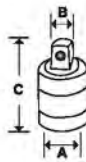
## 3/8" Drive (Chrome/Industrial Finish)



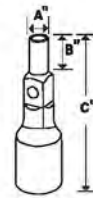
BLPAFM3814



BLPAFM1438



FXM18



### Adaptors (Blue-Point®)

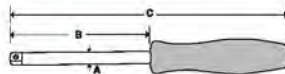
Stock No.	Description	A	B
BLPAFM3814	Square Drive Adaptor	3/8	1/4
BLPAFM1438	Square Drive Adaptor	1/4	3/8

### Magnetic Adaptors

Stock No.	A	B	C
FXM112	5/16	9/32	1 25/32
FXM18	3/16	9/32	1 25/32



SGF50BR



F40B



BLPCGHD388

### Handled Drivers

Stock No.	A	B	C
SGF50BR*	1/2	3 3/32	8
F40B	1/2	1	5 5/16

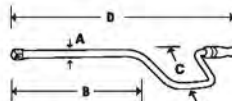
\*Instinct® Handle

### Handled Drivers (Blue-Point)

Stock No.	Description	C
BLPCGHD388	Spinner Handle	8 5/8



F4LB



F4LBK

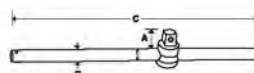
### Speeders

Stock No.	A	B	C	D
F4LB	13/32	7 7/8	3 1/2	17 27/32
F4LBK*	13/32	7 7/8	3 1/2	16 5/8

\*Speeder with knob.



F5L



### Sliding T-handles

Stock No.	A	B	C
F5L	3/4	13/32	8



TURBOT103

### Turbo T-handle Speed Drivers (Blue-Point)

Stock No.	Description	Handle Type
T9TURBO	1/4" square drive	Turbo T-handle
TH10TURBO	1/4" hex	Turbo T-handle
F11TURBO	3/8" square drive	Turbo T-handle

### TURBOT103 Turbo T-handle Set.

- T9TURBO (1/4" drive), TH10TURBO (1/4" hex) and F11TURBO (3/8" drive)
- 3 pcs in storage tray

## 3/8" Drive (Power/Impact)

### Adaptors (Power)

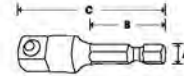
Stock No.	Socket Attachment	A	B	C	D
PA2A	Pin Type	3/8	1/2	3/4	1 13/16
PA4E	Pin Type	1/2	3/8	15/16	1 13/16



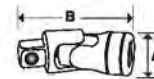
PA2A

### Hex-To-Square Adaptors (Power)

Stock No.	Socket Attachment	A	B	C
A3042	Pin Type	1/4	1	2
A3044	Pin Type	1/4	1	4
A3046	Pin Type	1/4	1 1/4	6
A3017A	Pin Type	7/16	1 1/4	1 3/4
AB3042	Ball Type	1/4	1	2
AB3044	Ball Type	1/4	1	4
AB3046	Ball Type	1/4	1 1/4	6



A3042



PFU8A

### Universal Joint (Power)

Stock No.	Socket Attachment	A	B
PFU8A	Pin Type	3/4	1 31/32

### Universal Joints (Impact)

Stock No.	Socket Attachment	A	B
IPF80B	Pin Type	1	2 1/8
IPF800B	Ball Type	1	2 1/8



IPF80B

## 1/2" Drive (Chrome/Industrial Finish)

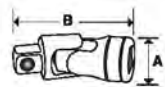
### Universal Joints

Stock No.	Industrial Stock No.	A	B
S8	GU8	15/16	2 11/16

ASME®/ANSI® B107.10

#### 103UFTS Set.

- Includes 1/4" drive TMU8B (pg. 81), 3/8" drive FU8A (pg. 83) and 1/2" drive S8 (this page) universal joints
- 3 pcs in storage tray



GU8

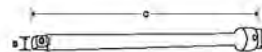
S8

### Universal Joints (Blue-Point®)

Stock No.	B
BLPUJ12	2 3/4



BLPUJ12



GAX12

### Adaptors

Stock No.	Industrial Stock No.	A	B	C
	GSAF1E	1/2	3/8	1 1/2
A2A	GAF2A	3/8	1/2	1 5/16
	GLA12B	1/2	3/4	1 7/8
	GLAS1E	3/4	1/2	3



GLA12B



### Extension Adaptors

Stock No.	Retention Type	A	B	C
GAX5	Ball Type	1/2	3/8	5
GAX12	Ball Type	1/2	3/8	12
GAX24	Ball Type	1/2	3/8	23 1/4
GAX36	Ball Type	1/2	3/8	36

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**WARNING**

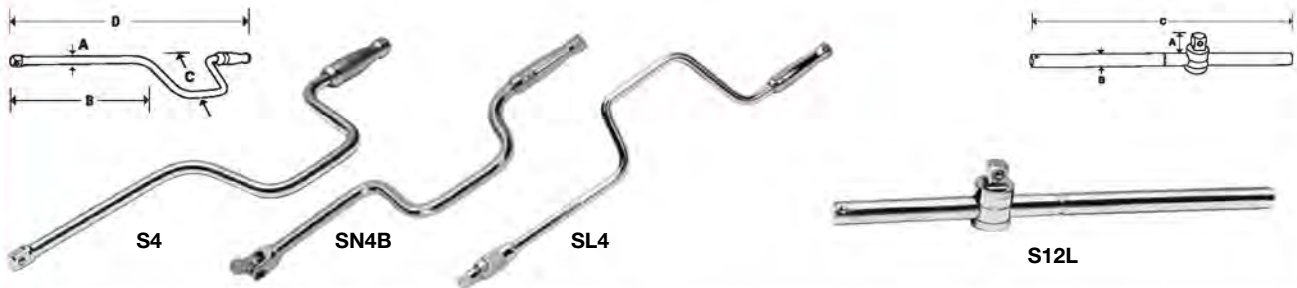


- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages W1 to W4



# ACCESSORIES

## 1/2" Drive (Chrome/Industrial Finish)



### Speeders

Stock No.	A	B	C	D
<b>S4</b>	1/2	7	4 3/8	18 7/8
<b>SN4B*</b>	5/8	6 3/8	3	17 1/4
<b>SL4</b>	1/2	7 3/8	4 7/16	19 1/8

ASME®/ANSI® B107.10  
 \*Uses RKBB3 Repair Kit.

### SL4 Locking Speeder.

- Sliding collar and locking pin for better socket retention

### Sliding T-handle

Stock No.	A	B	C
<b>S12L</b>	1 11/16	5/8	12

ASME/ANSI B107.10

### Turbo T-handle Speed Drivers (Blue-Point®)

Stock No.	Description	Handle Type
<b>S13TURBO</b>	1/2" Speed driver	Turbo T-Handle



## 1/2" Drive (Power/Impact)

### Adaptors (Power)



PA2A

Stock No.	Socket Attachment	A	B	C	D
<b>PA2A</b>	Pin Type	3/8	1/2	3/4	1 5/16
<b>PA4E</b>	Pin Type	1/2	3/8	15/16	1 13/16

### Hex Shank (Power)



A3011A

Stock No.	Socket Attachment	A	B	C	D
<b>A3011A</b>	Pin Type	1/2	7/16	1 1/4	2 3/4

### Universal Joint (Impact)



202IP

Stock No.	Drive Size	Socket Attachment	A	B	Set Contains:
<b>IP800</b>	3/8	Ball Type	1 1/4	2 3/4	•
<b>IP80D</b>	1/2	Pin Type	1 1/4	2 3/4	•

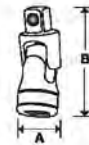
Set Contains: **202IP**

Set includes storage tray

## 3/4" Drive (Chrome/Industrial Finish)

### Universal Joints

Stock No.	A	B
L82A	1 9/16	3 7/8



L82A

### Adaptors

Stock No.	A	B	C	D
GLA12B	1/2	3/4	1 1/8	1 7/8
GLAS1E	3/4	1/2	1 7/16	2 7/16
GLA72A	3/4	1	1 7/16	2 5/8
GLA124A	1	3/4	1 13/16	2 3/4



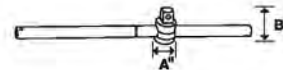
GLAS1E

### Sliding T-handle

- Designed for heavier applications
- Spring and friction ball hold head in position

Stock No.	A	B
L52B	1 1/2	2 5/16

Use L52B with L872H handle on pg.15.



L52B

## 3/4" Drive (Impact)

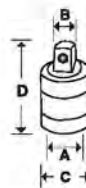


IP82

### Swivel Ball Universal Joint

- Maximum Accessibility Design
- No internal spring used

Stock No.	A	B
IP82	1 3/4	3 5/32



IM124B

### Adaptors

Stock No.	A	B	C	D
IM72	3/4	1 with Pin Hole	1 5/8	2 9/16
IM124B	1	3/4 with Pin Hole	2 3/8	2 13/16

### Ring and Pin Chart for 3/4" Drive Impact Sockets and Accessories

The following are required for tool use:

Stock No.	Description	Used With
IM182R	Rubber Locking Ring	All 3/4" drive Sockets/Accessories
IMR2	Socket Retainer	All 3/4" drive Sockets/Accessories
IM243R	Rubber Locking Ring (Use with IM243P)	1" drive Sockets/Accessories plus IM124B Adaptor
IM243P	Steel Locking Pin (Use with IM243R)	1" drive Sockets/Accessories plus IM124B Adaptor



IM182R



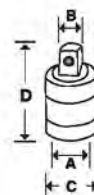
IM243P

## 1" Drive (Chrome/Industrial Finish)

### Adaptors

Stock No.	A	B	C	D
GLA72A	3/4	1	1 7/16	2 5/8
GLA124A	1	3/4	1 13/16	2 3/4

ASME®/ANSI® B107.10



GLA72A



**WARNING**



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages W1 to W4

# ACCESSORIES

## 1" Drive (Chrome/Industrial Finish)



### Sliding T-handle

Stock No.	C	Sliding Head Only Stock No.	A	Handle Stock No.
L53	29	L53A	2	L53HB

## 1" Drive (Impact)



IP83

### Swivel Universal Joint with Pin Hole

Stock No.	A	B
IP83	2 1/2	4 3/16



IM35

### Adaptors with Pin Hole

Stock No.	A	B	C	D
IM72	3/4	1	1 5/8	2 9/16
IM124B	1	3/4	2 3/8	2 13/16
IM35	1	1 1/2	2 1/4	3 1/2
IM53	1 1/2	1	3 1/4	4 1/4

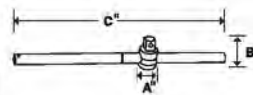
## 1 1/2" and #5 Spline Drive (Impact)



IP85

### Swivel Universal Joint

Stock No.	Retention Type	A	B
IP85	Pin Hole	3 5/8	6 1/16



L55

### Sliding T-handle

Stock No.	C	Sliding Head Only Stock No.	A	Handle Stock No.
L55	36	L55-2	2 7/8	L55-1



IM53

### Square Drive Adaptors

Stock No.	A	B	C	D
IM35	1	1 1/2	2 1/4	3 1/2
IM53	1 1/2	1	3 1/4	4 1/4
IM59	2 1/2	1 1/2	3 1/4	4 3/4
IM95	1 1/2	2 1/2	5	6 3/8



IMSA3

### Spline to Square Drive Adaptor

Stock No.	A	B	C	D
IMSA3	1" Square	No. 5, 14 Tooth	2 3/8	3 3/8



IMR3



IM483R




IM483P

## Ring and Pin Chart for 1", 1 1/2" and #5 Spline Drive Impact Sockets and Accessories

The following are required for tool use:

Stock No.	Description	Use with
IM243R	Rubber Locking Ring (Use with IM243P)	All 1" drive Sockets/Accessories up to 1 3/8" (35 mm) plus 3/4" drive IM124 Adaptor
IM243P	Steel Locking Pin (Use with IM243R)	All 1" drive Sockets/Accessories up to 1 3/8" (35 mm) plus 3/4" drive IM124 Adaptor
IMR3	Socket Retainer	All 1" drive Sockets/Accessories, All #5 Spline drive Sockets/Accessories
IM483R	Rubber Locking Ring (Use with IM483P)	All 1" drive Sockets/Accessories from 1 7/16" (36 mm) and larger, All #5 Spline drive Sockets/Accessories
IM483P	Steel Locking Pin (Use with IM483R)	All 1" drive Sockets/Accessories from 1 7/16" (36 mm) and larger, All #5 Spline drive Sockets/Accessories
IM445R	Rubber Locking Ring	All 1 1/2" drive Sockets/Accessories

### 1605TA General Service Torx® Set 5 Tools, Includes:

	<b>6 Point Sockets</b>
3/32"	<b>T6</b>
1/8"	<b>T8</b>
5/32"	<b>T10</b>
3/16"	<b>T12</b>
1/8" Drive Handle	<b>T40A</b>







1605TA



144TMPB


### 144TMPB 6 Point Metric/Fractional Set 44 Tools, Includes:

 mm	6 Point Shallow Sockets	 mm	6 Point Shallow Sockets	 mm	6 Point Deep Sockets	 mm	6 Point Deep Sockets
5.5	<b>TMM5.5</b>	3/16	<b>TM6*</b>	5.5	<b>STMM5.5</b>	3/16	<b>STM6</b>
6	<b>TMM6</b>	7/32	<b>TM7*</b>	6	<b>STMM6</b>	7/32	<b>STM7</b>
7	<b>TMM7</b>	1/4	<b>TM8</b>	7	<b>STMM7</b>	1/4	<b>STM8</b>
8	<b>TMM8</b>	9/32	<b>TM9</b>	8	<b>STMM8</b>	9/32	<b>STM9</b>
9	<b>TMM9</b>	5/16	<b>TM10</b>	9	<b>STMM9</b>	5/16	<b>STM10</b>
10	<b>TMM10</b>	11/32	<b>TM11</b>	10	<b>STMM10</b>	11/32	<b>STM11</b>
11	<b>TMM11</b>	3/8	<b>TM12</b>	11	<b>STMM11</b>	3/8	<b>STM12</b>
12	<b>TMM12</b>	7/16	<b>TM14</b>	12	<b>STMM12</b>	7/16	<b>STM14</b>
13	<b>TMM13</b>	1/2	<b>TM16</b>	13	<b>STMM13</b>	1/2	<b>STM16</b>
14	<b>TMM14</b>	9/16	<b>TM18</b>	14	<b>STMM14</b>	9/16	<b>STM18</b>

<b>Also Includes:</b>	<b>T72</b>	High Strength Sealed Ratchet
	<b>TMU8B</b>	Universal Joint
	<b>TMXK2</b>	2" Knurled Extension
	<b>TMXK60</b>	6" Knurled Extension
	<b>PB99A</b>	Storage Box

\*Conventional hex

### 117TMM Metric 6 Point Starter Set 17 Tools, Includes:

 mm	6 Point Shallow Sockets
4	<b>TMM4</b>
5	<b>TMM5</b>
5.5	<b>TMM5.5</b>
6	<b>TMM6</b>
7	<b>TMM7</b>
8	<b>TMM8</b>
9	<b>TMM9</b>
10	<b>TMM10</b>
11	<b>TMM11</b>
12	<b>TMM12</b>
13	<b>TMM13</b>
14	<b>TMM14</b>
15	<b>TMM15</b>




117TMM

<b>Also Includes:</b>	<b>T72</b>	High Strength Sealed Ratchet
	<b>TMU8B</b>	Universal Joint
	<b>TMXK2</b>	2" Knurled Extension
	<b>TMXK4</b>	4" Knurled Extension



131TMPB

### 131TMPB 6 Point Metric Set 31 Tools, Includes:

 mm	6 Point Shallow Socket	6 Point Deep Socket
5	<b>TMM5</b>	<b>STMM5</b>
5.5	<b>TMM5.5</b>	<b>STMM5.5</b>
6	<b>TMM6</b>	<b>STMM6</b>
7	<b>TMM7</b>	<b>STMM7</b>
8	<b>TMM8</b>	<b>STMM8</b>
9	<b>TMM9</b>	<b>STMM9</b>
10	<b>TMM10</b>	<b>STMM10</b>
11	<b>TMM11</b>	<b>STMM11</b>
12	<b>TMM12</b>	<b>STMM12</b>
13	<b>TMM13</b>	<b>STMM13</b>
14	<b>TMM14</b>	<b>STMM14</b>
15	<b>TMM15</b>	<b>STMM15</b>

<b>Also Includes:</b>	<b>TMXK60</b>	6" Knurled Extension
	<b>SSDMR4B</b>	Magnetic Ratcheting Screwdriver
	<b>TMXK2</b>	2" Knurled Extension
	<b>T72</b>	High Strength Sealed Ratchet
	<b>TM10G</b>	Breaker Bar
	<b>TMU8B</b>	Universal Joint
	<b>GMB3041</b>	Hex to Square Adaptor



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages W1 to W4




# GENERAL SERVICE SETS

## 1/4" Drive



120DTMPB

120DTMPB 6 Point Fractional General Service 20 Tools, Includes:


	6 Point Shallow Sockets
3/16	TM6
7/32	TM7
1/4	TM8
9/32	TM9
5/16	TM10
11/32	TM11
3/8	TM12
7/16	TM14
1/2	TM16
9/16"	TM18

Also Includes:	TM4CSA	Handle
	TM10G	6" Breaker Bar
	TM408	Double Square Socket 1/4"
	TM410	Double Square Socket 5/16"
	TM412	Double Square Socket 3/8"
	T72	High Strength Sealed Ratchet
	TMU8B	Universal Joint
	TMXK2	2" Knurled Extension
	TMXK4	4" Knurled Extension
	TMXK60	6" Knurled Extension





134ATMP

114ATMP 6 Point Fractional Set 14 Tools, Includes:

	6 Point Shallow Sockets
3/16	TM6
7/32	TM7
1/4	TM8
9/32	TM9
5/16	TM10
11/32	TM11
3/8	TM12
7/16	TM14
1/2	TM16
9/16	TM18

Also Includes:	T72	High Strength Sealed Ratchet
	TMU8B	Universal Joint
	TMXK2	2" Knurled Extension
	TMXK4	4" Knurled Extension

134ATMP 6 Point Fractional Set 34 Tools, Includes:

	6 Point Shallow Sockets		6 Point Deep Sockets
3/16	TM6	3/16	STM6
7/32	TM7	7/32	STM7
1/4	TM8	1/4	STM8
9/32	TM9	9/32	STM9
5/16	TM10	5/16	STM10
11/32	TM11	11/32	STM11
3/8	TM12	3/8	STM12
7/16	TM14	7/16	STM14
1/2	TM16	1/2	STM16
9/16	TM18	9/16	STM18

Also Includes:	T72	High Strength Sealed Ratchet
	TMU8B	Universal Joint
	TMXK2	2" Knurled Extension
	TMXK4	4" Knurled Extension
	TMXK60	6" Knurled Extension
	SGT4BR	Long Shank Driver
	TM10G	6" Breaker Bar
	TM61A	6" Flexible Extension
	TM67A	Ratchet Adaptor
	TM82	Flat Tip Driver .036 x 1/4"
	TM408	Double Square Socket 1/4"
	TM410	Double Square Socket 5/16"
	TM412	Double Square Socket 3/8"
	TMS70A	Ratchet Spinner

### Set (Add-on)

**107ATMPB Expandable General Service Set and Additions.** Start with the 107ATMPB General Service Set and add any of the suggested socket sets below to custom build exactly the 1/4" drive set you need. The storage case has a large enough cavity to accommodate 2 rows of sockets standard, semi deep, deep, universal, or any combination of these in fractional or metric sizes.

#### 7 Tools, Includes:

<b>T72</b>	High Strength Sealed Ratchet
<b>TMU8B</b>	Universal Joint 1/4" Drive
<b>TMXK2</b>	2" Knurled Extension
<b>TMXK4</b>	4" Knurled Extension
<b>TMXK60</b>	6" Knurled Extension
<b>TM10G</b>	Breaker Bar 6"
<b>SGT4BR</b>	Long Shank Driver 1/4"

<b>Suggested additions not included in set:</b>	<b>110TMY</b>	6 Point Shallow Socket Set (10 pcs)
	<b>110STMY</b>	6 Point Deep Socket Set (10 pcs)
	<b>111TMMDY</b>	12 Point Metric Shallow Socket Set (11 pcs)
	<b>111STMMDY</b>	12 Point Metric Deep Socket Set (11 pcs)
	<b>106ETMAMY</b>	Metric Hex Driver Set (6 pcs)



107ATMPB

### General Service Sets (Blue-Point®)

#### BLPGSS1427 General Service Set.

Components (all 1/4" drive):

- 11 Fractional (3/16 to 5/8") 6 point Shallow Sockets
- 11 Fractional (3/16 to 9/16") 6 point Deep Sockets
- 3 Ratchet/Socket Accessories
- 1 Quick Release Ratchet
- 1 Spinner Handle
- BLP SS1427PB storage case



BLPGSS1427

#### BLPGSSM1427 General Service Set.

Components (all 1/4" drive):

- 11 Metric (4 to 14 mm) 6 point Shallow Sockets
- 11 Metric (4 to 14 mm) 6 point Deep Sockets
- 3 Ratchet/Socket Accessories
- 1 Quick Release Ratchet
- 1 Spinner Handle
- BLP SSM1427PB storage case



BLPGSSM1427

#### BLPGSS1438 General Service Set.

Components (all 1/4" drive):

- 11 Fractional (3/16 to 5/8") and 11 Metric (4 to 14 mm) 6 point Shallow Sockets
- 4 fractional hex bits (9/64, 3/16, 7/32, 1/4")
- 3 flat tip bits (5/32, 3/16, 1/4")
- 2 Phillips® tip bits (#1, #2)
- 5 Ratchet/Socket Accessories
- 1 Quick Release Ratchet
- 1 Spinner Handle
- BLP SS1438PB storage case



BLPGSS1438



**WARNING**



- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages W1 to W4

# GENERAL SERVICE SETS

## 1/4" -3/8" Drive (Blue-Point®)



BLPGSS1462



BLPGSS1451A



BLPGSSC100



BLPGSSC155

### BLPGSS1462 General Service Set.

Components (all 1/4" drive):

- 11 fractional (3/16 to 5/8") and 11 metric (4 to 14 mm) standard sockets
- 11 fractional (3/16 to 5/8") and 11 metric (4 to 14 mm) deep sockets
- 1 bit holder
- 4 hex bits (9/64, 3/16, 7/32, 1/4")
- 3 flat tip bits (5/32, 3/16, 1/4")
- 2 Phillips® bits (#1, #2)
- 7 ratchet/socket accessories
- 1 ratchet
- BLP SS1462PB storage case

### BLPGSS1451A General Service Set.

Components (all 1/4" drive):

- 10 fractional (3/16 to 9/16") and 13 metric (4 to 14 mm) standard sockets
- 3 fractional (1/4, 5/16, 3/8") 8 point sockets
- 6 Torx® socket drivers (T8 to T27)
- 6 fractional hex socket drivers (1/8 to 5/16")
- 3 flat tip socket drivers (5/32, 7/32, 9/32")
- 3 Phillips socket drivers (#0, #1, #2)
- 6 ratchet/socket accessories
- 1 ratchet
- BLP SS1451AC storage case

### BLPGSSC100 General Service Set.

Components (1/4" Drive):

- 10 fractional (3/16 to 9/16") and 13 metric (4 to 14 mm) standard sockets
- 5 ratchet/socket accessories
- 1 ratchet

Components (3/8" Drive):

- 13 fractional (1/4 to 1") and 19 metric (6 to 24 mm) standard sockets
- 11 external Torx sockets (E4 to E20)
- 2 spark plug sockets (5/8, 13/16")
- 5 ratchet/socket accessories

• 1 ratchet

• 1 spinner handle

Components (Combination Wrenches):

- 9 fractional combination wrenches (1/4 to 3/4")
- 10 metric combination wrenches (10 to 19 mm)
- BLP SSC100PB storage case

### BLPGSSC155 General Service Set.

Components (1/4" Drive):

- 10 fractional (3/16 to 9/16") and 13 metric (4 to 14 mm) standard sockets
- 10 fractional (3/16 to 9/16") and 11 metric (4 to 14 mm) deep sockets
- 20 assorted 1/4" hex bits with bit holder
- 5 ratchet/socket accessories

• 1 quick release ratchet

• 1 spinner handle 1/4"

Components (3/8" Drive):

- 13 fractional (1/4 to 1") and 19 metric (6 to 24 mm) standard sockets
- 11 fractional (3/8 to 1") and 15 metric (10 to 24 mm) deep sockets
- 11 external Torx sockets (E4 to E20)

• 2 spark plug sockets (5/8, 13/16")

• 3 metric hex socket drivers (7, 8, 10 mm)

• 4 tamper resistant Torx socket drivers (T40, T45, T50, T55)

• 5 ratchet/socket accessories

• 1 quick release ratchet

• BLP SSC155PB storage case

### Build Your Own Set

The 206AFSP handle set is the foundation for the ideal basic general service set. Add any of the suggested socket sets or choose from various special purpose sockets available in fractional and metric sizes.

#### 206AFSP Handle Set.

Includes:

- F80 sealed ratchet, FU8A universal joint, FX1 extension (1 1/2"), FXK3 knurled extension (3"), FXK6 knurled extension (6") and FXK11 knurled extension (11")
- 6 pcs in convenient PB16B storage case large enough to store 4 rows of standard length sockets, 2 rows of deep or universal sockets or a combination of the two



206AFSP





218AFSP




210AFSP

#### Suggested additions not included in set:

	Stock No.		Stock No.
6 Point Shallow Set	211FSY	6 Point Shallow Set	212FSMY
6 Point Shallow Set	212FY	6 Point Semi Deep Set	212SFSMY
6 Point Deep Set	211SFSY	12 Point Deep Set	212SFMY
12 Point Shallow Set	211SFY	6 Point Semi Deep Set	212FSMSY
6 Point Deep Universal Set	207FSU	12 Point Semi Deep Set	212FMSY
12 Point Semi Deep Set	211FDSY	12 Point Shallow Set	212FMY

#### 218AFSP 6 Point Fractional General Service Set. 18 Tools, Includes:



	6 Point Shallow Sockets
1/4	FS081
5/16	FS101
3/8	FS121
7/16	FS141
1/2	FS161
9/16	FS181
5/8	FS201
11/16	FS221
3/4	FS241
13/16	FS261
7/8	FS281

Also Includes:	Part No.	Description
	F80	Standard Handle Sealed Ratchet
	F4LB	Speeder
	F10LC	Breaker Bar
	FU8A	Universal Joint
	FXK3	3" Knurled Extension
	FXK6	6" Knurled Extension
	FXK11	11" Knurled Extension




222AFSP

#### 222AFSP 6 Point Fractional General Service Set. 22 Tools, Includes:

	6 Point Shallow Sockets		6 Point Deep Sockets
3/8	FS121	3/8	SFS121
7/16	FS141	7/16	SFS141
1/2	FS161	1/2	SFS161
9/16	FS181	9/16	SFS181
5/8	FS201	5/8	SFS201
11/16	FS221	11/16	SFS221
3/4	FS241	3/4	SFS241

#### 210AFSP 6 Point Fractional General Service Set. 10 Tools, Includes:

	6 Point Shallow Sockets
3/8	FS121
7/16	FS141
1/2	FS161
9/16	FS181
5/8	FS201
11/16	FS221
3/4	FS241

Also Includes:	Part No.	Description
	F80	Standard Handle Sealed Ratchet
	FXK3	3" Knurled Extension
	FXK6	6" Knurled Extension

Also Includes:	Part No.	Description
	F80	Standard Handle Sealed Ratchet
	S9704KA	13/16" Spark Plug Socket
	S9706KA	5/8" Spark Plug Socket
	F10LC	Breaker Bar
	FU8A	Universal Joint
	FXK3	3" Knurled Extension
	FXK4	4" Knurled Extension
	FXK8	8" Knurled Extension



**WARNING**



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# GENERAL SERVICE SETS

## 3/8" Drive



248F



218AFP

**248F 12 Point Fractional General Service Set.**  
48 Tools, Includes:

	12 Point Shallow Sockets		12 Point Deep Sockets		12 Point Universal Sockets
1/4	<b>F081</b>	1/4	<b>SF081</b>	5/16	<b>FU10A</b>
5/16	<b>F101</b>	5/16	<b>SF101</b>	3/8	<b>FU12A</b>
3/8	<b>F121</b>	3/8	<b>SF121</b>	7/16	<b>FU14A</b>
7/16	<b>F141</b>	7/16	<b>SF141</b>	1/2	<b>FU16A</b>
1/2	<b>F161</b>	1/2	<b>SF161</b>	9/16	<b>FU18A</b>
9/16	<b>F181</b>	9/16	<b>SF181</b>	5/8	<b>FU20A</b>
5/8	<b>F201</b>	5/8	<b>SF201</b>	11/16	<b>FU22A</b>
11/16	<b>F221</b>	11/16	<b>SF221</b>	3/4	<b>FU24A</b>
3/4	<b>F241</b>	3/4	<b>SF241</b>	13/16	<b>FU26A</b>
13/16	<b>F261</b>	13/16	<b>SF261</b>	7/8	<b>FU28A</b>
7/8	<b>F281</b>	7/8	<b>SF281</b>	15/16	<b>FU30A</b>
15/16	<b>F301</b>			1	<b>FU32A</b>

**218AFP 12 Point Fractional General Service Set**  
(Tools only). 18 Tools, Includes:

	12 Point Shallow Sockets
1/4	<b>F081</b>
5/16	<b>F101</b>
3/8	<b>F121</b>
7/16	<b>F141</b>
1/2	<b>F161</b>
9/16	<b>F181</b>
5/8	<b>F201</b>
11/16	<b>F221</b>
3/4	<b>F241</b>
13/16	<b>F261</b>
7/8	<b>F281</b>

Also Includes:	Item	Description
	<b>F80</b>	Standard Handle Sealed Ratchet
	<b>F40B</b>	Short Shank Driver
	<b>FXK4</b>	4" Extension
	<b>FRS70A</b>	Ratchet Spinner
	<b>FXK6</b>	6" Extension
	<b>F4LB</b>	Speeder
	<b>F77</b>	Ratchet Adaptor
	<b>FXK11</b>	11" Extension
	<b>F5L</b>	Sliding T-Handle
	<b>FU8A</b>	Universal Joint
	<b>F10LC</b>	Breaker Bar
	<b>FXK3</b>	3" Knurled Extension
	<b>BLPEXTF388</b>	8" Flexible Extension

Also Includes:	Item	Description
	<b>F80</b>	Standard Handle Sealed Ratchet
	<b>F4LB</b>	Speeder
	<b>F10LC</b>	Breaker Bar
	<b>FU8A</b>	Universal Joint
	<b>FXK3</b>	3" Knurled Extension
	<b>FXK6</b>	6" Knurled Extension
	<b>FXK11</b>	11" Knurled Extension

**292F 6/12 Point General Service Set. 92 Tools, Includes:**

<b>6 Point Shallow Sockets: 211SFY</b>	Shallow, 6 Point (11 pcs) (1/4 to 7/8")
<b>6 Point Deep Sockets: 211SFSY</b>	Deep, 6 Point (11 pcs) (1/4 to 7/8")
<b>12 Point Deep Sockets: 211SFY</b>	Deep, 12 Point (11 pcs) (1/4 to 7/8")
<b>12 Point Shallow Sockets: 211FY</b>	Shallow, 12 Point (11 pcs) (1/4 to 7/8")
<b>12 Point Shallow Universal Sockets:</b>	Universal, Shallow, 12 Point (12 pcs) (5/16 to 1")



292F

Also Includes:	Item	Description	Item	Description	Item	Description
	<b>F80</b>	Standard Handle Sealed Ratchet	<b>FXK6</b>	6" Knurled Extension	<b>F30E</b>	5/16" Clutch Type Driver
	<b>FLF80</b>	Sealed Flex Head Ratchet	<b>FXK8</b>	8" Knurled Extension	<b>FA5E</b>	5/32" Hex Driver
	<b>F4LB</b>	Speeder	<b>FXK11</b>	11" Knurled Extension	<b>FA6E</b>	3/16" Hex Driver
	<b>F5L</b>	Sliding T-Handle	<b>FP22E</b>	#2 Phillips® Driver	<b>FA7E</b>	7/32" Hex Driver
	<b>F10LC</b>	Breaker Bar	<b>FP32E</b>	#3 Phillips Driver	<b>FA8E</b>	1/4" Hex Driver
	<b>F40B</b>	Short Shank Driver	<b>FP42E</b>	#4 Phillips Driver	<b>FA10E</b>	5/16" Hex Driver
	<b>FRS70A</b>	Ratchet Spinner	<b>S9704KFUA</b>	13/16" Spark Plug Universal Socket	<b>FA12E</b>	3/8" Hex Driver
	<b>F77</b>	Ratchet Adaptor	<b>GF22</b>	Drag Link Socket	<b>PP409A</b>	9/32" Pipe Plug Socket
	<b>FU8A</b>	Universal Joint	<b>F23E</b>	1/4" Flat Tip Socket Driver	<b>PP410A</b>	5/16" Pipe Plug Socket
	<b>FX1</b>	1 1/2" Extension	<b>F25E</b>	5/16" Flat Tip Socket Driver	<b>PP412A</b>	9/32" Pipe Plug Socket
	<b>FXK3</b>	3" Knurled Extension	<b>F31E</b>	3/8" Flat Tip Socket Driver	<b>BLPEXTF388</b>	8" Flexible Extension
	<b>FXK4</b>	4" Knurled Extension	<b>F29E</b>	3/8" Clutch Type Driver	<b>PP412A</b>	11/32" Shallow Socket

### 222AFSMP 6 Point Metric General Service Set.

22 Tools, Includes:

mm	6 Point Shallow Sockets:	mm	6 Point Deep Sockets:
10	FSM101	10	SFSM10
11	FSM111	11	SFSM11
13	FSM131	13	SFSM13
14	FSM141	14	SFSM14
15	FSM151	15	SFSM15
17	FSM171	17	SFSM17
19	FSM191	19	SFSM19



222AFSMP

Also Includes:		
F80		Standard Handle Sealed Ratchet
FU8A		Universal Joint
F10LC		Breaker Bar
FXX3		3" Knurled Extension
FXX4		4" Knurled Extension
FXX8		8" Knurled Extension
S9704KA		13/16" Spark Plug Socket
S9706KA		5/8" Spark Plug Socket
PB17B		Storage Case



262MFB



KRA21G

### 262MFB 6/12 Point Metric General Service Set. 61 Tools, Includes:

mm	6 Point Shallow Sockets	mm	12 Point Shallow Sockets	mm	12 Point Deep Sockets	mm	6 Point Shallow Universal Sockets
8	FSM81	9	FM9	8	SFM8	8	FSUM8A
9	FSM91	10	FM10	9	SFM9	10	FSUM10A
10	FSM101	11	FM11	10	SFM10	11	FSUM11A
11	FSM111	12	FM12	11	SFM11	12	FSUM12A
12	FSM121	13	FM13	12	SFM12	13	FSUM13A
13	FSM131	14	FM14	13	SFM13	14	FSUM14A
14	FSM141	15	FM15	14	SFM14	15	FSUM15A
15	FSM151	16	FM16	15	SFM15	16	FSUM16A
16	FSM161	17	FM17	16	SFM16	17	FSUM17A
17	FSM171	18	FM18	17	SFM17	18	FSUM18A
18	FSM181	19	FM19	18	SFM18	19	FSUM19A
19	FSM191			19	SFM19	22	FSUM22A

Also Includes:		
F80		Standard Handle Sealed Ratchet
F4LB		Speeder
F10LC		Breaker Bar
F40B		Short Shank Driver
FRS70A		Ratchet Spinner
F77		Ratchet Adaptor
FU8A		Universal Joint
FXX3		3" Knurled Extension
FXX6		6" Knurled Extension
FXX11		11" Knurled Extension
S9704KR		13/16" Spark Plug Socket
BLPEXTF388		8" Flexible Extension
S9706KA		5/8" Spark Plug Socket
S9716KA		9/16" Spark Plug Socket
KRA21G		Metal Box



**WARNING**



- Do not use chrome or industrial finish hand tools with impact drivers
- Read complete safety precaution information on pages W1 to W4

# GENERAL SERVICE SETS

## 3/8" Drive



STARTERSET3

### STARTERSET3 6 Point Metric Starter Set.

- High strength sealed head ratchet built for strength, precision, and durability
- Stronger alloy steel allows extensions to be turned to a smaller diameter for greater accessibility
- Sockets feature Flank Drive® wrenching system which grips the fastener on the flanks/flats increasing torque by up to 15-20%
- Nickel chrome plating provides a wear resistant finish along with a mirror like finish
- Universal joint helps increase access to hard to reach fasteners

#### 17 pieces, Includes:

mm	6 Point Deep Sockets	mm	6 Point Deep Sockets
8	SFSM8	14	SFSM14
9	SFSM9	15	SFSM15
10	SFSM10	16	SFSM16
11	SFSM11	17	SFSM17
12	SFSM12	18	SFSM18
13	SFSM13	19	SFSM19

Also Includes:		
	FL80A	Sealed Ratchet
	FUBA	Universal Joint
	FXK3	3" Knurled Extension
	FXK6	6" Knurled Extension
	S9706KA	5/8" Spark Plug Socket



STARTERSET5

### STARTERSET5 6 Point Metric Starter Set.

- High strength sealed head ratchet built for strength, precision and durability
- Wobble engagement on extensions provides 16 of additional accessibility
- Sockets feature *Flank Drive* wrenching system which grips the fastener on the flanks/flats increasing torque by up to 15-20%
- Nickel chrome plating provides a wear resistant finish along with a mirror like finish
- Highest quality steel on breaker bar provides strength and durability

#### 17 pieces, Includes:

mm	6 Point Shallow Sockets	mm	6 Point Shallow Sockets
8	FSM81	14	FSM141
9	FSM91	15	FSM151
10	FSM101	16	FSM161
11	FSM111	17	FSM171
12	FSM121	18	FSM181
13	FSM131	19	FSM191

Also Includes:		
	F12LA	Breaker Bar
	F80	Sealed Ratchet
	FXWP1	1 1/2" Wobble Plus Extension
	FXWP3	3" Wobble Plus Extension
	FXWP6	6" Wobble Plus Extension

## 1/4" - 3/8" Drive (Blue-Point®)



BLPGSSC100

### BLPGSSC100 General Service Set.

#### Components (1/4" Drive):

- 10 fractional (3/16 to 9/16") and 13 metric (4 to 14 mm) standard sockets
- 6 ratchet/socket accessories
- 1 ratchet

#### Components (3/8" Drive):

- 13 fractional (1/4 to 1") and 19 metric (6 to 24 mm)
- 11 external Torx® sockets (E4 to E20)
- 2 spark plug sockets (5/8", 13/16")
- 5 ratchet/socket accessories
- 1 ratchet

#### Components (Combination Wrenches):

- 9 fractional combination wrenches (1/4 to 3/4")
- 10 metric combination wrenches (10 to 19 mm)
- BLP SSC100PB storage case

# GENERAL SERVICE SETS

1/4" - 3/8" Drive (Blue-Point®)



**BLPGSSCT71**



**BLPGSS3837**



**BLPGSSC155**

## General Service Sets

### BLPGSSCT71 General Service Set.

Components (3/8" Drive):

- 9 fractional combination wrenches (1/4 to 3/4")
- 10 metric combination wrenches (1/4 to 3/4")
- 12 fractional (5/16 to 1") and 15 metric (10 to 24 mm) 6 point standard sockets
- 2 spark plug sockets (5/8, 13/16")
- 1 quick release ratchet
- 1 spinner Handle
- 3 extensions (3, 6 and 10")
- 1 bit holder (3/8" drive)
- 4 hex bits (1/8, 5/32, 7/32 and 1/4")
- 3 flat tip bits (5/32, 3/16 and 1/4")
- 4 Phillips® tip bits (#0, #1, #2 and #3)
- 2 Square tip bits (#1 and #2)
- 1 diagonal cutting pliers (7")
- 1 long nose pliers (6")
- 1 groove joint pullers (10")
- 1 adjustable wrench (8")
- BLPGSSCT71PB storage case

### BLPGSS3837 General Service Set.

Components (3/8" Drive):

- 8 fractional (5/16 to 3/4") and 14 metric (6 to 19 mm) standard 6 point sockets
- 4 fractional (5/16-3/8", 7/16-1/2", 9/16-5/8", 11/16-3/4") and 5 metric (10-11, 12-13, 14-15, 16-17, 18-19 mm) double open end wrenches
- 2 extensions: 3 and 6"
- 1 ratchet
- 1 universal joint
- 2 adaptors: 1/4" f x 3/8" m, 3/8" f x 1/4" m
- BLPGSS3837PB storage box

### BLPGSSC155 General Service Set.

Components (1/4" Drive):

- 10 fractional (3/16 to 9/16") and 13 metric (4 to 14 mm) standard sockets
  - 10 fractional (3/16 to 9/16") and 11 metric (4 to 14 mm) deep sockets
  - 20 assorted 1/4" hex bits with bit holder
  - 6 ratchet/socket accessories
  - 1 quick release ratchet
- Components (3/8" Drive)
- 13 fractional (1/4 to 1") and 19 metric (6 to 24 mm) standard sockets
  - 11 fractional (3/8 to 1") and 15 metric (10 to 24 mm) deep sockets
  - 11 external Torx® sockets (E4 to E20)
  - 2 spark plug sockets (5/8, 13/16")
  - 3 metric hex socket drivers (7, 8, 10 mm)
  - 4 tamper resistant Torx socket drivers (T40, T45, T50, T55)
  - 5 ratchet/socket accessories
  - 1 quick release ratchet
  - BLPGSSC155PB storage case

### BLPGSS3885 General Service Set.

Components (3/8" Drive):

- 13 fractional (1/4 to 1") and 14 metric (6 to 19 mm) standard sockets
- 13 fractional (1/4 to 1") and 14 metric (6 to 19 mm) deep sockets
- 11 external Torx sockets (E4 to E20)
- 1 Phillips socket drivers (#3 and #4)
- 2 Pozidriv® socket drivers (#3 and #4)
- 8 tamper resistant Torx socket drivers (T10 to T45)
- 2 spark plug sockets (5/8, 13/16")
- 6 ratchet/socket accessories
- 1 ratchet
- BLPGSS3885PB storage case

### BLPGSS3849 General Service Set.

Components (3/8" Drive):

- 8 fractional (5/16 to 3/4") and 14 metric (6 to 19 mm) standard 6 point sockets
- 8 fractional (5/16 to 3/4") and 13 metric (7 to 19 mm) deep 12 point sockets
- 2 extensions (3 and 6")
- 1 universal joint
- 1 3/8 to 1/4" adaptor
- 1 1/4 to 3/8" adaptor
- 1 ratchet
- BLPGSS3849PB storage case



**BLPGSS3885**

**BLPGSS3849**



**WARNING**



- Do not use chrome or industrial finish hand tools with impact drivers
- Read complete safety precaution information on pages W1 to W4



# GENERAL SERVICE SETS

## 3/8" Drive (Blue-Point®)



BLPPTSS3822



BPRFPT10



BLPPEXT3



BLPPTA3438



BLPPTSM10

## Pass Thru Socket Set

Size, inches (mm)	Stock No.	External Hex, inches	Length, inches
3/8	BLPPTS38	3/4	1 7/16
7/16	BLPPTS716	3/4	1 7/16
1/2	BLPPTS12	3/4	1 7/16
9/16	BLPPTS916	3/4	1 7/16
5/8	BLPPTS58	3/4	1 7/16
11/16	BLPPTS1116	3/4	1 7/16
3/4	BLPPTS34	3/4	1 7/16
(8)	BLPPTSM8	3/4	1 7/16
(9)	BLPPTSM9	3/4	1 7/16
(10)	BLPPTSM10	3/4	1 7/16
(11)	BLPPTSM11	3/4	1 7/16
(12)	BLPPTSM12	3/4	1 7/16
(13)	BLPPTSM13	3/4	1 7/16
(14)	BLPPTSM14	3/4	1 7/16
(15)	BLPPTSM15	3/4	1 7/16
(16)	BLPPTSM16	3/4	1 7/16
(17)	BLPPTSM17	3/4	1 7/16
(18)	BLPPTSM18	3/4	1 7/16
(19)	BLPPTSM19	3/4	1 7/16

**BLPPTSS3822 Pass Thru Socket Set.** Includes: BLPPTS38 through BLPPTS34 (3/8 to 3/4") sockets, BLPPTSM8 through BLPPTSM19 (8 to 19 mm) metric sockets, BLPPTA3438 square drive adaptor, BLPPEXT3 extension and BPRFPT10 ratchet (22 pcs) in storage case.

### BPRFPT10 Ratchet.

- Flex head has 7 locking positions
- 3/4" hex drive, 10" long

### BLPPEXT3 Extension.

- 3" extension

### BLPPTA3438 Adaptor.

- 3/8" square drive adaptor, 1 1/4" long


### BLPPTSS3822PB Storage Case.

## 1/2" Drive



317MSPC

**317MSPC Fractional Chrome Set in a Storage Tray.**  
17 pieces, Includes:


	6 Point Shallow Sockets
3/8	TW121A
7/16	TW141A
1/2	TW161A
9/16	TW181A
5/8	TW201
11/16	TW221
3/4	TW241
13/16	TW261
7/8	TW281
15/16	TW301
1	TW321
1 1/16	TW341
1 1/8	TW361

Also Includes:	Part No.	Description
	S80A	Sealed Ratchet
	SXK5	5" Knurled Extension
	SXK11	11" Knurled Extension
	SN18B	18" Breaker Bar



317AMMPC

**317AMMPC Metric 6 Point General Service Set.**  
17 pieces, Includes:

	6 Point Shallow Sockets
12	TWM12A
13	TWM13A
14	TWM14A
15	TWM15A
16	TWM16
17	TWM17
18	TWM18
19	TWM19
20	TWM20
21	TWM21
22	TWM22
23	TWM23
24	TWM24

Also Includes:	Part No.	Description
	S80A	Sealed Ratchet
	SXK5	5" Knurled Extension
	SXK11	11" Knurled Extension
	SN18B	18" Breaker Bar



# GENERAL SERVICE SETS

1/2" Drive



344AMB




**344AMB Fractional Chrome General Service Set.**  
44 pieces, Includes:

	12 Point Shallow Sockets		12 Point Deep Sockets
3/8	SW121A	1/2	S161A
7/16	SW141A	9/16	S181A
1/2	SW161A	5/8	S201
9/16	SW181A	11/16	S221
5/8	SW201	3/4	S241
11/16	SW221	13/16	S261
3/4	SW241	7/8	S281
13/16	SW261	15/16	S301
7/8	SW281	1	S321
15/16	SW301	1 1/16	S341
1	SW321	1 1/8	S361
1 1/16	SW341		
1 1/8	SW361		
1 3/16	SW381		
1 1/4	SW401		
1 5/16	SW421		



360MB


**360MB Fractional Chrome General Service Set**  
in KRA21G Metal Box.  
59 pieces, Includes:

	12 Point Shallow Sockets		6 Point Deep Sockets		12 Point Deep Sockets
3/8	SW121A	1/2	TS161A	1/2	S161A
7/16	SW141A	9/16	TS181A	9/16	S181A
1/2	SW161A	5/8	TS201	5/8	S201
9/16	SW181A	11/16	TS221	11/16	S221
5/8	SW201	3/4	TS241	3/4	S241
11/16	SW221	13/16	TS261	13/16	S261
3/4	SW241	7/8	TS281	7/8	S281
13/16	SW261	15/16	TS301	15/16	S301
7/8	SW281	1	TS321	1	S321
15/16	SW301	1 1/16	TS341	1 1/16	S341
1	SW321	1 1/8	TS361		
1 1/16	SW341				
1 1/8	SW361				
1 3/16	SW381				
1 1/4	SW401				
1 5/16	SW421				

6 Point Universal Sockets Set	307SUY	9/16 to 15/16" (7 pcs)
Also Includes:	LRS70A	1 19/32" Ratchet Spinner
	S4	18 7/8" Speeder
	S8	2 11/16" Universal Joint
	S12L	12" Sliding T-Handle
	S77A	Ratcheting Adaptor
	S80A	Sealed Ratchet
	SN18B	18" Breaker Bar
	SX2	2" Extension
	SXK5	5" Knurled Extension
	SXK11	11" Knurled Extension

6 Point Universal Sockets Set	307SUY	9/16 to 15/16" (7 pcs)
Also Includes:	A17	15/16" Blade Width Drag Link Socket
	S12L	12" Sliding T-Handle
	S77A	Ratcheting Adaptor
	SN18B	18" Breaker Bar
	SX2	2" Extension
	SXK3	3 1/2" Extension
	SXK5	5" Knurled Extension
	SXK11	11" Knurled Extension
	A80A	1/4 to 1/2" Capacity Stud Remover
	LRS70A	1 19/32" Ratchet Spinner
	S80A	Sealed Ratchet
	SL80A	Long Handle Sealed Ratchet
	S4	18 7/8" Speeder
	S8	2 11/16" Universal Joint

**345MMB Chrome Metric General Service Set.**  
45 pieces, Includes:

	12 Point Socket Sets
(23 pcs) (10 to 32 mm)	323SWMY Metric 12 point Shallow Socket Set
(13 pcs) (12 to 24 mm)	313SMYA Metric 12 point Deep Socket Set

Also Includes:	S4	18 7/8" Speeder
	S8	2 11/16" Universal Joint
	S12L	12" Sliding T-Handle
	S77A	Ratcheting Adaptor
	S80A	Sealed Ratchet
	SN18B	18" Breaker Bar
	SXK3	3 1/2" Extension
	SXK5	5" Extension
	SXK11	11" Extension



345MMB



**WARNING**



- Do not use chrome or industrial finish hand tools with impact drivers
- Read complete safety precaution information on pages W1 to W4

# GENERAL SERVICE SETS

## 1/2" Drive (Blue-Point®)



BLPGSS1233

### BLPGSS1233 1/2" Drive General Service Set.

#### Set Components:

- 15 fractional (3/8 to 1 1/4") and 12 metric (12 to 24 mm) standard sockets
- 1 breaker bar
- 1 universal joint
- 1 quick release ratchet
- 3 extensions (3, 6 and 10")


## 3/4" Drive



434HDB

### 434HDB 12 Point Fractional General Service Set (Tools with Metal Box).

35 Tools, Includes:

	12 Point Shallow Sockets
3/4	LDH242
13/16	LDH262
7/8	LDH282
15/16	LDH302
31/32	LDH312
1	LDH322
1 1/16	LDH342
1 1/8	LDH362
1 3/16	LDH382
1 1/4	LDH402
5/16	LDH422A
1 3/8	LDH442
1 7/16	LDH462
1 1/2	LDH482
1 9/16	LDH502
1 5/8	LDH522
1 11/16	LDH542
1 3/4	LDH562
1 13/16	LDH582
1 7/8	LDH602
2	LDH642
2 1/16	LDH662
2 1/8	LDH682
2 3/16	LDH702
2 1/4	LDH722
2 3/8	LDH762


Also Includes:		
	L32	3" Extension
	L62	8" Extension
	L122	16" Extension
	L52B	Sliding Head
	L872	Ratchet Head
	L82A	Universal Joint
	L8112A	Breaker Bar Head
	L672B	Ratchet Adaptor
	L872H	19 1/4" Handle
	KRA226B	Metal Box



414AHD

### 414AHD 12 Point Fractional General Service Set (Tools with Storage Tray).

15 Tools, Includes:

	12 Point Shallow Sockets
1 1/16	LDH342
1 1/8	LDH362
1 1/4	LDH402
1 5/16	LDH422A
1 3/8	LDH442
1 7/16	LDH462
1 1/2	LDH482
1 5/8	LDH522
1 3/4	LDH562
1 7/8	LDH602

Also Includes:		
	L62	8" Extension
	L122	16" Extension
	L872	Ratchet Head
	L872RJ	19 1/4" Handle
	L8112A	Breaker Bar Head



## The Finest Wrenches. Period.

Snap-on® wrenches are manufactured with special alloy steel, precision forged and heat treated for optimum strength and durability. The Flank Drive® box-end wrenching system grips the fastener flats and provides up to 15-20% more turning power. Nickel chrome finishing helps protect against corrosion and makes it easy to wipe clean. Longer length handles provide increased leverage and better access to those hard to reach areas.

### Flank Drive® Plus

The Flank Drive® Plus teeth design provides more flat-to-flat contact preventing slipping and rounding of the fastener and delivering up to 62% more turning power than conventional open end wrenches.

15° wrench-end offset orientation provides easy access in restricted areas.

### Standard Box End

The box end is rotated 7.5° away from the handle so the wrench can be flipped to get a new grip in tight situations.

Set at 15° angle for knuckle clearance and increased access in any space.

### Ratcheting Box End

Up to 80 gear teeth lets the wrench move easier with less exertion.

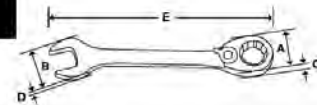
Reversible, dual-pawl ratcheting box end yields smoother operation with greater strength.





# WRENCHES

## Flank Drive® Plus Combination Reversible Ratcheting Box/Open End



- Open end features *Flank Drive Plus* wrenching configurations that deliver up to 62% more turning power than conventional wrenches
- Longer overall length increases leverage to let the wrench do the work

- 12 point box end features the *Flank Drive* wrenching configuration, the proven design for turning fasteners
- Up to 80 gear teeth require minimal movement in tight areas
- Low profile easy action reverse lever won't get in your way



SOEXRM710



SOEXR707

### 15° Standard Handle, mm

Set Contains:

mm	12	A	B	C	D	E	Reverse Lever Repair Kit	12
8	SOEXRM8	17.8	17.0	7.1	4.3	149	RKW1	
9	SOEXRM9	19.6	19.2	7.9	4.7	164	RKW2	
10	SOEXRM10	21.5	21.1	8.3	5.1	179	RKW3	•
11	SOEXRM11	22.0	23.4	8.6	5.5	194	RKW3	•
12	SOEXRM12	23.5	25.1	9.3	5.9	207	RKW4	•
13	SOEXRM13	25.0	27.2	10.2	6.3	221	RKW5	•
14	SOEXRM14	27.0	29.2	10.2	6.7	235	RKW6	•
15	SOEXRM15	28.5	31.2	11.1	7.1	249	RKW7	•
16	SOEXRM16	30.5	33.0	11.1	7.4	261	RKW8	•
17	SOEXRM17	32.0	35.1	12.0	7.8	277	RKW9	•
18	SOEXRM18	34.5	37.1	12.0	8.2	291	RKW10	•
19	SOEXRM19	36.5	39.4	12.9	8.6	305	RKW11	•

ASME B107.100

Set includes storage tray

### 15° Standard Handle, inches

Set Contains:

11	12	A	B	C	D	E	Reverse Lever Repair Kit	12
3/8	SOEXR12	27/32	27/32	5/16	3/16	7	RKW3	•
7/16	SOEXR14	7/8	29/32	11/32	7/32	7 5/8	RKW3	•
1/2	SOEXR16	31/32	1 1/16	13/32	1/4	8 11/16	RKW5	•
9/16	SOEXR18	1 1/16	1 5/32	13/32	1/4	9 1/4	RKW6	•
5/8	SOEXR20	1 3/16	1 5/16	7/16	9/32	10 1/4	RKW8	•
11/16	SOEXR22	1 1/4	1 3/8	15/32	5/16	10 7/8	RKW9	•
3/4	SOEXR24	1 7/16	1 9/16	1/2	11/32	12	RKW11	•

ASME B107.100

Set includes storage tray

## Flank Drive Combination Ratcheting Box/Open End



OEEXRM710



OEEXR707

### 0° Standard Handle, mm

Set Contains:

mm	12	A	B	C	D	E	Reverse Lever Repair Kit	12
8	OEEXRM8	17.8	17.0	7.1	4.3	147		
9	OEEXRM9	19.6	19.2	8.0	4.7	159		
10	OEEXRM10	21.5	21.1	8.4	5.1	171	•	
11	OEEXRM11	22.0	23.4	8.7	5.6	183	•	
12	OEEXRM12	23.5	25.1	9.3	5.9	195	•	
13	OEEXRM13	25.0	27.2	10.2	6.4	207	•	
14	OEEXRM14	27.0	29.2	10.2	6.7	219	•	
15	OEEXRM15	28.5	31.2	11.1	7.1	231	•	
16	OEEXRM16	30.5	33.0	11.1	7.4	243	•	
17	OEEXRM17	32.0	35.1	12.0	7.8	255	•	
18	OEEXRM18	34.5	37.1	12.0	8.2	267	•	
19	OEEXRM19	36.5	39.4	12.9	8.7	279	•	

ASME B107.100

Set includes storage tray

### 0° Standard Handle, inches

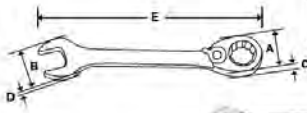
Set Contains:

11	12	A	B	C	D	E	Reverse Lever Repair Kit	12
3/8	OEEXR12	27/32	27/32	5/16	3/16	6 3/4	•	
7/16	OEEXR14	7/8	29/32	11/32	7/32	7 3/16	•	
1/2	OEEXR16	31/32	1 1/16	13/32	1/4	8 3/16	•	
9/16	OEEXR18	1 1/16	1 5/32	13/32	1/4	8 5/8	•	
5/8	OEEXR20	1 3/16	1 5/16	7/16	9/32	5 9/16	•	
11/16	OEEXR22	1 7/32	1 3/8	15/32	5/16	10 1/16	•	
3/4	OEEXR24	1 15/32	1 9/16	1/2	11/32	11	•	

ASME B107.100

Set includes storage tray

## Flank Drive® Combination Ratcheting Box/Open End



OXIRM707

Set Contains:

OXIRM707  
OXIRM705

### Short Handle, mm

mm	12	A	B	C	D	E	12	12
8	<b>OXIRM8</b>	17.8	17.0	7.1	4.3	88.7	•	
9	<b>OXIRM9</b>	19.6	19.2	8.0	4.8	92.7	•	
10	<b>OXIRM10</b>	21.5	21.1	8.4	5.1	97.0	•	
11	<b>OXIRM11</b>	22.0	23.4	8.7	5.6	101.1	•	
12	<b>OXIRM12</b>	23.5	25.1	9.3	5.9	105.4	•	
13	<b>OXIRM13</b>	25.0	27.2	10.2	6.4	109.5	•	
14	<b>OXIRM14</b>	27.0	29.2	10.2	6.7	113.8	•	
15	<b>OXIRM15</b>	28.5	31.2	11.1	7.1	118.1		•
16	<b>OXIRM16</b>	30.5	33.0	11.1	7.4	122.2		•
17	<b>OXIRM17</b>	32.0	35.1	12.0	7.8	126.5		•
18	<b>OXIRM18</b>	34.5	37.1	12.0	8.2	130.6		•
19	<b>OXIRM19</b>	36.5	39.4	12.9	8.7	135.4		•

ASME® B107.100

Sets include storage tray



OXIR707

Set Contains:

OXIR707

### Short Handle, inches

in	12	A	B	C	D	E	12
3/8	<b>OXIR12</b>	27/32	27/32	5/16	3/16	3 27/32	•
7/16	<b>OXIR14</b>	7/8	29/32	11/32	7/32	3 31/32	•
1/2	<b>OXIR16</b>	31/32	1 1/16	13/32	1/4	4 5/16	•
9/16	<b>OXIR18</b>	1 1/16	1 5/32	13/32	1/4	4 15/32	•
5/8	<b>OXIR20</b>	1 3/16	1 5/16	15/32	9/32	4 13/16	•
11/16	<b>OXIR22</b>	1 7/32	1 3/8	15/32	5/16	4 31/32	•
3/4	<b>OXIR24</b>	1 15/32	1 9/16	1/2	11/32	5 11/32	•

ASME B107.100

Set includes storage tray

## Ratcheting Box/Speed Open End

### Reversible Ratcheting Box/Speed Open End, mm

- Patented open end speed wrenching configuration delivers more speed than conventional wrenches
- Speed open end provides quick, ratchet like action
- *Flank Drive* wrenching system on box end provides up to 15 to 20% more turning power with less risk of tool or fastener damage
- Manufactured from special alloy steel, precision forged and heat treated for optimum strength and durability
- Up to 80 gear teeth for minimal movement in tight areas
- Box ends are offset 15° for clearance
- Sized for optimum comfort and balance
- Nickel-chrome plating helps protect against corrosion and makes it easy to wipe clean

mm	12	A	B	C	D	E	Gear Teeth	12
10	<b>SRXRM10</b>	21.5	19.1	8.3	5.1	179	72	•
11	<b>SRXRM11</b>	22.0	21.0	8.6	5.6	194	72	•
12	<b>SRXRM12</b>	23.5	22.9	9.3	5.9	207	80	•
13	<b>SRXRM13</b>	25.0	24.8	10.2	6.4	221	80	•
14	<b>SRXRM14</b>	27.0	26.7	10.2	6.6	235	80	•
15	<b>SRXRM15</b>	28.5	28.6	11.1	7.1	249	80	•
16	<b>SRXRM16</b>	30.5	30.5	11.1	7.4	261	80	•
17	<b>SRXRM17</b>	32.0	32.4	12.0	7.9	277	80	•
18	<b>SRXRM18</b>	34.5	34.3	12.0	8.2	291	80	•
19	<b>SRXRM19</b>	36.5	36.2	12.9	8.6	305	80	•

ASME B107.100

Set includes storage tray

Set Contains:  
SRXRM710



SRXRM710

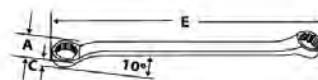
## High Performance Ratcheting Box

### Ratcheting Box, mm

mm	12	A	C	E	12
10	<b>XDHRM10</b>	14.4	6.3	256.5	•
13	<b>XDHRM13</b>	18.7	7.5	295.4	•
15	<b>XDHRM15</b>	21.5	8.8	349.3	•
10	<b>XDHRM17</b>	23.7	9.0-10.2	375.2	•

Set includes kit bag

Set Contains:  
XDHRM604



XDHRM604



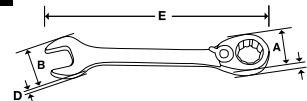
**WARNING**



- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4

# WRENCHES

## Combination Reversible Ratcheting Box/Open End (Blue-Point®)



BOERM712



BOER708

### Standard Handle, 15° Offset, mm

mm	12	A	B	C	D	E	Set Contains:	
							BOERM712	BOERM704
6	BOERM6	16.3	16.3	6.6	3.6	114.3		
7	BOERM7	16.5	16.4	6.6	3.9	125.0		
8	BOERM8	17.8	17.7	6.5	4.0	135.0	•	
9	BOERM9	19.5	20.0	7.4	4.0	150.0	•	
10	BOERM10	21.5	21.9	8.0	5.0	160.0	•	
11	BOERM11	22.0	23.9	8.5	5.5	170.0	•	
12	BOERM12	23.5	25.0	9.0	5.5	175.0	•	
13	BOERM13	25.0	25.9	10.0	6.3	180.0	•	
14	BOERM14	27.0	29.9	10.0	6.5	190.0	•	
15	BOERM15	28.5	31.1	11.0	7.0	200.0	•	
16	BOERM16	30.5	33.6	11.0	7.0	210.0	•	
17	BOERM17	32.0	36.5	12.0	7.0	230.0	•	
18	BOERM18	34.5	38.5	12.0	8.0	240.0	•	
19	BOERM19	36.5	38.7	12.9	8.7	250.0	•	
21	BOERM21	39.4	43.2	13.7	9.4	266.7		•
22	BOERM22	41.7	45.7	14.5	9.4	285.8		•
24	BOERM24	46.5	49.5	15.5	11.2	304.8		•
25	BOERM25	47.2	52.8	15.5	11.2	327.2		•

ASME® B107.100

Sets include storage tray

### Standard Handle, 15° Offset, inches

In	12	A	B	C	D	E	Set Contains:	
							BOER708	BOER704
1/4	BOER8	21/32	21/32	1/4	5/32	4 1/2		
5/16	BOER10	11/16	11/16	1/4	5/32	5 5/16	•	
3/8	BOER12	27/32	7/8	5/16	3/16	6 5/16	•	
7/16	BOER14	7/8	15/16	11/32	7/32	6 11/16	•	
1/2	BOER16	31/32	1 1/32	13/32	1/4	7 1/16	•	
9/16	BOER18	1 1/16	1 3/16	13/32	1/4	7 1/2	•	
5/8	BOER20	1 3/16	1 5/16	7/16	9/32	8 1/4	•	
11/16	BOER22	1 1/4	1 7/16	15/32	9/32	9 1/16	•	
3/4	BOER24	1 7/16	1 17/32	1/2	11/32	9 13/16	•	
13/16	BOER26	1 9/16	1 23/32	17/32	3/8	10 1/2		•
7/8	BOER28	1 21/32	1 27/32	9/16	3/8	11 1/4		•
15/16	BOER30	1 27/32	1 31/32	5/8	7/16	12		•
1	BOER32	1 7/8	2 3/32	5/8	7/16	12 7/8		•

ASME B107.100

Sets include storage tray

## Ratcheting Wrench Adaptors



RWA404

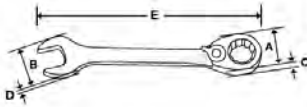
- Converts ratcheting wrench into a ratchet
- Use with reversible ratcheting box wrenches such as the SOEXRM, BOERM, BOERMF and BOERMS series
- Can be used with the combination ratcheting box wrenches such as the OEXRM and OXIRM series
- Use reverse lever on wrench to secure or remove adaptor from wrench
- Push button on adaptor to release socket

## Ratcheting Wrench Adaptors

Stock No.	Configuration	Use with Ratcheting Wrench Size	Set Contains:	
			RWA404	RWA404FR
RWA1	1/4" drive	13mm	•	
RWA2	3/8" drive	16mm	•	
RWA3	1/2" drive	19mm	•	
RWA4	1/4" hex	13mm	•	
RWA1FR	1/4" drive	1/2"		•
RWA2FR	3/8" drive	5/8"		•
RWA3FR	1/2" drive	3/4"		•
RWA4FR	1/4" hex	1/2"		•



# WRENCHES



## Combination Ratcheting Box/Open End (Blue-Point®)

- Flex head pivots 90° in either direction to reach hard to get fasteners
- Reversible, dual pawl ratcheting box end yields smooth operation and maximum strength
- 4.5 (5 or smaller wrenches) tooth engagement; less movement to engage the next tooth
- Tough, durable nickel-chrome finish



BOERMF712A



BOERF708A

### Flex Head/Standard, 15° Offset, mm

mm	12	A	B	C	D	E	12
8	BOERMF8A	17.8	17.7	6.5	4.0	142	60
9	BOERMF9A	19.5	20.0	7.4	4.0	152	72
10	BOERMF10A	21.5	21.9	8.0	5.0	162	72
11	BOERMF11A	22.0	23.9	8.5	5.5	172	72
12	BOERMF12A	23.5	25.0	9.0	5.5	180	80
13	BOERMF13A	25.0	25.9	10.0	6.3	188	80
14	BOERMF14A	27.0	29.9	10.0	6.5	196	80
15	BOERMF15A	28.5	31.1	11.0	7.0	204	80
16	BOERMF16A	30.5	33.6	11.0	7.0	214	80
17	BOERMF17A	32.0	36.5	12.0	7.0	228	80
18	BOERMF18A	34.5	38.5	12.0	8.0	242	80
19	BOERMF19A	36.5	38.7	12.9	8.7	256	80

ASME® B107.100

Set includes storage tray

### Flex Head/Standard, 15° Offset, inches

11	12	A	B	C	D	E	12
5/16	BOERF10A	11/16	11/16	1/4	5/32	519/32	72
3/8	BOERF12A	27/32	7/8	5/16	3/16	63/8	72
7/16	BOERF14A	7/8	15/16	11/32	7/32	63/4	72
1/2	BOERF16A	31/32	1 1/32	13/32	1/4	713/32	80
9/16	BOERF18A	1 1/16	1 3/16	13/32	1/4	723/32	80
5/8	BOERF20A	1 3/16	1 5/16	7/16	9/32	87/16	80
11/16	BOERF22A	1 1/4	1 7/16	15/32	9/32	831/32	80
3/4	BOERF24A	1 7/16	1 17/32	1/2	11/32	101/16	80

ASME B107.100

Set includes storage tray

- Up to 80 gear teeth; less movement required to engage next tooth
- 12 point Flank Drive® wrenching system is ideal in tight quarters
- Small footprint with 0° offset unidirectional gear

- Low ratcheting torque is less likely to move loose fastener in wrong direction
- High quality steel ensures a better fit and yields a long lasting tool



BOERMS712



BOERS708

### Short, 15° Offset, mm

mm	12	A	B	C	D	E	12
8	BOERMS8	17.8	17.7	6.5	4.0	90	•
9	BOERMS9	19.5	20.0	7.4	4.0	95	•
10	BOERMS10	21.5	21.9	8.0	5.0	100	•
11	BOERMS11	22.0	23.9	8.5	5.5	105	•
12	BOERMS12	23.5	25.0	9.0	5.5	110	•
13	BOERMS13	25.0	25.9	10.0	6.3	115	•
14	BOERMS14	27.0	29.9	10.0	6.5	120	•
15	BOERMS15	28.5	31.1	11.0	7.0	125	•
16	BOERMS16	30.5	33.6	11.0	7.0	128	•
17	BOERMS17	32.0	36.5	12.0	7.0	132	•
18	BOERMS18	34.5	38.5	12.0	8.0	138	•
19	BOERMS19	36.5	38.7	12.9	8.7	142	•

ASME B107.100

Set includes storage tray

### Short, 15° Offset, inches

11	12	A	B	C	D	E	12
5/16	BOERS10	11/16	11/16	1/4	5/32	39/16	•
3/8	BOERS12	27/32	7/8	5/16	3/16	315/16	•
7/16	BOERS14	7/8	15/16	11/32	7/32	41/8	•
1/2	BOERS16	31/32	1 1/32	13/32	1/4	41/2	•
9/16	BOERS18	1 1/16	1 3/16	13/32	1/4	43/4	•
5/8	BOERS20	1 3/16	1 5/16	7/16	9/32	51/16	•
11/16	BOERS22	1 1/4	1 7/16	15/32	9/32	53/16	•
3/4	BOERS24	1 7/16	1 17/32	1/2	11/32	59/16	•

ASME B107.100

Set includes storage tray



**WARNING**

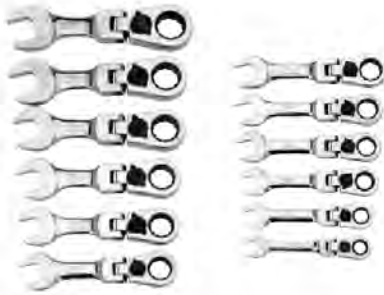
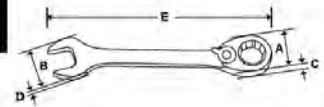


- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4



# WRENCHES

## Flex Head Ratcheting Box/Open End (Blue-Point®)



BOERMSF712



BOERSF708

### Flex Head Ratcheting Box/ Open End, Stubby, 15° Offset, mm

Set  
Contains:

mm	12	A	B	C	D	E	12
8	BOERMSF8	17.8	17.7	6.5	4.0	94	•
9	BOERMSF9	19.5	20.0	7.4	4.0	98	•
10	BOERMSF10	21.5	21.9	8	5	103	•
11	BOERMSF11	22	23.9	8.5	5.5	108	•
12	BOERMSF12	23.5	25	9	5.5	111	•
13	BOERMSF13	25	25.9	10	6.3	115	•
14	BOERMSF14	27	29.9	10	6.5	120	•
15	BOERMSF15	28.5	31.1	11	7	124	•
16	BOERMSF16	30.5	33.6	11	7	128	•
17	BOERMSF17	32	36.5	12	7	133	•
18	BOERMSF18	34.5	38.5	12	8	140	•
19	BOERMSF19	36.5	38.7	12.9	8.7	147	•

ASME® B107.100

Set includes kit bag

### Flex Head Ratcheting Box/ Open End, Stubby, 15° Offset, inches

Set  
Contains:

11	12	A	B	C	D	E	12
5/16	BOERSF10	11/16	11/16	1/4	5/32	3 11/16	•
3/8	BOERSF12	27/32	7/8	5/16	3/16	4 1/16	•
7/16	BOERSF14	7/8	15/16	11/32	7/32	4 1/4	•
1/2	BOERSF16	31/32	1 1/32	13/32	1/4	4 17/32	•
9/16	BOERSF18	1 1/16	1 3/16	13/32	1/4	4 23/32	•
5/8	BOERSF20	1 3/16	1 5/16	7/16	9/32	5 1/32	•
11/16	BOERSF22	1 1/4	1 7/16	15/32	9/32	5 1/4	•
3/4	BOERSF24	1 7/16	1 17/32	1/2	11/32	5 25/32	•

ASME B107.100

Set includes kit bag

## Locking Flex Head Ratcheting Box (Blue-Point)



BOERMFLCG712



BOERFLCG708

### Locking Flex Head Ratcheting Box/ Cushion Grip, mm

Set  
Contains:

mm	12	A	B	C	D	12
8	BOERMFLCG8	17.8	6.55	32	228	•
9	BOERMFLCG9	19.5	7.45	34	229	•
10	BOERMFLCG10	21.5	8.05	38	233	•
11	BOERMFLCG11	22	8.55	40	235	•
12	BOERMFLCG12	23.5	9.05	42	285	•
13	BOERMFLCG13	25	10.05	45	287	•
14	BOERMFLCG14	27	10.05	48	289	•
15	BOERMFLCG15	28.5	11.05	52	293	•
16	BOERMFLCG16	30.5	11.05	54	347	•
17	BOERMFLCG17	32	12.05	56	348	•
18	BOERMFLCG18	34.5	12.05	60	352	•
19	BOERMFLCG19	36.5	12.95	64	354	•

ASME B107.100

Set includes kit bag

### Locking Flex Head Ratcheting Box/ Cushion Grip, inches

Set  
Contains:

11	12	A	B	C	D	12
5/16	BOERFLCG10	23/32	1/4	1 1/4	9	•
3/8	BOERFLCG12	27/32	5/16	1 1/2	9 1/4	•
7/16	BOERFLCG14	7/8	11/32	1 9/16	9 19/32	•
1/2	BOERFLCG16	31/32	13/32	1 25/32	11 9/32	•
9/16	BOERFLCG18	1 1/16	13/32	1 29/32	11 3/8	•
5/8	BOERFLCG20	1 7/32	7/16	2 1/8	13 21/32	•
11/16	BOERFLCG22	1 1/4	15/32	2 7/32	13 23/32	•
3/4	BOERFLCG24	1 7/16	1/2	2 17/32	13 15/16	•

ASME B107.100

Set includes kit bag

## Flank Drive® Plus Combination



Snap-on® *Flank Drive Plus* combination wrenches exceed the limits of any other open end design. The open end features a series of flutes or notches that grip a fastener away from its corners much like our box ends do.

Force is directed away from the weaker corners of the nut and directed to the stronger flats. You can actually see the grip. In fact, on some fasteners that you don't want marked, you should use our standard wrench.

### Standard Length, mm

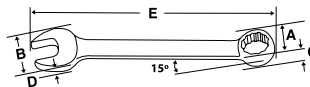
mm	Set Contains:						SOEXM707	
	12	A	B	C	D	E	12	12
7	SOEXM7	11	15	5	4	135		
8	SOEXM8	13	17	6	4	146		
9	SOEXM9	14	19	6	5	159		
10	SOEXM10	15	21	7	5	171	•	•
11	SOEXM11	17	23	8	6	184	•	•
12	SOEXM12	18	25	8	6	195	•	•
13	SOEXM13	20	27	9	6	207	•	•
14	SOEXM14	21	29	9	7	219	•	•
15	SOEXM15	22	31	10	7	231	•	•
16	SOEXM16	24	33	10	7	242	•	•
17	SOEXM17	25	35	11	8	255	•	•
18	SOEXM18	27	37	12	8	267	•	
19	SOEXM19	28	39	12	9	279	•	
20	SOEXM20	30	41	13	9	292		
21	SOEXM21	31	43	13	9	304		
22	SOEXM22	33	46	14	10	318		
23	SOEXM23	34	47	14	10	327		
24	SOEXM24	35	49	15	11	337		
25	SOEXM25	37	52	16	11	356		

ASME® B107.100

Sets include storage tray



SOEXM710



**Selection, convenience and quality.** *Flank Drive Plus* combination wrenches are available in many different styles and sizes. Just like all *Snap-on* wrenches, they are sized for optimum comfort and balance in your hand. Tough, durable, nickel-chrome plating produces a mirror like finish, that helps protect against corrosion and makes it easy to wipe the wrenches clean.

### Standard Length, inches

In	Set Contains:						SOEX710	
	12	A	B	C	D	E	12	12
1/4	SOEX8	13/32	17/32	3/16	5/32	5		
5/16	SOEX10	1/2	21/32	7/32	5/32	5 3/4	•	
11/32	SOEX11	17/32	23/32	1/4	3/16	6 1/8	•	
3/8	SOEX12	19/32	25/32	1/4	3/16	6 1/2	•	•
7/16	SOEX14	21/32	29/32	7/32	7/32	7 1/4	•	•
1/2	SOEX16	3/4	1 1/16	11/32	1/4	8	•	•
9/16	SOEX18	27/32	1 5/32	3/8	9/32	8 3/4	•	•
5/8	SOEX20	15/16	1 5/16	13/32	9/32	9 1/2	•	•
11/16	SOEX22	1 1/32	1 13/32	7/16	5/16	10 1/4	•	•
3/4	SOEX24	1 1/8	1 9/16	15/32	11/32	11	•	•
13/16	SOEX26	1 3/16	1 21/32	17/32	3/8	11 3/4	•	
7/8	SOEX28	1 9/32	1 13/16	9/16	3/8	12 1/2		
15/16	SOEX30	1 3/8	1 29/32	19/32	13/32	13 1/4		
1	SOEX32	1 15/32	2 1/32	5/8	7/16	14		
1 1/16	SOEX34	1 9/16	2 5/32	19/32	15/32	14 3/4		
1 1/8	SOEX36	1 5/8	2 5/16	11/16	15/32	15 17/32		
1 3/16	SOEX38	1 23/32	2 13/32	23/32	1/2	16 1/4		
1 1/4	SOEX40	1 13/16	2 9/16	3/4	17/32	17		
1 5/16	SOEX42	1 29/32	2 21/32	3/4	9/16	17 25/32		

ASME B107.100

Sets include storage tray



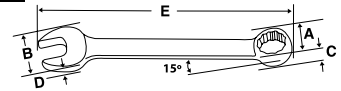
SOEX710



- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4

# WRENCHES

## Flank Drive® Combination



OSHM713



OSHM707B



OEXM707B



OEXM710B



OEXM713B



GOEXM715

### Standard Length, mm

mm	Set Contains:			Wrench Sizes														
	6	12	12	A	B	C	D	E	6	6	12	12	12	12	12	12	12	
7	OSHM70B			11	15	5	4	135	•									
8	OSHM80B	OEXM80B		13	17	6	4	146	•		•	•						
9	OSHM90B	OEXM90B		14	19	6	5	159	•		•	•						
10	OSHM100B	OEXM100B	GOEXM100B	15	21	7	5	171	•	•	•	•	•	•	•	•	•	•
11	OSHM110B	OEXM110B	GOEXM110B	17	23	8	6	184	•	•	•	•	•	•	•	•	•	•
12	OSHM120B	OEXM120B	GOEXM120B	18	25	8	6	195	•	•	•	•	•	•	•	•	•	•
13	OSHM130B	OEXM130B	GOEXM130B	20	27	9	6	207	•	•	•	•	•	•	•	•	•	•
14	OSHM140B	OEXM140B	GOEXM140B	21	29	9	7	219	•	•	•	•	•	•	•	•	•	•
15	OSHM150B	OEXM150B	GOEXM150B	22	31	10	7	231	•	•	•	•	•	•	•	•	•	•
16	OSHM160B	OEXM160B	GOEXM160B	24	33	10	7	242	•	•	•	•	•	•	•	•	•	•
17	OSHM170B	OEXM170B	GOEXM170B	25	35	11	8	255	•	•	•	•	•	•	•	•	•	•
18	OSHM180B	OEXM180B	GOEXM180B	27	37	12	8	267	•	•	•	•	•	•	•	•	•	•
19	OSHM190B	OEXM190B	GOEXM190B	28	39	12	9	279	•	•	•	•	•	•	•	•	•	•
20		OEXM200B	GOEXM200B	30	41	13	9	292			•	•	•					•
21		OEXM210B	GOEXM210B	31	43	13	9	304			•	•	•					•
22		OEXM220B	GOEXM220B	33	46	14	10	318			•	•	•					•
23		OEXM230B	GOEXM230B	34	47	14	10	327			•	•	•					•
24		OEXM240B	GOEXM240B	35	49	15	11	337			•	•	•					•
25		OEXM250B		37	52	16	11	356			•	•	•					
26		OEXM260B		38	53	16	11	363			•	•	•					
27		OEXM270B		39	55	17	12	375			•	•	•					
29		OEXM290B		42	58	18	12	394			•	•	•					
30		OEXM300B		44	61	19	13	413			•	•	•					
32		OEXM320B		46	65	19	14	432			•	•	•					
34		OEXM340B		48	68	19	14	452			•	•	•					
36		OEXM360B		53	74	22	15	489			•	•	•					
		Kit Bag											C2301A					

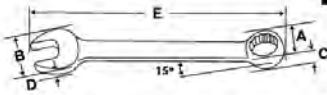
ASME®/ANSI® B107.100

\*Set includes storage tray



# WRENCHES

## Flank Drive® Combination



OSH711B



OEX714K



GOEX722K



OEX707B

### Standard Length, inches

Set Contains:

11	6	12	12	A	B	C	D	E	6	6	12	12	12	12	12	12	12	12	12	12	
1/4		OEX8B		13/32	17/32	3/16	5/32	5													
5/16	OSH10B	OEX10B	GOEX10B	1/2	21/32	7/32	5/32	5 3/4													
11/32	OSH11B	OEX11B		17/32	3/4	1/4	3/16	6 1/8													
3/8	OSH12B	OEX12B	GOEX12B	19/32	13/16	5/16	3/16	6 1/2													
7/16	OSH14B	OEX14B	GOEX14B	21/32	29/32	5/16	7/32	7 1/4													
1/2	OSH16B	OEX16B	GOEX16B	3/4	1 1/16	11/32	1/4	8													
9/16	OSH18B	OEX18B	GOEX18B	27/32	1 3/16	3/8	9/32	8 3/4													
5/8	OSH20B	OEX20B	GOEX20B	15/16	1 5/16	13/32	9/32	9 1/2													
11/16	OSH22B	OEX22B	GOEX22B	1 1/32	1 13/32	7/16	5/16	10 1/4													
3/4	OSH24B	OEX24B	GOEX24B	1 1/8	1 9/16	15/32	11/32	11													
13/16	OSH26B	OEX26B	GOEX26B	1 3/16	1 21/32	17/32	3/8	11 3/4													
7/8	OSH28B	OEX28B	GOEX28B	1 9/32	1 13/16	9/16	3/8	12 1/2													
15/16	OSH30B	OEX30B	GOEX30B	1 3/8	1 29/32	19/32	13/32	13 1/4													
1	OSH32B	OEX32B	GOEX32B	1 15/32	2 1/32	21/32	7/16	14													
1 1/16		OEX34B	GOEX34B	1 9/16	2 3/16	11/16	15/32	14 3/4													
1 1/8		OEX36B	GOEX36B	1 5/8	2 5/16	11/16	17/32	15 7/16													
1 3/16		OEX38B	GOEX38B	1 3/4	2 7/16	3/4	1/2	16 5/16													
1 1/4		OEX40B	GOEX40B	1 13/16	2 9/16	3/4	17/32	17 1/16													
1 5/16		OEX42B	GOEX42B	1 29/32	2 21/32	3/4	9/16	17 13/16													
1 3/8		OEX44B	GOEX44B	2	2 13/16	3/4	19/32	18 9/16													
1 7/16		OEX46B	GOEX46B	2 1/16	2 29/32	7/8	19/32	19 1/32													
1 1/2		OEX48B	GOEX48B	2 5/32	3 1/16	7/8	5/8	20 1/16													
1 9/16		OEX50B	GOEX50B	2 1/4	3 3/16	7/8	23/32	20 13/16													
1 5/8		OEX52B	GOEX52B	2 11/32	3 11/32	7/8	11/16	21 9/16													
1 11/16		OEX54A		2 7/16	3 13/32	7/8	23/32	22 9/32													
1 3/4		OEX56A	GOEX56A	2 17/32	3 9/16	1 1/32	23/32	22 7/8													
1 13/16		OEX58A	GOEX58A	2 5/8	3 21/32	1 1/32	3/4	23 15/32													
1 7/8		OEX60A	GOEX60A	2 11/32	3 13/16	1 1/32	25/32	24 1/32													
2		OEX64A	GOEX64A	2 7/8	4 1/16	1 1/32	27/32	25 1/4													
2 1/16			GOEX66A	2 31/32	4 5/32	1 1/8	27/32	25 25/32													
2 1/8			GOEX68A	3 1/16	4 5/16	1 5/32	7/8	26 3/8													
2 3/16			GOEX70A	3 1/8	4 13/32	1 1/8	7/8	26 31/32													
2 1/4			GOEX72A	3 7/32	4 9/16	1 1/8	15/16	27 9/16													
2 3/8			GOEX76A	3 13/32	4 13/16	1 9/32	31/32	28 3/4													
2 1/2			GOEX80A	3 19/32	5 1/16	1 9/32	1	29 29/32													
2 5/8			GOEX84A	4 7/8	6 5/8	1 5/8	1 3/16	32													
2 3/4			GOEX88A	4 7/8	6 5/8	1 5/8	1 3/16	32													
2 7/8			GOEX92A	4 7/8	6 5/8	1 5/8	1 3/16	32													
2 15/16			GOEX94A	4 7/8	6 5/8	1 5/8	1 3/16	32													
3			GOEX96A	4 7/8	6 5/8	1 5/8	1 3/16	32													
3 1/8			GOEX1100A	4 7/8	6 5/8	1 5/8	1 3/16	32													
3 3/8			GOEX1108A	4 7/8	6 5/8	1 5/8	1 3/16	32													
3 1/2			GOEX1112A	4 7/8	6 5/8	1 5/8	1 3/16	32													

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OEX32B thru OEX52B are full polish chrome. OEX54A through OEX64A are satin finish chrome.

Kit Bag:

C2301A

G1401

C2200

G1401



**WARNING**

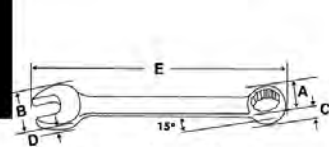


- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4



# WRENCHES

## Flank Drive® Combination



OEXSM710B



GOEXM17B

### Short Handle, mm

mm	12		A	B	C	D	E	Set Contains:		
	12	12						12	12	12
6	OEXM6B	GOEXM6B	10	13	5	4	113	•	•	
7	OEXM7B	GOEXM7B	11	15	5	4	118	•	•	
8	OEXM8B	GOEXM8B	13	17	6	4	123	•	•	
9	OEXM9B	GOEXM9B	14	19	6	5	128	•	•	
10	OEXM10B	GOEXM10B	15	21	7	5	133	•	•	•
11	OEXM11B	GOEXM11B	17	23	8	6	138	•	•	•
12	OEXM12B	GOEXM12B	18	25	8	6	142	•	•	•
13	OEXM13B	GOEXM13B	20	27	9	6	148	•	•	•
14	OEXM14B	GOEXM14B	21	29	9	7	152	•	•	•
15	OEXM15B	GOEXM15B	22	31	10	7	157	•	•	•
16	OEXM16B	GOEXM16B	24	33	10	7	162	•	•	•
17	OEXM17B	GOEXM17B	25	35	11	8	167	•	•	•
18	OEXM18B	GOEXM18B	27	37	12	8	172	•	•	•
19	OEXM19B	GOEXM19B	28	39	12	9	177	•	•	•
20	OEXM20B		30	41	13	9	182	•		
21	OEXM21B		31	43	13	9	186	•		
22	OEXM22B		33	46	14	10	192	•		
23	OEXM23B		34	47	14	10	197	•		
24	OEXM24B		35	49	15	11	201	•		
	Kit Bag									C1402

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\*Set includes storage tray



OEXS715K



OEXS709B

### Short Handle, inches

In	12		A	B	C	D	E	Set Contains:		
	12	12						12	12	12
1/4	OEX080B	GOEX080B	13/32	17/32	3/16	5/32	4 17/32	•	•	
9/32	OEX090B		7/16	19/32	7/32	5/32	4 21/32	•	•	
5/16	OEX100B	GOEX100B	1/2	21/32	7/32	5/32	4 27/32	•	•	•
11/32	OEX110B	GOEX110B	17/32	23/32	1/4	3/16	5	•	•	•
3/8	OEX120B	GOEX120B	19/32	25/32	1/4	3/16	5 1/8	•	•	•
7/16	OEX140B	GOEX140B	21/32	29/32	5/16	7/32	5 7/16	•	•	•
1/2	OEX160B	GOEX160B	3/4	1 1/16	11/32	1/4	5 3/4	•	•	•
9/16	OEX180B	GOEX180B	27/32	1 5/32	3/8	9/32	6 1/16	•	•	•
5/5	OEX200B	GOEX200B	15/16	1 5/16	13/32	9/32	6 11/32	•	•	•
11/16	OEX220B	GOEX220B	1 1/32	1 13/32	7/16	5/16	6 21/32	•	•	•
3/4	OEX240B	GOEX240B	1 1/8	1 9/16	15/32	11/32	6 31/32	•	•	•
13/16	OEX260B	GOEX260B	1 3/16	1 21/32	17/32	3/8	7 9/32	•	•	•
7/8	OEX280B	GOEX280B	1 9/32	1 13/16	9/16	3/8	7 9/16	•	•	•
15/16	OEX300B	GOEX300B	1 3/8	1 29/32	19/32	13/32	7 7/8	•	•	•
1	OEX320B	GOEX320B	1 15/32	2 1/32	5/8	7/16	8 3/16	•	•	•
1 1/16	OEX340B		1 9/16	2 5/32	21/32	15/32	8 17/32	•		
1 1/8	OEX360B		1 5/8	2 5/16	11/16	1/2	8 27/32	•		
1 3/16	OEX380B		1 23/32	2 13/32	23/32	1/2	9 1/8	•		
1 1/4	OEX400B		1 13/16	2 9/16	3/4	17/32	9 7/16	•		
1 5/16	OEX420B		1 29/32	2 21/32	3/4	9/16	9 3/4	•		
1 3/8	OEX440B		2	2 13/16	3/4	19/32	10 1/16	•		
	Kit Bag									C1505

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\*Set includes storage tray



OEXLM710B

### Long Handle, mm

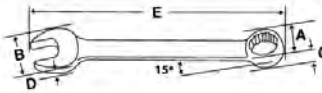
mm	12		A	B	C	D	E	Set Contains:
	12	12						12
10	OEXLM10B		15	21	7	5	186	•
11	OEXLM11B		17	23	8	6	203	•
12	OEXLM12B		18	25	8	6	218	•
13	OEXLM13B		20	27	9	6	234	•
14	OEXLM14B		21	29	9	7	250	•
15	OEXLM15B		22	31	10	7	266	•
16	OEXLM16B		24	33	10	7	282	•
17	OEXLM17B		25	35	11	8	298	•
18	OEXLM18B		27	37	12	8	314	•
19	OEXLM19B		28	39	12	9	330	•

ASME B107.100

Set includes storage tray

# WRENCHES

## Flank Drive® Combination



### Long Handle, inches

Set Contains: **OEXL707B**

11	12	A	B	C	D	E	12
3/8	<b>OEXL12B</b>	19/32	25/32	1/4	3/16	7	•
7/16	<b>OEXL14B</b>	21/32	29/32	5/16	7/32	8	•
1/2	<b>OEXL16B</b>	3/4	1 1/16	11/32	1/4	9	•
9/16	<b>OEXL18B</b>	27/32	1 5/32	3/8	9/32	10	•
5/8	<b>OEXL20B</b>	15/16	1 5/16	13/32	9/32	11	•
11/16	<b>OEXL22B</b>	1 1/32	1 13/32	7/16	5/16	12	•
3/4	<b>OEXL24B</b>	1 1/8	1 9/16	15/32	11/32	13	•
13/16	<b>OEXL26B</b>	1 3/16	1 21/32	17/32	3/8	14	•
7/8	<b>OEXL28B</b>	1 9/32	1 13/16	9/16	3/8	15	•
15/16	<b>OEXL30B</b>	1 3/8	1 29/32	19/32	13/32	16	•
1	<b>OEXL32B</b>	1 15/32	2 1/32	5/8	7/16	17	•

ASME® B107.100

Set includes storage tray



OEXL707B

### Midget, mm

Set Contains:

**OXIM717**  
**OXIM707SBK**  
**OXIM709\*\***

mm	6	12	A	B	C	D	E	6	12
4	<b>OXIM4SB*</b>		7	10	4	3	72	6 point	•
5	<b>OXIM5SB*</b>		8	12	4	3	76	6 point	•
5.5	<b>OXIM55SB</b>		9	13	4	4	79	6 point	•
6	<b>OXIM6SB</b>	<b>OXIM6B</b>	10	13	5	4	81	12 point	•
7	<b>OXIM7SB</b>	<b>OXIM7B</b>	11	15	5	4	85	12 point	•
8	<b>OXIM8SB</b>	<b>OXIM8B</b>	13	17	6	4	89	12 point	•
9	<b>OXIM9SB</b>	<b>OXIM9B</b>	14	19	6	5	93	12 point	•
10		<b>OXIM10B</b>	15	21	7	5	98	12 point	•
11		<b>OXIM11B</b>	17	23	8	6	102	12 point	•
12		<b>OXIM12B</b>	18	25	8	6	106	12 point	•
13		<b>OXIM13B</b>	20	27	9	6	110	12 point	•
14		<b>OXIM14B</b>	21	29	9	7	115	12 point	•
15		<b>OXIM15B</b>	22	31	10	7	119	12 point	•
16		<b>OXIM16B</b>	24	33	10	7	122	12 point	•
17		<b>OXIM17B</b>	25	35	11	8	127	12 point	•
18		<b>OXIM18B</b>	27	37	12	8	131	12 point	•
19		<b>OXIM19B</b>	28	39	12	9	136	12 point	•
	<b>Kit Bag</b>							<b>C0700</b>	

ASME B107.100

\*Conventional Hex

\*\*Set includes storage tray



OXIM707SBK

### Midget, inches

Set Contains:

**OXI709SBK**  
**OXI707BK**  
**OXI715**  
**OXI706B\*\***

11	6	12	A	B	C	D	E	6	12	12
1/8	<b>OXI4SB*</b>		7/32	11/32	1/8	1/8	2 11/16	•		6 point
5/32	<b>OXI5SB*</b>		9/32	13/32	5/32	1/8	2 27/32	•		6 point
3/16	<b>OXI6SB*</b>	<b>OXI6B*</b>	5/16	7/16	5/32	1/8	2 31/32	•	•	12 point
7/32	<b>OXI7SB</b>	<b>OXI7B</b>	3/8	1/2	3/16	1/8	3 3/32	•	•	12 point
1/4	<b>OXI8SB</b>	<b>OXI8B</b>	13/32	17/32	3/16	5/32	3 7/32	•	•	12 point
9/32	<b>OXI9SB</b>	<b>OXI9B</b>	7/16	19/32	7/32	5/32	3 11/32	•	•	12 point
5/16	<b>OXI10SB</b>	<b>OXI10B</b>	1/2	21/32	7/32	5/32	3 1/2	•	•	12 point
11/32	<b>OXI11SB</b>	<b>OXI11B</b>	17/32	23/32	1/4	3/16	3 5/8	•	•	12 point
3/8	<b>OXI12SB</b>	<b>OXI12B</b>	19/32	25/32	1/4	3/16	3 3/4	•	•	12 point
7/16		<b>OXI14B</b>	21/32	29/32	5/16	7/32	4 1/32			12 point •
1/2		<b>OXI16B</b>	3/4	1 1/16	11/32	1/4	4 9/32			12 point •
9/16		<b>OXI18B</b>	27/32	1 5/32	3/8	9/32	4 17/32			12 point •
5/8		<b>OXI20B</b>	15/16	1 5/16	13/32	9/32	4 13/16			12 point •
11/16		<b>OXI22B</b>	1 1/32	1 13/32	7/16	5/16	5 1/16			12 point •
3/4		<b>OXI24B</b>	1 1/8	1 9/16	15/32	11/32	5 11/32			12 point •
	<b>Kit Bag</b>							<b>C0900A</b>	<b>C0700</b>	

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\*Conventional Hex

\*\*Set includes storage tray



OXI709SBK



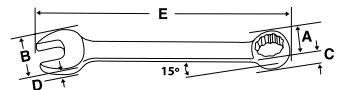
**WARNING**



- Do not use "cheater bars" on handles
- Read safety precautions on pages W1 to W4

# WRENCHES

## British Standard



WOEX90B

### Short Handle Combination

BS	Decimal Equiv., inches	12	A	B	C	D	E
3/16	.338	WOEX6B	25/32	19/32	3/16	1/4	5 3/32
1BA	.365	WOEX70B	25/32	19/32	3/16	1/4	5 1/8
OBA	.413	WOEX80B	29/32	21/32	7/32	5/16	5 13/32
1/4	.445	WOEX90B	29/32	21/32	7/32	5/16	5 15/32
5/16	.52	WOEX100B	1 5/32	27/32	9/32	3/8	6 1/32
3/8	.600	WOEX110B	1 5/16	15/16	9/32	13/32	6 11/32
7/16	.710	WOEX120B	1 5/16	1 1/32	5/16	7/16	6 23/32

## Combination Wrenches (Blue-Point®)



BLPCWSM712

### Standard, mm

**Set Contains:** BLPCWSM712

mm	Stock No.	Length, mm	12
8	BLPCWM8	148	•
9	BLPCWM9	160	•
10	BLPCWM10	167	•
11	BLPCWM11	186	•
12	BLPCWM12	196	•
13	BLPCWM13	205	•
14	BLPCWM14	223	•
15	BLPCWM15	233	•
16	BLPCWM16	243	•
17	BLPCWM17	262	•
18	BLPCWM18	272	•
19	BLPCWM19	281	•

Set includes storage tray



BLPCWS711

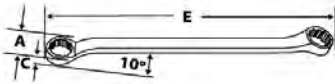
### Standard, inches

**Set Contains:** BLPCWS711

in	Stock No.	Length, inches	12
1/4	BLPCW14	5 1/32	
5/16	BLPCW516	5 7/32	
3/8	BLPCW38	6 9/16	•
7/16	BLPCW716	7 11/32	•
1/2	BLPCW12	8 1/16	•
9/16	BLPCW916	8 25/32	•
5/8	BLPCW58	9 9/16	•
11/16	BLPCW1116	10 5/16	•
3/4	BLPCW34	11 1/16	•
13/16	BLPCW1316	11 27/32	•
7/8	BLPCW78	12 19/16	•
15/16	BLPCW1516	13 11/32	•
1	BLPCW1	14 3/32	•

Set includes storage tray





### Midget, 10° Offset, inches

Set Contains:

**XID604KA**

#	12	A	C	E	12
3/16 - 13/64	<b>XID1213A</b>	5/16 - 11/32	1/8 - 5/32	2 13/16	•
7/32 - 15/64	<b>XID1415A</b>	3/8 - 3/8	5/32 - 5/32	3 1/16	•
1/4 - 9/32	<b>XID1618A</b>	13/32 - 7/16	5/32 - 3/16	3 13/32	•
5/16 - 11/32	<b>XID2022A</b>	15/32 - 1/2	3/16 - 7/32	3 31/32	•
Kit Bag					<b>C0401</b>

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**XID604KA**



Set Contains:

**XLE605**

#	A	C	E		
E5 - E6	<b>XLE56</b>	9/32 - 5/16	5/32 - 3/16	6 13/32	•
E7 - E8	<b>XLE78</b>	11/32 - 3/8	7/32 - 7/32	7 7/32	•
E10 - E12	<b>XLE1012A</b>	15/32 - 17/32	1/4 - 5/16	8 7/8	•
E14 - E16	<b>XLE1416</b>	5/8 - 23/32	11/32 - 11/32	10 7/16	•
E18 - E20	<b>XLE1820</b>	13/16 - 7/8	13/32 - 7/16	12 3/8	•

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Set includes storage tray



**XLE605**

### Standard Length, 10° Offset, mm

Set Contains:

**XBM605A**

mm	6	12	A	C	E	12
8 - 10		<b>XBM810A</b>	12.3 - 15	6.7 - 7.7	185	
10 - 11		<b>XBM1011A</b>	15 - 16.4	7.7 - 8.3	202	•
10 - 12		<b>XBM1012A</b>	15 - 17.7	7.7 - 8.8	208	
11 - 13		<b>XBM1113A</b>	16.4 - 19.1	8.3 - 9.3	219	
12 - 14	<b>XBM1214SA</b>	<b>XBM1214A</b>	17.7 - 20.4	8.8 - 9.7	230	•
13 - 15	<b>XBM1315SA</b>	<b>XBM1315A</b>	19.1 - 21.8	9.3 - 10.2	241	•
14 - 17		<b>XBM1417A</b>	20.4 - 24.5	9.8 - 11.4	248	
16 - 18		<b>XBM1618A</b>	23.1 - 25.9	10.9 - 11.9	275	•
17 - 19		<b>XBM1719A</b>	24.5 - 27.2	11.4 - 12.3	286	•
18 - 21		<b>XBM1821A</b>	25.9 - 29.9	11.9 - 13.3	303	
22 - 24		<b>XBM2224A</b>	31.3 - 34	13.7 - 14.7	342	
27 - 30		<b>XBM2730A</b>	38.1 - 42.2	16 - 17.3	404	

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Set includes storage tray



**XBM605A**

### Standard Length, 10° Offset, inches

Set Contains:

**XB605A**

#	12	A	C	E	12
3/8 - 7/16	<b>XB1214A</b>	9/16 - 21/32	5/16 - 11/32	7 19/32	•
7/16 - 1/2	<b>XB1416A</b>	21/32 - 3/4	5/16 - 11/32	7 15/16	
1/2 - 9/16	<b>XB1618A</b>	3/4 - 13/16	11/32 - 3/8	8 11/16	•
9/16 - 5/8	<b>XB1820A</b>	13/16 - 29/32	13/32 - 7/16	9 13/32	
5/8 - 11/16	<b>XB2022A</b>	29/32 - 1	7/16 - 15/32	10 5/32	•
11/16 - 3/4	<b>XB2224A</b>	1 - 1 1/16	15/32 - 1/2	10 15/16	
3/4 - 13/16	<b>XB2426A</b>	1 1/16 - 1 5/32	1/2 - 17/32	11 21/32	•
7/8 - 15/16	<b>XB2830A</b>	1 1/4 - 1 11/32	17/32 - 9/16	13 1/8	•
15/16 - 1	<b>XB3032A</b>	1 11/32 - 1 13/32	9/16 - 19/32	13 7/8	
1 - 1 1/16	<b>XB3234A</b>	1 13/32 - 1 1/2	19/32 - 5/8	14 19/32	
1 1/16 - 1 1/4	<b>XB3440A</b>	1 1/2 - 1 3/4	5/8 - 23/32	16 3/32	
1 1/8 - 1 3/16	<b>XB3638A</b>	1 9/32 - 1 21/32	21/32 - 11/16	16 3/32	
1 1/4 - 1 5/16	<b>XB4042A</b>	1 3/4 - 1 27/32	23/32 - 3/4	17 19/32	
1 3/8 - 1 7/16	<b>XB4446A</b>	1 31/32 - 2 1/16	3/4 - 25/32	19 1/8	
1 1/2 - 1 5/8	<b>XB4852A</b>	2 3/32 - 2 9/32	13/16 - 7/8	20 15/16	

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Set includes storage tray



**XB605A**



**WARNING**

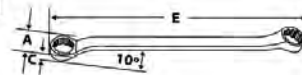


- Do not use "cheater bars" on handles
- Read safety precautions on pages W1 to W4



# WRENCHES

## Flank Drive® Offset Box



XSM608A



XS609A

### Short Handle, 10° Offset, mm

Set Contains: XSM608A

mm	12	A	C	E	12
6 - 7	<b>XSM67A</b>	9.6 - 10.9	5.7 - 6.2	86	•
8 - 9	<b>XSM89A</b>	12.3 - 13.7	6.7 - 7.2	103	•
8 - 10	<b>XSM810</b>	12.3 - 15	6.7 - 7.7	107	•
9 - 10	<b>XSM910A</b>	13.7 - 15	7.2 - 7.7	112	•
11 - 12	<b>XSM1112A</b>	16.4 - 17.7	8.3 - 8.8	128	•
13 - 14	<b>XSM1314A</b>	19.1 - 20.4	9.3 - 9.8	146	•
15 - 16	<b>XSM1516A</b>	21.8 - 23.1	10.2 - 10.9	163	•
17 - 19	<b>XSM1719A</b>	24.5 - 27.2	11.4 - 12.3	185	•
18 - 20	<b>XSM1820A</b>	25.9 - 28.6	11.9 - 12.8	194	•

ASME® B107.100

Set includes storage tray

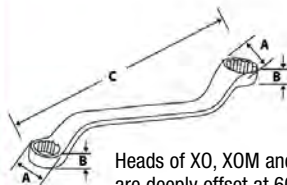
### Short Handle, 10° Offset, inches

Set Contains: XS609A

11	12	A	C	E	12
3/16 - 7/32	<b>XS67A</b>	5/16 - 11/32	7/32 - 7/32	3 27/32	•
1/4 - 5/16	<b>XS810A</b>	13/32 - 15/32	1/4 - 9/32	4 1/4	•
5/16 - 3/8	<b>XS1012A</b>	15/32 - 9/16	9/32 - 5/16	4 9/16	•
3/8 - 7/16	<b>XS1214A</b>	9/16 - 21/32	5/16 - 11/32	4 29/32	•
7/16 - 1/2	<b>XS1416A</b>	21/32 - 3/4	11/32 - 11/32	5 3/16	•
1/2 - 9/16	<b>XS1618A</b>	3/4 - 13/16	3/8 - 3/8	5 17/32	•
9/16 - 5/8	<b>XS1820A</b>	13/16 - 29/32	13/32 - 7/16	5 7/8	•
5/8 - 3/4	<b>XS2024A</b>	29/32 - 1 1/16	7/16 - 1/2	6 3/8	•
11/16 - 13/16	<b>XS2226A</b>	1 - 1 5/32	15/32 - 17/32	6 23/32	•

ASME B107.100

Set includes storage tray



Heads of XO, XOM and XSO wrenches are deeply offset at 60° angle to the handles so recessed fasteners may be easily reached.



XOM605



XO605



XSO1214A

### Standard Length, Deep 60° Offset, mm

Set Contains: XOM605

mm	12	A	B	C	12
8 - 10	<b>XOM810</b>	11.7 - 14.2	6.9 - 7.3	178.1	•
10 - 11	<b>XOM1011</b>	15 - 16.3	7.6	193.0	•
12 - 14	<b>XOM1214</b>	15 - 20.3	9.0	210.0	•
13 - 15	<b>XOM1315</b>	16.3 - 21.2	8.9	223.0	•
16 - 18	<b>XOM1618</b>	17.7 - 25.4	10.8	253.0	•
17 - 19	<b>XOM1719</b>	17.7 - 27.4	11.1	260.0	•
20 - 21	<b>XOM2021</b>	32.5 - 33.3	13.7	329.6	•
22 - 24	<b>XOM2224</b>	31.9 - 34.1	13.7	329.6	•

ASME B107.100

Set includes storage tray

### Standard Length, Deep 60° Offset, inches

Set Contains: XO605

11	12	A	B	C	12
1/4 - 5/16	<b>XO810</b>	3/8	9/32 (1/4 - 9/32)	6 13/32	•
5/16 - 3/8	<b>XO1012</b>	15/32 - 9/16	9/32	7	•
3/8 - 7/16	<b>XO1214</b>	9/16 - 5/8	5/16	7 19/32	•
1/2 - 9/16	<b>XO1618</b>	23/32 - 13/16	11/32	8 25/32	•
9/16 - 5/8	<b>XO1820</b>	13/16 - 29/32	13/32	9 3/8	•
5/8 - 11/16	<b>XO2022</b>	29/32 - 1	13/32	9 15/16	•
5/8 - 3/4	<b>XO2024</b>	29/32 - 1 3/32	7/16	10 1/4	•
11/16 - 13/16	<b>XO2226</b>	1 - 1 5/32	15/32	10 27/32	•
3/4 - 7/8	<b>XO2428</b>	1 3/32 - 1 1/4	1/2	11 13/32	•
7/8 - 15/16	<b>XO2830</b>	1 1/4 - 1 11/32	17/32	12 31/32	•
15/16 - 1	<b>XO3032</b>	1 11/32 - 1 7/16	9/16	13 15/16	•

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Set includes storage tray

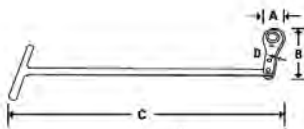
### Short Handle, Deep 60° Offset, inches

11	12	A	B	C
1/4 - 5/16	<b>XSO810A</b>	3/8 - 7/16	3/16 - 7/32	4 5/32
3/8 - 7/16	<b>XSO1214A</b>	17/32 - 9/8	1/4 - 9/32	4 13/16

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# WRENCHES

## Ratcheting Box



RTBM605

Set Contains:

RTBM605  
RTBM505

T-Handle, mm

mm	12	A	B	C	D	12	12
8	<b>RTBM8</b>	17.5	71.4	307.2	9.5	•	
10	<b>RTBM10</b>	23.0	76.2	307.2	9.5	•	
12	<b>RTBM12</b>	29.4	86.5	308.8	12.7	•	
13	<b>RTBM13</b>	29.4	86.5	308.8	12.7	•	
14	<b>RTBM14</b>	29.4	86.5	308.8	12.7	•	
15	<b>RTBM15</b>	36.8	98.6	308.8	12.7		•
16	<b>RTBM16</b>	36.8	98.6	308.8	12.7		•
17	<b>RTBM17</b>	36.8	98.6	308.8	12.7		•
18	<b>RTBM18</b>	36.8	98.6	308.8	12.7		•
19	<b>RTBM19</b>	36.8	98.6	308.8	12.7		•

Sets include storage tray



RTB607

Set Contains:

RTB607

T-Handle, inches

in	12	A	B	C	D	12
1/4	<b>RTB8</b>	11/16	2 13/16	12 3/32	3/8	•
5/16	<b>RTB10</b>	11/16	2 13/16	12 3/32	3/8	•
11/32	<b>RTB11</b>	29/32	3	12 3/32	3/8	•
3/8	<b>RTB12</b>	29/32	3	12 3/32	3/8	•
7/16	<b>RTB14</b>	29/32	3	12 3/32	3/8	•
1/2	<b>RTB16</b>	1 5/32	3 13/32	12 5/32	1/2	•
9/16	<b>RTB18</b>	1 5/32	3 13/32	12 5/32	1/2	•

Set includes storage tray



BXORM706

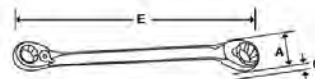
Standard Length, 25° Offset, mm  
(Blue-Point®)

Set Contains:

BXORM706

mm	12	A	C	E	12
8 - 9	<b>BXORM89</b>	18.0 - 19.3	6.4 - 7.6	184.2	•
10 - 11	<b>BXORM1011</b>	21.8 - 22.1	8.1 - 8.6	203.2	•
12 - 13	<b>BXORM1213</b>	23.6 - 26.6	8.9 - 10.2	222.3	•
14 - 15	<b>BXORM1415</b>	27.2 - 28.7	10.2 - 10.9	241.3	•
16 - 17	<b>BXORM1617</b>	31.0 - 32.0	10.9 - 11.9	260.4	•
18 - 19	<b>BXORM1819</b>	34.5 - 36.8	12.2 - 13.2	279.4	•

Set includes storage tray



BXOR704

Standard Length, 25° Offset, inches  
(Blue-Point)

Set Contains:

BXOR704

in	12	A	C	E	12
5/16 - 3/8	<b>BXOR1012</b>	23/32 - 7/8	1/4 - 5/16	7 1/2	•
7/16 - 1/2	<b>BXOR1416</b>	7/8 - 31/32	11/32 - 13/32	8 3/4	•
9/16 - 5/8	<b>BXOR1820</b>	1 1/16 - 7/32	13/32 - 7/16	9 3/4	•
11/16 - 3/4	<b>BXOR2224</b>	1 9/32 - 7/16	15/32 - 1/2	11	•

Set includes storage tray



RBM604C

Standard Length, 0° Offset, mm

Set Contains:

RBM604C

mm	6	12	A	C	E	12
7 - 8	<b>RBM78SC</b>	<b>RBM78C</b>	15.1 - 17.1	9.5	114.3	
8 - 10		<b>RBM810C</b>	20.2 - 22.6	9.5	139.7	
9 - 10		<b>RBM910C</b>	20.2 - 22.6	9.5	139.7	
10 - 11	<b>RBM1011SC</b>	<b>RBM1011C</b>	25.8 - 29.4	12.7	174.6	•
10 - 12		<b>RBM1012C</b>	25.8 - 29.4	12.7	174.6	
12 - 13	<b>RBM1213SC</b>	<b>RBM1213C</b>	25.8 - 29.4	12.7	174.6	•
12 - 14		<b>RBM1214C</b>	25.8 - 29.4	12.7	174.6	
14 - 15		<b>RBM1415C</b>	32.9 - 36.5	12.7	206.4	•
16 - 18		<b>RBM1618C</b>	32.9 - 36.5	12.7	206.4	
17 - 19		<b>RBM1719C</b>	32.9 - 36.5	12.7	206.4	•

Set includes storage tray



RB604C

Standard Length, 0° Offset, inches

Set Contains:

RB604C

in	6	12	A	C	E	12
1/4 - 5/16	<b>R810SC</b>	<b>R810C</b>	19/32 - 43/64	3/8	4 1/2	
5/16 - 11/32		<b>R1011C</b>	5/8 - 3/4	11/32	5 3/8	
5/16 - 3/8		<b>R1012C</b>	51/64 - 57/64	3/8	5 1/2	
3/8 - 7/16	<b>R1214SC</b>	<b>R1214C</b>	51/64 - 57/64	3/8	5 1/2	•
1/2 - 9/16	<b>R1618SC</b>	<b>R1618C</b>	1 1/64 - 1 5/32	1/2	6 7/8	•
5/8 - 11/16		<b>R2022C</b>	1 19/64 - 1 7/16	1/2	8 1/8	•
5/8 - 3/4		<b>R2024C</b>	1 19/64 - 1 7/16	1/2	8 1/8	
3/4 - 13/16		<b>R2426C</b>	1 13/32 - 1 37/64	1/2	9 1/4	
3/4 - 7/8		<b>R2428C</b>	1 13/32 - 1 37/64	1/2	9 1/4	•
13/16 - 15/16		<b>R2630C</b>	1 13/32 - 1 37/64	1/2	9 1/4	
7/8 - 15/16		<b>R2830C</b>	1 29/32 - 2 17/64	9/16	15	
15/16 - 1		<b>R3032C</b>	1 29/32 - 2 17/64	9/16	15	
1 1/16 - 1 1/8		<b>R3436A</b>	2 - 2	9/16	12 3/4	
1 1/8 - 1 1/4	<b>R3640SA</b>		2 3/32 - 2 3/32	9/16	12 13/16	
1 3/16 - 1 1/4		<b>R3840A</b>	2 - 2	9/16	12 3/4	

Set includes storage tray



**WARNING**



- Do not use "cheater bars" on handles
- Read safety precautions on pages W1 to W4



# WRENCHES

## Ratcheting Box



RBZM605

### Latch-on®, 0° Offset, mm

- Latch-on head keeps wrench on fastener
- Ring prevents nut/fastener head from sliding through wrench

Set Contains: **RBZM605**

mm	12	A	C	E	12
7 - 8	<b>RBZM78</b>	15.1 - 17.1	9.5	114.3	•
9 - 10	<b>RBZM910</b>	20.4 - 22.6	9.5	140.3	•
11 - 12	<b>RBZM1112</b>	25.8 - 29.4	12.7	174.6	•
13 - 14	<b>RBZM1314</b>	25.8 - 29.4	12.7	174.6	•
15 - 17	<b>RBZM1517</b>	32.9 - 36.5	12.7	206.4	•
16 - 18	<b>RBZM1618</b>	32.9 - 36.5	12.7	206.4	•
19 - 21	<b>RBZM1921</b>	35.7 - 40.1	12.7	234.9	•

Set includes storage tray



RBZ605

### Latch-on, 0° Offset, inches

- Latch-on head keeps wrench on fastener
- Ring prevents nut/fastener head from sliding through wrench

Set Contains: **RBZ605**

mm	12	A	C	E	12
1/4 - 5/16	<b>RBZ810</b>	19/32 - 11/16	3/8	4 1/2	•
3/8 - 7/16	<b>RBZ1214</b>	13/16 - 29/32	3/8	5 1/2	•
1/2 - 9/16	<b>RBZ1618</b>	1 1/32 - 1 5/32	1/2	6 7/8	•
5/8 - 11/16	<b>RBZ2022</b>	1 5/16 - 1 7/16	1/2	8 1/8	•
3/4 - 7/8	<b>RBZ2428</b>	1 13/32 - 1 19/32	1/2	9 1/4	•

Set includes storage tray



RBYAM605

### Standard Length, 25° Offset, mm

Set Contains: **RBYAM605**

mm	12	A	C	E	12
7 - 8	<b>RYAM78</b>	15.5 - 16.3	9.5	105.2	•
9 - 10	<b>RYAM910</b>	19.8 - 22.6	9.5	134.5	•
11 - 12	<b>RYAM1112</b>	25.4 - 29	12.7	165.9	•
13 - 14	<b>RYAM1314</b>	25.4 - 29	12.7	165.9	•
15 - 17	<b>RYAM1517</b>	33 - 36.5	12.7	197.2	•
16 - 18	<b>RYAM1618</b>	33 - 36.5	12.7	197.2	•
19 - 21	<b>RYAM1921</b>	35.7 - 40.1	12.7	224.2	•

Set includes storage tray



RBYA605

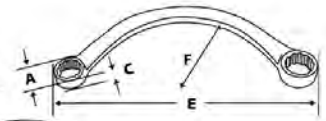
### Standard Length, 25° Offset, inches

Set Contains: **RBYA605**

mm	12	A	C	E	12
1/4 - 5/16	<b>RYA810</b>	9/16 - 5/8	11/32	4 9/32	•
5/16 - 11/32	<b>RYA1011</b>	19/32 - 11/16	3/8	4 1/32	•
3/8 - 7/16	<b>RYA1214</b>	3/4 - 7/8	11/32	6 5/32	•
1/2 - 9/16	<b>RYA1618</b>	15/16 - 1	13/32	6 31/32	•
5/8 - 11/16	<b>RYA2022</b>	1 1/8 - 1 1/4	13/32	7 27/32	•
3/4 - 7/8	<b>RYA2428</b>	1 3/8 - 1 1/2	7/16	8 5/8	•

Set includes storage tray

## Flank Drive® Specialty Box



CXM605

### Half Moon, mm

Set Contains: **CXM605**

mm	12	A	C	E	F	12
10 - 12	<b>CXM1012</b>	15 - 17	6 - 7	128	48	•
11 - 13	<b>CXM1113</b>	16 - 18	8 - 8	144	57	•
14 - 17	<b>CXM1417</b>	20 - 23	9 - 9	166	65	•
15 - 19	<b>CXM1519</b>	22 - 27	10 - 11	198	78	•
18 - 21	<b>CXM1821</b>	27 - 31	11 - 13	224	86	•

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CX605

### Half Moon, inches

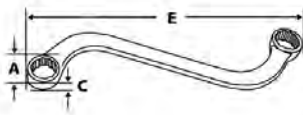
Set Contains: **CX605**

mm	12	A	C	E	F	12
5/16 - 3/8	<b>CX1012</b>	15/32 - 9/16	3/16 - 5/16	4 5/8	2 1/16	•
7/16 - 1/2	<b>CX1416</b>	5/8 - 23/32	5/16 - 5/16	5	2 7/32	•
9/16 - 5/8	<b>CX1820</b>	13/16 - 7/8	11/32 - 3/8	6 1/2	2 9/16	•
5/8 - 3/4	<b>CX2024</b>	7/8 - 1 7/32	13/32 - 7/16	7 3/4	3 1/16	•
11/16 - 13/16	<b>CX2226</b>	31/32 - 1 9/32	13/32 - 15/32	8 1/2	3 1/2	•
7/8 - 15/16	<b>CX2830</b>	1 1/4 - 1 11/32	9/16 - 9/16	10	4 1/16	•

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# WRENCHES

## Flank Drive® Specialty Box



SBXM605

Set Contains:

SBXM605

“S” Shaped, mm

mm	12	A	C	E	12
10 - 12	SBXM1012	14 - 18	6 - 8	140	•
11 - 13	SBXM1113	16 - 19	7 - 8	155	•
14 - 15	SBXM1415	21 - 22	9 - 9	190	•
16 - 18	SBXM1618	24 - 27	10 - 11	173	•
17 - 19	SBXM1719	25 - 28	10 - 12	240	•

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Set includes storage tray



SBX605

Set Contains:

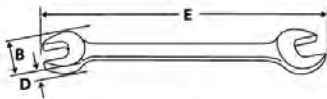
SBX605

“S” Shaped, inches

12	A	C	E	12	
5/16 - 3/8	SBX1012	15/32 - 9/16	9/16 - 7/32	3 3/4	•
7/16 - 1/2	SBX1416	21/32 - 3/4	9/32 - 5/16	5 5/16	•
9/16 - 5/8	SBX1820	27/32 - 15/16	11/32 - 13/32	6 7/8	•
11/16 - 3/4	SBX2224	1 1/32 - 1 1/8	13/32 - 15/32	8 7/16	•
13/16 - 7/8	SBX2628	1 7/32 - 1 5/16	17/32 - 9/16	10	•

ASME B107.100

Set includes storage tray



LTAM811

Set Contains:

LTAM811

Low Torque Slimline, 15° Offset, mm

mm	Stock No.	B	D	E
6 - 7	LTAM67	13 - 15	3	165
8 - 10	LTAM810	17 - 21	3	165
10 - 11	LTAM1011	21 - 23	3	165
12 - 14	LTAM1214	25 - 29	4	241
13 - 15	LTAM1315	27 - 31	4	241
16 - 18	LTAM1618	33 - 37	4	241
17 - 19	LTAM1719	35 - 39	4	241
19 - 22	LTAM1922	39 - 45	4	241
21 - 24	LTAM2124	43 - 49	4	241
27 - 30	LTAM2730	55 - 61	6	311
32 - 36	LTAM3236	65 - 73	6	311

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LTA805K

Open End

Low Torque Slimline,  
15° Offset, inches

Set Contains:

LTA812

LTA805K

Stock No.	B	D	E			
3/8 - 7/16	LTA1214	25/32 - 29/32	3/32	9 1/2	•	
7/16 - 1/2	LTA1416	29/32 - 1 1/32	5/32	9 1/2	•	•
1/2 - 9/16	LTA1618	1 1/32 - 1 5/32	5/32	9 1/2	•	•
5/8 - 11/16	LTA2022	1 9/32 - 1 13/32	5/32	9 1/2	•	•
3/4 - 13/16	LTA2426	1 17/32 - 1 11/16	5/32	9 1/2	•	•
3/4 - 7/8	LTA2428	1 17/32 - 1 25/32	5/32	9 1/2	•	•
15/16 - 1	LTA3032	1 29/32 - 2 1/32	5/32	9 1/2	•	•
1 1/16 - 1 1/8	LTA3436	2 5/32 - 2 9/32	1/4	12 1/4	•	•
1 1/4 - 1 5/16	LTA4042	2 17/32 - 2 21/32	1/4	12 1/4	•	•
1 3/8 - 1 7/16	LTA4446	2 25/32 - 2 29/32	1/4	12 1/4	•	•
1 1/2 - 1 5/8	LTA4852	3 1/16 - 3 9/32	9/32	14 1/4	•	•
1 11/16 - 1 7/8	LTA5460	3 13/32 - 3 17/32	9/32	14 1/4	•	•
	Kit Bag					C0507

ASME B107.100



- Use only moderate force on slimline wrench
- Do not use “cheater bars” on handles
- Read safety precautions on pages W1 to W4



# WRENCHES

## Open End



VOM1415B

## Standard, mm

mm	Stock No.	B	D	E
6 - 7	VOM67B	13 - 15	4 - 4	97
7 - 8	VOM78B	15 - 17	4 - 4	106
8 - 10	VOM810B	17 - 21	4 - 5	121
10 - 11	VOM1011B	21 - 23	5 - 6	136
11 - 13	VOM1113B	23 - 27	6 - 6	151
12 - 13	VOM1213B	25 - 27	6 - 6	157
12 - 14	VOM1214B	25 - 29	6 - 7	162
14 - 15	VOM1415B	29 - 31	7 - 7	178
16 - 18	VOM1618B	33 - 37	7 - 8	205
17 - 19	VOM1719B	35 - 38	8 - 9	216
19 - 22	VOM1922B	39 - 46	9 - 10	245
21 - 24	VOM2124B	43 - 49	9 - 10	267
22 - 24	VOM2224B	46 - 49	10 - 10	273
27 - 30	VOM2730B	55 - 61	11 - 12	338
30 - 32	VOM3032B	61 - 65	12 - 12	368

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DSM810K

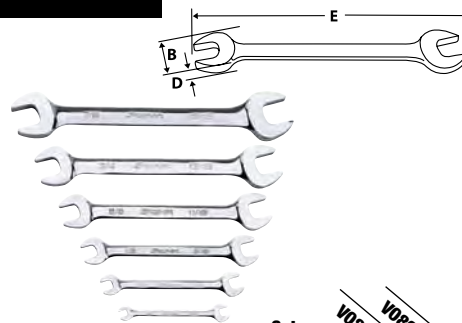
## Ignition, 15/60° Offset, mm

Set Contains:

DSM810K

A	B	Stock No.	C	D	E
3.2	5.5	DSM3.25.5	8 - 11	3	74
5.5	3.2	DSM5.53.2	11 - 8	3	83
4	5	DSM45	9 - 11	3	77
5	4	DSM54	11 - 9	3	81
6	7	DSM67	12 - 14	3	85
7	6	DSM76	14 - 12	3	89
8	9	DSM89	15 - 17	3	93
9	8	DSM98	17 - 15	3	97
10	11	DSM1011	20 - 22	4	101
11	10	DSM1110	22 - 20	4	105
		Kit Bag			C1003A

ASME/ANSI B107.100



V0806B

Set Contains:

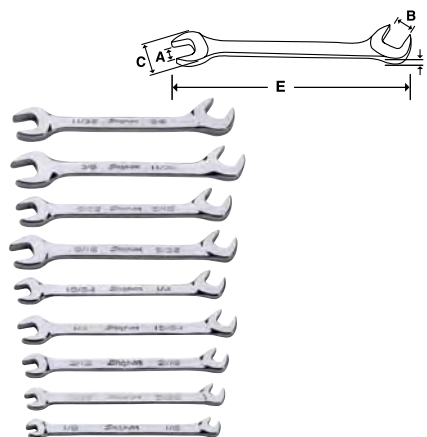
V0820K  
V0806B\*

## Standard, inches

in	Stock No.	B	D	E
1/4 - 5/16	V0810B	17/32 - 21/32	5/32 - 5/32	4 1/16
5/16 - 3/8	V01012B	21/32 - 25/32	5/32 - 3/16	4 21/32
3/8 - 7/16	V01214B	25/32 - 29/32	3/16 - 7/32	5 5/16
7/16 - 1/2	V01416B	29/32 - 1 1/16	7/32 - 1/4	5 15/16
1/2 - 9/16	V01618B	1 1/16 - 1 5/32	1/4 - 9/32	6 19/32
9/16 - 5/8	V01820B	1 5/32 - 1 5/16	9/32 - 9/32	7 9/32
5/8 - 11/16	V02022B	1 5/16 - 1 13/32	9/32 - 5/16	7 15/16
5/8 - 3/4	V02024B	1 5/16 - 1 9/16	9/32 - 11/32	8 9/32
11/16 - 3/4	V02224B	1 13/32 - 1 9/16	5/16 - 11/32	8 5/8
3/4 - 13/16	V02426B	1 9/16 - 1 21/32	11/32 - 3/8	9 11/32
3/4 - 7/8	V02428B	1 9/16 - 1 13/16	11/32 - 3/8	9 21/32
13/16 - 7/8	V02628B	1 21/32 - 1 13/16	3/8 - 3/8	10 1/32
7/8 - 15/16	V02830B	1 13/16 - 1 29/32	3/8 - 13/32	10 3/4
15/16 - 1	V03032B	1 29/32 - 2 1/32	13/32 - 13/32	11 15/32
1 - 1 1/16	V03234B	2 1/32 - 2 5/32	13/32 - 7/16	12 7/32
1 1/16 - 1 1/4	V03440B	2 5/32 - 2 17/32	7/16 - 1/2	12 15/16
1 1/8 - 1 3/16	V03638B	2 5/16 - 2 13/32	7/16 - 15/32	13 23/32
1 1/4 - 1 5/16	V04042B	2 17/32 - 2 21/32	1/2 - 1/2	15 1/4
1 3/8 - 1 7/16	V04446B	2 13/16 - 2 29/32	17/32 - 17/32	16 7/8
1 1/2 - 1 5/8	V04852B	3 1/16 - 3 9/16	9/16 - 19/32	18 29/32
	Kit Bag			C200

ASME/ANSI B107.100

\*Set includes storage tray



DS809K

## Ignition, 15/60° Offsets, inches

Set Contains:

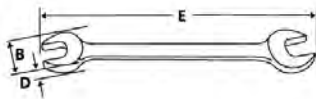
DS809K  
DS806AK

A	B	Stock No.	C	D	E
1/8	1/8	DS88A	5/16 - 5/16	1/8	2 29/32
5/32	5/32	DS1010A	3/8 - 3/8	1/8	2 7/8
3/16	3/16	DS1212A	13/32 - 13/32	1/8	3 1/8
15/64	1/4	DS1516A	15/32 - 1/2	1/8	3 1/4
1/4	15/64	DS1615A	1/2 - 15/32	1/8	3 13/32
9/32	5/16	DS1820A	9/16 - 19/32	1/8	3 1/2
5/16	9/32	DS2018A	19/32 - 9/16	1/8	3 21/32
11/32	3/8	DS2224A	21/32 - 23/32	5/32	3 3/4
3/8	11/32	DS2422A	23/32 - 21/32	5/32	3 3/4
		Kit Bag			C0900A C0605

ASME/ANSI B107.100

# WRENCHES

## Open End



- Angle head wrenches offset at 30° and 60° angles to the handle
- Both ends are same size to permit use of one wrench in four positions



VSM807B



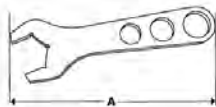
VS807B

### Four-Way Angle Head, mm

mm	Stock No.	B	D	E		
10	VSM5210B	20	6	127	•	•
11	VSM5211B	22	6	137	•	•
12	VSM5212B	24	6	145	•	•
13	VSM5213B	26	6	154	•	•
14	VSM5214B	28	6	164	•	•
15	VSM5215B	30	7	173	•	•
16	VSM5216B	31	7	181	•	•
17	VSM5217B	34	7	191	•	•
18	VSM5218B	36	7	200	•	•
19	VSM5219B	37	7	210	•	•
21	VSM5221B	41	8	228	•	•
22	VSM5222B	44	8	239	•	•
24	VSM5224B	47	8	254	•	•
27	VSM5227B	53	9	283	•	•

ASME® B107.100

\*Set includes storage tray



### Aluminum (for AN Fittings)

- Securely tighten expensive AN fittings to reduce risk of damage in aircraft, marine and industrial applications as well as race and show cars
- Machined from aluminum billet to exacting tolerances
- Made from quality heat treated hardened aluminum
- Corner reliefs on open end wrenches prevent rounding the corners of the fitting
- Handle length designed to apply appropriate torque without overtightening
- Open end wrenches are color coded and stamped for quick size identification



ANWR708

#	Stock No.	Color	A inches (mm)	
No. 3	ANWR3	Silver	4 (101.6)	•
No. 4	ANWR4	Black	4 3/4 (120.7)	•
No. 6	ANWR6	Light Blue	5 3/4 (146.1)	•
No. 8	ANWR8	Pink	5 3/4 (146.1)	•
No. 10	ANWR10	Gold	7 1/8 (181.0)	•
No. 12	ANWR12	Red	7 1/2 (190.5)	•
No. 16	ANWR16	Brass	8 3/4 (222.3)	•
No. 20	ANWR20	Dark Blue	9 1/4 (237.0)	•

Set includes heavy gauge vinyl pouch



**WARNING**



- Do not use "cheater bars" on handles
- Read safety precautions on pages W1 to W4



GVS24B

### Four-Way Angle Head, inches

#	Stock No.	Industrial Stock No.	B	D	E	Set Contains:		
						VS828A	VS814A	VS807B*
1/4	VS8B		17/32	3/16	3 11/16	•	•	•
5/16	VS10B		21/32	3/16	4 1/4	•	•	•
11/32	VS11B		23/32	7/32	4 17/32	•	•	•
3/8	VS12B		25/32	7/32	4 27/32	•	•	•
7/16	VS14B		7/8	7/32	5 13/32	•	•	•
1/2	VS16B	GVS16B	1	1/4	5 31/32	•	•	•
9/16	VS18B	GVS18B	1 1/8	1/4	6 9/16	•	•	•
5/8	VS20B	GVS20B	1 1/4	9/32	7 1/8	•	•	•
11/16	VS22B	GVS22B	1 3/8	9/32	7 11/16	•	•	•
3/4	VS24B	GVS24B	1 15/32	9/32	8 9/32	•	•	•
13/16	VS26B	GVS26B	1 19/32	5/16	8 27/32	•	•	•
7/8	VS28B	GVS28B	1 23/32	5/16	9 13/32	•	•	•
15/16	VS30B	GVS30B	1 27/32	11/32	10	•	•	•
1	VS32B	GVS32B	1 31/32	11/32	10 9/16	•	•	•
1 1/16	VS34B		2 3/32	11/32	11 1/8	•	•	•
1 1/8	VS36B		2 3/16	3/8	11 23/32	•	•	•
1 3/16	VS38B		2 11/32	3/8	12 9/32	•	•	•
1 1/4	VS40B	GVS40B	2 7/16	13/32	12 7/8	•	•	•
1 5/16	VS42B		2 9/16	13/32	13 7/16	•	•	•
1 3/8	VS44B		2 11/16	13/32	14	•	•	•
1 7/16	VS46B		2 27/32	7/16	14 19/32	•	•	•
1 1/2	VS48B		2 15/16	7/16	15 5/32	•	•	•
1 5/8	VS52B		3 7/32	15/32	16 5/16	•	•	•
1 11/16	VS54B		3 11/32	1/2	16 7/8	•	•	•
1 3/4	VS56B		3 15/32	1/2	17 7/16	•	•	•
1 13/16	VS58B		3 19/32	1/2	18	•	•	•
1 7/8	VS60B		3 23/32	17/32	18 19/32	•	•	•
2	VS64B		3 31/32	9/16	19 3/4	•	•	•

ASME B107.100

\*Set includes storage tray

## Open End Wrenches (Blue-Point®)



BDOEM1415

### Open End, mm

mm	Stock No.	Length, mm
10-11	BDOEM1011	145
12-13	BDOEM1213	165
14-15	BDOEM1415	185
16-17	BDOEM1617	185
18-19	BDOEM1819	227



BDOE1820

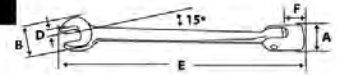
### Open End, inches

#	Stock No.	Length, inches
5/16-3/8	BDOE1012	5 5/16
7/16-1/2	BDOE1416	6 1/2
9/16-5/8	BDOE1820	7 9/32
11/16-3/4	BDOE2224	8 15/16

ASME/ANSI® B107.100

# WRENCHES

## Flank Drive® Flex Head



FHOM606B

### Flex-Combination, mm

Set Contains:

FHOM606B

mm	12	A	B	D	E	F	12
8	FHOM8B	12	17	5	146	6	
9	FHOM9B	13	18	5	156	6	
10	FHOM10B	14	20	5	166	6	•
11	FHOM11B	16	23	6	181	7	
12	FHOM12B	17	30	6	198	9	•
13	FHOM13B	19	27	7	205	9	•
14	FHOM14B	20	30	7	213	9	•
15	FHOM15B	21	31	7	224	10	•
16	FHOM16B	23	33	7	229	10	
17	FHOM17B	24	37	8	246	10	•
18	FHOM18B	24	38	8	254	11	
19	FHOM19B	26	40	8	261	12	

ASME® B107.100

Set includes storage tray



FHO607B

### Flex-Combination, inches

Set Contains:

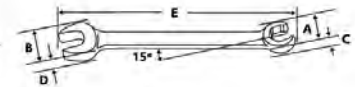
FHO607B

II	12	A	B	D	E	F	12
1/4	FHO8B	3/8	17/32	1/8	4 15/16	7/32	
5/16	FHO10B	15/32	21/32	3/16	5 31/32	1/4	
3/8	FHO12B	9/16	17/32	7/32	6 1/2	1/4	•
7/16	FHO14B	5/8	29/32	7/32	7 1/8	9/32	•
1/2	FHO16B	23/32	1 1/16	1/4	7 13/16	11/32	•
9/16	FHO18B	25/32	1 3/16	9/32	8 3/8	11/32	•
5/8	FHO20B	29/32	1 5/16	9/32	9	3/8	•
11/16	FHO22B	1	1 7/16	9/32	9 11/16	13/32	•
3/4	FHO24B	1 1/32	1 1/2	5/16	10 1/4	15/32	•
13/16	FHO26B	1 1/32	1 23/32	5/16	10 5/16	1/2	
7/8	FHO28B	1 3/16	1 27/32	5/16	10 15/32	9/16	

ASME B107.100

Set includes storage tray

## Flank Drive Flare Nut



RXSM605B

### Open End and Flare Nut, mm

Set Contains:

RXSM605B

mm	6	A	B	C	D	E	6
8	RXSM8B	17	17	7	7	135	
9	RXSM9B	18	19	7	7	144	
10	RXSM10B	20	21	8	8	152	•
11	RXSM11B	21	23	9	9	162	•
12	RXSM12B	22	25	9	9	169	•
13	RXSM13B	24	27	9	9	178	•
14	RXSM14B	25	29	10	10	186	•
15	RXSM15B	26	31	10	10	194	
16	RXSM16B	27	33	11	11	202	
17	RXSM17B	29	35	11	11	211	
18	RXSM18B	30	37	12	12	219	
19	RXSM19B	32	39	12	12	228	
20	RXSM20B	33	41	14	14	235	

ASME B107.100

Set includes storage tray



RXS605B

### Open End and Flare Nut, inches

Set Contains:

RXS605B

II	6	A	B	C	D	E	6
3/8	RXS12B	3/4	25/32	5/16	5/16	5 27/32	•
7/16	RXS14B	27/32	29/32	11/32	11/32	6 3/8	•
1/2	RXS16B	29/32	1 1/16	3/8	3/8	6 7/8	•
9/16	RXS18B	1	1 5/32	13/32	13/32	7 13/32	•
5/8	RXS20B	1 3/32	1 5/16	7/16	7/16	7 15/16	•

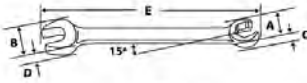
ASME B107.100

Set includes storage tray



# WRENCHES

## Flank Drive® Flare Nut



RXFMS606B

### Double End, mm

Set Contains: **RXFMS606B**

mm	6	A-B	C-D	E	6
9 - 11	<b>RXFMS911B</b>	18 - 21	7 - 8	145	•
10 - 12	<b>RXFMS1012B</b>	20 - 22	8 - 9	153	•
13 - 14	<b>RXFMS1314B</b>	24 - 25	9 - 10	173	•
15 - 17	<b>RXFMS1517B</b>	26 - 29	10 - 11	193	•
16 - 18	<b>RXFMS1618B</b>	28 - 30	11 - 12	200	•
19 - 21	<b>RXFMS1921B</b>	32 - 34	12 - 13	223	•

ANSI® B107.100

Set includes storage tray



RXFMS605B

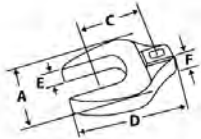
### Double End, inches

Set Contains: **RXFMS605B**

11	6	A-B	C-D	E	6
1/4 - 5/16	<b>RXFS810B</b>	19/32 - 21/32	1/4 - 9/32	4 27/32	•
3/8 - 7/16	<b>RXFS1214B</b>	3/4 - 27/32	5/16 - 11/32	5 13/16	•
1/2 - 9/16	<b>RXFS1618B</b>	29/32 - 1	3/8 - 13/32	6 13/16	•
5/8 - 11/16	<b>RXFS2022B</b>	1 3/32 - 1 5/32	7/16 - 15/32	7 3/4	•
3/4 - 13/16	<b>RXFS2426B</b>	1 1/4 - 1 5/16	1/2 - 17/32	8 25/32	•
3/4 - 7/8	<b>RXFS2428B</b>	1 1/4 - 1 27/64	1/2 - 5/8	9 1/2	
3/4 - 1	<b>RXFS2432B</b>	1 1/4 - 1 9/16	1/2 - 5/8	9 1/2	
7/8 - 1 1/8	<b>RXFS2836B</b>	1 13/32 - 1 3/4	9/16 - 11/16	10 1/2	

ASME® B107.100

Set includes storage tray



## 1/4" Drive Crowfoot Wrenches



107TMCOM

### Open End, chrome mm

Set Contains: **107TMCOM**

mm	Stock No.	A	C	E	F	D	
7	<b>TMCOM7</b>	13.5	13.2	6.6	6.6	24.4	•
8	<b>TMCOM8</b>	16.8	14.1	6.6	6.6	25.9	•
10	<b>TMCOM10</b>	19.8	14.6	6.6	6.6	27.5	•
11	<b>TMCOM11</b>	22.4	16.0	7.9	7.9	29.4	•
12	<b>TMCOM12</b>	24.4	16.5	7.9	7.9	30.6	•
13	<b>TMCOM13</b>	26.4	16.6	7.9	7.9	31.2	•
14	<b>TMCOM14</b>	29.0	17.7	7.9	7.9	32.9	•

ASME B107.21

Set includes storage tray



106TMCO

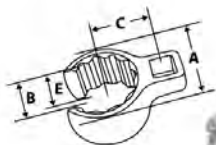
### Open End, chrome inches

Set Contains: **106TMCO**

11	Stock No.	A	C	E	F	D	
1/4	<b>TMC08</b>	17/32	17/32	1/4	1/4	31/32	•
5/16	<b>TMC010</b>	21/32	9/16	1/4	1/4	1 1/32	•
3/8	<b>TMC012</b>	25/32	19/32	1/4	1/4	1 3/32	•
7/16	<b>TMC014</b>	7/8	5/8	5/16	5/16	1 5/32	•
1/2	<b>TMC016</b>	1 1/32	21/32	5/16	5/16	1 1/4	•
9/16	<b>TMC018</b>	1 1/8	11/16	5/16	5/16	1 9/32	•

ASME B107.21

Set includes storage tray



TMRX12

### Flank Drive Flare Nut-Shallow, inches, 12 Point

11	12	A	B	C	E	Maximum Recommended Working Torque, in lb
1/4	<b>TMRX8</b>	13/32	1/8	31/32	1/4	75
5/16	<b>TMRX10</b>	1/2	3/16	31/32	1/4	75
3/8	<b>TMRX12</b>	19/32	1/4	31/32	1/4	75

ASME B107.21



AN85088B

### Flank Drive Flare Nut-Deep, inches, 12 Point

11	12	A	C	E	Maximum Recommended Working Torque, in lb
3/8	<b>AN85086B</b>	9/32	1/2	1/2	75
7/16	<b>AN85087B</b>	11/32	9/16	9/16	200
1/2	<b>AN85088B</b>	13/32	19/32	9/16	200
9/16	<b>AN85089B</b>	15/32	5/8	9/16	200

ASME B107.21



**WARNING**

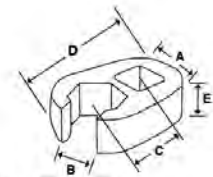


- Use only moderate force on crowfoot and flare nut wrenches
- Do not use "cheater bars" on handles
- Read safety precautions on pages W1 to W4



# WRENCHES

## 3/8" Drive Crowfoot Wrenches



210FRHMA

Flank Drive® Flare Nut, chrome mm, 6 Point

mm	6	A	B	C	D	E	Maximum Recommended Working Torque, in lb	6
9	FRHM9	22.4	6.7	14.2	33.3	9.7	150	
10	FRHM10	22.9	7.4	14.2	35.3	9.7	200	•
11	FRHM11	22.9	8.3	14.2	35.3	9.7	200	•
12	FRHM12	25.4	9.0	14.2	36.6	9.7	250	•
13	FRHM13	25.4	9.4	14.2	36.6	9.7	250	•
14	FRHM14	28.4	10.5	18.8	40.9	11.2	375	•
15	FRHM15	28.4	11.2	18.8	40.9	11.2	375	•
16	FRHM16	28.4	11.7	18.8	40.9	11.2	375	•
17	FRHM17	33.3	12.6	20.6	44.7	12.7	525	•
18	FRHM18	33.3	13.6	20.6	44.7	12.7	525	•
19	FRHM19	33.3	14.7	20.6	44.7	12.7	525	•
20	FRHM20	41.1	15.2	22.1	50.3	14.2	600	
21	FRHM21	41.1	16.3	22.1	50.3	14.2	650	
22	FRHM22	41.1	17.0	22.1	50.3	14.2	650	

ASME® B107.21

Set includes storage tray



205ANM

Flank Drive Flare Nut-Deep, chrome mm, 12 Point

mm	12	A	B	C	E	12
12	ANM12	18.9	8.3	16.3	15.0	•
13	ANM13	21.2	9.7	17.7	15.0	•
14	ANM14	21.2	10.5	17.7	15.0	•
17	ANM17	26.6	13.0	19.7	19.1	•
19	ANM19	29.0	14.6	20.9	19.8	•

Set includes storage tray



210FCOMA

Open End, chrome mm

mm	Stock No.	A	C	E	F	D	Maximum Recommended Working Torque, in lb	216FCOM	210FCOMA*
9	FCOM9A	22.4	18.8	5.3	13.2	33.3	75	•	
10	FCOM10A	22.4	17.6	5.3	13.2	33.0	75	•	•
11	FCOM11A	22.4	16.6	5.3	13.2	32.3	75	•	•
12	FCOM12A	26.2	21.0	5.3	13.2	37.3	105	•	•
13	FCOM13A	26.2	19.8	5.3	13.2	36.8	105	•	•
14	FCOM14A	26.2	18.6	5.3	13.2	36.1	105	•	•
15	FCOM15A	31.8	22.7	5.3	13.2	40.9	125	•	•
16	FCOM16A	31.8	21.7	5.3	13.2	40.4	125	•	•
17	FCOM17A	31.8	20.5	5.3	13.2	39.9	125	•	•
18	FCOM18A	38.4	27.2	6.4	13.2	48.5	170	•	•
19	FCOM19A	38.4	26.2	6.4	13.2	48.0	170	•	•
20	FCOM20A	38.4	25.0	6.4	13.2	48.0	170	•	•
21	FCOM21A	43.7	27.4	7.1	15.0	48.8	250	•	•
22	FCOM22A	43.7	26.4	7.1	15.0	50.0	250	•	•
23	FCOM23A	50.5	30.1	8.9	16.8	54.4	390	•	•
24	FCOM24A	50.5	28.8	8.9	16.8	53.8	400	•	•

ASME B107.21

\*Set includes storage tray



207SFRH

Flank Drive Flare Nut, chrome inches, 6 Point

in	6	A	B	C	D	E	Maximum Recommended Working Torque, in lb	6
3/8	FRH120S	13/32	1/4	9/16	1 11/32	3/8	150	•
7/16	FRH140S	29/32	5/16	9/16	1 13/32	3/8	200	•
1/2	FRH160S	1	11/32	9/16	1 7/16	3/8	250	•
9/16	FRH180S	1 1/8	3/8	3/4	1 5/8	7/16	300	•
5/8	FRH200S	1 1/8	7/16	3/4	1 5/8	7/16	375	•
11/16	FRH220S	1 5/16	1/2	13/16	1 25/32	1/2	450	•
3/4	FRH240S	1 5/16	9/16	13/16	1 25/32	1/2	525	•
13/16	FRH260S	1 5/8	5/8	7/8	1 31/32	9/16	600	
7/8	FRH280S	1 5/8	23/32	7/8	1 31/32	9/16	675	
15/16	FRH300S	1 7/8	11/16	15/16	2 3/16	5/8	750	
1	FRH320S	1 7/8	3/4	15/16	2 3/16	5/8	825	

ASME B107.21

Set includes storage tray



208AN

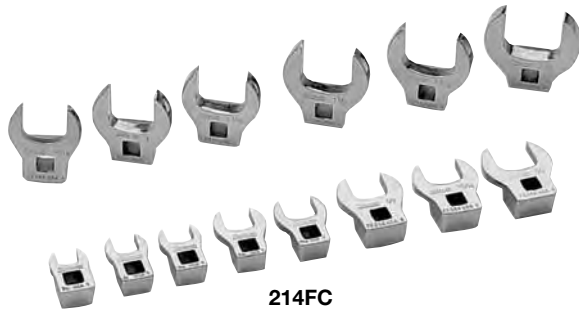
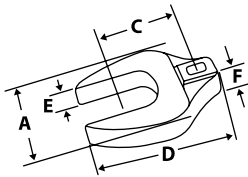
Flank Drive Flare Nut-Deep, chrome inches, 12 Point

in	12	A	B	C	E	Maximum Recommended Working Torque, in lb	12
5/8	AN850810B	15/16	1/2	23/32	23/32	250	•
11/16	AN850811B	1 1/32	17/32	25/32	23/32	310	•
3/4	AN850812B	1 1/8	9/16	13/16	3/4	450	•
13/16	AN850813B	1 7/32	5/8	7/8	3/4	450	•
7/8	AN850814B	1 5/16	25/32	15/16	25/32	625	•
15/16	AN850815B	1 3/8	3/4	31/32	25/32	625	•
1	AN850816B	1 7/16	3/4	1	13/16	625	•
1 1/16	AN850817B	1 17/32	29/32	1 1/32	13/16	625	•

ASME/ANSI® B107.21

# WRENCHES

## 3/8" Drive Crowfoot Wrenches



Open End, inches

	Stock No.	Industrial Stock No.	A	C	E	F	D	Maximum Recommended Working Torque, in lb	Set Contains:				
									242FC	226FC	214FC	211GFCO	211FC0A
3/8	FC012A	GFC012A	7/8	23/32	7/32	33/64	1 19/64	75				•	•
7/16	FC014A	GFC014A	7/8	41/64	7/32	33/64	1 17/64	75	•	•	•	•	•
1/2	FC016A	GFC016A	1 1/32	51/64	7/32	33/64	1 29/64	105	•	•	•	•	•
9/16	FC018A	GFC018A	1 1/4	59/64	7/32	33/64	1 5/8	105	•	•	•	•	•
5/8	FC020A	GFC020A	1 1/4	55/64	7/32	33/64	1 19/32	125	•	•	•	•	•
11/16	FC022A	GFC022A	1 9/16	1 3/32	7/32	33/64	1 59/64	150	•	•	•	•	•
3/4	FC024A	GFC024A	1 9/16	1 1/32	7/32	33/64	1 57/64	190	•	•	•	•	•
13/16	FC026A	GFC026A	1 23/32	1 3/32	9/32	19/32	2	245	•	•	•	•	•
7/8	FC028A	GFC028A	1 23/32	1 1/32	9/32	19/32	1 31/32	300	•	•	•	•	•
15/16	FC030A	GFC030A	2	1 5/32	11/32	21/32	2 1/8	360	•	•	•	•	•
1	FC032A	GFC032A	2	1 5/64	11/32	21/32	2 3/32	420	•	•	•	•	•
1 1/16	FC34B		1 23/32	1 3/64	3/8	39/64	1 15/32	465	•	•	•		
1 1/8	FC36A		1 29/32	1 5/32	3/8	39/64	2 1/16	510	•	•	•		
1 3/16	FC38A		1 29/32	1 13/64	3/8	39/64	2 1/16	510	•	•	•		
1 1/4	FC40A		2 5/32	1 15/64	3/8	41/64	2 7/32	555	•	•	•		
1 5/16	FC42A		2 5/32	1 17/64	3/8	41/64	2 7/32	600	•	•	•		
1 3/8	FC44A		2 3/8	1 19/64	3/8	41/64	2 3/8	680	•	•	•		
1 7/16	FC46A		2 3/8	1 11/32	3/8	41/64	2 3/8	760	•	•	•		
1 1/2	FC48A		2 17/32	1 3/8	3/8	41/64	2 1/2	795	•	•	•		
1 9/16	FC50A		2 17/32	1 13/32	3/8	41/64	2 1/2	795	•	•	•		
1 5/8	FC52A		2 21/32	1 29/64	3/8	41/64	2 19/32	820	•	•	•		
1 11/16	FC54A		2 21/32	1 31/64	3/8	41/64	2 19/32	860	•	•	•		
1 3/4	FC56A		2 7/8	1 33/64	3/8	41/64	2 3/4	910	•	•	•		
1 13/16	FC58A		2 7/8	1 35/64	3/8	41/64	2 3/4	960	•	•	•		
1 7/8	FC60A		3 5/32	1 19/32	3/8	41/64	2 55/64	1040	•	•	•		
1 15/16	FC62A		3 5/32	1 5/8	3/8	41/64	2 55/64	1040	•	•	•		
2	FC64A		3 13/32	1 23/32	1/2	45/64	3 1/8	1115	•	•	•		
2 1/16	FC66A		3 13/32	1 3/4	1/2	45/64	3 1/8	1190	•	•	•		
2 1/8	FC68A		3 19/32	1 25/32	1/2	45/64	3 1/4	1190	•	•	•		
2 3/16	FC70A		3 19/32	1 53/64	1/2	45/64	3 1/4	1275	•	•	•		
2 1/4	FC72A		3 27/32	1 15/16	1/2	45/64	3 1/2	1370	•	•	•		
2 5/16	FC74A		3 27/32	1 15/16	1/2	45/64	3 1/2	1370	•	•	•		
2 3/8	FC76A		4 3/32	2 1/16	1/2	45/64	3 3/4	1450	•	•	•		
2 7/16	FC78A		4 3/32	2 1/8	1/2	45/64	3 3/4	1555	•	•	•		
2 1/2	FC80A		4 9/32	2 11/64	1/2	45/64	3 57/64	1555	•	•	•		
2 9/16	FC82A		4 9/32	2 11/64	1/2	45/64	3 57/64	1660	•	•	•		
2 5/8	FC84A		4 17/32	2 21/64	1/2	45/64	4 1/8	1760	•	•	•		
2 11/16	FC86A		4 17/32	2 3/8	1/2	45/64	4 1/8	1760	•	•	•		
2 3/4	FC88A		4 23/32	2 7/16	1/2	45/64	4 19/64	1900	•	•	•		
2 13/16	FC90A		4 23/32	2 17/32	1/2	45/64	4 19/64	2075	•	•	•		
2 7/8	FC92A		5 3/32	2 41/64	1/2	45/64	4 43/64	2075	•	•	•		
2 15/16	FC94A		5 3/32	2 43/64	1/2	45/64	4 5/8	2200	•	•	•		
3	FC96A		5 3/32	2 23/32	1/2	45/64	4 5/8	2200	•	•	•		

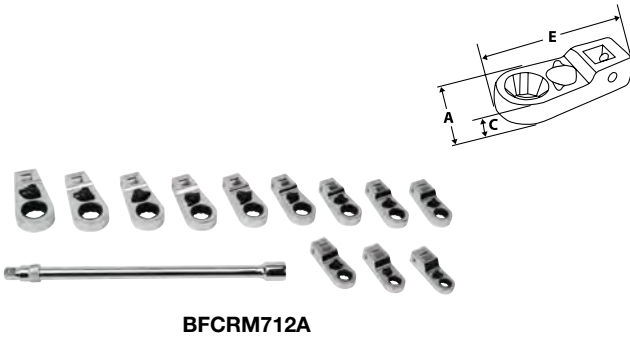
ASME®/ANSI® B107.100



- Use only moderate force on crowfoot and flarenut wrenches
- Read safety precautions on pages W1 to W4

# WRENCHES

## 3/8" - 1/2" Drive Crowfoot Wrenches



BFCRM712A

## 3/8" Ratcheting, mm (Blue-Point®)

Set Contains: BFCRM712A

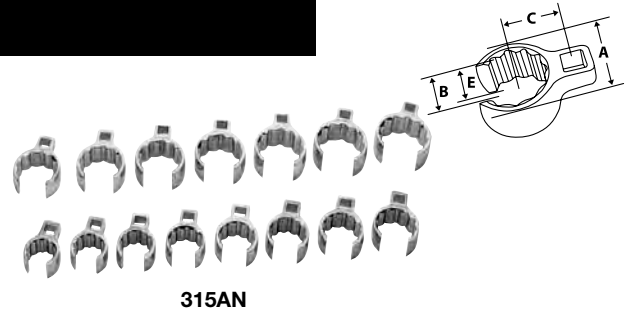
mm		A	C	E	
8	BFCRM8A	17.8	6.5	49.3	•
9	BFCRM9A	19.5	7.4	50.8	•
10	BFCRM10A	21.5	8.0	53.8	•
11	BFCRM11A	22.0	8.5	53.8	•
12	BFCRM12A	23.5	9.0	57.2	•
13	BFCRM13A	25.0	10.0	57.2	•
14	BFCRM14A	27.0	10.0	60.3	•
15	BFCRM15A	28.5	11.0	63.5	•
16	BFCRM16A	30.5	11.0	66.7	•
17	BFCRM17A	34.5	12.0	68.3	•
18	BFCRM18A	36.5	12.0	71.4	•
19	BFCRM19A	36.5	12.9	73.0	•

\*Set includes FXLBP10 -10" locking extension

Set includes storage tray



BFCR708A



315AN

## 1/2" Flank Drive® Flare Nut-Deep, inches, 12 Point

Set Contains: 315AN

12	12	A	B	C	E	Maximum Recommended Working Torque, in lb	12
1 1/8	AN850818B	1 5/8	27/32	1 5/32	7/8	825	•
1 3/16	AN850819B	1 11/16	29/32	1 3/16	7/8	825	•
1 1/4	AN850820B	1 25/32	15/16	1 7/32	7/8	825	•
1 5/16	AN850821B	1 27/32	31/32	1 1/4	7/8	900	•
1 3/8	AN850822B	1 15/16	1 1/16	1 5/16	15/16	900	•
1 7/16	AN850823B	2	1 1/16	1 11/32	15/16	900	•
1 1/2	AN850824B	2 3/32	1 1/8	1 3/8	15/16	900	•
1 9/16	AN850825B	2 5/32	1 5/32	1 13/32	15/16	900	•
1 5/8	AN850826B	2 7/32	1 7/32	1 7/16	15/16	1,100	•
1 11/16	AN850827B	2 5/16	1 5/16	1 1/2	1 1/32	1,100	•
1 3/4	AN850828B	2 3/8	1 5/16	1 9/16	1 1/32	1,150	•
1 13/16	AN850829B	2 15/32	1 11/32	1 19/32	1 1/32	1,200	•
1 7/8	AN850830B	2 9/16	1 3/8	1 21/32	1 1/16	1,200	•
1 15/16	AN850831B	2 5/8	1 7/16	1 11/16	1 1/16	1,200	•
2	AN850832B	2 23/32	1 9/16	1 23/32	1 1/16	1,400	•
2 1/8	AN850834B	2 7/8	1 9/16	1 13/16	1 1/8	1,450	•
2 3/16	AN850835B	2 15/16	1 21/32	1 27/32	1 1/8	1,500	•
2 1/4	AN850836B	3 1/32	1 11/16	1 7/8	1 1/8	1,500	•
2 3/8	AN850838B	3 3/16	1 13/16	1 31/32	1 3/16	1,600	•
2 7/16	AN850839B	3 1/4	1 13/16	2	1 3/16	1,650	•
2 9/16	AN850841B	3 7/16	1 29/32	2 3/32	1 9/32	1,750	•
2 5/8	AN850842B	3 1/2	2 1/16	2 1/8	1 9/32	1,800	•
2 11/16	AN850843B	3 19/32	2 1/16	2 5/32	1 9/32	1,800	•
2 3/4	AN850844B	3 21/32	2 1/16	2 7/32	1 9/32	1,850	•
3 1/8	AN850850B	4 1/8	2 5/16	2 7/16	1 5/16	2,000	•

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## 3/8" Ratcheting, inches (Blue-Point)

Set Contains: BFCR708A

12		A	C	E	
5/16	BFCR10A	11/16	1/4	2	•
3/8	BFCR12A	27/32	5/16	2 1/8	•
7/16	BFCR14A	7/8	11/32	2 1/8	•
1/2	BFCR16A	31/32	13/32	2 1/4	•
9/16	BFCR18A	1 1/16	13/32	2 3/8	•
5/8	BFCR20A	1 3/16	7/16	2 5/8	•
11/16	BFCR22A	1 1/4	15/32	2 5/8	•
3/4	BFCR24A	1 7/16	1/2	2 7/8	•

\*Set includes FXLBP10 -10" locking extension

Set includes storage tray



A277



ADCF8

## Crowfoot Wrench Holder

### A277 3/8" Crowfoot Holder.

- Organize and store your crowfoot wrenches
- 2 piece design snaps apart for access to desired size
- 8 3/4" long

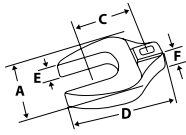
### ADCF8 Adjustable Crowfoot Wrench.

- Metric and fractional scales
- Opening range from 0 to 1.14" (0 to 29 mm)
- Lateral side nut designed to work on difficult access fasteners and minimize dirt accumulation

Stock No.	Drive Size	Maximum Recommended Working Torque, in lb
ADCF8	3/8	2,849

# WRENCHES

## Flank Drive® Combination



SCOM32



314SCO

### 1/2" Open End, mm

mm		A	C	E	F	Maximum Recommended Working Torque, in lb
20	SCOM20	40.4	42.9	7.8	15.9	1,400
21	SCOM21	40.4	42.9	7.8	15.9	1,500
22	SCOM22	44.7	44.5	8.2	15.9	1,500
23	SCOM23	48.0	44.5	8.9	15.9	1,600
24	SCOM24	46.7	44.5	8.5	15.9	1,800
25	SCOM25	51.1	45.2	8.9	15.9	1,800
26	SCOM26	53.1	45.2	9.2	15.9	1,800
27	SCOM27	53.1	44.5	9.2	15.9	2,000
28	SCOM28	53.1	43.6	9.2	15.9	2,100
30	SCOM30	59.7	44.5	9.9	15.9	2,200
32	SCOM32	62.7	50.0	10.3	15.9	2,300
34	SCOM34	62.7	51.6	10.3	15.9	2,400
35	SCOM35	69.1	50.8	11.0	15.9	2,500
36	SCOM36	69.1	50.0	11.0	15.9	2,600
38	SCOM38	75.4	50.8	11.8	15.9	2,900
40	SCOM40	75.4	51.6	11.8	15.9	3,000
41	SCOM41	81.8	50.8	12.5	15.9	3,400
42	SCOM42	81.8	50.0	12.5	15.9	3,400
46	SCOM46	91.2	51.2	13.5	15.9	4,100

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### 1/2" Open End, inches

		A	C	E	F	Maximum Recommended Working Torque, in lb	
15/16	SC030	1 27/32	1 15/32	11/32	5/8	1,800	
1	SC032	1 31/32	1 11/16	23/64	5/8	1,900	
1 1/16	SC034	2 3/32	1 3/4	3/8	5/8	2,000	•
1 1/8	SC036	2 7/32	1 3/4	3/8	5/8	2,100	•
1 3/16	SC038	2 11/32	1 3/4	13/32	5/8	2,200	•
1 1/4	SC040	2 15/32	2	13/32	5/8	2,300	•
1 5/16	SC042	2 19/32	2	7/16	5/8	2,400	•
1 3/8	SC044	2 23/32	2	7/16	5/8	2,500	•
1 7/16	SC046	2 27/32	2	7/16	5/8	2,600	•
1 1/2	SC048	2 31/32	2	15/32	5/8	2,900	•
1 9/16	SC050	2 31/32	1 31/32	15/32	5/8	3,000	
1 5/8	SC052	3 7/32	1 31/32	1/2	5/8	3,400	•
1 11/16	SC054	3 11/32	2 3/16	1/2	5/8	3,700	•
1 3/4	SC056	3 15/32	2 3/16	17/32	5/8	3,900	•
1 13/16	SC058	3 19/32	2 3/16	17/32	5/8	4,100	•
1 7/8	SC060	3 23/32	2 3/16	9/16	5/8	4,300	•
2	SC064	3 31/32	2 7/32	9/16	5/8	5,000	•
2 1/8	SC068	3 31/32	2 7/32	37/64	5/8	5,000	
2 1/4	SC072	3 31/32	2 13/32	37/64	5/8	5,000	
2 3/8	SC076	4 3/8	2 31/64	19/32	5/8	5,000	
2 7/16	SC078	4 3/8	2 7/16	19/32	5/8	5,000	
2 1/2	SC080	4 3/8	2 13/32	19/32	5/8	5,000	

ASME B107.21

## Heavy Duty Striking Wrenches

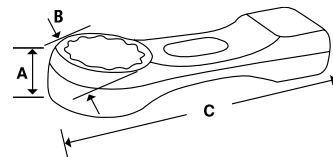
### Flank Drive Straight Handle Sledge Hammer, inches, 12 Point

		A	B	C	
1 3/16	DX138A	7/8	2 3/32	7 35/64	•
1 1/4	DX140A	7/8	2 3/32	7 35/64	•
1 5/16	DX142A	7/8	2 3/32	7 35/64	•
1 3/8	DX144A	61/64	2 17/64	7 41/64	•
1 7/16	DX146A	61/64	2 17/64	7 41/64	•
1 1/2	DX148A	61/64	1 17/64	7 41/64	•
1 5/8	DX152A	1 9/64	2 5/8	7 53/64	•
1 11/16	DX154A	1 9/64	2 5/8	7 53/64	•
1 3/4	DX156A	1 7/32	2 13/16	7 29/32	•
1 13/16	DX158A	1 7/32	2 13/16	7 29/32	•
1 7/8	DX160A	1 7/32	2 13/16	7 29/32	•
2	DX164A	1 13/32	3 11/64	11 19/32	•
2 1/16	DX166A	1 13/32	3 11/64	11 19/32	•
2 3/16	DX170A	1 17/32	3 29/64	11 47/64	•
2 1/4	DX172A	1 17/32	3 29/64	11 47/64	•
2 3/8	DX176A	1 21/32	3 23/32	11 55/64	•
2 7/16	DX178A	1 21/32	3 23/32	11 55/64	•
2 1/2	DX180A	1 21/32	3 23/32	11 55/64	•
2 9/16	DX182A	1 51/64	3 63/64	13	•
2 5/8	DX184A	1 51/64	3 63/64	13	•
2 3/4	DX188A	1 59/64	4 17/64	14 17/64	•
2 13/16	DX190A	1 59/64	4 17/64	14 17/64	•
2 15/16	DX194A	2 3/64	4 17/32	14 13/32	•
3	DX196A	2 3/64	4 17/32	14 13/32	•
3 1/8	DX1100A	2 17/64	4 29/32	17 37/64	•
3 3/8	DX1108A	2 17/64	4 29/32	17 37/64	•
3 1/2	DX1112A	2 29/64	5 19/64	17 51/64	•
3 3/4	DX1120A	2 21/32	5 17/32	17 51/64	•
3 7/8	DX1124A	2 21/32	5 17/32	17 57/64	•
4 1/8	DX1132A	2 59/64	6 1/32	18 9/64	•
4 1/4	DX1136A	2 59/64	6 1/32	18 9/64	•
4 1/2	DX1144A	3 5/32	6 25/32	20 1/64	•
4 5/8	DX1148A	3 5/32	6 25/32	20 1/64	•

ASME B107.100



DX158A



**WARNING**



- Use only moderate force on crowfoot and flarenut wrenches
- Read safety precautions on pages W1 to W4



# WRENCHES

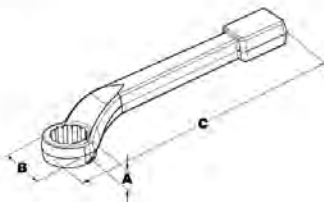
## Heavy Duty Striking Wrenches

### Flank Drive® Offset Handle Slugging, inches, 12 Point

Set Contains: **HX635**



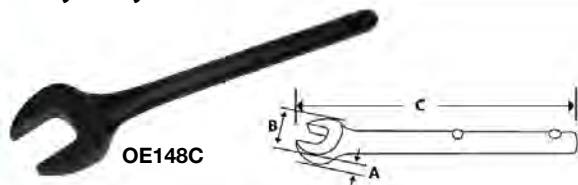
HX400B



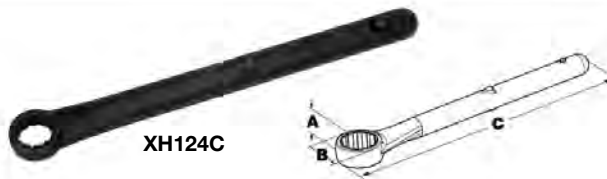
			A	B	C	
1 1/16	27	<b>HX340A</b>	11/16	1 5/8	10	•
1 1/8	-	<b>HX360A</b>	3/4	1 15/16	11	•
1 3/16	30	<b>HX380A</b>	3/4	1 15/16	11	•
1 1/4	32	<b>HX400B</b>	3/4	1 15/16	11	•
1 5/16	33	<b>HX420A</b>	3/4	1 15/16	11	•
1 3/8	35	<b>HX440A</b>	7/8	2 1/8	11 1/2	•
1 7/16	36	<b>HX460A</b>	7/8	2 1/8	11 1/2	•
1 1/2	38	<b>HX480A</b>	1	2 7/16	12	•
1 5/8	41	<b>HX520A</b>	1	2 7/16	12	•
1 11/16	43	<b>HX540A</b>	1 1/8	2 5/8	12 1/2	•
1 3/4	44	<b>HX560A</b>	1 1/8	2 5/8	12 1/2	•
1 13/16	46	<b>HX580A</b>	1 1/8	2 5/8	12 1/2	•
1 7/8	47	<b>HX600A</b>	1 1/4	2 7/8	13	•
1 15/16	49	<b>HX620A</b>	1 1/4	2 7/8	13	•
-	50	<b>HXM50</b>	1 1/4	2 7/8	13	•
2	51	<b>HX640A</b>	1 1/4	2 7/8	13	•
2 1/8	-	<b>HX680A</b>	1 3/8	3 1/4	13 9/16	•
2 3/16	55	<b>HX700A</b>	1 3/8	3 1/4	13 9/16	•
2 1/4	57	<b>HX720A</b>	1 3/8	3 1/4	13 9/16	•
2 5/16	59	<b>HX740A</b>	1 3/8	3 1/4	13 9/16	•
2 3/8	60	<b>HX760A</b>	1 1/2	3 5/8	14 1/8	•
2 1/2	64	<b>HX800A</b>	1 1/2	3 5/8	14 1/8	•
2 9/16	65	<b>HX820A</b>	1 1/2	3 5/8	14 1/8	•
2 5/8	67	<b>HX840A</b>	1 5/8	3 15/16	15	•
2 3/4	70	<b>HX880A</b>	1 5/8	3 15/16	15	•
2 7/8	73	<b>HX920A</b>	1 3/4	4 7/16	16	•
2 15/16	75	<b>HX940A</b>	1 3/4	4 7/16	16	•
3	76	<b>HX960A</b>	1 3/4	4 7/16	16	•
3 1/8	80	<b>HX1000A</b>	1 3/4	4 7/16	16	•
3 3/8	85	<b>HX1080A</b>	2	6 1/4	18 1/4	•
3 1/2	89	<b>HX1120A</b>	2	6 1/4	18 1/4	•
3 3/4	95	<b>HX1200A</b>	2	6 1/4	18 1/4	•
3 7/8	98	<b>HX1240A</b>	2	6 1/4	18 1/4	•
4 1/8	105	<b>HX1320A</b>	2	6 1/4	18 1/4	•
4 1/4	108	<b>HX1360A</b>	2	6 1/4	18 1/4	•

ASME® B107.100

## Heavy Duty Tubular Wrenches



OE148C



XH124C

## Open End Tubular Wrenches, inches/mm

			A	B	C	Fits Handle No.
7/8	-	<b>OE128C</b>	1/2	1 15/16	10 1/2	13B or 24B
15/16	-	<b>OE130C</b>	1/2	1 15/16	10 1/2	13B or 24B
1	-	<b>OE132C</b>	9/16	2 5/16	11 5/16	13B or 24B
1 1/16	27	<b>OE134C</b>	9/16	2 5/16	11 5/16	13B or 24B
1 1/8	-	<b>OE136C</b>	9/16	2 5/16	11 1/4	13B or 24B
1 1/4	32	<b>OE140C</b>	5/8	2 3/4	12 5/16	13B or 24B
1 5/16	33	<b>OE142C</b>	5/8	2 3/4	12 5/16	13B or 24B
1 3/8	35	<b>OE144B</b>	5/8	2 3/4	12 1/4	13B or 24B
1 7/16	36	<b>OE146C</b>	11/16	3 1/8	13 1/4	13B or 24B
1 1/2	38	<b>OE148C</b>	11/16	3 1/8	13 5/16	13B or 24B

ASME B107.100

## Flank Drive Straight Box, inches/mm

			A	B	C	Fits Handle No.
3/4	-	<b>XH124C</b>	1/2	1 1/4	10 13/16	13B or 24B
13/16	-	<b>XH126C</b>	1/2	1 1/4	10 13/16	13B or 24B
7/8	-	<b>XH128C</b>	5/8	1 7/16	10 15/16	13B or 24B
15/16	-	<b>XH130C</b>	5/8	1 7/16	10 15/16	13B or 24B
1	-	<b>XH132C</b>	11/16	1 9/16	11	13B or 24B
1 1/16	27	<b>XH134C</b>	11/16	1 9/16	11	13B or 24B
1 1/8	-	<b>XH136C</b>	11/16	1 11/16	11 1/8	13B or 24B
1 1/4	32	<b>XH140C</b>	3/4	1 15/16	13 1/2	13B or 24B
1 5/16	33	<b>XH142C</b>	3/4	1 15/16	13 1/2	13B or 24B
1 7/16	36	<b>XH146C</b>	7/8	2 3/16	13 5/8	13B or 24B
1 1/2	38	<b>XH148C</b>	7/8	2 3/16	13 5/8	13B or 24B
1 5/8	41	<b>XH152C</b>	15/16	2 3/8	13 3/4	13B or 24B
3 1/8	79	<b>XH1100C</b>	1 3/4	4 15/16	14 7/8	36B

ASME B107.100

## Tubular Handles



36B

	A	B	Size, inches
<b>13B</b>	13 1/2	7/8	13
<b>24B</b>	24	7/8	24
<b>36B</b>	36	1 9/64	36

## Combination T and L-Shape Wrenches



AWSGM800

### Hex, mm

Set Contains:

AWSGM800

mm	Blue Handle	T-Length, mm	Length, mm	
2	AWSGM2	95	152	•
2.5	AWSGM2.5	95	152	•
3	AWSGM3	98	152	•
4	AWSGM4	98	187	•
5	AWSGM5	117	187	•
6	AWSGM6	117	246	•
8	AWSGM8	117	246	•
10	AWSGM10	124	248	•

Set includes storage tray

- Ergonomic, soft grip handle provides comfort during repetitive tasks
- Delivers superior turning power
- Allows maximum pressure to be applied when loosening difficult fasteners with both "T" and "L" applications
- Blades constructed from high strength steel and hardened for durability



AWSG800

### Hex, inches

Set Contains:

AWSG800

	Red Handle	T-Length, inches	Length, inches	
3/32	AWSG06	3 7/8	6	•
7/64	AWSG07	3 7/8	6	•
1/8	AWSG08	3 7/8	6	•
9/64	AWSG09	3 7/8	6	•
5/32	AWSG10	3 7/8	7 3/8	•
3/16	AWSG12	4 3/4	7 3/4	•
7/32	AWSG14	4 3/4	7 3/4	•
1/4	AWSG16	4 3/4	9 5/8	•
5/16	AWSG20	4 3/4	9 5/8	•
3/8	AWSG24	4 3/4	9 5/8	•

Set includes storage tray

- Blade tips are black oxide coated to prevent chipping and to help maintain a secure fastener engagement
- Short blade provides maximum torque for tight quarters
- Long blade promotes quick fastener turning in difficult access situations
- Hole in handle for hanging tool or tether
- Color coded handles identify metric and inch sizes at a glance



AWBSGM800

### Ball Hex, mm

Set Contains:

AWBSGM800

mm	Blue Handle	T-Length, mm	Length, mm	
2	AWBSGM2	95	152	•
2.5	AWBSGM2.5	95	152	•
3	AWBSGM3	98	152	•
4	AWBSGM4	98	187	•
5	AWBSGM5	117	187	•
6	AWBSGM6	117	246	•
8	AWBSGM8	117	246	•
10	AWBSGM10	124	248	•

Set includes storage tray



AWBSG800

### Ball Hex, inches

Set Contains:

AWBSG800

	Red Handle	T-Length, inches	Length, inches	
3/32	AWBSG06	3 7/8	6	•
7/64	AWBSG07	3 7/8	6	•
1/8	AWBSG08	3 7/8	6	•
9/64	AWBSG09	3 7/8	6	•
5/32	AWBSG10	3 7/8	7 3/8	•
3/16	AWBSG12	4 3/4	7 3/4	•
7/32	AWBSG14	4 3/4	7 3/4	•
1/4	AWBSG16	4 3/4	9 5/8	•
5/16	AWBSG20	4 3/4	9 5/8	•
3/8	AWBSG24	4 3/4	9 5/8	•

Set includes storage tray



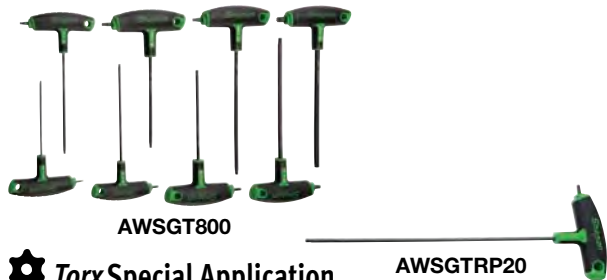
**WARNING**



- Plastic handle does not protect against electric shock
- Read safety precautions on pages W1 to W4

# WRENCHES

## Combination T and L-Shape Wrenches



AWSGT800

AWSGTRP20

### Torx Special Application

- Extra long T20 tamper resistant Torx
- Access mirrors on Mercedes® vehicles
- Short end also T20 Tamper resistant Torx for tight quarters

#	Green Handle	T-Length, inches	Length, inches
T20	AWSGTRP20	3 7/8	10 1/2



#	Green Handle	T-Length, inches	Length, inches	
T6	AWSGT6	3 7/8	6	
T7	AWSGT7	3 7/8	6	
T8	AWSGT8	3 7/8	6	
T9	AWSGT9	3 7/8	6	
T10	AWSGT10	3 7/8	6	•
T15	AWSGT15	3 7/8	7 3/8	•
T20	AWSGT20	3 7/8	7 3/8	•
T25	AWSGT25	4 3/4	7 5/8	•
T27	AWSGT27	4 3/4	7 5/8	•
T30	AWSGT30	4 3/4	9 5/8	•
T40	AWSGT40	4 3/4	9 5/8	•
T45	AWSGT45	4 3/4	9 3/4	•
T50	AWSGT50	4 3/4	9 3/4	

Set includes storage tray

## T-Shape



AWBMCG1600



AWBCG1600

### Ball Hex, mm

mm	Stock No.	Handle	Length, inches	
2	AWBMCG1602	Blue	9	•
2.5	AWBMCG16025	Blue	9	•
3	AWBMCG1603	Blue	9	•
4	AWBMCG1604	Blue	9	•
5	AWBMCG1605	Blue	9	•
6	AWBMCG1606	Blue	9	•
8	AWBMCG1608	Blue	9	•
10	AWBMCG1610	Blue	9	•

### Ball Hex, inches

	Stock No.	Handle	Length, inches	
3/32	AWBCG1606	Red	9	•
7/64	AWBCG1607	Red	9	•
1/8	AWBCG1608	Red	9	•
9/64	AWBCG1609	Red	9	•
5/32	AWBCG1610	Red	9	•
3/16	AWBCG1612	Red	9	•
7/32	AWBCG1614	Red	9	•
1/4	AWBCG1616	Red	9	•
5/16	AWBCG1620	Red	9	•
3/8	AWBCG1624	Red	9	•



AWMCGR1608

### Tamper Resistant, mm

#### AWMCGR1608 Metric T-Shape Hex Wrench.

- Yamaha® Rhino doors and aftermarket license plate holders with 8 mm tamper proof hex security fasteners
- Permits maximum pressure application when loosening difficult fasteners



#	Green Handle 6" Length	
T7	AWCGT7	
T8	AWCGT8	•
T10	AWCGT10	•
T15	AWCGT15	•
T20	AWCGT20	•
T25	AWCGT25	•
T30	AWCGT30	
T40	AWCGT40	
T45	AWCGT45	

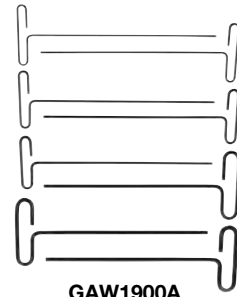
## T-Shape



AWMCG1600B



AWCG1600B



GAW1900A

### Hex, mm

Set Contains:

AWMCG1600B

mm	Stock No.	Handle	Length, mm	
2	AWMCG1602B	Blue	152	•
2.5	AWMCG16025B	Blue	152	•
3	AWMCG1603B	Blue	152	•
4	AWMCG1604B	Blue	152	•
5	AWMCG1605B	Blue	152	•
6	AWMCG1606B	Blue	152	•
8	AWMCG1608B	Blue	152	•
10	AWMCG1610B	Blue	152	•

### Hex, inches

Set Contains:

GAW1900A

AWCG1600B

	Standard Handle 9" Length	Red Handle 6" Length		
3/32	GAW1906	AWCG1606B	•	•
7/64	GAW1907	AWCG1607B	•	•
1/8	GAW1908	AWCG1608B	•	•
9/64	GAW1909	AWCG1609B	•	•
5/32	GAW1910	AWCG1610B	•	•
3/16	GAW1912	AWCG1612B	•	•
7/32	GAW1914	AWCG1614B	•	•
1/4	GAW1916	AWCG1616B	•	•
5/16	GAW1920	AWCG1620B		
3/8	GAW1924	AWCG1624B		

## Wrench Stands

### AWSTAND Wrench Stand.

- Mounting holes on top and bottom of stand provide many mounting locations
- Another AWSTAND can be added for increased storage options
- Stands can mount to a Slots-N-Dots Plus™ personal work center or lie flat on top of tool box
- Stand holds the following wrench styles:
  - L or T-shaped fractional hex 1/16 to 3/8"
  - L or T-shaped metric hex 2 to 10 mm
  - L or T-shaped Torx® T6 to T50
  - Metric or Torx on one stand
  - Fractional and metric on one stand
  - Metric and fractional ball wrenches

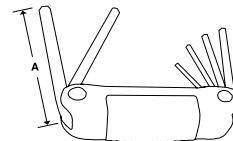


AWSTAND  
Tools not included  
with AWSTAND

## Folding Sets

### Hex, mm

mm	AWMEF7K	AWMEF8K	AWMEF6K
	<b>A</b>	<b>A</b>	<b>A</b>
1.5	45.7		
2	50.8	50.8	
2.5	55.9	55.9	
3	61.0	61.0	83.8
4	66.0	66.0	88.9
5	78.7	78.7	96.5
6	83.8	96.5	101.6
7		106.7	
8		121.9	121.9
10			129.5



AWMEF8K



AWMEF6K



**WARNING**



- Plastic handle does not protect against electric shock
- Read safety precautions on pages W1 to W4



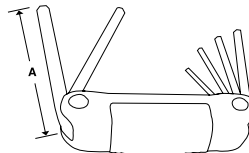
# WRENCHES

## L-Shaped/Folding Sets

### Unique Screw Holding Tip\*

Holds fastener to tool for delicate installations

\* AWBPH13, AWMBPH9, AWTPH8 sets only



BHM9A



AWMBPH9



BHS13A



AWBPH13



BHS7A



AWBXL13



AWBML9



AWEF6K



AWEF9K

### Hex, inches

Hex Size	A
5/32	2.7
3/16	3.3
7/32	3.5
1/4	3.7
5/16	4.8
3/8	5.1

Hex Size	A
.050	1.8
1/16	1.9
5/64	2.0
3/32	2.1
7/64	2.3
1/8	2.4
9/64	2.6
5/32	2.7
3/16	2.9

### AWCPEF16K Combination Set.

Set includes

AWEF9K hex set

AWMEF7K metric hex set (p. 129)



AWEFBH9K



AWTEF8K

### Ball Hex, inches

Ball Hex Size	A
5/64	2.0
3/32	2.1
7/64	2.3
1/8	2.4
9/64	2.6
5/32	2.7
3/16	2.9
7/32	3.5
1/4	3.7

### Torx®

Torx Size	A
T8	2.4
T10	2.7
T15	3.0
T20	3.2
T25	3.4
T27	3.5
T30	3.7
T40	3.9

## Ball Hex Sets

### Industrial Finish L-Shaped Ball Hex Wrench Sets:

Ball hex allows up to 25° angle entry. Made from high strength steel.

### Metric Sets:

**BHM9A Metric Ball Hex Set.** Set includes 1.5, 2, 2.5, 3, 4, 5, 6, 8 and 10 mm sizes (9 pcs) (1.5 to 10 mm) in plastic index.

**AWMBPH9 Metric Ball Hex Set.** Screw holding tip holds fastener to tool for delicate installations. Set includes 1.5, 2, 2.5, 3, 4, 5, 6, 8 and 10 mm sizes (9 pcs) (1.5 to 10 mm) in plastic index.

**AWMBBS9 Metric Stubby Ball Hex Set.** Stubby length for access in tight quarters. Set includes 1.5, 2, 2.5, 3, 4, 5, 6, 8 and 10 mm sizes (9 pcs) (1.5 to 10 mm) in plastic index.

**AWBML9 Metric Extra Long Ball Hex Set.** Set includes: 1.5, 2, 2.5, 3, 4, 5, 6, 8 and 10 mm sizes

### Standard Sets:

**BHS7A Ball Hex Set.** Set includes 5/64, 3/32, 7/64, 1/8, 9/64, 5/32 and 3/16" sizes (7 pcs) (5/64 to 3/16") in plastic index.

**BHS13A Ball Hex Set.** Set includes 0.05, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8" sizes (13 pcs) (.050 to 3/8") in plastic index.

**AWBPH13 Ball Hex Set.** Screw holding tip holds fastener to tool for delicate installations. Set includes 0.05, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8" sizes (13 pcs) (.050 to 3/8") in plastic index.

**AWBS13 Stubby Ball Hex Set.** Stubby length for access to tight quarters. Set includes 0.05, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8" sizes (13 pcs) (.050 to 3/8") in plastic index.

**AWBXL13 Extra Long Ball Hex Set.** Set includes sizes: .05, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16 and 3/8"



AWHD8K

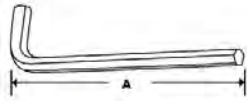
### Combination

#### AWHD8K Hex/Torx Set.

Includes two Torx sizes (T27, T40) and six hex sizes (5/32, 3/16, 7/32, 1/4, 5/16 and 3/8"). Fits a wide range of Harley-Davidson® motorcycles.

# WRENCHES

## L-Shaped



AWM140DK



AWM110DHK



AW1020DK



AW1015DK



AW1013DK



AW1015DHK

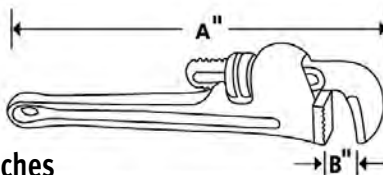
### Hex, mm

	Stock No.	Hex, mm	A	Set Contains:			
				AWM140DK	AWM110DK	AWM100DK	
Standard Length	AWM2D	2	47.7	•	•	•	
	AWM2-1/2D	2.5	52.0	•	•	•	
	AWM3D	3	58.6	•	•	•	
	AWM4D	4	65.6	•	•	•	
	AWM5D	5	75.6	•	•	•	
	AWM6D	6	82.2	•	•	•	
	AWM7D	7	92.4	•	•	•	
	AWM8D	8	99.2	•	•	•	
	AWM9D	9	105.1	•	•	•	
	AWM10D	10	111.4	•	•	•	
	AWM12D	12	139.3	•	•	•	
	AWM14D	14	138.8	•			
	AWM17D	17	167.2	•			
AWM19D	19	193.6	•				
Long	AWML1.5D	1.5	77.7				
	AWML2D	2	83.0				
	AWML2.5D	2.5	89.9				
	AWML3D	3	100.0				
	AWML4D	4	107.0				
	AWML5D	5	118.5				
	AWML6D	6	141.0				
	AWML8D	8	161.5				
	AWML10D	10	172.0				
	AWML12D	12	193.6				
	Kit Bag				C1209	C15B	
	Metal Index						BHK11

### Hex, Standard Length, inches

Stock No.	Hex, inches	A	Set Contains:			
			AW1020DK	AW1015DK	AW1013DK	AW1015DHK
AW028D	0.028	1 1/4	•	•		•
AW035D	0.035	1 5/16	•	•		•
AW050D	0.050	1 3/4	•	•		•
AW2D	1/16	1 3/4	•	•	•	•
AW2-1/2D	5/64	1 7/8	•	•	•	•
AW3D	3/32	2	•	•	•	•
AW3-1/2D	7/64	2 1/8	•	•	•	•
AW4D	1/8	2 1/4	•	•	•	•
AW4-1/2D	9/64	2 3/8	•	•	•	•
AW5D	5/32	2 1/2	•	•	•	•
AW6D	3/16	2 3/4	•	•	•	•
AW7D	7/32	3	•	•	•	•
AW8D	1/4	3 1/4	•	•	•	•
AW10D	5/16	3 3/4	•	•	•	•
AW12D	3/8	4 1/4	•	•	•	•
AW14D	7/16	4 3/4	•			
AW18D	9/16	5 3/4	•			
AW20D	5/8	6 1/4	•			
AW24D	3/4	7 1/4	•			
Kit Bag				C1209	C154	
Metal Index						BHK15

## Pipe Wrenches



### External Pipe Wrenches

Stock No. Coated Handle	Stock No. Aluminum Handle	A	B Max Opening
PW6C		6	3/4
PW8C		8	1
PW10C	PWA10A	10	1 1/2
PW12C		12	2
PW14C	PWA14A	14	2
PW18C	PWA18A	18	2 1/2
PW24C	PWA24A	24	3
PW36C	PWA36A	36	5



PW10C



PWA10A



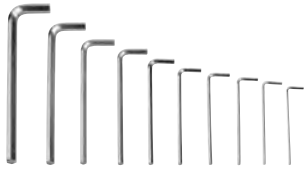
**WARNING**



- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4

# WRENCHES

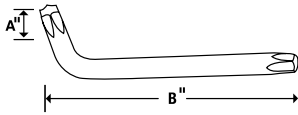
## L-Shaped



AWL1010DHK

Hex, Long, inches

Stock No.	Hex Size	A	Set Contains:	AWL1010DK	AWL1010DHK
AWL3D	3/32	3 1/8	•	•	•
AWL3-1/2D	7/64	3 1/2	•	•	•
AWL4D	1/8	3 3/4	•	•	•
AWL4-1/2D	9/64	4	•	•	•
AWL5D	5/32	4 1/8	•	•	•
AWL6D	3/16	4 1/2	•	•	•
AWL7D	7/32	4 7/8	•	•	•
AWL8D	1/4	5 1/4	•	•	•
AWL10D	5/16	6	•	•	•
AWL12D	3/8	6 3/4	•	•	•
AWL14D	7/16	7 1/2			
AWL16D	1/2	8 1/4			
AWL18D	9/16	9			
AWL20D	5/8	9 3/4			
Kit Bag			C15B		
Metal Index					BHK10



AWT100KA



AWTPH8

Torx®

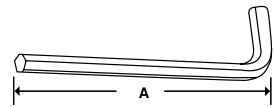
Stock No.	Hex Size	A	B	Set Contains:	AWT100KA	AWTPH8
AWT8A	T8	.137	1 7/8			
AWT9A	T9	.148	1 7/8			
AWT10A	T10	.162	2	•	•	
AWT15A	T15	.194	2 1/8	•	•	•
AWT20A	T20	.228	2 1/4	•	•	•
AWT25A	T25	.262	2 3/8	•	•	•
AWT27A	T27	.295	2 1/2	•	•	•
AWT30A	T30	.218	2 3/4	•	•	•
AWT40A	T40	.262	3	•	•	•
AWT45A	T45	.430	3 5/8	•	•	•
AWT50A	T50	.348	3 3/4	•	•	•
AWT55A	T55	.442	4 1/4	•	•	•

Torx/Tamper Resistant

Stock No.	Hex Size
AWTR8-1	T9
AWTR8-2	T10
AWTR8-3	T15
AWTR8-4	T20
AWTR8-5	T25
AWTR8-6	T27
AWTR8-7	T30
AWTR8-8	T40



AWTR8



AWMG9



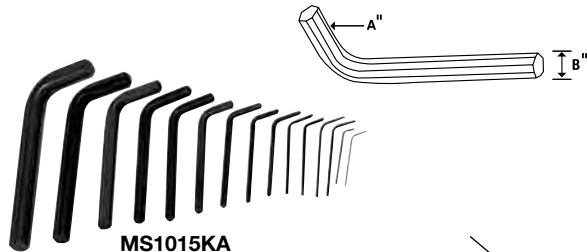
AWS13

Hex/Gold Finish, mm

Stock No.	Hex Size (mm)	Set Contains:	AWMG9
AWMG9-1	1.5	•	•
AWMG9-2	2	•	•
AWMG9-3	2.5	•	•
AWMG9-4	3	•	•
AWMG9-5	4	•	•
AWMG9-6	5	•	•
AWMG9-7	6	•	•
AWMG9-8	8	•	•
AWMG9-9	10	•	•

Hex/Natural Finish, inches

Stock No.	Hex Size	Set Contains:	AWS13
AWS13-1	1/20	•	•
AWS13-2	1/16	•	•
AWS13-3	5/64	•	•
AWS13-4	3/32	•	•
AWS13-5	7/64	•	•
AWS13-6	1/8	•	•
AWS13-7	9/64	•	•
AWS13-8	5/32	•	•
AWS13-9	3/16	•	•
AWS13-10	7/32	•	•
AWS13-11	1/4	•	•
AWS13-12	5/16	•	•
AWS13-13	3/8	•	•



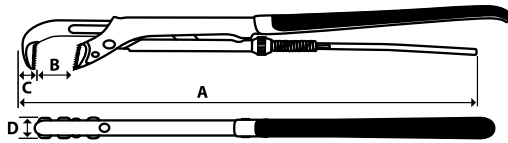
MS1015KA

Multi-Spline

Stock No.	A	B	Set Contains:	MS1015KA
MS2A	4	.033	•	•
MS3A	4	.048	•	•
MS4A	6	.060	•	•
MS5A	4	.069	•	•
MS6A	4	.076	•	•
MS7A	6	.072	•	•
MS8A	6	.096	•	•
MS10A	6	.110	•	•
MS16A	6	.144	•	•
MS20A	6	.183	•	•
MS24A	6	.216	•	•
MS28A	6	.251	•	•
MS32A	6	.291	•	•
MS40A	6	.372	•	•
MS48A	6	.454	•	•

Set includes kit bag

## Adjustable/Special Application



PWZ1

### Pliers Wrench

Stock No.	A	B	C	D	Weight, lbs
PWZ0	8 3/16	1 1/2	5/16	9/16	1
PWZ1	12 5/8	1 3/4	1/2	3/4	1 5/8
PWZ2	17	2 1/2	5/8	13/16	2 1/2
PWZ3	21 1/2	3 1/2	3/4	1	6 3/8

### Pliers Wrench

- Inwardly angled teeth (fine teeth at back of jaw, coarse teeth at front of jaw) for a stronger grip
- Quick adjustment of grip width
- Built-in guard against unthreading
- Soft, warm to the touch, high friction handle surfaces with a strong, stable core

## Adjustable



- Adjustable wrenches with serrated jaws feature our Flank Drive® Plus wrenching system for more turning power from an adjustable wrench
- Precision made wrenches feature fractional and metric scales for size reference
- Elastomer handle surface is soft, yet provide a nonslip gripping surface even for greasy and oily hands
- Cushion handle insulates against cold temperatures

### Flank Drive Plus Adjustable/Cushion Handles

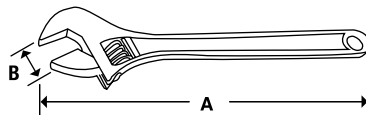
Stock No.	A inches (mm)	B inches (mm)	Set Contains:
FADH6A	6 (152)	3/4 (19)	•
FADH8A	8 (203)	15/16 (24)	•
FADH10A	10 (254)	1 1/8 (29)	•
FADH12A	12 (304)	1 5/16 (33)	•

ASME® Standard

Set includes storage tray



FADH704A



### Adjustable Wrenches

- Opposing fractional and metric quick sizing scales are provided for convenience
- High strength alloy steel machined to exacting specs and precision heat treated for strength and durability
- Nickel-chrome finish helps protect against corrosion and speeds clean up



AD704A

Set  
Contains:  
AD704A

Stock No.	A inches (mm)	B inches (mm)	Set Contains:
AD6A	6 (155)	25/32 (20)	•
AD8A	8 (205)	1 1/16 (27)	•
AD10A	10 (255)	1 3/16 (30)	•
AD12A	12 (305)	1 11/32 (34)	•

ASME B107.100

Set includes storage tray

### Wide Mouth Adjustable/Cushion Handle

- Opens larger than standard adjustable wrench
- Longer jaws and slimline design for greater reach
- Metric and fractional scales for quick observation
- Adjustable moving jaw will not fall out, even when at max opening
- Elastomer handle is soft, insulates against cold and provides a nonslip surface
- ADHW6 opens as wide as an 8" adjustable wrench: ADHW8 opens as wide as a 10" adjustable wrench



ADHW8

Stock No.	A inches (mm)	B inches (mm)
ADHW6	6 (152)	1 1/4 (32)
ADHW8	8 (203)	1 1/2 (38)

ASME B107.100



**WARNING**



- Plastic coated handle does not protect against electric shock
- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4



# WRENCHES

## Adjustable (Blue-Point®)



BLPADJ703



BLPADJ404



GAJS30A



BADJC703



BLPADJ404SG



ANADJ8

## Adjustable Wrenches

Stock No.	Set Contains:		BLPADJ703	BLPADJ404*
	A inches (mm)	B inches (mm)		
GAJ4A	4 (108)	1/2 (13)		
GAJ6A	6 (160)	1 (25.4)		•
GAJ8A	8 (210)	1 1/8 (29)		•
GAJ10A	10 (260)	1 9/32 (33)		•
GAJ12A	12 (310)	1 1/2 (38)		•
GAJ15A	15 (385)	1 19/32 (43)	•	
GAJ18A	18 (450)	2 1/16 (52)	•	
GAJ24A	24 (610)	2 7/16 (62)	•	
GAJS30A*	30 (778)	3 11/32 (85)		

ASME® B107.100

\*Set includes storage tray

- Inch and metric scales on fixed jaw indicate wrench opening
- Fixed jaw and handle forged in one piece to ensure maximum strength
- Wrench is balanced to minimize wrist stress
- Hole at handle end for tether or hanging

## Composite Handle Adjustable Wrench

Stock No.	Set Contains:		BADJC703
	A inches	B inches	
BADJC6	6 7/16	1	•
BADJC8	8 9/16	1 3/16	•
BADJC10	10 1/2	1 3/8	•

Set includes storage tray

## Adjustable Wrenches/Soft Grip

Stock No.	Set Contains:		BLPADJ404SG
	A inches (mm)	B inches (mm)	
GAJ6SG	6 (160)	1 (25.4)	•
GAJ8SG	8 (210)	1 1/8 (29)	•
GAJ10SG	10 (260)	1 9/32 (32.8)	•
GAJ12SG	12 (310)	1 1/2 (38)	•

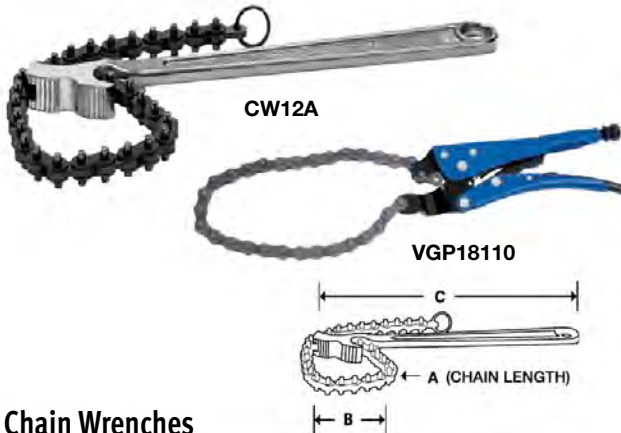
Set includes storage tray

## Aluminum (for AN Fittings)

Stock No.	Color	A inches (mm)	B inches (mm)
ANADJ8	Red	8 (203)	AN #10 (1")

- Securely tighten expensive AN fittings to reduce risk of damage in aircraft, marine and industrial applications as well as for race and show cars
- Machined from aluminum billet to exacting tolerances and made from quality heat treated aluminum

## Special Application



### Chain Wrenches

Stock No.	A	B	C	Replacement Chain
CW12A	16	4	12	CW12A-1
CW15A	19	5	15	CW15A-1
CW24A	23	6	24	CW24A-1

#### VGP18110 Locking Chain Wrench.

- Wraps around and holds irregular shaped objects like oil filters and mufflers
- Chain capacity: up to 6 9/32" (160 mm)
- Handle length: 9 27/32" (250 mm)

#### VGP181101 Replacement Chain.

- Replacement chain for V P18110



BLPSTWRKT

### Strap Wrenches (Blue-Point®)

#### BLPSTWR4 Strap Wrench.

- Adjusts to fit any circumference or irregular shape
- Won't scratch or damage surfaces
- Cushioned grip for maximum comfort
- Heavy duty construction for longer life
- 4" max diameter

#### BLPSTWR6 Strap Wrench.

- Same as BLPSTWR4 except features a 6" max diameter

#### BLPSTWRKT Strap Wrench Set.

- BLPSTWR4 and BLPSTWR6 (2 pcs)



N6893B

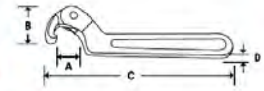
### Valve Persuader (Special order only.)

#### N6893B Valve Persuader Wrench.

- Persuader end provides extra leverage on valve wheels
- Hooks around valve stems and protrudes through spokes
- 15" long



304AHSK



### Adjustable Hook Spanners

- Services collars, rings and bearings
- Single jaw and roll pin construction with industrial finish
- Make sure jaw hook is properly positioned when in use

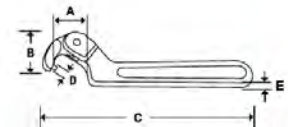
Set Contains: 304AHSK

Stock No.	A	B	C	D	
AHS300B	3/4-2	1/8	6 3/8	11/32	•
AHS301B	1 1/4-3	5/32	8 1/8	13/32	•
AHS304B	2-4 3/4	3/16	11 3/8	15/32	•
AHS307B	4 1/2-6 1/2	1/4	12 1/8	15/32	•

Set shown includes Kit bag



304APSK



### Adjustable Pin Spanners

- Removes rings, collars and lock nuts
- Make sure jaw hook is properly aligned when in use

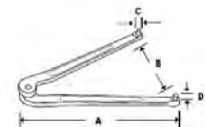
Set Contains: 304APSK

Stock No.	A	B	C	D	E	
APS351B	3/4-2	1/8	6 3/8	1/8	11/32	•
APS357B	1 1/4-3	3/16	8 1/8	3/16	11/32	•
APS363B	2-4 3/4	1/4	11 3/8	1/4	15/32	•
APS366B	4 1/2-6 1/4	1/4	12 1/8	3/8	15/32	•

Set shown includes Kit bag



AFS482B



### Adjustable Face Pin Spanners

For servicing seal and packing nuts on hydraulic cylinders.

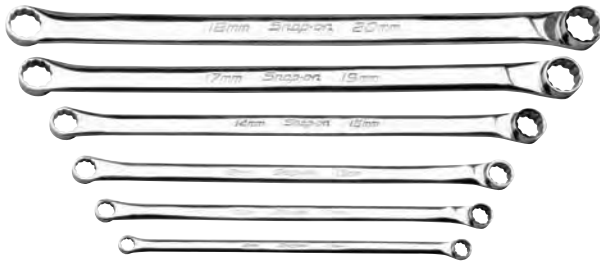
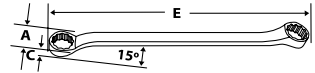
Stock No.	A	B	C	D
AFS482B	6 3/8	2	3/16	5/32
AFS483B	8 1/4	3	1/4	3/16
AFS484B	10 3/8	4	5/16	1/4



- Plastic coated handle does not protect against electric shock
- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4

# HIGH PERFORMANCE

## High Performance Flank Drive® Wrenches



**XDHM606**

### Box, 15° Offset Heads, mm

Set Contains:

**XDHM606**

mm	12	A	C	E	12
8-9	<b>XDHM89</b>	11.6-13.0	5.8-6.2	219.2	•
8-10	<b>XDHM810</b>	11.6-14.4	6.2-7.6	225.6	
10-11	<b>XDHM1011</b>	14.4-15.6	7.6-8.5	246.3	•
10-12	<b>XDHM1012</b>	14.4-17.1	7.6-9.0	264.0	
12-13	<b>XDHM1213</b>	17.1-18.7	9.0-9.0	277.6	•
12-14	<b>XDHM1214</b>	17.1-20.1	9.0-10.2	289.6	
14-15	<b>XDHM1415</b>	20.1-21.5	9.8-10.9	313.1	•
14-17	<b>XDHM1417</b>	20.1-23.7	9.8-11.3	334.7	
15-16	<b>XDHM1516</b>	21.5-22.6	10.9-10.9	334.8	
17-19	<b>XDHM1719</b>	23.7-26.3	11.3-12.1	360.1	•
18-20	<b>XDHM1820</b>	24.9-27.3	12.1-13.6	384.0	•

Set includes storage tray



**XDH605**

### Box, 15° Offset Heads, inches

Set Contains:

**XDH605**

11	12	12	A	C	E	12
7/32 - 1/4	<b>XDH78A</b>	<b>GXDH78A</b>	11/32 - 3/8	13/64 - 15/64	7 15/64	
1/4 - 5/16	<b>XDH810B</b>	<b>GXDH810B</b>	3/8 - 29/64	1/4 - 1/4	8 3/64	•
5/16 - 3/8	<b>XDH1012B</b>	<b>GXDH1012B</b>	29/64 - 35/64	1/4 - 19/64	8 7/8	
3/8 - 7/16	<b>XDH1214A</b>	<b>GXDH1214A</b>	35/64 - 5/8	19/64 - 11/32	9 11/16	•
7/16 - 1/2	<b>XDH1416A</b>	<b>GXDH1416A</b>	11/32 - 3/4	11/32 - 23/64	10 7/16	
1/2 - 9/16	<b>XDH1618A</b>	<b>GXDH1618A</b>	23/32 - 13/16	23/64 - 13/32	11 7/16	•
5/8 - 3/4	<b>XDH2024A</b>		57/64 - 1 3/64	7/16 - 31/64	13 9/32	•
11/16 - 13/16	<b>XDH2226A</b>		63/64 - 1 9/64	31/64 - 17/32	15 5/32	•

Aerospace Spec. AS954E

Set includes storage tray



**GXDH1618A**

### Box/Short Handle, 0° Offset Heads, mm

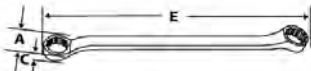
mm	12	A	C	E
8-10	<b>XDHSFM810</b>	12.1-14.9	6.2-7.6	162.9
10-12	<b>XDHSFM1012</b>	14.4-17.1	7.6-9.0	190.5
12-14	<b>XDHSFM1214</b>	17.1-20.1	8.5-10.2	208.8
17-19	<b>XDHSFM1719</b>	23.8-26.3	11.3-12.1	260.3



**XDHSFM1214**

# HIGH PERFORMANCE/SPLINE

## Flank Drive® Wrenches



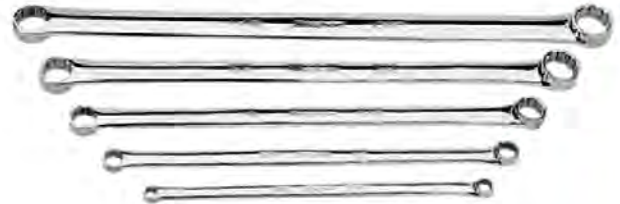
XDHFM606

Box, 0° Offset Heads, mm

Set Contains: XDHFM606

mm	12	A	C	E	12
6-7	XDHFM67	9.1-10.4	5.3-5.8	211.5	
8-9	XDHFM89	11.6-13.0	5.8-6.2	226.1	
8-10	XDHFM810	11.6-14.4	6.2-7.6	232.7	
10-11	XDHFM1011	14.4-15.6	7.6-8.5	253.7	•
10-12	XDHFM1012	14.4-17.1	8.5-9.0	272.2	•
12-13	XDHFM1213	17.1-18.7	9.0-9.0	286.2	•
12-14	XDHFM1214	17.1-20.1	9.0-10.2	298.4	•
13-14	XDHFM1314	18.7-20.1	9.0-9.7	299.2	•
14-15	XDHFM1415	20.1-21.5	9.8-10.9	323.5	•
14-17	XDHFM1417	20.1-23.7	9.8-11.3	345.0	•
15-16	XDHFM1516	21.5-22.6	10.9-10.9	347.5	•
17-19	XDHFM1719	23.8-26.3	11.3-12.1	372.1	•
18-20	XDHFM1820	25.0-27.3	12.1-13.6	395.7	•
21-22	XDHFM2122	28.8-30.6	13.7-14.6	421.2	•
22-24	XDHFM2224	30.6-33.1	14.0-14.9	445.2	•

Set includes storage tray



XDHF605

Box, 0° Offset Heads, inches

Set Contains: XDHF605

12	A	C	E	
1/4 - 5/16	XDHF810	13/32 - 15/32	7/32 - 1/4	8 5/16 •
3/8 - 7/16	XDHF1214	17/32 - 5/8	5/16 - 11/32	10 1/16 •
1/2 - 9/16	XDHF1618	23/32 - 13/16	11/32 - 13/32	11 3/4 •
5/8 - 3/4	XDHF2024	7/8 - 1 1/32	7/16 - 15/32	13 5/8 •
11/16 - 13/16	XDHF2226	31/32 - 1 5/32	15/32 - 17/32	15 5/8 •

Set includes storage tray

## Spline Wrenches

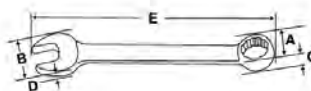
Snap-on® spline wrenching tools have been developed to service high tensile strength spline nuts and bolts widely used on both military and commercial aircraft.

Precise, radial spline teeth engage the fastener teeth over a wider area to minimize stress, and allow application of high torque to reduce risk of damage to the fastener or to the tool.

Chrome tools comply with Military Spec. MS-33787 and MIL-W-8982. (Industrial finish tools comply with performance specifications and differ only in finish.) The unique spline wrenching configuration can also be used on ordinary 6 and 12 point fasteners with an advantage similar to the Snap-on Flank Drive wrenching system.



OES18B



Combination/Short Handle, inches

Stock No.	A	B	C	D	E
#8	13/32	17/32	1/8	5/32	4 1/2
#10	15/32	21/32	11/64	15/64	4 55/64
#12	17/32	25/32	13/64	17/64	5 7/32
#14	5/8	29/32	15/64	5/16	5 27/64
#16	23/32	1 1/16	1/4	5/16	5 47/64
#18	13/16	1 3/16	17/64	21/64	6 1/32
#20	7/8	1 5/16	9/32	11/32	6 5/16
#22	31/32	1 7/16	19/64	23/64	6 39/64
#24	1 1/16	1 9/16	5/16	3/8	6 29/32



RES2630C

Ratcheting Box, inches

Stock No.	A	C	E	# of Gear Teeth
#8-#10	9/16-5/8	11/32	4 11/16	16-18
#12-#14	3/4-7/8	11/32	6 5/32	20-22
#18-#20	1 1/8-1 1/4	13/32	7 27/32	20-22
#26-#30	1 1/2-1 9/16	7/16	9 25/32	22-22

15° Offset Heads, inches

XDES1618A

Stock No.	A	C	E
#7-#9	11/32-7/16	11/64-13/64	7 1/4
#8-#10	3/8-15/32	3/16-7/32	8 1/16
#12-#14	35/64-41/64	5/16-11/32	9 3/4
#16-#18	3/4-13/16	3/8-3/8	11 7/16
#18-#20	13/16-57/64	25/64-13/32	12 3/8
#22-#24	31/32-1 5/64	7/16-5/64	14 1/4
#26-#30	1 5/32-1 5/16	1/2-9/16	16 3/16
#28-#32	1 1/4-1 7/16	17/32-37/64	17



- Do not use cheater bars on handles
- Read safety precautions on pages W1 to W4



# SCREWDRIVERS

## Power. Speed. Finesse.

Snap-on® Instinct® screwdrivers offer a unique combination of power, comfort and versatility in the most basic of hand tools.

**Multi-faceted design** — Unique handle geometry provides excellent gripping surface and superior turning force.

**Inner core** — Maximizes torque between the handle and the blade.

**Middle layer** — Tough, brightly-colored material provides impact and solvent resistance.

**Outer layer** — Textured material gives you grip, comfort and torque—even in the greasiest shop environments.

**Hard or soft grip handle design** — Choose from an ultra-comfortable soft grip or a grease-resistant hard grip.

**Seven tip types** — Snap-on screwdrivers are available in seven different tip profiles so you can handle a wide variety of fastener types.

## It's All About the Details.

Snap-on screwdrivers are built with exclusive features that give you superior durability and performance.

**Trans-Drive™** — This unique ratcheting mechanism uses an advanced pawl design based on transmission ring gear principles to deliver outstanding power and torque.

**Shanks** — Round shanks are made from special alloy steel with few impurities for strength and lasting durability.



## Soft Grip Handle Combination Sets

### Standard Flat Tip/Phillips® Combination Screwdriver Sets

	Set Contains:	SGDX80BR			SGDX80BO			SGDX80BG			SGDX60BR			SGDX60BO			SGDX60BG		
		Red	Orange	Green	Red	Orange	Green	Red	Orange	Green	Red	Orange	Green	Red	Orange	Green			
<b>Flat Tip Standard</b>	SHD1*	Hard	•	•	•														
	SGD2B	Soft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	SGD4B	Soft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	SGD6B	Soft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	SGD8B	Soft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
<b>Phillips Standard</b>	SHDP22IR*	Hard	•	•	•														
	SGDP31IRB	Soft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	SGDP42IRB	Soft	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
	SGDP63IRB	Soft																	

\*Does not include hex bolster.

#### Soft Grip Handle Colors



SGDX40BR



SGDX40BO



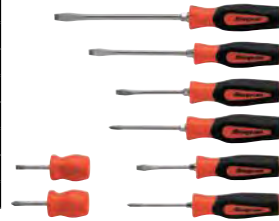
SGDX40BG



SGDX80BR



SGDX60BR



SGDX80BO



SGDX60BO



SGDX80BG

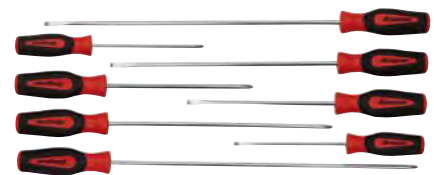


SGDX60BG

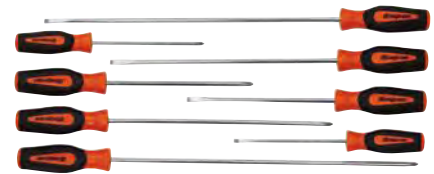
### Cabinet, Mini Tip, Extra Long Flat Tip/Phillips Screwdriver Sets

	Set Contains:	SGDXL80BR			SGDXL80BO			SGDXL80BG			SGDX40BR			SGDX40BO			SGDX40BG			SGDXXL20BR		
		Red	Orange	Green	Red	Orange	Green	Red	Orange	Green	Red	Orange	Green	Red	Orange	Green	Red	Orange	Green			
<b>Flat Tip Cabinet</b>	SGD146B	•	•	•																		
	SGD480B	•	•	•																		
	SGD4120B	•	•	•																		
	SGD4160B	•	•	•																		
<b>Phillips Cabinet</b>	SGDP61B	•	•	•																		
	SGDP82B	•	•	•																		
	SGDP122B	•	•	•																		
	SGDP162B	•	•	•																		
<b>Flat Tip Mini-Tip</b>	SGD304B							•	•	•												
	SGD306B							•	•	•												
<b>Phillips Mini-Tip</b>	SGDP300B							•	•	•												
	SGDP301B							•	•	•												
<b>Extra Long</b>	SGD424B																				•	
	SGDP242B																				•	

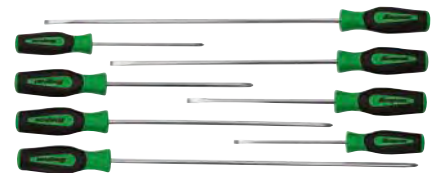
#### Soft Grip Handle Colors



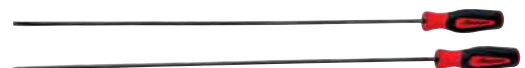
SGDXL80BR



SGDXL80BO



SGDXL80BG



SGDXXL20BR



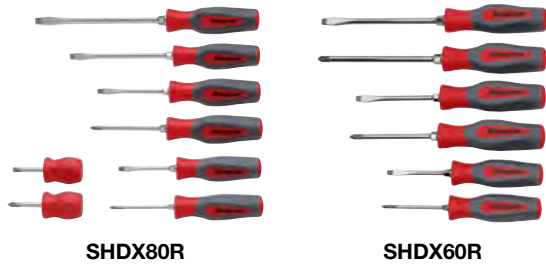
**WARNING**



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages W1 to W4

# SCREWDRIVERS

Hard Grip Handle Combination Sets **INSTINCT™**



SHDX80R

SHDX60R



SHDX80O

SHDX60O

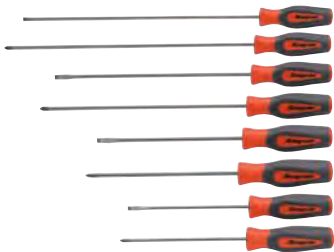


SHDX80G

SHDX60G



GSHDX80R



SHDXL80O

## Standard Length Flat Tip/Phillips® Combination Screwdriver Sets

Set Contains:	Stock No.	SHDX80R	SHDX80O	SHDX80G	SHDX60R	SHDX60O	SHDX60G
		Red	Orange	Green	Red	Orange	Green
Flat Tip Standard	SHD1*	•	•	•			
	SHD2	•	•	•	•	•	•
	SHD4	•	•	•	•	•	•
	SHD6	•	•	•	•	•	•
	SHD8	•	•	•			
SHD10R							
Phillips Standard	SHD22IR*	•	•	•			
	SHD31IR	•	•	•	•	•	•
	SHD42IR	•	•	•	•	•	•
	SHD62IR						
	SHD63IR				•	•	•
	SHD64IR						

\*Does not include hex bolster.

### Hard Grip Handle Colors



SHDX40R



SHDX40O



SHDX40G

## Industrial Finish Shank, Cabinet and Mini Tip Flat Tip/Phillips Screwdriver Sets

Set Contains:	Stock No.	GSHDX80R	SHDXL80O	SHDX40R	SHDX40O	SHDX40G
		Red	Orange	Red	Orange	Green
Flat Tip Industrial Finish Shank	GSHD1*	•				
	GSHD2	•				
	GSHD4	•				
	GSHD6	•				
	GSHD800	•				
Phillips Tip Industrial Finish Shank	GSHDP22IR*	•				
	GSHDP31	•				
	GSHDP42	•				
Flat Tip Cabinet	SHD146		•			
	SHD480		•			
	SHD4120		•			
	SHD4160		•			
Phillips Tip Cabinet	SHDP61		•			
	SHDP82		•			
	SHDP122		•			
	SHDP162		•			
Flat Tip Mini Tip	SHD304			•	•	•
	SHD306			•	•	•
Phillips Tip Mini Tip	SHDP300			•	•	•
	SHDP301			•	•	•

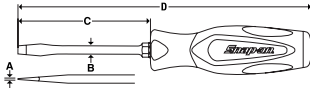
\*Does not include hex bolster.

### Hard Grip Handle Colors





## Soft Handle Flat Tip



SGD2BR



SGD480BR

### Standard

Red	Orange	Green	A	B	C	D
SGD2BR	SGD2BO	SGD2BG	.035	7/32	2 13/16	6 15/16
SGD4BR	SGD4BO	SGD4BG	.040	1/4	3 15/16	8 27/32
SGD6BR	SGD6BO	SGD6BG	.050	5/16	5 15/16	10 27/32
SGD8BR	SGD8BO	SGD8BG	.055	3/8	7 29/32	13 13/32
SGD10BR	SGD10BO	SGD10BG	.055	3/8	9 15/16	15 7/16

### Cabinet

Red	Orange	Green	A	B	C	D
SGD146BR	SGD146BO	SGD146BG	.030	3/16	5 13/16	10 1/8
SGD153BR			.050	3/8	2 3/4	8 1/4
SGD480BR	SGD480BO	SGD480BG	.032	1/4	7 15/16	12 3/4
SGD4100BR	SGD4100BO	SGD4100BG	.032	1/4	9 15/16	14 3/4
SGD4120BR	SGD4120BO	SGD4120BG	.032	1/4	11 15/16	16 3/4
SGD4160BR	SGD4160BO	SGD4160BG	.032	1/4	15 15/16	20 3/4



SGD306BR



SGD424BR

### Mini Tip

Red	Orange	Green	A	B	C	D
SGD304BR	SGD304BO	SGD304BG	.020	1/8	3	5 7/8
SGD306BR	SGD306BO	SGD306BG	.030	3/16	3	5 7/8

### Extra Long

Red	A	B	C	D
SGD424BR	.046	5/16	24	28 3/4

**SGDS50BR Flat Tip Screwdriver Set.** Includes SGD2BR, SGD4BR and SGD6BR Flat Tip Screwdrivers plus SGD304BR and SGD306BR Miniature Flat Tip Screwdrivers ( 5 pcs)



SGDS50BR

## Hard Handle Flat Tip



SHD6R



GSHD4R

### Standard

Red	Orange	Green	A	B	C	D
SHD1R*	SHD10*	SHD1G*	.040	1/4	1 7/8	3 3/4
SHD2R	SHD20	SHD2G	.035	7/32	2 13/16	6 15/16
SHD4R	SHD40	SHD4G	.040	1/4	3 15/16	8 27/32
SHD6R	SHD60	SHD6G	.050	5/16	5 15/16	10 27/32
SHD8R	SHD80	SHD8G	.055	3/8	7 29/32	13 13/32
SHD10R	SHD100	SHD10G	.055	3/8	9 15/16	15 7/16

\*Does not include hex bolster.

### Industrial Finish Shank

Industrial/Red	A	B	C	D
GSHD1R*	.037	1/4	1 1/2	3 3/4
GSHD2R	.032	7/32	2 7/8	7
GSHD4R	.037	1/4	4	8 7/8
GSHD6R	.046	5/16	6	10 27/32
GSHD8R	.050	3/8	8	13 13/32

\*Does not include hex bolster.



SHD304R



SHD41600

### Mini Tip

Red	Orange	Green	A	B	C	D
SHD304R	SHD304O	SHD304G	.018	1/8	3	5 7/8
SHD306R	SHD306O	SHD306G	.030	3/16	3	5 7/8

### Cabinet

Orange	A	B	C	D
SHD146O	.030	3/16	6	10 1/8
SHD480O	.032	1/4	8	12 3/4
SHD4120O	.032	1/4	12	16 3/4
SHD4160O	.032	1/4	16	20 3/4



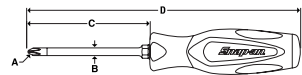
**WARNING**



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages W1 to W4



# SCREWDRIVERS



## Flat Tip/Pocket and Spark Test



### ■ Pocket

SDD2040

Stock No.	Type	Description	A	D
SDD2040	Pocket	Screwdriver w/ Pocket Clip	.025	4 3/4
SDD2240*	Pocket	Distributor Screwdriver	.025	4 3/4

\*Magnet on handle.



SDD214

### ■ Spark Test

Stock No.	Type	Description	A	D
SDD214	Spark Test	Screwdriver with Pocket Clip	.025	5 1/8

## Soft Handle Phillips® INSTINCT



SGDP42IRBR



SGDP300BR



SGDP50BR



SGDP82BR



SGDP242BR



SGDDP50BR

### ✦ Standard

Red	Orange	Green	A	B	C	D
SGDP31IRBR	SGDP31IRBO	SGDP31IRBG	#1	3/16	2 31/32	7 1/8
SGDP42IRBR	SGDP42IRBO	SGDP42IRBG	#2	1/4	3 31/32	8 7/8
SGDP63IRBR	SGDP63IRBO	SGDP63IRBG	#3	5/16	5 29/32	10 13/16
SGDP64IRBR	SGDP64IRBO	SGDP64IRBG	#4	3/8	6	11 1/2

### ✦ Mini Tip

Red	Orange	Green	A	B	C	D
SGDP300BR	SGDP300BO	SGDP300BG	#0	1/8	3	6
SGDP301BR	SGDP301BO	SGDP301BG	#1	3/16	3	6

### SGDP50BR Phillips Tip Screwdriver Set.

Includes SGDP31IRBR, SGDP42IRBR and SGDP63IRBR Phillips Tip Screwdrivers plus SGDP300BR and SGDP301BR Miniature Phillips Tip Screwdrivers ( 5 pcs).

### ✦ Cabinet Type

Red	Orange	Green	A	B	C	D
SGDP82BR	SGDP82BO	SGDP82BG	#2	1/4	8	12 7/8
SGDP61BR	SGDP61BO	SGDP61BG	#1	3/16	6	10 1/4
SGDP101BR	SGDP101BO	SGDP101BG	#1	3/16	10	14 1/8
SGDP102BR	SGDP102BO	SGDP102BG	#2	1/4	9 3/8	14 1/4
SGDP122BR	SGDP122BO	SGDP122BG	#2	1/4	12	16 3/4
SGDP162BR	SGDP162BO	SGDP162BG	#2	1/4	16	20 3/4

### ✦ Extra Long

Red	A	B	C	D
SGDP242BR	#2	5/16	24	28 3/4

### Diamond Tip

- Diamond particles "bite" into fasteners which minimizes slipping
- Diamond particles are extremely hard for long lasting performance and minimal wear

Set Contains:

Red	A	B	C	D	Blade	
SGDDP31IRBR	#1	.197	3	7 5/32	SSDDP31RB	•
SGDDP42IRBR	#2	.236	4	8 29/32	SSDDP42RB	•
SGDDP61IRBR	#1	.197	6	10 5/32	SSDDP61RB	•
SGDDP62IRBR	#2	.236	6	10 29/32	SSDDP62RB	•
SGDDP63IRBR	#3	.315	5 3/4	10 5/8	SSDDP63RB	•

SGDDP50BR

## Hard Handle Phillips

Red	Orange	Green	A	B	C	D
SHDP221RR*	SHDP221RO*	SHDP221RG*	#2	1/4	1 5/8	3 1/2
SHDP311RR	SHDP311RO	SHDP311RG	#1	3/16	2 31/32	7 1/8
SHDP421RR	SHDP421RO	SHDP421RG	#2	1/4	3 31/32	8 7/8
SHDP621RR	SHDP621RO	SHDP621RG	#2	1/4	6	10 13/32
SHDP631RR	SHDP631RO	SHDP631RG	#3	5/16	5 29/32	10 13/16
SHDP641RR	SHDP641RO	SHDP641RG	#4	3/8	6	11 1/2

\*Does not include hex bolster.

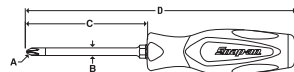
## Standard/Industrial Finish Shank

Industrial/Red	A	B	C	D
GSHDP221RR*	#2	1/4	1 1/2	3 3/4
GSHDP31R	#1	3/16	3	7 1/4
GSHDP42R	#2	1/4	4	8 7/8

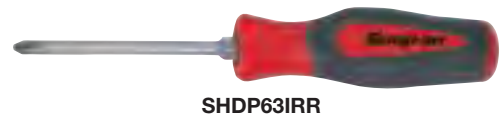
\*Does not include hex bolster.

## Cabinet Type

Chrome/Orange	A	B	C	D
SHDP610	#1	3/16	6	10 1/4
SHDP820	#2	1/4	8	12 7/8
SHDP1220	#2	1/4	12	16 3/4
SHDP1620	#2	1/4	16	20 3/4



## Hard Handle Phillips® INSTINCT



SHDP631RR



GSHDP31R



SHDP820

## Mini Tip

SHDP300R

- See flat tip mini drivers and 4 piece combination Phillips/flat tip sets

Orange	Red	Green	A	B	C	D
SHDP3000	SHDP300R	SHDP300G	#0	1/8	3	5 13/16
SHDP3010	SHDP301R	SHDP301G	#1	3/16	3	5 13/16

## Phillips/Instinct® Hard Handle/Electronic Service



SHDP2040

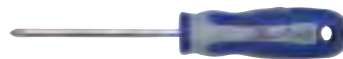
## Pocket

Orange	A	D	B	C
SHDP2040	#1	4 7/8	1/8	2

## Soft Grip (Blue-Point®)



BSGD7



BSGDP52



BSGD70

## Flat Tip

Stock No.	Tip Size	Blade Length, inches	Length, inches
BSGD3	1/8	3	6 1/2
BSGD4	7/32	5	9
BSGD5	1/4	6	10 1/4
BSGD6	5/16	7	11 1/4
BSGD7	3/8	8	12 3/8

## Standard Phillips

Stock No.	Tip Size	Blade Length, inches	Length, inches
BSGDP41	#1	4	8
BSGDP52	#2	5	9 1/4

## Soft Grip Combination Sets

	Stock No.	Set Contains:	
Flat Tip	BSGD3	•	
	BSGD4	•	
	BSGD5	•	
	BSGD6	•	
	BSGD7	•	
	Phillips	BSGDP41	•
		BSGDP52	•



**WARNING**



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages W1 to W4

# SCREWDRIVERS

## Electronic Service

### Electronic Miniature

- Rotating handle mechanism ideal for precise, detailed electronics work
- Blades manufactured to exacting tolerances from special heat treated alloy steel
- Blade tip finish is industrial black



SGDE70



Flat/Phillips®

Set Contains:

SGDE70

Stock No.	A	B	C	D	
SGDE215	1.5	3/32	2	5 3/4	•
SGDE220	2.0	3/32	2	5 3/4	•
SGDE225	2.5	3/32	2	5 3/4	•
SGDE230	3.0	1/8	2	5 3/4	•
SGDEP200	#00	1/8	2	5 3/4	•
SGDEP20	#0	1/8	2	5 3/4	•
SGDEP21	#1	3/16	3	6 1/2	•



SGDEH70



Hex/Miniature

Set Contains:

SGDEH70

Stock No.	A	B	C	D	
SGDEH304	1/16	3/32	2	5 1/2	•
SGDEH306	3/32	1/8	3	6 1/2	•
SGDEH307	7/64	3/16	3	6 1/2	•
SGDEH315	1.5 mm	3/32	2	5 1/2	•
SGDEH320	2.0 mm (5/64)	3/32	2	5 1/2	•
SGDEH325	2.5 mm	3/32	3	6 1/2	•
SGDEH330	3.0 mm	3/16	3	6 1/2	•

Blow molded case included.



SSDEP61C

### Electronic Thin Blade

- Recessed ends for fingertip pressure

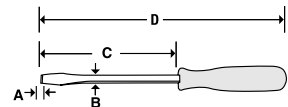
Stock No.	A	B	C	D
SSDE42C	.018 x 1/8	1/8	2	5 5/16
SSDE43C	.018 x 1/8	1/8	3	6 5/16
SSDE44C	.018 x 1/8	1/8	4	7 5/16
SSDE46C	.018 x 1/8	1/8	6	9 5/16
SSDE48C	.018 x 1/8	1/8	8	11 5/16
SSDE63C	.030 x 3/16	3/16	3	9 9/16
SSDE64C	.028 x 3/16	3/16	4	7 9/16
SSDE66C	.030 x 3/16	3/16	6	6 9/16
SSDE68C	.028 x 3/16	3/16	8	11 9/16
SSDE610C	.030 x 3/16	3/16	10	13 9/16
SSDEP30C	#0	1/8	3	6 3/8
SSDEP31C	#1	3/16	3	6 5/8
SSDEP60C	#0	1/8	6	9 3/8
SSDEP61C	#1	3/16	6	9 5/8



SSDE33C

### Potentiometer Adjuster

Stock No.	A	B	C	D
SSDE33C	.015 x 3/32	3/32	3	5 9/16



SGDET70



Torx®

Set Contains:

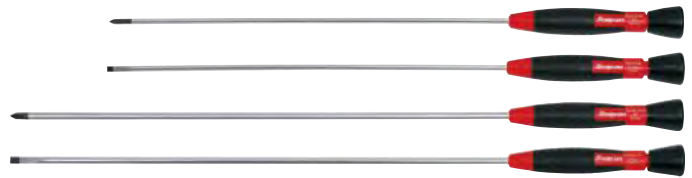
SGDET70

Stock No.	A	B	C	D	
SGDET26	T6	1/8	2	5 1/2	•
SGDET27	T7	1/8	2	5 1/2	•
SGDET28	T8	1/8	2	5 1/2	•
SGDET29	T9	1/8	2	5 1/2	•
SGDET210	T10	1/8	2	5 1/2	•
SGDET215	T15	3/16	3	6 1/2	•
SGDET220	T20	3/16	3	6 1/2	•

Blow molded case included.

### Torx® Electronic Miniature/Long

- Extra long shanks for improved reach
- Small diameter shanks provide excellent clearance in tight applications
- Rotating handle mechanism for easy turning, important when working on detailed electronics work
- Bimold handle for a comfortable, nonslip gripping surface



SGDEL40

Set Contains:

Stock No.	A	B	C	D	
SGDEL8		1/8	8	11 3/8	•
SGDEL10		3/16	10	13 3/8	•
SGDELP8	#0	1/8	8	11 3/8	•
SGDELP10	#1	3/16	10	13 3/8	•

### Pozidriv® Instinct® Hard Handle

#### Pozidriv/Hard Instinct Handle

- Walls on tips are less tapered than Phillips® tips
- Tips have wedges for a tight fit on Pozidriv fasteners
- Phillips tip drivers should not be used on Pozidriv fasteners (and vice versa), as they will ride out of the recess and round tool and screw recess corners



SHDZ40R

Set Contains:

Stock No.	A	B	C	D	
SHDZ22R	#2	1/4	1 1/2	3 3/4	
SHDZ31R	#1	3/16	3	7 1/4	•
SHDZ42R	#2	1/4	4	8 7/8	•
SHDZ63R	#3	5/16	6	10 7/8	•
SHDZ84R	#4	3/8	8	13 7/16	•

### Torx Tip/Instinct Soft Handle

#### Torx Standard

- Designed for internal type Torx fasteners used in automotive and appliance industries



SGDTX90BR

Set Contains:

Stock No.	A	B	C	D		
SGDTX38BR	T8	3/16	3	7 1/4	•	
SGDTX310BR	T10	3/16	3	7 1/4	•	
SGDTX315BR	T15	3/16	3	7 1/4	•	•
SGDTX320BR	T20	3/16	3	7 1/4	•	•
SGDTX425BR	T25	1/4	4	8 7/8	•	•
SGDTX427BR	T27	1/4	4	8 7/8	•	•
SGDTX430BR	T30	1/4	4	8 7/8	•	•
SGDTX640BR	T40	5/16	6	10 7/8	•	
SGDTX645BR	T45	5/16	6	10 7/8	•	



**WARNING**

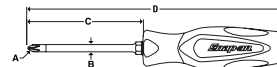


- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages W1 to W4



# SCREWDRIVERS

## Torx® Tip/Instinct® Soft Handle



SGTX40BR



SGTX40BG



SGTX40BO



SGDTRX50BR

### Torx Mini Tip

- Designed for internal type Torx fasteners used in automotive and appliance industries

Stock No.	Color	A	B	C	D	Set Contains:	
						SGTX40BR	SGTX40BG
SGDT308BR	Red	T8	3/16	3	5 7/8	•	
SGDT308BG	Green	T8	3/16	3	5 7/8		•
SGDT308BO	Orange	T8	3/16	3	5 7/8		•
SGDT310BR	Red	T10	3/16	3	5 7/8	•	
SGDT310BG	Green	T10	3/16	3	5 7/8		•
SGDT310BO	Orange	T10	3/16	3	5 7/8		•
SGDT315BR	Red	T15	3/16	3	5 7/8	•	
SGDT315BG	Green	T15	3/16	3	5 7/8		•
SGDT315BO	Orange	T15	3/16	3	5 7/8		•
SGDT320BR	Red	T20	3/16	3	5 7/8	•	
SGDT320BG	Green	T20	3/16	3	5 7/8		•
SGDT320BO	Orange	T20	3/16	3	5 7/8		•

### Tamper Resistant

- Hole in the end of each bit tip fits over center peg in Torx tamper resistant fasteners

Red	A	B	C	D	Set Contains:	
					SGDTRX30BR	SGDTRX50BR
SGDTRX315BR	T15	3/16	3	7 1/4	•	
SGDTRX320BR	T20	3/16	3	7 1/4	•	
SGDTRX425BR	T25	3/16	4	8 7/8	•	
SGDTRX427BR	T27	7/32	4	8 7/8	•	
SGDTRX430BR	T30	1/4	4	8 7/8	•	



SGDTRXL70BR



SGTRXL40BR

### Tamper Resistant/Long

- Hole in the end of each bit tip fits over center peg in Torx tamper resistant fasteners

Applications:

VW®/Audi® door and interior trim panels plus headlight assemblies. GM® engine sensors/components and steering column multiswitches.

Red	A	B	C	D	Set Contains:	
					SGDTRXL70BR	SGDTRXL40BR
SGDTRX608BR	T8	3/16	6	10	•	
SGDTRX610BR	T10	3/16	6	10	•	
SGDTRX615BR	T15	3/16	6	10	•	
SGDTRX620BR	T20	3/16	6	10	•	
SGDTRX825BR	T25	1/4	8	12 3/4	•	
SGDTRX827BR	T27	1/4	8	12 3/4	•	
SGDTRX830BR	T30	1/4	8	12 3/4	•	

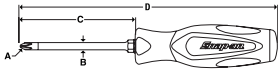
### Tamper Resistant/Mini Tip

- Hole in the end of each bit tip fits over center peg in Torx tamper resistant fasteners

Applications:

VW/Audi door and interior trim panels plus headlight assemblies.

Red	A	B	C	D	Set Contains:	
					SGDTRXL70BR	SGDTRXL40BR
SGDTR608B	T8	3/16	6	8 7/8	•	
SGDTR610B	T10	3/16	6	8 7/8	•	
SGDTR615B	T15	3/16	6	8 7/8	•	
SGDTR620B	T20	3/16	6	8 7/8	•	



## Torx® Tip/Instinct® Hard Handle

### Torx Standard

Set Contains:

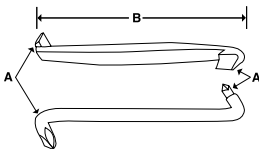
SHDTX900

Stock No.	A	B	C	D	
SHDTX380	T8	3/16	3	7 1/4	•
SHDTX3100	T10	3/16	3	7 1/4	•
SHDTX3150	T15	3/16	3	7 1/4	•
SHDTX3200	T20	3/16	3	7 1/4	•
SHDTX4250	T25	1/4	4	8 7/8	•
SHDTX4270	T27	1/4	4	8 7/8	•
SHDTX4300	T30	1/4	4	8 7/8	•
SHDTX6400	T40	5/16	6	10 7/8	•
SHDTX6450	T45	5/16	6	10 7/8	•



SHDTX900

## Special Application



ST50A

### 90° Offset Screwdrivers

Set Contains:

ST50A

Stock No.	Tip	A	B	
120SSDP	Phillips	#1 and #2	4 3/4	•
340SSDP	Phillips	#3 and #4	6	•
10SSD	Flat Tip	.040 x 1/4	4	•
20SSD	Flat Tip	.050 x 5/16	4 11/16	•
30SSD	Flat Tip	.060 x 3/8	5 1/2	•



S6180



S6189

### Dzus® Fastener

- For *Dzus* type fasteners used in aircraft and auto racing applications

Stock No.	Tip Thickness, inches	Tip Width, inches	Blade Length, inches	Length, inches
S6180	.05	1/2	2	6 13/32
S6189	.032	19/64	2	5 3/4



SDDD101



SDDD41



CM6551

### Reversible Blade Screwdriver and Sets

#### SDDD101 Reversible Blade Screwdriver Set.

- Includes 4 reversible bits for 8 different tip sizes: 1/4 and 3/16" flat tip, #1 and #2 *Phillips* tip, T15, T20, T25 and T30 *Torx* tip
- Individual 1/4 and 5/16" nut drivers
- ASME® B107
- Durable, classic hard handle is textured for a sure grip

#### SDDD41 Reversible Blade Screwdriver Set.

- Includes 2 reversible bits for 4 different tip sizes: 9/32 and 13/64" flat tip, #1 and #2 *Phillips* tip
- ASME B107
- Durable, classic hard handle is textured for a sure grip

### Miniature Screwdriver/Awl Set

- Includes 4 blades in the following flat tip sizes: .055, .070, .080 and .100"
- Includes awl and plastic pouch



**WARNING**



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages W1 to W2

## Special Application



SGDQ16KT

### Pop up Screwdriver and Diamond Bits SGDQ6 Pop up Screwdriver.

- Easy to use, spring loaded shank can adjust to different lengths for clearance as well as compact storage. (Approximately 6 1/2" and 8 1/2" lengths)
- Shank can be fully released to allow use with cordless drills
- Highly engineered collet incorporates both a magnetic and mechanical locking system to securely hold bits
- Rotating collet sleeve for "spinning" when quickly setting/removing fasteners
- INSTINCT® handle provides maximum turning power and greater comfort
- Diamond particles in bits "bite" into fasteners which minimizes stripping
- Diamond bits are extremely hard for long lasting performance and minimal wear
- Can accept all conventional 1/4" hex shank insert and power bits

### SGDQ16KT Pop up Screwdriver Kit.

Kit includes: S DQ6 Pop up Screwdriver, SDMD221 through SDMD223 Phillips® Diamond Bits (#1, #2, #3), SDMD213 Flat Tip Diamond Bit, SDMDT10 through SDMDT30 TORX® Diamond Bits (T10 to T30) and SDMD321 through SDMD323 Power Phillips Diamond Bits (#1, #2, #3) in PAKSC062 Nylon Pouch.

### PAKSC062 Nylon Pouch.



SDDR40

### Square Tip

- Square tip screwdrivers offer excellent fastener engagement
- Tips are precision cut and vapor blasted for optimal grip
- Intended for use on #3 through #12 square tip fasteners

Stock No.	Color	Tip	C	D	Set Contains:
SDDR0B30Y	Yellow	#0	3	6 21/32	
SDDR0B31G	Green	#1	3	6 21/32	
SDDR0B42R	Red	#2	4	8 13/32	
SDDR0B43	Black	#3	4	8 13/32	

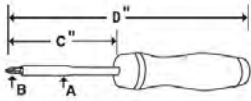
## Ratcheting Screwdrivers (Blue-Point®)



BSGDMR6

### BSGDMR6 Ratcheting Screwdriver

- 45 tooth ratcheting mechanism ensures precise positioning and movement
- Bits are stored in a bit magazine inside the handle
- Includes 6 1/4" hex bits: flat tip (4.5 and 5.5), Phillips (#1 and #2) plus Torx (T15 and T20)
- Bits are considered a consumable and carry no warranty



Red, orange or green - pick your preference with a complete screwdriver from the Soft Grip Ratcheting Screwdriver System. Perfectly matched combinations of magnetic bit holding shanks and handles means a perfect match to the technician's particular requirements.

### All Handles

- Soft, solvent resistant cover material to provide a positive gripping surface
- "Thumbs up" forward/reverse lever for quick directional changes
- High quality stainless steel shanks with knurling
- Contoured thumb stop at base of handle helps user apply maximum pressure to the fastener
- Smooth ratcheting mechanism
- Use with any SGDMRC series interchangeable blades and shanks
- Ergonomic handle shape provides comfort and control (design patent D421,888)
- Comfort crown of handle cap provides low friction surface for palm while turning

### Standard Handle

- Cap functions as a bit holder when working in tight quarters
- Handle stores up to 10 bits

### 5 Position Soft Grip

- Features 0°, 30° and 60° locking positions at the push of a button (U.S. patent 7,213,491 - Ratcheting Tool; U.S. Patent 7,481,135 - Hand Tool with Adjustable Head)
- Designed for right or left hand operation
- Ergonomic handle shape provides comfort and control (design patent D421,888)
- Cap functions as a bit holder for storage of up to 7 bits
- TransDrive™ ratchet mechanism provides twice the strength of previous mechanism (U.S. Patent 7213491)



### Ratcheting Soft Grip

	Stock No.	Handle	Shank	Flat Tip Bit	Phillips® Bit	C	D
5-Position	SGDMRCE44	SGDMRCE4	SGDMRC1-10	SDM213B	SDM222IRB	2 5/8	8 1/2
Standard	SGDMRC44B	SGDMRC4	SGDMRC4-40	SDM213B	SDM222IRB	3 7/8	9 3/4
Stubby	SGDMRC11A	SGDMRCA1	SGDMRC1-10	—	—	2	4 1/2

Soft grip ratcheting screwdriver features a nonmagnetic, fixed steel shank plus bit ring retainer, making the SGDR44C ideal for FOD, avionic and electronic applications. Includes one flat tip and one Phillips® Bit.



### Handles

Stock No.	Handle	Color	A
SGDMRC1A	Stubby	Red	2 5/8
SGDMRC1AO	Stubby	Orange	2 5/8
SGDMRC1AG	Stubby	Green	2 5/8
SGDMRC4A	Standard	Red	6
SGDMRC4AO	Standard	Orange	6
SGDMRC4AG	Standard	Green	6
SGDMRCE4	5 Position	Red	5 7/8
SGDMRCE4O	5 Position	Orange	5 7/8
SGDMRCE4G	5 Position	Green	5 7/8



SGDMRCE44



SGDMRCE44O



SGDMRCE44G



SGDMRC44B



SGDMRC44BO



SGDMRC44BG



SGDMRC11A



SGDMRC11AO



SGDMRC11AG



SGDMRC1A



SGDMRC4AO



SGDMRCE4G



**WARNING**

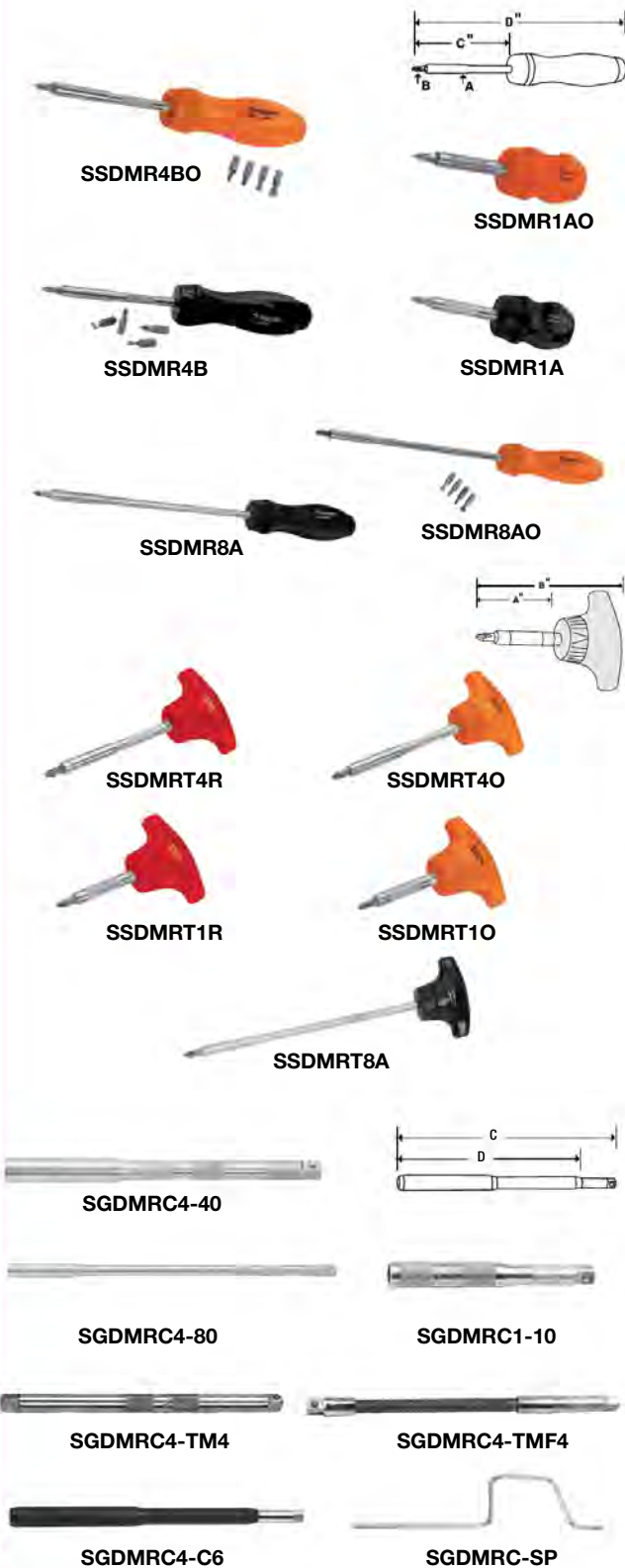


- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages W1 to W4



# SCREWDRIVERS

## Ratcheting/Hard Handle



## Standard Handle

Stock No.	Handle	Color	C	D
SSDMR4B	Standard	Black	3 25/32	8 3/4
SSDMR4BO	Standard	Orange	3 25/32	8 3/4

Stock No.	Handle	Color	C	D
SSDMR1A	Stubby	Black	1 15/16	4 5/16
SSDMR1AO	Stubby	Orange	1 15/16	4 5/16

Includes SDM211B (3/16") and SDM213B (9/32") flat tip bits, SDM221IRB (#1) SDM222IRB (#2) Phillips® ACR® bits and 221, 222 and 223 (#3) Phillips ACR SDM223IRB

**RKSDR1 Service Kit.** Order for servicing all the above drivers.

Stock No.	Handle	Color	C	D
SSDMR8A	Long	Black	7 7/16	12 15/16
SSDMR8AO	Long	Orange	7 7/16	12 15/16

## T-Handle

Stock No.	Handle	Color	A	B
SSDMRT4R	Standard	Red	3 7/8	5 27/32
SSDMRT4O	Standard	Orange	3 7/8	5 27/32

Stock No.	Handle	Color	A	B
SSDMRT1R	Stubby	Red	2	3 15/16
SSDMRT1O	Stubby	Orange	2	3 15/16

Stock No.	Handle	Color	A	B
SSDMRT8A	Long	Black	8	10

Includes the following bit: SDM222IRB #2 Phillips ACR

**RKRSSDMR4AC Service Kit.** Order for servicing all the above drivers.

## Interchangeable Shanks

- Use with handles in the soft grip ratcheting screwdriver system
- Neodymium magnet in shank holds bit securely (U.S. Patent RE36,797)
- 1/4" square drive shanks in standard and flexible styles allow attachment of a wide range of 1/4" drive sockets and accessories

Stock No.	Description	C	D
SGDMRC1-10	Magnetic Bit Holder	3 1/4	2
SGDMRC4-40	Magnetic Bit Holder	5	3 3/4
SGDMRC4-80	Magnetic Bit Holder	9	7 3/4
SGDMRC4-TM4	1/4" Sq. Dr. Shank	5	3 3/4
SGDMRC4-TMF4	Flexible 1/4" Sq. Dr. Shank	6 1/4	5
SGDMRC4-C6	Composite (Nonconductive) Magnetic Bit Holder	7 1/4	6
SGDMRC-SP	1/4" Speeder Shank	13	

## SGDMRC-SP Speeder Shank.

- Ideal for aviation technicians and other applications where accessibility is limited

## Ratcheting/Screwdriver Sets



SGDMRC103A

### Soft Grip Ratcheting Screwdriver Sets

- SGDMRC starter sets include standard handle, medium and long magnetic bit holding shanks plus 2 flat tip bits, 2 Phillips® bits and one Torx® bit to meet most basic job requirements

#### SGDMRC103A Red Ratcheting Screwdriver Set

Stock No.	Description
SGDMRC4	Ratcheting Handle
SGDMRC4-40	Magnetic Shank/Bit Holder
SGDMRC4-80	Magnetic Shank/Bit Holder
SDM211B	3/16" Flat Tip Bit
SDM213B	9/32" Flat Tip Bit
SDM221IRB	#1 Phillips ACR bit
SDM222IRB	#2 Phillips ACR bit
SDMT15D	T15 Torx bit
PB146A	Storage Case

#### SGDMRC103AO Orange Ratcheting Screwdriver Set.

- Same as SGDMRC103A set except has SGDMRC40 orange ratcheting handle

#### SGDMRC103AG Green Ratcheting Screwdriver Set.

- Same as SGDMRC103A set except has SGDMRC4AG green ratcheting handle



SGDMRC108AO

#### SGDMRC108AO Orange Master Ratcheting Screwdriver Set

Stock No.	Description
SGDMRC1	Ratcheting Handle
SGDMRC4	Ratcheting Handle
SGDMRC1-10	Magnetic Shank/Bit Holder
SGDMRC4-40	Magnetic Shank/Bit Holder
SGDMRC4-80	Magnetic Shank/Bit Holder
SGDMRC4-TM4	1/4" Drive Shank
SDM400A	Master Bit Kit
PB146A	Storage Case

#### SGDMRC108A Red Ratcheting Screwdriver Set.

- Same as SGDMRC108AO set except has SGDMRC1A and SGDMRC4A ratcheting handles

#### SGDMRC108AG Green Ratcheting Screwdriver Set.

- Same as SGDMRC108A set except has SGDMRC1AG and SGDMRC4AG green ratcheting handles



DHW1

### Torx Bit Set

#### DHW1 Reversible Ratcheting Bit Wrench (Blue-Point®).

- Overall length: 10.75" (273 mm)
- Low head clearance for access to tight spots
- Internal ring in square drive provides more secure bit retention than magnetic models

Stock No.	Description	Size
SDMTAS15	T15 Torx Bit	5/16" Hex Size
SDMTAS20	T20 Torx Bit	5/16" Hex Size
SDMTAS25	T25 Torx Bit	5/16" Hex Size
SDMTAS27	T27 Torx Bit	5/16" Hex Size
SDMTAS30	T30 Torx Bit	5/16" Hex Size
SDMTAS40	T40 Torx Bit	5/16" Hex Size
SDMTAS45	T45 Torx Bit	5/16" Hex Size

#### SHORTORX Bit Set (Blue-Point®).

Applications:

BMW®: Under dash and sensors in engine compartment.  
 Cadillac®: Water pumps; Cadillac CTS, 3.2 L, 2003-2004/ Cadillac Catera 3.0 L, 1997 to 2001: oil drain plug; Ford® Escort, early model: Door hinge bolts; GM®: Fender applications; Jeep® Cherokee, 1997 to 1998: Door hinge bolts; VW®, prior to 1999: Exterior and interior door hinge bolts.



SGDMRC60

### Interchangeable Blades

- Nonmagnetic blade is ideal for electronic applications

Stock No.	Description	Size	D	Set Contains:	
				SGDMRC60	
SGDMRC4-F7	Flat Tip	7/32	5 1/8	•	
SGDMRC4-F8	Flat Tip	1/4	5 1/8	•	
SGDMRC4-F10	Flat Tip	5/16	5 1/8	•	
SGDMRC4-P1	Phillips Tip	#1	5 1/8	•	
SGDMRC4-P2	Phillips Tip	#2	5 1/8	•	
SGDMRC4-P3	Phillips Tip	#3	5 1/8	•	



SHORTORX



**WARNING**



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages W1 to W4

# SCREWDRIVERS

## Ratcheting Screwdriver Sets



### Magnetic Ratchet and Bit Set

#### TM936SET Magnetic Bit and Ratchet Set.

- Ideal for accessing fasteners in tight areas
- Ratchet in set features magnetic retention for 1/4" hex bits

Includes:

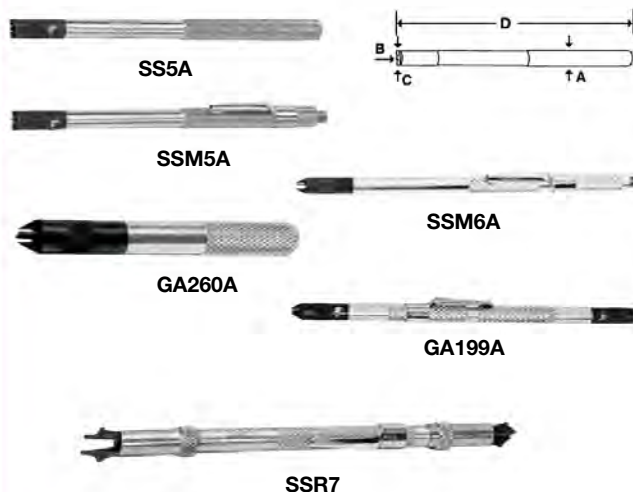
- SDM211B (3/16")
- SDM213B (9/32") flat tip bits
- SDM221IRB (#1) and SDM222IRB (#2) Phillips® ACR® bits
- SDMT15D (T15) Torx® bit

Stock No.			A	B	C	D
TM936SET	30	12	7/16	27/32	1 3/4	4 1/2

#### RKRTM936 Ratchet Repair Kit.

Repair kit for TM936 ratchet.

## Screw and Nut Starters



### Aluminum Starters

- Spring loaded steel bits grip screw slot wall to withstand an 8 lb pull
- Bits release automatically when applied torque reaches a certain level

Stock No.	A	B	C	D
SS5A	5/16	Flat Tip	.032 x 9/32	5
SSM3*	5/16	Flat Tip	.032 x 9/32	2 1/2
SSM5A*	5/16	Flat Tip	.032 x 9/32	5 1/4
SSM6A*	9/32	Phillips	#3	5 1/2
GA260A	9/32	Phillips	#2	2 5/8
GA261B	9/32	Phillips	#3	5 5/8
GA199A	9/32	Combination	.032 x 9/32, #2	5 7/8

\*Aluminum handle with magnet.

### SSR7 Recessed Screw and Nut Starter.

- Round aluminum body with knurled gripping area in center
- Designed to accommodate the most popular sizes of recessed screws: *Torx*, *Socket Head*, *Phillips*, etc.
- Opposite end handles #3, #4, #6, #8 and #10 nuts
- Overall length is 6 3/4"

## Ratcheting Bit Wrenches (Blue-Point®)



### YA480B Right Angle Ratcheting Screwdriver.

Includes one each:

- Flat Tip, #2 *Phillips*, #2 *Pozidriv*® bits

### BTWSMPK Miniature Ratcheting Handle Set.

- Includes:
- BTWSM, BTWOS and BTWROS mini ratcheting handles
  - SDM213B (9/32") flat tip bit
  - SDM213B (9/32") flat tip bit
  - SDM221IRB (#1)
  - SDM222IRB (#2) *Phillips ACR* bits
  - SDMT150D (T15) *Torx* bit



### BTWOSK Miniature Ratcheting Handle Set.

- Includes:
- BTWOS mini ratcheting handle
  - SDM213B (9/32") flat tip bit
  - SDM221IRB (#1)
  - SDM222IRB (#2) *Phillips ACR* bits
  - SDMT150D (T15) *Torx* bit

### BTWS Miniature Ratcheting Handle.

Straight.

### BTWOS Miniature Ratcheting Handle.

25 Offset.



### BTWROS Miniature Ratcheting Handle.

#### 25 Reverse Offset. Miniature Ratcheting Handle Features:

- 72 tooth ratchet engagement with only 5 movement to engage the next tooth
- 25 offset handles help avoid knuckle injuries
- Magnetic holder keeps bits in place

## Nut Drivers



NDDM1070

### Hard Handle, mm

Set Contains:

mm	Stock No.	A*	B	
6	NDDM60	7.5	169.1	•
7	NDDM70	9.1	169.1	•
8	NDDM80	9.9	169.1	•
9	NDDM90	9.9	188.0	•
10	NDDM100	13.1	188.0	•
11	NDDM110	13.1	188.0	•
12	NDDM120	13.1	202	•

\*Socket Length



NDD1070A

### Hard Handle, inches

Set Contains:

TI	Stock No.	Color	A*	B	
1/4	NDD108AR	Red	19/64	6 21/32	•
9/32	NDD109A0	Orange	23/64	6 21/32	•
5/16	NDD110AY	Yellow	23/64	6 21/32	•
11/32	NDD111AG	Green	25/64	6 21/32	•
3/8	NDD112AB	Blue	25/64	7 13/32	•
7/16	NDD114ABR	Brown	33/64	7 13/32	•
1/2	NDD116AR	Red	33/64	7 15/16	•

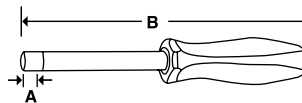
\*Socket Length

### Locking Nut Drivers (Blue-Point®)

- Tools lock onto hex screws
- Great for hose clamp and other hard to reach applications

Set Contains:

Stock No.	Size	Length		
NDL1410	1/4	10	•	
NDL51610	5/16	10	•	
NDLM610	6 mm	10		•
NDLM710	7 mm	10		•



102NDL10

### Ergonomic Soft rip Handle, inches

Set Contains:

TI	Stock No.	Handle Color	Length	
1/2	NDSG12	Red	6 3/8	•
1/4	NDSG14	Red	6 3/8	•
3/8	NDSG38	Red	6 3/8	•
5/16	NDSG516	Red	6 3/8	•
7/16	NDSG716	Red	6 3/8	•
9/32	NDSG932	Red	6 3/8	•



NDSG600

### Ergonomic Soft rip Handle, mm

Set Contains:

mm	Stock No.	Handle Color	Length	
7	NDSGM7	Blue	160	•
8	NDSGM8	Blue	160	•
10	NDSGM10	Blue	160	•
12	NDSGM12	Blue	160	•
13	NDSGM13	Blue	160	•
14	NDSGM14	Blue	160	•



NDSGM600



**WARNING**



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages W1 to W4



# SCREWDRIVERS

## Bit Sets

### Master Bit Set (1/4" Hex) SDM400A Master Bit Kit.

- 37 pc set
- 1/4" hex shank bits
- SDM11 magnetic insert bit holder for quick hex bit changes when using cordless drill or screw gun
- TMS8A 1/4" hex magnetic socket for use with 1/4" drive handles
- MB3042 1/4" power hex to square adaptor

Includes all bits below:



SDM400A

	Stock No.	#
<b>Flat Tip Bit</b>	SDM211B	.031 x .187
	SDM212B	.035 x .219
	SDM213B	.038 x .250
	SDM214C	.046 x .312
	SDM215C	.055 x .375
<b>Hex Bit</b>	SDM2704D	1/16
	SDM2705D	5/64
	SDM2706D	3/32
	SDM2707D	7/64
	SDM2708D	1/8
	SDM2709D	9/64
	SDM2710D	5/32
	SDM2712D	3/16
	SDM2714D	7/32
	SDM2716D	1/4
	<b>Phillips ACR Bit</b>	SDM221IRB
SDM222IRB		#2
SDM223IRB		#3
<b>Torx Bit</b>	SDMT8D	T8
	SDMT9D	T9
	SDMT10D	T10
	SDMT15D	T15
	SDMT20D	T20
	SDMT25D	T25
	SDMT27D	T27
	SDMT30D	T30
	SDMT40D	T40
	<b>Pozidriv ACR Bit</b>	SDM251IRC
SDM252IRB		#2
SDM253IRC		#3
<b>Scrufox Bit</b>	BTS0	#0
	BTS1	#1
	BTS2	#2
	BTS3	#3



SDMC8

### SDMC8 Kit.

- Case is designed to fit the shank of Snap-on® ratcheting screwdriver allowing the tools to be stored together
- Indexable tray has good bit spacing and pivots up to make bit selection/removal easy

Stock No.	Description
SDMC8P	Bit Set, 8 pc Combo Blk
SDMC8H	Bit Set, 8 pc Hex Blk
SDMC8MH	Bit Set, 8 pc Met Hex Blk
SDMC8T	Bit Set, Torx Blk
SDMC8D	Bit Set, Diamond Combo Blk



SDM32KT

### Ball Hex Bit Sets (1/4" Hex)

#### SDM32KT Ball Hex Set (Blue-Point®).

- 1/4" shank bits for use in difficult access applications where fastener cannot be approached straight on
- 32 pc set

	Stock No.	#
<b>Metric</b>	SDMBMH2702	2 mm
	SDMBMH2702.5	2.5 mm
	SDMBMH2703	3 mm
	SDMBMH2704	4 mm
	SDMBMH2705	5 mm
	SDMBMH2706	6 mm
	SDMBMH2707	7 mm
	SDMBMH2708	8 mm
	SDMBMH2709	9 mm
	SDMBMH2710	10 mm
<b>Fractional</b>	SDMBH2706	3/32
	SDMBH2707	7/64
	SDMBH2708	1/8
	SDMBH2709	9/64
	SDMBH2710	5/32
	SDMBH2712	3/16
	SDMBH2714	7/32
	SDMBH2716	1/4
	SDMBH2720	5/16
	SDMBH2724	3/8
<b>Torx</b>	SDMBT10	T10
	SDMBT15	T15
	SDMBT20	T20
	SDMBT25	T25
	SDMBT27	T27
	SDMBT30	T30
	SDMBT40	T40
	SDMBT45	T45
	SDMBT50	T50
SDMBT55	T55	
<b>Bit Holder</b>	SDM13	—
<b>1/4" Fem Hex to 1/4" Fem Sq Dr. Adaptor</b>	TBMS108	—



SDM11KT

### SDM11KT Torx Ball Hex Set (Blue-Point).

- 1/4" shank bits for use in difficult access applications where fastener cannot be approached straight on
- 11 pc set
- All components store in case with belt clip

	Stock No.	#
<b>Torx</b>	SDMBT10	T10
	SDMBT15	T15
	SDMBT20	T20
	SDMBT25	T25
	SDMBT27	T27
	SDMBT30	T30
	SDMBT40	T40
	SDMBT45	T45
	SDMBT50	T50
	<b>Bit Holder</b>	SDM13
<b>1/4" Fem Hex to 1/4" Fem Sq Dr Adaptor</b>	TBMS108	—



YA52PBSQC

### YA52PBSQC Power Bit Set (Blue-Point®).

• Ideal for use with cordless drills and screwdrivers  
Includes:

- 49 1/4" hex shank bits in short and long lengths
- 2 hex adaptors
- Quick change chuck and convenient storage case
- Flat tip bits (Short): 5-6, 6-8, 8-10 (2 each), 10-12
- Flat tip bits (Long): 6-8, 8-10, 10-12
- Hex bits (Short): 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 9/32"
- Hex bits (Long): 5/32, 3/16, 7/32"
- Phillips® tip bits (Short): #1, #2 (2 each), #3
- Phillips tip bits (Long): #1, #2, #3
- Tamper resistant Torx® bits (Short and Long): T10, T15, T20, T25, T27, T30, T40
- Square bits (Short and Long): #1, #2, #3
- Clutch bits (Short and Long): 5/32, 3/16",
- Double end Bits: 6-8 x #2 Phillips, 8-10 x #3 Phillips
- Adaptors: 1/4" hex female to 1/4" hex female, 1/4" hex male to 1/4" square male, 1/4" hex Quick Change Chuck.

All bit quantities shown are (1) each unless otherwise indicated.



SDML19KT

### SDML19KT Long Power Bit Set.

- Includes an assortment of popular sized bits to cover a wide range of applications
  - Helps avoid costly damage to work surface by eliminating chuck contact
- Includes:
- 4 flat tip bits (2) 3" long, (2) 6" long
  - 6 Phillips bits (3) 2 3/4" long, (3) 6" long
  - 8 Torx bits (4) 2 3/4" long, (4) 6" long
  - TMC109A quick change coupler



SDMEXT19K

### SDMEXT19K Adaptor and Bit Set.

- Complete set includes the most popular sizes and lengths of extensions, adaptors and bits
  - 1/4" hex to 1/4" or 3/8" square drives hex to square adaptors for use with sockets (2 and 6" long)
  - Magnetic bit holder for use with insert bits and quick change coupler for use with 1/4" hex power bits
- Includes:
- 3 flat tip
  - 3 Phillips
  - 3 Phillips insert bits
  - 3 Torx power bits

## Screwdriver Bits and Accessories

### Magnetic Insert Bit Holders

#### SDM11.

- For quick hex bit changes when used with electric drill or screw gun
- Magnetic and lock ring bit retention
- 2 7/8" long

#### SDM12.

- Similar to SDM11 but features lock ring retention only
- 1 1/8" long

#### SSDM10A.

- Pocket sized storage system for SDM series bits
- Includes quick change bit holder

#### SSDM28.

- Holds (8) 5/16" and (18) 1/4" hex shank
- 5 clips slide on rail to easily access bit
- Magnets on base of holder for attachment to any ferrous metal surface
- Plastic material helps protect finished surface from scratches



TMBS8A



TMUBS8

### Magnetic Screwdriver Bit Sockets

• For use with standard 1/4" hex SDM series screwdriver bits

Stock No.	Description
TMBS8A	1/4" hex opening, 1/4" drive.
GTMBS8A	1/4" hex opening, 1/4" drive. Black industrial finish.
TMUBS8	1/4" hex opening, 1/4" drive.
FBSM8A	1/4" hex opening, 3/8" drive.



SSDM10A



FBS8



SSDM28



SDM11



CFSSB8

### Screwdriver Bit Sockets

• For use with standard 1/4" hex SDM series screwdriver bits

Stock No.	Description
FBS8	3/8" Drive, Socket for 1/4" Hex Shanks.
FBS9	3/8" Drive, Socket for 5/16" Hex Shanks.
CFSSB8	Insulating universal bit socket. 1/4" hex opening, 3/8" drive.

### Screwdriver Bit Holders

#### TMC109A Quick Change Coupler.

- Use with any 1/4" drive handle
- Spring release shell retracts to accept 1/4" hex power type bits
- Ideal for production situations where positive bit retention is required
- Industrial finish










**WARNING**



- Do not use screwdrivers as prybars, chisels or punches
- Read safety precautions on pages W1 to W4


# SCREWDRIVERS

## 1/4" Hex Shank Bits

	Stock No.	#
 Flat Tip	SDM211B**	.031" x .187"
	SDM212B**	.035" x .219"
	SDM213B**	.038" x .250"
	SDM214C**	.046" x .312"
	SDM215C**	.055" x .375"
 Phillips	SDM221C	#1
	SDM222ZB	#2
	SDM222CZ*	#2
	SDM223C	#3
 Reed & Prince	SDM231A	#2
 Clutch A	SDM242	3/32"
	SDM243	1/8"
	SDM244	5/32"
	SDM245	3/16"
	SDM246	1/4"
	SDM247	5/16"
	SDM248	3/8"
 Clutch G	SDM242G	3/32"
	SDM243G	1/8"
	SDM244G	5/32"
	SDM245G	3/16"
	SDM246G	1/4"
	SDM247G	5/16"
 Hex, inches	SDM2704D**	1/16"
	SDM2705D**	5/64"
	SDM2706D**	3/32"
	SDM2707D**	7/64"
	SDM2708D**	1/8"
	SDM2709D**	9/64"
	SDM2710D**	5/32"
	SDM2712D**	3/16"
	SDM2714D**	7/32"
	SDM2716D**	1/4"
	SDM2720D	5/16"
	SDM2724D	3/8"
	SDMM2702B	2 mm
	SDMM2702.5B	2.5 mm
	SDMM2703B	3 mm
SDMM2704C	4 mm	
SDMM2705C	5 mm	
SDMM2706C	6 mm	
SDMM2708B	8 mm	
SDMM2710B	10 mm	
 Pozidriv	SDM251C**	#1
	SDM252C**	#2
	SDM253C**	#3

\* small profile/narrow tip \*\* included as part of SDM400A Master Bit Set



 **Wobble Bits**  
• Live up to an 18° angle of "wobble"

Stock No.	#
SDMTW8A	T8
SDMTW9A	T9
SDMTW10A	T10
SDMTW15A	T15
SDMTW20A	T20
SDMTW25A	T25
SDMTW27A	T27
SDMTW30A	T30
SDMTW40A	T40
SDMW221A	#1
SDMW222A	#2
SDMW223A	#3



 **Phillips ACR® Installer/Remover**

- Anticamout ribs bite into fasteners and help prevent camout

Stock No.	#
SDM221IRB***	#1
SDM222IRB***	#2
SDM223IRB***	#3

\*\*\* Part of SDM400A Master Bit Set.







 **Pozidriv ACR Installer/Remover**

- Anticamout ribs bite into fasteners and help prevent camout

Stock No.	#
SDM251IRC***	#1
SDM252IRB***	#2
SDM253IRC***	#3

\*\*\*Part of SDM400A Master Bit Set.

	Stock No.	#
 Torx	SDMT6A	T6
	SDMT7A	T7
	SDMT8D**	T8
	SDMT9D**	T9
	SDMT10D**	T10
	SDMT15D**	T15
	SDMT20D**	T20
	SDMT25D**	T25
	SDMT27D**	T27
	SDMT30D**	T30
	SDMT40D**	T40
 Scrulox	BTS0**	#0
	BTS1**	#1
	BTS2**	#2
	BTS3**	#3
 Tri-Wing	BTW0A	#0
	BTW1A	#1
	BTW2A	#2
	BTW3A	#3
	BTW4A	#4
	BTW5A	#5
	BTW6A	#6
 Double Square	BTSS2	#2
	**Part of SDM400A Master Bit Set.	

\*\* Part of SDM400A Master Bit Set

- BTS and BTSS Series bits can be used on recessed double square fasteners used on trailer and RV exteriors
- Bit size varies by application

 **Tamper Resistant Torx**

Stock No.	#
SDMTR8	T8
SDMTR10	T10
SDMTR15	T15
SDMTR20	T20
SDMTR25	T25
SDMTR27	T27
SDMTR30	T30
SDMTR40	T40
SDMTR45	T45
SDMTR50	T50

- Bits SDMTR8 through SDMTR40 are all 1/4", bits SDMTR45 and SDMTR50 are 5/16"

### Diamond Tip Insert Bits

- Diamond particles "bite" into fasteners which minimizes slipping
- Diamond particles are extremely hard for long lasting performance and minimal wear

	Stock No.	#
 <b>Phillips®</b>	<b>SDMD221</b>	#1
	<b>SDMD222</b>	#2
	<b>SDMD223</b>	#3
 <b>Flat Tip</b>	<b>SDMD212</b>	.8 mm/5.5 mm
	<b>SDMD213</b>	1 mm/5.5 mm
	<b>SDMD214</b>	1.2 mm/6.5 mm
 <b>Torx®</b>	<b>SDMDT10</b>	T10
	<b>SDMDT15</b>	T15
	<b>SDMDT20</b>	T20
	<b>SDMDT25</b>	T25
	<b>SDMDT30</b>	T30
<b>SDMDT40</b>	T40	

### Diamond Tip Power Bits


	Stock No.	#
 <b>Power Bit</b>	<b>SDMD321</b>	#1
	<b>SDMD322</b>	#2
	<b>SDMD323</b>	#3

### Mortorq® Bits

- Typically used on aerospace applications
- Low profile head design, high strength torque acceptance and lighter weight

	Stock No.	#
 <b>Mortorq</b>	<b>SDMMT00</b>	#00
	<b>SDMMT0</b>	#0
	<b>SDMMT1</b>	#1
	<b>SDMMT2</b>	#2
	<b>SDMMT3</b>	#3

## Insert Bits

	Stock No.	#	Length
 <b>Torx</b>	<b>SDMTA40</b>	T40	5/16" 1 1/4"
	<b>SDMTA45</b>	T45	5/16" 1 1/4"
	<b>SDMTA50</b>	T50	5/16" 1 1/4"
	<b>SDMTA55</b>	T55	5/16" 1 1/4"



SDMTA55

## 1/4" Hex Shank Bits (Blue-Point®)

### Bit Holder and 1/4" Bits

Stock No.	Description	Size	Stock No.	Description	Size
<b>BLPTMBS1414</b>	Bit Holder (for 1/4" hex bits)	1/4"	<b>BLPTB20TP</b>	Tamper Resistant <i>Torx</i> Bit	T20
<b>BLPTMBS3814</b>	Bit Holder (for 1/4" hex bits)	3/8"	<b>BLPTB25TP</b>	Tamper Resistant <i>Torx</i> Bit	T25
<b>BLPHB18</b>	Hex Bit	1/8"	<b>BLPTB30TP</b>	Tamper Resistant <i>Torx</i> Bit	T30
<b>BLPHB964</b>	Hex Bit	9/64"	<b>BLPFB532</b>	Flat Tip Bit	5/32"
<b>BLPHB532</b>	Hex Bit	5/32"	<b>BLPFB732</b>	Flat Tip Bit	7/32"
<b>BLPHB316</b>	Hex Bit	3/16"	<b>BLPFB932</b>	Flat Tip Bit	9/32"
<b>BLPHB732</b>	Hex Bit	7/32"	<b>BLPFB316</b>	Flat Tip Bit	3/16"
<b>BLPHB14</b>	Hex Bit	1/4"	<b>BLPFB14</b>	Flat Tip Bit	1/4"
<b>BLPHBM3</b>	Metric Hex Bit	3 mm	<b>BLPPB0</b>	<i>Phillips</i> Tip Bit	#0
<b>BLPHBM4</b>	Metric Hex Bit	4 mm	<b>BLPPB1</b>	<i>Phillips</i> Tip Bit	#1
<b>BLPHBM5</b>	Metric Hex Bit	5 mm	<b>BLPPB2</b>	<i>Phillips</i> Tip Bit	#2
<b>BLPHBM6</b>	Metric Hex Bit	6 mm	<b>BLPPB3</b>	<i>Phillips</i> Tip Bit	#3
<b>BLPTB10TP</b>	Tamper Resistant <i>Torx</i> Bit	T10	<b>BLPSQB1</b>	Square Tip Bit	#1
<b>BLPTB15TP</b>	Tamper Resistant <i>Torx</i> Bit	T15	<b>BLPSQB2</b>	Square Tip Bit	#2



BLPTMBS1414



**WARNING**

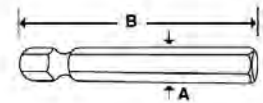



- Do not use bits with impact driver
- Read safety precautions on pages W1 to W4




# SCREWDRIVERS

## Power Bits



	Stock No.	#	TT	A	B
 <b>Flat Tip</b>	<b>SDM311B</b>	.026" x .122"	1/4	.187	1 15/16
	<b>SDM312B</b>	.028" x .134"	1/4	.187	1 15/16
	<b>SDM313B</b>	.032" x .154"	1/4	.187	1 15/16
	<b>SDM314B</b>	.034" x .187"	1/4	.187	1 15/16
	<b>SDM315A</b>	.036" x .215"	1/4	.234	1 15/16
	<b>SDM316A</b>	.038" x .250"	1/4	.234	1 15/16
	<b>SDM317A</b>	.042" x .275"	1/4	.234	1 15/16
	<b>SDM318A</b>	.046" x .312"	1/4	.234	1 15/16
	<b>SDM319A</b>	.050" x .360"	1/4	.234	1 15/16
	<b>SDM411B</b>	.026" x .122"	1/4	.234	3
	<b>SDM412B</b>	.028" x .134"	1/4	.187	3
	<b>SDM413B</b>	.032" x .154"	1/4	.187	3
	<b>SDM414A</b>	.034" x .187"	1/4	.187	3
	<b>SDM415A</b>	.036" x .215"	1/4	.250	3
	<b>SDM416A</b>	.038" x .250"	1/4	.234	3
	<b>SDM417A</b>	.042" x .275"	1/4	.234	3
	<b>SDM418A</b>	.046" x .312"	1/4	.234	3
	<b>SDM419A</b>	.050" x .360"	1/4	.234	3
	<b>SDM511A</b>	.026" x .122"	1/4	.187	3 1/2
	<b>SDM512A</b>	.028" x .134"	1/4	.187	3 1/2
	<b>SDM513A</b>	.032" x .154"	1/4	.187	3 1/2
	<b>SDM514A</b>	.034" x .187"	1/4	.187	3 1/2
	<b>SDM515A</b>	.036" x .215"	1/4	.234	3 1/2
	<b>SDM516A</b>	.038" x .250"	1/4	.234	3 1/2
	<b>SDM517A</b>	.042" x .275"	1/4	.234	3 1/2
	<b>SDM518A</b>	.046" x .312"	1/4	.234	3 1/2
	<b>SDM519A</b>	.050" x .360"	1/4	.234	3 1/2
	<b>SDM614</b>	.034" x .187"	1/4	.187	6
	<b>SDM616</b>	.038" x .250"	1/4	.234	6

	Stock No.	#	TT	A	B
 <b>Phillips ACR® Removal Bits</b>	<b>SDM361RA</b>	#1	1/4	.187	1 15/16
	<b>SDM362RA</b>	#2	1/4	.234	1 15/16
	<b>SDM363RA</b>	#3	1/4	.234	1 15/16


	Stock No.	#	TT	A	B
 <b>Phillips ACR® Installer Bits</b>	<b>SDM361IA</b>	#1	1/4	.187	1 15/16
	<b>SDM362IA</b>	#2	1/4	.234	1 15/16
	<b>SDM363IA</b>	#3	1/4	.234	1 15/16




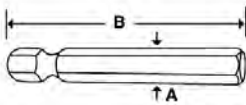
SDM351B

## Pozidriv®, inches

Stock No.	#	TT	A	B
<b>SDM351B</b>	#1	1/4	.187	1 15/16
<b>SDM352B</b>	#2	1/4	.234	1 15/16
<b>SDM353B</b>	#3	1/4	.234	1 15/16
<b>SDM451A</b>	#1	1/4	.187	2 3/4
<b>SDM452A</b>	#2	1/4	.234	2 3/4
<b>SDM453A</b>	#3	1/4	.234	2 3/4
<b>SDM551A</b>	#1	1/4	.187	3 1/2
<b>SDM552A</b>	#2	1/4	.234	3 1/2
<b>SDM553A</b>	#3	1/4	.234	3 1/2
<b>SDM651A</b>	#1	1/4	.187	6
<b>SDM652A</b>	#2	1/4	.234	6
<b>SDM653A</b>	#3	1/4	.234	6

	Stock No.	#	TT	A	B
 <b>Phillips®</b>	<b>SDM220A</b>	#0	1/4		1
	<b>SDM320A</b>	#0	1/4	.125	1 15/16
	<b>SDM321B</b>	#1	1/4	.187	1 15/16
	<b>SDM322B</b>	#2	1/4	.234	1 15/16
	<b>SDM323A</b>	#3	1/4	.234	1 15/16
	<b>SDM421B</b>	#1	1/4	.187	2 3/4
	<b>SDM422B</b>	#2	1/4	.234	2 3/4
	<b>SDM423B</b>	#3	1/4	.234	2 3/4
	<b>SDM521A</b>	#1	1/4	.187	3 1/2
	<b>SDM522A</b>	#2	1/4	.234	3 1/2
	<b>SDM523A</b>	#3	1/4	.234	3 1/2
	<b>SDM621A</b>	#1	1/4	.187	6
	<b>SDM622A</b>	#2	1/4	.234	6
	<b>SDM623A</b>	#3	1/4	.234	6
	<b>SDMA421</b>	#1	5/16	.250	3
	<b>SDMA422A</b>	#2	5/16	.250	3
	<b>SDMA423A</b>	#3	5/16	.296	3
	<b>SDMB422A</b>	#2	7/16	.312	3
	<b>SDMB423A</b>	#3	7/16	.312	3
	<b>SDMB424A</b>	#4	7/16	.375	3
	<b>SDMB522A</b>	#2	7/16	.312	4 1/2
	<b>SDMB523A</b>	#3	7/16	.312	4 1/2
	<b>SDMB524A</b>	#4	7/16	.375	4 1/2
	<b>SDMB622</b>	#2	7/16	.312	6
	<b>SDMB623A</b>	#3	7/16	.312	6
	<b>SDMB624A</b>	#4	7/16	.312	6

	Stock No.	#	TT	A	B
 <b>Torx®</b>	<b>SDMT307A</b>	T7	1/4	.140	1 15/16
	<b>SDMT308A</b>	T8	1/4	.140	1 15/16
	<b>SDMT309A</b>	T9	1/4	.140	1 15/16
	<b>SDMT310A</b>	T10	1/4	.140	1 15/16
	<b>SDMT315A</b>	T15	1/4	.140	1 15/16
	<b>SDMT320A</b>	T20	1/4	.203	1 15/16
	<b>SDMT325B</b>	T25	1/4	.203	1 15/16
	<b>SDMT327A</b>	T27	1/4	.203	1 15/16
	<b>SDMT330A</b>	T30	1/4	.250	1 15/16
	<b>SDMT340A</b>	T40	1/4	.250	1 15/16
	<b>SDMT407</b>	T7	1/4	.140	2 3/4
	<b>SDMT408</b>	T8	1/4	.140	2 3/4
	<b>SDMT409</b>	T9	1/4	.140	2 3/4
	<b>SDMT410</b>	T10	1/4	.140	2 3/4
	<b>SDMT415</b>	T15	1/4	.140	2 3/4
	<b>SDMT420</b>	T20	1/4	.203	2 3/4
	<b>SDMT425</b>	T25	1/4	.203	2 3/4
	<b>SDMT427</b>	T27	1/4	.203	2 3/4
	<b>SDMT430</b>	T30	1/4	.250	2 3/4
	<b>SDMT440</b>	T40	1/4	.250	2 3/4
	<b>SDMT507</b>	T7	1/4	.140	3 1/2
	<b>SDMT508</b>	T8	1/4	.140	3 1/2
	<b>SDMT509</b>	T9	1/4	.140	3 1/2
	<b>SDMT510</b>	T10	1/4	.140	3 1/2
	<b>SDMT515</b>	T15	1/4	.140	3 1/2
	<b>SDMT520</b>	T20	1/4	.203	3 1/2
	<b>SDMT525</b>	T25	1/4	.203	3 1/2
	<b>SDMT527</b>	T27	1/4	.203	3 1/2
	<b>SDMT530</b>	T30	1/4	.250	3 1/2
	<b>SDMT540</b>	T40	1/4	.250	3 1/2
	<b>SDMT607</b>	T7	1/4	.140	6
	<b>SDMT608</b>	T8	1/4	.140	6
	<b>SDMT609</b>	T9	1/4	.140	6
	<b>SDMT610</b>	T10	1/4	.156	6
	<b>SDMT615</b>	T15	1/4	.156	6
	<b>SDMT620</b>	T20	1/4	.187	6
	<b>SDMT625</b>	T25	1/4	.234	6
	<b>SDMT627</b>	T27	1/4	.250	6
	<b>SDMT630</b>	T30	1/4	.250	6
	<b>SDMT640</b>	T40	1/4	.250	6



SDMM3702

Hex, mm

Stock No.	mm	A	B
SDMM3702	2	.09	49.3
SDMM37025	2.5	.11	49.3
SDMM3703	3	.13	49.3
SDMM3704	4	.18	49.3
SDMM3705	5	.22	49.3
SDMM3706	6	.27	49.3
SDMM3707	7	.31	49.3
SDMM3708	8	.36	49.3
SDMM3710	10	.45	49.3



Hex, inches

SDM3704

Stock No.			A	B
SDM3704	1/16	1/4	.07	1 15/16
SDM3705	5/64	1/4	.09	1 15/16
SDM3706	3/32	1/4	.11	1 15/16
SDM3707	7/64	1/4	.12	1 15/16
SDM3708	1/8	1/4	.14	1 15/16
SDM3709	9/64	1/4	.16	1 15/16
SDM3710	5/32	1/4	.18	1 15/16
SDM3712	3/16	1/4	.21	1 15/16
SDM3714	7/32	1/4	.25	1 15/16
SDM3716	1/4	1/4	.28	1 15/16
SDMA4708	1/8	5/16	.14	3
SDMA4710	5/32	5/16	.18	3
SDMA4712	3/16	5/16	.21	3
SDMA4714	7/32	5/16	.25	3
SDMA4716	1/4	5/16	.28	3
SDMA4720	5/16	5/16	.36	3
SDMA4724	3/8	5/16	.43	3

## Awls, Hooks and Picks



SGASA104BR



SGASA204A



SGASA204AO



SGASA204AG

### Awls and Hooks/Soft rip

- Use for scribing, alignment, O-ring removal, piercing holes in leather or fabric and cleaning crevices

Stock No.	Description	Handle Color	Blade Length, inches	Overall Length, inches	Awl and Hook Set
SG4ASABR	Awl	Red	3 3/4	8	•
SG4ASHBR	Hook Tool	Red	3 3/4	8	•
SG5ASABR	Awl	Red	4 3/4	9 5/8	•
SG7ASABR	Awl	Red	5 3/4	10 5/8	•

Set includes storage tray.

### Miniature Awls, Hooks and Picks/Soft rip

- Use for scribing, alignment, O-ring removal, piercing holes in leather or fabric and cleaning crevices
- 3 1/8" blade length, 6" long

Description	Red Handle Stock No.	Orange Handle Stock No.	Green Handle Stock No.			
Mini Awl	SG3ASABR	SG3ASABO	SG3ASABG	•	•	•
Mini Hook	SG3ASHBR	SG3ASHBO	SG3ASHBG	•	•	•
Mini Pick, 45°	SG3ASH45BR	SG3ASH45BO	SG3ASH45BG	•	•	•
Mini Pick, 90°	SG3ASH90BR	SG3ASH90BO	SG3ASH90BG	•	•	•

Sets include storage tray.

### Long Small Size Awls, Hooks and Picks/Soft rip

- Use for scribing, alignment, O-ring removal, piercing holes in leather or fabric and cleaning crevices
- Blade length 8", 9 23/32" overall length

Description	Red	Orange	Green Handle			
Long Mini Awl	SGL3ASA	SGL3ASAO	SGL3ASAG	•	•	•
Long Mini Hook	SGL3ASH	SGL3ASHO	SGL3ASHG	•	•	•
Long Mini Pick, 45° tip	SGL3ASH45	SGL3ASH45O	SGL3ASH45G	•	•	•
Long Mini Pick, 90° tip	SGL3ASH90	SGL3ASH90O	SGL3ASH90G	•	•	•

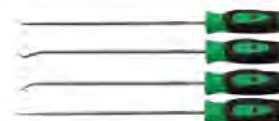
Sets include storage tray.



SGLASA204



SGLASA204O



SGLASA204G



**WARNING**



- Do not use bits with impact driver
- Read safety precautions on pages W1 to W4

# SCREWDRIVERS

## Awls, Hooks and Picks



SGSR104

### Seal Removal Tools/Soft Grip

- Rounded tip with blended radius edge allows easy removal of seals or O-rings while reducing chance of damage to seal or finished surface
- 2 tip configurations and 2 blade lengths handle most seal removal situations
- Industrial black finish blades

#### Applications:

Transmissions, heater and vacuum hoses, oil pump drive shaft seals, injectors and fuel rail O-rings, inner tie rod rack boot and CV boot removal, fork seals and caliper dust boot assemblies on Harley-Davidson® and other motorcycles and steering racks and pumps

Stock No.	Tip Style	Blade Length, inches	Overall Length, inches	Seal Remover Set
SGSR1	Spoon	5 1/4	8	•
SGSR2	Spoon	2 1/2	5 11/32	•
SGSR3	Contoured	2 1/2	5 11/32	•
SGSR4	Contoured	5 1/4	8	•

Set Contains: SGSR104

Set includes storage tray.

### Picks and Scribes (Blue-Point)

#### YA145 Pick Set.

- Includes knurled handle and 4 screw-in picks with different hook configurations
- Clear plastic pouch



YA145

Stock No.	Overall length, inches (assembled to handle)
YA145-1 Straight Tip Pick	7 1/4
YA145-2 O-Ring, 90° Tip Pick	7 1/4
YA145-3 Hook Tip Pick	7 5/16
YA145-4 Angle Tip Pick	7 3/8

#### YA149 Pick and Probe Set.

- Includes (5) 5 1/2" single ended and (2) 7" double ended probes made of tempered stainless steel



YA149

Set Contains: YA145 YA149

Description	Stock No.		
Straight Pick	YA145-1	•	
90° Pick	YA145-2	•	
Hook Pick	YA145-3	•	
Angle Pick	YA145-4	•	
Straight Pick	YA149-1		•
90° Curved Pick	YA149-2		•
45° Flat Pick	YA149-3		•
90° Pointed Pick	YA149-4		•
Double End Short Pick	YA149-5		•
Double End Long Pick	YA149-6		•
Half Circle Pick	YA149-7		•

#### YA338 Scribe.

- One straight end, one end hooked for picking O-rings and small parts



YA338

#### YA339 Scribe.

- One end is straight, the other has a 90° angle for detail work around small objects



YA339



SH6ASA

### Awl/Hard Grip

Stock No.	Blade Length, inches	Overall Length, inches
SH6ASA	4 3/4	6 5/8



PSLR4

PSLR6

### Picks and Scribes/Extra Long (Blue-Point®)

- Use to separate wires, remove small fuses and O-rings, retrieve washers and loose parts too small to pick up with fingers or to mark metal or plastic surfaces
- Heavy duty shank diameter is 0.02" thicker than standard picks for added durability and extended tool life
- Each pick is 9 3/4" (247.7 mm) long

Set Contains: PSLR4 PSLR6

Description	Stock No.		
Hook Pick	PSLR4-1	•	•
90° Hook Pick	PSLR4-2	•	•
Straight Pick	PSLR4-3	•	•
Complex Pick	PSLR4-4	•	•
Combo Pick	PSLR4-5		•
Double Angle Pick	PSLR4-6		•

PSLR4 Extra Long Pick Set. Includes PSLR4-1 to PSLR4-4 (4 pcs) in vinyl storage pouch.

PSLR6 Extra Long Pick Set. Includes PSLR4-1 to PSLR4-6 (6 pcs) in vinyl storage pouch.



PSLR4LT

### Picks and Scribes/Extra Long/Lighted (Blue-Point)

- LED lighted hook and pick set allows easier viewing in dark and hard to reach areas
- Made of durable carbon heat treated steel
- Ergonomic soft grip contoured handle
- Each pick measures 9-3/4 inches long (247.7 mm)
- Push button LED switch on end of handle
- Each pick requires (3) LR41 batteries (included). Replacement battery P/N RSND384392PK (1 battery)

Set Contains: PSLR4LT

Description	Stock No.		
Hook Pick	PSLR4LT-1		•
90° Hook Pick	PSLR4LT-2		•
Straight Pick	PSLR4LT-3		•
Complex Pick	PSLR4LT-4		•



### Heavy Duty/Striking Crown Handle

- Durable crown handle offers protection from off center hammer strikes
- Handle is 10 3/8" long for a comfortable, secure grip (long handle ensures that two hands can fit for high leverage applications)
- Cylindrical design with taper allows user to find a comfortable grip regardless of hand size
- 3/4" square bar manufactured from special alloy steel, precision forged and heat treated for optimum strength and durability
- High leverage flared tip (1 1/8") with precision ground edge
- Handle resists extreme temperatures



SPBH48R

Stock No	Handle Color	Sq. Shank, inches	Tip Width, inches	Length, inches
SPBH30R	Red	3/4	1 1/8	30
SPBH30O	Orange	3/4	1 1/8	30
SPBH30G	Green	3/4	1 1/8	30
SPBH48R	Red	3/4	1 1/8	48
SPBH48O	Orange	3/4	1 1/8	48
SPBH48G	Green	3/4	1 1/8	48
SPBH54R	Red	3/4	1 1/8	54
SPBH54O	Orange	3/4	1 1/8	54
SPBH54G	Green	3/4	1 1/8	54

### Standard Duty/Striking Handle

- Ergonomic shape and contour handle matched to blade length for optimum leverage
- Blade extends through handle and makes contact with end cap to provide solid striking force
- Metal end cap allows hammer striking while reducing chance of damage to handle
- High leverage design with smooth radius head provides maximum leverage when lifting and pulling back
- Blade manufactured from special alloy steel, precision forged and heat treated for strength and durability
- Industrial finish to protect against corrosion



SPBS704R



Stock No.	Color	Sq. Shank, inches	Tip Width, inches	Length, inches	Set Contains:			
					SPBS704	SPBS704R	SPBS704O	SPBS704G
SPBS8	Black	1/4	7/16	8	•			
SPBS8R	Red	1/4	7/16	8		•		
SPBS8O	Orange	1/4	7/16	8			•	
SPBS8G	Green	1/4	7/16	8				•
SPBS12	Black	3/8	5/8	12	•			
SPBS12R	Red	3/8	5/8	12		•		
SPBS12O	Orange	3/8	5/8	12			•	
SPBS12G	Green	3/8	5/8	12				•
SPBS18	Black	7/16	23/32	18	•			
SPBS18R	Red	7/16	23/32	18		•		
SPBS18O	Orange	7/16	23/32	18			•	
SPBS18G	Green	7/16	23/32	18				•
SPBS24	Black	7/16	13/16	24	•			
SPBS24R	Red	7/16	13/16	24		•		
SPBS24O	Orange	7/16	13/16	24			•	
SPBS24G	Green	7/16	13/16	24				•
SPBS36	Black	5/8	1 1/8	36 5/8				
SPBS36R	Red	5/8	1 1/8	36 5/8				
SPBS36O	Orange	5/8	1 1/8	36 5/8				
SPBS36G	Green	5/8	1 1/8	36 5/8				
SPBS42R	Red	5/8	1 1/8	42 1/4				
SPBS42O	Orange	5/8	1 1/8	42 1/4				

#### Standard Pry Bar Handle Colors



**Black**      **Red**      **Orange**      **Green**  
 No Suffix      R      O      G  
 ADD SUFFIX TO STOCK NUMBER FOR SPECIAL COLORS



**WARNING**



• Read safety precautions on pages W1 to W4



# PRYBARS

## Prybars



SPDC18R



MPBS1140O

### Striking/40° Offset Blade

Stock No.	Handle Length, Inches	Exposed Bar Length, Inches	Sq. Shank Inches	Tip Width, Inches	Tip Type
MPBS1140O	5 1/2	5 1/2	3/8	3/8	Straight

#### MPBS1140O Prybar/Brake Tool.

- Strong 3/8" square alloy steel bar with straight tip
- 11" total length with 40° offset ensures access into tight wheel wells
- Large, comfortable, high visibility orange handle with striker cap allows good grip versus small, hard to hold brake adjustment tools
- Ideal for general prybar applications



MPBS703

### Striking/Straight Blade

Stock No	Sq. Shank, inches	Tip Width, inches	Length, inches	
MPBS12	3/8	5/8	12	•
MPBS24	7/16	13/16	24	•
MPBS36	5/8	1 1/8	36 5/8	•

Set Contains: MPBS703



PBN500



PBN1

### Demolition Chisels/Crown Handle

- Exclusive crown handle offers protection from off center hammer strikes
- Handle provides a comfortable secure grip in a variety of environments
- Engineered composite handle offers excellent temperature resistance and bar retention

Stock No.	Handle Color	Hex Shank, inches	Tip Width, Inches	Length, inches
SPDC18R	Red	3/4	1 1/8 Double Edge	18
SPDC18G	Green	3/4	1 1/8 Double Edge	18
SPDC18O	Orange	3/4	1 1/8 Double Edge	18



PBMP36A



PBMP703A

### Multiposition

- Each prybar features 17 incremental angles of 15° to provide great flexibility
- High leverage design with smooth radius head provides maximum leverage when lifting
- Manufactured from special alloy steel, precision forged and heat treated for strength and durability
- Industrial finish helps protect against corrosion

Set Contains: PBMP703A

Stock No.	Tip Width, Inches	Length, Inches	
PBMP8A	1/2	8	•
PBMP12A	5/8	12	•
PBMP16A	5/8	16	•
PBMP24A	1	24	
PBMP36A	1	36	

### Nonmarring Prybars

- Made from tough, reinforced nylon
- Ideal for removing clips, fasteners, molding or gaskets from interior/exterior applications
- Will not damage delicate surfaces unlike metal removal tools
- Lightweight and resistant to most automotive fluids
- Block end allows use with hammer

Set Contains: PBN500

Stock No.	Length	Tip Width	Tip Profile	
PBN1	6 3/4	5/8	Narrow Wedge	•
PBN2	6 3/4	15/16	Wide Wedge	•
PBN3	6 3/4	7/8	Narrow Fork	•
PBN5	6 3/4	1 3/16	Wide Fork	•
PBN7	6 3/4	1 3/8	Flat Fork	•



NPB124B

### Wrecking Bar (Blue-Point®)

- Slotted claw on “gooseneck” end and a chisel configuration on opposite end

Stock No.	Sq. Stock, inches	Length, inches
NPB124B	3/4	24



3260B

### Slate Bar (Blue-Point)

Stock No.	Sq. Stock, inches	Edge, inches	Length, inches
3260B	1	1/2	60



2430C

BLPPB704

### Pinch Bars (Blue-Point)

- Pinch bar has a tapered point on one end and a chisel type edge on the other

Stock No.	Sq. Stock, inches	Edge, inches	Length, inches
1412A	1/2	5/8	14
1658C	1/2	5/8	16
2420A	3/4	15/16	20
2430C	3/4	5/8	30
2438C	3/4	7/8	38
2842C	7/8	1	42

**BLPPB704 Prybar Set.** Includes 1412A (14") and 2420A (20") Pinch Bars, 7031A Close Quarter Bar (16") plus BPPC1878 Flat Chisel (18") (page 184).



UB222PK

### Utility Bars (Blue-Point)

#### UB222PK Miniature Utility Bar.

- 5 3/8" length
- Pack of 10

### Prybar Rack

#### KR294AAPV Hang-On Prybar Rack.

- Hang up to 4 prybars or long tools with handles
- Notched angle plate keeps tools from shifting
- Suspend from roll cab or tool chest with 1/4" or more lip



KR294APV



PBS704

650

### Prybars

- “Rolling head” acts as fulcrum and provides leverage
- Pointed end is useful in many aligning applications

Stock No.	Sq. Stock, inches	Length, inches	Set Contains:
650	5/16	6	•
1250	7/16	12	•
1650	9/16	16	•
2050	11/16	20	•



7030A

### Close Quarter Bars (Blue-Point)

- Powerful leverage where space is at a premium
- Ideal for aligning molds

Stock No.	Sq. Stock, inches	Tip Width, inches	Length, inches
7030A	3/8	7/16	9
7031A	1/2	9/16	16
7032	5/8	3/4	18



7035

### Die Setter Bars (Blue-Point)

- Designed for separating, scraping or prying

Stock No.	Sq. Stock, inches	Tip Width, inches	Length, inches
7035	5/8	7/16	18
7037	3/4	9/16	30



PBHC48

PBHG48

### Heavy Duty

- Bars feature a rubber grip that eliminates contact with rust and damaged surfaces, provides a secure gripping surface under a wide range of conditions and protects the bar from damage during transit
- rip offers a non slip surface that provides a secure gripping surface/leverage, when hands are wet, sweaty or oil covered

Stock No.	Tip Style	Weight, lbs.	Radius Curves, inches	Length, inches	Diameter, inches
PBHG48	1 1/2" Offset Chisel, 2 1/4" Offset Claw	9.5	5 1/8	48	1 Hex
PBHC48	1 1/8" Straight Chisel, 2" Offset Chisel	11.25		48	1 Hex
PBHC60	1 1/8" Straight Chisel, 2" Offset Chisel	14.25		60	1 Hex

PBHC1 - 48" Replaceable rubber grip.



**WARNING**



• Read safety precautions on pages W1 to W4

# PLIERS

## Control, Comfort, Power and Durability are Built In.

All of our pliers and cutters undergo a precision manufacturing process to give you the quality you expect in Snap-on® tools.

**Alloy steel** Snap-on uses its own special alloy steel in every set of pliers and cutters.

**Cold-forged process** Increased strength from top to bottom.

**Joints** Positioned close to the cutting edge, making it much easier to cut heavy wire with less user fatigue.

## Talon Grip™ Series

Diamond serrated jaws provide a better grip and increased pulling power.



Ramped tips provide stronger jaws and increased accessibility.

Longer contoured handle with new joint location provides higher leverage and increased comfort.

Rounded jaw edges minimize nicks to wire when making loops or bends.

## PowerEdge™ Geometry

Tapered blades increase power at the joint to cut thicker wire and provide finesse at the tip for thinner wire.

Slight gap close to joint allows tips to meet perfectly and keeps tips from wearing prematurely during power cuts.

After thousands of cuts through hardened music wire, cutting edges remain aligned and still provide clean and easy cuts.

More cutting surface close to the joint for power cuts.





PL300CF



PLR300



PL400B



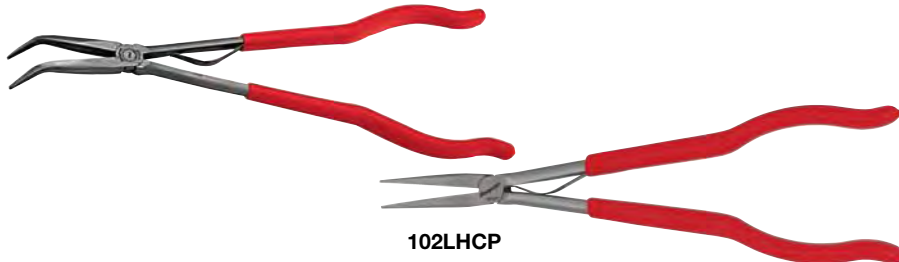
PL6711A



PL803A



PL403A



102LHCP

### Pliers and Cutters Sets

Stock No.	Description	Set Contains:													
		PL300CF	PLR300	PL400B	PL6711A	PL803A	PL403A	102LHCP	PowerEdge™	Talon Grip™	Long Reach				
96CF	Needle Nose Pliers	•		•	•									•	
97CCP	Needle Nose Pliers		•		•										
915CP	Needle Nose Pliers									•					•
415CP	Needle Nose Pliers, 35° Bent Nose									•					•
911BCP	Needle Nose Pliers				•										•
47CF	Combination Slip Joint Pliers	•		•				•						•	
44ACP	Combination Slip Joint Pliers							•							
46ACP	Combination Slip Joint Pliers							•							
91ACP	Adjustable Joint Pliers			•											
57AHL	Lineman's Pliers		•												
86CF	Diagonal Cutters		•					•					•		
87CF	Diagonal Cutters	•		•				•					•		
184CCP	Diagonal Cutters							•					•		

See product details on following pages

Sets include storage tray



**WARNING**

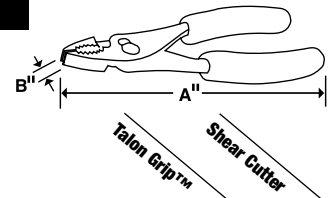


- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages W1 to W4



# PLIERS

## Combination/Lineman's/Adjustable Joint



46ACP



47CF



137CF



HL138ACP



5ACP



57AHLF



AWP45



AWP65



AWP120



AWP160



91ACP



CHN480

### Combination Slip Joint Pliers

- Slip joints for adjustable jaw width

Stock No.	Description	Length, inches (A)	Jaw Thickness, inches (B)		
44ACP	Combination Slip Joint	4 1/2	15/64		
46ACP	Combination Slip Joint	6 7/16	23/64		
47CF*	Combination Slip Joint	8 1/4	7/16	•	
49ACP	Combination Slip Joint	9 1/4	1/2		
137CF*	Heavy Duty Combination Slip Joint	8 3/16	27/64	•	•

\*Third position gives a wider jaw spread for tough to get a hold of jobs

### Special Purpose Pliers

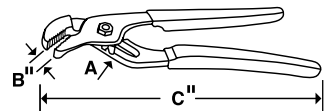
- High Leverage Combination Pliers requires 1/4 the effort normally needed for cutting/gripping
- Midget Pliers with serrated jaws are ideal for extremely small work

Stock No.	Description	Length, inches (A)	Jaw Thickness, inches (B)
HL138ACP	High Leverage Combination	7 7/8	1 1/16
5ACP	Midget Pliers	4 3/4	1/4

### Lineman's Pliers

- Machined cutter heads for perfectly matched blades
- Induction hardened head for extra strength and durability
- ripper teeth behind the head can be a useful crushing area

Stock No.	Description	Length, inches (A)	Jaw Thickness, inches (B)
57AHLF	Lineman s Pliers	7 3/8	1/2
59AHLF	Lineman s Pliers	9 1/4	1/2



### Tongue and Groove Pliers

- Special tongue and groove design that assures nonslip jaw action
- Unique fastener system inhibits side to side jaw wobble for added strength and smoother operation

Set Contains:

Stock No.	Jaw Type	Max. Jaw Positions (A)	Parallel Opening, inches (B)	Length, inches (C)	
AWP45	Straight Serrated	3	1/2	4 3/4	•
AWP65	Straight Serrated	5	7/8	7	•
AWP120	Straight Serrated	7	2 3/16	12 3/4	•
AWP160	Straight Serrated	8	3 13/16	16 3/4	•
CHN410*	Parrot	5	1 1/2	10 1/8	

\*(Blue-Point®)

Set shown includes storage tray



CHN410

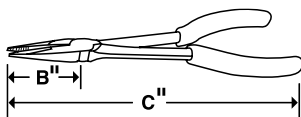
### Standard Pliers

- Specially hardened jaw teeth provide long life and a solid grip on work objects
- Vinyl covered handles for a secure, comfortable grip

Stock No.	Finish	Max. Jaw Positions (A)	Parallel Opening, inches (B)	Length, inches (C)
91ACP	Industrial	5	1 3/8	9 1/4
CHN480*	Nickel-Chrome	11	5 1/2	20

\*(Blue-Point)

## Needle Nose/Long Reach/Special Purpose



### Needle Nose Pliers

- Rounded jaw edges minimize nicks to wire when making loops or bends
- Jaw tips are perfectly aligned and feature machined teeth for precise gripping strength with positive control

Stock No.	Description	Jaw Length, inches (B)	Length, inches (C)	
95BCP	Standard	1 11/16	6	
96CF	Standard	2 1/4	8	•
196CF*	With Cutter	2 1/4	8	•
196NCF*	With Pin Puller, Cutter and Fastener Turning Jaw	2 1/4	8	•
97CCP	Long, Slim Jaw	3 3/16	8	
597CCP	Pin Gripping Jaws - Matched Parallel and Cross Grooves	3 3/16	7 15/16	

\*Rated to cut .049" diameter music wire

Talon Grip™

### Long Reach Pliers

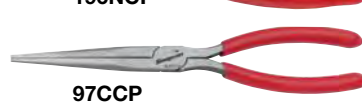
- Long, slim jaws and flush riveted joints for increased reach into recessed areas
- Ideal for electric and electronic work, holding pins or small components

Stock No.	Description	Jaw Length, inches (B)	Length, inches (C)
911BCP	Long Handle	3 3/16	11
915CP	Long Handle	3 1/2	14 1/2
415CP	Long Handle / 35° Bent Nose	2 7/8	14 5/16
411BCP	35° Bent	2 7/8	10 7/8

### Special Purpose Pliers

- Bent Nose Pliers - Angled jaws for better access to hard to reach areas
- Pistol Grip - Angled handle for access to hard to reach areas
- Duck Bill - Specially designed for electronics work

	Stock No.	Description	Jaw Length, inches (B)	Length, inches (C)
Bent	497CCP	90° Angle	2 5/8	6 5/8
	490BCP*	90° Bent	1 7/8	9 3/4
	408ACP	35° Mini Bent	1 1/2	7 7/8
Straight	908ACP	Mini	1 5/8	8 1/8
Pistol Grip	612AEP	Pistol Grip	1 3/8	9 3/4
	912AEP	Pistol Grip	2 1/8	10 5/8
Duck Bill	609ACP	3/8" Jaw Width	1 3/8	9 1/4
	61ACP	15/32" Jaw Width	1 5/16	7 3/4



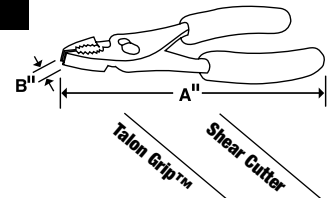
**WARNING**



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages W1 to W4

# PLIERS

## Combination/Lineman's/Adjustable Joint



46ACP



47CF



137CF



HL138ACP



5ACP



57AHLF



AWP45



AWP65



AWP120



AWP160



91ACP



CHN480

### Combination Slip Joint Pliers

- Slip joints for adjustable jaw width

Stock No.	Description	Length, inches (A)	Jaw Thickness, inches (B)		
44ACP	Combination Slip Joint	4 1/2	15/64		
46ACP	Combination Slip Joint	6 7/16	23/64		
47CF*	Combination Slip Joint	8 1/4	7/16	•	
49ACP	Combination Slip Joint	9 1/4	1/2		
137CF*	Heavy Duty Combination Slip Joint	8 3/16	27/64	•	•

\*Third position gives a wider jaw spread for tough to get a hold of jobs

### Special Purpose Pliers

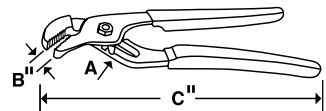
- High Leverage Combination Pliers requires 1/4 the effort normally needed for cutting/gripping
- Midget Pliers with serrated jaws are ideal for extremely small work

Stock No.	Description	Length, inches (A)	Jaw Thickness, inches (B)
HL138ACP	High Leverage Combination	7 7/8	1 1/16
5ACP	Midget Pliers	4 3/4	1/4

### Lineman's Pliers

- Machined cutter heads for perfectly matched blades
- Induction hardened head for extra strength and durability
- ripper teeth behind the head can be a useful crushing area

Stock No.	Description	Length, inches (A)	Jaw Thickness, inches (B)
57AHLF	Lineman's Pliers	7 3/8	1/2
59AHLF	Lineman's Pliers	9 1/4	1/2



### Tongue and Groove Pliers

- Special tongue and groove design that assures nonslip jaw action
- Unique fastener system inhibits side to side jaw wobble for added strength and smoother operation

Set Contains:

AWP404

Stock No.	Jaw Type	Max. Jaw Positions (A)	Parallel Opening, inches (B)	Length, inches (C)	
AWP45	Straight Serrated	3	1/2	4 3/4	•
AWP65	Straight Serrated	5	7/8	7	•
AWP120	Straight Serrated	7	2 3/16	12 3/4	•
AWP160	Straight Serrated	8	3 13/16	16 3/4	•
CHN410*	Parrot	5	1 1/2	10 1/8	

\*(Blue-Point®)

Set shown includes storage tray



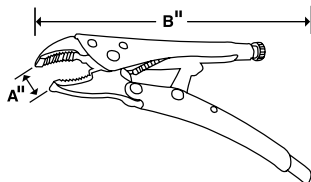
CHN410

### Standard Pliers

- Specially hardened jaw teeth provide long life and a solid grip on work objects
- Vinyl covered handles for a secure, comfortable grip

Stock No.	Finish	Max. Jaw Positions (A)	Parallel Opening, inches (B)	Length, inches (C)
91ACP	Industrial	5	1 3/8	9 1/4
CHN480*	Nickel-Chrome	11	5 1/2	20

\*(Blue-Point)



### LP Series

- Spring loaded release lever allows quick “no-pinch” release
- Locking nut secures jaw opening for repeat jobs
- Larger jaw capacity to hold larger objects
- Jaws feature greater surface area and broader teeth for more secure gripping



LP404

Set Contains: LP404

Stock No.	Description	Jaw Capacity, inches (A)	Length, inches (B)		
LP5SLIM	Thin Curved Jaw	1 5/32	5		
LP7SLIM	Thin Curved Jaw	1 5/8	7		
LP5WR	Curved Jaw w/cutter	1 5/32	5	•	
LP6LN	Long Nose	2 1/8	6	•	
LP7WR	Curved Jaw w/cutter	1 5/8	7	•	
LP10WR	Curved Jaw w/cutter	2 7/16	10	•	
LP7R	Straight Jaw	1 5/8	7		
LP10R	Straight Jaw	2 7/16	10		
LP10LN	Long Nose	2 3/4	10		
LP10GRV	10" Grooved Joint Locking Pliers	1 5/8	10		



LP5SLIM



LP7SLIM



LP6LN



LP10WR



LP10GRV



A V groove houses round objects, preventing lateral movement.

### LP5SLIM, LP7SLIM Locking Pliers.

- Use for removal of socket style sway bar links
- Thinner jaws fit between stabilizer bar and stabilizer link to allow a socket to be used for nut removal
- LP7SLIM Applications: 2002-2004 Dodge® Caravans, Chrysler® Town and Country and any other vehicles with nongreaseable sway bar links

### LP10GRV Grooved Jaw Locking Pliers.

- Longitudinal V groove section provides 3 points of contact preventing lateral movement while working
- Specially tapered groove means the larger the work piece, the larger the groove section that holds it
- Convex tooth section of mobile jaw pushes flat work pieces against the large, flat fixed jaw for tighter clamping
- Recessed area of mobile jaw allows angled objects to be held and clears small obstacles
- Serrated milled teeth provide a positive grip on different shaped objects



BLP404



BSGLP404

### Locking Pliers (Blue-Point®)

- Made from high grade, heat treated steel alloys, the hardened precision ground jaws “lock” onto work pieces that are tough to hold
- Adjusting screws ensure fine adjustments for precise gripping
- Soft grip series improves comfort while resisting damage from oil and grease

Set Contains: BSGLP404 BLP404

Stock No.	Description	Grip Style	Jaw Capacity, inches (A)	Length, inches (B)		
BLP5	Curved Jaw	Standard	1.125	5	•	
BLP7	Curved Jaw	Standard	1.625	7	•	
BLP10	Curved Jaw	Standard	1.875	10	•	
BLP6LN	Long Nose	Standard	2.25	6	•	
BSGLP5	Curved Jaw	Soft	1.125	5		•
BSGLP7	Curved Jaw	Soft	1.625	7		•
BSGLP10	Curved Jaw	Soft	1.875	10		•
BSGLP6LN	Long Nose	Soft	2.25	6		•



BLP7



BSGLP6LN



**WARNING**



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages W1 to W4



## Retaining Ring

0 Jaw Angle Series



SRPC4700

45 Jaw Angle Series

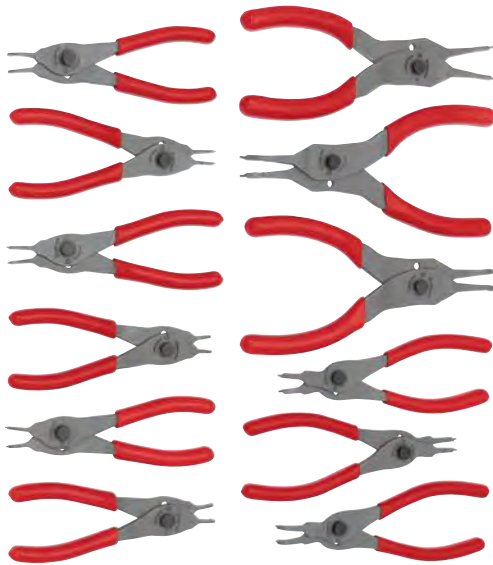


SRPC3845

90 Jaw Angle Series



SRPC3890



SRPC112

### Fixed Tip/Convertible, Forged Pliers

- Longer 45° and 90° jaws make it easier to access hard to reach snap ring
- Pivot screw converts from internal to external
- Wide cushion grip provides more comfort and control

Stock No.	Length, inches	Ring Size Range, inches	Jaw Angle	Tip Diameter, inches	Set Contains:		
					SRPC112	SRPC107	SRPC105
SRPC3800	6 7/16	1/8 - 1	0	.038	•	•	•
SRPC4700	6 7/16	3/16 - 1 3/8	0	.047	•	•	•
SRPC7000	7 7/16	7/16 - 2	0	.070	•	•	•
SRPC9000A	8 3/4	1 1/2 - 3 1/2	0	.090	•		
SRPC3845	6 7/16	1/8 - 1	45	.038	•		
SRPC4745	6 7/16	3/16 - 1 3/8	45	.047	•		
SRPC7045	7 7/16	7/16 - 2	45	.070	•	•	
SRPC9045A	8 3/4	1 1/2 - 3 1/2	45	.090	•	•	
SRPC3890	6 7/16	1/8 - 1	90	.038	•		•
SRPC4790	6 1/2	3/16 - 1 3/8	90	.047	•		
SRPC7090	7 1/2	7/16 - 2	90	.070	•	•	•
SRPC9090A	8 3/4	1 1/2 - 3 1/2	90	.090	•	•	

ASME®/ANSI® B107.500

Sets shown include storage tray



PRH406

### Fixed Tip/Convertible Pliers

Unique dial feature eliminates the need to take apart pliers when changing from internal to external.

Stock No.	Length, inches	Ring Size Range, inches	Jaw Angle	Tip Diameter, inches	Set Contains:
					PRH406
PRH12	5 3/4	1/8 - 1	18°	.038	•
PRH32	6	5/16 - 1 3/8	18°	.047	•
PRH34	7 1/2	7/16 - 2	18°	.070	•
PRH129	5 3/4	1/8 - 1	90°	.038	•
PRH329	5 7/8	5/16 - 1 3/8	90°	.047	•
PRH349	7 1/2	7/16 - 2	90°	.070	•

ASME/ANSI B107.500

Sets shown include storage tray

## Retaining Ring (Blue-Point®)



PR36



PRH502A



PRH503



PR50A



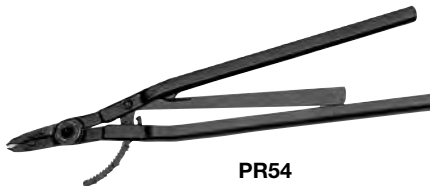
PRH57A



PR8



PR7



PR54

### Interchangeable Tip/Convertible Pliers

Internal	External	Length, inches	Ring Size Range, inches	Tip Kit Included	Tip Sizes Included inches/Degree	Optional Kits	Optional Tip Sizes	Set Contains:				
								PR36	PRH502A	PRH503	PR50A	
PR37		6 1/4	3/8 - 2	PR5 (For PR36 only)	2 pair each in PR36 set: .047" 0°, .070" 0°, .047" 45°, .039" 90°	PR5	.047" 0°, .070" 0°, .047" 45°, .039" 90°	•				
	PR38	6 1/4	1/4 - 2			PR5	.047" 0°, .070" 0°, .047" 45°, .039" 90°	•				
PRH56A (Convertible)		6 3/8	Internal 1/4 - 1 External 1/8 - 1	PRH56A-1	1 pair each: .023" 0°, .036" 0°, .047" 0°, .036" 90°, .047" 90°				•	•		
PRH57A (Convertible)		8	Internal 3/8 - 2 External 1/4 - 2	PRH57A-1	1 pair each: .036" 0°, .047" 0°, .070" 0°, .036" 90°, .047" 90°				•	•		
PRC65A (Convertible)		10	Internal 1 13/64 - 4 External 1 1/3 - 4	PRC65A-1	1 pair each: .090", .108", .120" (15° and 90°)					•		
PR51		9 1/2	2 7/16 - 4	PR502	.108", 15°	PR501	.108", 0°					•
				PR503	.108", 45°	PR504	.108", 90°					
	PR52	9 1/2	1 1/2 - 3 11/32	PR507	.120", 45°	PR505	.120", 0°					•
				PR508	.120", 90°	PR506	.120", 15°					
PR7		15 11/16	3 1/16 - 6 1/4	PR7-1	.120", 0°	PR7-2	.120", 45°					
						PR7-3	.120", 90°					
	PR8	15 11/16	3 1/16 - 6 1/4	PR7-1	.120", 0°	PR7-2	.120", 45°					
						PR7-3	.120", 90°					
PR54		29	6 1/2 - 10	PR54-1	.150", 0°	PR54-2	.150", 45°					
						PR54-3	.150", 90°					
	PR53	19	6 1/2 - 10	PR53-1	.170", 0°	PR53-2	.170", 45°					
						PR53-3	.170", 90°					

PR36 Set includes PR5 tip kit. Individual PR37 and PR38 units do not include tips and require PR5 tip kit.  
 PR51 and PR52 work with tip kits PR501 through PR508  
 PRH503-1 Replacement Case for PRH503



**WARNING**



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- Read safety precautions on pages W1 to W4

# PLIERS

## Electronic Service



E700BCG



E703BCG



E704BCG



E708BCG



E712BCG



E713BCG



E715BCG



E718BCG



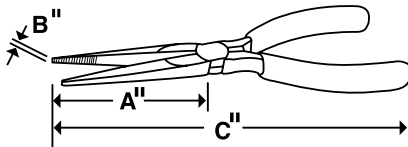
E721BCG



E770BCG



E790BCG



- Spring jaw opening
- Cutter models have a small hole at the base of the blades to relieve pressure on the cutting edges
- Innovative cushion grip handles result in a very comfortable, yet durable handle grip

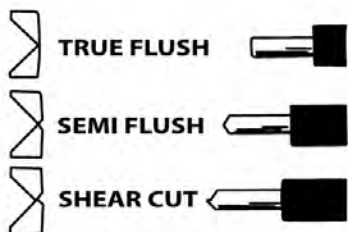
*Snap-on manufactured pliers with plastisol or cushion grip handles meet the electrostatic discharge (ESD) specifications in MIL-B-81705B, IS-5, and NFPA-56A.*

### E Series Pliers

Stock No.	Description	Jaw Length, inches (A)	Tip Width, inches (B)	Length, inches (C)
E700BCG	Round Wire Looper Jaws Taper from $\frac{3}{16}$ to $\frac{1}{32}$ "	1	$\frac{1}{16}$	$6 \frac{1}{8}$
E703BCG	Long Serrated Jaws	$2 \frac{3}{16}$	$\frac{1}{16}$	$6 \frac{9}{16}$
E704BCG	Angled (45°) Serrated Jaws	$2 \frac{1}{4}$	$\frac{1}{16}$	$6 \frac{5}{8}$
E708BCG	Short Nonserrated Jaws	$\frac{13}{16}$	$\frac{1}{16}$	$5 \frac{15}{16}$
E712BCG	Serrated Jaws	$1 \frac{11}{16}$	$\frac{1}{16}$	$6 \frac{1}{8}$
E713BCG	Short Serrated Jaws	$\frac{7}{8}$	$\frac{1}{16}$	$4 \frac{5}{8}$
E715BCG	Extra Slim Serrated Jaws	$1 \frac{3}{16}$	$\frac{1}{16}$	$5 \frac{1}{8}$
E718BCG	Curved (70°) Serrated Jaws	$1 \frac{1}{8}$	$\frac{1}{16}$	$5 \frac{9}{16}$
E721BCG	Extra Slim Nonserrated Jaws	$1 \frac{23}{32}$	$\frac{1}{16}$	$6 \frac{7}{8}$
E770BCG	Needle Thin Serrated Jaws	$1 \frac{1}{8}$	$\frac{1}{32}$	5
E790BCG	Flat Nose Nonserrated Jaws	1	$\frac{1}{16}$	$6 \frac{1}{8}$

Pliers in this chart use the **E74X1** Coil Replacement Spring.

## Electronic Service Cutters



**TRUE FLUSH**



**True Flush** ground blades cut wire ends flat and allow protruding wire ends to be trimmed flush.

**SEMI FLUSH**

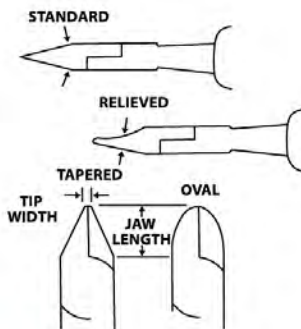


**Semi Flush** ground blades cut slightly pointed wire ends and can be used where an exact flush cut is not required.

**SHEAR CUT**



**Shear Cut** ground blades (on standard cutters) are designed for general cutting with less hand pressure and extended blade life.



**Head Shapes** Always select a cutter with the largest head that will meet your requirement. The oval head design has more material behind the cutting edges and gives the longest tool life.



### Cutters (E Series)

Stock No.	Cut	Head Style	Cutting Capacity	Tip Width, inches	Cutting Edge Length, inches	Length, inches
E706BCG	True Flush	End Cut	AWG #19	1/16	15/32	5 7/8
E707BCG	True Flush	Tapered	AWG #17	1/16	7/16	4 3/8
E709BCG	True Flush	Tapered	AWG #17	1/16	7/16	4 7/16
E710BCG*	True Flush	Tapered	AWG #12	3/32	11/16	5 3/16
E711BCG	Semi Flush	Tapered	AWG #16	3/16	7/16	5 3/4
E719BCG	True Flush	Tapered	AWG #17	1/16	7/16	6 3/8
E740BCG	True Flush	Oval	AWG #16	1/16	7/16	5 3/4
E742BCG	True Flush	Oval	AWG #16	1/16	7/16	5 3/4

These cutters use the **E74X1** Replacement Spring

\*E710BCG uses **E71XL1** Replacement Spring



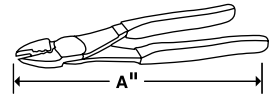
**WARNING**



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages W1 to W4



## Wire Tools



29CF

### Crimpers

#### 29CF Cold Forged Wire Terminal Crimping Tool.

- Cold formed heat treated rivet for smooth action and long life
- Precision machined joint and cutting edges, hardened wire cutter with Knife to Anvil design, never needs sharpening

Stock No.	Description	Length, inches (A)	Crimps
29CF	Terminal Crimping Pliers with Cutter	9 3/8	10, 12, 14, 16, 18, 20, 22 AWG Insulated and Noninsulated.



PWC57

### Wire Stripper/Cutter/Crimper

Stock No.	Description	Length, inches (A)	Strips AWG Sizes
PWC57	Wire Stripper/Cutter/Crimper	6 3/4	12, 14, 16, 18, 20
PWC59	Wire Stripper/Cutter/Crimper/Bolt Cutter	8 3/4	AWG20 to 10 (stranded wire), AWG16 to 8 (solid wire)



PWC59

#### PWC57 Wire Stripper/Cutter/Crimper.

- Unique smaller wire stripper/crimper that strips 12, 14, 16, 18, and 20 gauge insulated wire
- Crimps insulated and bare wire connectors
- Wire cutter in the jaw and handle
- Ideally suited for work in confined areas such as under dash or within electrical service enclosures

#### PWC59 Wire Stripper/Cutter/Crimper/Bolt Cutter.

- Cold forged from special alloy steel and induction heat treated for superior performance and durability
- Bi-molded, soft grip handle provides comfort and helps reduce fatigue
- Pliers tip for grabbing or pulling wire
- Cuts #6 and #8 soft bolts
- Crimps both insulated and non insulated terminals
- Includes shears in throat area for general cutting applications



PWC30

### Crimpers (Blue-Point®)



PWC47

Stock No.	Description	Length, inches (A)	Crimps
PWC30	Terminal Crimping Pliers with Cutter	10 1/4	10, 12, 14, 16, 18, 20, 22 AWG Insulated and Noninsulated.
PWC47	Computer/Sensor Terminal Crimping Tool	8	Open barrel and weather-pack terminals 14 to 24 AWG

### Ratcheting Crimpers (Blue-Point)

#### PWC48 Ratcheting Crimper Kit.

- Versatile quick change jaw system allows work on many kinds of terminals
- Exclusive patented quick installation for easy jaw change, no tools required
- Jaws are precision investment casting made of AISI 4140 alloy steel
- Easy adjustment for changing the pressure of the crimp

#### PWC48NJ Ratcheting Crimper.

Ratcheting crimper without jaw set.

#### PWC48-1 Crimping Jaw Set.

Jaw Set A. Use on Insulated 10-22 connectors.

#### PWC48-2 Crimping Jaw Set.

Jaw Set B. Use on noninsulated 8-20 connectors.

#### PWC48-3 Crimping Jaw Set.

Jaw Set C. Use on Open Barrel 10-20 connectors.

#### PWC48-4 Crimping Jaw Set.

Jaw Set H. Use on Open Barrel D-Sub connectors.



PWC48

#### PWC34 Crimping Tool (Blue-Point).

- Double compound action with ratchet control for almost effortless operation
- Use with insulated connectors on 10 to 22 gauge wire
- Easy, efficient, single squeeze crimping of modular connectors



PWC34

#### PWC39 Cable Slitter (Blue-Point).

- Slits and removes insulation on single or multiple conductor cables up to 1.25" OD
- Adjustable blade allows for varying insulation thickness up to .187"
- Lightweight, fiberglass reinforced nylon body
- Extra blade in handle. 5 1/4" long



PWC39

**PWC39-1 Replacement Blade.** Replacement blade for PWC39.

#### PWC80A Cable Cutter (Blue-Point).

- For cutting battery cables and other soft metal cables
- Vinyl covered handles
- 7 1/2" long



PWC80A

#### PWC52A Connector Pliers (Blue-Point).

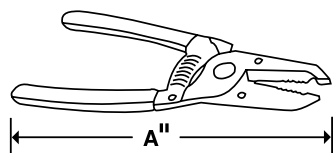
- For gripping round and irregularly shaped objects such as cannon plugs or plated pipe
- Range is 3/4 to 2 1/2"
- 9 3/4" long



PWC52A

**PWC52A1 Vinyl Jaw Inserts.** For PWC52A (set of 2).  
**PWC52A2L Replaceable Hinge Bolt.** For PWC52A.

## Wire Tools (Blue-Point®)



PWC12A



PWC28A



PWC14



PWC16A



PWC27



PWC42



PWC24



PWC5



PWC8



PWC19



PWC6



PWC22A

### Strippers/Cutters/Crimpers

Stock No.	Description	Length, inches (A)	Strips AWG Sizes	Strips Metric Sizes, mm	Application	Replacement Blades
PWC12A	Wire Stripper/Cutter/Crimper	9 1/2	10, 12, 14, 16, 18	10-18 Insulated and Noninsulated 7-8 mm Ignition Terminals		
PWC28A	Wire Stripper/Cutter/Crimper/Bolt Cutter	8 1/4	10, 12, 14, 16, 18, 20, 22 Stranded, 8, 10, 12, 14, 16, 18 Solid	10-22 Noninsulated Terminals and Crimp Sleeves		
PWC14	Wire Stripper/Cutter/Crimper/Bolt Cutter	8 3/4	10, 12, 14, 16, 18, 20, 22	10-22 Insulated and Noninsulated 7-8 mm Ignition Terminals		
PWC16A	Wire Cutter/Stripper	5	10-18	Adjustable	Strips PVC, THHN, and THWN	
PWC27	Automatic Wire Stripper	6 1/4	10, 12, 14, 16, 18, 20, 22		Strips PVC, THHN, and THWN	PWC27-7
PWC42	Automatic Wire Stripper	5 1/2	16, 18, 20, 22	1.5, 1.0, .5, .42	Cotton Coated PVC Wire, and Silicone Coated Wire	PWC42-17
PWC24	Automatic Wire Stripper	6 1/4	16, 18, 20, 22, 24, 26		Strips Teflon Type E Wire	PWC24-1
PWC5	Mini Wire Cutter/Stripper	5 1/16	26-14		Copper Wire	
PWC8	Wire Stripper/Cutter	5 7/8	14 to 10 AWG			
PWC19	Micro Shear Wire Cutters	5 1/8	Up to 20	Up to .80		
PWC6	Wire Stripper/Cutter/Pliers	6	10, 12, 14, 16, 18, 20	2.6, 2.0, 1.6, 1.3, 1.0, .80	Strips PVC, THHN, and THWN	
PWC22A	Automatic Wire Stripper with Cutter	7 1/4	12, 14, 16, 18, 20		Strips PVC, THHN, and THWN	



**WARNING**



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages W1 to W4

# PLIERS

## Pliers and Cutters (Blue-Point®)



BDGAWP100



BDG48CP



BDG98CP



BDG9845CP



BDG57CP



BDGEC7



BDG86CP



BDG88CP



B48CP



B58HLP



BAWP100



B87CP



B45CMP



B65CMP



B75CMP



B85CMP



B85CTMP



B945CMP



B95CMP



B95CLMP



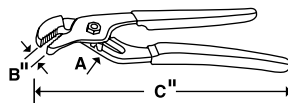
B960CMP



BMPEC5



AP10



### Dipped Grips

Set Contains:

BDGPL800

Stock No.	Description	Jaw Length, inches	Length, inches	
BDGAWP100	Adjustable Joint Pliers	1 3/4	10	•
BDG48CP	Slip Joint Pliers	1 27/32	8	•
BDG98CP	Long Needle Nose Pliers	3	8	•
BDG9845CP	45° Bent Needle Nose Pliers	2 13/16	7 3/4	•
BDG57CP	Lineman's	1 1/4	7 1/2	•
BDGEC7	End Cutter	7/16	7	•
BDG86CP	Diagonal Cutter	21/32	6 1/2	•
BDG88CP	Diagonal Cutter	15/16	8 1/8	•



B96CP

### Standard

Set Contains:

BPL501

Stock No.	Description	Jaw Length, inches	Length, inches	
B48CP	Slip Joint Pliers	2 3/32	8 13/32	•
B58HLP	Lineman's Pliers	1 1/2	8 31/32	•
B96CP	Needle Nose Pliers	2 1/32	6 5/16	•
BAWP100	Adjustable Joint Pliers	1 3/8	10 5/32	•
B87CP	Diagonal Cutters	31/32	6 19/32	•

### Miniature

Set Contains:

BMP1000

Stock No.	Description	Jaw Length, inches	Length, inches	
B45CMP	Combination Pliers	1	4 11/16	•
B65CMP	Duck Bill Pliers	1 5/32	4 7/8	•
B75CMP	Round Nose Pliers	1 5/32	5	•
B85CMP	Diagonal Cutter	21/32	4 11/32	•
B85CTMP	Thin Diagonal Cutter	23/32	4 5/8	•
B945CMP	45° Bent Needle Nose Pliers	1	4 11/16	•
B95CMP	Long Nose Pliers	1 1/8	4 7/8	•
B95CLMP	Long Needle Nose Pliers	2 1/16	5 25/32	•
B960CMP	60° Bent Needle Nose Pliers	15/16	4 11/16	•
BMPEC5	End Cutter	5/16	4 1/32	•

Sets shown include storage tray

### Adjustable Joint

Stock No.	Description	Max. Jaw Positions (A)	Parallel Opening, inches (B)	Length, inches (C)
AP7	Adjustable Joint	9	1 1/2	7
AP10	Adjustable Joint	11	1 3/4	10

## Pliers and Cutters (Blue-Point®)

### Long Reach Miniature

Set Contains:

BDGPL400LMP

Stock No.	Description	Jaw Length, Inches	Length, Inches	
BDG96LMP	Long Nose Pliers	1 5/16	6	•
BDG97LMP	Needle Nose Pliers	2 13/32	7	•
BDG9645LMP	45° Bent Nose Pliers	1 7/32	6	•
BDG86LMP	Diagonal Cutting Pliers	3/4	5 1/2	•



BDGPL400LMP

### Long Reach Compound Joint

Set Contains:

303DJCP

Stock No.	Description	Jaw Length, Inches	Length, Inches	
913DJBCP	45° Bent Nose Pliers	2 5/8	12 3/4	•
913DJCP	Needle Nose Pliers	2 3/4	13	•
613DJCP	Duck Bill Pliers	1 1/2	12 5/8	•

Sets shown include storage tray



303DJCP

### Extended Reach Hose Grip

Set Contains:

BDGPL300HG

Stock No.	Description	Jaw Length, Inches	Length, Inches	
BDGPL410HG	Small Hose Grip Pliers	2 1/4	11	•
BDGPL411HG	Medium Hose Grip Pliers	2 1/4	11	•
BDGPL412HG	Large Hose Grip Pliers	2	11	•



BDGPL300HG

### Long Reach

Set Contains:

BDGPL300LR

Stock No.	Description	Jaw Length, Inches	Length, Inches	
BDG311CP	Diagonal Cutter	1 9/16	11	•
BDG91145CP	45° Bent Needle Nose Pliers	3 3/16	11	•
BDG911CP	Needle Nose Pliers	3 9/16	11	•



BDGPL300LR

### Extra Long Reach

Set Contains:

BDGPL200XLR

Stock No.	Description	Jaw Length, Inches	Length, Inches	
BDG91645CP	45° Bent Needle Nose Pliers	3 3/16	16	•
BDG916CP	Needle Nose Pliers	3 9/16	16	•



BDGPL200XLR

### Heavy Duty Bolt Cutters

Drop forged, alloy steel jaws are precision ground to provide a long lasting cutting edge. Lightweight, tubular steel handles deliver extra leverage for tough jobs. Comfortable, heavy duty grips resist slippage.

Stock No.	Capacity (Soft Material), Inches	Capacity (Hard Material), Inches	Length, Inches	Weight, lb (kg)	Replacement Jaw Assembly
BLPBC18	3/8	1/4	18	3.4 (1.55)	BLPBC18-1
BLPBC24	7/16	5/16	24	5.6 (2.55)	BLPBC24-1
BLPBC30	1/2	3/8	30	8.6 (3.9)	BLPBC30-1
BLPBC36	9/16	7/16	36	14.2 (6.45)	BLPBC36-1



BLPBC18



BLPBC30



**WARNING**



- Plastic coated handle does not protect against electric shock
- Read safety precautions on pages W1 to W4



# NONCONDUCTIVE COMPOSITE TOOLS

HYBRID  
INNOVATION



CNSGDx60



IHT60K



IHTS6



IHTP62

## Screwdrivers (Soft Grip)

- Slim tip design accesses fasteners in tight areas faster and easier
- No conductive path to user
- No insulation to puncture, tear or wear through
- Exceeds ANSI®, ISO® and ASME® strength and performance requirements for standard steel tools
- Every tool is individually tested to protect up to 1,000 V AC and 1,500 V DC
- Snap-on® nonconductive tools are UL® listed, assuring compliance to IEC®60900
- U.S. Patent 6,655,240 B1

Set Contains:

CNSGDx60

	Stock No.	Tip Size	Shank Length, inches	Length, inches	
Flat Tip	CNSGDF66	3/16	6	11 1/2	•
	CNSGDF68	1/4	6	11 1/2	•
	CNSGDF69	9/32	6	11 1/2	•
Phillips Tip	CNSGDP61	#1	6	11 1/2	•
	CNSGDP62	#2	6	11 1/2	•
	CNSGDP63	#3	6	11 1/2	•

## Screwdrivers (Screwdriver Handle)

- No conductive path to user
- No insulation to puncture, tear or wear through
- Every tool is individually tested to protect up to 1,000 V AC and 1,500 V DC
- U.S. Patent 5,259,277

Set Contains:

IHT60K

	Stock No.	Tip Size	Shank Length, inches	Length, inches	Replacement Bit	
Flat Tip	IHTS3	3/16	3 1/4	8 3/16	IHTS65	•
	IHTS37	7/32	3 1/4	8 3/16	IHTS37-5	
	IHTS38	1/4	3 1/4	8 3/16	IHTS685	
	IHTS6	1/4	6	11	IHTS685	•
	IHTS610	5/16	6	11	IHTS6105	
	IHTS9	5/16	9	14	IHTS6105	•
Phillips Tip	IHTS912	3/8	9	14	IHTS912-5	
	IHTP31	#1	3 1/4	8 3/16	IHTP315	•
	IHTP62	#2	6	11	IHTP625	•
	IHTP63	#3	6	11	IHTP635	•



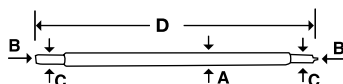
CSSC9



SGMdMRC4-C6

## Screwstarters and Screwdriver Shanks

- No conductive path to user
- No insulation to puncture, tear or wear through
- Every tool is individually tested to protect up to 1,000 V AC and 1,500 V DC
- Snap-on nonconductive tools are UL listed, assuring compliance to IEC60900



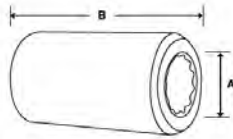
Stock No.	Handle Type	Handle Diameter, inches (A)	Tip Style (B)	Tip Style (C)	Length, inches (D)
CSSC9	Composite*	9/32	Flat Tip/Phillips	.032" x 9/32", #2	9
SGMdMRC4-C6	Composite Magnetic Bit Holder	3/8			7 1/4

\*Rated shock resistant up to 1,000 V.

# NONCONDUCTIVE COMPOSITE TOOLS



CFDSM15B



CFDS16B

## HYBRID INNOVATION



207CFDSY



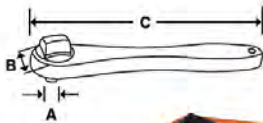
IHT208K

### Nonconductive Composite Socket

- No conductive path to user
- No insulation to puncture, tear or wear through
- Strong as steel
- Every tool is individually tested to protect up to 1,000 V AC and 1,500 V DC
- Snap-on® nonconductive tools are UL® listed, assuring compliance to IEC®60900

### 3/8" Drive Sockets, mm, 12 Point

mm	12	Outside Diameter, mm (A)	Length, mm (B)
10	CFDSM10B	25.1	44.9
12	CFDSM12B	29.6	51.2
13	CFDSM13B	29.6	51.2
14	CFDSM14B	29.6	51.2
15	CFDSM15B	29.6	51.2
16	CFDSM16B	33.5	57.4
17	CFDSM17B	33.5	57.4
18	CFDSM18B	33.5	57.4
19	CFDSM19B	33.5	57.4



CFS949A

### Ratchets

- No conductive path to user
- No insulation to puncture, tear or wear through
- Every tool is individually tested to protect up to 1,000 V AC and 1,500 V DC
- Snap-on nonconductive tools are UL listed, assuring compliance to IEC60900

Stock No.	Square Drive, inches (A)	Head Width, inches (B)	Length, inches (C)	Repair Kit
CFS949A	3/8	1 19/32	8 3/4	RKRCFS949A
CSS949A	1/2	1 19/32	8 3/4	



CFX6

### Extensions

Stock No.	Square Drive, inches (A)	Outside Diameter, inches (B)	Length, inches (C)
CFX3	3/8	1	3
CFX6	3/8	2	6
CFX12	3/8	2	12
CSX5	1/2	1 5/16	5 21/32
CSX10	1/2	1 5/16	10 21/32

### 3/8" Drive Sockets, inches, 12 Point

12	12	Outside Diameter, inches (A)	Length, inches (B)	Set Contains:
1/4	CFDS8B	15/16	1 3/4	
5/16	CFDS10B	15/16	1 3/4	
3/8	CFDS12B	1	1 3/4	•
7/16	CFDS14B	1	1 3/4	•
1/2	CFDS16B	1 3/16	2	•
9/16	CFDS18B	1 3/16	2	•
5/8	CFDS20B	1 3/16	2	•
11/16	CFDS22B	1 3/8	2 1/4	•
3/4	CFDS24B	1 3/8	2 1/4	•

IHT208K Nonconductive Composite Ratchet and Socket Set. CFDS12B thru CFDS24B sockets (3/8 to 3/4") (8 pcs) plus CFS949A ratchet in C0800 kit bag.

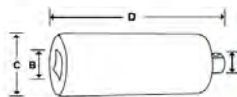


CSN24B

### Breaker Bar

- Features the comfort and control of a Snap-on screwdriver style handle
- UL listed
- Each tool is individually tested to protect up to 1,000 V AC and 1,500 V DC
- Meets IEC60900 and ASTM® 1505 standards for insulating hand tools
- Exceeds ASME®/ANSI® B107.10M strength requirements for standard steel tools

Stock No.	Head Width, inches	Length, inches	Head Diameter, inches
CSN24B	1 1/8	24 1/2	1



CFSSB8



CA1MF

### Adaptors

- No conductive path to user
- No insulation to puncture, tear or wear through
- Strong as steel
- Every tool is individually tested to protect up to 1,000 V AC and 1,500 V DC
- Only Snap-on nonconductive tools are UL listed, assuring compliance to IEC60900

Stock No.	Description	External Square Drive, inches (A)	Internal Square Drive, inches (B)	Outside Diameter, inches (C)	Length, inches (D)
CA1MF	1/2" Square Drive Adaptor	3/8	1/2	1 5/16	3 25/32
CA2A	3/8" Square Drive Adaptor	1/2	3/8	1	3 7/8

CFSSB8 Nonconductive Composite Universal Bit Socket. Composite (insulating) universal bit socket for holding 1/4" bits. 3/8" square drive, 1" O.D., 1 3/4" long.



WARNING



- Do not use damaged tool
- Do not use cheater bars on handles
- Do not use with impact drivers
- Read safety precautions on pages W1 to W4

# NONCONDUCTIVE COMPOSITE TOOLS

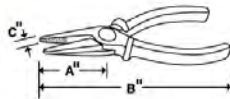
HYBRID  
INNOVATION



C97CP



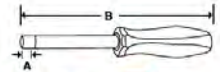
C59AHL P



## Pliers

- Nonconductive needle nose pliers feature all composite jaw and handle
- Spring loaded joint returns pliers to comfortable working position
- Durable jaw teeth aid in gripping and twisting
- Integral thumb guard for user protection
- Each tool is individually tested to protect up to 1,000 V AC and 1,500 V DC
- Snap-on® nonconductive tools are UL® listed, assuring compliance to IEC®60900 ASTM® standards for insulating hand tools
- Nonconductive lineman pliers have same quality as standard lineman pliers for performance and durability
- Nonconductive handles are soft grip for comfort and control
- Handles feature thumb guards, 2 position grip and tether hole
- Each tool is individually tested to ensure protection up to 1,000 V AC and 1,500 V DC

Stock No.	Description	Jaw Length, inches (A)	Length, inches (B)	Tip Width, inches (C)
C97CP	Needle Nose Pliers	2	8 1/2	5/32
C59AHL P	Lineman's Pliers	1 13/32	10	



107CNDD

## Nut Drivers

- Snap-on nonconductive composite nut drivers have the 6 point Flank Drive® wrenching system for greater turning power with less fastener damage. Nut drivers feature narrow, nonconductive composite shanks for greater access and a full 5" bolt clearance depth
- Screwdriver style handles provide maximum comfort and control
- Handles are color coded for easy size reference
- Sizes are stamped on the handle crown for better visibility when wearing a tool pouch
- U.S. Patent 6,427,563

Set  
Contains:  
107CNDD

Stock No.	Tip Size	Bolt Clearance Diameter, inches (A)	Length, inches (B)	
CNDD106	3/16	5/32	7 5/8	•
CNDD107	7/32	5/32	7 5/8	•
CNDD108	1/4	5/32	7 5/8	•
CNDD110	5/16	5/32	7 5/8	•
CNDD112	3/8	11/32	8 3/8	•
CNDD114	7/16	11/32	8 17/32	•
CNDD116	1/2	11/32	9 1/16	•



CRB1824

## Ratcheting Box Wrenches

- UL listed
- Individually tested to protect up to 1,000 V AC and 1,500 V DC
- Meets IEC60900 ASTM standards for insulating hand tools

Stock No.	Tip Size	Finish	Head Diameter, inches (A)	Head Depth, inches (B)	Length, inches (C)
CRB1824	9/16-3/4	Composite	1 9/16 - 1 13/16	5/8-5/8	9 1/16

## Soldering

### Butane Soldering Iron Kit (Blue-Point®)

**YAKS300 Butane Soldering Iron Kit (50 W).** A robust economy model featuring an ultrasonically welded gas tank for better strength. Butane compatible plastics helps prevent gas from leaking.

- 12 month replacement warranty
- Easy to light with added flint ignitor in the cap
- 50 W equivalent with a 30 minute continuous use run time
- Safety cutoff switch when cap is replaced
- Cordless butane powered; no cords or wires
- Kit includes 4 tips, stand and cleaning sponge

**YAKS300 Butane Soldering Iron.**



YAKS300

### YAKS300 Soldering Tips

Stock No.	Description	Size, inches (mm)
YAKS3002	Fine Solder Tip	1/8 (3.2)
YAKS3003	Chisel Solder Tip	3/32 (2.4)
YAKS3004	Double Flat Solder Tip	3/16 (4.8)
YAKS3005	Hot Knife Tip	
YAK10-8	Hot Iron Stand	
YAK10-9	Metal Sponge Cup	
YAK10-10	Plastic Box	





**YAKS32A**

### Butane Soldering Iron Kit

#### YAKS32A Butane Soldering Iron Kit (25 to 125 W).

Durable all around favorite featuring an ultrasonically welded gas tank for better strength, safety and reliability. Made with butane compatible plastics to help prevent gas from leaking.

- Kit includes 5 soldering tips plus hot knife, hot air and hot air deflector tips
- Pushbutton electronic ignitor
- Torch and soldering iron all in one
- Run time 90 mins plus continuous use
- Adjustable temperature control 25 to 130 W (equivalent)
- Converts to a heat shrink tool and hot knife with the addition of interchangeable tips
- Cordless butane powered, no cords or wires
- 12 month replacement warranty

Optional Tips for YAS32A Soldering Iron

**YAKS1-1** Single Face Solder Tip. 1/32" (1.0 mm)

**YAKS1-3** Single Face Solder Tip. 1/8" (3.2 mm)

**YAKS1-4** Single Face Solder Tip. 3/16" (4.8 mm)

**YAKS113** Hot air blower with deflector

#### YAS32A 2 IN 1 Gas Soldering Auto-Ignition Tool

(25 to 130 W). Durable all around favorite featuring an ultrasonically welded gas tank for better strength, safety and reliability. Made with butane compatible plastics to help prevent gas from leaking.

- Includes YAKS1-6 2.4 mm Double Flat soldering tip
- Pushbutton electronic ignitor
- Torch and soldering iron all in one
- Run time 90 mins plus continuous use
- Adjustable temperature control 25 to 130 W (equivalent)
- Converts to a heat shrink tool and hot knife with the addition of interchangeable tips
- Cordless butane powered, no cords or wires
- 12 month replacement warranty

Optional Tips for YAS32A Soldering Iron

**YAKS1-1** Single Face Solder Tip. 1/32" (1.0 mm)

**YAKS1-3** Single Face Solder Tip. 1/8" (3.2 mm)

**YAKS1-4** Single Face Solder Tip. 3/16" (4.8 mm)

**YAKS113** Hot air blower with deflector

### Kit Comparison YAKS300, YAKS32A & YAKS22A

Products	YAKS300	YAKS32A	YAKS22A
Fine Tip	•		
1.0 DF Tip		•	•
2.4 DF Tip	•	•	•
3.2 DF Tip		•	•
4.8 mm Tip		•	•
Hot Knife Tip	•	•	•
Hot Blow & Deflector		•	•
Torch		•	•
Cleaning Sponge & Tray	•	•	•
Kit Box	•	•	•
Flint Ignitor cap	•		
Cap		•	•



**YAKS22A**

### Butane Soldering Iron Kit

#### YAKS22A Butane Soldering Iron Kit (15 to 75 W).

Versatile and compact professional soldering iron, featuring an ultrasonically welded gas tank for better strength, safety and reliability. Made with butane compatible plastics to help prevent gas from leaking.

- Kit includes 8 tips: Hot air, heat shrink, torch, hot knife with 4 soldering tips
- Pushbutton electronic ignitor
- Short distance from tip to grip gets you closer to your work
- Run time up to 1 hour
- Adjustable temperature control 15 to 75 W (equivalent)
- Converts to a torch, heat shrink tool and hot knife with the addition of interchangeable tips
- ESD safe antistatic
- Cordless butane powered, no cords or wires
- 12 month warranty

Optional Tips for YAS22A Soldering Iron

**YAKS221** Single Flat Tip. 1/32" (1.0 mm)

**YAKS223** Single Flat Tip. 1/8" (3.2 mm)

**YAKS224** Single Flat Tip. 3/16" (4.8 mm)

**YAKS2213** Hot Air Tip with deflector

#### YAS22A Gas Soldering with Auto-Ignition

(15 to 75 W). Versatile and compact professional soldering iron, featuring an ultrasonically welded gas tank for better strength, safety and reliability. Made with butane 3/32 compatible plastics to help prevent gas from leaking.

- Includes YAKS226 2.4 mm Double Flat Tip
- Pushbutton electronic ignitor
- Short distance from tip to grip gets you closer to your work
- Run time up to 1 hour
- Adjustable temperature control 15 to 75 W (equivalent)
- Converts to a torch, heat shrink tool and hot knife with the addition of interchangeable tips
- ESD safe antistatic
- Cordless butane powered, no cords or wires
- 12 month warranty

Optional Tips for YAS22A Soldering Iron

**YAKS221** Single Flat Tip. 1/32" (1.0 mm)

**YAKS222** Single Flat Tip. 3/32" (2.4 mm)

**YAKS223** Single Flat Tip. 1/8" (3.2 mm)

**YAKS224** Single Flat Tip. 3/16" (4.8 mm)

**YAKS2213** Hot Air Tip with deflector

Product	Push Button ignitor	Max. power (watts equivalent)	Adjustable Temperature Control	Run time, mins	Tips included	ESD Safe
YAKS32A	Yes	130	Yes	90	8	Yes
YAKS22A	Yes	75	Yes	60	8	Yes
YAKS300	No	50	Yes	30	4	Yes



**WARNING**



- Do not store butane at temperature over 120 °F
- Transport and dispose of butane in accordance with all regulations
- Do not use damaged tool
- Read safety precautions on pages W1 to W4



## YAKS32A Soldering Tips

Stock No.	Description	Size, inches (mm)
YAKS1-1	Single Flat Solder Tip	1/32 (1.0)
YAKS1-2	Single Flat Solder Tip	3/32 (2.4)
YAKS1-3	Single Flat Solder Tip	1/8 (3.2)
YAKS1-4	Single Flat Solder Tip	3/16 (4.8)
YAKS1-5	Double Flat Solder Tip	1/32 (1.0)
YAKS1-6	Double Flat Solder Tip	3/32 (2.4)
YAKS1-7	Double Flat Solder Tip	1/8 (3.2)
YAKS1-8	Double Flat Solder Tip	3/16 (4.8)
YAKS1-9	Hot Air Blower Tip	
YAKS1-10	Hot Knife Tip	
YAKS112	Hot Air Blower Deflector	
YAKS113	Hot Air Blower and Deflector Tip	
YAKS1-11	Plastic Case	

## YAKS22A Soldering Tips

Stock No.	Description	Size, inches (mm)
YAKS221	Single Flat Solder Tip	1/32 (1.0)
YAKS222	Single Flat Solder Tip	3/32 (2.4)
YAKS223	Single Flat Solder Tip	1/8 (3.2)
YAKS224	Single Flat Solder Tip	3/16 (4.8)
YAKS225	Double Flat Solder Tip	1/32 (1.0)
YAKS226	Double Flat Solder Tip	3/32 (2.4)
YAKS227	Double Flat Solder Tip	1/8 (3.2)
YAKS228	Double Flat Solder Tip	3/16 (4.8)
YAKS229	Hot Air Blower Tip	
YAKS2210	Hot Knife Tip	
YAKS2211	Hot Air Blower Deflector	
YAKS2212	Flame Tip	
YAKS2213	Hot Air Blower and Deflector Tip	
YAKS2214	Instruction Sheet	
YAKS2215	Carrying Case	

## Soldering / Electrical Soldering Kits



### R450B Soldering Gun Kit.

- 3 different tip and element configurations give this tool great flexibility from delicate soldering to larger, heavy duty applications, such as automotive maintenance
- Slim, single post design ideal for confined work areas
- Fast heat up
- Built in spotlight to illuminate the work area
- Integral tool stand keeps heated part of the tool out of harms way
- Polarized plug and professional quality
- Packed in a plastic storage case
- UL® listed

### R460B Heavy Duty Soldering Gun Kit (Blue-Point®).

- Heavy duty soldering gun for those big jobs, quick and efficient
- Built in spotlight illuminates the work area
- Balanced tool design is more comfortable and easier to use
- Tip heats up in less than 10 seconds
- Quick change type tips can be easily changed within 30 seconds
- Integral tool stand keeps heated part of the tool from damaging surrounding areas
- Packed in a plastic storage case
- UL listed

### R490 Industrial Soldering Gun (Blue-Point).

- Dual wattage elements: high wattage heats tip in seconds, lower wattage maintains rated tip temperature
- Effective tip temperature of 1,000 °F or more for heavy duty, sustaining soldering
- Trigger activated control is convenient, easy to use and provides instant response
- Built-in worklight illuminates the work area
- Plug-in tip and element (TE) assemblies are plug in units that can be changed within a minute
- Integral tool stand prevents heated part of tool from damaging surrounding areas
- Plastic storage case
- UL listed

### R60B (60 W) Soldering Station (Blue-Point).

- Includes low voltage, temperature controlled soldering pencil that features a heat shield, a nonburnable silicone rubber cord and a plug-in tip design
- Transformer powered
- 700 F ; 1/16" screwdriver tip included
- 120 V, 60 Hz
- Optional 700 F tips for R60B or RH60B



## Irons

### R40B Industrial Soldering Kit.

- 40 W solder iron is ideal for large solder jobs like battery terminal cables or radiator repair. Threaded tips offer improved heat exchange compared to set screw types
- Features a heat deflection shield, 4 3/4" long handle, 8 1/2" overall length and 8' power cord
- Includes pointed, chisel and fine tips plus 1/2 oz of lead free rosin core solder and holder
- UL listed
- 120 V, 60 Hz

### R25A Industrial Soldering Kit.

- Lightweight 25 W pencil style kit for fine soldering applications
- Threaded tips offer improved heat exchange
- Features a heat deflection shield, 4 3/4" long handle, 8 1/2" overall length and 8' power cord
- Includes pointed, chisel and fine tips plus 1/2 oz of lead free rosin core solder and holder
- UL listed
- 120 V, 60 Hz

## Optional Tips

Item	Description
R60A7	Screwdriver 1/16 Tip 700 F
R60A8A	Screwdriver 1/16 Tip 800 F
R60B7	Screwdriver 3/32 Tip 700 F
R60B8	Screwdriver 3/32 Tip 800 F
R60D7	Screwdriver 3/16 Tip 700 F
R60D8	Screwdriver 3/16 Tip 800 F
R6007	Long Conical 1/32 Tip 700 F
R60R7	Narrow Screwdriver 1/16 Tip 700 F
R60R8	Narrow Screwdriver 1/16 Tip 800 F
R60S7	Long Conical 1/64 Tip 800 F

## Solder Suckers

### YA477A Solder Sucker.

- Low static unit designed for desoldering electrostatic discharge sensitive components
- Set plunger and release creates a vacuum that draws up solder

**YA477-1 Replacement Tip.** Replacement tip for YA477A.

### YA476A Small Solder Sucker.

- Smaller version of YA477A above
- Includes self cleaning feature

**YA476-1A Replacement Tip.** Replacement tip for YA476A.



YA477A



YA476A

## Soldering/Butane

### Miniature Butane Soldering Torches (Blue-Point®)

#### TORCH2A Turbo Torch.

- Child resistant Piezo Ignition System
- Instant 1,300 °C/2,400 °F Micro Flame
- Pocket size
- Internal fuel tank
- 20 minutes of continuous use per refilling
- Dimensions: 4" H x 2 3/4" L x 3/4" W

Applications:

Camping, first aid, survival kits, thawing frozen locks, DIY repairs, heat shrink and outdoor activities.

#### TORCH3A Professional Torch.

- Child resistant Piezo Ignition System
- Instant 1,300 °C/2,400 °F pencil point flame
- Adjustable gas control valve
- Safety continuous use lock
- 20 minutes of continuous use per refilling
- Dimensions: 6 1/2" H x 4 1/2" L x 2" W

Applications:

Brazing, soldering, plumbing, tool and die shops, automotive and truck repairs, electronic repairs and industrial maintenance.

#### TORCH4 Butane Blow Torch.

- Ultrasonically welded gas tank for better strength and safety
- Butane compatible plastics prevents gas leaks
- Powerful wind resistant flame with 751 Btu/h
- Temperature up to 2,462 F (1,350 C)
- All in one easy to use on/off ignition switch
- Adjustable flame length up to 3 1/2"
- Run time is a continuous 40 minutes plus
- 220 W equivalent



TORCH2A

TORCH3A

TORCH4

TORCH6

#### TORCH6 Butane Torch.

- Features an ultrasonically welded gas tank for better strength, safety and reliability
- Made with butane compatible plastics, prevents gas leaking
- 18 month replacement warranty
- Robust burner specifically designed to protect the ceramic greatly extends the life of the torch
- Twin spark ignition, lights first time every time
- Massive 2.797 Btu/h flame power
- Adjustable flame length up to 4 1/2"
- Temperature up to 2,462 F (1,350 C)
- Almost 4 times more powerful than any other butane micro torch

#### BUTANE15CSA Butane Fuel Cans (Case).

- Triple filtered butane fuel for use with Snap-on® TORCH2A, TORCH3A, TORCH4 and TORCH6 mini torches, YAKS300/YAKS32A/YAKS22A soldering irons and LUE UN3/ LUE UN4KT glue guns
- Universal filling tip can be used with most refillable butane products as well
- Case of (24) 1.5 oz cans



TZK5



TZK7



MPK4A



MPC7A



MPS7A

### Tweezers (Blue-Point)

**TZK5 Tweezers Kit.** Includes 5 tweezers in a vinyl zipper pouch.

- All stainless steel construction
- Pointed tweezers w/plain ends, 4 3/8" long
- Self closing tweezers w/plain ends, 4 1/2" long
- Self closing, weighted solder tweezers w/serrated blunt end, 7" long
- Sharp point utility tweezers w/bent plain ends, 7" long
- Sharp point utility tweezers w/plain ends, 7" long

**TZK7 Tweezers Kit.** Includes 7 tweezers in a black vinyl zipper pouch.

- All stainless steel construction
- Pointed tweezers, 4 3/8" long
- Curved head utility tweezers, 6 3/4" long
- Self closing, heat resistant tweezers, 6" long
- Sharp pointed utility tweezers, 7" long
- Side locking tweezers, 6" long
- Spade point tweezers, 4 3/8" long
- Weighted solder tweezers, 6" long

### Miniature Tool/Pliers (Blue-Point)

**Mini-Pliers.** Stainless steel, 3 notch ratcheting locking mechanisms lock onto small objects with varying degrees of pressure. 1/16" tips; 1 3/8" long jaws.

**MPC7A Mini-Pliers.** Curved, serrated jaws. 7" long.

**MPC10A Mini-Pliers.** Curved, serrated jaws. 10" long.

**MPS7A Mini-Pliers.** Straight, serrated jaws. 7" long.

**MPS10A Mini-Pliers.** Straight, serrated jaws. 10" long.

**MPK4A Mini-Pliers Set.** MPC7 and MPC10 plus MPS7 and MPS10A (4 pcs) in black zipper pouch.



**WARNING**



- Do not store butane at temperature over 120 °F
- Transport and dispose of butane in accordance with all regulations
- Read safety precautions on pages W1 to W4

# PUNCHES AND CHISELS

## Punches and Chisels

The anvil end on heads of Snap-on® punches and chisels are machined to a modified parabolic curve. This design directs the striking force to the center of the tool head to allow slow metal displacement. The parabolic curve controls mushrooming to reduce chipping and splitting. Heads should be redressed to their original shape with hand files as necessary. The tough alloy steel is machined and differentially heat treated for optimum performance. The hardness of the striking head is reduced to help toughness and add qualities that result in a slower mushrooming of the striking surface.



PPC250BK

### PPC250BK Punch and Chisel Set.

Includes 24 pcs in KB2179 kit bag:

- |         |         |         |         |
|---------|---------|---------|---------|
| PPC1A   | PPC106A | PPC205A | PPC820B |
| PPC3A   | PPC108A | PPC206A | PPC824B |
| PPC4A   | PPC110A | PPC208A | PPC12B  |
| PPC103A | PPC112  | PPC210A | PPC14B  |
| PPC104A | PPC203A | PPC812B | PPC15B  |
| PPC105A | PPC204A | PPC816B | PPC19B  |



PPC100AK

### PPC100AK Punch and Chisel Set.

Includes 10 pcs in KB2175 kit bag:

- |         |         |        |
|---------|---------|--------|
| PPC812B | PPC828B | PPC15B |
| PPC816B | PPC12B  | PPC19B |
| PPC820B | PPC13B  |        |
| PPC824B | PPC14B  |        |



PPC210BK

### PPC210BK Punch and Chisel Set.

Includes 22 pcs in KB2178 kit bag:

- |         |         |         |         |
|---------|---------|---------|---------|
| PPC1A   | PPC105A | PPC204A | PPC816B |
| PPC3A   | PPC106A | PPC205A | PPC820B |
| PPC4A   | PPC108A | PPC206A | PPC824B |
| PPC5A   | PPC110A | PPC208A | PPC828B |
| PPC103A | PPC112  | PPC210A |         |
| PPC104A | PPC203A | PPC812B |         |



PPCD70BK

### PPCD70BK Pin Punch Set.

Includes 7 pcs in KB2183 kit bag:

- |         |         |         |
|---------|---------|---------|
| PPC103A | PPC106A | PPC110A |
| PPC104A | PPC107A |         |
| PPC105A | PPC108A |         |



PPC715BK

### PPC715BK Punch and Chisel Set.

Includes 16 pcs in KB2182 kit bag:

- |         |         |         |         |
|---------|---------|---------|---------|
| PPC1A   | PPC104A | PPC203A | PPC208A |
| PPC3A   | PPC105A | PPC204A | PPC812B |
| PPC4A   | PPC106A | PPC205A | PPC816B |
| PPC103A | PPC108A | PPC206A | PPC820B |



PPCS60BK

### PPCS60BK Starter Punch Set.

Includes 6 pcs in KB2185 kit bag:

- |         |         |         |
|---------|---------|---------|
| PPC203A | PPC205A | PPC208A |
| PPC204A | PPC206A | PPC210A |



PPC710BK

### PPC710BK Punch and Chisel Set.

Includes 11 pcs in KB2181 kit bag:

- |         |         |         |         |
|---------|---------|---------|---------|
| PPC1A   | PPC105A | PPC205A | PPC816B |
| PPC4A   | PPC106A | PPC206A | PPC820B |
| PPC103A | PPC203A | PPC812B |         |



PPC50AK

### PPC50AK Flat Chisel Set.

Includes 5 pcs in KB2173 kit bag:

- |         |         |         |
|---------|---------|---------|
| PPC812B | PPC820B | PPC828B |
| PPC816B | PPC824B |         |



PPSD120BK

### PPSD120BK Pin and Starter Punch Set.

Includes 12 pcs in KB2187 kit bag:

- |         |         |         |         |
|---------|---------|---------|---------|
| PPC103A | PPC106A | PPC203A | PPC206A |
| PPC104A | PPC108A | PPC204A | PPC208A |
| PPC105A | PPC110A | PPC205A | PPC210A |



PPCM60BK

### PPCM60BK Metric Pin Punch Set.

Includes 6 pcs in KB2189 kit bag:

- |          |          |          |
|----------|----------|----------|
| PPCM103B | PPCM104B | PPCM105B |
| PPCM106B | PPCM107B | PPCM108B |

	Stock No.	Hex Size, inch	Point / Edge, inch (mm)	Length, inch (mm)
<b>Punch and Chisel Accessories</b> 	PPC1A Chisel Gauge			2 5/8
	PPC5A Punch/Chisel Holder			7 11/16
<b>Center Punches</b> 	PPC3A	5/16	1/8	5
	PPC4A	7/16	3/16	6
	PPC6B	5/8	5/16	7
	PPC714B	9/16	5/32	14
<b>Pin Punches</b> 	PPC103A	9/32	3/32	4 7/32
	PPC104A	5/16	1/8	4 1/2
	PPC105A	3/8	5/32	4 1/2
	PPC106A	3/8	3/16	5 1/4
	PPC107A	3/8	7/32	5 1/4
	PPC108A	7/16	1/4	5 3/4
	PPC110A	1/2	5/16	6
	PPC112	9/16	3/8	5 1/4
<b>Metric Pin Punches</b> 	PPCM103B	5/16	(3)	(159)
	PPCM104B	5/16	(4)	(159)
	PPCM105B	3/8	(5)	(159)
	PPCM106B	3/8	(6)	(159)
	PPCM107B	3/8	(7)	(159)
	PPCM108B	7/16	(8)	(159)
<b>Starter Punches</b> 	PPC203A	5/16	3/32	5 1/2
	PPC204A	3/8	1/8	5 3/4
	PPC205A	3/8	5/32	6
	PPC206A	7/16	3/16	6 1/4
	PPC208A	1/2	1/4	6 3/4
	PPC210A	9/16	5/16	7 1/4

	Stock No.	Hex Size, inch	Point/ Edge, inch	Length, inch
<b>Flat Chisels</b> 	PPC808A	1/4	1/4	5
	PPC812B	5/16	3/8	5 1/4
	PPC816B	7/16	1/2	5 5/8
	PPC820B	1/2	5/8	6 1/2
	PPC824B	5/8	3/4	7 1/4
	PPC828B	11/16	7/8	8
	PPC832B	7/8	1	9
	BPPC1878*	7/8	1	18
<b>Long Flat Chisels</b> 	PPC820LB	1/2	5/8	16
<b>Half Round Nose Cape Chisels</b> 	PPC12B	3/8	5/16	6
<b>Cape Chisels</b> 	PPC13B	5/16	1/4	5 5/8
	PPC14B	3/8	5/16	6
<b>Diamond Point Chisels</b> 	PPC15B	7/16	7/32	6
	PPC19B	3/8	1/8	5 3/4

\*Blue-Point®

## PPRG80 Roll Pin Punch Guide Set.

- Companion tool for the PPR708BK roll pin punch set
- Provides faster, safer pin installation
- Pin guide is a vinyl sleeve uniting pin and punch to achieve perfect alignment during installation
- Ideal for pin installation in tight quarters where 2 hands can't reach
- Use with Snap-on® roll pin punches PPR2 through PPR8 (1/16 to 1/4")
- Can also be used with Snap-on pin punches PPC103A through PPC108A (3/32 to 1/4") and long pin punches PPC104LA thru PPC108LA (1/8 to 1/4")



PPRG80

## PPR708BK Roll Pin Punch Set.

Includes 8 pcs in KB2186 kit bag:

- PPR2      PPR4      PPR7  
 PPR2-1/2   PPR5      PPR8  
 PPR3      PPR6



PPR708BK

## PPCL60BK Long Pin Punch Set.

Includes 6 pcs in KB2184 kit bag:

- PPC104LA   PPC106LA   PPC108LA  
 PPC105LA   PPC107LB   PPC110LA



PPCL60BK

## PPVP70BK Midget Punch and Chisel Set.

Includes 7 pcs in KB2188 kit bag:

- PPC402A      PPC406B  
 PPC403A      PPC407B  
 PPC404A      PPC408B  
 PPC405A



PPVP70BK

## PPLT40AK Drift Pin Punch Set.

Includes 4 pcs in KB2174 kit bag:

- PPC905B      PPC908B  
 PPC910B      PPC912B



PPLT40AK

## LP30A Drift Pin Punch Set.

Includes 3 pcs in KB2177 kit bag:

- 1210B   1512B   1816B



LP30A

## PPB30AK Bronze Punch Set.

Includes 3 pcs in KB2171 kit bag:

- PPB408A   PPB612A   PPB816A



PPBL30AK

## PPBL30AK Bronze Punch Set.

Includes 3 pcs in KB2172 kit bag:

- PPB1012A   PPB1226A   PPB826A

## PPB20AK Bronze Tapered Punch Set.

Includes 2 pcs in KB2170 kit bag:

- PPB1012A   PPB1414A

	Stock No.	Hex Size, inch	Point/Edge, inch	Length, inch
<b>Roll Pin Punches</b> 	PPR2		1/16	3 5/32
	PPR2-1/2		5/64	3 1/2
	PPR3		3/32	3 29/32
	PPR4		1/8	4 1/4
	PPR5		5/32	4 5/8
	PPR6		3/16	5
	PPR7		7/32	5 3/8
	PPR8		1/4	5 3/4
	PPR10		5/16	6 1/8
	PPR12		3/8	6 1/8
	PPR14		7/16	6 1/8
	PPR16		1/2	6 1/8
	<b>Long Pin Punches</b> 	PPC104LA	5/16	1/8
PPC105LA		3/8	5/32	6 1/2
PPC106LA		3/8	3/16	7 1/16
PPC107LB		3/8	7/32	7 5/8
PPC108LA		7/16	1/4	8 3/16
PPC110LA		1/2	5/16	8 3/4
<b>Midget Punches and Chisels</b> 	PPC402A Pin Punch	9/32	1/16	3
	PPC403A Pin Punch	9/32	1/8	3 1/4
	PPC404A Center Punch	9/32	3/32	3 5/8
	PPC405A Starter Punch	9/32	1/16	3 3/4
	PPC406B Cape Chisel	9/32	3/16	4
	PPC407B Cape Chisel	9/32	5/32	4
	PPC408B Flat Chisel		5/16	4 1/8

	Stock No.	Hex Size, inch	Point/Edge, inch	Length, inch
<b>Drift Pin Punches</b> 	PPC905B	3/8	5/32	8
	PPC908B	7/16	1/4	8 1/2
	PPC910B	1/2	5/16	9
	PPC912B	9/16	3/8	9 1/2
	1210B	5/8	5/16	12 1/2
	1512B	3/4	3/8	15
	1816B	7/8	1/2	18
<b>Bronze Pin Punches</b> 	PPB408A		1/4	4
	PPB612A		3/8	6
<b>Bronze Drift Punches</b> 	PPB816A		1/2	8
	PPB826A		13/16	8
	PPB1226A		13/16	12
<b>Bronze Tapered Punches</b> 	PPB1001A	5/8	3/8	8
	PPB1012A		3/8	10
	PPB1414A		7/16	14
<b>Bronze Round Punch</b> 	PPB1002A		3/4	10

- Use the proper punch or chisel for the job
- Do not use punches or chisels having chipped or mushroomed end; dress to original shape with a hand file

- Hammer head diameter should be approximately 3/8" larger than head of punch or chisel
- Read safety precautions on pages W1 to W4



**WARNING**





# PUNCHES AND CHISELS

## Soft Grip

- Ergonomic soft grip handle provides a powerful grip, improves the thermal sensation in cold work environments and reduces strike vibration
- Semispherical striking area controls mushrooming to help reduce chipping and splitting
- Cutting edges on chisels are hand ground to consistently produce a quality edge
- Black oxide coated
- Manufactured from special alloy steel that is differentially heat treated to increase durability



Set Contains:

Stock No.	Description	Point/Edge, inch	Length, inch	
PCSG812	Flat Chisel	3/8	6 1/8	•
PCSG816	Flat Chisel	1/2	6 1/8	•
PCSG820	Flat Chisel	5/8	6 1/8	•
PPSG4	Center Punch	3/16	6 1/8	•
PPSG103	Pin Punch	3/32	6 1/8	•
PPSG105	Pin Punch	5/32	6 1/2	•
PPSG106	Pin Punch	3/16	6 1/2	•
PPSG203	Starter Punch	3/32	6 1/8	•
PPSG205	Starter Punch	5/32	6 1/8	•
PPSG206	Starter Punch	3/16	6 1/8	•



PPSG710



PPC14LB

## Oval Bearing Race Punches

High alloy steel makes these tools ideal for stubborn bearing races.  
**PPC704BK Punch Set.** Includes PPC6LB thru PPC20LB (4 pcs).  
**PPC6LB** 7/16" hex stock, 7/16" x 15/64" oval point, 6" long.  
**PPC10LB** 1/2" hex stock, 1/2" x 17/64" oval point, 10" long.  
**PPC14LB** 9/16" hex stock, 9/16" x 19/64" oval point, 14" long.  
**PPC20LB** 9/16" hex stock, 5/8" x 5/16" oval point, 20" long.



GA1

## Bushing Cutter

**GA1 Bushing Cutter (7 1/4" long).**  
 • Made of 1/2" octagonal stock with a 7/16" x 1/8" bit  
 • Curved bit pushes material away from work



YA900



YA879A

## Automatic Centering Punches (Blue-Point)

**YA900 Automatic Center Punch (4 3/4" long).**  
 • Strikes blow when pressure is applied, no hammer needed  
 • Cap adjusts force of blow  
 • 7/16" diameter

**YA879A Heavy Duty Automatic Center Punch (5" long).**

- Single hand operation
- Design eliminates need for striking with hammer
- Adjustable spring tension cap
- Hardened steel point is replaceable
- 1/2" diameter



YA8290A

## Revolving Punch

**YA8290A Revolving Punch (Blue-Point).**  
 • Punch round holes in leather, rubber, plastic, canvas, gaskets and other similar materials  
 • 6 punch sizes included in tool: 5/64, 3/32, 7/64, 1/8, 9/64 and 5/32"



PGH8A

## Gasket Punch Set

**PGH8A Gasket Punch Set.**

- Cuts holes in gaskets and other soft materials
- Includes (5) 3/8" long mandrel and (10) punches: 1/4, 5/16, 3/8, 7/16, 1/2, 9/16, 5/8, 3/4, 7/8 and 1" in a storage case



DPFT528A

## Transfer Punch Set (Blue-Point®)

**DPFT528A Transfer Punch Set.**

- For transferring hole patterns
- Set includes punches from 3/32 to 1/2" in 1/64" increments plus 17/32"
- Each punch is marked with its size and manufactured from tempered steel to promote long tool life
- Metal index provides convenient storage
- Punches are 4 7/8" in length



GA237

## Steel Stamping Sets (Blue-Point)

- Heat treated square stamp bodies
- Stored in 2 piece wooden containers

Set Stock No.	Characters	Number Stamps	Figure size, inches	Square body, inches	Length, inches
GA237	0-9*	9	3/16	5/16	2 7/16
YA817	0-9*	9	1/8	1/4	2 3/8
GA238	A-Z**	27	3/16	5/16	2 7/16
YA818	A-Z**	27	1/8	1/4	2 3/8

\*One stamp serves as both 6 and 9.

\*\*Also includes stamp for period.

### HBFE Series Dead Blow Hammers

- Free flowing shot design to improve dead blow action while reducing rebound
- Compact head has larger surface striking area and heavier caps to improve delivered force by as much as 40 percent



HBFE32

Applications: Brake rotors, brake drum removal, ball joints (tie rod removal), tires, seal installation, loosen oil pans and covers, OE rims, axle insertion, piston installation and crank shaft end play

### Standard

- Soft grip handle with ribbed, textured elastomer grip prevents hand slippage
- Composite handle shank improves balance while defusing shock and dampening vibration
- Improved thermoplastic urethane material is nonsparking and resistant to most shop chemicals

Stock No.	Weight, oz	Head Length, inches	Face Diameter, inches	Length, inches	Set Contains:
HBFE16	16	3 1/4	1 9/16	12	
HBFE24	24	3 3/4	1 3/4	12 3/4	•
HBFE32	32	4 1/4	2	13 1/2	•
HBFE48	48	4 3/4	2 1/4	15	•
HBFE56	56	5 7/16	2 3/4	15 3/4	

### HBBD Series Ball Peen Hammers

- Freeflowing steel canister shot design to improve dead blow action while reducing rebound
- Soft grip handle with ribbed, textured elastomer grip prevents hand slippage
- Composite handle shank improves balance while defusing shock and dampening vibration



HBBD24

Applications: Rear drums, tie rods, U-joints rounded end, track bar rounded end, rivets, punch and chisel applications

Stock No.	Weight, oz	Head Length, inches	Face Diameter, inches	Length, inches
HBBD8	8	4	1	11 5/8
HBBD16	16	4 3/8	1 1/4	12 1/4
HBBD24	24	4 3/4	1 3/8	12 3/4
HBBD32	32	5 3/4	1 3/4	13 5/8
HBBD40	40	5 3/4	1 3/4	15 1/8



BC110B

### Sledge

Stock No.	Weight, lb	Head Length, inches	Face Diameter, inches	Length, inches
BC7B	5	7	2 3/4	20
BC110B	8	7	2 3/4	30
BC114B	11 lb 8 oz	8	3 1/4	36

### HBSE Series Slimline Dead Blow Hammers

Incorporates our new microcellular soft grip handle, a softer, more comfortable energy absorbing material.

- **Microcellular grip and composite shank** - Comfortable, secure grip and dampens the vibration to the user's hand.
- **Smaller face** - For more concentrated blows.
- **Longer head profile** - For extended reach.
- **Internal steel canister with free flowing shot design** - Delivers maximum dead blow action.
- **Mult-position hand grip** - Helps user "choke up" in tighter work areas.
- **Wide flare at end of handle** - Helps prevent hammer from slipping out of hand.



HBSE20

Applications: Main bearing caps, dust caps, smaller objects, custom bikes and tighter applications that standard dead blow hammers will not fit

Stock No.	Weight, oz	Head Length, inches	Face Diameter, inches	Length, inches
HBSE10	10	3 1/2	1 1/4	10 5/8
HBSE20	20	4 1/8	1 3/8	11 1/8
HBSE30	30	5 1/8	1 1/2	12 3/8



HLE24

### Piston

- One piece urethane construction
- Full length canister increases head strength
- Made of material that won't damage the piston
- Shot filled head drastically reduces rebound

Stock No.	Weight, oz	Head Length, inches	Face Diameter, inches	Length, inches
HLE24	24	7 3/4	5 1/2	12 3/4



HSSD32

### Dual Face Drilling

- Sustained impact and maximum striking force with almost no rebound
- Composite handle shank improves the hammer balance while defusing shock
- Free flowing steel head canister design improves dead blow action and reduces rebound
- Nonsparking, chemical resistant molded urethane covering
- Ribbed thumb rest allows user to choke up in tighter work areas

Stock No.	Weight, oz	Head Length, inches	Face Diameter, inches	Length, inches
HSSD32	32	5 3/8	1 3/4-1 3/8	11 1/2



**WARNING**



- Do not use urethane hammers near liquid oxygen
- Do not strike another hammer or other hardened object

- Do not use chipped, mushroomed or cracked hammers
- Strike squarely, avoid glancing blows
- Read safety precautions on pages W1 to W4

# HAMMERS

## Soft Face

### HBBT Series

- Bronze tipped nonmarring hammer ideally suited for work on bushings, gears and transmissions.

- Microcellular grip

- Bronze tip



HBBT32

Applications: Bearings & race install, pinion & half shafts, distributor rebuilds, alternator and starter rebuilds, seal installation, body moldings and nonspark applications

Stock No.	Weight, oz	Head Length, inches	Head Diameter, inches	Length, inches
HBBT16	16	3 3/4	1 3/8	12
HBBT24	24	4 1/4	1 3/8	12
HBBT32	32	4 1/2	1 1/2	12 3/4



### Soft Blow (Blue-Point®)

BF623

- Designed to reduce marring and denting
- Use in assembly applications and on surfaces including metal, glass, plastic and wood
- Special polymer head resists dynamic fatigue, creep and compression set, even at extreme temperatures

Stock No.	Face Dimensions, inches	Head Color	Length, inches
BF623	1 7/8 x 2 1/8	Blue	12 1/2



BF620C

### BF620C Rubber Head Mallet (Blue-Point)

- Solid rubber head is 3 3/4" long and 2 1/4" in diameter
- 11" hardwood handle
- Ideal for replacing hubcaps, bodywork, etc.



HSPI6KT

### Interchangeable Head (Blue-Point)

- Shot loaded, dead blow hammer adds more striking force by eliminating rebound and dampening vibration shock
- 1 1/2" striking face diameter on each hammer head
- Six interchangeable heads meet a number of various applications, including nonmarring and nonsparking applications with selected head surfaces
- Comfortable, nonslip handle grip
- Set includes 10" fiberglass handle and storage case
- 1" head extender is optional

Set Contains:

Stock No.	Description	Color	Weight, oz	
HSPI6KT1	Hammer Handle		22	•
HSPI6KT2	Soft Face	Brown	1.5	•
HSPI6KT3	Medium Face	Red	1.4	•
HSPI6KT4	Medium Hard Face	Cream	1.3	•
HSPI6KT5	Hard Face	Black	1.3	•
HSPI6KT6	Steel Face	Steel	2.2	•
HSPI6KT7	Brass Face	Brass	2.2	•
HSPI6KT8	Plastic Storage Case	Black		•
HSPI6KT9	1" Head Extender			

### HBPT Series

- Plastic tipped hammers used where metal to metal scratching or marring needs to be eliminated

- Plastic tip

- Microcellular grip



HBPT24

Applications: Transmission work, rear end work, metal body moldings and light tapping

Stock No.	Head Length, inches	Weight, oz	Length, inches	Soft Tip Stock No.	Hard Tip Stock No.
HBPT16	3 3/4	16	12	HPTS16	HPHT16
HBPT24	4 3/4	24	12 3/4	HPTS24A	HPHT24A



HSPD16



BH232A

### Combination

- Combination steel and soft face dead blow
- 1 pc urethane construction
- Replaceable tips

Stock No.	Head Length, inches	Weight, oz	Tip Diameter, inches	Length, inches	Soft Tip Stock No.	Hard Tip Stock No.
HSPD16	4 3/8	16	1 1/4	12 1/8	HPTS16	
BH232A*		32	1 5/8	13	BH232-2	BH232-3

BH232-4 Optional nylon tip (also available)

\*(Blue-Point)



HBR15

### Brass (Fiberglass Handle) (Blue-Point)

- Nonsparking/nonmarring surface for many applications
- Brass head absorbs blow and reduces rebound
- Flat surface for even distribution of blow
- Comfortable, nonslip handle grip

Stock No.	Weight, lbs	Length, inches
HBR15	1 1/2	12
HBR25	2 1/2	12
HBR4	4	12

### HCL16 Claw Hammer, 16 oz.

- Drop forged carbon steel head
- Oversized striking surface
- Polyurethane leather improves grip and offers abrasion resistance and low temperature flexibility for unparalleled comfort
- Antishock core reduces vibration and hand fatigue
- 1 pc construction delivers increased strength



HCL16

## Ball Peen (Blue-Point®)



BP16B

### Ball Peen (Hickory Handle)

Set Contains: BP1004S

Stock No.	Weight, oz	Handle Length, inches	Replacement Handle	
BP2B	2	9 1/2	BPH2C	
BP4B	4	10 1/2	BPH4C	
BP8B	8	12 1/2	BPH8C	•
BP12B	12	13 1/2	BPH12C	•
BP16B	16	14 1/2	BPH16C	•
BP20B	20	15	BPH20C	
BP24B	24	16	BPH20C	•
BP32B	32	16	BPH40C	
BP40B	40	16 1/4	BPH40C	
BP48B	48	16 1/4	BPH40C	

ASME/ANSI® B107.400



BPN16B

### Ball Peen (Fiberglass Handle)

Stock No.	Weight, oz	Handle Length, inches	Replacement Handle	Previous Model Handle
BP8B	8	11	BPNH8B	BP8B-1
BP12B	12	12	BPNH12B	BP12B-1
BP16B	16	13	BPNH12B	BP16B-1
BP24B	24	14	BPNH24B	BP24B-1
BP32B	32	16	BPNH24B	BP24B-1

ASME/ANSI B107.400

## Heavy Duty



HCB2S



HCS2S

### Dual Face Dead Blow (Fiberglass Handle)

- 100% cast polyurethane face is designed to withstand the most severe striking applications
- Nonsparking/nonmarring brass face for multiple applications
- Nonferrous shot loaded cavity delivers more power and less rebound than any hammer of its kind
- Abrasion and Impact Resistant
- Chemical Resistant
- Comfortable, nonslip handle grip
- Applications: aerospace, automotive, metal fabrication, petrochemical, electronics, industrial assembly, construction, oil and mining

Stock No.	Weight, lbs (kg)	Face Diameter, inch (mm)	Handle Length, inch (mm)	Overall Length, inch (mm)
HCB2SG	2 (.91)	2 (50.8)	10 5/8 (270)	13 3/4 (349)
HCS2SG	2 (.91)	2 (50.8)	10 5/8 (270)	13 3/4 (349)

Meets or exceeds all ANSI specifications

### BC/BD/HD Series Heavy Duty (Fiberglass Handle) (Blue-Point)

- Dampens vibration and provides strength and safety
- Handle is resistant to dry rot, warp and splintering
- Fiberglass handle dampens vibration and provides extra strength and safety
- Handle is epoxy welded to hammer head and will withstand 8,000 lbs of separation force
- Comfortable, nonslip handle grip
- Materials will resist most shop chemicals



Stock No.	Description	Weight, lbs	Striking Face Diameter, inches	Handle Length, inches	Overall Length, inches	Replacement Handle
BC4SG	Cross Peen	4	1 1/2	12	14	BD4SG-1
BD4SG	Engineer	4	1 1/2	12	14	BD4SG-1
HD4SG	Hand Drilling	4	1 1/2	8 3/4	10 3/4	HD4SG-1

### BD Series Sledge Hammers

- Handles - Tensile strength of 200,000 pounds per square inch.

- Drop forged carbon steel heads - Heat treated for durability & safety.



BD10ES

- Fiberglass handles - Welded into the sledge eye-hole to withstand 8,000 pounds of separation force.

- Ergonomic grip - Provides a superior gripping surface, helping to dampen & absorb vibration.

### Sledge (Fiberglass Handle) (Blue-Point)

Stock No.	Weight, lbs (kg)	Face Diameter, inch (mm)	Handle Length, inch (mm)	Overall Length, inch (mm)	Replacement Handle
BD6ESG	6 (2.7)	1 5/8 (41.1)	16 (406.4)	18 (457.2)	BD6ESG-1
BD10ESG	10 (4.5)	2 (50.8)	29 (736)	32 (812.8)	BD8ESG-1

- Durable handles - Will not dry rot, warp or splinter from exposure to the elements and resists most shop chemicals.



BH122D

BH141A

BH133B

### BH Series Heavy Duty (Hickory Handle) (Blue-Point)

Stock No.	Description	Weight, oz	Head Length, inches	Overall Length, inches	Replacement Handle
BH122D	Engineer	40	4 1/2	15	BPH40C
BH123D	Engineer	48	4 3/4	15	BPH40C
BH141A	Cross Peen	32	4 1/2	15	BPH20C
BH142A	Cross Peen	40	5	15	BPH40C
BH143A	Cross Peen	48	5 1/2	15	BPH40C
BH133B	Hand Drilling	48	4 1/2	10	BPH133



**WARNING**



- Do not use urethane hammers near liquid oxygen
- Do not strike another hammer or other hardened object
- Do not use chipped, mushroomed or cracked hammers

- Strike squarely, avoid glancing blows
- Read safety precautions on pages W1 to W4



# CUTTING

## Hacksaws



HSG325

### HSG325 Professional Hacksaw.

- Ergonomic front grip for increased comfort and control
- Thermoplastic comfort grip handle
- Quick blade loading, spring loaded tensioning mechanism for quick blade changes
- Dual blade positioning, alternative 55° blade mounting for flush cutting
- High blade tension for straighter, more accurate and faster cuts



HSG319

### HSG319 Bi mold Handle Hacksaw.

- Solid steel frame overmolded with soft grip for comfortable use
- Designed for 12" (300 mm) blades
- Blade tensioner discreetly blends with handle
- Positions for normal flush cutting or 55° angle



HS5A

### HS5A Mini Hacksaw.

- Designed for 10" (250 mm) blades
- 8 1/4" frame fits in limited access areas
- Includes HSBM1024B 10" blade



HS151

### HS151 Junior Frame Hacksaw.

- Designed for 6" blades
- 9 1/2" long
- Blade included

### HSM632 6" Replacement Blade (32 TPI).

- 1/4" wide, 32 teeth per inch, 6" length
- Package of 5



HS50

### Quick Cutter Hand Saws

- Features contoured screwdriver type handle for a secure grip
- Saw holder keeps a tight hold on any of the 3 included blades
- Turn the knurled knob and easily switch blades
- All components neatly packaged in C0417 kit bag



HSKIT

### HSKIT Handsaw Kit.

- Ergonomic handle design reduces pressure points and stops hand from sliding
- Handle angle and position of handle to blade teeth reduces sawing forces and increases efficiency
- High quality aluminum body ensures rigidity and retaining/protecting locking mechanism
- Locking system helps reduce play between handle and blade when assembled
- Easy access to lever through handle opening
- Long lever for easy lock and release: security spring locks lever

Includes:

#### HSEXRL Handle.

#### HSEX16 General Purpose Blade.

#### HSEX22 Coarse Wood Blade.

## Hacksaw Blades

- Shatter resistant bimetal for a long life and fast, efficient cutting
- Available in packages of 10 only

Stock No.	Length, inches	Teeth per Inch
HSBM1018B	10	18
HSBM1024B	10	24
HSBM1032B	10	32
HSBM1214B	12	14
HSBM1218B	12	18
HSBM1224B	12	24
HSBM1232B	12	32

### HS50 Quick Cutter Hand Saw.

- Includes: HS14X1, HS18X1 and HS24X1

#### HS14X1 General Purpose Blade.

- For metal over 1/8", hard rubber and fiber

#### HS18X1 Fine Metal Cutting Blade.

- For metal 18 gauge to 1/8", nail embedded wood

#### HS24X1 Heavy Metal Cutting Blade.

- For metal 18 gauge and under trim and tubing, plus galvanized pipe under 18 gauge



HSEXRL

## Scissors/Multi Tools



YA114



KER1120

## Scissors

### YA114 Stainless Scissors (Blue-Point®).

- High quality stainless steel
- Compact: 3" long

### KER1120 Taskmaster Shears.

- High carbon stainless steel blades designed to hold their edge longer and sharpen quickly
- Blades are permanently bonded to comfortable, nonslip handles
- Overall length 9"



PRN8P

### Pruning Tools

#### PRN8P Hand Pruner.

- Slicing cutting action requires minimal effort
- High quality carbon steel blades with precision ground edges keep the blade sharp longer
- Glass fiber handle is lighter than aluminum yet stronger than steel
- Strong rubber bumper absorbs shock
- Smooth spring keeps blade in open position while providing minimal resistance in cutting action
- Blades can be locked in closed position



PRN75SFS

#### PRN75SFS Folding Pruning Saw.

- General purpose folding saw for cutting wood or plastics
- 2 component plastic handles for firm grip
- Blade specially coated for low friction and rust protection
- Blade locks in both open and closed position

## Sharpeners



GAT10005



GAT10004



GAT10003



GAT8T001



GAT60204



KER2535



GAT60016



GAT40001



GAT80005



SCKS1

### Sharpening Kits

#### GAT10005 Professional Knife Sharpening System.

- Knife clamp/angle guide for 6 precise sharpening angles and secure knife clamping to ensure efficient blade to stone contact
- Includes extra coarse, medium and fine honing stones, specially serrated blade sharpening stone, honing oil and custom case

#### GAT10004 Diamond Hone Knife Sharpening System.

- Fusing diamonds to metal substrate of the hones yields a sharpening instrument to outperform others
- Includes extra coarse, medium and fine monocrystalline honing stones, honing oil and custom case

- Knife clamp/angle guide for 6 precise sharpening angles and secure knife clamping to ensure efficient blade to stone contact

#### GAT10003 Standard Knife Sharpening System.

- Knife clamp/angle guide for 6 precise sharpening angles and secure knife clamping to ensure efficient blade to stone contact
- Includes extra coarse, medium and fine honing stones, honing oil and custom case

#### GAT8T001 Tri hone Knife Sharpening System.

- Coarse silicon carbide stone for setting the bevel on dull or badly damaged blades
- 100% natural Arkansas stones: medium stone for sharpening and fine stone for polishing
- Honing oil included
- All stones mounted on natural wood triangle to provide elevated work surface

#### GAT80005 Stone Knife Sharpening Kit.

- Includes block mounted natural Arkansas stone: 5" for sharpening, 3" for final honing
- Includes honing oil and convenient storage case

#### KER2535 Blade Sharpener.

- Embedded with 600 grit diamond coating, bonded with nickel plating to a lightweight tube
- Length is 8.5" (20.3 cm); sheath is 5.5" (12.7 cm)

#### GAT60204 Pocket Knife Sharpener.

- Compact, lightweight sharpener with side by side rod for knives, fish hooks, darts and serrated edges
- Edge holds 2 rods and an angle guide to allow proper angle for serrated blades
- High density alumina rods are removable for cleaning and repositioning

- Measures 2.40" x 2.12" x .45"

#### GAT60016 TRI-SEPS® Knife Sharpener.

- Triangular shaped, portable sharpener features built-in angle guide
- Restore edges to serrations, plain edges, entrenching tools, scissors, darts, fish hooks, ice picks and more

- Includes bead chain and clasp

- Premium grade 96% alumina ceramic

- Overall length: 4.5" (115 mm)

#### GAT40001 Carbide Knife Sharpener.

- Tungsten carbide blade
- Lightweight 6061 T6 aluminum body features a flat bottom and knurled handle with thumb and finger insets
- Not recommended for serrated edges

#### GAT12001 Clamp Mount.

- Holds knife clamp/angle guide from GAT10004 and GAT10003 systems to maximize ease of sharpening
- Useful when sharpening large or numerous knives in succession
- Can be permanently mounted to any work surface or C-clamped for portability

#### SCKS1 Carbide Knife Sharpener.

- Preset angle simplifies sharpening of all blades (except serrated)
- Slip resistant rubber base pads increase steadiness in sharpening position
- Lightweight 1.7 oz
- Compact, 1.8" x 2.2" x .25"
- Strong 6061-T-6 aircraft aluminum frame
- Tungsten carbide sharpening element will sharpen the toughest blades



**WARNING**



- Keep away from children
- Read safety precautions on pages W1 to W4

# CUTTING

## Knives



KER1004RDSO



KER1060RT



KER1475



KER1600SO



KER1660CKTSO



KER1660VIB



KER1660CBSO



KER1670RDSO

Stock No.	Description	Blade Type (Straight/Serrated)	Blade Length, inches	Closed Length, inches	Opening Mechanism
KER1004RDSO	Caribiner Tool	Partially Serrated	3 1/4	4 1/8	Manual
KER1060RT	Black Horse II	Straight Edge	3 3/4	4 7/8	Manual
KER1475	Storm II	Straight Edge	3 1/2	4 3/4	Manual
KER1550	Blackout	Straight Edge	3 1/4	4 1/2	Assisted (SpeedSafe)
KER1550ST	Blackout	Partially Serrated	3 1/4	4 1/2	Assisted (SpeedSafe)
KER1600SO	Chive	Straight Edge	1 15/16	2 7/8	Assisted (SpeedSafe)
KER1620RDSO	Scallion	Straight Edge	2 1/4	3 1/2	Assisted (SpeedSafe)
KER1620BLSO	Scallion	Straight Edge	2 1/4	3 1/2	Assisted (SpeedSafe)
KER1620GNSO	Scallion	Straight Edge	2 1/4	3 1/2	Assisted (SpeedSafe)
KER1620ST	Scallion	Partially Serrated	2 1/4	3 1/2	Assisted (SpeedSafe)
KER1660CKTSO	Leek	Straight Edge	3	4	Assisted (SpeedSafe)
KER1660BRSO	Leek	Straight Edge	3	4	Assisted (SpeedSafe)
KER1660VIB	Rainbow Leek	Straight Edge	3	4	Assisted (SpeedSafe)
KER1660CBSO	Leek Composite	Straight Edge	3	4	Assisted (SpeedSafe)
KER1670BLK	Blur	Straight Edge	3 3/8	4 1/2	Assisted (SpeedSafe)
KER1670BLKST	Blur	Partially Serrated	3 3/8	4 1/2	Assisted (SpeedSafe)
KER1670RDSO	Blur	Straight Edge	3 3/8	4 1/2	Assisted (SpeedSafe)
KER1670RDST	Blur	Partially Serrated	3 3/8	4 1/2	Assisted (SpeedSafe)
KER1670TBLKT	Blur	Partially Serrated	3 3/8	4 1/2	Assisted (SpeedSafe)
KER1725	Junkyard Dog II	Straight Edge	3 3/4	4 7/8	Manual
KER1730	Groove	Straight Edge	3 1/2	4 1/2	Manual
KER1820	Needs Work	Straight Edge	3	4 1/8	Assisted (SpeedSafe)
KER1820ALSO	Needs Work	Straight Edge	3	4 1/8	Assisted (SpeedSafe)



KER1620ST



KER1550ST



KER1550



KER1725



KER1620RDSO



KER1670TBLKT



KER1730



KER1820



KER1820ALSO

Stock No.	Blade Materials	Handle Material	Lock Type	Weight (oz.)	Features
KER1004RDSO	AUS6A S/S	Teflon Coated Aluminum	Liner Lock	2.7	Includes flat head, Phillips, bottle opener, and carabiner clip
KER1060RT	440A S/S	Co polymer with RealTree Hardwoods HD	Back Lock	4.6	Includes Sheath
KER1475	Sandvik 13C26 S/S	410 S/S with Trac-Tec inserts	Frame Lock	5.8	Thumb Stud, Pocket Clip
KER1550	Sandvik 13C26 S/S	Polyimide	Liner Lock	3.5	Thumb Stud, Pocket Clip, Tungsten DLC Blade Coating
KER1550ST	Sandvik 13C26 S/S	Polyimide	Liner Lock	3.5	Thumb Stud, Pocket Clip, Tungsten DLC Blade Coating
KER1600SO	420HC S/S	410 S/S	Frame Lock	1.9	Thumb Stud, Pocket Clip, Tip Lock
KER1620RDSO	420HC S/S	6061-T6 AA	Liner Lock	2.3	Thumb Stud, Pocket Clip, Red Finish, Snap-on Logo
KER1620BLSO	420HC S/S	6061-T6 AA	Liner Lock	2.3	Thumb Stud, Pocket Clip, Blue Finish, Snap-on Logo
KER1620GNSO	420HC S/S	6061-T6 AA	Liner Lock	3.3	Thumb Stud, Pocket Clip, Green Finish, Snap-on Logo
KER1620ST	420HC S/S	Polyimide	Liner Lock	2.3	Thumb Stud, Pocket Clip
KER1660CKTSO	Sandvik 13C26 S/S	6061-T6 AA	Liner Lock	3.0	Thumb Stud, Pocket Clip, Black Finish, Tungsten DLC Coating, Snap-on Logo
KER1660BRSO	Sandvik 13C26 S/S	6061-T6 AA	Liner Lock	3.0	Thumb Stud, Pocket Clip, Black/Red Smoked Finish
KER1660VIB	Sandvik 13C26 S/S	410 S/S	Frame Lock	3.0	Thumb Stud, Pocket Clip, Titanium Oxide Coating
KER1660CBSO	Sandvik 13C26/CPM-D2	410 S/S	Frame Lock	3.0	Thumb Stud, Pocket Clip, Composite Blade
KER1670BLK	Sandvik 13C26 S/S	6061-T6 AA with Trac-Tec inserts	Liner Lock	4.2	Thumb Stud, Pocket Clip, Black Finish, Blade Coating
KER1670BLKST	Sandvik 13C26 S/S	6061-T6 AA with Trac-Tec inserts	Liner Lock	4.2	Thumb Stud, Pocket Clip, Black Finish, Blade Coating
KER1670RDSO	Sandvik 13C26 S/S	6061-T6 AA with Trac-Tec inserts	Liner Lock	4.2	Thumb Stud, Pocket Clip, Red Finish, Snap-on Logo
KER1670RDST	Sandvik 13C26 S/S	6061-T6 AA with Trac-Tec inserts	Liner Lock	4.2	Thumb Stud, Pocket Clip, Red Finish
KER1670TBLKT	Sandvik 13C26 S/S	6061-T6 AA with Trac-Tec inserts	Liner Lock	4.2	Thumb Stud, Pocket Clip, Black Finish, Tanto Blade, Snap-on Logo (Same as KER1670TBLKSTSO)
KER1725	Sandvik 13C26 S/S	G-10 Composite	Liner Lock	5.2	Pocket Clip
KER1730	Sandvik 13C26 S/S	410 S/S with G-10 overlays	Frame Lock	5.2	Pocket Clip, Grooved Blade
KER1820	Sandvik 13C26 S/S	Polyimide	Liner Lock	3.5	Pocket Clip
KER1820ALSO	Sandvik 13C28 S/S	6061-T6 AA	Liner Lock	3.5	Pocket Clip

Abbreviations: S/S - Stainless Steel AA - Anodized Aluminum



**WARNING**



- Keep away from children
- Read safety precautions on pages W1 to W4



# CUTTING

## Utility Knives



### Utility Knives

#### YA403A Miniature Utility Knife (Blue-Point®).

- 1 spare blade stores in handle
- 3 1/8" long

#### YA403A-1 Replacement Blade.

- Use with YA403A

#### UTK100 Utility Knife.

- Retractable blade
- Quick release, spring loaded handle provides fast, sure blade changes
- Integrated hinge handle means no handle parts to lose and no tools required to change blades
- Rubber grip for comfort and control
- 3 blade positions: open, half closed and closed

#### UTK100SB Utility Knife.

- Auto retracting
- Quick release, spring loaded handle provides fast, sure blade changes
- Rubber grip for comfort and control

- Includes one safety point, 2 notch blade

#### UKBU10 Utility Knife Blades.

- 2 notch double pointed blades (10 pack)
- Use with UTK100, UTK100SB, UTK150, LBUK1, and LBUK2 utility knives

#### UKBU50PK Utility Knife Blades.

- 2 notch double pointed blades (50 pack)
- Dispenser ejects blades one at a time
- Blade guard in the ejector
- Use with UTK100, UTK100SB, UTK150, LBUK1 and LBUK2 utility knives

#### YA1850A Utility Knife Blades (Blue-Point).

- 100 3 notch, double pointed utility blades in bulk packaging

#### YA1800A Single Edge Razor Blades (Blue-Point).

- 100 blades in a plastic dispenser
- Blades have aluminum backs that can be shaped for special applications

#### LBUK1 Lock Back Utility Knife (Blue-Point).

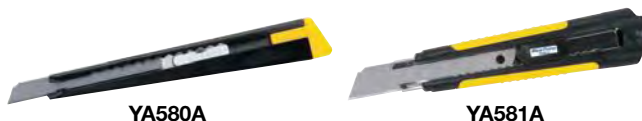
- Convenience and good looks of a folding lock back knife with easily replaceable 2 notch razor blades
- Folding lock back blade, hardwood handle with belt clip and thumb stud for 1 hand opening
- Includes utility knife and leather pouch (both with Blue-Point logo) plus 10 replacement blades
- Uses UKBU10 (10 pack) or UKBU50PK (50 pack) replacement blades

#### LBUK2 Lock Back Utility Knife (Blue-Point).

- Thumb pad allows controlled application of pressure
- Blades are easily replaced with a flip of the switch
- Blade storage under spring loaded door
- Includes leather pouch with belt loop plus 5 replacement blades
- Uses UKBU10 (10 pack) or UKBU50PK (50 pack) replacement blades

#### UTK150 Auto Loading Utility Knife.

- Exposed blade is easily removed or reversed with the push of a button
- New blade is auto loaded from 5 blade magazine
- Cushioned handle provides comfort and control
- 3 blade positions: 1" and 1/4" exposures and closed
- Uses standard 2 notch replacement blades



### Multipurpose Cutters (Blue-Point)

#### YA580A Multipurpose Cutter.

- Auto locking, fully retractable blade
- Metal body is black with blue cap and pocket clip
- Includes (1) premium steel 13 point snap blade
- Overall length of 5 3/8"
- Uses YA580A-1 replacement blades

#### YA580A-1 Replacement Blades.

- Individual break off replacement blades for the YA580A and YA584A multipurpose cutters
- Pack of 5

#### YA581A Multipurpose Cutter.

- 3 blades with eight snap off points
- Minimum blade wobble
- Fully retractable

#### YA581A-1 Blades.

- Replacement blades for YA581A
- 10 pack



### Hobby Knife (Blue-Point)

#### YA405A Hobby Knife.

- 5 1/2" long aluminum handle with bottom knurl and knurled brass nose cap
- Includes the following blades: YA405-1, YA405-2, YA405-3, YA405-4

#### YA405-1 23° Angle Blade.

#### YA405-2 50° Angle Blade.

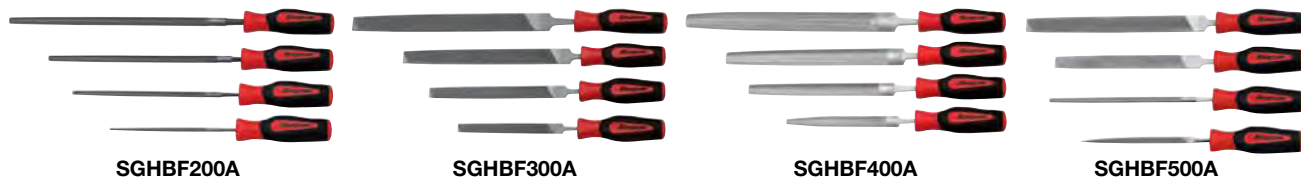
#### YA405-3 Curved Edge Blade.

#### YA405-4 Straight Chisel Edge Blade.

Comfort



Instinct®



Bastard Cut Individual Files

Additional mill file sizes are also available.

					Set Contains:	SGFRD104	SGFMA104	SGFHR104	SGFMX104	SGHBF200A	SGHBF300A	SGHBF400A	SGHBF500A
	Stock No.	Diameter, inches	Cut	Length, inches	Comfort Grip	Comfort Grip	Comfort Grip	Comfort Grip	Instinct	Instinct	Instinct	Instinct	
Round Files	6R	7/32		6					•				
	8R	9/32		8					•			•	
	10R	3/8		10					•				
	12R	1/2		12					•				
	SGF6R			6	•								
	SGF8R			8	•			•					
	SGF10R			10	•								
SGF12R			12	•									
Mill Files	6MA		5 1/2	6						•			
	8MA		7 1/2	8						•			
	10MA		9 1/2	10						•		•	
	12MA		11 1/2	12						•			
	14MA		13 1/2	14									
	SGF6MA			6		•							
	SGF8MA			8		•		•					
SGF10MA			10		•		•						
SGF12MA			12		•								
Half Round Files	6HR			6								•	
	8HR			8								•	
	10HR			10								•	
	12HR			12								•	
	SGF6HR			6				•					
	SGF8HR			8				•					
	SGF10HR			10				•					
SGF12HR			12				•						
Three Square File	6T		5 1/2	6					•				
	10T		9 1/2	10								•	
Instinct Handles	SGHF614BR								2	1	2	2	
	SGHF615BR								1	1	1	1	
	SGHF616BR								1	1	1	1	
	SGHF617BR									1			
Kit Bag					PAKKB069	PAKKB069	PAKKB069	PAKKB069	C0413A	C0414A	C0415A	C0416B	

Miniature Files

Stock No.	Description	Set Contains:
SGF4MA	Hand	•
SGF4W	Warding	•
SGF4HR	Half Round	•
SGF4SQ	Square	•
SGF4R	Round	•
SGF4T	Triangular, Slim Taper	•

Set Contains: SGFMN106



SGFMN106



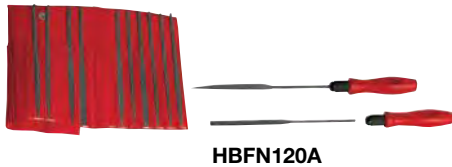
WARNING



- Keep away from children
- Read safety precautions on pages W1 to W4

# FILES/SCRAPERS/PUTTY KNIVES

## Files



HBFN120A

### Swiss Needle

#### HBFN120A Set.

- 12 needle files with round, knurled handles
- Each is 5 1/2" long and "0" cut for coarse filing
- Packaged in a plastic pouch

#### HF611A File Handle.

- Plastic screwdriver collet style handle for holding individual files in HBFN120 set

Stock No.	Description
5NRA	Round
5NHRA	Half Round
5NFA	Flat
5NCA	Crossing
5NKA	Knife
5NSQA	Square
5NTSB	3 Square
5NEA	Equaling
5NBA	Barrette
5NJA	Joint
5NSA	Sitting
5NMA	Marking



6T



6CR



10FMK

### 3 Square Files

- 6T. 6" long, 5 1/2" cut length.
- 10T. 10" long, 9 1/2" cut length.

### Single Cut Chain Saw Files

- 6CR. 6" long, 5/32" diameter. Uses HF611A file handle.
- 8CR. 8" long, 7/32" diameter.

### Multicut Flat File

- 10FMK. 10" long.

## Accessories



SGHF616BR



GA613



GA98A



YA337A

### Soft Grip Handles

- For all bastard cut files that use replacement soft grip handle
- Feature twist on threads for securely holding files

Stock No.	For Files
SGHF614BR	4MA, 6R, 6T, 6MA, 6HR, 8CR, 8R
SGHF615BR	8T, 8MA, 8HR, 10R
SGHF616BR	10T, 10MA, 10HR, 12R
SGHF617BR	12MA, 12HR

### Wooden Twist on Handles

- Wooden twist on handles with case hardened, threaded steel inserts
- Use on all bastard cut files on this page

Stock No.	For Files
GA613	4MA, 8CR, 6R
GA614	6T, 6MA, 6HR, 8R
GA615	8T, 8MA, 8HR, 10R
GA616	10T, 10MA, 10HR, 12R
GA617	12MA, 12HR
GA618	14MA, 16MA

### GA98A Wooden Adjustable Jaw Handle (Blue-Point®).

- Provides a large, comfortable grip for all bastard cut files
- Adjustable jaws grip the file so it can't turn
- Use on files 4 to 16" long
- 4 1/2" long, 1" in diameter, 3/8" maximum opening

### YA337A File Cleaner.

- Bristle area of 3 1/2 x 1 1/2" with .013" (33 ga.) wire
- Wooden handle
- 7 1/2" long

## Scrapers/Putty Knives



PKN500

### Nonmarring Scrapers/Tools

- Tips are matched for most popular applications including badge/emblem/decals removal, gasket and molding removal, adhesive removal and dirt and debris removal or cleaning
- Iass reinforced nylon provides strength
- Lightweight and resistant to most automotive fluids
- Useable with hammers (block end/tap into position)
- Avoids scratching or gouging of soft materials

#### PSN500 Nonmarring Tool Set.

- Unique selection of tip profiles for numerous prying, scraping, aligning, cutting and shielding applications
- Includes a cloth kit bag to organize and store tools
- Intended for general automotive use
- Do not use on surfaces such as glass or clear acrylics

Stock No.	Blade Style/Tip Profile	Blade Width, inches	Scrapers	Tools
PKN1	Straight	7/8	•	
PKN2	Straight	1 1/4	•	
PKN3	Curved	1 1/8	•	
PKN4	Angle	3/4	•	
PKN5	Curved	5/8	•	
PBN10	90° L			•
PBN11	Narrow Wedge			•
PBN12	Curve Cup			•
PBN14	Narrow Point			•
PKN7	Curve Tube			•
Kit Bag			C0100	C0100



PSN500

### Striking Scrapers

- Striking cap is designed for hammering
- Heavy duty blade extends through the handle and meets the cap to equally distribute the striking force
- Thick, polished, high carbon steel for durability
- Ergonomic soft grip handle for secure grip when striking
- Can be used as a chisel or scraper

Stock No.	Description	Blade Width, inches	Set Contains:	PKNC501	PKNC300
PKNC125C2	Dual Bevel	1 1/4	•	•	•
PKNC150	Single Bevel	1 1/2	•	•	•
PKNC200	Single Bevel	2	•	•	•
PKNC050	Single Bevel	1/2	•		
PKNC075C2	Dual Bevel	3/4	•		
PKNC075	Single Bevel	3/4	•		

PKNC125C2 Striking Scraper (1-1/4"). Dual bevel design for two distinct blade lengths.



PKNC301



PKNC300

# SCRAPERS/PUTTY KNIVES

## Scrapers and Putty Knives



### Rigid Carbon Scrapers

- 1/4" square shanks are flared to form scraping edge
- Classic screwdriver type handle

Stock No.	Handle Color	Length, inches	Blade Width, inches	Blade Style	Set Contains:		
					CSA300A	CSA300AD	CSA300AR
CSA8C	Black	7 5/8	7/8	Straight	•		
CSA8CO	Orange	7 5/8	7/8	Straight		•	
CSA8CR	Red	7 5/8	7/8	Straight			•
CSA12C	Black	12 7/8	1	Straight	•		
CSA12CO	Orange	12 7/8	1	Straight		•	
CSA12CR	Red	12 7/8	1	Straight			•
CSA14C	Black	14 1/8	1 1/2	Straight	•		
CSA14CO	Orange	14 1/8	1 1/2	Straight		•	
CSA14CR	Red	14 1/8	1 1/2	Straight			•



### Knife Blade Scrapers (Blue-Point®)

- Remove gaskets, sealers and other caked on materials
- Blade edge designed to work effectively in both push and pull directions
- Stainless steel blades for durability
- Polished blades clean up easily
- Comfortable composite handles feature a contour thumb stop for maximum control and a wide hilt for control

Stock No.	Blade Style	Blade Length, inches	Length, inches	Set Contains:	
				USS103	
US710	Spoon	3 3/8	8	•	
US711	Chisel Tip	2 1/2	7 1/8	•	
US712	Oyster	2 1/8	6 3/4	•	



### Putty Knives/Scrapers (Blue-Point)

- Full length steel blades for strength and durability
- Soft molded rubber handles maximize hand grip, are easy to clean and resistant to most solvents
- Broad hilt design helps protect against hand slipping when scraping

Stock No.	Blade Length, inches	Blade Width, inches	Blade Style	Edge	Set Contains:	
					PK500A	
PK50A	3 1/2	2	Flexible	Straight	•	
PK52A	3 19/32	1 1/4	Flexible	Straight	•	
PK53A	3 19/32	1 1/4	Stiff Chisel	Single Bevel	•	



### Brass Putty Knives/Scrapers (Blue-Point)

- Spring tempered, solid brass blades are nonmarring, nonsparking, nonmagnetic and noncorrosive
- Soft molded rubber handles maximize hand grip, are easy to clean and are resistant to most solvents
- Broad hilt design helps protect against hand slipping when scraping
- Stiff blade style

Stock No.	Handle Length, inches	Blade Length, inches	Blade Width, inches	Blade Style	Edge	Set Contains:	
						PKB500A	
PKB50A	4 7/8	3 1/2	2	Stiff	Straight	•	
PKB52A	4 7/8	3 19/32	1 1/4	Stiff	Straight	•	
PKB53A	4 7/8	3 19/32	1 1/4	Stiff	Single Bevel	•	



### Walnut Handled Scrapers (Blue-Point)

- Quality crafted for hard scraping applications
- Walnut wood handle for comfort
- Full length heavy duty blades for strength
- Large steel cap for striking capability
- Remove gaskets, sealants and body weld breakaway

Stock No.	Blade Length, inches	Blade Width, inches	Blade Style	Edge	Length, inches	Set Contains:	
						PKWHD53A	
PKWBS53A	3	1 1/4	30° Bent	Chisel	7 1/2	•	
PKWLR53A	5 1/2	1 1/4	Straight	Chisel	9 1/2	•	
PKWSS53A	2 3/4	1 1/4	Straight	Chisel	6 3/4	•	



### Maple Handle Putty Knife (Blue-Point)

- Mirror finished hardened steel blade extends through hardwood handle, solidly riveted for durability
- Maple handle has metal bolster where handle meets blade

Stock No.	Handle Length, inches	Blade Width, inches	Blade Style	Edge
PK23A	3 7/8	1 1/4	Heavy Chisel	Single Bevel



**WARNING**



- Keep away from children
- Read safety precautions on pages W1 to W4



# SCRAPERS/PUTTY KNIVES/EXHAUST

## Scrapers



CS1



PK70



MS3000



PKRS1

## Scrapers

### CS1 Flexible Wire Carbon Scraper.

- 10 blades made of oil tempered spring steel
- Sliding ferrule is used to adjust to the required flexibility

### PK70 Multipurpose Scraper (Blue-Point®).

- Use for gasket removal, deburring, car body work and rust removal
- Durable tungsten carbide blades
- Ergonomic handle reduces fatigue
- Thumbgrip allows precision scraping

### PK70TRI Replacement Blade. For PK70.

### PK70ROUND Replacement Blade. For PK70.

### PK70DROP Replacement Blade. For PK70.

### PK70PEAR Replacement Blade. For PK70.

### MS400 Compact Scraper (4") (Blue-Point).

- Removes stickers, molding paint and decals
- Use with standard, single edge steel or plastic razor blades
- Quick and easy blade changes
- Angled head provides maximum leverage

- 4" long

### MS800 Standard Scraper (8") (Blue-Point).

- Same as MS400 except 8" long

### MS1300 Long Scraper (13") (Blue-Point).

- Same as MS400 except 13" long

### MS3000 Scraper Set (Blue-Point).

- Includes MS400, MS800, MS1300 and MSRPACK5 in storage case

### PKRS1 Ergo Grip Razor Scraper (Blue-Point).

- 3 blade positions: closed, open and loading
- Rubberized contour grip provides comfort and a sure gripping surface
- Uses YA1800 Replacement Blades

## Cutters, Expanders and Special Tools



VGP18210



TC90A



YA1300



YA3202

## Cutters (Blue-Point)

### VGP18210 Chain Pipe Cutter.

- Quickly and easily cuts exhaust pipes with 13 alloy cutting wheels in chain
- Cuts stainless steel, copper and PVC piping from 15 mm up to 75 mm (19/32 to 2 15/16") in diameter, up to 2.6 mm (3/32") wall thickness
- Locking mechanism helps avoid lateral movement and misaligned cutting
- Large butterfly screw allows application of greater force to cutting wheels with each series of cuts

### VGP18210-1 Replacement Chain.

- For VGP18210

### TC90A Tail Pipe Cutter.

- Handles on the car cutting from 3/4 to 3 1/2" diameter
- 16 link cutter chain is 12" long
- Threaded shaft with cross piece provides elasticity to help prevent chain wheels from breaking
- Ideal for cutting the strut assembly to enable servicing of the strut cartridge

### TC90A1 Chain Assembly.

- Includes 1 wheel and 1 roll pin

## Exhaust Tools (Blue-Point)

### YA1300 Manifold Jack (set of 2).

- Use to expand manifold to its original shape and bolt hole alignment
- Use with a 3/4" open end wrench

### YA3202 Exhaust Hanger Removal Pliers.

- Remove hanger brackets from rubber mounting straps by placing jaw behind rubber grommet ring and forcing pin of pliers on the end of steel hanger
- When handles are squeezed, the forcing pin pushes the ring off the hanger
- 14" long

Applications: most U.S. and import cars and light trucks

## Cutters, Expanders and Specialty Tools

### Expanders

#### PH800 Tailpipe Expander with Collets.

- Simple and convenient set for tailpipe expansion jobs
- Using an impact wrench the pipe stretcher is a convenient, inexpensive alternative to hydraulic pipe expander
- Can be used right on the vehicle
- Includes PH300 and 5 aluminum collets
- Expands from 1 5/8 to 4 1/4"
- Includes molded storage case

#### PH300 Tailpipe/Exhaust Stretcher.

- Stretches all types of exhaust pipe, including stainless steel, from 1 5/8 to 2 7/16"
- Use with an impact wrench

#### CG5560HY Hydraulic Tailpipe/Exhaust Stretcher Conversion Kit.

- Converts PH300 tailpipe/exhaust stretcher to the convenience and power of hydraulic operation
- Includes the C 122 10 ton hydraulic ram and pump set and hydraulic cone adaptor

#### CG5560 Tailpipe/Exhaust Stretcher Conversion Kit.

- Add to C 122 10 ton hydraulic ram and pump set to add hydraulic power to the PH300
- Includes exhaust pipe and instructions



## Cutters, Flaring and Bending

### Cutters

#### TC15A Ratcheting Cutter.

- Ratchet action allows cutting all the way around the tubing by simply pumping the handle
- Handles 1/8 to 3/8" O.D. copper, plastic and PVC tubing
- Ideal for fuel, vacuum and air conditioning applications
- 3 7/8" long

#### TC15-7C Cutting Wheel.

- Standard replacement cutting wheel for TC15A tube cutter

#### TC15-HSS Small Cutting Wheel.

- High speed steel cutting wheel

#### TC28C Tubing Cutter (Blue-Point®).

- Cuts soft metal tubing ranging from 1/8 to 1" in diameter
- O.D. capacity is 1/8 to 1 1/8"
- Micrometer type adjustment
- Retractable locking reamer blade
- Cutter wheel is easily replaceable

#### TC28C1 Cutting Wheel.

- Extra cutter wheel for TC28C

#### TC123C Tubing Cutter (Blue-Point).

- Handles tubing from 1/8 to 5/8" O.D.
- Can be used where clearance around tubing is less than 1 3/8"
- 1 1/2" long when closed and 2" long when open; feed knob is 7/8" in diameter

#### TC123CR Ratcheting Tube Cutter (Blue-Point).

- TC123C cutter and TC123CRH handle combined into one unit

#### TC123CRH Ratcheting Tube Cutter Handle.

- Handle for TC123C tube cutter

#### TC123C1 Cutting Wheel.

- Extra cutter wheel for TC123C

#### TC25A Ratcheting Cutter (Blue-Point).

- Designed for automotive, plumbing, air conditioning, marine, chemical laboratories, refineries and hydraulic industries
- Cuts steel, copper, brass, aluminum, plastic and PVC sizes 5/16 to 1 1/8" diameter
- Ratcheting tube cutter with unique spring loaded action mechanism allows 1 or 2 tightening adjustments to complete the cut in very hard to reach places
- Ratchet motion allows operation in close quarters
- High impact fiberglass handle is strong and lightweight



**WARNING**



• Read safety precautions on pages W1 to W4

# TUBING

## Cutters, Flaring and Bending



TF528D



TF5A



TF275A



TFM428

### Flaring Tool Sets (Blue-Point®)

#### TF528D Tube Cutting and Double Flaring Set.

- Contains TC28C tubing cutter and a double flaring set with a flaring bar, rod handle, yoke and 5 adaptors: 3/16, 1/4, 5/16, 3/8 and 1/2"

- Storage case included

#### TF5A Double Flaring Tool Set.

- Makes double or single flares on soft steel, brass or aluminum tubing from 3/16 to 1/2" O.D.
- Makes a smooth fitting, crack free 45° flare
- Set includes 5 adaptors, yoke assembly, bar assembly and handle
- Storage case included

#### TFM5A Metric Double Flaring Tool Set.

- Same design as TF5A except it is for tubing with an O.D. from 4.75 to 10 mm
- Set includes yoke, bar assembly, handle and 5 adaptors: 4.75, 5, 6, 8 and 10 mm

#### TF275A Flaring and Swaging Set.

- 45° flare or swage soft copper, brass or aluminum tubing
- Die blocks handle 1/8, 3/16, 1/4, 5/16, 3/8, 7/16, 1/2, 5/8, and 3/4" O.D. tubing
- Swages 3/16, 1/4, 5/16, 3/8, 1/2, 5/8 and 3/4" O.D. tubing
- TF275PB storage case included

#### TFM428 Metric Bubble Flaring Set.

- For automotive brake systems
- Designed for crack free bubble flares on soft wall tubing up to a wall thickness of .028"
- Adaptors included for 4.75, 6, 8 and 10 mm flares
- TFM428PB storage case included



TFL500



TFL800



TFLM800

#### TFL500 Flaring Kit.

- Use with a ratchet to make consistent flares faster and easier
- Makes double flares on 3/16" and 4.75 mm tubing
- Low profile design allows for use on or off the car
- In line design makes a more accurate flare
- Double clamp and hex screw design keeps tubing locked tightly in position
- For use on thin walled steel and copper tubing

#### TFL800 Flaring Kit.

- Use with a ratchet to make consistent flares faster and easier
- Makes double flares on 3/16" and 4.75 mm tubing
- Low profile design allows for use on the car or off
- In line design makes a more accurate flare
- Double clamp and hex screw design keeps tubing locked tightly in position
- For use on thin walled steel and copper tubing

#### TFLM800 Flaring Kit.

- Use with a ratchet to make consistent flares faster and easier
- Makes double flares on 4.75, 5 and 6 mm tubing
- Low profile design allows for use on the car or off
- In line design makes a more accurate flare
- Double clamp and hex screw design keeps tubing locked tightly in position
- For use on thin walled steel and copper tubing



TBS100



TBS200A



TBS300



GA244

### Bending Tools

#### TBS100 Tubing Bender.

- Bends tubing up to 1/4" O.D.
- Bends copper, brass, Bundy weld, noncoated brake lines and more
- Comfort grip handle
- 7" long

#### TBS200A Multipurpose Tubing Bender (Blue-Point).

- Makes left, right or offset bends up to a 90° angle
- Degrees shown for accurate bending angle
- Handles 3/16, 1/4, 5/16 and 3/8" (4, 6 and 8 mm) O.D. aluminum, copper and stainless steel tubing
- Aluminum unit is 8 1/4" long when opened

#### TBS300 Tubing Bender (Blue-Point).

- Easily bend 1/4, 5/16 and 3/8" O.D. soft copper or aluminum tubing up to 180°
- Degrees, in 15° increments, noted on tool for accurate bends
- Pull lever to easily disengage tool after bending
- Cushioned handles provide comfort and control, even with greasy hands
- Offset handles provide hand clearance when making 180° bends
- Lightweight, die cast aluminum construction
- Overall length is 10 1/2"

#### GA244 Tubing Bender.

- Allows smooth bend without denting tubing
- Makes bends to 180° and 13/16"
- Handles 3/16, 1/4 and 5/16" O.D. steel and copper tubing
- Reversible forming pad
- Polypropylene posts minimize friction



YA824C



YA824ASTR



SBP5



SBP3



YA8230



YA9818

### Boot Pliers

#### YA824C Spark Plug Boot Pliers.

- 45° offset jaws
- Vinyl coated jaws and handles assure gripping ability
- Use only on automotive type ignition systems
- 9 1/2" long

#### YA824ASTR Boot Pliers.

- Straight jaw version of YA824C
- 9 3/4" long

#### SBP5 Boot Pliers.

- 5 positions for easy access to restricted spark plugs
- Internal spring keeps pliers in the open position
- Vinyl coated jaws and handles
- Black industrial finish
- 10" long

#### SBP3 Boot Pliers.

- Vinyl coated offset jaw tips will pull most U.S. and import spark plug boots, including the back plugs on late model Porsche® and Mercedes-Benz® vehicles
- Vinyl covered handles are cushioned for comfort

#### YA8230 Valve Stem Seal Pliers.

- Removes valve stem seals from overhead camshaft engines including 4 valve per cylinder engines that have restricted access
- Gripping serrations in the pliers tip easily grab both OEM and aftermarket seals with ease
- Easy grip handles

#### YA9818 Spark Plug Boot Puller.

- Quickly and easily remove and install hard to reach steel spark plug boots on VW® and Audi® vehicles
- T-handle design delivers greater pulling power
- Constructed from hardened stainless steel for strength and corrosion resistance
- 25/32" diameter with 12" overall length



FSPK



FSPPRK

### Spark Plug Extractors

#### FSPK Spark Plug Extractors.

- Removes broken spark plugs from cylinder head on Ford® Triton 5.4 L 3 valve engines, 4.6 L engines and 6.8 L engines without removing head

Stock No.	Description	Set Contains:
FSPK1	Barrel	•
FSPK2	Threaded Shaft	•
FSPK3	Nut	•
FSPK4	Thrust Washer	•
FSPK5	Vinyl Cap	•
T910M	Metric Tap	•

Optional Tap Holder TDL8-10

### Porcelain Extractors

#### FSPPRK Porcelain Extractor Set.

- Used in combination with FSPK spark plug extractor kit for use on Ford vehicles to remove any porcelain left behind from the process of extracting the plug
- Tool does not push the porcelain through the sleeve, preventing engine damage
- 4 cylinders can be worked on at one time to save time and money
- Set includes porcelain repair kit for use on Ford vehicles, pins (10 pack), special Loctite® 680 adhesive (5 mL) to remove broken porcelain, clean out wire and blow molded storage case

Applications (engines covered):

4.6 L V8 2005-2008 (Ford Mustang, Explorer, Mercury® Mountaineer); 5.4 L V8 2004-2008 (Ford F150, F250 Super Duty, F350 Super Duty, E450 Super Duty, Expedition, Lincoln® Navigator, Mark LT); 6.8 L V10 2005-2008 (Ford F250 Super Duty, F350 Super Duty, F450 Super Duty, F550 Super Duty, E450 Super Duty, E450 Econoline)

#### FSPPRK1 Porcelain Repair Kit for use on Ford vehicles.

- Washer, center screw, guide, hex nut and end nut

#### FSPPRK2 Pins (10 pack).

#### FSPPRK3 Loctite (680, 5 mL).

#### FSPPRK4 Clean Out Wire.

#### FSPPRKPB Storage Case.



**WARNING**



• Read safety precautions on pages W1 to W4



# SPARK PLUG TOOLS

## Service Tools



YA832A



YA840



YA6845



HB5PK



FRT10



FRT12

## Spark Plug Tools

### YA832A Spark Plug Firing Indicator (Blue-Point®).

- Test spark plugs, coils and distributors on breaker point and electronic ignition systems
- Blunt nose tip prevents lead puncturing
- High intensity bulb and viewing window for greater flash concentration
- 4 3/4" long

### YA6845 Spark Plug Boot Remover.

- For use on ripped or stuck spark plug boots
- Easily saves time as it is awkward to use a pliers to try to get the stuck boot off, especially when the spark plug is in a recessed or confined area where vision is limited
- Made from high quality heat treated steel
- High tech black finish

Applications for Ford® vehicle:

4.6 L V8 2 valve heads (1997-1999); 4.6 L V8 2 valve heads (2000 and later); 4.6 L V8 3 valve heads (2007 and later); 5.4 L V8 2 valve heads (1997-2004); 5.4 L V8 3 valve heads (2005 and later); 6.8 L V10 2 valve heads (1999-2008); 6.8 L V10 3 valve heads (2008 and later)

Applications for Chrysler® vehicle:

3.7 L V6 2 valve heads (2005 and later); 5.7 L V8 Hemi 2 valve heads (2004 and later)

Other Applications:

Applications where the diameter of the porcelain on the spark plug is smaller than 0.432 of an inch.

### YA840 In Line Spark Tester (Blue-Point).

- Quickly diagnose ignition systems
- Works on all ignition systems including distributorless ignitions
- Status of indicator light shows if problem exists in the ignition system or fuel system

### HB5PK Spark Plug File Set.

- Fine, single cut tungsten file for smoothing or cleaning spark plug and other contact points
- Includes (2) HB5 spark plug files

### FRT10 Spark Plug Insert Installer Set (Blue-Point).

- Repairs damaged heads from blown spark plugs with an alloy steel insert in as little as 15 to 45 minutes
- Services modular cylinder heads on Ford vehicles 4.6, 5.4 and 6.8 L
- Set includes tap (FRT10-1), Core Drill (FRT10-2), guide (FRT10-3), Storage Case (FRT10-CASE), Instructional DVD (FRT10-DVD) and Spark Plug Insert (FRT10-INS)

### FRT12 Three Valve Insert Kit for Ford Vehicles (Blue-Point).

- Repair cylinders without removing the head
- Custom guide, tap and drill for quick and simple repair of damaged threads
- Unique insert installer makes the job quick and easy
- Works on 3 valve 5.4 and 6.8 engines built before 10/9/2007
- Also works on 3 valve 4.6 L engines built before 11/30/2007 found on many 2004 to 2008 Ford, Lincoln® and Mercury® vehicles
- Set includes Tap (FRT-1), Core Drill (FRT-2), guide (FRT-3), Insert Installer (FRT-4), Insert (FRT1-INS) and Storage Case (FRT-CASE)

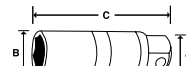
## Flank Drive® Spark Plug Sockets



S9721A



S9704KFUA



### Double Swivel (3/8" Drive), inches

- Use double swivel universals for rear spark plug removal or installation on transverse V6 engines

#	6	C	Rubber Insert
5/8	S9721A	4 13/16	S9706KARI

### Universal (3/8" Drive)

#	6	A	B	C	Rubber Insert
13/16"	S9704KFUA	3/8	13/16	3 9/16	S9705A2
5/8"	S9706KFUA	3/8	5/8	3 23/32	S9706KARI
14 mm	S9714MKFUA	3/8	25/32	3 1/8	S9714MK-2
9/16"	S9716KFUA	3/8	3/4	2 15/16	S9714MK-2



FSXK320A



S9710KC

### Flexible Extensions (3/8" Drive), inches

#	6	B	C	Rubber Insert
5/8	FSXK320A	2 15/32	5 11/32	S9706KARI

### Ball Joint Swivel (3/8" Drive), inches

#	6	C	Rubber Insert
13/16	S9709KB	3 25/32	S9705A2
5/8	S9710KC	3 25/32	S9706KARI



S9706KRFUA



S9716KR



S9704KR



S9714MKR



S9723



S9724RHS



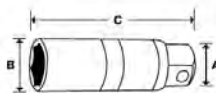
S9704RHS

### Retention Spark Plug Sockets (3/8" Drive)

- Patented tapered hex design (U.S. Patent 6,626,067)
- Securely retains spark plug in socket without rubber insert or magnet
- Patented Diamond Wedge design with 6 wedges equally align plug in the center to avoid damage to the porcelain
- Spark plug is easily disengaged by applying gentle side pressure
- Spark plug socket configuration is cold formed for extended tool life
- External hex on standard models for restricted access applications
- Knurled surface for finger tightening/removal
- Side through hole for secure extension retention for coil on plug applications
- S9706KRA/S9706KRFUA Applications: 4.7 L engines used on Jeep® Commander and Grand Cherokee, Dodge® Ram, Durango and Dakota plus Chrysler® Aspen vehicles. General applications on autos, light trucks, motorcycles and power equipment
- S9716KR Applications: 2005 Ford® Mustang (4.6 L, 3 valve engine) and Ford 2004 F150 (5.4 L V8, 3 valve engine)
- S9714MKR Applications: 14 mm spark plugs used in Nissan® 1.8 L Versa and 2.0 L Sentra, Mercedes® and BMW® vehicles

#	6	A	B	C
9/16	<b>S9716KR</b>	5/8	25/32	2 3/8
5/8	<b>S9706KRFUA</b>		27/32	3 3/4
5/8	<b>S9706KRA</b>	11/16	27/32	2 7/8
13/16	<b>S9704KR</b>	7/8	1 1/16	2 27/32
14 mm	<b>S9714MKR</b>	16 mm	19.6 mm	60.3 mm

ANSI® B107.34M



S9706KMAG

### Magnetic (3/8" Drive), inches

#	6	B	C
5/8	<b>S9706KMAG</b>	11/16	2 19/32
13/16	<b>S9704KMAG</b>	11/16	2 11/16



S9720KA



BLPSPS3858



BLPSPS381316

### Extra Deep (3/8" Drive), inches

#	6	C	Rubber Insert
9/16	<b>S9716KL</b>	5 7/8	<b>S9719-2A</b>
5/8	<b>S9720KA</b>	5 31/32	<b>S9706KARI</b>
13/16	<b>S9719KA</b>	5 7/8	<b>S9719-2A</b>

### Spark Plug Sockets, inches (Blue-Point®)

#	6	C
5/8	<b>BLPSPS3858</b>	2 9/16
13/16	<b>BLPSPS381316</b>	2 1/4

### Special Application

#### S9723 Offset Spark Plug Socket.

- 5/8" offset spark plug socket for limited access situations
- Remove/install the spark plug on the #3 cylinder without interference from the steering column on GM® 4.3 L V6 engines used in GMC® Jimmys, Chevy® Blazers, S10 and S15 pickup trucks (1994 to 2004) plus Oldsmobile® Bravadas (1996 to 2001) vehicles
- Use with 11" extension
- 12 point, Flank Drive® wrenching system
- Industrial black finish
- 1 1/2" length, 1 3/4" height, 3/8" drive

#### S9724RHS Low Profile Spark Plug Socket.

- Low profile socket easily reaches 5/8" (16 mm) spark plugs on muscle cars, ATVs, motorcycles and boats without interference from custom exhausts or chassis
- Spark plug extends through the socket for access in tight quarters
- Patented tapered hex design retains spark plug securely without rubber insert or magnet
- Spark plug is easily disengaged from socket by applying side pressure
- Use ratcheting box wrench on 5/8" external hex drive
- 1 1/16" length

#### Applications:

Harley-Davidson® motorcycles with large gas tanks (1986 and later Sportster® and 1999 and later twin cam models) plus small block Chevy, Ford and Mopar® vehicles and other engines with 5/8" (16 mm) spark plugs and racing exhaust headers

#### S9704RHS Low Profile Spark Plug Socket.

- Low profile socket easily reaches 13/16" spark plugs on muscle cars, ATVs, motorcycles, RVs and boats without interference from custom exhausts or chassis
- Spark plug extends through the socket for access in tight quarters
- Patented tapered hex design retains spark plug securely without rubber insert or magnet
- Spark plug is easily disengaged from socket by applying side pressure
- Use with open end or ratcheting box wrench on 13/16" external hex drive
- 1 1/4" length

#### Applications:

Small or big block Chevy, Ford and Mopar vehicles and other engines with 13/16" spark plugs and racing exhaust headers



**WARNING**



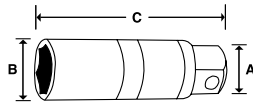
- Do not use chrome or industrial finish hand tools with impact drivers
- Read safety precautions on pages W1 to W4

# SPARK PLUGS/NUT SPLITTERS/CABLE CUTTERS

## Flank Drive® Spark Plug Sockets



S9706KA



S9716KA



S6106KA





S9711KA



S9714MK




### Standard (3/8" Drive), inches

		A	B	C	Rubber Insert
5/8	<b>S9706KA*</b>	3/8	27/32	2 27/32	<b>S9706KARI</b>
9/16	<b>S9716KA*</b>	5/8	23/32	2 1/8	<b>S9714MK-2</b>
3/4	<b>S9718KA*</b>	3/8	31/32	2 13/32	<b>S9705A2</b>
13/16	<b>S9704KA*</b>	3/8	7/8	2 3/4	<b>S9705A2</b>
7/8	<b>S6106KA**</b>	3/8	7/8	3 7/32	<b>S6106-2R</b>

\* ASME®/ANSI® B107.34M

\*\* Designed for aircraft applications

### Standard (3/8" Drive), mm

			A	B	C	Rubber Insert
18 mm	<b>S9711KA</b>		11/16	24.3	66.9	<b>S9706KARI</b>
14 mm		<b>S9714MK</b>	5/8	18.0	60.3	<b>S9714MK-2</b>

ASME/ANSI B107.34M

## Nut Splitters



CG675HY



NC52

### Hydraulic Nut Splitter

#### CG675HY Hydraulic Nut Splitter.

- 6 ton controlled hydraulic power for removal of frozen or corroded nuts up to 2H hardness and 1 3/4" across the flats or 2" hex on soft nuts
- Includes CG652 ram and pump set
- 1 1/2" stroke

#### CG675 Nut Splitter.

- Nut splitter without the hydraulics

### Manual Nut Splitter

#### NC52 Nut Splitter.

- For splitting nuts up to 3/4" across the flats
  - Bar acts as a handle to hold tool securely
- NC52-3 Extra Cutter.**  
**NC52-4A Anvil.**

## Cable Cutters



CG410HY

### Hydraulic Cable Cutters

#### CG410HY Hydraulic Cable Cutter.

- Cut steel cable up to 1 1/2" in diameter easily with up to 29 tons of force generated by this hydraulic package
- Hardened tool steel cutting blade and die make clean, square cuts and provide long, dependable service
- Both can be resharpened
- Includes CG420-2A pump, CG420-3-1 hose and CG420-4 coupler set

#### CG410 Cable Cutter.

- Cable cutter without the hydraulics

#### CG420-2A One stage 20, 35 and 50 ton pump.

#### CG420-3-1 Hose.

#### CG420-4 Coupler.



**RTD48**

### RTD48 U.S./Metric Master Rethreading Kit.

- Includes taps and dies
- Also includes TF1124B and TFM7530B thread restorer files
- All components stored in storage case (48 pcs)



**TRC3**

### TRC3 U.S. Rethreading Tap Set (NC).

- Includes 6 NC taps and 12 NC dies (18 pcs)
- Silver finish



**TRF3**

### TRF3 U.S. Rethreading Tap Set (NF).


- Includes 6 NF taps and 12 NF dies (18 pcs)
- Black finish



**RTD15M**

### RTD15M Metric Rethreading Tap & Die Set.

- Includes 7 metric dies and 7 metric taps (14 pcs)
- Gold finish

	Size, inches (mm)	Stock No.	RTD48	TRC3	TRF3	RTD15M	
<b>NC Rethreading Taps</b> 	1/4-20	TRT2520A	•	•			
	5/16-18	TRT3118A	•	•			
	3/8-16	TRT3716A	•	•			
	7/16-14	TRT4314A	•	•			
	1/2-13	TRT5013A	•	•			
	9/16-12	TRT5612A	•	•			
<b>NF Rethreading Taps</b> 	1/4-28	TRT2528A	•		•		
	5/16-24	TRT3124A	•		•		
	3/8-24	TRT3724A	•		•		
	7/16-20	TRT4320A	•		•		
	1/2-20	TRT5020A	•		•		
	9/16-18	TRT5618A	•		•		
<b>Metric Rethreading Taps</b> 	(M6 x 1)	TRT51	•			•	
	(M8 x 1.25)	TRT53	•			•	
	(M10 x 1.5)	TRT54	•			•	
	(M10 x 1.25)	TRM1025-2	•			•	
	(M12 x 1.75)	TRT55	•			•	
	(M12 x 1.5)	TRT56	•			•	
	(M12 x 1.25)	TRT57	•			•	
	(M10 x 1.00)	TRT101	•				
	(M11 x 1.50)	TRT11150	•				
	(M14 x 1.50)	TRT14150	•				
<b>NC Rethreading Dies</b> 	1/4-20	TR2520A	•	•			
	5/16-18	TR3118A	•	•			
	3/8-16	TR3716A	•	•			
	7/16-14	TR4314A	•	•			
	1/2-13	TR5013A	•	•			
	9/16-12	TR5612A	•	•			
	5/8-11	TR6211A	•	•			
	3/4-10	TR7510A		•			
	7/8-9	TR8759A		•			
	1-8	TR10008A		•			
	1 1/8-7	TR11257A		•			
	1 1/4-7	TR12507A		•			
	<b>NF Rethreading Dies</b> 	1/4-28	TR2528B	•		•	
		5/16-24	TR3124B	•		•	
3/8-24		TR3724B	•		•		
7/16-20		TR4320B	•		•		
1/2-20		TR5020B	•		•		
9/16-18		TR5618B	•		•		
5/8-18		TR6218B	•		•		
3/4-16		TR7516A			•		
7/8-14		TR8714A			•		
1-14		TR10014A			•		
1 1/8-12		TR11212A			•		
1 1/4-12		TR12512A			•		
<b>Metric Rethreading Dies</b> 	(M6 x 1)	TDM51B	•			•	
	(M8 x 1.25)	TDM53B	•			•	
	(M10 x 1.5)	TDM54B	•			•	
	(M10 x 1.25)	TRM1025-1	•			•	
	(M12 x 1.75)	TDM55B	•			•	
	(M12 x 1.5)	TDM56B	•			•	
	(M12 x 1.25)	TDM57B	•			•	
	(M10 x 1.00)	TR101	•				
	(M11 x 1.50)	TR11150	•				
	(M14 x 1.50)	TR14150	•				

- Do not use chrome or industrial finish hand tools with impact drivers
- Rethreading taps and dies renew existing threads, do not use for cutting new threads or on hardened steel
- Read safety precautions on pages W1 to W4



**WARNING**





# THREAD RESTORING

## Thread Restoring Files/Thread Chasers



TF1124B

### TF1124B Thread Restorer File.

- For any diameter right or left hand threads
- Removable vinyl handles

**TF1124B.** 11, 12, 13, 14, 16, 18, 20, and 24 threads per inch.

**TF1127B.** 9, 10, 12, 16, 20, 27, 28, and 32 threads per inch.

**TFM7530B.** Pitches: .75, 1, 1.25, 1.50, 1.75, 2 and 3 mm.



TFTFM932A

### TFTFM932A Thread Restorer File Set.

- Includes 3 commonly needed files
- Files feature a black industrial finish and comfortable vinyl handles
- Files service a range of 9 to 32 threads per inch and 0.75 to 3 mm pitches
- Includes TFTFM932-1 vinyl kit bag for storage

## Thread Chasers



TR20C



TR21A



TR25B

### U.S. Thread Chaser Sets

#### TR20C U.S. External Thread Chaser Set.

- Includes small rethreading tool with 1/2 to 5 3/4" diameter capacity for bolt threads and 1/4 to 4" capacity for pipe threads plus 9 thread chasers

#### TR21A U.S. External Thread Chaser Set.

- Includes large rethreading tool with 5 to 14" diameter pipe thread capacity plus 9 thread chasers

#### TR25B U.S. Internal Thread Chaser Set.

- Includes knurled handle internal thread chasing tool plus 9 chasers

### Metric Thread Chaser Sets

#### TR20M Metric External Thread Chaser Set.

- Same rethreading tool as the TR20C U.S. set, except it includes 6 metric chasers (7 pcs)

#### TR25M Metric Internal Thread Chaser Set.

- Includes a knurled handle thread chasing tool plus 6 metric chasers (7 pcs)

### Thread Chaser Set Components

	Stock No.	Threads/inch & Pitch (mm)
U.S. Chaser	TR20-10	4 & 5
	TR20-11	6 & 7
	TR20-12	8 & 9
	TR20-32	8R & 10R
	TR20-13	10 & 11
	TR20-14	11 1/2 & 12
	TR20-15	13 & 14
	TR20-16	16 & 18
	TR20-17	20 & 24
	Metric Chaser	TR20-25
TR20-26		(3.5 & 4)
TR20-27		(2.5 & 3)
TR20-28		(1.75 & 2)
TR20-29		(1.25 & 1.5)
TR20-30		(.75 & 1)

### Spindle Rethreading Set

#### RD8 Spindle Rethreading Set.

- For most imported or U.S. front wheel drive vehicles

Stock No.	Rethreading Die Size	Set Contains:
RD7-1	M24 x 1.5	•
RD7-2	M24 x 2	•
RD7-3	M22 x 1	•
RD7-4	M22 x 1.5	•
RD7-5	M20 x 1.5	•
RD7-6	3/4"-20	•
RD7-7	13/16"-20	•
RD7-9	M20 x 1.25	•
RD7-8	Storage Case	•



RD8

### Light Truck Spindle Rethreading Set

#### RD8LT Light Truck Spindle Rethreading Set.

- For use on 4 wheel drive front and rear axle (housings) and medium to heavy duty 2 wheel drive trucks (rear axle)
- Restore axle housing and bearing/hub retention threads



RD8LT

### Master Spindle Rethreading Set

#### RD20 Master Spindle Rethreading Set.

- Repair and renew damaged threads on stub axles and spindles for most vehicles
- Dies are manufactured from high tempered steel for strength and durability
- Each die size is embossed in the case directly below each die for easy identification and selection
- Application chart included

Stock No.	Rethreading Die Size	Set Contains:
RD7-1	M24 x 1.5	•
RD7-2	M24 x 2	•
RD7-3	M22 x 1	•
RD7-4	M22 x 1.5	•
RD7-5	M20 x 1.5	•
RD7-6	3/4"-20	•
RD7-7	13/16"-20	•
RD7-9	M20 x 1.25	•
RD7-10	3/4"-16 NF	•
RD7-11	7/8"-14 NF	•
RD7-12	1"-14 NF	•
RD7-13	11/16"-24 NF	•
RD7-14	M25 x 1.5	•
RD7-15	M27 x 2	•
RD7-16	27/32"-20 NF	•
RD7-17	M16 x 1	•
RD7-18	M16 x 1.5	•
RD7-19	M18 x 1.5	•
RD7-20	M19 x 1.5	•
RD7-21	M20 x 1	•
RD7-22	Storage Case	•



RD20

Stock No.	Rethreading Die Size	Set Contains:
RD7-23	2"-16	•
RD7-24	M38 x 1.5	•
RD7-25	1 5/8"-16	•
RD7-26	1 13/16"-16	•
RD7-27	Left Hand, 2"-16	•
RD7-28	2 1/8"-16	•
RD7-29	2 1/4"-16	•
RD8LT-1	2 5/8" Driver	•
RD8LT-2	Storage Case	•

### Metric Spark Plug Hole Taps

Stock No.	Size
T10100	M10 x 1.00
T12125	M12 x 1.25
T14125	M14 x 1.25
T18150	M18 x 1.50
T2818	7/8"-18 NF



T14125

### Thread Gauge

#### TDM101 Metric Bolt and Thread Gauge.

- Bolt diameter range of 2.3 to 24 mm (with inch/decimal equivalents)
- Thread gauge sizes: .35 to 3 mm



TDM101

### Deep Well Thread Chasers

- Designed to clean and repair threads that are rusted, painted or damaged
- Unique pass through design allows you to thread even the longest bolt or wheel stud
- Back end of chaser is left open so that it can be threaded backwards on a stud to use the interior of the thread chaser as a guide to align the first couple threads
- Flip chaser over and clean threads the remaining distance on the fastener or stud
- Use a socket or wrench on the external hex drive end to operate chaser

Stock No.	Type	Thread Size	Set Contains:				
			DTRCS105	DTRFS105	DTRMAS105	DTRCF110	DTRCFM114
DTRC38	NC	3/8"-16 NC	•	•	•	•	•
DTRC716	NC	7/16"-14 NC	•	•	•	•	•
DTRC12	NC	1/2"-13 NC	•	•	•	•	•
DTRC916	NC	9/16"-12 NC	•	•	•	•	•
DTRC58	NC	5/8"-11 NC	•	•	•	•	•
DTRF38	NF	3/8"-24 NF	•	•	•	•	•
DTRF716	NF	7/16"-20 NF	•	•	•	•	•
DTRF12	NF	1/2"-20 NF	•	•	•	•	•
DTRF916	NF	9/16"-18 NF	•	•	•	•	•
DTRF58	NF	5/8"-18 NF	•	•	•	•	•
DTRM12.125	Metric	M12 x 1.25	•	•	•	•	•
DTRM12.150	Metric	M12 x 1.50	•	•	•	•	•
DTRM14	Metric	M14 x 1.50	•	•	•	•	•
DTRM16	Metric	M16 x 1.50	•	•	•	•	•



DTRC58

DTRMAS105

DTRFS105

DTRCS105



**WARNING**



- Rethreading taps and dies renew existing threads, do not use for cutting new threads or on hardened steel
- Read safety precautions on pages W1 to W4

# THREADING

## Tap and Die Sets



TDTDM117A



TDTDM500A



TD2425

TDP6



TD9902



**TDTDM117A Deluxe Combination Set.** Includes all components of the TDTDM500A U.S./Metric set plus 41 pc high speed steel drill bit set in fractional, metric, wire gauge and letter sizes and 5 spiral screw extractors. Each drill bit matches to corresponding tap size for correct fit. Set offers a complete assortment of high carbon steel taps and dies in fractional and metric sizes. Tap/drill charts and tool diagrams included. Set packaged in a storage case.



	Thread Size	Tap Stock No.	Die Stock No.	Die Type	U.S. Set	U.S. Set	U.S. Set	U.S./Metric Set	U.S. Set
<b>National Fine Threads (Adjustable Dies)</b>	1/4"-28 NF	T105	D015	1" Double Hex Adjustable		•		•	•
	5/16"-24 NF	T106	D016	1" Double Hex Adjustable		•		•	•
	3/8"-24 NF	T107	D017	1" Double Hex Adjustable		•		•	•
	7/16"-20 NF	T108	D018	1" Double Hex Adjustable		•		•	•
	1/2"-20 NF	T109	D019	1" Double Hex Adjustable		•		•	•
	1/2"-20 NF		DR019	1 1/2" Round Adjustable	•				
	9/16"-18 NF	T125	DR035	1 1/2" Round Adjustable	•				•
	5/8"-18 NF	T126	DR036	1 1/2" Round Adjustable	•				•
	3/4"-16 NF	T127	DR037	1 1/2" Round Adjustable	•				•
	7/8"-14 NF	T128	DR042	2" Round Adjustable	•				•
1"-14"	T129	DR043	2" Round Adjustable	•				•	
<b>National Fine Threads (Non Adjustable Dies)</b>	1/4"-28 NF	T105	GA541-1428	1" Single Hex Non Adjustable				•	•
	5/16"-24 NF	T106	GA541-51624	1" Single Hex Non Adjustable				•	•
	3/8"-24 NF	T107	GA541-3824	1" Single Hex Non Adjustable				•	•
	7/16"-20 NF	T108	GA541-71620	1" Single Hex Non Adjustable				•	•
	1/2"-20 NF	T109	GA541-1220	1" Single Hex Non Adjustable				•	•
<b>National Coarse Threads (Adjustable Dies)</b>	1/4"-20 NC	T100	D010	1" Double Hex Adjustable		•		•	•
	5/16"-18 NC	T101	D011	1" Double Hex Adjustable		•		•	•
	3/8"-16 NC	T102	D012	1" Double Hex Adjustable		•		•	•
	7/16"-14 NC	T103	D013	1" Double Hex Adjustable		•		•	•
	1/2"-13 NC	T104	D014	1" Double Hex Adjustable		•		•	•
	1/2"-1 NC		DR014	1 1/2" Round Adjustable					•
	9/16"-12 NC	T120	DR030	1 1/2" Round Adjustable	•				•
	5/8"-11	T121	DR031	1 1/2" Round Adjustable	•				•
	3/4"-10 NC	T122	DR032	1 1/2" Round Adjustable	•				•
	7/8"-9 NC	T123	DR040	2" Round Adjustable	•				•
1"-8 NC	T124	DR041	2" Round Adjustable	•				•	
<b>National Coarse Threads (Non Adjustable Dies)</b>	1/4"-20 NC	T100	GA541-1420	1" Single Hex Non Adjustable				•	•
	5/16"-18 NC	T101	GA541-51618	1" Single Hex Non Adjustable				•	•
	3/8"-16 NC	T102	GA541-3816	1" Single Hex Non Adjustable				•	•
	7/16"-14 NC	T103	GA541-71614	1" Single Hex Non Adjustable				•	•
1/2"-13 NC	T104	GA541-1213	1" Single Hex Non Adjustable				•	•	
<b>Machine Screw Threads (Adjustable Dies)</b>	4-40	T111A	D021A	5/8" Double Hex Adjustable		•		•	•
	6-32	T112	D022	5/8" Double Hex Adjustable		•		•	•
	8-32	T113	D023	5/8" Double Hex Adjustable		•		•	•
	10-24	T114	D024	5/8" Double Hex Adjustable		•		•	•
	10-32	T115	D025	5/8" Double Hex Adjustable		•		•	•
	12-24	T116	D026	5/8" Double Hex Adjustable		•		•	•
<b>Machine Screw Threads (Non Adjustable Dies)</b>	4-40	T111A	GA541-440	5/8" Single Hex Non Adjustable				•	•
	6-32	T112	GA541-632	5/8" Single Hex Non Adjustable				•	•
	8-32	T113	GA541-832	5/8" Single Hex Non Adjustable				•	•
	10-24	T114	GA541-1024	5/8" Single Hex Non Adjustable				•	•
	10-32	T115	GA541-1032	5/8" Single Hex Non Adjustable				•	•
	12-24	T116	GA541-1224	5/8" Single Hex Non Adjustable				•	•
<b>Pipe Threads (Adjustable Dies)</b>	1/8"-27 NPT	T110				•	•	•	•
	1/8"-27 NPT		D020	1" Double Hex Adjustable		•		•	•
	1/4"-18 NPT	T130			•		•		•
	1/4"-18 NPT		DR033	1 1/2" Round Adjustable	•				•
	3/8"-18 NPT	T131					•		
	1/2"-14 NPT	T132					•		
<b>Pipe Threads (Non Adjustable Dies)</b>	3/4"-14 NPT	T133					•		
	1"-11 1/2" NPT	T134					•		
	1/8"-27 NPT	T110	GA541-1827	1" Double Hex Non Adjustable					

## Tap and Die Sets

	Thread Size	Tap Stock No.	Die Stock No.	Die Type	Set Contains:						
					TD9902B	TD2425	TDM99117	TDM99117A	TDM117B	TDTDM500A	TD9902
					U.S. Set	U.S. Set	Metric Set	Metric Set	Metric Set	U.S./Metric Set	U.S. Set
<b>Metric Threads</b>	M3 x .50	<b>T305M</b>	<b>D305M</b>	5/8" Double Hex Adjustable			•		•		•
	M4 x .70	<b>T407M</b>	<b>D407MA</b>	5/8" Double Hex Adjustable			•		•		•
	M4 x .75	<b>T4075M</b>	<b>D4075M</b>	5/8" Double Hex Adjustable			•		•		•
	M5 x .80	<b>T508M</b>	<b>D508MA</b>	5/8" Double Hex Adjustable			•		•		•
	M5 x .90	<b>T509M</b>	<b>D509M</b>	5/8" Double Hex Adjustable			•		•		•
	M6 x 1.00	<b>T610M</b>	<b>D610MA</b>	5/8" Double Hex Adjustable			•		•		•
	M7 x 1.00	<b>T710M</b>	<b>D710M</b>	1" Double Hex Adjustable			•		•		•
	M8 x 1.00	<b>T810M</b>	<b>D810M</b>	1" Double Hex Adjustable			•		•		•
	M8 x 1.25	<b>T812M</b>	<b>D812M</b>	1" Double Hex Adjustable			•		•		•
	M9 x 1.00	<b>T910M</b>	<b>D910M</b>	1" Double Hex Adjustable			•		•		•
	M9 x 1.25	<b>T912M</b>	<b>D912M</b>	1" Double Hex Adjustable			•		•		•
	M10 x 1.25	<b>T1012M</b>	<b>D1012M</b>	1" Double Hex Adjustable			•		•		•
	M10 x 1.5	<b>T1015M</b>	<b>D1015M</b>	1" Double Hex Adjustable			•		•		•
	M11 x 1.5	<b>T1115M</b>	<b>D1115M</b>	1" Double Hex Adjustable			•		•		•
	M12 x 1.5	<b>T1215M</b>	<b>D1215M</b>	1" Double Hex Adjustable			•		•		•
	M12 x 1.75	<b>T1217M</b>	<b>D1217M</b>	1" Double Hex Adjustable			•		•		•
	M14 x 1.25	<b>T14125</b>	<b>DR1412M</b>	1 1/2" Round Adjustable			•	•			
	M14 x 1.5	<b>T1415M</b>	<b>DR1415M</b>	1 1/2" Round Adjustable			•	•			
	M14 x 2.0	<b>T1420M</b>	<b>DR1420M</b>	1 1/2" Round Adjustable			•	•			
	M1 x 1.5	<b>T1615M</b>	<b>DR1615M</b>	1 1/2" Round Adjustable			•	•			
	M16 x 2.0	<b>T1620M</b>	<b>DR1620M</b>	1 1/2" Round Adjustable			•	•			
	M18 x 1.5	<b>T1815M</b>	<b>DR1815M</b>	1 1/2" Round Adjustable			•	•			
	M18 x 2.5	<b>T1825M</b>	<b>DR1825M</b>	1 1/2" Round Adjustable			•	•			
	M20 x 2.5	<b>T2025M</b>	<b>DR2025M</b>	2" Round Adjustable			•	•			
	M22 x 1.5	<b>T2215M</b>	<b>DR2215M</b>	2" Round Adjustable			•	•			
	M24 x 2.0	<b>T2420M</b>	<b>DR2420M</b>	2" Round Adjustable			•	•			
	M24 x 3.0	<b>T2430M</b>	<b>DR2430M</b>	2" Round Adjustable			•	•			
	1/8"-28 BSP	<b>T110M</b>	<b>D020M</b>	1" Double Hex Non Adjustable			•		•		•
<b>Accessories</b>	GA541-1 Die Stock			For 5/8" single hex dies					•		•
	TD3A Die Stock			For 5/8" double hex dies		•	•		•		•
	GA26-2 Die Stock			Adjustable for 1" single hex dies							
	TD10A Die Stock			Self Centering for 1" double hex dies		•	•		•		•
	TD35 Die Stock			Self Centering for 1 1/2" diameter round dies	•			•			•
	TD40 Die Stock			Self Centering for 2" diameter round dies	•			•			•
	TD4 Tap Wrench			4 jaw, for 0 - 1/4" taps		•	•		•		•
	TD6 Tap Wrench			2 jaw, for 1/16 - 1/4" taps							
	TD7 Tap Wrench			2 jaw, for 1/4 - 1/2" taps							
	TD50 Tap Wrench			4 jaw, for 1/4 - 1/2" (M7 x 1.00 to M12 x 1.75) taps		•	•		•		•
	TD88A Tap Wrench			Clamp type, for 0 - 1/2" (M3 x 0.50 to M12 x 1.75) taps		•	•		•		•
	TD98A Tap Wrench			Clamp type, for 0 - 1" (M7 x 10 to M24 x 3.0) taps		•	•		•		•
	TD1040 Thread Pitch Gauge			U.S.		•			•		•
	TDM100 Thread Pitch Gauge			Metric					•		•
	TDS1 Screwdriver			For adjusting dies		•	•		•		•

### Metric Tap Set

**TMA34.** Precision ground flutes ensure accurate threading. High carbon steel ensures less breakage. Tap adaptors turn any 3/8" socket drive into a tap driver.

**Metric Tap Set Includes:**

Stock No.	Thread Size	Stock No.	Thread Size	Stock No.	Thread Size
<b>T305M</b>	M3 x 0.50	<b>T910M</b>	M9 x 1.00	<b>T1420M</b>	M14 x 2.00
<b>T306M</b>	M3 x 0.60	<b>T912M</b>	M9 x 1.25	<b>T1610M</b>	M16 x 1.00
<b>T407M</b>	M4 x .070	<b>T1010M</b>	M10 x 1.00	<b>T1615M</b>	M16 x 1.50
<b>T4075M</b>	M4 x 0.75	<b>T1012M</b>	M10 x 1.25	<b>T1620M</b>	M16 x 2.00
<b>T508M</b>	M5 x 0.80	<b>T1015M</b>	M10 x 1.50	<b>T1815M</b>	M18 x 1.50
<b>T509M</b>	M5 x 0.90	<b>T1115M</b>	M11 x 1.50	<b>T18150</b>	M18 x 1.50
<b>T610M</b>	M6 x 1.00	<b>T1212M</b>	M12 x 1.25	<b>T1825M</b>	M18 x 2.50
<b>T6310M</b>	M6.3 x 1.00	<b>T1215M</b>	M12 x 1.50	<b>TDM100</b>	Metric Thread, Pitch Gauge
<b>T710M</b>	M7 x 1.00	<b>T1217M</b>	M12 x 1.75	<b>ATSS</b>	Adj. Tap Socket, 3-6 mm
<b>T810M</b>	M8 x 1.00	<b>T1412M</b>	M14 x 1.25	<b>ATSL</b>	Adj. Tap Socket, 6-12 mm
<b>T812M</b>	M8 x 1.25	<b>T14125</b>	M14 x 1.25		
<b>T9075M</b>	M9 x 0.75	<b>T1415M</b>	M14-1.50		



**TMA34**

### GAM541 Metric Set

**(Blue-Point®).** 40 pc set features 1" single hex nonadjustable dies from 3 to 12 mm, a 1/8"-28 BSP die plus taps in the same sizes. Also includes a die stock, 2 T-handle tap wrenches, a thread pitch gauge, a drill/tap chart and a midget screwdriver, all in a storage case.



**GAM541**

### GA541 U.S. Set

**(Blue-Point®).** Taps and dies from #4 to 1/2" in both NF and NC threads, a pipe thread tap and die, plus 2 die stocks and 3 tap wrenches, a screw pitch gauge and a screwdriver (41 pc) in a storage case.



**GA541**



**WARNING**



- Retreading taps and dies renew existing threads, do not use for cutting new threads or on hardened steel
- Read safety precautions on pages W1 to W4



# THREADING

## Self Aligning Taps and Dies



TSA117

TSA117M

### Self Aligning Taps

- Self aligning taps feature Chip Breaking Technology (CBT) allowing the cutting edge to cut, break and chip cleaner. Up to 30% easier to break chips
- Self aligning taps come with an alignment chamfer that allows the tap to start straight every time, ensuring straight threads and less chance of cross threading
- Increased flute taper increases tap durability up to 20%
- Plug chamfer style for general purpose threading
- High carbon steel is ideal for hand tapping applications

### Self Aligning Taps, U.S.

Set Contains:

TSA117

Stock No.	Thread Size	
T110	1/8"-27 NPT	•
TSA111	4-40 Machine Screw	•
TSA112	6-32 Machine Screw	•
TSA113	8-32 Machine Screw	•
TSA114	10-24 Machine Screw	•
TSA115	10-32 Machine Screw	•
TSA116	12-24 Machine Screw	•
TSA100	1/4"-20 NC	•
TSA105	1/4"-28 NF	•
TSA101	5/16"-18 NC	•
TSA106	5/16"-24 NF	•
TSA102	3/8"-16 NC	•
TSA107	3/8"-24 NF	•
TSA103	7/16"-14 NC	•
TSA108	7/16"-20 NF	•
TSA104	1/2"-13 NC	•
TSA109	1/2"-20	•

### Self Aligning Taps, Metric

Set Contains:

TSA117M

Stock No.	Thread Size	
T110M	1/8"-28 BSP	•
TSA305M	M3 x .50	•
TSA4075M	M4 x .75	•
TSA407M	M4 x .70	•
TSA508M	M5 x .80	•
TSA509M	M5 x .90	•
TSA610M	M6 x 1.00	•
TSA710M	M7 x 1.00	•
TSA810M	M8 x 1.00	•
TSA812M	M8 x 1.25	•
TSA910M	M9 x 1.00	•
TSA912M	M9 x 1.25	•
TSA1012M	M10 x 1.25	•
TSA1015M	M10 x 1.50	•
TSA1115M	M11 x 1.50	•
TSA1212M	M12 x 1.25	•
TSA1217M	M12 x 1.75	•



DSA117

DSA117M

### Self Aligning Dies

- Self aligning dies feature CBT ensuring clean cuts in both directions
- Alignment plate design starts straight every time to reduce the chance of cross threading
- Roller threads provide greater thread quality, accuracy and cutting ease
- Made from high carbon steel
- Use dies with the TDALDS1 Die Stock

### Self Aligning Dies, U.S.

Set Contains:

DSA117

Stock No.	Die Type	Thread Size	
D020	1" Double Hex Non Adjustable	1/8"-27 NPT	•
DSA010	Double Hex	1/4"-20 NC	•
DSA011	Double Hex	5/16"-18 NC	•
DSA012	Double Hex	3/8"-16 NC	•
DSA013	Double Hex	7/16"-14 NC	•
DSA014	Double Hex	1/2"-13 NC	•
DSA015	Double Hex	1/4"-28 NF	•
DSA016	Double Hex	5/16"-24 NF	•
DSA017	Double Hex	3/8"-24 NF	•
DSA018	Double Hex	7/16"-20 NF	•
DSA019	Double Hex	1/2"-20	•
DSA021	Double Hex	4-40 Machine Screw	•
DSA022	Double Hex	6-32 Machine Screw	•
DSA023	Double Hex	8-32 Machine Screw	•
DSA024	Double Hex	10-24 Machine Screw	•
DSA025	Double Hex	10-32 Machine Screw	•
DSA026	Double Hex	12-24 Machine Screw	•

### Self Aligning Dies, Metric

Set Contains:

DSA117M

Stock No.	Die Type	Thread Size	
D020M	1" Double Hex Non Adjustable	1/8"-28 BSP	•
DSA305M	Double Hex	M3 x .50	•
DSA407M	Double Hex	M4 x .70	•
DSA4075M	Double Hex	M4 x .75	•
DSA508M	Double Hex	M5 x .80	•
DSA509M	Double Hex	M5 x .90	•
DSA610M	Double Hex	M6 x 1.00	•
DSA710M	Double Hex	M7 x 1.00	•
DSA810M	Double Hex	M8 x 1.00	•
DSA812M	Double Hex	M8 x 1.25	•
DSA910M	Double Hex	M9 x 1.00	•
DSA912M	Double Hex	M9 x 1.25	•
DSA1012M	Double Hex	M10 x 1.25	•
DSA1015M	Double Hex	M10 x 1.50	•
DSA1115M	Double Hex	M11 x 1.50	•
DSA1212M	Double Hex	M12 x 1.25	•
DSA1217M	Double Hex	M12 x 1.75	•

### Tap and Die Drive Tool System

#### TDALDS1 Die Stock.

- Features a twist die lock which means no more set screws are needed
- Simply twist to insert or remove the die
- Ergonomic handles for comfort and control when threading
- Fits 1" double hex dies

#### TDALTS1 Adjustable Tap Socket.

- For 0 to 1/4" (M3 x .50 to M6 x 1.00) taps
- Versatile base can be driven with die stock, 3/8" ratchet or T-bar handle

#### TDALTS2 Adjustable Tap Socket.

- For 1/4 to 1/2" (M7 x 1.00 to M12 x 1.75) taps
- Versatile base can be driven with die stock, 3/8" ratchet or T-bar handle

#### TDALDSS Die Spacer.

- 1/8" spacer accommodates standard 1" hex dies
- Drives tools compatible with all 1" hex dies and ANSI® spec taps

#### TDALTSB T-Bar Handle.

- For TDALTS1 and TDALTS2 Adjustable Tap Sockets

#### TDRSET Tap and Die Drive Tool Set.

Includes: TDALDS1 Die Stock, TDALTS1 and TDALTS2 Adjustable Tap Sockets, TDALDSS Die Spacer, TDALTSB T-Bar Handle, TD1040 U.S. Thread Pitch gauge and TDM100 Metric Thread Pitch gauge (7 pcs) in storage box.



TDRSET

## Tap Sockets and Die Sets



TDL8



TDL3

### Tap Sockets (1/4 - 3/8" Drive)

Stock No.	Square Drive, inches	Fits SAE Size Taps	Fits Metric Size Taps	Shank Dia., inches	Square Size, inches
TDL8-1	1/4	#1, #2, #3, #4, #5, #6	M1.6, M1.8, M2, M2.2, M2.5, M3, M3.15, M3.5	.141	.110
TDL8-2	1/4	#8	M4	.168	.131
TDL8-3	1/4	#10	M4.5, M5	.194	.152
TDL8-4	1/4	1/4"	M6, M6.3	.255	.191
TDL8-5	3/8	5/16", 7/16"	M7, M8	.323	.242
TDL8-6	3/8	3/8"	M10	.381	.286
TDL8-7	3/8	1/2"	M12, M12.5	.367	.275
TDL8-8	3/8	1/8" NPT		.437	.328

#### TDL8 Tap Socket Set.

- For use with ratchets and handles
- Rubber O-rings hold taps securely in place
- Black industrial finish
- Includes 8 sockets on TDL8-9 socket rail and clips

### Tap Sockets (1/2" Drive)

- Use in restricted areas where a T-handle won't easily fit
- Manufactured to M.C.T.I. Standards
- Black industrial finish

Stock No.	Square Drive, inches	Fits SAE Size Taps, inches	Fits Metric Size Taps	Shank Dia., inches	Square Size, inches	Set Contains:
TDL31	1/2	5/8	16 mm	.480	.360	•
TDL32	1/2	11/16	18 mm	.542	.406	•
TDL33	1/2	3/4		.590	.442	•



TD1040

### Thread Pitch Gauge

#### TD1040 Thread Pitch Gauge.

- Measures U.S. or sharp "V" threads
- Includes 18 plated blades for the following thread sizes: 8, 9, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 20, 24, 27, 28, 32, 36, 40, and 44 threads per inch

### Plug Taps and Dies

	Stock No.	Thread Size	Thread Pitch	Die Type	
Tap	T111	4-36	Right Hand		
	T6310M	M6.33 x 1	Right Hand		
	T1010M	M10 x 1	Right Hand		
	T1112M	M11 x 1.25	Right Hand		
	T1212M	M12 x 1.25	Right Hand		
	T1412M	M14 x 1.25	Right Hand		
	T1415M	M14 x 1.5	Right Hand		
	T1420M	M14 x 2	Right Hand		
	Die	D021	4-36	Right Hand	5/8" Dbl. Hex
		D040	1/4"-18	Right Hand	1" Dbl. Hex
D147M		M4 x .7	Right Hand	1" Dbl. Hex	
D158M		M5 x .8	Right Hand	1" Dbl. Hex	
D161M		M6 x 1	Right Hand	1" Dbl. Hex	
D1010M		M10 x 1	Right Hand	1" Dbl. Hex	
D1112M		M11 x 1.25	Right Hand	1" Dbl. Hex	
D1212M		M12 x 1.25	Right Hand	1" Dbl. Hex	
D1615M		M16 x 1.5	Right Hand	1 1/4" Hex	
D1615ML		M16 x 1.5	Left Hand	1 1/4" Hex	

### Bottoming Taps

#### TB300C Set.

- Allows blind holes to be tapped within one thread of bottom of hole

#### TB5/16C Tap.

- 5/16"-18 NC thread size

#### TB3/8C Tap.

- 3/8"-16 NC thread size

#### TB7/16C Tap.

- 7/16"-14 NC thread size

#### TB300F Set.

- Allows blind holes to be tapped within one thread of bottom of hole

#### TB5/16F Tap.

- 5/16"-24 NF thread size

#### TB3/8F Tap.

- 3/8"-24 NF thread size

#### TB7/16F Tap.

- 7/16"-20 NF thread size



TB300C

### Ratcheting Tap Wrenches (Blue-Point®)

#### YA577A T-handle Tap Wrench.

- For taps up to 1/4"
- Ratchet clockwise or counterclockwise
- 3 3/8" long body, 3 15/16" handle

#### YA578A T-handle Tap Wrench.

- For 1/4 to 1/2" taps
- Ratchet clockwise or counterclockwise
- 4 3/8" long body, 4 3/4" handle

#### TDW1000 Ratcheting Tap and Die Wrench.

- Cut and renew threads in confined areas
- Bi directional ratcheting action
- Holds dies with 1" (25 mm) diameter
- Includes adaptors for hex and double hex
- Also includes adaptors for most popular tap sizes: .250" (6.35 mm), .290" (7.36 mm), .335" (8.5 mm) and .535" (13.58 mm)



YA577A



TDW1000

### Adjustable Tap Sockets

- Designed for use with taps, reamers, screw extractors and other tools with a square shank
- Small profile for easier access to tight work spaces
- Adaptor turns any 3/8" square drive ratchet or handle into a tap driver



ATSS



ATSL

#### ATSS Adjustable Tap Socket.

- Fits common taps from #6 to 1/4" (3 to 6 mm)

#### ATSL Adjustable Tap Socket.

- Fits common taps from 1/4 to 1/2" (6 to 12 mm)

#### ATSSSET Adjustable Tap Socket Set.

- ATSS and ATSL (2 pcs)

	Stock No.	Thread Size	Thread Pitch	Die Type
Die	D1620M	M16 x 2	Right Hand	1 1/4" Hex
	D1810M	M18 x 1	Right Hand	1 7/16" Hex
	D1815M	M18 x 1.5	Right Hand	1 7/16" Hex
	D1815ML	M18 x 1.5	Left Hand	1 7/16" Hex
	D1825M	M18 x 2.5	Right Hand	1 7/16" Hex
	DR2015M	M20 x 1.5	Right Hand	2" Round
	D2025M	M20 x 2.5	Right Hand	1 7/16" Hex
	D2215M	M22 x 1.5	Right Hand	1 5/8" Hex
	D2215ML	M22 x 1.5	Left Hand	1 5/8" Hex
	D2415M	M24 x 1.5	Right Hand	1 13/16" Hex
	D3015M	M30 x 1.5	Right Hand	2" Hex



**WARNING**



- Retreading taps and dies renew existing threads, do not use for cutting new threads or on hardened steel
- Read safety precautions on pages W1 to W4

# EXTRACTORS

## Extractor Sets

	Set Contains:	EXDMS48	EXD35	EXD10	EXDL10	E1025	E1020	
<b>Right Hand Drill Bits</b>	Stock No.							
	CSE405B						•	
	DBCFS5/64			•				
	DBCFS7/64			•				
	DBCFS5/32			•				
	DBCFS1/4			•				
	DBCFS19/64			•				
	DBF1/8C					•	•	
	DBF3/16C					•	•	
	DBF1/4C					•	•	
	DBF5/16C					•	•	
	DBF11/32C					•	•	
	DBF7/16C					•	•	
	DBF1/2C					•	•	
	<b>Left Hand Drill Bits</b>	DBCL5/64A	•	•				
		DBCL7/64A	•	•		•		
DBCL1/8		•	•					
DBCL5/32A		•	•		•			
DBCL3/16		•	•					
DBCL7/32		•	•					
DBCL1/4A		•	•		•			
DBCL9/32		•	•					
DBCL19/64A		•	•		•			
DBCL5/16		•	•					
DBCL11/32		•	•					
DBCL3/8		•	•					
DBCL13/32		•	•					
DBCL7/16		•	•					
DBCL15/32		•	•					
DBCL1/2		•	•					
<b>Solid Type Drill Guides</b>	E921					•		
	E1021					•	•	
	E1121					•	•	
	E1221					•	•	
	E1321					•	•	
	E1421					•	•	
	E1521					•	•	
	E1621					•	•	
	E1721					•	•	
	E1821					•	•	
<b>Sleeve Type Drill Guides</b>	E33A					•		
	E34					•		
<b>Sleeve Bushings (in pairs)</b>	E3033					•		
<b>Straight Screw Extractors</b>	E1					•	•	
	E2					•	•	
	E3					•	•	
	E4					•	•	
	E5					•	•	
	E6					•	•	
	E7					•	•	
	E8					•	•	
<b>Pipe Plug Extractors</b>	E80					•		
	E81					•		
	E82					•		
	E83					•		
	E84					•		
	E85					•		
<b>Spiral Flute Screw Extractors</b>	EX1	•	•	•	•			
	EX2	•	•	•	•			
	EX3	•	•	•	•			
	EX4	•	•	•	•			
	EX5	•	•	•	•			
	EX6	•	•	•	•			
<b>Multispline Screw Extractors</b>	REX104A	•	•					
	REX105A	•	•					
	REX106A	•	•					
	REX107A	•	•					
	REX108A	•	•					
	REX109A	•	•					
	REX110A	•	•					
	REX111A	•	•					
	REX112A	•	•					
	REX113A	•	•					
	REX114A	•	•					
	REX115A	•	•					
	REX116A	•	•					
<b>Hex Head Fastener Extractors</b>	BEX081	•						
	BEX101	•						
	BEX121	•						
	BEXM101	•						
	BEX141	•						
	BEXM121	•						
	BEX161	•						
	BEXM131	•						
	BEX181	•						
	BEX201	•						
	BEXM171	•						
	BEX221	•						
	BEX241	•						



**EXDMS48 Master Extractor Set.**

**EXDMS48**

- Quickly and easily extracts the toughest screws from 3/32 to 15/16" screw sizes (including metric sizes)
- Includes 16 left hand mechanic's length cobalt drill bits, 13 multispline screw extractors (1/8 to 1/2"), 6 spiral flute screw extractors plus 13 hex head fastener extractors (1/4 to 3/4")
- Hex head extractors feature left hand spiral flutes for maximum gripping power
- External hex and square drive wrenching options for use with wrenches, impact wrenches and ratchet/socket combinations
- 48 pcs in storage case



**EXD35 Screw Extractor Set.**

**EXD35**

- Quickly and easily extracts tough screws from 3/32 to 15/16" (including metric sizes)
- Includes 16 left hand mechanic's length cobalt drill bits, 13 multispline screw extractors and 6 spiral flute screw extractors in EXD35-1 storage case



**EXD10**



**EXDL10**

**EXD10 Right Hand Extractor Set.**

- Includes 5 right hand, mechanic's length cobalt drill bits and 5 spiral flute screw extractors in metal index

**EXDL10 Left Hand Extractor Set.**

- Includes 5 left hand, mechanic's length cobalt drill bits and 5 spiral flute screw extractors in metal index



**E1025**

**E1025 Extractor Set (Blue-Point®).**

- Extract broken screws from 1/4 to 1" diameter and standard pipe sizes 1/8 to 1"
- Storage case



**E1020**

**E1020 Extractor Set (Blue-Point®).**

- Extracts broken screws from 1/4 to 1/2" diameter
- Storage case



REX25B



REX10B



REX15B



BEX13A



BEX5B

### Multispline Extractor Sets

- Shoulder prevents extractor from entering too deeply and expanding screw

**REX25B Multispline Extractor Set.** REX104A to REX128A (25 pcs) in REX25BMT storage case.

**REX10B Multispline Extractor Set.** REX104A to REX113A (10 pcs) in REX10BMT storage case.

**REX15B Multispline Extractor Set.** REX104A to REX118A (15 pcs) in REX15BMT storage case.



REX114A

### Multispline Extractors

Stock No.	Drill Size, inches	Bolt Size, inches	Pipe Size, inches	Hex Size, inches	Mark
REX104A	1/8	1/4		1/2	A
REX105A	5/32	5/16		1/2	B
REX106A	3/16	3/8		1/2	C
REX107A	7/32	7/16		1/2	D
REX108A	1/4	1/2	1/8	1/2	E
REX109A	9/32	9/16		1/2	F
REX110A	5/16	5/8		1/2	G
REX111A	11/32	11/16	1/4	1/2	H
REX112A	3/8	3/4		1/2	I
REX113A	13/32	13/16		1/2	J
REX114A	7/16	7/8		5/8	K
REX115A	15/32	15/16	3/8	5/8	L
REX116A	1/2	1		5/8	M
REX117A	17/32	1 1/16		5/8	N
REX118A	9/16	1 1/8		3/4	O
REX119A	19/32	1 3/16		3/4	P
REX120A	5/8	1 1/4	1/2	3/4	Q
REX121A	21/32	1 5/16		7/8	R
REX122A	11/16	1 3/8		7/8	S
REX123A	23/32	1 7/16		7/8	T
REX124A	3/4	1 1/2		7/8	U
REX125A	25/32	1 9/16	3/4	1	V
REX126A	13/16	1 5/8		1	W
REX127A	27/32	1 11/16		1	X
REX128A	7/8	1 3/4		1	Y

### Hex Head Fastener Extractors

- Use on most popular hex head fasteners from 1/4 to 1" (8 to 24 mm)
- Sockets feature left hand spiral flutes for maximum gripping power
- Manufactured from high carbon steel for maximum strength
- External hex and square drive wrenching options for use with wrenches, impact wrenches and ratchet/socket combinations

Set Contains:

BEX13A  
BEX5B

Stock No.	Square Drive, inches	Size, inches (mm)	External Hex, inches (mm)	Outside Dia., inches (mm)	Length, inches (mm)		
BEX081	3/8	1/4 (6)	5/8 (15.9)	3/8 (9.5)	1 1/16 (27.0)	•	
BEX101	3/8	5/16 (8)	5/8 (15.9)	7/16 (11.1)	1 1/16 (27.0)	•	
BEX121	3/8	3/8 (10)	5/8 (15.9)	9/16 (14.3)	1 1/16 (27.0)	•	
BEXM101	3/8	n/a (10)	3/4 (19.1)	5/8 (15.5)	1 1/16 (27.0)	•	
BEX141	3/8	7/16 (11)	3/4 (19.1)	5/8 (15.9)	1 1/16 (27.0)	•	
BEXM121	3/8	n/a (12)	3/4 (19.1)	23/32 (17.5)	1 1/16 (27.0)	•	
BEX161	3/8	1/2 (12)	3/4 (19.1)	23/32 (17.9)	1 1/16 (27.0)	•	
BEXM131	3/8	n/a (13)	3/4 (19.1)	23/32 (18.5)	1 1/16 (27.0)	•	
BEX181	3/8	9/16 (14)	7/8 (22.2)	25/32 (19.4)	1 1/16 (27.0)	•	
BEX201	3/8	5/8 (16)	7/8 (22.2)	7/8 (21.8)	1 1/16 (27.0)	•	
BEXM171	3/8	n/a (17)	1 (25.4)	29/32 (23.0)	1 1/16 (27.0)	•	
BEX221	3/8	11/16 (n/a)	1 (25.4)	19/16 (24.2)	1 1/16 (27.0)	•	
BEX241	3/8	3/4 (19)	1 1/16 (27)	1 1/32 (26.2)	1 1/16 (27.0)	•	
BEXW241	1/2	3/4 (19)	1 1/4 (31.8)	1 1/8 (28.6)	1 3/4 (44.5)	•	•
BEXW261	1/2	13/16 (21)	1 3/8 (34.9)	1 3/16 (30.2)	1 3/4 (44.5)	•	•
BEXW281	1/2	7/8 (22)	1 7/16 (36.5)	1 1/4 (31.8)	1 3/4 (44.5)	•	•
BEXW301	1/2	15/16 (24)	1 7/16 (36.5)	1 5/16 (33.3)	1 3/4 (44.5)	•	•
BEXW321	1/2	1 (n/a)	1 7/16 (36.5)	1 3/8 (34.9)	1 3/4 (44.5)	•	•



110STSY

### External Drive Hex Head Slim Twist Sockets

Stock No.	Nut/Bolt Size, inches (mm)	Socket Number	External Hex, inches	Socket Thickness, inches (mm)	Finish
110STSY1	3/8 (9)	#1	5/8	0.38 (9.5)	Industrial Black
110STSY2	(10)	#2	5/8	0.38 (9.5)	Industrial Black
110STSY3	7/16 (11)	#3	11/16	0.38 (9.5)	Industrial Black
110STSY4	(12)	#4	3/4	0.38 (9.5)	Industrial Black
110STSY5	(13)	#5	3/4	0.50 (12.7)	Industrial Black
110STSY6	(14)	#6	13/16	0.50 (12.7)	Industrial Black
110STSY7	(15)	#7	7/8	0.50 (12.7)	Industrial Black
110STSY8	5/8 (16)	#8	15/16	0.62 (15.9)	Industrial Black
110STSY9	(17)	#9	1	0.62 (15.9)	Industrial Black
110STSY10	3/4 (19)	#10	1 1/16	0.62 (15.9)	Industrial Black

#### 110STSY External Drive Twist Socket Set.

- Quickly and easily remove damaged or rounded nuts and bolts, socket head cap screws in close quarters and nuts threaded on long studs
- Ideal for use for aircraft and exhaust systems applications
- Includes 10 external hex drive slim twist sockets for the following hex head fasteners:

SAE: 3/8, 7/16, 5/8 and 3/4"

Metric: 9, 10, 11, 12, 13, 14, 15, 16, 17, and 19 mm

Sockets are stored on MSR1 magnetic socket holder

### Power Fastener Extractors (Blue-Point®)

- Extracts hex head, socket head, round head and other fasteners
- 1/4" universal hex shank is ideal for use with cordless, air or electric drills, impact wrenches, nut runners and hand tools
- Power groove for use with quick change adaptors
- Reverse spiral flutes hold on to the most elusive fastener heads
- High carbon steel ensures longer life and greater durability
- High carbon steel shank is larger than most fastener shanks and resists torsional shear

Set Contains:

BET7

Stock No.	Size, inches (mm)	
BET76	3/16 (5)	•
BET78	1/4 (6)	•
BET710	5/16 (8)	•
BET712	3/8 (10)	•
BEM710	(10)	•
BET714	7/16 (11)	•
BET716	1/2 (12)	•



BET7



**WARNING**



• Read safety precautions on pages W1 to W4



# EXTRACTORS

## Extractor Tools

### BEXD Deep Well Extractors

- External hex and 3/8" square drive wrenching options for use with wrenches, impact wrenches and ratchet/socket combinations
- Deep well design fits over exposed studs and reaches recessed fasteners
- Reverse spiral flutes bite into stubborn fasteners, both fractional and metric, with maximum gripping power
- Reduced profile head enables use in confined spaces



BEXD181



BEXD9

Stock No.	Size, inches	Length, inches	Set Contains:
BEXD081	1/4	2 7/16	•
BEXD101	5/16	2 7/16	•
BEXD121	3/8	2 7/16	•
BEXD141	7/16	2 7/16	•
BEXD161	1/2	2 7/16	•
BEXD181	9/16	2 7/16	•
BEXD201	5/8	2 7/16	•
BEXD241	3/4	2 7/16	•
BEXDM131	13 mm	2 7/16	•

### Right Hand Fractional Drill Bits

- Use right hand drill bits to make a hole in the broken screw before the extractor is inserted

Stock No.	Size, inches	Flute Length, inches	Overall Length, inches
CSE405B	5/8	3	6
DBF1/2C	1/2	2 1/4	4 3/4
DBF1/4C	1/4	2 1/2	4
DBF1/8C	1/8	1 3/8	3
DBF11/32C	11/32	2 3/4	4 1/2
DBF3/16C	3/16	2	3 1/2
DBF5/16C	5/16	2 5/8	4 1/2
DBF7/16C	7/16	1 7/8	4 1/4

### Left Hand Fractional Drill Bits (Cobalt)

- Left hand drill bits tend to loosen screws for easier removal



DBCL105A

Stock No.	Size, inches	Set Contains:
DBCL5/64A	5/64	•
DBCL7/64A	7/64	•
DBCL5/32A	5/32	•
DBCL3/16	3/16	•
DBCL1/4A	1/4	•
DBCL9/32	9/32	•
DBCL19/64A	19/64	•
DBCL5/16	5/16	•
DBCL11/32	11/32	•
DBCL3/8	3/8	•
DBCL13/32	13/32	•
DBCL7/16	7/16	•
DBCL15/32	15/32	•
DBCL1/2	1/2	•



SR40K

### Tapered Bit Extractors

#### SR40K Tapered Bit Extractor Set.

- Tapered ends have left hand threads to bite deep into drilled studs
- Square shafts for use with wrench
- Set includes (4 pcs) in C0407 kit bag

- SR4A 1/8"
- SR10A 9/64"
- SR14 7/32"
- SR20 5/16"
- C0407 Kit Bag



DBLS105A

### Left Hand Fractional Drill Bits (High Speed Steel)

- Left hand drill bits tend to loosen screws for easier removal

	Stock No.	Size, inches	Flute Length, inches	Overall Length, inches	Set Contains:
Left-Hand	DBLS1/8A	1/8	1 3/8	3	•
	DBLS3/16A	3/16	2	3 1/2	•
	DBLS1/4A	1/4	2 1/2	4	•
	DBLS5/16A	5/16	2 5/8	4 1/2	•
	DBLS11/32A	11/32	2 3/4	4 1/2	•

### Spiral Flute Screw Extractors

- Designed to remove broken studs, bolts, socket screws and fittings
- Aggressive left hand spiral design for extra gripping power



EX1

Stock No.	Use Drill Size, inches	Removes Bolts and Screws
EX1	5/64	3/32 to 5/32", 2.5 to 4 mm, #3 to #6
EX2	7/64	5/32 to 7/32", 4 to 6 mm, #6 to #12
EX3	5/32	7/32 to 9/32", 6 to 8 mm, #12
EX4	1/4	9/32 to 3/8", 1/8" NPT, 1/8" BSP, 8 to 10 mm
EX5	19/64	3/8 to 5/8", 1/4" NPT, 1/4" BSP, 10 to 16 mm
EX6	13/32	5/8 to 7/8", 3/8" NPT, 3/8" BSP, 16 to 22 mm

### Solid Type Drill Guides

- Used for centering drills at a depth not exceeding 1"



E921

Stock No.	Outside Dia., inches	For Drill Size, inches	Length, inches
E921	9/32	1/8	1 3/16
E1021	5/16	1/8	1 3/16
E1121	11/32	1/8	1 3/16
E1221	3/8	1/8	1 3/16
E1321	13/32	3/16	1 3/16
E1421	5/16	3/16	1 3/16
E1521	15/32	3/16	1 3/16
E1621	1/2	3/16	1 3/16
E1721	17/32	1/4	1 3/16
E1821	9/16	1/4	1 3/16

### Sleeve Type Drill Guides

- Use to center 1/4" diameter, 6" long drill bits (see DBL1/4A above)
- Parts are interchangeable to adapt to different screw or stud holes and depths up to 3 3/4"

E34 Sleeve Type 5/8" O.D.

E33A Sleeve Type 3/4" diameter

E33B Sleeve Spacer (set of 4) 5/8" diameter

### Sleeve Bushing (in pairs)

Stock No.	Diameter, inches
E2133	21/32
E2933	29/32
E3033	15/16
E3133	31/32



E2133



E1



E6

### Straight Screw Extractors

	Stock No.	For Screw Dia. or Std. Pipe, inches	Drill Size, inches	Length, inches
Straight Screw, Hex Nut Type	E1	1/4	1/8	2 5/16
	E2	5/16	3/16	2 3/4
	E3	3/8	1/4	3 1/16
	E4	7/16	5/16	3 5/16
	E5	1/2	11/32	3 3/4
	E6	1/2	7/16	4 1/8
	E7	3/4	1/2	4 1/2
	E8	1	1/2	4 5/8



E80

### Pipe Plug Extractors

Stock No.	For Screw Dia. or Std. Pipe, inches	Drill Size, inches	Length, inches
E80	1/8	17/64	2 1/4
E81	1/4	3/8	2 1/2
E82	3/8	1/2	2 3/4
E83	5/8	5/8	3
E84	3/4	13/16	3 1/4
E85	1	1 1/16	3 1/2

### All in one Extractor Set

#### YA769 Extractor Set. (Blue-Point®)

- Extract broken screws from 1/4 to 1/2" diameter
- Drill/extract with one tool
- Left hand drill bit
- For use in 3/8" drive reversible drill



YA769

Stock No.	Extractor Size, inches	Drilling Speed, rpm	Extracting Speed, rpm
YA769-1	1/4	700-800	350
YA769-2	5/16	650-750	470
YA769-3	3/8	600-700	350
YA769-4	1/2	475-575	350

#### YA2020 Screw Extractor Set (Blue-Point).

- Easily extracts #6 to #14 damaged screws from wood, metal or plastic. Remove hex, Torx®, Phillips®, slotted or square head screws
- Use with 1/4" quick disconnect or 1/4" hex hand or power tool
- Works with a variety of screw materials



YA2020

### Cam and Wedge Type Stud Removers

#### A50A Stud Remover.

- 7/16 to 1/2" capacity
- V-shaped rack grips stud
- rip releases when pressure is relieved
- Uses 1/2" drive handle



A50A

#### A50-4B Optional Rack.

- For 5/16 to 3/8" capacity

#### A36A Stud Remover.

- 1/2 to 3/4" capacity
- Knurled wheel grips stud
- Driving shank extends through both sides of housing for bearing surface on each side of wheel
- Uses 1/2" drive handle



A36A

#### A80A Stud Remover.

- 1/4 to 1/2" capacity
- Jaws grip when pressure is applied
- Built in ratchet action
- Needs only 1 1/4" clearance
- Use with 1/2" drive handle or 1" wrench



A80A

#### LA55A Stud Remover.

- 9/16 to 1" capacity
- rip is released by turning tool in reverse direction



LA55A

- Works on wedge principle
- Use with 3/4" drive handle

- Includes 2 wedge sizes:

LA55A2 and LA55A3

#### LA54 Stud Remover.

- 1/4 to 5/8" capacity
- Smaller version of LA55A
- Includes 2 wedge sizes: LA54-2A and LA54-3A
- Requires 1/2" drive handle

#### YA789 Power Extractor Set (Blue-Point).

- Place extractor end of tool in drill chuck, set for reverse and hole can be drilled
- Next, insert drill side into chuck, exposing extractor end, and finish the job to remove broken screw
- Packaged in YA789-5 storage case



YA789

Stock No.	Bolt Size	Extractor Size		
		Fractional	Metric	
YA789-1	—	#5 - #6	M3	•
YA789-2	—	#8	M4	•
YA789-3	#10, #12	—	M5	•
YA789-4	—	1/4"	M6	•

#### YA2019 Screw Remover Set (Blue-Point).

- Use to remove damaged Phillips, Torx, Pozidriv®, slotted, Internal Hex, Tri-Wing®, Frearson and most tamper resistant screws and fasteners
- Tool bites into the damaged fastener in the reverse direction allowing the user to easily remove damaged screws
- Use with variable speed reversing drill or 1/4" hex bit screwdriver



YA2019

Stock No.	Extractor Size Bolt Size	
YA2019-1	#6 - #8	•
YA2019-2	#8 - #10	•
YA2019-3	#10 - #12	•



**WARNING**



• Read safety precautions on pages W1 to W4

# EXTRACTORS

## Stud Removers



CG500-17



CG500-2



CG500

### Stud Removers Set Components

Stock No.	Collet Size	Housing Stock No.	Set Contains:						
			CG5151	CG5152	CG5153	CG5158	CGM515B	CG500	CG505
CG500-17	#10-24	CG500-2	•						
CG500-18	#10-32	CG500-2	•						
CG500-2	Housing	CG500-2	•	•	•	•	•	•	•
CG500-3	1/4"-20	CG500-2	•	•		•			
CG500-4	1/4"-28	CG500-2	•	•					
CG500-5	5/16"-18	CG500-2	•	•		•			
CG500-6	5/16"-24	CG500-2	•	•		•			
CG500-7	3/8"-16	CG500-2	•	•		•			
CG500-8	3/8"-24	CG500-2	•	•		•		•	
CG500-9	7/16"-14	CG500-2	•	•		•			
CG500-10	7/16"-20	CG500-2	•	•		•		•	
CG500-11	1/2"-13	CG500-2	•	•		•			
CG500-12	1/2"-20	CG500-2	•	•		•		•	
CG500-13	9/16"-12	CG500-2	•	•		•			
CG500-14	9/16"-18	CG500-2	•	•		•			
CG500-15	5/8"-11	CG500-2	•	•		•			
CG500-16	5/8"-18	CG500-2	•	•		•			
CG500H1	3/8" Hex	CG500-2	•						
CG500H2	7/16" Hex	CG500-2	•						
CG500H3	1/2" Hex	CG500-2	•						
CG500H4	9/16" Hex	CG500-2							
CG505-8	1 1/16"-16	CG505-1							
CG505-2	3/4"-10	CG505-1							•
CG505-5	3/4"-16	CG505-1							
CG505-3	7/8"-9	CG505-1							•
CG505-6	7/8"-14	CG505-1							
CG505-4	1"-8	CG505-1							•
CG505-7	1"-14	CG505-1							
CG505H1	5/8" Hex	CG505-1							
CG505H2	1 1/16" Hex	CG505-1							
CG505H3	3/4" Hex	CG505-1							
CG505H4	13/16" Hex	CG505-1							
CG505H5	7/8" Hex	CG505-1							
CG508-1	1 1/8" - 7	CG508							
CG508-9	1 1/8" - 8	CG508							
CG508-2	1 1/8" - 12	CG508							
CG508-3	1 1/4" - 7	CG508							
CG508-10	1 1/4" - 8	CG508							
CG508-4	1 1/4" - 12	CG508							
CG508-5	1 3/8" - 6	CG508							
CG508-11	1 3/8" - 8	CG508							
CG508-6	1 3/8" - 12	CG508							
CG508-7	1 1/2" - 6	CG508							
CG508-12	1 1/2" - 8	CG508							
CG508-8	1 1/2" - 12	CG508							
CG500-30	M6-1.00	CG500-2	•		•		•		
CG500-33	M7-1.00	CG500-2	•		•		•		
CG500-36	M8-1.00	CG500-2	•		•		•		
CG500-37	M8-1.25	CG500-2	•		•		•		
CG500-39	M9-1.00	CG500-2	•		•		•		
CG500-40	M9-1.25	CG500-2	•		•		•		
CG500-42	M10-1.25	CG500-2	•		•		•		
CG500-43	M10-1.50	CG500-2	•		•		•		
CG500-48	M12-1.25	CG500-2	•		•		•		
CG500-49	M12-1.50	CG500-2	•		•		•		
CG500-54	M14-1.50	CG500-2	•		•		•		
CG500-55	M14-2.00	CG500-2	•		•		•		
CG500-60	M16-1.50	CG500-2	•		•		•		
CG500-61	M16-2.00	CG500-2					•		
CG505-1	Housing	CG500-2							•
CG508	Housing	CG500-2							
CG10F	Cross Bar	CG500-2	•	•					
CG250-8A	Slide Screw, 5/8"-18 x 18-9/16"	CG500-2	•	•	•				
CG250-9	Slide Hammer, 2 lb	CG500-2	•	•	•				
CG325-6	Nut	CG500-2	•	•	•				
CG515B-1	Plastic Storage Case	CG500-2	•	•	•				
CGM515B-1	Plastic Storage Case	CG500-2				•			

## Stud Removers/Dowel Pin Pullers

### Stud Removers

- Tapered collets thread onto stud, even if only a few threads are exposed
- Tightening the housing bolt draws the collet into the housing and clamps collet onto stud
- Tools reduce chance of damage to stud threads
- Avoid bottoming or shouldering studs to avoid shearing or damaging stud or workpiece

#### CG5151 Master Stud and Dowel Puller Set includes:

- Dowel pin components: C 503-1 housing, C 503S1 square collet, plus C 503-2 to C 503-14 collets
- Serrated collet components: C 500-20 to C 500-24
- Pipe nipple components: C 500P1 to C 500P3

#### CG5152 SAE Stud and Dowel Puller Set also includes:

- Dowel pin components: C 503-1 housing, plus C 503-2 to C 503-8 collets
- Does not include C 503S1 collet

#### CG5153 Metric Stud and Dowel Puller Set also includes:

- Dowel pin components: C 503-1 housing plus C 503-9 to C 503-14 collets



CG503

### Dowel Pin Puller Sets

Stock No.	Collet Size	CG503	CGM503	CG513	CG503S
CG503-2	1/4"	•			
CG503-3	5/16"	•			
CG503-4	3/8"	•			
CG503S1	3/8" Square				
CG503-5	7/16"	•			
CG503-6	1/2"	•			
CG503-7	9/16"	•			
CG503-8	5/8"	•			
CG513-4	3/4"			•	
CG513-5	7/8"			•	
CG513S1	1/2" Square				
CG513S2	5/8" Square				
CG513-6	1"			•	
CG503-9	6 mm		•		
CG503-10	8 mm		•		
CG503-11	10 mm		•		
CG503-12	12 mm		•		
CG503-13	14 mm		•		
CG503-14	16 mm		•		
CG503-1	Housing	•	•		•
CG513-1	Housing				
CG513-2	Slide Screw			•	
CG10F	Cross Bar	•	•		•
CG250-8A	Slide Screw, 5/8"-18 x 18 9/16"	•	•		•
CG250-9	Slide Hammer, 2 lb	•	•		•
CG45670	Slide Hammer, 10 lb			•	
CG325-6	Nut		•		•
CG513-3	Nut			•	

### Serrated Collets

- Serrated gripping portions are used to remove unthreaded studs that cannot be removed with standard collets due to lack of gripping surface
- Avoid bottoming or shouldering studs to avoid shearing or damaging stud or workpiece



CG500-23

Stock No.	Description
CG500-20	1/4" Collet
CG500-21	5/16" Collet
CG500-22	3/8" Collet
CG500-23	7/16" Collet
CG500-24	1/2" Collet
CG500-2	Housing

### Dowel Pin Pullers



CG500P

CG505P



CG508P

### Pipe Nipple Remover Set Components

Stock No.	Collet Size	Housing Stock No.	CG500P	CG505P	CG508P
CG500P1	1/8" NPT	CG500-2	•		
CG500P2	1/4" NPT	CG500-2	•		
CG500P3	3/8" NPT	CG500-2	•		
CG505P1	1/2" NPT	CG505-1		•	
CG505P2	3/4" NPT	CG505-1		•	
CG508P1	1" NPT	CG508-2			•
CG508P2	1 1/4" NPT	CG508-2			•
CG500-2	Housing		•		
CG505-1	Housing			•	
CG508	Housing				•

Note: Avoid bottoming or shouldering studs to avoid shearing or damaging stud or workpiece.

### Heavy Duty Housing with Collet

- Collets are threaded to order: specify stud thread size when ordering. Example: C 510 1 3/4"-10 collet
- Avoid bottoming or shouldering studs to avoid shearing or damaging stud or workpiece

CG510 For larger stud sizes 1 5/8 to 2".

CG511 For larger stud sizes 2 to 2 1/2".

CG512 For larger stud sizes 2 1/2 to 3".



**WARNING**



• Read safety precautions on pages W1 to W4

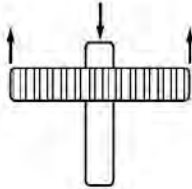


# PULLERS

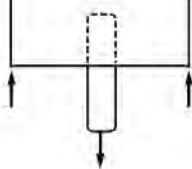
## Puller Feature

### What Type of Puller do I Want to Use? Will it be the Combination that Works the Best?

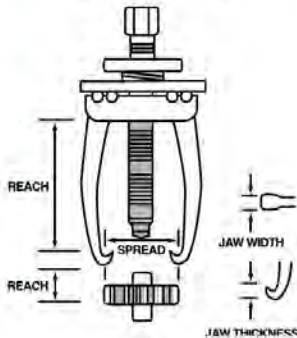
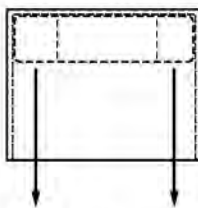
Removing a Gear, Bearing, Pulley, or Other Component from a Shaft



Pulling a Shaft Out of a Housing or Bore



Removing a Bearing or Bushing from a Blind Hole



### Tools to Use

**Jaw Type Puller.** 2 or 3 jaw style, with 3 jaw being the best choice. Manual or hydraulic with outside jaw positions.

**Push/Pull Puller.** Use male or female adaptors to thread into tapped holes on components.

**Slide Hammer Puller.** Use on light duty applications. For use with attachments.

**Bar Type Puller with Bearing Separator.** Bar type with side rods threaded into bearing separator provides knife edge to get behind component or when there is not a good gripping edge.

### Tools to Use

**Push/Pull Puller.** Use male or female adaptors.

**Bar Type Puller with Bearing Separator.** Use when housing lacks sufficient surface for puller side rods to bear against.

**Slide Hammer Puller.** Use on light duty applications. For use with attachments.

**Slide Hammer Puller.** Use with male or female adaptors. See this section for a full listing of compatible adaptors.

### Tools to Use

**Jaw Type Puller.** For inside jaw positions (inside pulls), a manual or hydraulic jaw type puller can be used with pressure screw or slide hammer variations.

**Expanded Collet Puller.** The inside diameter should range between 1/4 and 7". Pulling can be done with bridge, bar type yokes or slide hammers. See page 210 for full information.

**Bearing Adaptors with Slide Hammer Puller.** CJ127A, CJ128A and CJ137 bearing adaptors with CJ97-3A slide hammer should be used in this application.

**Bar Type Puller with Bearing Separator.** Bar type with side rods threaded into bearing separator provides knife edge to get behind components or when there is not a good gripping edge.

### Determine the "Reach" and "Spread" Needed

The puller's reach must equal or exceed the same distance on the part. The puller's spread is the width of the part.

#### Estimate the Puller Tonnage

Generally, if you already have the correct reach and spread, you will usually have the proper tonnage. If in doubt, use the next larger size.

#### General Rule to Choose Pullers

**Manual Pullers.** Pressure screw should be at least half the diameter of the shaft on the pulling/pushing job.

**Hydraulic Pullers.** Maximum tonnage capacity (tons) should be 8 to 10 times the diameter (in inches) of the shaft to be pulled or pushed.

### Snap-on® Puller Features



**Anvil Head:** Curved at the top and features a hex design. The curved head provides a striking surface to handle those tough pulling jobs while the hex allows the pressure screw to be easily turned with a standard hex wrench or a socket.

**Spring Loaded Locking Mechanism:** Snap-on pullers feature a unique spring tension locking mechanism which allows the puller jaws to easily lock onto the work surface for both outside and inside pulling applications.

**Two Position Yoke:** Allows jaws to be easily reversed to accommodate inside or outside pulling situations. Interchangeable yokes accommodate 2 and 3 jaw setups. Yokes are heat treated for additional strength and safety.

**One Piece Jaw Construction:** Provides a stronger, safer jaw. Most competitive puller jaws have holes drilled through them to allow for a bracket attachment. This hole significantly weakens the competitor's puller jaws.

**Forged Jaws:** Resist breakage, prolong tool life and provide additional strength.

**Replaceable Points:** Center pulling power to prevent cocking. Provide less friction and minimum drag for easier turning of pressure screw during the pulling process. If damage occurs, simply replace the point and not the entire pressure screw.

**Curved Jaws:** Provide positive grip on the work surface.

## Bar Type Interchangeable

Interchangeable bar style pullers provide high quality pulling equipment with the versatility needed to handle a wide variety of pulling functions. Standardized pressure screw threading, jaw retention and design means that new components can be added to an existing puller to change its reach or spread in order to handle new or different applications.

These Snap-on® bar style pullers also feature:

- Replaceable pressure screw points help keep the puller safely centered
- Multiposition yokes help keep the jaws properly aligned with the item being pulled
- Adjustable clamp bolts allow jaws to be snugged up against the job for a safer, more convenient pull
- Spring ball pin retention securely holds jaws while allowing quick jaw changes

**CJ83C Pulley and Gear Puller.** Ideal for servicing crankshaft pulleys, gears and timing gears on a wide range of gasoline and diesel engines including Cummins® accessory drives and water pumps. Includes each 3/8"-16 x 3", 5/16"-18 x 2 1/2" and M10-1.5 x 65 mm bolts. Nominal capacity is 3 1/2 tons. Includes:

**CJ86-1 Yoke.**

**CJ83-3 Pressure Screw.**

**CJ66-15-3 Centering Point.**

**ME5A54 Washer (1 needed).**

**ME5A55 Washer.**

**ME3A45 Studs (2).**

**ME3A44 Studs (2).**

**ME3A75 Studs (2).**

**CJ82B Pitman Arm Puller.** Handles many Pitman® arm applications plus a variety of general pulling jobs. Nominal capacity is 6 tons.

**CJ86-1 Yoke.**

**CJ83-2 Pressure Screw.**

**CJ66-15-3 Centering Point.**

**CJ81-2A Jaws (2).**

**CJ86-4A Clamp Bolt.**

**CJ85-4 Washer (2).**

**ME4A33 Clamp Nuts (2).**

**CJ105-11 Jaw Pins (2).**

**CJ81D Differential Side Bearing Puller.** Narrow jaws slip into housing grooves in back of bearing and let jaws seat and pull along with inner race. Jaws are locked onto bearing by clamp bolt. 4 centering plates are included. Nominal capacity is 6 tons.

**CJ86-1 Yoke.**

**CJ83-2 Pressure Screw.**

**CJ66-15-3 Centering Point.**

**CJ81-2A Jaws (2).**

**CJ86-4A Clamp Bolt (2).**

**ME4A33 Clamp Nuts (2).**

**CJ105-11 Jaw Pins (2).**

**CJ81B1A Adaptors (set of 4).**

**CJ81B2A Adaptors (set of 4).**

**CJ81D1A Adaptors (set of 4).**

**CJ81D2A Adaptors (set of 4).**

**CJ85A Truck Differential Side Bearing Puller.** Similar in appearance to CJ81D but bigger for handling truck applications. 4 centering plates included. Nominal capacity is 7 1/2 tons.

**CJ85-1 Yoke.**

**CJ83-2 Pressure Screw.**

**CJ66-15-3 Centering Point.**

**CJ85-2 Jaws (2).**

**CJ85-3A Clamp Bolt (2).**

**CJ85-4 Washer (2).**

**ME4A33 Clamp Nuts (2).**

**CJ105-11 Jaw Pins (2).**

**CJ85-5 Adaptors (set of 4).**

**CJ85-6 Adaptors (set of 4).**

**CJ85-7 Adaptors (set of 4).**

**CJ85-8 Adaptors (set of 4).**

**CJ80A A/C Pulley Puller.** Also excellent for removal of alternator, generator, power steering and crankshaft pulleys, harmonic balancers and fiber timing gears. Includes an extra pair of jaws for versatility. Nominal capacity is 7 1/2 tons.

**CJ85-1 Yoke.**

**CJ83-3 Pressure Screw.**

**CJ66-15-3 Centering Point.**

**CJ81-2A Jaws (2).**

**CJ87-1 Jaws (2).**

**CJ85-3A Clamp Bolt.**

**CJ85-4 Washer (2).**

**ME4A33 Clamp Nuts (2).**

**CJ105-11 Jaw Pins (2).**

## Specifications (see chart on page 220)

Stock No.	Nominal Capacity, tons	Maximum Reach, inches	Maximum Spread, inches	Pressure Screw Size, inches	Pressure Screws	Jaws	Centering Points
<b>CJ83C</b>	3.5	Variable	5	3/4-16 x 3 1/2	B1, B2		C2
<b>CJ81D</b>	6	1 5/8	3 3/8	3/4-16 x 4 1/4	B1, B3	D1, D2, D4, D5	C2
<b>CJ82B</b>	6	2 1/4	3 3/8	3/4-16 x 4 1/4	B1, B3	D1, D2, D4, D5	C2
<b>CJ85A</b>	7.5	1 3/4	5 1/2	3/4-16 x 4 1/4	B1, B3	D1, D2, D3, D5	C2
<b>CJ80A</b>	7.5	D3: 1 5/8, D5: 1 3/8	5	3/4-16 x 3 1/2	B1, B2	D1, D2, D4	C2



CJ83C



CJ82B



CJ81D



CJ85A



CJ80A



**WARNING**

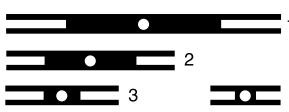
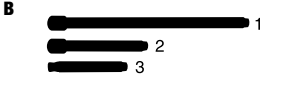
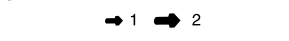
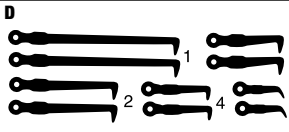
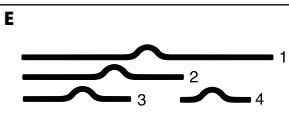

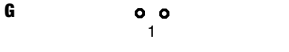

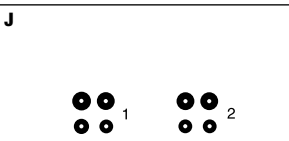
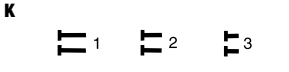


- Screen the puller application
- Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job
- Read safety precautions on pages W1 to W4

# PULLERS

## Bar Type Interchangeable

### CJ Interchangeable Pullers—Major Components

	CJ83C	CJ82B	CJ81D	CT85A	CJ80A	Component	Key No.	Stock No.	Specific Dimensions	
<b>A</b> 						Yoke	A1	<b>CJ100-1</b>	Usable Range, inches	Pin Holes per Side
						Yoke	A2	<b>CJ118-1</b>	10 1/2-16	4
						Yoke	A3	<b>CJ85-1</b>	6 - 10 1/2	3
						Yoke	A4	<b>CJ86-1</b>	3 - 6 1/2	3
<b>B</b> 						Pressure Screw	B1	<b>CJ105-3</b>	Thread x Length	Hex Size, inches
						Pressure Screw	B2	<b>CJ83-2</b>	3/4-16 x 10 1/2	7/8
						Pressure Screw	B3	<b>CJ83-3</b>	3/4-16 x 6 11/16	7/8
						Pressure Screw	B3	<b>CJ83-3</b>	3/4-16 x 5 1/8	7/8
<b>C</b> 						Point	C1	<b>CJ66-15-3</b>	Head Diameter inches	Point Type
						Point	C2	<b>CJ84-16</b>	5/8	90° Outward
<b>D</b> 						Jaws (2 needed)	D1	<b>CJ116-1</b>	Maximum Reach, inches	
						Jaws (2 needed)	D2	<b>CJ282-1</b>	8 1/4	
						Jaws (2 needed)	D3	<b>CJ81-2A</b>	4 3/8	
						Jaws (2 needed)	D4	<b>CJ85-2</b>	1 3/8	
						Jaws (2 needed)	D5	<b>CJ87-1</b>	1 3/4	
<b>E</b> 						Clamp Bolts	E1	<b>CJ100A2</b>	Maximum Length, inches	
						Clamp Bolts	E2	<b>CJ118-2A</b>	18	
						Clamp Bolts	E3	<b>CJ85-3A</b>	11 1/2	
						Clamp Bolts	E4	<b>CJ86-4A</b>	7 1/2	
<b>F</b> 						Washer (2 needed)	F1	<b>CJ85-4</b>	Inside Diameter, inches	Outside Diameter, inches
						Washer (1 needed)	F2	<b>ME5A54</b>	15/32	7/8
						Washer (1 needed)	F3	<b>ME5A55</b>	11/32	3/4
<b>G</b> 						Clamp Nuts (2 Needed)	G1	<b>ME4A33</b>	Thread Size	
						Clamp Nuts (2 Needed)	G1	<b>ME4A33</b>	7/16 x 20	
<b>H</b> 						Jaw Pins (2 needed)	H1	<b>CJ105-11</b>	Diameter, inches	Length, inches
						Jaw Pins (2 needed)	H1	<b>CJ105-11</b>	5/16	1 15/32
<b>J</b> 						Adaptors (Set of 4)	J1	<b>CJ81B1A</b>	Outside Diameter, inches	Step Diameter, inches
						Adaptors (Set of 4)	J1	<b>CJ81B2A</b>	1 1/2	1 1/8
						Adaptors (Set of 4)	J1	<b>CJ81D1A</b>	1 5/8	1 1/4
						Adaptors (Set of 4)	J1	<b>CJ81D2A</b>	1 3/4	1 1/8
						Adaptors (Set of 4)	J1	<b>CJ81D2A</b>	1 11/32	15/16
						Adaptors (Set of 4)	J2	<b>CJ85-5</b>	2	1 1/2
						Adaptors (Set of 4)	J2	<b>CJ85-6</b>	2 1/8	1 21/32
						Adaptors (Set of 4)	J2	<b>CJ85-7</b>	2 1/2	1 27/32
<b>K</b> 						Studs (2 needed)	K1	<b>ME3A44</b>	Thread x Length	
						Studs (2 needed)	K2	<b>ME3A45</b>	3/4-16 x 3	
						Studs (2 needed)	K3	<b>ME3A75</b>	5/16-18 x 2 1/2	
						Studs (2 needed)	K3	<b>ME3A75</b>	M10-1.5 x 65 mm	

Letters in chart refer to Key No. in chart below (A3, B1, C1 etc.)

### CJ Series Major Components

Stock No.	A Yoke	B Pressure Screw	C Point	D Jaws (2)	E Clamp Bolt	F Washers (2)	G Clamp Nuts (2)	H Jaw Pins (2)	J Adaptors	K Studs (2)	Pressure Screws	Jaws	Points
<b>CJ83C</b>	A4	B3	C1			F2, F3				K1, K2, K3	B1, B2		C2
<b>CJ82B</b>	A4	B2	C1	D3	E4	F1	G1	H1			B1, B3	D1, D2, D4, D5	C2
<b>CJ81D</b>	A4	B2	C1	D3	E4	F1	G1	H1	J1		B1, B3	D1, D2, D4, D5	C2
<b>CJ85A</b>	A3	B2	C1	D4	E3	F1	G1	H1	J2		B1, B3	D1, D2, D3, D5	C2
<b>CJ80A</b>	A3	B3	C1	D3, D5	E3	F1	G1	H1			B1, B2	D1, D2, D4	C2

### Other Interchangeable Components

## Bar Type Interchangeable

These puller sets are designed to provide the tools you need as your work grows. Start with one or more sets geared to specific tasks and build toward the ultimate set: the CJ2000A with display board and cabinet. No duplication in set contents or jaws. Yokes are interchangeable for added versatility.

### Master Interchangeable Puller Set

**CJ2000SB Master Interchangeable Puller Set.** Includes all components for the CJ2001, CJ2002, CJ2003A, CJ2004 and CJ2005 puller sets on VE200A tool control board and KRA276D locking wall storage cabinet.

**CJ2000S Master Interchangeable Puller Set.** Same as CJ2000SB without the wall cabinet.

**CJ2000A Master Interchangeable Puller Set.** Same as CJ2000SB without the wall cabinet or the tool control board.



CJ2003A

### Rear Axle Puller Set

**CJ2003A Rear Axle Puller Set.** Slide hammer power pulls many flange type rear axles as well as axle bearings. Includes:

**CJ105-4B Slide Screw, 3/4"-16 x 22-1/2".**

**CJ137 Bearing Adaptor.**

**CJ97-3A Slide Hammer, 3 3/4 lb.**

**CJ123-1 Axle Yoke.**

**ME4A8 Lock Nut (3/4").**

**CJ127A Bearing Adaptor.**

**CJ66-19 Bearing Hook.**

**CJ128A Bearing Adaptor.**

### CJ Series Bearing Adaptors

Stock No.	Swivel Head Width, inches	Swivel Head Length, inches	Overall Length, inches
CJ127A	1.2	2.03	3.02
CJ128A	1.2	2.31	3.15
CJ137	1.2	2.9	3.24



CJ2005

### Accessory Set

**CJ2005 Accessory Set.** Boost the versatility of the CJ2000A components with a bearing separator, a variety of centering adaptors, and a 12" yoke and clamp bolt to add spread to your bar type set.

Includes:

**CJ81B1A Adaptor (1 1/8-1 1/2" Diameter).**

**CJ85-6 Adaptor (1 21/32-2 1/8" Diameter).**

**CJ81B2A Adaptor (1 1/4-1 5/8" Diameter).**

**CJ85-7 Adaptor (1 27/32-2 1/2" Diameter).**

**CJ81D1A Adaptor (1 1/8-1 5/8" Diameter).**

**CJ85-8 Adaptor (2 3/8-3 1/16" Diameter).**

**CJ81D2A Adaptor (13/16-1 11/32" Diameter).**

**CJ118-1 Yoke (6-10 1/2").**

**CJ118-2A Bolt.**

**CJ85-2 Jaw (1 3/4" Maximum reach).**

**CJ950 Bearing Separator.**

**CJ85-5 Adaptor (1 1/2-2" Diameter).**

### Pressure Screws

**CJ83-9 Pressure Screw.** Optional pressure screw for bar style interchangeable pullers. Applications include heavy duty truck transmissions like Eaton® transmissions found on Kenworth® heavy duty trucks. Can also be used with: CJ2000A, CJ2000S, CJ2000SB, CJ2002 and CJ2004. Thread: 3/4 - 16. Length: 8 3/4".



CJ2000SB



CJ2002

### Gear Puller Set

**CJ2002 Gear Puller Set.** Use on Pitman® arms, timing gears, carrier side bearings and more. Combine to create 10 different pullers. Capacity from 6 to 10 tons depending on yoke and jaws used. Includes:

**CJ105-11 Long Jaw Pin (4).**

**CJ87-1 3" Jaw (2).**

**CJ282-1 6" Jaw (2).**

**ME4A33 Hex Nut (4).**

**CJ82B Puller.**

**CJ66-15-3 Centering Point.**

**CJ83-3 Pressure Screw (9/16" hex).**

**CJ81-2A Jaw (2).**

**CJ84-16 Centering Point.**

**CJ83-2 Pressure Screw.**

**CJ85-1 Yoke (3-6 1/2").**

**CJ86-4A Bolt.**

**CJ85-3A Bolt.**

**CJ86-1 Yoke (1 3/4-4 1/2").**

**CJ85-4 Washer (4).**



CJ2004

### Interchangeable Puller Set

**CJ2004 Interchangeable Puller Set.** Use on bearings, bearing races, gears, bushing retainers, etc. Builds any of 12 different pullers. 2 and 3 jaw capability with 3 sets of jaws. All jaws reverse for inside and outside pulls. Pulling capacity: (short jaws) 4 1/2 ton, (medium jaws) 6 1/2 ton, (large jaws) 8 ton.

Includes:

**CJ105A8 3-Way Jaw Control.**

**CJ105-3 Pressure Screw (3/4-16 x 13").**

**CJ105A9 2-Way Jaw Control.**

**CJ105-1 Yoke.**

**CJ105-5 Small Jaw (3).**

**CJ105-10 Short Jaw to Control Pin (3).**

**CJ105-6 Medium Jaw (3).**

**CJ105-11 Long Jaw Pin (4).**

**CJ105-7 Large Jaw (3).**

**CJ105-12 Cross Bar.**

**CJ66-15-3 Centering Point.**

**CJ86-1 Yoke (1 3/4-4 1/2").**



**WARNING**



- Screen the puller application
- Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job
- Read safety precautions on pages W1 to W4



# PULLERS

## Special Purpose



CJ2001P

### Bolt Grip Puller Set

**CJ2001P Bolt Grip Puller Set.** Services steering wheels, flywheels, pulleys and gears with tapped holes. Includes a 4 position 2 and 3 way yoke, 3 different pressure screw tips and an assortment of fractional and metric bolts. Approximate spread to bolt is 1 1/4 to 3 13/16". Includes PB54B storage case.

**CJ2001FBK Bolt and Washer Set.** Replaces all fractional bolts and washers in CJ2001P bolt grip puller set.

**CJ2001MBK Bolt and Washer Set.** Replaces all metric bolts and washers in CJ2001P bolt grip puller set.



CG60GB

### Tapped Hole Puller Set

**CG60GB Tapped Hole Puller Set.** Use on steering wheels with tapped holes. Includes 2 and 3 way yoke, pressure screw and adaptor plus 4 sets of studs.

**CG60-17 Stud (M8-1.25) (2).**

**CG60R1 Yoke Pressure Screw (5/8"-18) (1).**

**CG60-7-4A Stud (5/16"-24) (2).**

**CG60-7-6 Stud (5/16"-18) (3).**

**CG60R2 Four-Arm Yoke (1).**

**CG60M2 Stud (3/8"-16) (3).**

**CG60R3 Pressure Screw Adaptor (1).**



CJ93B

### Small Slide Hammer Puller Set

**CJ93B Small Slide Hammer Puller Set.** Remove bushings, seals, sleeves, bearings, bearing races, bronze and oilite bushings, and pressed in studs. Includes 2 sets of jaws, grease retainer adaptor, bearing hook, body dent puller, stud pulling head and 2 lb slide hammer. Thread size is 3/8-16".



A78



SP2031

### Small/Pilot Bearing Pullers

**A78 Small Bearing Puller.** For bearings and bushings typically found in small electric motors. Includes large jaw set for bronze and oilite bushings and small jaw set for smaller bearings and bushings. Up to 3 tons of pulling power.

**SP2031 Pilot Bearing Puller (Blue-Point®).** Attaches to slide hammer shafts with 3/4-16" or 5/8-18" threads. Pressure screw adaptor is made of stress resistant steel. Industrial finish.

### Rear Axle Bearing Puller

#### CJ9180 Rear Axle Bearing Puller.

No slide hammer required.

Removes axle bearing on free floating axle designs. Use with impact gun or by hand.

Uniquely designed to brace against axle housing for complete removal of bearing assembly. Smooth, steady operation. Kit contains interchangeable feet to allow pulling of bearings with an I.D. from 1 to 2 7/8"



CJ9180

## Automotive



CJ134

### Steering Wheel Pullers

#### CJ134 Tilt Steering Pivot Pin Puller.

Allows efficient removal of the 2 pivot pins on all tilt steering columns used on Chrysler®, Ford® and GM® vehicles.



CG95B

#### CG95B Steering Wheel Lock Plate Remover.

Designed for airbag equipped Saginaw steering columns found on GM, Chrysler LH Series (LHS, Intrepid, Concorde, and Eagle Vision), some Toyota® and Saab® vehicles. Includes 1 narrow bridge, 1 wide bridge, 2 pressure screws: one has 9/16-18" threads, the other has M14-1.5 threads. The puller is zinc plated. Overall length is 4 7/8".



CJ145

#### CJ145 Steering Wheel Puller for GM Vehicles.

Use on new GM steering wheels with air bags including tilting and telescoping styles. Handle attachment facilitates puller set up and can be removed when working in confined areas. Applications: Buick® (1997 and later Park Avenue/Regal), Cadillac® (1997 and later Catera), Chevrolet®/GMC® (1997 and later Corvette/Malibu, 1998 C & K series trucks, 1998 full size vans, 1998 Astro/Safari vans), Oldsmobile® (1997 and later Cutlass) and Pontiac® (1988 to 1993 LeMans, 1997 and later Grand Prix/Trans Sport van).

#### CJ131P Steering Wheel Puller and Lock Plate Depressor Set.

Includes a selection of bolts and a handle in PB72 storage case for servicing GM, Ford, Chrysler, and AMC® vehicles. Adaptors are included for servicing lock plates on all GM and AMC vehicles with tilt wheel. Detachable handle helps hold puller when turning force is applied to pressure screw. Industrial finish.



CJ131P



CG6095A

#### CG6095A Master Steering Wheel Puller Set.

Combines the CG60GB Tapped Hole Puller and CG95B Lock Plate Remover. Lock Plate Remover is designed for servicing airbag equipped Saginaw steering columns found on GM, Chrysler LH Series (LHS, Intrepid, Concorde and Eagle Vision), some Toyota and Saab vehicles.



YA6490



CJ146



CJ117C



CJ124A



CJ3PSA



CJ147A

### Harmonic Damper Pulley Pullers

**YA6490 Harmonic Damper Pulley Puller.** Use on many Chrysler®, Mitsubishi® and GM® engines. In most applications this compact tool eliminates the need to remove the radiator prior to removing the pulley. Includes short push rod for use on crankshafts that are not drilled full depth plus 2 other push rods. Applications: *GM:* 4.2 L Straight 6 cylinder: Chevy® Trailblazer, GMC® Envoy, Oldsmobile® Bravada (2003 and later), Buick® Rainier (2004 and later), 3.5 L Straight 5 cylinder: *Chevy* Colorado, *GMC* Canyon (2004 and later), Hummer® H3 (2006 and later), 2.8 L Straight 4 cylinder: *Chevy* Colorado, *GMC* Canyon (2005 and later), 5.7 L V8 (Gen III): Camaro, Corvette, Firebird and Trans-Am (1997 and later), Gen III trucks and SUVs with 4.8 L V8, 5.3 L V8, 6.0 L V8 and 8.1 L V8 (2000 and later) *Chrysler:* 3.3 L V6: (1990 and later vans), 3.3 L and 3.5 L V6 (1993-1997 automobiles), 3.8 L V6 (1994 and later vans), 8.0 L V10 (1994 and later pickups), 2.0 L 4 Cylinder, 2.4 L 4 Cylinder and 2.5 L V6 (1995 and later automobiles), 2.7 L DOHC V6, 3.2 L SOHC V6 and 3.5 L SOHC V6 (1998 and later automobiles), 4.7 L V8 (1998 and later) Cadillac®: 4.5 L V8: (1988-1992), 4.9 L V8: (1991-1995), 4.6 L V8: (1993 and later), 6.0 L V8: Escalade, *Mitsubishi:* 2.0L DOHC non turbo: Eclipse (1995-1999), *Oldsmobile:* 4.0 L V8: (1995 and later)

**YA6491 Harmonic Damper Pulley Puller Update Kit.** Updates earlier YA9740 pullers to the same applications as the new YA6490. Kit will also update other pulley pullers that are similar to the YA9740 series of pullers. Add YA6491 Update Kit to existing YA9740 series pullers to add these new applications: *GM:* 4.2 L straight 6 cylinder: *Chevy* Trailblazer, *GMC* Envoy, *Oldsmobile* Bravada (2003 and later), *Buick* Rainier (2004 and later), 3.5 L Straight 5 cylinder: *Chevy* Colorado, *GMC* Canyon (2004 and later), *Hummer* H3 (2006 and later), 2.8 L straight 4 cylinder: *Chevy* Colorado, *GMC* Canyon (2005 and later)

**CJ146 GM Crankshaft Harmonic Balancer Kit.** Remove the crankshaft harmonic balancer on 1990 and later 3.3 and 3.8 L *GM* engines. Shoulder bolt adaptors provide correct installation depth, preventing damage to the crank sensor and interrupter rings. Includes (3) CJ146-1 adaptors and (1) CJ146-2 extension plus vinyl storage pouch. Requires Snap-on® CJ98-1 yoke and CJ83-3 pressure screw for use (not included). Separate purchases and not included with kit.

### Power Steering and Alternator Pullers

**CJ122 Power Steering Pulley Installer Set.** Includes CJ113B installer and CJ113C4 pulley installer shaft. Thread size of 5/8"-18UNF-2A (puller end), 3/8" 16UNC-2A (shaft end).

**CJ138 Pulley Installer.** 8 mm pulley installer features a black industrial finish and a thrust bearing for easier installation. Applications: power steering pulley on *Ford* 4.6 L V8 (1991 and later), *Ford* 2.5 L V6 (1995 and later) plus the installation of water pump drive pulleys on *GM* 4.6 L (1992 and later *Oldsmobile* Aurora).

**CJ113B Power Steering/Alternator Pulley Installer.** Designed for U.S. cars.

1" pulley driver hex, 7/16" pressure screw hex, thread size of 5/8"-18UNF-2A (puller end), 3/8" 16UNC-2A (shaft end). 4 5/8" long.

**CJ113B3 Bushing.** Included with CJ113B.

**CJ113C4 Pulley Installer Shaft.** Length of 4.62" (optional). Thread size of 5/8"-18UNF-2A (puller end), 3/8" 16UNC-2A (shaft end).



CJ122



CJ138



CJ113B

### CJ117C Power Steering and Alternator Pulley Puller.

Includes short adaptor to remove small flange type pulley; use long adaptor on *GM* 200/Platform vehicles. Can also remove alternator pulleys on *Chrysler* vehicles that have double grooves. Replace pulleys with CJ113B Installer. Long adaptor included to handle pulleys on *GM* minivans. Nickel/chrome finish, industrial finish screw. Designed for most U.S. vehicles (replace pulley with CJ122 sets). Long adaptor included to handle pulleys on *GM* minivans. Nickel/chrome finish, industrial finish screw.

**CJ124A Power Steering/Alternator Pulley Puller.** Larger version of CJ117C. Designed for *Chrysler*, *Ford* and earlier *GM* vehicles.

**CJ3PSA Power Steering and Alternator Pulley Puller/Installer Set.** Set includes CJ113B, CJ117C, and CJ124A pullers.

**CJ147A Power Steering Gear Lower Pinion Bearing Puller.** Required tool to comply with *GM* Recall Bulletins #02049 and #03062 regarding power steering gear lower pinion bearing separation. To correct the problem, inspect the condition of the lower pinion bearing and replace the lower pinion bearing. In a few cases, replacement of the rack and pinion steering gear assembly may be necessary. Instructions included.

Applications:

*Buick:*  
Regal 1996-1998  
*Chevrolet:*  
Cavalier 1996-1998  
Lumina 1997-1998  
Lumina 1997-1998  
Lumina APV 1996  
Monte Carlo  
1997-1998  
Venture 1997-1998

*Oldsmobile:*  
Cutlass 1997-1998  
Cutlass Supreme  
1996-1998  
Silhouette  
1996-1998  
Intrigue 1998

*Pontiac:*  
Grand Prix 1996-1998  
Sunfire 1996-1998  
Trans Sport 1996-1998



CJ132A

### CJ132A Master Power Steering Pump/Alternator Puller/Installer Set.

*GM* Quad 4, *GM* 3.1 L and *Ford* 4.6 L applications. Removes/installs press on, belt driven accessory pulleys. Removal housing for grooved hub diameters of 1 1/8", 1 5/16 and 1 3/8". Includes components for 3/8"-16 threaded shaft. Housing holding bar prevents main housing from spinning during use with an impact wrench. Quad 4 installation nut simplifies usage with 4 cylinder *GM* vehicles. Includes instructions and carrying case.

### Pitman® Arm Pullers

**CJ119B Pitman Arm Puller.** Designed for most U.S. cars and light trucks. Pressure screw size: 3/4"-16 x 6 7/8". Industrial finish.

**CJ115 Pitman Arm Puller.** Similar in design to CJ119B except it is designed for compact and intermediate size cars.

**PAS110 Pitman Arm Puller.** *Pitman* arm remover for 2 ton and heavier trucks. Quickly and easily remove stuck *Pitman* arms. The tool wedge opens the *Pitman* arm slots for removal. Can also be used with impact wrench.

**YA6880 Low Profile Pitman Arm Puller.** Fits in the confined space on most *GM* 1988-2000 C & K chassis trucks and SUVs. Also fits 2001 to present trucks and SUVs with steering gear box/*Pitman* arms. Forged chromoly steel for strength and durability. Design allows the technician to remove the arm off the steering gear box without altering the boxes position as a substantial time saver. Patent pending.



CJ119B



PAS110



**WARNING**



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages W1 to W4

# PULLERS

## General Purpose Interchangeable



### Light Duty

Builds Pullers:

Stock No.	Puller Type	Maximum Reach, inches	Outside Spread, inches	Inside Spread, inches
CG240	2 Jaw	2 1/2	0-3	7/8-3 1/4
CG240H	2 Jaw	2 1/2	0-3	7/8-3 1/4
CG243	3 Jaw	2 1/2	3	7/8-3 1/4
CG243H	3 Jaw	2 1/2	3	7/8-3 1/4

**CG2400B Light Duty Puller Set.** This versatile set provides 2 or 3 jaw pulling with pressure screw or slide hammer options. Interchange parts to build any of the 5 puller combinations.

- Up to 2 1/2 tons of pulling power
- 3" diameter capacity for outside pulls



### Heavy Duty

Builds Pullers:

CG2510BSHY

Stock No.	Puller Type	Maximum Reach, inches	Outside Spread, inches	Inside Spread, inches
CG654HY	Hydraulic, 2 Jaw	3	0-4 1/2	1 1/2-3 1/2
CG655HY	Hydraulic, 3 Jaw	3	0-4 1/2	1 1/2-3 1/2
CG270	2 Jaw	5 1/2	8 1/2	2 1/2-7
CG270H	2 Jaw	5 1/2	0-8 1/2	2 1/2-7
CG270S	Special Grip, 2 Jaw	5 1/2	0-8 1/2	2 1/2-7
CG273	3 Jaw	5 1/2	0-8 1/2	2 1/2-7
CG273H	3 Jaw	5 1/2	8 1/2	2 1/2-7
CG280	Long Jaw, 2 Jaw	8	0-10	3-8
CG283	Long Jaw, 3 Jaw	8	0-10	3-8
CG274HY	Hydraulic, 2 Jaw	8 3/4	10	3-8
CG275HY	Hydraulic, 3 Jaw	8 3/4	0-10	3-8

The CG2510 and CG2500 Series delivers:

- Up to 12 1/2 tons of pulling power
- 10" diameter capacity for outside pulls
- From 3/4 to 8" diameter capacity for inside pulls

**CG2510BSBHY Heavy Duty Manual/Hydraulic Puller Set.** Includes 40 interchangeable components, including the C 1224 10 ton hydraulic power kit. All components are displayed on a VE213 tool control board, which is mounted inside a KRA276D wall cabinet.

**CG1224 Hydraulic Conversion Kit.** 10 ton. Converts C 270, C 273, C 280, and C 283 manual pullers (on Tool Control Panel "A") and C 1700/C 2500B puller sets to hydraulic power.

**VE213 Tool Control Board.** Tool control board for the C 2500BSBHY manual/hydraulic puller set.

Medium duty pullers deliver up to 7 1/2 tons of pulling power, 4 1/2" diameter capacity for outside pulls and from 3/4 to 8" diameter capacity for inside pulls. CG6223 hydraulic conversion set converts CG250 and CG253 manual pullers to hydraulic power. The manual components of the indicated medium duty pullers are included in the heavy duty (C 2500 / C 2510 Series) sets.



### Medium Duty

Builds Pullers:

CG250

Stock No.	Puller Type	Maximum Reach, inches	Outside Spread, inches	Inside Spread, inches
CG250	2 Jaw	3	4 1/2	1 1/2-3 1/2
CG250H	2 Jaw	3	0-4 1/2	1 1/2-3 1/2
CG250HL	Long Jaw, 2 Jaw	6	0-8 1/2	3/4-8
CG253	3 Jaw	3	4 1/2	1 1/2-3 1/2
CG253H	3 Jaw	3	4 1/2	1 1/2-3 1/2
CG253L	3 Jaw	6		3/4-8



CG2500BSB

The big C 2510BSBHY set builds 45 different pullers with dozens of pulling variations from the included 40 components and 10 ton hydraulic set. Without hydraulics (C 2500BS Manual Set), 32 separate pullers are still possible. Add the Snap-on® CG6223 6 ton hydraulic power kit and add 7 puller combinations to each set.

**CG2510BSHY Heavy Duty Manual/Hydraulic Set.** Same as C 2510BSBHY set mounted on a VE213 tool control board. Does not include the wall cabinet.

**CG2510BHY Heavy Duty Manual/Hydraulic Puller Set.** Same as C 2510BSBHY Set except it doesn't include either the tool control board or the wall cabinet.

**CG2500BSB Heavy Duty Manual Puller Set.** This is the C 2510BSBHY set less the 10 ton hydraulic power kit components. Tool control board for this set is VE113B; wall cabinet is KRA276D.

**VE113B Tool Control Board.** Panel "A" is designed to hold the components for C 2500BS interchangeable puller set (6, 7 1/2, 10 and 12 1/2 ton capacity). Also used as the tool control board for the C 2500BSB manual puller set.

**CG2500BS Heavy Duty Manual Puller Set.** Same as C 2500BSB set mounted on a VE113B tool control board, without the KRA276D wall cabinet.

**CG2500B Heavy Duty Manual Puller Set.** Same as C 2500BSB set, without the tool control board or the wall cabinet.

**CG270SETX Long Puller Jaw Set.** Adds extra reach capability to any C 270 or C 280 series puller, the C 1700 set and any C 2500B series set. Includes (3) C 270-12 extra long jaws and (1) C 270-13 pressure screw adaptor.



## 2 Jaw Pressure Screw



CG240



CG250



CG270A



CG280



CG305

### 2 Ton Capacity (1.8 t), 2 Jaw

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG240	2 1/2 (64)	7/8-3 1/4 (22-83)	3 (76)	3/8-16 x 5 1/16	3/16 (5)	3/8 (10)
CG240L	3 1/2 (89)	7/8-3 3/4 (25-95)	4 (102)	3/8-16 x 6 1/16	3/16 (5)	3/8 (10)

### 6 Ton Capacity (5.4 t), 2 Jaw

CG250A*	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 6 7/8	1/4 (6)	3/4 (19)
CG250	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 6 7/8	1/4 (6)	3/4 (19)

### 10 Ton Capacity (9.1 t), 2 Jaw

CG270	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG270A*	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG272	5 1/2 (140), 8 3/4 (222)	2 1/2-7 1/2 (64-178), 3-8 (76-203)	8 1/2 (216), 10 (254)	3/4-16 x 9 13/16 3/4-16 x 12 1/8	1/4 (6) 1/4 (6)	15/16 (24) 15/16 (24)
CG270S	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG280	8 3/4 (222)	3-8 (76-203)	10 (254)	3/4-16 x 12 1/8	1/4 (6)	15/16 (24)
CG284**	15 (381)	4 3/4-11 1/2 (121-292)	13 3/4 (349)	3/4-16 x 18 15/16	3/8 (10)	1 (25)

\*Includes CG1 pulling plate. \*\*Includes pressure screw extension.

### 20 Ton Capacity (18.1 t), 2 Jaw

CG300	9 1/2 (241)	3 1/2-10 (89-254)	12 (305)	1-14 x 15	7/16 (11)	1 1/4 (32)
CG305	14 3/8 (365)	5-13 (127-330)	16 (406)	1-14 x 19	9/16 (14)	1 1/4 (32)

## 3 Jaw Pressure Screw



CG243



CG253L



CG253

### 2 1/2 Ton Capacity (2.3 t), 3 Jaw

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG243	2 1/2 (64)	7/8-3 1/4 (22-83)	3 (76)	3/8-16 x 5 1/16	3/16 (5)	3/8 (10)
CG243L	3 1/2 (89)	7/8-3 3/4 (22-95)	4 (102)	3/8-16 x 6 1/16	3/16 (5)	3/8 (10)

### 6 Ton Capacity (5.4 t), 3 Jaw

CG253L	6 (152)	3/4-8 (19-203)	5/8-18 x 6 7/8	7/32 (5)	5/16 (8)	3/8 (10)
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### 7 1/2 Ton Capacity (6.8 t) 3 Jaw

CG253	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 6 7/8	1/4 (6)	3/4 (19)
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### 12 1/2 Ton Capacity (11.3 t), 3 Jaw

CG273	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG273A	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 9 13/16	1/4 (6)	15/16 (24)
CG283	8 (203)	3-8 (76-203)	10 (254)	3/4-16 x 12 1/8	1/4 (6)	15/16 (24)
CG285	15 (381)	4 3/4-11 1/2 (121-292)	13 3/4 (254)	3/4-16 x 18 15/16	3/8 (10)	1 (25)

### 20 Ton Capacity (18.1 t) Combination 2 and 3 Jaw

CG343	9 1/2 (241)		13 (330)	1-14 x 15	7/16 (11)	1 1/4 (32)
CG348	14 3/8 (365)		16 (406)	1-14 x 19	9/16 (14)	1 1/4 (32)
CG325	19 (482)		20 (508)	1 3/8-8 x 21 11/16	1 1/8 (29)	1 1/2 (38)

## Pulling Plate

### CG1 Pulling Plate.

Ideal where there is no gripping surface for the puller alone. Attach plate to item being pulled – puller clamps behind the plate. Includes 4 each of the following screws: 1/4"-20 x 3/4" and 1/4"-28 x 1". Plate has a 3 5/8" diameter.



CG1

## Flat Points

**CG250-21 Flat Point.** Fits CG250 series pullers.

**CG270-21 Flat Point.** Fits CG270 and CG280 series pullers.

**CG300-21 Flat Point.** Fits CG300 and CG305 series pullers.

**CG325-21 Flat Point.** Fits CG325 series pullers.

**CG70 Flat Point Set.** Includes CG270-21, CG300-21 and CG325-21 flat points.



**WARNING**



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages W1 to W4



# PULLERS

## 2 Jaw Slide Hammer



CG240H



CG250C



CG250HL



CG270C

## 2 Ton Capacity (1.8 t) - 1 1/16 lb Hammer

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Slide Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG240H	2 1/2 (63)	7/8-3 1/4 (22-82)	3 (76)	3/8-16 x 12 5/8	3/16 (5)	3/8 (10)
CG240HL	3 1/2 (88)	7/8-3 3/4 (25-95)	4 (102)	3/8-16 x 12 5/8	3/16 (5)	3/8 (10)

## 6 Ton Capacity (5.4 t) - 2 1/8 lb Hammer

CG250C*	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 18 1/16	1/4 (6)	3/4 (19)
CG250H	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 18 1/16	1/4 (6)	3/4 (19)
CG250HL	6 (152)	3/4-8 (19-203)		5/8-18 x 18 9/16	7/32 (5)	5/16 (8)

\*Includes CG250H puller, CG1 pulling plate and pressure screw.

## 10 Ton Capacity (9.1 t) - 3 1/2 lb Hammer

CG270C**	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 23 3/8	1/4 (6)	15/16 (24)
CG270H	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 23 3/8	1/4 (6)	15/16 (24)

\*\*Includes CG1 pulling plate and pressure screw.

## 3 Jaw Slide Hammer



CG243H



CG253H



CG273C

## 2 1/2 Ton Capacity (2.3 t) - 1 1/16 lb Hammer

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Slide Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
CG243H	2 1/2 (64)	7/8-3 1/4 (22-83)	3 (76)	3/8-16 x 12 5/8	3/16 (5)	3/8 (10)
CG243HL	3 1/2 (89)	7/8-3 3/4 (25-95)	4 (102)	3/8-16 x 12 5/8	3/16 (5)	3/8 (10)

## 7 1/2 Ton Capacity (6.8 t) - 2 1/8 lb Hammer

CG253H	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-18 x 18 1/16	1/4 (6)	3/4 (19)
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## 12 1/2 Ton Capacity (11.3 t) - 3 1/2 lb Hammer

CG273C*	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 23 3/8	1/4 (6)	15/16 (24)
CG273H	5 1/2 (140)	2 1/2-7 1/2 (64-178)	8 1/2 (216)	3/4-16 x 23 3/8	1/4 (6)	15/16 (24)

\*Includes CG273H puller, CG1 pulling plate and pressure screw.

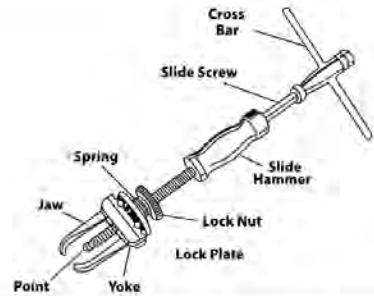


CG270-3S

### CG270-3S Special Grip Jaw.

Engineered for 2x the gripping surface area of standard jaws. Can be used with any of the CG270 and CG273 series pressure screw and slide hammer pullers.

## Quick Reference Charts



### 2 and 2 1/2 Ton Puller Group (CG240 Series): 1 1/16 lb Hammer (CG240H Series)

Stock No.	2 Jaw Yoke CG240-2	3 Jaw Yoke CG243-2	Std. Pres. Screw CG240-1	Long Pres. Screw CG240-11	Slide Screw CG240-8	Slide Hammer CG240-9	2 Jaw Lock Plate CG240-5	3 Jaw Lock Plate CG243-5	Spring CG240-6	Adj. Nut CG240-7	Std. Jaw CG240-3	Long Jaw CG240-10
CG240	1		1				1		1	1	2	
CG240L	1			1			1		1	1		2
CG240H	1				1	1	1		1	1	2	
CG240HL	1				1	1	1		1	1		2
CG243		1	1				1	1	1	1	3	
CG243L		1		1				1	1	1		3
CG243H		1			1	1		1	1	1	3	
CG243HL		1			1	1		1	1	1		3

### 6 and 7 1/2 Ton Puller Group (CG250 Series): 2 1/8 lb Hammer (CG250H Series)

Stock No.	2 Jaw Yoke CG250-2	3 Jaw Yoke CG253-2	Pressure* Screw CG250-1A	Slide* Screw CG250-8A	Slide Hammer CG250-9	Cross Bar CG10F	Lock Plate CG250-5	Spring CG250-6	Adj. Nut CG250-7	Std. Jaw CG250-3	Long Jaw CG250-10	Pulling Plate CG1
CG250	1		1				1	1	1	2		
CG250A	1		1				1	1	1	2		1
CG250C	1		1	1	1	1	1	1	1	2		1
CG250H	1			1	1	1	1	1	1	2		
CG250HL	1			1	1	1	1	1	1		2	
CG253		1	1				1	1	1	3		
CG253H		1		1	1	1	1	1	1	3		
CG253L		1	1				1	1	1		3	
CG2500B**	1	1	1	1	1	1	2	2	2	3	3	

\*CG250-20 replacement point and CG250-21 flat point for CG250 series.  
CG250-8A has 5/8" UNF threads.

\*\*CG2500B continued in next chart

### 10 and 12 1/2 Ton Puller Group (CG270, CG280 Series): 3 1/2 lb Hammer (CG270H Series)

Stock No.	2 Jaw Yoke CG270-2	3 Jaw Yoke CG273-2	Std. Pres* Screw CG270-1A	Long Pres* Screw CG270-11A	Man. Adaptor CG270-13	Slide* Screw CG270-8A	Slide Hammer CG66-2	2 Jaw Lock Plate CG270-5	3 Jaw Lock Plate CG273-5	Spring CG270-6	Lock Nut CG270-7	Std. Jaw CG270-3	Long Jaw CG270-10	Special Jaw CG270-3S	Extra Long Jaw CG270-12
CG270	1		1					1		1	1	2			
CG270A	1		1					1		1	1	2			
CG270C	1		1			1	1	1		1	1	2			
CG270H	1					1	1	1		1	1	2			
CG270S	1		1					1		1	1			2	
CG272	1			1				1		1	1		2		
CG273A		1	1						1	1	1	3			
CG273C		1	1			1	1		1	1	1	3			
CG273H		1				1	1		1	1	1	3			
CG280	1			1				1		1	1		2		
CG283		1		1					1	1	1		3		
CG284	1			1	1			1		1	1				2
CG285		1		1	1					1	1				3
CG2500B	1	1	1	1		1	1	1	1	2	2	3	3	3	

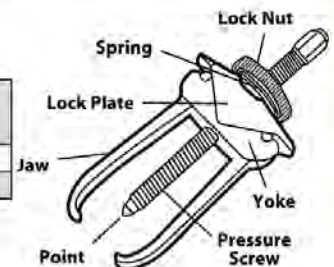
\*CG270-20 replacement point for CG270/CG280 series pullers.  
CG270-8A has 3/4-16 UNF threads.

CG270-21 flat point for CG270/CG280 series pullers.

### 20 Ton Pullers (CG300 Series)

Stock No.	2 Jaw Yoke CG300-2	Pressure Screw CG300-1	Pressure Screw CG305-8	Lock Plate CG300-5	Spring CG300-6	Lock Nut CG300-7	Std. Jaw CG300-3	Long Jaw CG305-9
CG300	1	1		1	1	1	2	
CG305	1		1	1	1	1		2

\*CG300-20 replacement point and CG300-21 flat point for CG300 and CG305 series pullers.



**WARNING**



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages W1 to W4

# PULLERS

## Industrial

VE113B  
Panel A



VE138-3B  
Panel B

VE138-2B  
Panel C



VE138-1B  
Panel D

CG1038KA

### Industrial Puller Sets

**CG1038KA Industrial Puller Set.** Includes more than 35 basic pullers that will assemble into more than 165 puller combinations. Standard pullers in this set have a range from 2 to 20 tons. The hydraulic power components provide up to 20 tons of easy pulling power. Optional 10 and 50 ton hydraulic accessories are available. Components are mounted on (4) 24" x 32" x 3/4" tool control panels (labeled A, B, C and D below) with white silhouettes. The panels are mounted on KRA213E A-frame.

**CG1038K Industrial Puller Set.** This is the CG1038KA set but does not include the KRA213E A-frame.

**CG1050KA Expanded Industrial Puller Set.** Includes CG1038KA set plus the CG1224 power kit for converting 10 ton manual pullers to hydraulic power; CG300-1, CG305-8, and CG350-1 pressure screws; CG343-1 4" plug; CG350-2 manual yoke for converting the 20 ton hydraulic pullers to manual power; and CG555 basic hydraulic set for building a 50 ton hydraulic bar type puller. Also includes CG420-5C pressure gauge, CG420-6 gauge mounting adaptor, 10 CG250-20 small centering adaptors and 10 CG270-20 large centering adaptors.

**KRA213E A-Frame.** Mobile unit features 23,220 cu in, 1,260 sq in of storage for convenient access and orderly storage. Measures 26 1/2" x 52 3/8" x 32 3/8".

### Tool Control Boards

**VE113B Tool Control Board.** Panel A is designed to hold the components for CG2500BS interchangeable puller set (6, 7 1/2, 10 and 12 1/2 ton capacity). Also used as the tool control board for the CG2500BSB manual puller set.

**CG250 Screw Type Puller.**

**CG250H Medium Slide Hammer.**

**CG250HL Medium Slide Hammer.**

**CG253 Screw Type Puller.**

**CG253H Medium Slide Hammer.**

**CG270 Screw Type Puller.**

**CG270H Large Slide Hammer.**

**CG270S Screw Type, Special Grip.**

**CG273 Screw Type Puller.**

**CG273H Large Slide Hammer.**

**CG280 Screw Type Puller.**

**CG283 Screw Type Puller.**

**VE138-2B Tool Control Board.** Panel C is designed to hold CG450HYA 20 ton hydraulic bar type puller components and the components of CG2545AB blind hole bearing puller set.

**CG40C Blind Hole Bearing Set.**

**CG45 Blind Hole Bearing Set.**

**CG450 Bar Type Puller.**

**CG450HYA Hydraulic Bar Type Puller.**

**VE138-1B Tool Control Board.** Panel D is designed to hold components of CG400 20 ton jaw type puller, three CG305-9 long jaws, CG455 and CG455A threaded adaptor sets, plus CG455-18 and CG455-19 pressure screw adaptors. The adaptors are for use with the bar type pullers on tool control panel C.

**CG400 Jaw Type Puller.**

**CG400HYA Hydraulic Jaw Type Puller.**

**CG405 Jaw Type Puller.**

**CG450HYA Hydraulic Bar Type Puller.**

**VE138-3B Tool Control Board.** Panel B is designed to hold CG2400 light duty puller set, CJ840C tapped hole puller set, CJ949 bearing separator and CJ950 bearing separator set components.

**CG240 Screw Type Puller.**

**CG240H Small Slide Hammer.**

**CG243 Screw Type.**

**CG243H Small Slide Hammer.**

**CJ93B Small Slide Hammer.**

**CJ840C Bar Type Tapped Hole Puller.**

**CJ949 Bearing Separator.**

**CJ950 Bearing Separator.**

**CJ951 Bearing Separator.**

**CJ952 Bearing Separator.**



### Features of 2 Stage Hydraulic Pumps

- 2 stage design will advance 20 to 50 ton rams in the low pressure stage in less than 1/3 the strokes required on other models
- C 520 Ram extends in 60 to 70 strokes
- C 420 Ram extends in 17 to 19 strokes
- When high pressure is required, the low pressure stage automatically kicks out to leave the high pressure stage to do the work



**CG420-2A**

One stage 20, 35 and 50 ton pump 24 fl oz capacity



**CG420-2S**

Two stage 20, 35 and 50 ton pump 24 fl oz capacity



**CG4-2A**

4 to 10 ton pump 5 fl oz capacity



**CG520** 50 ton Ram



**CG420-1A** 20 ton Ram



**CG650** 6 ton Ram



**CG720** 35 ton Ram

### Ram (Cylinder) Specifications

Capacity, tons	Stock No.	Stroke, inches	Collapsed Height, inches	Extended Height, inches	Effective Area (piston)	Oil Capacity, cu in	Pressure Screw Size, inches
4	<b>CG220</b>	2 1/4	6	8 1/4	.966	2.174	1/2-13 x 14 1/4
6	<b>CG650</b>	1 1/2	4 11/16	6 3/16	1.473	2.210	5/8-11 x 13 1/4
10	<b>CG120</b>	1	4 3/4	5 3/4	2.440	2.440	3/4-10 x 16 1/4
20	<b>CG420-1A</b>	2	6	8	4.418	8.836	1 1/8-8 x 20 1/2
35	<b>CG720</b>	2 1/2	7	9 1/2	7.903	19.758	1 3/8-8 x 25
50	<b>CG520</b>	3	8 1/8	11 1/8	11.066	33.198	1 5/8-5 1/2 x 30

#### CG222 4 Ton Set

Includes:  
CG120-3-1 Hose.  
CG120-4 Coupler Set.  
CG220 4 Ton Ram.  
CG220-13 Pressure Screw.  
CG4-2A 4 to 10 Ton Hyd. Pump.

#### CG652 6 Ton Set

Includes:  
CG120-3-1 Hose.  
CG120-4 Coupler Set.  
CG250-20 Replacement Point.  
CG4-2A 4 to 10 Ton Hyd. Pump.  
CG650 6-Ton Ram.

#### CG122 10 Ton Set

Includes:  
CG120 10 Ton Ram.  
CG120-13 Pressure Screw.  
CG120-3-1 Hose.  
CG120-4 Coupler Set.  
CG270-20 Replacement Point.  
CG4-2A 4 to 10 Ton Hyd. Pump.

#### CG420A 20 Ton Set

Includes:  
CG420-1-14 Centering Adaptor.  
CG420-1A 20 Ton Ram.  
CG420-2A 1 Stage Pump.  
CG420-3-1 Hose.  
CG420-4 Coupler Set.  
CG420A2S 20 Ton Set.  
Same as CG420A with the CG420-2S two stage pump.

### Hydraulic Accessories

Both conversion kits provide hydraulic power for the pullers, which are included in the CG2500B puller sets.



**CG1224**

#### CG6223 6 Ton Power Kit.

Converts CG250 and CG253 manual pullers to hydraulic power.

Includes:

**CG652 6 Ton Pump and Ram Set.**  
**CG250-15 2 Jaw Yoke.**  
**CG250-16 Hand Wheel Adaptor.**  
**CG253-15 3 Jaw Yoke.**

#### CG1224 10 Ton Power Kit.

Converts C 270, C 273, C 280 and C 283 manual pullers (on tool control panel "A") and C 1700/C 2500B puller sets to hydraulic power.

Includes:

**CG122 10 Ton Pump and Ram Set.**  
**CG270-15 2 Jaw Yoke.**  
**CG270-16 Hand Wheel Adaptor.**  
**CG273-15 3 Jaw Yoke.**



**CG420-5C**

#### CG420-5C Pressure Gauge.

Can be used with 6, 10, 20, 35 and 50 ton hydraulic equipment. Use CG4-2A, CG420-2A or CG420A-2S pumps. Indicates hydraulic pressure in tons of pressure as well as psi. Adaptor CG420-6 is required to attach gauge to pumps.



**CG420-6**

#### CG420-6 Gauge Mounting Adaptor.

Mounts CG420-5C pressure gauge to 6, 10, 20, 35 and 50 ton hydraulic systems.



**WARNING**



- Screen the puller application
- Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job
- Read safety precautions on pages W1 to W4



# PULLERS

## 2 and 3 Jaw Hydraulic



CG654HY



CG655HY

### 6 Ton Capacity (5.4 t)

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
<b>CG654HY</b> Hydraulic, 2 Jaw	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-11 x 13 3/4	1/4 (6)	3/4 (19)
<b>CG655HY*</b> Hydraulic, 3 Jaw	3 (76)	1 1/2-3 1/2 (38-89)	4 1/2 (114)	5/8-11 x 13 3/4	1/4 (6)	3/4 (19)

\*Includes hydraulic ram and pump set.

\*To convert to manual power, use pressure screw, adjusting nut and yoke from either CG250 or CG253 Pullers.



CG274HY



CG277HY

### 10 Ton Capacity (9.1 t)

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) inside	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
<b>CG274HY</b> 2 Jaw Model	8 3/4 (222)	3-8 (76-203)	3-8 (76-203), 10 1/2 (266)	3/4-10 x 16 1/4	1/4 (6)	15/16 (24)
<b>CG275HY</b> 3 Jaw Model	8 3/4 (222)	3-8 (76-203)	10 (254)	3/4-10 x 16 1/4	1/4 (6)	15/16 (24)
<b>CG276HY</b> 2 Jaw Model	15 (381)	4 3/4-11 1/2 (121-292)	13 3/4 (349)	3/4-10 x 23 3/8	3/8 (9)	1 (25)
<b>CG277HY*</b> 3 Jaw Model	15 (381)	4 3/4-11 1/2 (121-292)	13 3/4 (349)	3/4-10 x 23 3/8	3/8 (9)	1 (25)

\*Includes hydraulic ram and pump set.

\*To convert to manual power, use pressure screw, adjusting nut and yoke from either CG270 or CG273 Pullers.



CG400HYA



CG343



CG405HYA



CG425HYA



CG560HY

### 20 Ton Capacity (18.1 t) - Combination 2 and 3 Jaw

Stock No.	Maximum Reach, inches	Max. Spread, in. (mm) outside	Pressure Screw Size, inches	Jaw Thickness, in. (mm)	Jaw Width, inches (mm)
<b>CG400HYA*</b>	9 1/2 (241)	13 (330)	1 1/8-8 x 20 1/2	7/16 (11)	1 1/4 (32)
<b>CG400HYA2S</b>	CG400HYA with two stage pump				
<b>CG400</b>	CG400HYA less hydraulic ram and pump				
<b>CG343</b>	Manual version of CG400HYA. Includes CG343-1 4" Plug and CG300-1 1"-14 Pressure Screw in place of ram and pump				
<b>CG343-1</b>	4" Plug				
<b>CG300-1</b>	1-14 Pressure Screw				
<b>CG405HYA*</b>	14 (355)	15 (381)	1 1/8-8 x 20 1/2	9/16 (14)	1 1/4 (32)
<b>CG405HYA2S</b>	CG405HYA with two stage pump				
<b>CG405</b>	CG405HYA less hydraulic ram and pump				
<b>CG348</b>	Manual version of CG405HYA. Includes CG343-1 4" Plug and CG305-8 1"-14 Pressure Screw in place of ram and pump				
<b>CG425HYA*</b>	19 (482)	20 (508)	1 1/8-8 x 20 1/2	1 1/8 (29)	1 1/2 (38)
<b>CG425HYA2S</b>	CG425HYA with two stage pump				
<b>CG425</b>	CG425HYA less hydraulic ram and pump				
<b>CG325</b>	Manual version of CG425HYA. Includes 1 3/8-8 x 20 11/16" pressure screw in place of pump, ram, washer adaptor, ram adaptor, and cap screws				

\*Included with hydraulic ram.

### 50 Ton Capacity (45.36 t) - Combination 2 and 3 Jaw

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm) outside	Pressure Screw Size, inches	Jaw Thickness, inches (mm)	Jaw Width, inches (mm)
<b>CG560HY*</b>	28 (711)	44 (1,118)	1 5/8-5 1/2 x 30	1 7/16 (36)	2 (51)
<b>CG560HY2S</b>	CG560HY w/ 2 stage pump				

\*Included with hydraulic ram.

## Bar Type Manual Tapped Hole Sets

### 6 Ton Capacity (5.4 t), Tapped Hole

Stock No.	Max. Reach, in. (mm)	Max. Spread, in. (mm)	Pressure Screw Size, inches	Side Rods	Side Rod Adaptors (2 each), inches
<b>CJ840C</b>	33 (838)	2 5/8 - 11 5/8 (67-295)	1-14 x 33	5/8 - 18	1/2 - 20, 1/2 - 13, 3/4 - 16, 3/4 - 10,
Complete Puller Set	Side rods in set are provided 2 each in 5" (CJ84-5), 10" (CJ84A2) and 20" (CJ84-3) lengths				3/8 - 24, 3/8 - 16, 5/16 - 24, 5/16 - 18, 7/16 - 20, 5/8 - 18, 5/8 - 11, 7/16 - 14
<b>CJ84C</b>	CJ840C less all adaptors and side rods except 5/8 - 18 x 10				
Basic Puller Set					1/2 - 20, 1/2 - 13, 5/8 - 18, 5/8 - 11, 3/4 - 16, 3/4 - 10



CJ840C

## Bar Type Manual Push/Pull Sets

### 6 Ton Capacity (5.4 t), Push/Pull

Stock No.	Max. Reach, in. (mm)	Max. Spread, in. (mm)	Pressure Screw Size, inches	Pressure Screw Adaptors	Side Rods, inches	Side Rod Adaptors, inches
<b>CG706</b> Push/Pull Set	14 1/8 (358)	2 5/8 - 7 1/2 (67-191)	5/8 - 18 x 10		7/16 - 14 x 8 (4 each)	7/16 - 14f x 5/8 - 18m



CG706

### 10 Ton Capacity (9.1 t), Push/Pull

Stock No.	Max. Reach, in. (mm)	Max. Spread, in. (mm)	Pressure Screw Size, inches	Pressure Screw Adaptor	Side Rods, inches
<b>CG710</b> Push/Pull Set	17 5/8 (448)	3 9/16 - 9 3/8 (90-238)	3/4 - 16 x 12	CG710-3 3/4 - 16f x 5/8 - 18m	(2) 5/8 - 18 x 8, (2) 5/8 - 18 x 12



CG710

## Bar Type Hydraulic/Manual Sets

### 6 Ton Capacity (5.4 t), Hydraulic

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm)	Pressure Screw Size, inches	Pressure Screw Adaptor	Side Rods, inches	Side Rod Adaptors, inches
<b>CG656HY*</b> Hydraulic Set	14 1/8 (358)	2 5/8 - 7 1/2 (67-191)	5/8 - 11 x 13 3/4	5/8 - 11f x 5/8 - 18m	7/16 - 14 x 8	7/16 - 14f x 5/8 - 18m
<b>CG656</b>	CG656HY Set less the hydraulic components					

\*Included with hydraulic ram.



CG150HY

### 10 Ton Capacity (9.1 t), Hydraulic

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm)	Pressure Screw Size, inches	Pressure Screw Adaptor	Side Rods, inches	Side Rod Adaptors, inches
<b>CG150HY*</b> Hydraulic Set	17 5/8 (448)	3 9/16 - 9 3/8 (90-238)	3/4 - 10 x 16 1/4	3/4 - 10f x 5/8 - 18m 3/4 - 10f x 3/4 - 16m	5/8 - 18 x 8, 5/8 - 18 x 12	
<b>CG150</b>	CG656HY Set less the hydraulic components					

\*Included with hydraulic ram.

### 20 Ton Capacity (18.1 t), Hydraulic

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm)	Pressure Screw Size, inches	Pressure Screw Adaptor	Side Rods, inches	Side Rod Adaptors, inches
<b>CG450HYA*</b> Hydraulic Set	24 (610)	6-15 (152-381)	1 1/8 - 8 x 20 1/2		7/8 - 14 x 20, 7/8 - 14 x 10	7/8 - 14f x 7/8 - 14m, 7/8 - 14f x 5/8 - 18m
<b>CG450HYA2S*</b>	CG450HY Set with 2 stage pump					
<b>CG450</b>	CG450HY Set less the hydraulic components					
<b>CG350*</b>	Manually operated version of the CG450					

\*Included with hydraulic ram.



CG450HYA

### 35 Ton Capacity (31.7 t), Hydraulic

Stock No.	Maximum Reach, inches (mm)	Maximum Spread, inches (mm)	Pressure Screw Size, inches	Pressure Screw Adaptor	Side Rods, inches	Side Rod Adaptors, inches
<b>CG750HY*</b> Hydraulic Set	26 (660)	8 1/2 - 17 (216-432)	1 3/8 - 8 x 25	1 3/8 - 8f x 7/8 - 14m	1-14 x 20, 1-14 x 10	1-14f x 7/8 - 14m, 7/8 - 14f x 3/4 - 16m
<b>CG750HY2S</b>	CG750HY Set with 2 stage pump					
<b>CG750</b>	CG750HY Set less the hydraulic components					

\*Included with hydraulic ram.



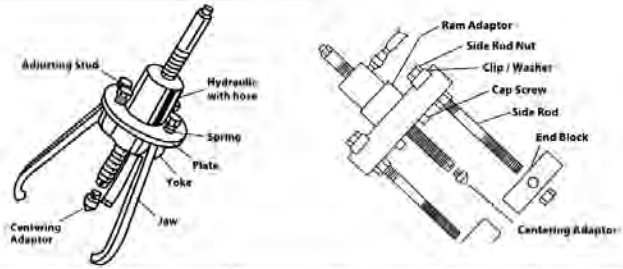
**WARNING**



- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages W1 to W4

# PULLERS

## Quick Reference Charts



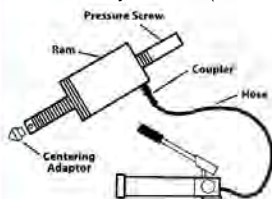
### Jaw Style Pullers (Hydraulic and Manual)

Stock No.	Hydraulic Unit	Ram Adaptor	Hydraulic Adaptor	Yoke	Pressure Screw	4" Dia. Plug	Plate	Spring	Adj. Stud	Jaws	Side Arms/ Side Plate	Arm Bolts/ Arm Nuts	Washers/ Cap Screws
CG654HY	CG652	CG250-16		CG250-15	CG650-13		CG250-5	CG250-6		CG250-3 (2)			
CG655HY	CG652	CG250-16		CG253-15	CG650-13		CG250-5	CG250-6		CG250-3 (3)			
CG274HY	CG122	CG270-16		CG270-15	CG120-13		CG270-5	CG270-6		CG270-3 (2)			
CG275HY	CG122	CG270-16		CG273-15	CG120-13		CG273-5	CG270-6		CG270-10 (3) CG270-3 (3)			
CG276HY	CG122	CG270-16	CG270-14	CG270-15	CG120-13		CG270-5	CG270-6 (4)		CG270-12 (2)			
CG277HY	CG122	CG270-16	CG270-14	CG273-15	CG120-13		CG273-5	CG270-6 (4)		CG270-12 (3)			
CG400HYA	CG420A			CG400-2	CG420-1-13A		CG400-5	CG400-6 (4)	CG400-7 (4)	CG300-3 (3)			
CG343				CG400-2	CG300-1	CG343-1	CG400-5	CG400-6 (4)	CG400-7 (4)	CG300-3 (3)			
CG405HYA	CG420A			CG400-2	CG420-1-13A		CG400-5	CG400-6 (4)	CG400-7 (4)	CG305-9 (3)			
CG348				CG400-2	CG305-8	CG343-1	CG400-5	CG400-6 (4)	CG400-7 (4)	CG305-9 (3)			
CG425HYA	CG420A	CG425-9		CG325-2	CG420-1-13A					CG325-3 (3)	CG325-4 (3)	CG325-5 (3)	CG425-8
CG325				CG325-2	CG325-1					CG325-3 (3)	CG325-4 (3)	CG325-5 (3)	
CG560HY	See Hyd. Unit Chart			CG560-2	CG520-13					CG560-3 (3)	CG560-4 (6)	CG560-6 (9) CG560-5 (9)	

### Bar Style Pullers (Hydraulic and Manual)

Set Stock No.	Hyd. Unit Ram Adaptor	Yoke	Pressure Screw	Centering Adaptor	Pressure Screw Adaptor	Thrust Nut Thrust Washer	Side Rods (2)	Side Rod Hex Nuts (6)	Clip/Washer	Side Rod Conn. Nuts (2)	End Blocks (2)	Side Rod Adaptors (2)	Cap Screw (2 Each)
CJ84C		CJ84-1B	CJ84-4	CJ84-16			CJ84A2 (10")		ME5A16 (2)				
CG706		CG656-2	CG706-1	CG250-20		CG325-6 CG706-2	CG656-3 (4) (8")	CG656-7	CG656-8 (4)	CG656-6	CG656-6	CG656-12	
CG710		CG150-2	CG710-1	CG270-20	CG710-3	CG45-2 CG710-2	CG150-3 (12") CG150-4 (8")				CG150-6		
CG656HY	CG652 CG656-9	CG656-2	*		CG656-13		CG656-3 (8")	CG656-7	CG656-8 (2)	CG656-5	CG656-6	CG656-12	CG656-11 CG656-10
CG656		CG656-2			CG656-13		CG656-3 (8")	CG656-7	CG656-8 (2)	CG656-5	CG656-6	CG656-12	CG656-11 CG656-10
CG150HY	CG122 CG150-9	CG150-2	*	*	CG150-12 (9/8") CG150-13 (3/4")		CG150-3 (12") CG150-4 (8")	CG150-7	CG150-8	CG150-5	CG150-6		CG150-11 CG150-10
CG150		CG150-2			CG150-12 (9/8") CG150-13 (3/4")		CG150-3 (12") CG150-4 (8")	CG150-7	CG150-8	CG150-5	CG150-6		CG150-11 CG150-10
CG450HYA	CG420A CG425-9	CG450-10	*	*			CG350-3 (18") CG350-4 (9")	CG350-7	CG350-8 (2)	CG350-5	CG350-6	CG350-9	CG450-11 CG450-12
CG450		CG450-10					CG350-3 (18") CG350-4 (9")	CG350-7	CG350-8 (2)	CG350-5	CG350-6	CG350-9	CG450-11 CG450-12
CG350	CG420A CG425-9	CG350-2	CG350-1				CG350-3 (18") CG350-4 (9")	CG350-7	CG350-8 (2)	CG350-5	CG350-6	CG350-9	CG450-11 CG450-12
CG750HY	See Hyd. Unit Chart	CG750-2	*	*	CG750-11 (7/8") CG750-13 (7/8")		CG750-3 (20") CG750-4 (10")	CG750-7	CG750-8 (2)	CG750-5	CG750-6	CG750-9	CG750-11 CG750-12
CG750		CG750-2			CG750-14 (1 1/8")		CG750-3 (20") CG550-3	CG750-7	CG750-8 (2)	CG350-5	CG750-6	CG750-9	CG750-11 CG550-10
	CG720-9	CG550-2					CG750-4 (10")	CG550-7				CG750-10	CG750-12

\*Included with hydraulic ram (see chart below).



### Hydraulic Power Units

Stock No.	Capacity, tons	Ram	Included with Ram Pressure Screw	Included with Ram Centering Adaptor	Hose	Coupler	Pump	Optional Pressure Gauge	Items* Gauge Adaptor
CG222	4	CG220	CG220-13		CG120-3-1	CG120-4	CG4-2A		
CG652	6	CG650	CG650-13	CG6250-20	CG120-3-1	CG120-4	CG4-2A	CG420-5C	CG420-6
CG122	10	CG120	CG120-13	CG270-20	CG120-3-1	CG120-4	CG4-2A	CG420-5C	CG420-6
CG420A	20	CG420-1A	CG420-1-13A	CG420-1-14	CG420-3-1	CG420-4	CG420-2A	CG420-5C	CG420-6

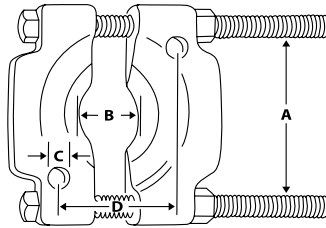
\*Standard with CG559 Bar Style Puller Set.

## Bearing Separators

Bearing separators. For separating and pulling double separators. For separating and pulling double bearings and close fitting gears. Use with tapped hole, 2 jaw pullers or floor presses.



CJ952



CJ950

### Bearing Separators

Stock No.	A	B	B	C	D
CJ949	1 11/16	1 1/8	1/4	5/16-18	2 5/8
CJ950	2 3/8	2 3/8	3/8	3/8-16	3 3/4
CJ951	4 3/8	4 1/2	5/8	5/8-18	7 1/4
CJ952	5 7/8	6 1/8	1 1/2	5/8-18	9 5/16
CJ953	8 3/8	8 3/4	1 1/4	3/4-16	14 7/16

## Bar Type Puller Adaptors

### Male Adaptors

Stock No.	Female Thread	Male Thread
CG656-12	7/16-14	5/8-18
CG656-13	5/8-11	5/8-18
CJ84-6	5/8-18	5/16-24
CJ84-15	5/8-18	5/16-18
CJ84-7	5/8-18	3/8-24
CJ84-10	5/8-18	3/8-16
CJ84-8	5/8-18	7/16-20
CJ84-18	5/8-18	7/16-14
CJ84-9	5/8-18	1/2-20
CJ84-11	5/8-18	1/2-13
CJ84-17	5/8-18	5/8-18
CJ84-12	5/8-18	5/8-11
CJ84-13	5/8-18	3/4-16
CJ84-14	5/8-18	3/4-10
CG710-3	3/4-16	5/8-18
CG150-12	3/4-10	5/8-18
CG150-13	3/4-10	3/4-16
CG46-7*	3/4-10	1-14
CG46-8**	3/4-16	1-14
CG750-9	1-14	3/4-16
CG750-10	1-14	7/8-14
CG455-18	1 1/8-8	5/8-18
CG455-19	1 1/8-8	7/8-14
CG47-420	1 1/8-8	1 1/4-12
CG550-9	1 3/8-6	1 3/4-12
CG455-1	7/8-14	5/8-18
CG455-2	7/8-14	5/8-11
CG455-3	7/8-14	3/4-16
CG455-4	7/8-14	7/8-10
CG455-5	7/8-14	7/8-9
CG455-6	7/8-14	1-14
CG455-7	7/8-14	1-8
CG455-8	7/8-14	1 1/8-12

\*For attaching CG46 Series Pullers to CG105HY Hydraulic Bar Style Puller.

\*\*For attaching CG46 Series Pullers to CG710 Push/Pull Set.



CG455

**CG455 Male Adaptor Set.** Includes 2 each of the male adaptors CG455-1 through CG455-8 (16 pcs).

- Male and female adaptors add versatility to the pulling and pushing capabilities of bar style pullers
- Adaptors change the diameter and/or thread pitch of pressure screws and side rods to accommodate item being pushed or pulled
- Unthreaded male ends of bull nose adaptors perform many pushing operations



CG455A

### Female Adaptors

Stock No.	Female Thread
CG455-9	7/8-14 and 5/8-18
CG455-10	7/8-14 and 3/4-16
CG455-11	7/8-14 and 1-14
CG455-12	7/8-14 and 1 1/8-8
CG455-13	7/8-14 and 1 1/8-12
CG455-14	7/8-14 and 1 1/4-8
CG455-15	7/8-14 and 1 1/4-12
CG455-17	7/8-14 and 1 1/2-12
CG455-16	7/8-14 and 1 1/2-8

**CG455A Female Adaptor Set.** Includes 2 each of the female adaptors (18 pcs).



**WARNING**



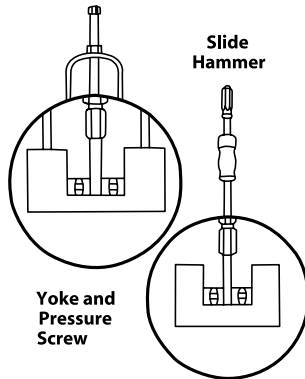
- Screen the puller application • Inspect the puller, do not use damaged parts
- Use proper type and size puller for the job • Read safety precautions on pages W1 to W4



# PULLERS

## Blind Hole Bearing

These special pullers will pull blind hole bearings, bushings and sleeves with inside diameters ranging from 1/4" to 7" where regular pullers won't reach. The operation is simple. After the special collet is inserted through the bearing or sleeve, a matched expanding rod is threaded into the collet and secured. Pulling can be done through bridge of bar type yokes or with side hammers.



CG40CB

**CG40CB Blind Hole Bearing Puller.**  
Includes 9 collets and yoke. Uses CG250-8A slide screw and CG250-9 slide hammer.

Includes:

- |         |         |
|---------|---------|
| CG40-1  | CG40-9  |
| CG40-3  | CG40-15 |
| CG41-11 | CG40A6  |
| CG41-14 | CG40A10 |
| CG41-12 | CG40-7  |
| CG41-13 | CG40-8  |
| CG40-4  | CG40-2  |



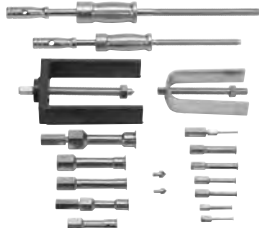
CG45

**CG45 (1-1 3/4") Puller Set.**

3 collets and yoke. Uses CJ105-4B slide screw and CJ97-3A slide hammer.

Includes:

- |          |         |        |
|----------|---------|--------|
| CG270-1A | CG45-4  | CG45-6 |
| CG45-2   | CG45-15 | CG45-7 |
| CG45-3   |         |        |



CG2545AB

### Accessories

**CG40-11 (43/64-53/64") Collet.**  
For needle bearings on Leece-Neville alternators. Use with CG40-4 expanding rod.

**CG40-12 (15 to 18 mm) Collet.**  
For pilot bearings on late model Ford® transmissions. Use with CG40-4 expanding rod.

**CG40-4-1 (4" long) Collet Extension.**  
For CG40 series collets.

**CG46-8 Manual Adaptor.**

For attaching CG46 series pullers to CG710 push/pull set.

**CG46-7 Hydraulic Adaptor.**

For attaching CG46 series pullers to CG105HY hydraulic bar style puller.

**CG47-420 Hydraulic Adaptor.**

For attaching CG47 series pullers to CG450HYA hydraulic bar style puller.

**CG46-3 Expanding Rod.**

**CG2545AB Blind Hole Bearing Puller.**  
Includes CG40C and CG45 sets plus slide screw and hammers.

Includes:

- |         |          |          |
|---------|----------|----------|
| CG40-1  | CG40-9   | CG45-2   |
| CG40-2  | CG40-15  | CG270-8A |
| CG40-3  | CG40A6   | CG45-15  |
| CG41-11 | CG40A10  | CG45-3   |
| CG41-14 | CG40-7   | CG45-4   |
| CG41-12 | CG40-8   | CG45-6   |
| CG41-13 | CG250-8A | CG45-7   |
| CG40-4  | CG250-9  | CG66-2   |
|         | CG270-1A |          |



CG47

**CG46 (1 5/8-3") Puller Set.**

3 collets, slide screw and hammer. For large size blind hole bearings, Torrington needle bearings, heavy duty bearings on live center lathes, conveyor belts and rollers.

Includes:

- |        |        |        |
|--------|--------|--------|
| CG46-1 | CG46-3 | CG46-5 |
| CG46-2 | CG46-4 | CG46-6 |

**CG47 (3-7") Puller Set.**

Master collet and pads plus slide screw and hammer. Pulling size is changed by changing pads.

Includes:

- |          |          |          |
|----------|----------|----------|
| CG4567N  | CG47-204 | CG47-209 |
| CG4567O  | CG47-205 | CG47-210 |
| CG47-201 | CG47-206 | CG47-211 |
| CG47-202 | CG47-207 | CG47-212 |
| CG47-203 | CG47-208 |          |

## Set Components

Stock No.	Description	Internal Thread Size	External Thread Size
CG40-11	Collet, 43/64-53/64"		
CG40-12	Collet, 15-18 mm		
CG40-4-1	Collet Extension, 4" long		
CG46-8	Manual Adaptor		
CG46-7	Hydraulic Adaptor		
CG47-420	Hydraulic Adaptor		
CG250-8A	Slide Screw, 5/8"-18 x 18 9/16"		
CG250-9	Slide Hammer, 2 lb		
CG40-1	Pressure Screw, 5/8"-18 x 7 3/4"		
CG40-2	Nut, 15/16" Wrench Size		
CG40-3	Yoke, 3 1/4" Spread		
CG41-11	Expanding Rod	5/8"-18	3/8"-24
CG41-14	Collet, 1/4-5/16"		
CG41-12	Collet, 5/16-3/8"		
CG41-13	Collet, 3/8-7/16"		
CG40-4	Expanding Rod	5/8"-18	1/2"-20
CG40-9	Collet, 7/16-1/2"		
CG40-15	Collet, 1/2-5/8"		
CG40A6	Collet, 5/8-3/4"		
CG40-7	Collet, 3/4-7/8"		
CG40-8	Collet, 7/8-1"		
CG40A10	Collet, 1-1 1/8"		
CJ105-4B	Slide Screw, 3/4-16 x 22 1/2"		
CJ97-3A	Slide Hammer, 3 3/4 lb		
CG270-1A	Pressure Screw, 3/4-16 x 9 1/2"		
CG45-2	Nut, 1 1/8" Wrench Size		
CG45-3	Yoke, 5 3/4" Spread		
CG45-4	Expanding Rod for:	3/4"-16	5/8"-18
CG45-15	Collet, 1-1 1/4"		
CG45-6	Collet, 1 1/4-1 1/2"		
CG45-7	Collet, 1 1/2-1 3/4"		
CG46-1	Slide Screw, 1"-14 x 18"		
CG46-2	Slide Hammer, 6 lb		
CG46-3	Expanding Rod	1"-14	1 1/8"-12
CG46-4	Collet, 1 5/8-2"		
CG46-5	Collet, 2-2 1/2"		
CG46-6	Collet, 2 1/2-3"		
CG4567N	Slide Screw, 1 1/4"-12 x 24"		
CG4567O	Slide Hammer, 10 lb		
CG47-201	Expanding Rod for:	1 1/4"-12	1 1/8"-12
CG47-202	Master Collet		
CG47-203	Collet Pad, 3-3 1/2" (3)		
CG47-204	Collet Pad, 3 1/2-4" (3)		
CG47-205	Collet Pad, 4-4 1/2" (3)		
CG47-206	Collet Pad, 3 1/2-5" (3)		
CG47-207	Collet Pad, 5-5 1/2" (3)		
CG47-208	Collet Pad, 5 1/2-6" (3)		
CG47-209	Collet Pad, 6-6 1/2" (3)		
CG47-210	Collet Pad, 6 1/2-7" (3)		
CG47-211	Screw, 3/4" (3 sets of 2)		
CG47-212	Screw, 1 3/4" (3 sets of 2)		

### Tools Required for Cummins® B and C Series Service Kits

Stock No.	Description	Applications				Set Contents	
		12 Valve pre 1994	24 Valve 1994 to 1998.5	24 Valve 1999 to 2002	24 Valve 2003	CUMDS12V 12 Valve	CUMDS24V 24 Valve
FB300A	Bent Blade Feeler Gauge	•	•	•	•	•	•
MT33C	Compression Gauge	•	•	•	•	•	•
MB5B	Bronze Injector Brush	•	•	•	•	•	•
MB6BT	Stainless Steel Injector Brush	•	•	•	•	•	•
YA9565A	Engine Turn Over Tool	•	•	•	•	•	•
CJ140-1	Injector Slide Hammer Puller	•	•	•		•	•
CJ141	12 mm Injector Adaptor	•				•	
CJ142	14 mm Injector Adaptor	•				•	
FRHM17	17 mm 6 Point Crowfoot	•				•	
FRXM17	17 mm 6 Point Flare Nut Socket	•				•	
M3584	Compression Adaptor	•				•	
SP144	Injection Pump Wrench	•				•	
SP145	Idle Wrench (10mm)	•				•	
TSM24	24 mm 6 Point Deep Socket	•				•	
FRHM19	19 mm 6 Point Crowfoot		•	•	•		•
FRXM19	19 mm 6 Point Flare Nut Socket		•	•	•		•
EEPV313A	Compression Adaptor		•	•	•		•
CJ143	Adaptor		•	•			•
CJ144	Adaptor		•	•			•
SP504	Gear Puller		•	•			•
CJ148	Fuel Line Plug			•	•		•
CJ149	Adaptor			•	•		•
KRW200A	Storage Case					•	•



CUMDS12V



CUMDS24V



KRW200A

### Optional Tools

EEDMTACH1	Digital Tachometer to measure engine RPM	•	•	•	•		
TWM14A	14 mm 1/2" dr Shallow Socket use with V22A to adjust valves	•					
SP346	Fan Wrench (36 mm)	•					

### CUMDS12V 12 Valve Diesel Set for Cummins B and C Series.

- Services *Cummins* B and C Series 12 valve engines from pre 1994
- Additional applications include Dodge® Ram 250 and 350 pickups, Ford® pickups with 3.9 L, 5.9 L and 8.3 L diesel engines, J.I. Case® tractors and off road equipment
- 15 tools in storage case

### CUMDS24V 24 Valve Diesel Set for Cummins B and C Series.

- Services *Cummins* B and C Series 12 and 24 valve engines 1994 and later
- Additional uses include *Dodge* heavy duty pickups and all applications with ISB and ISC diesel engines
- 14 tools in storage case

### Diesel Timing Gauge Set (Blue-Point®)

#### SP500 Diesel Timing Gauge Set.

- The SP500 diesel gauge set will update existing 2017DSP diesel service sets to handle 1994 to 1998 *Cummins B* engines used in *Dodge* Ram 250/350 pickup trucks and some *Ford* trucks
- Updated 2017DSP set will also service *J.I. Case* tractors and off road equipment



SP500

#### SP5001 Dial Indicator (Blue-Point).

- Features rack and pinion construction
- Refer to the pump manufacturer's service manual when using this gauge
- Gauge diameter is 2 1/4"
- Range is 30 mm
- Gauge is marked in .01 mm increments



SP503

#### SP503 Spline Socket (Blue-Point).

- Used to remove and replace the delivery valve on most Bosch® fuel injection pumps
- Wrench size is 34 tooth
- 1/2" drive size



SP504

#### SP504 Gear Puller (Blue-Point).

- Used to remove the injection pump gear
- Bolt thread is M8 x 1.25
- Bolt length is 44 mm



SP5002

#### SP5002 Gauge Holder (Blue-Point).

- Used in fuel injection pump in place of the #1 delivery valve to locate the base circle of the injection pump cam
- Male thread is M22 x 1.5



**WARNING**



• Read safety precautions on pages W1 to W4

## Diesel Tools



SP7882

### Injector Height Gauges (Blue-Point®)

- Use height gauges to set injectors during installation and at set service intervals
- Knurled handle screws into gauge at 90° angle for work in close quarters

Stock No.	Size	Series	Engine	Year
SP78	78.2 mm	60 60 and 50	DDEC I DDEC II	1986-1993 1986-1993
SP80	78.8 mm	60 and 50	DDEC III	1994-1997
SP79	80.3 mm	60 60 and 50	DDEC III DDEC IV	Late 1997 1997-1998
SP81	81.0 mm	60 and 50 -	DDEC IV Marine	1998-1999 2000-2003
SP82	82.1 mm	60	See service manual	

### SP7882 Diesel Injector Height Gauge Set.

- 5 in 1 gauge set covers all applications for Detroit Diesel® 50 and 60 series Engines
- Includes SP78, SP79, SP80, SP81 and SP82 injector gauges plus handle in vinyl storage pouch



M3530



M3531

### Governor Gap Wrenches

#### M3530 Governor Gap Adjusting Wrench.

- 3/8" open ends, 4" long
- Special thin design with 30° and 60° angle heads

#### M3531 Governor Gap Lock Nut Wrench.

Similar to M3530 but has 7/16" open ends and is 4 1/4" long.



FCT706

### Fan Clutch Wrench (Blue-Point)

#### FCT706 Fan Clutch Wrench.

- Fan clutch wrench for heavy duty truck engines
- Hole pattern on tool aligns with fasteners on fan hub
- Use with open end wrench to remove fan clutch. 24 1/2" length for maximum leverage

Applications: International (VT365, T444E, DT466, DT350 and HT530), Ford® Power Stroke (7.6 L and 6.0 L), Detroit Diesel (Series 40) and John Deere® engines.



BDD1

### Injector Brush

**BDD1 Injector Brush.** Stainless steel wire brush is for cleaning carbon buildup in the injector cup.



M3525A



M3503B

### Special Application Sockets

#### M3525A Spanner Socket.

- 1/2" drive, 3 7/32" long
- Includes 1 1/8" internal hex for use on "Fuel Squeezer" series of engines

#### M3503B Fuel Line Nut Socket.

- 1/2" wrench opening, 6 point, 3/8" drive
- Shaped for access to fuel line nuts. 3 1/4" long
- Additional applications on the head temperature sensor found on Buell® Motorcycles



S6200

**S6200 Engine Bearing Cap Bolt Socket.** Use to service engine cam bearing cap bolts on both older and newer generation Detroit Diesel engines. Newer generation Detroit Diesel engines use longer cam bolts than earlier generation engines. The S6200 is specially designed to work on both engine generations. 12 mm wrench size. 1/2" drive. 4 3/8" overall length. S6200 is similar to Snap-on® SIMDM120A socket but is longer.



MFIMMD10



### MFIMMD10 12 Point Metric Shallow Magnetic Socket.

- For use on Detroit Diesel 60 series, the MFIMMD10 is used on the 3 camshaft gear thrust plate bolts located inside the camshaft gear cover within the front gear case on the engine
- The mechanic has to go through the cover to start the bolts
- If one is dropped, it is very labor intensive and time consuming to retrieve
- Applies to 2002 and later 60 series Detroit Diesel engines with the compact gear case
- PLEASE NOTE: Earlier engines with the tall gear case have 13 mm 6 point bolts
- Please use MFIMM13 for this application

Stock No.	Size, mm	Finish	Style	A	B	D	E
MFIMMD10	10	Industrial Finish	12 point	15.1	17.2	28.6	7.1



FB325A

### Feeler Gauges (Blue-Point®)

#### FB325A U.S./Metric Feeler Gauge Set.

- For adjusting governor gap
- Includes (25) 1/2 x 3" blades in sizes .0015" plus .002 to .025" in .001" increments



FB308D

#### FB308D Step Feeler Gauge Set and Holder (Blue-Point).

- For adjusting valves
- Includes 12 step blades in sizes .008/.010 to .028/.030"



FB328A

#### FB328A Step Feeler Gauge Set and Holder.

- For adjusting valves
- Includes 2 step blades: .011/.013 and .013/.015"



M3518

M3517B

### Push Rod Wrenches

**M3517B Push Rod Lock Nut Wrench.** 1/2" open end, 102 offset handle.

**M3518 Push Rod Adjusting Wrench.** 5/16" open end, 102 offset handle.



AWM4D

### Metric Hex Wrenches

**AWM4D Metric L-Shape Hex Wrench.** For adjusting governor gap. 4 mm hex.

**AWM5D Metric L-Shape Hex Wrench.** For adjusting governor gap. 5 mm hex.



YA9340

### Belt Tensioning Tool (Blue-Point).

#### YA9340 Serpentine Belt Wrench.

- Use to release any serpentine belt tensioner with 1/2" square drive opening
- Ratcheting action allows better positioning of the tool, which allows more swing angle than a solid type serpentine belt wrench
- Reversible ratchet head is only 1" thick so it will fit between tensioner face and fan blades on S Series 60 Detroit Diesel® and some Caterpillar® engines
- Also great for working on buses and delivery vans where the doghouse or engine shrouding restrict access
- Compact overall length keeps handle from coming in contact with radiator hoses, charged air cooler pipes, hydraulic lines or frame rails
- Vinyl grip for comfort
- 13" overall length



SRD6

#### SRD6 Belt Tensioner Release Tool.

- 6" long adaptor with 1/2" male square
- The female triple square drive allows the user more flexibility to work around obstacles by coming in at different angles
- With a 1/2" breaker bar
- Similar to Snap-on® 6" torque adaptors but with a male square
- If using with a torque wrench, please refer to *Snap-on* part # SS306 Torque Chart for formula to obtain the correct applied torque

#### Heavy Duty Applications:

- For serpentine belt tensioners with a 1/2" square drive opening found on Series 60 *Detroit Diesel* and *Caterpillar* engines
- Other heavy duty applications include buses and delivery vans where the doghouse or engine shrouding can get in the way and make the work area very tight

#### Automotive Applications:

- 1/2" serpentine belt tensioners on Dodge®/Chrysler® vehicles (2.0 L and 3.0 L engines)
- Ford® vehicles
- Lincoln® and Mercury® vehicles (2.3 L, 3.0 L, 4.2 L and 4.6 L engines)
- M® vehicles (2.5 L, 4.7 L, 5.0 L and 5.7 L engines)



**WARNING**



- Do not use chrome or industrial finish hand tools with impact driver.
- Read safety precautions on pages W1 to W4



## Tools for Ford®/Navistar® Vehicles



### Pulley Puller

**SP448 Pulley Puller.** For removing the air pump pulley. Fits over pulley flange.

### Compression Adaptor

**M3545B Glow Plug Compression Adaptor.**

- For M® 4.3 L and 5.7 L plus Navistar 6.9 L and 7.3 L diesel engines
- Replacement valve core is M3545A4
- Must be used in conjunction with MT33C Compression auge and M3569 or M3570 Quick Couplers

### M3545A4 Replacement Valve Core.

Replaces valve core on M3545B.

### Sensor Socket for Ford ICP

**S6196KR Sensor Socket for Ford ICP.**

- Easily remove and install the ICP Sensor on 2002 and 2003 Ford 6.0 L diesel truck engines
- Spring retention securely holds sensor during use
- 6 point configuration with Flank Drive® wrenching system
- Wrench Size: 1 1/16". Drive Size: 3/8"
- O.D.: 1 7/16" (36.2 mm). Length: 2 9/16" (64.8 mm)

M3545B



S6196KR

### Diesel Turbo Tools

**PSWT10K Power Stroke Diesel Turbo Wrench for Ford.**

- 10 mm wrench is ideal for accessing the turbo mounting bolts located between the firewall and the turbo with exhaust intake in the way
- Designed for use on 2003 and later 6 L diesel Powerstroke engines used on Ford F250, F350, E250 and E350
- Additional applications on Navistar VT365 engines and some International 4000 series of medium duty trucks
- Wrench has a zero degree offset 6 point head
- Designed to remove excessively tight fasteners off the intake when removing turbocharger where a conventional 15° offset wrench will not work
- 5 1/2" long

PSWT10K



**S6210 Diesel Turbo Inlet Pipe Socket for Ford Vehicles.**

Application: To access bolts holding the turbo inlet pipes to the turbo on 6.4 L diesel engines. There are 6 bolts with restricted access between the turbo and firewall. Removal of the 2 bolts below the E R O C pipe is especially difficult without a 10 mm.

S6210



FGPT

### Glow Plug Tools

**FGPT Glow Plug Harness Tool.**

- Prevents damage to harness and connector rail
- Removes and installs glow plug connectors
- Orange color for easy identification in dark engine compartments



SP60

### Fan Wrench

**SP60 Fan Wrench.** 1 7/8" (48 mm) wrench services the cooling fan hub retaining nut. Has a 1/2" drive hole for torquing of the fan nut. 15 3/4" long.



FFW2

### Fuel Filter Wrenches (Blue-Point®)

**FFW2 Dual Fuel Filter and Oil Filter Cap Socket.**

- Dual Purpose 36 mm hex and 6 notches allows the tool to work as both a fuel filter and oil cap socket
- 3/8" drive



MT257B

### Diesel Pulse Adaptor

**MT257B Diesel Pulse Adaptor.**

- Test injector timing or engine RPM on diesel engines equipped with 1/4" or 6 mm external steel fuel injector lines
- Enables use with inductive pick up timing light to test engine timing
- MT257B is not for use on diesels with common rail fuel systems



M3569A

### Quick Couplers

**M3569A Quick Coupler.** 45 offset.

**M3570A Quick Coupler.** 90 offset.



M3570A

### Injector Brushes

**MB5B Injector Brush (Blue-Point).**

Bronze, nonabrasive brush cleans carbon from injector tips.

**MB73 Injector Brush (Blue-Point).**

Combination 5/16 and 13/16" diameter stainless steel wire brush to clean the injector bore and injector tip hole in the cylinder head.



MB5B



MB73

## Automotive Diesel Service Tools

### Sensor and Filter Sockets

**S3624 Filter Flip Socket.**

- One tool will remove/install all 3 filter caps on Ford 6.0 L Power Stroke diesel powered vehicles such as Super Duty Series pickups, Econoline Vans and Excursions
- Use for removal and installation of the Oil Filter cap plus primary and secondary fuel filter caps on these vehicles
- Not for impact use
- Requires optional 3/8" drive extension (FX1 or FXWP1 1-1/2" long)
- See additional applications on pg 506
- Mercedes-Benz® diesel engines

### S3624 Specifications

- Square drive size: 3/8"
- Wrench sizes: 24 and 35/36 mm
- Flank Drive wrenching system
- OD Major: 1.80" (45.7 mm)
- OD Minor: 1.38" (34.9 mm)
- Length: 1.73" (43.9 mm)



S3624



A129

**A129 Diesel Fuel Filter Socket.**

- Use for removing and installing fuel filter housings found on 2002 and later Dodge® Ram trucks with the 24 valve Cummins® diesel engine
- 1 1/8" wrench size. 3/8" drive



SWR3

**SWR3 Water Sensor Socket.**

- Easily remove/replace water sensor without damage when changing the fuel filter on 2001 to present M® 6.6L DuraMax® diesel engines
- M 6.6 L DuraMax diesel engine applications include 2001 to present Chevy®/ MC® pickups and Chevy/GMC medium duty trucks
- Manufactured from high strength, chemical resistant glass filled nylon. 3/8" square drive
- NOTE: Due to possible sensor distortion from previous incorrect removal/installation methods, the sensor may slip in the SWR3 during removal. Use to reinstall the sensor, when proper hand tightening is used



OFSKIT

**OFSKIT Oil/Fuel Filter Socket Set.**

- Includes A127 and A106 oil filter sockets, S3624 filter flip socket and A129 Cummins diesel fuel filter socket (4 pcs) in storage tray
- Applications for A127, A106 and S3624 are listed on pg 537. Applications for A129 are listed on this page



YA6180

### Fan Clutch Wrench (Blue-Point®)

#### YA6180 Fan Clutch Wrench.

- Use on M® and Ford® diesel and gas engines with a 48 mm fan clutch nut
- Provides the extra leverage needed to remove the fan clutch nut
- Overall length of 20 1/8"
- Head width of 4 1/8"
- Head thickness of 3/8"



YA6925

### Flywheel Lock (Blue-Point)

#### YA6925 Flywheel Lock for GM Duramax® 6.6 Liter Engines.

- Works on 2001 and later 6.6 L Duramax diesel truck engines
- Saves time by not removing the starter motor
- Holds the engine in place for high torque requirements
- Handle is visible to remind the technician that the engine is locked



S6104B



S6128

### Metric Injector Sockets

#### S6104B Metric Injector Socket.

- For diesel engines in VW® and Mercedes® vehicles
- 27 mm, 12 point.
- Clearance bored to fit over fuel injector
- 1/2" drive. 3 1/4" long

#### S6128 Metric Injector Socket.

- For Bosch® type injectors on GM 6.2 L 6.5 L diesel engines
- 30 mm, 6 point. 2 1/16" bolt clearance. 7/16" opening depth, 2 11/16" long
- 7/8" external hex on drive end

## Service Tools for Cummins® Engines



M1328A

M1321

M1329

### Air Compressor/Fuel Pump Wrenches

**M1328A Air Compressor/Fuel Pump Wrench.** Includes 5/8", 12 point box wrench on one end for servicing fuel pumps and a specially designed 11/16" open end for access to air compressor bolts.

#### M1321 Air Compressor/Fuel Pump Wrench.

- Similar to M1328A but has a 12 point box wrench on both ends
- Accommodates air compressor and fuel pump flange bolts on NH Series Inline 6 cylinder engines

#### M1329 Fuel Pump Wrench.

- Includes 7/16", 12 point box end for servicing fuel pump bolts on NH series engines equipped with Cummins air compressors
- 6 5/8" long



CJ125A

CJ140-1

CJ144

### Injector Pullers

**CJ125A Injector Puller.** Slide hammer puller services D, Top Stop, and small V8 injectors. 10 1/2" long.

**CJ140 Diesel Injector Puller Set.** Use on fuel injectors in Cummins B and C Series 3.9 L, 5.9 L and 8.3 L engines used in Dodge® pickups and Case® tractors/off-road equipment. Will service all 1994 to 1998-1/2 standard injectors as well as fuel inlet tubes.

**CJ140-1 Slide Hammer (8 mm).** Use to pull injectors from heads on 1998-1/2 to 2002 Dodge/Cummins. 8 mm x 1.25 thread. Use CJ144 Puller to put the fuel inlet tube prior to removing the injector.

**CJ141 Diesel Injector Puller Adaptor (12 mm).** Use on Cummins diesel injectors prior to 1994.

**CJ142 Diesel Injector Puller Adaptor.** Use on Cummins diesel injectors from 1994 to 1998-1/2. M14 X 1.5 threads.

**CJ143 Diesel Injector Puller (8 mm).** Use on 1998-1/2 Cummins diesel injectors in tight access areas.

**CJ144 Diesel Injector Puller (15 mm).** Use on 1998-1/2 to 2002 Cummins diesel fuel inlet tubes.

### Valve Adjusting Wrenches

#### M1322 Valve Adjusting Wrench.

- 3/4", 12 point box wrench to tighten lock nuts on rocker arms
- Designed to clear the aftercooler
- 14 3/4" long

#### M1319 Valve Adjusting Wrench.

- 7/8", 12 point box wrench to tighten lock nuts on rocker arms
- Designed to clear the aftercooler
- 12" long



M1322



SP346

### Fan Wrench (Blue-Point)

#### SP346 Fan Wrench.

- 36 mm open end wrench services fan clutch attaching bolts on B Series Cummins engines
- Can also be used on fan clutch bolts on Navistar 6.9 and 7.3 L engines
- Wrench is 15" long and has a blue, vinyl covered handle



SP144



SP145

### Injector Pump/Idle Lock Nut Wrench (Blue-Point)

#### SP144 Injection Pump Wrench.

13 mm, 12 point box wrench is used to service the injection pump mounting bolts found on 5.9 L Cummins engines.

#### SP145 Idle Lock Nut Wrench.

- 10 mm, 12 point wrench with 90° angle is designed to remove or install mounting bolts on the diesel injection pump
- For Cummins B Series 5.9 L engines

### Engine Turning Tool

#### YA9565A Engine Turning Tool.

- Used to rotate the engine for making valve and injection pump adjustments on Cummins and J.I. Case 3.9, 5.9 and 8.3 L "B" and "C" Series engines
- 3/8" square drive



YA9565A



**WARNING**



- Do not use chrome or industrial finish sockets with impact driver.
- Read safety precautions on pages W1 to W4

## Tools for Cummins® Vehicle Service



### Wet Sleeve Pullers

#### CG80HYA Hydraulic Wet Sleeve Puller.

- Provides hydraulic pressure for removing wet sleeves on *Cummins* diesels, trucks, and heavy construction and farm equipment with a cylinder diameter of 3 to 6"
- Reach of 7 to 12"
- Adjustable bridge fits around studs in block
- Includes a 6 ton hydraulic power pack
- Contains (1) set each of C 80-11 and C 80-22

#### CG80A Wet Sleeve Puller. Manual version of C 80HYA.

- **CG80-11 Insert (1/4").** For C 80A/C 80HYA Wet Sleeve Pullers.
- **CG80-22 Insert (5/16").** For C 80A/C 80HYA Wet Sleeve Pullers.



### Engine Sockets

**PPM516A Drain Plug Socket.** 1/2" square male end with 1/2" drive. Extra strength to remove drain plugs. 1 7/16" long.

**SIML200 6 Point Extra Deep Impact Socket.** 5/8" single hex for the stud used for the rocker box on engines equipped with Jacobs® engine brake. 1/2" drive, 5" long.

**FTXEL45E Extra Long Torx® Socket Driver.** Quickly and easily access intake bolts on *Cummins* N14 diesel engines without removing the air pump. Can also be used on older *Cummins* NH Big Cam 4 diesel engines. 3/8" square drive.



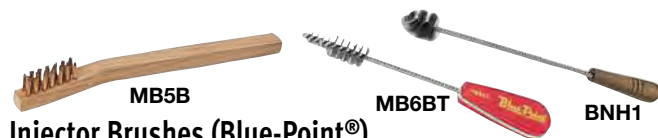
### Timing Gauge Injectors

#### GA3711 Injector Timing Gauge Set.

- Range is 0 to 1" in .001" increments
- Time injectors on *Cummins* NH, NT, L-10, and V-model engines in or out of the chassis
- Set includes 2 dial indicators, mounting hardware, instructions and storage case

#### GA3707 Injector Adjustment Gauge Set.

- Indicator Range is 0 - 1" in .0005" increments
- Adjust injector travel on NH, NT, L-10 and V model engines except those with Top Stop Injectors
- Do not use this tool for engines with Top Stop Injectors
- Obtain accurate plunger travel and uniform fuel delivery for top performance and maximum fuel economy
- Comes in fitted storage case
- Always refer to the appropriate shop manual and follow the recommended procedures when using this tool



### Injector Brushes (Blue-Point®)

**MB5B Injector Brush.** Bronze, non abrasive brush cleans carbon from injector tips.

**MB6BT Injector Brush.** Stainless steel wire brush cleans the injector cavity in the cylinder head. For *Cummins* B series engines and J.I. Case® equipment. 9" long.

**BNH1 Injector Brush.** For *Cummins* NH series engines.



### Pulley Installers and Pullers

#### CJ83C Pulley and Gear Puller.

- Ideal for servicing crankshaft pulleys and gears and timing gears on a wide range of gasoline and diesel engines including *Cummins* accessory drives and water pumps
- Nominal capacity is 3.5 ton
- Use to remove accessory drive pulley (replace with M1324)
- Includes yoke; 2 each 3/8-16 x 3", 5/16-18 x 2 1/2", and M10-1.5 x 65 mm studs; and 3/4-16 x 5" pressure screw

**M1324 Pulley Installer.** For installing the accessory drive pulley on the shaft. Includes 7/8"-14 NC threaded adaptor, washer type bearing, and installer housing.



### Torque Adaptor Set

**ST669 Torque Adaptor Set.** Use to loosen and adjust lock nuts to manufacturing specifications.

**ST669-1 Handle Assembly.** Handle assembly.

**M1302B18 12 point Deep Socket.** 9/16" deep, 12 point socket.

**M1302B24 12 point Deep Socket.** 3/4" deep, 12 point socket.

**M1302A5 Screwdriver.** 1/2" x .062 screwdriver.

**TM82 Flat Tip Socket Driver.** 1/4" x .036 flat tip driver.



### Compression Adaptors

These compression adaptors are for use with the MT33C compression gauge on page 421.

**M3540A Compression Adaptor.** For *Cummins* 855 cu. in. NH and 903 V8 and L10 diesel engines.

**M3584 Compression Adaptor.** For *Case/Cummins* series B 2.9 L, 3.9 L and 5.9 L diesel engines.

**M3585 Compression Adaptor.** For *Case/Cummins* series C 8.3 L engines.



### Fuel Line Tools

**CJ148 Fuel Line Plug.** For plugging fuel lines.

**CJ149 Fuel Tube Remover.** For fuel inlet tubes on later model vehicles.

**YA6615 Flare Nut Wrench (Blue-Point).**

- Use on Dodge® trucks with 5.9 L engines (2003 and later) and 6.7 L engines (2007 and later)
- Easily slides into the confined area of the cylinder head
- Wrench is required to hold the 24 mm flare nut while the 19 mm fuel line coupler is loosened
- Helps prevent costly damage to the fuel lines





S6160

S6194

S6190

S6260

SHR20

### Hand Sockets

#### S6160 Extra Long Head Bolt Socket.

- Use on 1986 and later Nissan® engines with 12 mm head bolts
- 8" length reaches past cam and rocker assembly to service head bolts
- Thin profile socket and shank will reach through access hole and past overhead camshaft
- Additional high torque applications include removal and installation of universal joint flange bolts on Ford®/Mercury® cars such as Mustang, Crown Victoria, and Lincoln® plus Ford Explorer, Ranger and F150/F250 trucks
- 12 point, industrial finish, ½" sq drive

#### S6194 Head Bolt Socket.

- Use on Toyota® and Nissan cars and trucks and Honda® cars with 12 mm head bolts
- 4 1/8" length reaches past cam and rocker assembly to service head bolts
- Thin profile socket and shank reach through the access hole and past overhead camshaft
- Additional high torque applications include removal and installation of universal joint flange bolts on Ford Explorer, Ranger and F150/F250 trucks
- 12 point, industrial finish, ½" sq drive

#### S6190 IPR Sensor Socket for Ford vehicles.

- Ford 6.0 L diesel injection pressure regulator (IPR) socket
- Use on 1994 and later Ford 6.0 L diesel trucks plus International® CT365, 530E and 466F
- Similar to Rotunda® part number 303-1112

#### S6260 Heavy Duty Spicer Drive Socket.

- For removal of heavy duty Spicer drive shaft bolts that have ½" fasteners found on Kenworth®, Peterbilt® trucks and many other heavy duty applications
- 8" long, 12 point, industrial finish, ½" sq drive

#### SHR20 Oil Galley Drain Plug Socket

- For removing and installing oil galley drain plug on Caterpillar® 6 cylinder engines
- alley plugs may leak and need to be removed so a new O-ring can be installed
- Low profile design to get into tight applications
- Special alloy steel provides corrosion resistance
- 5/8" Hex Socket, 6 point, 1 ¼" long

## Impact Sockets



S6197

S6199

S6217

S6216

IMFDL242

SIMDM212

DW402C

SIML302

S6230

IPRD20

S6220

### Impact Sockets

#### S6197 Heavy Duty Driveline Socket.

- Use on Kenworth/Peterbilt heavy duty drivelines that use 1/2" fasteners
- Many other heavy duty 1/2" applications as well
- Example: Socket will clear the weld yoke, when removing the cap screws holding the wing bushings to the end yoke. 1/2" wrench size, 12 point, 1/2" drive, 4 1/8" long

#### S6199 U-bolt Impact Socket.

- Most semi trucks use many 5/8" diameter U-bolts for springs and other suspension components
- Saves you time as you do not need to cut off the excess thread compared to using a standard 1 1/8" deep socket that is 3/4" drive
- Up to 2" longer than a standard deep socket to easily accommodate the excess thread length
- 1 1/8" wrench size, 6 point, 3/4" drive, 5" long

#### S6217 Head Bolt Impact Socket.

- For head bolts on heavy duty trucks and buses with Mercedes® engine MBE900
- Clearance on certain Detroit Diesel® head bolts with the Mercedes engine MBE900 require a thin walled socket
- Height of socket helps the technician when using a torque wrench due to the length of torque wrench handle for clearance
- 17 mm, 3/4" drive, 12 point, 4 3/4" long

#### S6216 for Detroit Diesel Engines Head Bolt Impact Socket.

- For head bolts on Detroit Diesel 50 and 60 Series engines
- Tight clearances between some head bolts and the cylinder head casting require a thin walled socket; these engines are found in truck, bus, motor home, marine and heavy equipment
- The increased height of the socket allows for clearance between the drive tool (ratchet, breaker bar or torque wrench) and installed valve train components, allowing technicians access to head bolts from either side of the engine
- 16 mm, 3/4" drive, 12 point, 4" long

#### IMFDL242 Deep Thin Wall Impact Socket.

- Designed to remove the head bolts on Caterpillar C12, C15, C16 and 3406Es where the front 2 and back 2 head bolts are positioned under the valve covers
- Clearance on certain Caterpillar head bolts requires a thin walled socket that needs to be a certain length
- Additional applications include Detroit Diesel main bearing cap bolts and 19 mm head bolts on Mercedes Benz MBE904/MBE906 E R engines (2007 and later)
- 3/4" wrench size, 3/4" drive, 5 3/4" long

#### SIMDM212 12 Point Metric Deep Impact Socket.

Applications: Use on flywheel bolts on Cummins ISX engines.

#### DW402C Dayton Lug Nut Impact Socket.

- 3/4" square drive with a 1 1/4", 6 point wrench opening
- Use with socket retainers

#### SIML302 6 Point Impact Socket - 5 5/8" long.

- Head bolts are sunk in pretty deep and the current method is a large impact socket with an extension to reach the application
- In this scenario, you lose too much power with an extension and 3/4" impact gun for the torque required on this application

#### S6230 Impact Socket, 15/16" - 6" long.

- Designed for Autocar® and CCC® style dump trucks and garbage trucks that use the 30/36 spring brake chamber made by M M® brakes
- When doing an emergency repair on the road or changing the diaphragm
- Length of the S6230 is designed to accommodate the very long threaded spring brake release stud assembly (release tool) in the brake chamber

#### IPRD20 Low Profile Swivel Impact Socket, 5/8".

- Use on starter bolts on Cummins, Caterpillar and International engines where housing is in the way when backing out the fastener using a standard length impact socket. Detroit Diesel series 60 starter bolts
- 30° uninterrupted swivel action, means greater accessibility in tight quarters, which allows easier and faster removal of stubborn fasteners thus saving time

#### S6220 C15 Impact Socket for Caterpillar Engines.

- Use on Caterpillar C15 engine rocker stud bolts where the length of socket and broach depth of the socket are critical for the application
- 11/16", 6 point, 1/2" drive configuration, 3 1/4" long



**WARNING**



- Do not use chrome or industrial hand finish sockets with impact driver.
- Read safety precautions on pages W1 to W4



# HEAVY DUTY TRUCK TOOLS/MOTORCYCLE

## Hose Clamp Sockets



204FIHC

Set  
Contains:  
204FIHC

Drive Size, inches	Stock No.		A	B	C	D	
3/8	<b>FIHC140</b>	7/16	21/32	11/16	2 1/4	2 3/4	•
3/8	<b>FIHC160</b>	1/2	3/4	3/4		2 3/4	•
3/8	<b>FIHCM8</b>	8 mm	12.9	17.2	57.1	69.8	•
3/8	<b>FIHCM10</b>	10 mm	15.9	17.2	57.1	69.8	•

Set shown includes storage tray

## Torque Adaptors



SRDM624

### SRDM624 Torque Adaptor.

- Services the rear brake caliper mounting bracket assembly on 2007 Ford® F450/550 trucks
  - Tool fits between the bracket bolt and frame to allow the use of a torque wrench to properly torque the bracket bolts
  - 24 mm, 6" long, 12 point wrench design, 1/2" square drive
- ### SRD35 Diesel Head Bolt Torque Adaptor.
- Special tool for use on Ford F250/F350 Trucks and Excursion vehicles (2003-2007) plus Ford E-Series Vans (2004-2009) including ambulance, law enforcement and shuttle bus conversions using the 6.0 L Power Stroke® diesel engine
  - When coupled with an SM18, 18 mm socket, the SRD35 can access all of the head bolts eliminating the need to change tools or remove the adaptor during the job



SRD35

- Use of 3/4" drive ratchet/torque wrench transmits the high torque necessary to loosen and tighten head bolts, with less strain on the technician
- Eliminates the need to remove the truck/van cab from the chassis to access the rear head bolts, saving time and preventing damage to the rear heat shield
- Eliminates the need to remove the evaporator housing, saving 2 hours of time and the additional cost of refrigerant added during air conditioning recharging
- Center to center length: 3 1/2"
- Overall length of 4 7/8"

## Slack and Valve Adjusters



BSA916



HSA716

### BSA916 Slack Adjuster Wrench.

- For brake service and slack adjuster installation on heavy duty trucks equipped with Bendix® automatic slack adjusters
- Use to turn the manual adjuster hex
- Extra deep 9/16" hex allows reach to recessed adjusters
- 14 1/2" overall length helps to overcome the anti reverse mechanism
- Turn over to reverse
- Includes protective vinyl boot

### HSA716 Slack Adjuster Wrench.

- For brake service and slack adjuster installation on heavy duty trucks equipped with Haldex® automatic slack adjusters
- Use to turn the manual adjuster hex
- Extra deep 7/16" hex allows reach to recessed adjusters
- 14 5/8" overall length helps to overcome the anti reverse mechanism
- Turn over to reverse
- Includes protective vinyl boot



S6205

S6206

### S6205 Valve Adjuster Socket.

- See through window in its 14 mm socket to see the position of the 5 mm hex blade
- Faster valve adjustment time
- Sized for low clearance
- Soft grip handle

Applications: 2002 and later Mercedes® "900" series diesel engines. 2002 and later trucks and busses.

### S6206 Valve Adjuster Socket.

- See through window in its 17 mm socket to see the position of the 6 mm hex blade
- Faster valve adjustment time
- Sized for low clearance
- Soft grip handle

Applications: 2002 and later Mercedes® "4000" series diesel engines. 2002 and later trucks and busses.

## Motorcycle Tools



TSP813

### Tire Spreader

#### TSP813 Motorcycle Tire Spreader.

- Permits 1 person installation of tubed tires on motorcycles, ATVs, small farm equipment and industrial equipment
- Easily access valve stem hole when installing difficult 90° valve stems on tubed tires
- Overall length is 23"



KAC1224TCA

### Fuel Tank Cover

#### KAC1224TCA Motorcycle Gas Tank Cover.

- Fits Harley-Davidson® Dyna, Softail and Touring models
- Fits various models of Yamaha®, Victory®, Triumph® and Kawasaki® motorcycles plus many more
- Nonmarring cover uses a nonabrasive inner liner that won't slide off

## Hand Sockets

### HXD22 Motorcycle Wheel Socket.

- Essential for removing motorcycle front wheels
- Use torque wrench for axle torque specs
- Use breaker bar to remove difficult fasteners
- Applications: 2002 and later Kawasaki® motorcycles (ZX7R, ZRX1200, ZX12R, and ZS6); 2002 and later Honda® motorcycle (CBR954RR); 2002 and later Triumph® motorcycle (955i)

### HXD24 Motorcycle Wheel Socket.

- Essential for removing motorcycle front wheels
- Use torque wrench for axle torque specs
- Use breaker bar to remove difficult fasteners
- Applications: Suzuki® motorcycles (1300 SXR and 1000 SXR); Hayabusa® motorcycles (various models)

Stock No.	Drive Size, inches	External Hex, (mm)	Outer Dia., inches (mm)	Hex Depth, inches (mm)	Length, inches (mm)
HXD22	1/2	22	15/16 (23.8)	11/16 (17.8)	1 1/2 (38.1)
HXD24	1/2	24	1 1/32 (26.2)	11/16 (17.8)	1 1/2 (38.1)

### S9724RHS Low Profile Spark Plug Socket.

- Easily reaches 5/8" (16 mm) spark plugs on muscle cars, ATVs, motorcycles and boats without interference from custom exhausts or chassis
- Spark plug extends through the socket for access in tight quarters
- Patented tapered hex design retains spark plug securely without rubber insert or magnet
- Spark plug easily disengaged from socket by applying side pressure
- Use ratcheting box wrench on 5/8" external hex drive
- Length 1 1/16"

Applications: Harley-Davidson® motorcycles with large gas tanks (1986 and later Sportster® and 1999 and later twin cam models) plus small block Chevy®, Ford®, Mopar® and other engines with 5/8" (16 mm) spark plugs and racing exhaust headers

## Adjusting Tools

### HD6529 Ratcheting Hex Wrench.

- Reversible ratchet lever conveniently located for one hand operation
- 3/16" hex bit is easily replaced if damaged
- Low profile design for extra clearance between frame and engine
- Comfortable rubber grip will not scratch chrome
- 9 3/4" overall length for additional reach
- 1/4" hex drive, 3/16" hex bit for Harley-Davidson Evolution® motor rocker box cover bolts

### NBATI Neck Bearing Adjustment Tool.

- For neck bearing adjustment on Harley-Davidson motorcycles
- Easily maneuvers between the triple clamp and frame
- Fits into the star adjustment nut, allowing technician to adjust the neck bearing play
- Tapered end allows easy access to the neck bearing adjusting star
- Screwdriver style handle offers a comfortable grip
- 18 1/2" overall length
- Neck bearing adjustment is usually checked at the following service intervals: 1,000, 5,000, 15,000 and 25,000 miles or annually

### HFTLRT Fuel Tank Lock Ring Tool (Harley-Davidson).

- Remove/install the lock ring on 2008 and later FL touring series
- Allows access to the fuel filter and pump as the lock ring is connected to the pump

## General Service Tools

Stock No.	Description	See Catalog Page
CPT110A	Motorcycle Wheel Socket	506
A15A	Drag Link Socket	40
GF22	Drag Link Socket	31
YA243A	Dial Type Pressure Gauge	487
YA173A	Clip On Style Angled Air Chuck	488
VT1A	Valve Stem Insertor	489
GA599A	Tread Depth Gauge	489
SGSR104	Seal Remover Set	160
MT125A	Self Powered Timing Light	446
TA358	Torque Angle Gauge - 3/8" Drive	253
AWHD8K	Hex/Torx® Folding Wrench Set	130

## Motorcycle Service Tools



HXD22

HXD24

S9724RHS

S9704RHS

SAM12LE

### S9704RHS Low Profile Spark Plug Socket.

- Reaches 13/16" spark plugs on muscle cars, ATVs, motorcycles, RVs and boats without interference from custom exhausts or chassis
- Extends through the socket for access in tight quarters
- Patented tapered hex design retains spark plug securely without rubber insert or magnet
- Easily disengaged from socket by applying side pressure
- Use with open end or ratcheting box wrench on 13/16" external hex drive; Length 1 1/4"

### SAM12LE Long Hex Socket Driver.

- Essential for removal or installation of bolt found on the lower forks of 2006 and newer Harley-Davidson Dyna series motorcycles
- Used when servicing the internal parts of the fork, 12 mm
- 98 mm long



HD6529

NBATI

HFTLRT

OFHD

OFHARLEY

### OFHD Motorcycle Oil Filler for Harley-Davidson.

- Allows access to the fuel filter and pump as the lock ring is connected to the pump
- Competitive products are metal and can scratch the painted surface of the motorcycle
- Oil filler for 1999-2006 Harley-Davidson Touring Motorcycles with the "Push in Style" oil caps
- Prevents any unwanted mess; fastens and seals onto filler neck
- No need to hold funnel while pouring in oil
- Can fill funnel with almost 1 quart of oil and work on something else
- ABS plastic
- Smooth surface will not scratch painted surface

### OFHARLEY Motorcycle Oil Filler for Harley-Davidson.

- Prevents any unwanted mess; fastens and seals onto filler neck
- No need to hold funnel while pouring in oil
- Can fill funnel with almost 1 quart of oil and work on something else
- ABS plastic
- Smooth surface so not to scratch painted surface
- For Harley-Davidson Touring bikes and Dyna series motorcycles 2007 to present

## Motorcycle Service Equipment

Stock No.	Description	See Catalog Page
MTPV100	Motorcycle/ATV Peak Voltage Meter	244
EEPV503	Motorcycle Compression Gauge Set	450
EEPV5G10L	Motorcycle Compression Gauge Adaptor	450
EEWB308D	Motorcycle Wheel Balancer	485
EEWH310B	Motorcycle Tire Changer	485
YA1715	Motorcycle Jack	509



**WARNING**



- Do not use chrome or industrial finish sockets with impact drivers.
- Read safety precautions on pages W1 to W4

## Motorcycle Service Tools



CYCLESET

### Service Sets

#### CYCLESET Motorcycle Tool Set.

- 33 pc kit services most U.S. manufactured motorcycles
- From battery service, cable and clutch adjustments, to gas tank and seat removal, this set covers roadside maintenance and emergency repairs
- Conveniently organized and stored in a gas tank shape bag measuring 10" L, 5 1/2" W, and 2 1/4" H and is small enough to fit almost anywhere
- Visit [www.snapon.com](http://www.snapon.com) for the full list of set components and applications

## Motorcycle Special Application



MTPV1000

### MTPV1000 Peak Voltage Tester (Blue-Point®).

#### Optional Accessories

- 0 - 400 AC/DC A clamp-on probe (EETA501C)
- 0 - 1,000 AC/DC A clamp-on probe (EETA502C)
- Boot Hook Hanger (EEDM503B1)
- K-type temperature adaptor ( EEDM506B)
- Heavy duty surface probe for EEDM506B (EETH502B)
- Heavy duty gas probe for EEDM506B (EETH503B)

### Applications

- Peak voltage measurement of secondary ignition systems on all types of vehicles and pleasure craft
- CDI ignition diagnosis on motorcycles, ATVs and snowmobiles
- Digital multimeter functions to measure battery, sensor and circuit voltage
- Check continuity of wiring and resistance of ignition wires

### Features

- Tester automatically selects the best range for taking a measurement on V DC, V AC and ohms
- Use AC/DC voltage ranges to check ignition coil primary, ignition pulse generator, exciter coil and battery
- Add adapters to measure temperature, rpm, pressure and amps
- Measure ohms to determine resistance of a coil or spark plug
- Use the continuity buzzer for finding breaks or shorts in wires
- Large, easy to read, 4,000 count LCD and bar graph to easily view rapidly changing input signals
- Lock readings on display with data hold
- View + or - spark readings with the push of a button
- Measure peak voltage of ignition coil and secondary spark
- Input connector for kV probe
- Auto power off to conserve battery power when not in use
- Includes test instrument, test lead set with alligator clips, protective rubber boot, kV probe, soft carrying case, 9 V battery and instruction manual

## Aviation Specialty Service Tools



NYZ701810



NYZ701410



NYZ700510



NYZ700110



NYZ701110



NYZ701210



NYZ7010FSB



NYZ7000MDKIT



NYZ7007HD

### Complete Kits

#### NYZ7000MDKIT Master Mastic Removal Kit.

- Saves most of the time and labor involved to remove PRC and other mastics from every area of an aircraft without damage to the substrate
- Speed controllable vibration gun permits infinitely variable job performance
- Included pneumatic blade sharpener rapidly puts an edge on all NYROC blades up to 1" width right at the job site
- Completely portable system is fully grounded and antistatic
- Kit includes medium duty Vibro gun, pneumatic blade sharpener, (1) antistatic vacuum bag, (1) sharpening disc, (1) manual handle, (2) 1" NYROC blades, (2) 1/2" NYROC blades, (2) 1/4" NYROC blades, blade locks and connecting hoses in padded storage case

#### NYZ7007HD Manual Mastic Removal Kit.

- Hand kit is ideal for aviation, automotive and industrial use especially for delicate jobs and limited access scraping applications
- NYROC blades are sharpened with sandpaper, small stone or optional pneumatic sharpener
- Kit includes (6) 1" NYROC blades, (6) 1/2" NYROC blades, (3) 1/4" NYROC blades and ergonomic rubber handle

## NYROC® Blades

Blade Size, inches	Description	Pack of 10	Pack of 200
1/8 wide	General Use	NYZ701810	NYZ7018200
1/4 wide	General Use	NYZ701410	NYZ7014200
1/2 wide	General Use	NYZ700510	NYZ7005200
3/4 wide	General Use	NYZ703410	NYZ7034200
1 wide	General Use	NYZ700110	NYZ7001200
1 wide	Button Head Rivet	NYZ701110	NYZ7011200
1 1/2 wide	Highlock for 3/8 high locks	NYZ701210	NYZ7012200

Blades available in 10 pack and 200 pack quantities only.

**NYZ7010FSB Flexible Steel Blade.** Use with NYZ7026EH Rubber Handle.



NYZ7000S



NYZ7026EH



NYZ7006MG



NYZ7025H50

### Blade Sharpener NYZ7000S Pneumatic Blade Sharpener.

- Pneumatic powered sharpener quickly sharpens all NYROC® blades up to 1" W
- Consistently sharpens blades to the optimal 51° angle
- Operates with single push button
- Connects directly to shop air
- Removed material is collected in disposable antistatic vacuum bag attached directly to the discharge chute

### Accessories

#### NYZ7004VB AntiStatic Vacuum Bags.

- Antistatic vacuum bags for NYZ7000S blade sharpener
- Pack of 10

#### NYZ700AD Abrasive Sharpening Discs.

- Abrasive sharpening discs for NYZ7000S blade sharpener
- Pack of 10

#### NYZ7026EH NYROC Blade Holder.

- Vulcanized rubber padded blade holder, works exclusively with NYROC blades
- Fits comfortably in the users hand, reduces operator fatigue and helps to prevent injury

### Guns and Hoses

#### NYZ7025H50 Air Hose (AntiStatic).

- NONSTAT® antistatic 1/4" hose is fully grounded to prevent static discharge
- Hose is ideal for environments and projects where static control is essential
- 50' long

#### NYZ7024H100 Air Hose (AntiStatic).

- Same as NYZ7025H50 except 100' long

#### NYZ7006MG Vibro Gun Kit.

- Kit includes medium duty Vibro gun, 1", 1/2" and 1/4" NYROC blades (1 ea.) plus blade locks in black kit bag
- Medium duty Vibro gun adds pneumatic power to all scraping jobs using standard NYROC blades



AVPW716



AFPW38

### Aircraft Vacuum/Fuel Pump Wrenches

#### AVPW716 Aircraft Vacuum Pump Wrench.

- Removes and replaces vacuum pump flange nuts on aviation and experimental aircraft
- Use with any 1/4" drive extension
- Easily fits into tight areas between the pump and nearby accessories
- Cut down head design adds greater flexibility than a wrench with a bent shank

Applications Include: Cessna®: Skyhawk, Skylane, Stationair Piper®: Cub, Warrior, Archer, Seminole, Aztec, Navaho, Chieftain Mooney®: M20 series, M200 series, Ovation, Acclaim Beechcraft®: Bonanza, Duchess, Baron Cirrus®: SR20 and SR22 aircraft

#### AFPW38 Aircraft Fuel Pump Wrench.

- Small crowfoot which will remove and install the fuel primer/injector line on Continental® and Lycoming® engines
- Can be used with a 1/4" drive extension and will easily fit into tight areas



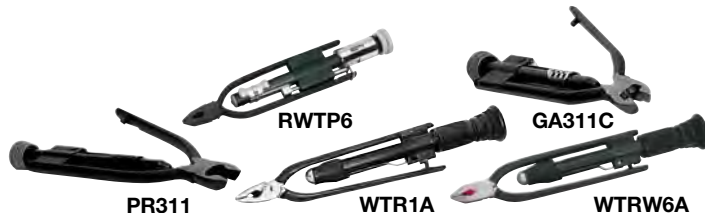
AOFW2

### Aircraft Oil Filter Wrench

#### AOFW2 Aviation Oil Filter Wrench.

- Oil filter wrench can be used for installing and removing oil filters on all standard general aviation aircraft with 1" hex oil filters
- Compact size allows for reach in restricted areas
- 3/8" drive torque wrench
- Please refer to Snap-on® SS306 Torque Chart for formula to obtain the correct applied torque

## Safety Wiring (Blue-Point®)



PR311

RWTP6

WTR1A

GA311C

WTRW6A

### Wire Twister/Cutters

Stock No.	Description/Features	Wire Capacity, inches	Overall Length, inches	Wire Retainer
RWTP6	Reversible Wire Twister/Cutters	.020 to .041	8 1/2	No
RWTP9	Reversible Wire Twister/Cutters	.020 to .051	10 1/2	No
GA311C	Wide range of applications.	.060	10 1/2	No
PR311	Similar to GA311C, but not spring loaded. Right hand only with manual return.	.060	10 1/2	No
WT11B	Small size for use in tight quarters.	.041	8 1/2	No
WTR1A	Reversible wire twisters let you perform right and left hand twist with the same tool. Spring return and control knob.	.041	8 3/4	No
WTRW6A	Reversible wire twister lets you perform right and left hand twist with the same tool. Spring return and control knob. Oval cushioned throat captures and holds wire firmly.	.041	6	Yes



### Wire Twisters

Cushion throat wire twisters feature a polyurethane filler that is bonded into the tool's cutter head to help prevent flying wire bits. A special undercut design helps maintain cutting edges and increases tool durability. Ideal for assembly line applications.



WT105-2004



WT105-2516

### Safety Wire

Stock No.	Wire Size, inches	Container
WT105-2004	.020	1/4 lb Spool
WT105-3204	.032	1/4 lb Spool
WT105-4204	.041	1/4 lb Spool
WT105-2016	.020	1 lb Canister
WT105-2516	.025	1 lb Canister
WT105-3216	.032	1 lb Canister
WT105-4116	.041	1 lb Canister
WT105-5116	.051	1 lb Canister



**WARNING**



• Read safety precautions on pages W1 to W4



# TORQUE

## Known for Getting the Job Done Right the First Time.

Your reputation depends on your ability to deliver precise results. Snap-on offers the largest selection of torque tools available, providing the accuracy you need to turn more fasteners and tighten them to spec.

## Torque in Less Time.

**TechAngle® Electronic Torque Wrench** — Performs the job of multiple torque wrenches and an angle gauge to complete precise “torque to yield” specifications. Angle calculation is based on the same gyroscope technology that keeps helicopters flying level.

**Techwrench® Electronic Torque Wrench** — Revolutionized the industry. Electronic easy-to-use push button tool that precisely measures torque applied to the fastener. Measures ft. lbs., in. lbs. and Nm.

**Click-type torque wrenches** — Provide consistently accurate readings and rugged, trouble-free performance.



## Techwrench® Torque Wrenches

TechAngle® torque wrenches are truly revolutionary. They do the job of multiple torque wrenches and an angle gauge to complete precise torque plus turn specifications at a fraction of the cost. Even better, it saves you some serious time on every head bolt or connecting rod nut. [www.torqueinlesstime.com](http://www.torqueinlesstime.com)

### TechAngle

Eliminates the need for angle gauges and protractors, providing the most accurate and fastest way to achieve torque plus angle tightening sequences now specified by many manufacturers.

- Digital readout shows torque setting then changes to the follow up angle
- Not affected by ratcheting
- Angle calculation based on the same gyroscope technology that keeps helicopters flying level
- Torque accuracy: 2% CW, 3% CCW from 20 to 100% F.S. 4% CW, 6% CCW from 10 to 19% F.S. 8% CW, 10% CCW from 5 to 9% F.S.
- Angle accuracy ±1% of reading ±1°@ angular velocity >10°/sec <180°/sec.
- Display resolution 1°
- More information at [www.snapon.com/torque/techangle](http://www.snapon.com/torque/techangle) and [www.torqueinlesstime.com](http://www.torqueinlesstime.com)
- Dual 80 technology on all 72 and 80 tooth



ATECH2FR100A

### TechAngle Models/2% Accuracy

Specifications	ATECH1FR240	ATECH2FR100A	ATECH3FR250A	ATECH4R600
Square Drive, inches	1/4	3/8	1/2	3/4
Head Type	Sealed Flex Head	Sealed Flex Head	Sealed Flex Head	Sealed Fixed Head*
Gear Teeth	72	80	80	32
Gear Action	5°	4.5°	4.5°	11°
Range, in lb	24-240	60-1,200	150-3,000	720-7200
Range, ft lb	2-20	5-100	12.5-250	60-600
Range, N•m	6.7-27.2	13.5-135.0	17.5-340	81-813
Angle Range	5-360°	5-360°	5-360°	5-360°
Head Depth, inches	7/16	5/8	3/4	1 1/4
Head Width, inches	7/8	1 5/32	1 5/8	2 1/2
Operating Temperature	40-110 °F (5-42 °C)	40-110°F (5-42 °C)	40-110 °F (5-42 °C)	40-110 °F (5-42 °C)
Storage Temperature	0-122 °F (-20-50 °C)	0-122 °F (-20-50 °C)	0-122 °F (-20-50 °C)	0-122 °F (-20-50 °C)
Humidity	up to 90% noncondensing	up to 90% noncondensing	up to 90% noncondensing	up to 90% noncondensing
Housing Color	Grey	Grey	Grey	Black
Length, inches	15	17	26	49
Ratchet Service Kit	RKRT72	RKRF80	RKRS80	RKRQC4

\*Includes protective boot.

CE

### Standard Models/2% Accuracy

Specifications	TECH1FR240	TECH2FR100	TECH3FR250	TECH4R600
Square Drive, inches	1/4	3/8	1/2	3/4
Head Type	Sealed Flex Head	Sealed Flex Head	Sealed Flex Head	Sealed Fixed Ratchet
Gear Teeth	72	80	80	32
Gear Action	5°	4.5°	4.5°	11°
Range, in lb	24-240	60-1,200	300-3,000	720-7,200
Range, ft lb	2-20	5-100	25-250	60-600
Range, N•m	2.7-27.12	6.7-135	34-339	81-813
Head Depth, inches	7/16	5/8	3/4	1 1/4
Head Width, inches	7/8	1 5/32	1 5/8	2 1/2
Housing Color	Red	Grey	Red	Red
Length, inches	15 1/4	17 1/4	26 1/4	48
Ratchet Service Kit	RKRT72	RKRF80	RKRS80	RKRQC4

CE

### Techwrench (all models)

- Manual preset and automatic track and peak hold modes
- Torque units conversion: N•m, ft lb, in lb
- Audible (tone) and tactile (vibrating handle) preset alerts
- Display resolution: 0.1 ft lb, 0.1 N•m, 1 in lb
- Each button has only one function (power on, preset increase, preset decrease, unit of measure select)
- Comfortable, nonslip grip
- Stand on handle bottom keeps tool from rolling off flat surface
- Sealed flex head ratchets move ±15°
- 3 "AA" lithium cells included
- Low battery indicator and auto shut off (after 2 minutes idle)
- Operating temperature 40-110 °F (5-42 °C)
- Storage temperature 0-122 °F (-20-50 °C)
- Humidity up to 90% noncondensing
- Designed to withstand shocks without failure
- Splash proof, protects against water and most automotive shop fluid
- ISO-6789-2003 and ASME® B107.300 standards compliant
- Certificate of N.I.S.T. traceability for 20% to 100% of full scale
- Includes storage case
- More information at [www.snapon.com/torque/techwrench](http://www.snapon.com/torque/techwrench)
- Dual 80 technology on all 72 and 80 tooth



TECH2R100

### Standard Models/2% Accuracy/Fixed Head

Specifications	TECH1R240	TECH2R100	TECH3R250
Square Drive, inches	1/4	3/8	1/2
Head Type	Sealed Fixed Ratchet	Sealed Fixed Ratchet	Sealed Fixed Ratchet
Gear Teeth	72	80	80
Gear Action	5°	4.5°	4.5°
Range, in lb	24-240	60-1,200	300-3,000
Range, ft lb	2-20	5-100	25-250
Range, N•m	2.7-27.12	6.7-135	34-339
Head Depth, inches	7/16	5/8	3/4
Head Width, inches	7/8	1 5/32	1 5/8
Housing Color	Red	Red	Red
Length, inches	15 1/4	17 1/4	26 1/4
Ratchet Service Kit	RKRT936	RKRF936	RKRS936

CE

### Techwrench (standard models)

- Torque accuracy ratchet head models: 2% CW, 3% CCW from 20-100% F.S. 4% CW, 6% CCW from 10-19% F.S. 8% CW, 10% CCW from 5-9% F.S. (TECH2 only)
- Torque accuracy interchangeable head models: 4% CW, 6% CCW from 20-100% F.S. 8% CW, 12% CCW from 10-19% F.S. 16% CW, 20% CCW from 5-9% F.S. (TECH Y only)
- Tolerance (early preset alert) - 2% of torque setting



TECH2FR100

All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)  
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20 to 100% of full scale, using NIST traceable equipment.



**WARNING**



- Do not exceed rated torque • Do not use to break fasteners loose
- Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages W1 to W4

# TORQUE

## Techwrench® Torque Wrenches

Techmemory™ electronic torque wrenches include TORQLOG®, a downloading software on CD for IBM® PCs and a 6' RS232 serial cable. 2 Microsoft® Excel® templates are also in the CD for customer convenience. The download template provides basic statistical analysis of dumped readings. The date/time template adds a date and time stamp to each reading while the wrench is attached to the PC. Templates can be customized to suit specific user needs. 6 button operation. RS232 port for downloading data to computer for analysis. All models include 3 "AA" batteries for power. Comfortable, nonslip grip. Stand on handle bottom keeps tool from rolling off flat surface. Flex head ratchet moves 15°. All models have a low battery indicator and auto shutoff (after 2 minutes idle). Designed to withstand shocks without failure. Splash proof to protect against water and most automotive shop fluid. Includes storage case. Complies with ISO®-6789-2003 and ASME® B107.300 Standards. Additional technical information is available at [www.snapon.com/torque/techwrench](http://www.snapon.com/torque/techwrench).

### Techmemory Features:

- Torque accuracy TECH1, 2 and 3 ratchet head models: 1% CW, 1.5% CCW 2% CW, 3% CCW from 10 to 19% F.S. 4% CW, 8% CCW from 5 to 9% F.S. (TECH2 only)
- Torque accuracy TECH4 ratchet head model: 2% CW, 3% CCW from 20 to 100% F.S. 4% CW, 6% CCW from 10 to 19% F.S.
- Torque accuracy interchangeable head models: 4% CW, 6% CCW from 20 to 100% F.S. 8% CW, 12% CCW from 10 to 19% F.S. 4% CW, 20% CCW from 5 to 9% F.S. (TECH Y only)
- Manual peak store, recall, clear and print functions
- Memory capacity: 1000 peak readings
- TechLog™ download software CD included
- Excel® Download Template with basic statistics
- Date/time Excel download template (wrench connected to PC)
- Serial RS232, with selectable 1200 to 19.2K baud rate
- Serial cable: 6' with 9 pin PC interconnect included
- Dual 80® technology on all 72 and 80 tooth

### Applications:

- Automotive service: printout provides assurance that lug nuts, head bolts, etc. have been tightened to specification
- Assembly operations: gather data to manage quality
- Manufacturing /ISO and SPC®: generate statistics for technical files and process auditing
- Military: document compliance with maintenance schedules and inspections
- Aviation: include torque data in maintenance reports



TECH2YM100



TECH2YDM100

## Memory Models/4% Accuracy/Interchangeable Head and "D" Models

Specifications	TECH1JM240 †	TECH1JDM240 †	TECH2YM100 †	TECH2YDM100 †	TECH3XM250 †	TECH3XDM250 †
<b>Head Type</b>	Interchangeable	Interchangeable	Interchangeable	Interchangeable	Interchangeable	Interchangeable
<b>Range, in lb</b>	24-240	24-240	60-1,200	60-1,200	300-3,000	300-3,000
<b>Range, ft lb</b>	2-20	2-20	5-100	5-100	25-250	25-250
<b>Range, N•m</b>	2.7-27.12	2.7-27.12	6.7-135	6.7-135	34-339	34-339
<b>Shank Diameter</b>	J (0.425")	J (0.425")	Y (0.560")	Y (0.560")	X (0.735")	X (0.735")
<b>Torque Setting Resolution</b>	0.1 ft lb (0.1 N•m, 1 in lb)	0.1 ft lb (0.1 N•m, 1 in lb)	1 ft lb (1 N•m, 1 in lb)	1 ft lb (1 N•m, 1 in lb)	1 ft lb (1 N•m, 1 in lb)	1 ft lb (1 N•m, 1 in lb)
<b>Housing Color</b>	Red	Grey	Red	Grey	Red	Grey
<b>Overall Length, in (mm)</b>	13 1/2 (343)	13 1/2 (343)	15 1/2 (394)	15 1/2 (394)	23 1/2 (597)	23 1/2 (597)
<b>Weight, lbs (kg)</b>	1.6 (.73)	1.6 (.73)	1.9 (.86)	1.9 (.86)	2.9 (1.32)	2.9 (1.32)

Wrench length specification does not include the length of interchangeable heads. The certification of accuracy provided per ASME and ISO standards is 20 to 100% of full scale. See pg 255-258 for interchangeable tool heads. † €

### Techwrench Features: (all "D" models)

- Hidden torque preset adjustment (momentary displays at Zero/Tare)
- Hidden tolerance adjustment + and - 1 to 16% of preset value



TECH1J240



TECH2YD100

## Standard Models/4% Accuracy/Interchangeable Head and "D" Models

Stock No.	Range, in lb	Range, ft lb	Range, N•m	Shank Diameter	Housing Color	Length, inches
TECH1J240 †	24-240	2-20	2.7-27.12	J (0.425")	Red	13 3/4
TECH2Y100 †	60-1,200	5-100	6.7-135	Y (0.560")	Red	15 1/2
TECH3X250 †	300-3,000	25-250	34-339	X (0.735")	Red	23 3/4
TECH4Z600 †	720-7,200	60-600	81-813	Z (0.990")	Red	42
TECH1JD240 †	24-240	2-20	2.7-27.12	J (0.425")	Grey	13 3/4
TECH2YD100 †	60-1,200	5-100	6.7-135	Y (0.560")	Grey	15 1/2
TECH3XD250 †	300-3,000	25-250	34-339	X (0.735")	Grey	23 3/4
TECH4ZD600 †	720-7,200	60-600	81-813	Z (0.990")	Grey	42

Wrench length specification does not include the length of interchangeable heads.

The certification of accuracy provided per ASME and ISO standards is 20 to 100% of full scale. See pg 255-258 for Interchangeable Tool Heads.

† €



TECH3FRM250

## Memory Models/1% Accuracy/Ratcheting/Flex Head

Specifications	TECH1FRM240 †	TECH2FRM100 †	TECH3FRM250 †	TECH4RM600 †
<b>Square Drive, inches</b>	1/4	3/8	1/2	3/4
<b>Head Type</b>	Flex Head	Flex Head	Flex Head	Fixed Ratchet
<b>Gear Teeth</b>	72	80	80	32
<b>Gear Action</b>	5°	4.5°	4.5°	11°
<b>Range, in lb</b>	24-240	60-1,200	300-3,000	720-7,200
<b>Range, ft lb</b>	2-20	5-100	25-250	60-600
<b>Range, N•m</b>	2.7-27.12	6.7-135	34-339	81-813
<b>Head Depth, inches</b>	7/16	5/8	3/4	1 1/4
<b>Head Width, inches</b>	7/8	1 5/32	1 5/8	2 1/2
<b>Torque Setting Resolution</b>	0.1 ft lb (0.1 N•m, 1 in lb)	1 ft lb (1 N•m, 1 in lb)	1 ft lb (1 N•m, 1 in lb)	1 ft lb (1 N•m, 1 in lb)
<b>Overall Length, inches (mm)</b>	15 (381)	17 (432)	26 (660)	48 (1,219)
<b>Ratchet Service Kit</b>	RKRT72	RKRF80	RKRS80	RKRQC4
<b>Housing Color</b>	—	Grey	Red	—
<b>Weight, lbs (kg)</b>	1.7 (.77)	2.2 (.98)	3.7 (1.68)	10.0 (4.54)

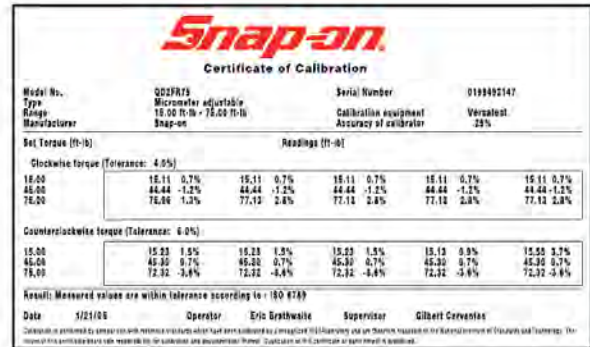
The certification of accuracy provided per ASME and ISO standards is 20 to 100% of full scale. † €



The QD Series of click-type Torque Instruments features an innovative design that provides consistently accurate readings and rugged, trouble free performance.

### Features:

- Certificate of Calibration.** A Certificate of Calibration (right) is packed with every QD series torque instrument. Actual certification readings and individual instrument serial number are included. Each torque instrument, as calibrated at the factory, is certified to meet the accuracy specified in ASME® and was calibrated on a torque standard traceable to the National Institute of Standards Technology (NIST®)
- Accuracy.** All QD series torque instruments are accurate to  $\pm 4\%$  clockwise and  $\pm 6\%$  counterclockwise from 20% of full scale to full scale
- Long Life Ratchet Head.** QD series torque instruments feature the Snap-on® high strength sealed ratchet head. Sealed ratchet heads keep out dirt and moisture while being virtually maintenance free. Applies to all QD series ratchet head models. (U.S. Patent 6,125,722) applies to 1/4, 3/8 and 1/2" drive ratchet head models only
- Minimal Friction Hour Glass Cam.** Unique cam design minimizes friction due to reduced contact area between the cam and internal tube wall. Cam retains and releases lubricant where needed. Reduces friction results in more accurate and repeatable torque values



- Laser Etched Scale.** Easier to read under most light conditions.
- Positive Stop.** Instrument cannot be accidentally disassembled if wound down past scale
- Long Term Protection.** Each instrument includes a storage case



### U.S. Torque Instruments (in lb)/ $\pm 4\%$ Accuracy

Square Drive, Inches	Stock No.	Head Style	Gear Teeth	Swing Arc	Range, min	Range, max	Increments	Length, inches	Head Width, inches	Head Depth, inches	Storage Case	Ratchet Service Kit
1/4	QD150	Fixed	—	—	10 in lb	50 in lb	.5 in lb	9 3/4	5/8	13/16	PBQD1	—
1/4	QD1R50	Fixed Ratchet	36	10°	10 in lb	50 in lb	.5 in lb	9 7/8	7/8	7/16	PBQD1	RKRT936
1/4	QD1200	Fixed	—	—	40 in lb	200 in lb	1 in lb	10 15/16	5/8	13/16	PBQD1	—
1/4	QD1R200	Fixed Ratchet	36	10°	40 in lb	200 in lb	1 in lb	11 1/16	7/8	7/16	PBQD1	RKRT936
3/8	QD2R200	Compact Ratchet	36	10°	40 in lb	200 in lb	1 in lb	11 1/16	7/8	7/16	PBQD1	RKRF936
3/8	QD21000	Fixed	—	—	200 in lb	1,000 in lb	5 in lb	14 9/16	1	1 3/16	PBQD2	—
3/8	QD2R1000	Fixed Ratchet	36	10°	200 in lb	1,000 in lb	5 in lb	15 9/16	1 5/32	9/16	PBQD2	RKRF936
1/2	QD3R1600	Fixed Ratchet	36	10°	320 in lb	1,600 in lb	10 in lb	19	1 5/8	3/4	PBQD3	RKRS936
1/2	QD32500	Fixed	—	—	500 in lb	2,500 in lb	10 in lb	18 1/8	1	1 1/4	PBQD3	—
1/2	QD3R2500	Fixed Ratchet	36	10°	500 in lb	2,500 in lb	10 in lb	19 1/8	1 5/8	3/4	PBQD3	RKRS936

### U.S. Torque Instruments (ft lb)

3/8	QD275	Fixed	—	—	5 ft lb	75 ft lb	.5 ft lb	14 9/16	1	1 3/16	PBQD2	—
3/8	QD2FR75	Flex Ratchet	36	10°	5 ft lb	75 ft lb	.5 ft lb	15 3/4	1 5/32	9/16	PBQD2	RKRF936
3/8	QD2100	Fixed	—	—	20 ft lb	100 ft lb	.5 ft lb	14 9/16	1	1 3/16	PBQD2	—
3/8	QD2R100	Fixed Ratchet	36	10°	20 ft lb	100 ft lb	.5 ft lb	15 9/16	1 5/32	9/16	PBQD2	RKRF936
1/2	QD3150	Fixed	—	—	30 ft lb	150 ft lb	1 ft lb	18	1	1 1/4	PBQD3	—
1/2	QD3R150	Fixed Ratchet	36	10°	30 ft lb	150 ft lb	1 ft lb	19	1 5/8	3/4	PBQD3	RKRS936
1/2	QD3250	Fixed	—	—	50 ft lb	250 ft lb	1 ft lb	23 3/16	1	1 1/4	PBQD3	—
1/2	QD3R250	Fixed Ratchet	36	10°	50 ft lb	250 ft lb	1 ft lb	24 3/16	1 5/8	3/4	PBQD3	RKRS936
1/2	BRUTUS3R250D	Fixed Ratchet	36	10°	50 ft lb	250 ft lb	1 ft lb	28	1 3/8	3/4	—	RKRS936
3/4	QD4400	Fixed	—	—	75 ft lb	400 ft lb	2.5 ft lb	33 3/4	1 1/2	1 1/2	PBQC4	—
3/4	QD4R400	Fixed Ratchet	32	11°	75 ft lb	400 ft lb	2.5 ft lb	35 3/4	2 1/2	1 1/4	PBQC4	RKRQC4
3/4	QD4600	Fixed	—	—	100 ft lb	600 ft lb	5 ft lb	40 3/4	1 1/2	1 1/2	PBQC4	—
3/4	QD4R600	Fixed Ratchet	32	11°	100 ft lb	600 ft lb	5 ft lb	42 3/4	2 1/2	1 1/4	PBQC4	RKRQC4
1	QD5R1000	Fixed Ratchet	30	12°	200 ft lb	1,000 ft lb	5 ft lb	71	3 1/8	1 1/2	PBQC5	RKRQC5

### Metric Torque Instruments (kg m, kg cm)

3/8	QD2RM1000	Flex Head	36	10°	200 kg cm	1,000 kg cm	5 kg cm	15 9/16	1 5/32	9/16	PBQD2	RKRF936
1/2	QD3RM30	Fixed Ratchet	36	10°	6 kg m	30 kg m	.2 kg m	19	1 5/8	3/4	PBQD3	RKRS936

### Newton Meter Torque Wrenches/ $\pm 4\%$ Accuracy

1/4	QD1RN6	Fixed Ratchet	36	10°	10 dN•m	60 dN•m	.5 dN•m	9 7/8	7/8	7/16	PBQD1	RKRT936
1/4	QD1RN25	Fixed Ratchet	36	10°	50 dN•m	250 dN•m	1 dN•m	11 3/4	7/8	7/16	PBQD1	RKRT936
3/8	QD2RN25	Compact Ratchet	36	10°	50 dN•m	250 dN•m	1 dN•m	11 3/4	7/8	7/16	PBQD2	RKRF936
3/8	QD2RN50	Fixed Ratchet	36	10°	10 N•m	50 N•m	.5 N•m	15 9/16	1 5/32	9/16	PBQD2	RKRF936
3/8	QD2RN100	Fixed Ratchet	36	10°	20 N•m	100 N•m	.5 N•m	15 9/16	1 5/32	9/16	PBQD2	RKRF936
1/2	QD3RN200	Fixed Ratchet	36	10°	40 N•m	200 N•m	2 N•m	19	1 5/8	3/4	PBQD3	RKRS936
1/2	QD3RN350	Fixed Ratchet	36	10°	70 N•m	350 N•m	2 N•m	24 3/16	1 5/8	3/4	PBQD3	RKRS936
3/4	QD4RN800	Fixed Ratchet	32	11°	150 N•m	800 N•m	5 N•m	42 3/4	2 1/2	1 1/4	PBQC4	RKRQC4

All Snap-on torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)

All wrenches and drivers are calibrated per ASME and ISO® standards for accuracy, from 20 to 100% of full scale, using NIST traceable equipment.



**WARNING**



- Do not exceed rated torque
- Do not use to break fasteners loose
- Periodic recalibration is necessary to maintain accuracy
- Read safety precautions on pages W1 to W4



# TORQUE

## Adjustable Click-Type, TQ Series

### TQ Thumb Wheel Series:

- Flex Head Models offer sealed Snap-on® ratchets, which flex up to 15° to provide knuckle and obstruction clearance
- Fixed Ratchet Models offer a sealed *Snap-on* ratchet that is rigidly fixed in line with the torque body
- *Snap-on* Sealed Ratchet Head is virtually maintenance free; more time working with the tool, less time on tool maintenance
- Thumb Screw Type Adjustment is faster than cycling through a micrometer style torque wrench. Guard prevents setting from being changed accidentally. Setting is displayed in window. Conversion table to N•m displayed on handle
- Sealed Neck keeps dust and grit away from the torque mechanism for longer tool life
- Split Beam Measuring Element provides accurate, reliable readings and eliminates the heavy coil spring used in conventional click-type wrenches. This yields fewer moving parts, reducing friction and wear

- Cushion grip Handle provides comfort plus control and resists most automotive fluids
- Designed for measuring torque in a clockwise direction only. Wrench is not reversible
- CE EU — B, FR, ES, DE

### Guaranteed Accuracy:

**TQ Series - Accurate within ±4% of any clockwise setting from 20% of full scale to full scale.**

#### TQR400E/TQR600E only:

- ±4% of setting when used in the following orientations:
- Main body vertical orientation
- Torque wrench square drive axis with vertical orientation
- In all other positions, guaranteed accuracy is ±5%. Accuracy is guaranteed in the clockwise direction from 20% of capacity to full capacity



TQFR100C



TQFR50B



TQFR250E



TQR600E

## U.S. Reading Torque Wrenches with Conversion Scale/±4% Accuracy

Square Drive, inch	Stock No.	Head Style	Gear Teeth	Swing Arc	Range, max	Range, min	Increments	Length, inches	Head Width, inches	Head Depth*, inches	Ratchet Service Kit	Case
3/8	<b>TQFR50B</b>	Flex Head	30	12°	600 in lb	120 in lb	10 in lb	17 5/8	1 1/8	9/16	<b>RKQJA2D</b>	<b>PB50A</b>
3/8	<b>TQFR100B</b>	Flex Head	30	12°	100 ft lb	20 ft lb	2 ft lb	17 5/8	1 1/8	9/16	<b>RKQJA2D</b>	<b>PB50A</b>
3/8	<b>TQFR50C</b>	Flex Head	36	10°	600 in lb	120 in lb	10 in lb	18 5/8	1 1/8	9/16	<b>RKRF936</b>	<b>PBTQ2</b>
3/8	<b>TQFR100C</b>	Flex Head	36	10°	100 ft lb	20 ft lb	2 ft lb	18 5/8	1 1/8	9/16	<b>RKRF936</b>	<b>PBTQ2</b>
3/8	<b>TQR100B</b>	Fixed Ratchet	30	12°	100 ft lb	20 ft lb	2 ft lb	18 5/8	1 5/32	5/8	<b>RKRF936</b>	<b>PBTQ2</b>
1/2	<b>TQFR250E</b>	Flex Head	36	10°	250 ft lb	40 ft lb	5 ft lb	22 3/8	1 5/8	3/4	<b>RKRS936</b>	<b>PBTQ3</b>
1/2	<b>TQR250E</b>	Fixed Ratchet	36	10°	250 ft lb	40 ft lb	5 ft lb	22 3/8	1 5/8	3/4	<b>RKRS936</b>	<b>PBTQ3</b>
3/4	<b>TQR400E**</b>	Detach Ratchet	32	11°	400 ft lb	130 ft lb	10 ft lb	38 1/8	2 1/2	1 1/4	<b>RKRTQ4</b>	<b>PBTQ4</b>
3/4	<b>TQR600E**</b>	Detach Ratchet	32	11°	600 ft lb	200 ft lb	10 ft lb	48 5/8	2 1/2	1 1/4	<b>RKRTQ4</b>	<b>PBTQ4</b>

Note: Difference between B and C are ratchet head and handle type.

## Newton Meter Torque Wrenches with Conversion Scale/±4% Accuracy

3/8	<b>TQFRN130B</b>	Flex Head	30	12°	130 N•m	25 N•m	5 N•m	17 5/8	1 1/8	9/16	<b>RKQJA2D</b>
3/8	<b>TQFRN68B</b>	Flex Head	30	12°	68 N•m	14 N•m	2 N•m	17 5/8	1 1/8	9/16	<b>RKQJA2D</b>
1/2	<b>TQFRN350D</b>	Flex Head	32	11°	350 N•m	70 N•m	5 N•m	22 1/8	1 5/8	3/4	<b>R33BFRK</b>

## Metric Torque Wrenches with Conversion Scale/±4% Accuracy

1/2	<b>TQFRM34D</b>	Flex Ratchet	32	11°	34 kg m	5.0 kg m	1.0 kg m	22 1/8	1 5/8	3/4	<b>RKTQ3</b>
3/4	<b>TQFRM80C</b>	Detach Ratchet	32	11°	80 kg m	26.0 kg m	2.0 kg m	48	2 3/8	1 1/4	<b>RKRQC4</b>

All wrenches are nonreversible.

\*\*Does not include square drive dimension.

\*\*\*3 piece construction disassembles for storage/transport.

All Snap-on torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)

All wrenches and drivers are calibrated per ASME® and ISO® standards for accuracy, from 20 to 100% of full scale, using NIST® traceable equipment.



TE50FUA



TE175L



### U.S. Reading/Standard 2% Accuracy

Square Drive, inches	Basic Models Stock No.	Follow-up Models Stock No.	Signal Models Stock No.	Range	Increments	Length, inches	Width, inches	Head* Depth, inches	Storage Case
1/4	TE1A	TE1FUA		15 in lb	1/4 in lb	9 29/32	2 11/16	1 1/4	PB9
1/4	TE3A	TE3FUA		30 in lb	1/2 in lb	9 29/32	2 11/16	1 1/4	PB9
1/4	TE6A	TE6FUA		75 in lb	1 in lb	9 29/32	2 11/16	1 1/4	PB9
3/8	TE12A	TE12FUA	TE12LA	150 in lb	2 1/2 in lb	9 29/32	2 11/16	1 1/4	PB9
3/8	TE25A	TE25FUA	TE25LA	300 in lb	5 in lb	9 29/32	2 11/16	1 1/4	PB9
3/8	TE50A	TE50FUA	TE50LA	600 in lb	10 in lb	12 1/2	2 11/16	1 1/4	PB9
3/8	TE12FA	TE12FFUA	TE12FLA	12 ft lb	1/2 ft lb	9 29/32	2 11/16	1 1/4	PB9
3/8	TE25FA	TE25FFUA	TE25FLA	25 ft lb	1/2 ft lb	9 29/32	2 11/16	1 1/4	PB9
3/8	TE50FA	TE50FFUA	TE50FLA	50 ft lb	1 ft lb	12 1/2	2 11/16	1 1/4	PB9
1/2	TE51	TE51FU	TE51L	600 in lb	10 in lb	14 11/16	2 23/32	1 5/16	
1/2	TE51F	TE51FFU	TE51FL	50 ft lb	1 ft lb	15	2 23/32	1 5/16	
1/2	TE100	TE100FU	TE100L	100 ft lb	1 ft lb	15 21/32	2 3/4	1 3/8	PB8A
1/2	TE175	TE175FU	TE175L	175 ft lb	2 1/2 ft lb	18 3/4	2 3/4	1 3/8	PB8A
1/2	TE250	TE250FU	TE250L	250 ft lb	5 ft lb	23 3/4	2 3/4	1 3/8	PB8A
3/4	TE352A	TE352FUA	TE352LA	350 ft lb	5 ft lb	29 7/8	3 1/4	1 25/32	PB39
3/4	TE602A	TE602FUA	TE602LA	600 ft lb	10 ft lb	39 31/32	3 1/4	1 25/32	PB39
1	TE803**	TE803FU**	TE803L**	800 ft lb	10 ft lb	67 3/4	3 9/16	2 1/32	
1	TE1003**	TE1003FU**	TE1003L**	1,000 ft lb	10 ft lb	67 3/4	3 9/16	2 1/32	
1	TE1503	TE1503FU	TE1503L	1,500 ft lb	25 ft lb	80	4 13/32	2 1/8	
1	TE2003	TE2003FU	TE2003L	2,000 ft lb	25 ft lb	80	4 13/32	2 1/8	
1 1/2	TE2005	TE2005FU	TE2005L	2,000 ft lb	25 ft lb	80	4 11/32	2 3/8	
1 1/2	TE3005	TE3005FU	TE3005L	3,000 ft lb	50 ft lb	140	5 1/2	2 13/16	

Does not include certificate of calibration.



TESI75



TESI75L

### Newton Meter Reading/Standard 2% Accuracy

Square Drive, inches	Basic Models Stock No.	Follow up Models Stock No.	Signal Models Stock No.	Range, N•m	Increments, N•m	Length, inches	Width, inches	Head* Depth, inches	Storage Case
1/4	TESI5		TESI5L	5	.2	9 29/32	2 11/16	1 1/4	PB9
1/4	TESI10	TESI10FU	TESI10L	10	.5	9 29/32	2 11/16	1 1/4	PB9
3/8	TESI20	TESI20FU	TESI20L	20	.5	9 29/32	2 11/16	1 1/4	PB9
3/8	TESI30	TESI30FU	TESI30L	30	1	9 29/32	2 11/16	1 1/4	PB9
3/8	TESI60	TESI60FU	TESI60L	60	2	12 1/2	2 11/16	1 1/4	PB9
3/8	TESI70	TESI70FU	TESI70L	70	2	12 1/2	2 11/16	1 1/4	PB9
3/8	TESI75	TESI75FU	TESI75L	75	1	12 1/2	2 11/16	1 1/4	PB9
1/2	TESI125	TESI125FU	TESI125L	125	5	16	2 3/4	1 3/8	PB8A
1/2	TESI200	TESI200FU	TESI200L	200	5	18 3/4	2 3/4	1 3/8	PB8A
1/2	TESI250	TESI250FU	TESI250L	250	5	18 3/4	2 3/4	1 3/8	PB8A
3/4	TESI500A	TESI500FUA	TESI500LA	500	10	29 7/8	3 1/4	1 25/32	PB39
3/4	TESI800A	TESI800FUA	TESI800LA	800	20	40 7/8	3 1/4	1 25/32	PB39
1	TESI1360**	TESI1360FU**	TESI1360L**	1,360	20	66 13/16	3 9/16	2 1/32	
1	TESI2803	TESI2803FU	TESI2803L	2,800	50	80	4 13/32	2 1/8	
1 1/2	TESI2805	TESI2805FU	TESI2805L	2,800	50	80	4 25/32	2 3/8	
1 1/2		TESI4000FU	TESI4000L	4,000	100	140	5 1/2	2 13/16	

Does not include certificate of calibration.

\*Does not include square drive dimension.

\*\*Includes separately packed 92TQPA 4 tubular extension handle.

Inc ludes separately packed 93TQPA 5 tubular extension handle.

### Guaranteed Accuracy:

Standard 2% models are accurate within ±2% of the reading from 20% of full scale to full scale clockwise and counterclockwise.



**WARNING**



• Do not exceed rated torque • Do not use to break fasteners loose

• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages W1 to W4

# TORQUE

## TORQUEMETER®



TER175



TER175L

### Combination U.S./Newton Meter Reading - Precise 1% Accuracy

Square Drive, Inches	Basic Models Stock No.	Follow up Models Stock No.	Signal Models Stock No.	N•m Range	N•m Increments	U.S. Range	U.S. Increments	Length, inches	Width, inches	Head* Depth, inches	Storage Case
1/4	TER1A	TER1FUA		1.7 N•m	.05 N•m	15 in lb	.5 in lb	9 29/32	2 11/16	1 1/4	PB9
1/4	TER3A	TER3FUA		3.5 N•m	0.1 N•m	30 in lb	1 in lb	9 29/32	2 11/16	1 1/4	PB9
1/4	TER6A	TER6FUA		8.4 N•m	0.2 N•m	75 in lb	1 in lb	9 29/32	2 11/16	1 1/4	PB9
3/8	TER12A	TER12FUA	TER12LA	17 N•m	.5 N•m	150 in lb	5 in lb	9 29/32	2 11/16	1 1/4	PB9
3/8	TER25A	TER25FUA	TER25LA	3,200 N•cm	50 N•cm	300 in lb	5 in lb	9 29/32	2 11/16	1 1/4	PB9
3/8	TER50A	TER50FUA	TER50LA	60 N•m	1 N•m	600 in lb	20 in lb	12 1/2	2 11/16	1 1/4	PB9
1/2	TER51	TER51FU	TER51L	60 N•m	1 N•m	600 in lb	20 in lb	15	2 11/16	1 5/16	
1/2	TER100	TER100FU	TER100L	140 N•m	5 N•m	100 ft lb	2 ft lb	16	2 3/4	1 3/8	PB8A
1/2	TER175	TER175FU	TER175L	230 N•m	10 N•m	175 ft lb	5 ft lb	18 3/4	2 3/4	1 3/8	PB8A
1/2	TER250			340 N•m	10 N•m	250 ft lb	10 ft lb	23 3/4	2 3/4	1 3/8	PB8A
3/4	TER352A	TER352FUA	TER352LA	480 N•m	10 N•m	350 ft lb	5 ft lb	29 7/8	3 1/4	1 3/8	PB39
3/4	TER602A	TER602FUA	TER602LA	800 N•m	20 N•m	600 ft lb	20 ft lb	40 7/8	3 1/4	1 29/32	PB39
1	TER1003**		TER1003L**	1,360 N•m	20 N•m	1,000 ft lb	20 ft lb	66 13/16	3 9/16	2 1/32	

Does not include certificate of calibration.



TEC175



TEC175L

### Combination U.S./Metric Reading - Standard 2% Accuracy

Square Drive, Inches	Basic Models Stock No.	Follow up Models Stock No.	Signal Models Stock No.	Metric Range	Metric Increments	U.S. Range	U.S. Increments	Length, inches	Width, inches	Head* Depth, inches	Storage Case
1/4	TEC1A	TEC1FUA		16 kg cm	1 kg cm	15 in lb	.5 in lb	9 29/32	2 11/16	1 1/4	PB9
1/4	TEC3A	TEC3FUA		35 kg cm	1 kg cm	30 in lb	1 in lb	9 29/32	2 11/16	1 1/4	PB9
1/4	TEC6A	TEC6FUA		90 kg cm	2.5 kg cm	75 in lb	1 in lb	9 29/32	2 11/16	1 1/4	PB9
3/8	TEC12A	TEC12FUA	TEC12LA	175 kg cm	5 kg cm	150 in lb	5 in lb	9 29/32	2 11/16	1 1/4	PB9
3/8	TEC25FA	TEC25FFUA	TEC25FLA	350 kg cm	10 kg cm	25 ft lb	1 ft lb	9 29/32	2 11/16	1 1/4	PB9
3/8	TEC50A	TEC50FUA	TEC50LA	700 kg cm	20 kg cm	600 in lb	20 in lb	12 1/2	2 11/16	1 1/4	PB9
1/2	TEC51	TEC51FU	TEC51L	700 kg cm	20 kg cm	600 in lb	20 in lb	15	2 11/16	1 5/16	
1/2	TEC100	TEC100FU	TEC100L	14 kg m	.5 kg m	100 ft lb	2 ft lb	16	2 3/4	1 3/8	PB8A
1/2	TEC175	TEC175FU	TEC175L	25 kg m	1 kg m	175 ft lb	5 ft lb	18 3/4	2 3/4	1 3/8	PB8A
1/2	TEC250	TEC250FU	TEC250L	35 kg m	1 kg m	250 ft lb	10 ft lb	23 3/4	2 3/4	1 3/8	PB8A
3/4	TEC352A	TEC352FUA	TEC352LA	50 kg m	1 kg m	350 ft lb	10 ft lb	29 7/8	3 1/4	1 29/32	PB39
3/4	TEC602A	TEC602FUA	TEC602LA	80 kg m	2 kg m	600 ft lb	20 ft lb	40 7/8	3 1/4	1 29/32	PB39
1	TEC803**	TEC803FU**	TEC803L**	110 kg m	2 kg m	800 ft lb	25 ft lb	67 3/4	3 9/16	2 1/32	
1			TEC1003L**	136 kg m	2 kg m	1,000 ft lb	20 ft lb	67 3/4	3 9/16	2 1/32	
1		TEC1503FU	TEC1503L	200 kg m	5 kg m	1,500 ft lb	25 ft lb	80	4 13/32	2 1/8	
1		TEC2003FU	TEC2003L	280 kg m	5 kg m	2,000 ft lb	50 ft lb	80	4 13/32	2 1/8	
1 1/2	TEC2005	TEC2005FU	TEC2005L	280 kg m	5 kg m	2,000 ft lb	50 ft lb	80	4 13/32	2 3/8	
1 1/2		TEC3005FU	TEC3005L	400 kg m	5 kg m	3,000 ft lb	50 ft lb	140	5 1/2	2 13/16	

Does not include certificate of calibration.

\*Does not include square drive dimension.

\*\*Includes separately packed 92TQPA 4 tubular extension handle.

Inc ludes separately packed 93TQPA 5 tubular extension handle.

### Guaranteed Accuracy:

Precise 1% models are accurate within  $\pm 1\%$  of the reading from 20% of full scale to full scale clockwise and counterclockwise.

Standard 2% models are accurate within  $\pm 2\%$  of the reading from 20% of full scale to full scale clockwise and counterclockwise.

All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)

All wrenches and drivers are calibrated per ASME® and ISO® standards for accuracy, from 20 to 100% of full scale, using NIST® traceable equipment.

## T-handle TORQOMETER®



TEX602TLA



TEXC2003TFU



85TQP

### U.S. Reading Standard 2% Accuracy

Input Drive Female Sq, inches	Output Drive Male Sq, inches	Follow up Models Stock No.	Light Signal Models Stock No.	U.S. Range, ft lb	U.S. Increments, ft lb	Metric Range kg m	Metric Increments, kg m	Length, inches	Width, inches	Head Depth, inches	Optional T Bars/Extension Handles			
											T Bars	Length, inches	Ext., inches	Length, inches
3/4	3/4	TEX602TFUA	TEX602TLA	600	10			10 7/8	4 3/8	3 3/4	81TQP	45		
3/4	1	TEX1003TFUA	TEX1003TLA	1,000	10			10 7/8	4 3/8	4 1/8	81TQP	66		
1	1	TEX2003TFU	TEX2003TL	2,000	25			10 7/8	4 3/8	4 7/16	82TQP	18	85TQP	31
1	1 1/2	TEX2005TFU		2,000	25			10 7/8	4 3/8	4 7/16	82TQP	18	85TQP	31

Does not include certificate of calibration.

### Combination U.S./Metric Reading

3/4	3/4	TEXC602TFUA	TEXC602TLA	600	20	80	2	9	3 1/4	3 3/4	81TQP	45		
3/4	1	TEXC1003TFUA	TEXC1003TLA	1,000	20	136	2	9 7/8	3 5/8	4 1/8	81TQP	66		
1	1	TEXC2003TFU	TEXC2003TL	2,000	50	280	5	10 7/8	4 3/8	4 7/16	82TQP	18	85TQP	31

Does not include certificate of calibration.

### TORQOMETER Torque Drivers - 1/4" Drive



TQSC4FUA



TQSSC4FUA

### U.S. Reading Standard 2% Accuracy

Standard Basic Models Stock No.	Standard Follow up Models Stock No.	Length, inches	Stubby Basic Models Stock No.	Stubby Follow up Models Stock No.	Length, inches	Range	Increments
TQS025A	TQS025FUA	8 7/64	TQSS025A	TQSS025FUA	5 1/4	48 in oz/3 in lb	1 in oz/ 1/16 in lb
TQS050A	TQS050FUA	8 7/64	TQSS050A	TQSS050FUA	5 1/4	96 in oz/6 in lb	2 in oz/ 1/8 in lb
TQS1A	TQS1FUA	8 7/64	TQSS1A	TQSS1FUA	5 1/4	192 in oz/12 in lb	4 in oz/ 1/4 in lb
TQS2A	TQS2FUA	8 7/64	TQSS2A	TQSS2FUA	5 1/4	384 in oz/24 in lb	8 in oz/ 1/2 in lb
TQS2.5A	TQS2.5FUA	8 7/64	TQSS2.5A	TQSS2.5FUA	5 1/4	480 in oz/30 in lb	12 in oz/1 in lb
TQS4A*	TQS4FUA*	8 11/16	TQSS4A*	TQSS4FUA*	5 1/4	50 in lb	1 in lb
TQS6A*	TQS6FUA*	8 11/16	TQSS6A*	TQSS6FUA*	5 1/4	75 in lb	1 in lb

Does not include certificate of calibration.

### Combination U.S./Metric Reading - Standard 2% Accuracy

	TQSC1FUA	8 7/64		TQSSC1FUA	5 1/4	17 kg cm/15 in lb	.5 kg cm/5 in lb
	TQSC2.5FUA	8 7/64		TQSSC2.5FUA	5 1/4	35 kg cm/30 in lb	1 kg cm/1 in lb
	TQSC4FUA*	8 11/16		TQSSC4FUA*	5 1/4	56 kg cm/50 in lb	2 kg cm/2 in lb
	TQSC6FUA			TQSSC6FUA*	5 1/4	90 kg cm/75 in lb	3 kg cm/5 in lb

Does not include certificate of calibration.

### Combination U.S./Newton Meter Reading - Standard 2% Accuracy\*\*

	TQSR1FUA	8 7/64				1.6 N•cm/15 in lb	5 N•cm/.25 in lb
	TQSR2.5FUA	8 7/64				3.4 N•m/30 in lb	.1 N•m/1 in lb
	TQSR4FUA*	8 11/16				5.5 N•cm/50 in lb	.1 N•m/1 in lb
	TQSR6FUA*	8 11/16				8.4 N•m/75 in lb	.2 N•m/5 in lb

Does not include certificate of calibration.

\*Includes 1/4" internal square drive in handle.

All drivers come in PB47 Plastic Case.

\*\* Precise 1% models are available on special order.

ANSI® Spec. B107.300 applies to all these models.

### Torque Angle Gauges

#### TA358 Torque Angle Gauge.

- Determines angle controlled torque tightening
- Allows user to follow manufacturer's specifications
- Use on automotive, diesel and industrial equipment plus head bolts and rod bolts on motorcycles
- 3/8" square drive

#### TA362 Torque Angle Gauge.

- Allows user to follow manufacturer's specifications
- Calibrated in degrees in large, easy to read increments
- 3/4" square drive

#### TA360 Torque Angle Gauge.

- Similar to TA362 except 1/2" square drive



TA362



**WARNING**



• Do not exceed rated torque • Do not use to break fasteners loose

• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages W1 to W4



# TORQUE

## Torque Screwdrivers



QDRIVER3P



QDRIVER3

### Preset Torque Screwdrivers/ $\pm 6\%$ Accuracy

- Ideal for low torque assemblies and precision application
- Drivers accept all standard 1/4" hex screwdriver bits
- Cam over torque limiting clutch free wheels when set torque is achieved
- Accuracy is  $\pm 6\%$  from 20% to 100% of full scale in clockwise direction only for all drivers in series
- Lightweight construction features red anodized aluminum body with stainless steel shank
- Comfortable ergonomic trilobe grip and magnetic bit retention
- Not supplied with certificate of calibration

Stock No.	Range, min	Range, max	Length, inches
QDRIVER1P	6 in oz (4 N•cm)	32 in oz (22 N•cm)	4 9/16
QDRIVER2P	10 in oz (7 N•cm)	100 in oz (70 N•cm)	5 5/8
QDRIVER3P	1.5 in lb (16 N•cm)	15 in lb (169 N•cm)	5 5/8
QDRIVER4P	4 in lb (45 N•cm)	40 in lb (451 N•cm)	6

### Torque Limiting Drivers/ $\pm 4\%$ Accuracy

#### QTS135 Adjustable Limiting Driver.

- Micrometer type adjustment
- Clutch allows 25° of free rotation on reaching set torque
- Guaranteed accuracy: within  $\pm 4\%$  of setting from 20% of capacity to full capacity clockwise and counterclockwise

Stock No.	Range, minimum	Range, maximum	Increments	Length, inches
QTS135	5 in lb	35 in lb	0.5 in lb	7

### Interchangeable Head, Click Type Torque Wrenches

Interchangeable heads permit ratcheting, fixed, or open end torquing capability with either adjustable or preset torque wrench bodies. A push of the locking pin provides quick change action, with a wide range of head styles to choose from.

- Selection: there are 2 adjustable models for quickly setting desired torque and 8 preset models for assembly line work
- Slim profile: each torque body is thin enough and long enough to get into tight areas
- Micrometer type adjustment: ensures fast, accurate settings and changes
- Guaranteed accuracy: all QC series interchangeable torque wrenches are accurate  $\pm 4\%$  clockwise and  $\pm 6\%$  counterclockwise from 20% of full scale to full scale



QC1I200



QC1P300



QC3P200

### Adjustable Torque Screwdrivers/ $\pm 6\%$ Accuracy

- Ideal for low torque assemblies, precision applications and dash/under dash work on most domestic and imported vehicles
- Drivers accept all standard 1/4" hex screwdriver bits
- Cam over torque limiting clutch free wheels when set torque is achieved
- Accuracy is  $\pm 6\%$  from 20% to 100% of full scale in clockwise direction only for all drivers in series
- Lightweight construction features red anodized aluminum body with stainless steel shank
- Comfortable ergonomic trilobe grip and magnetic bit retention

Stock No.	Range	Resolution	Length, inches
QDRIVER2	20 - 100 in oz (14 - 70 N•cm)	1 in oz	5 7/16
QDRIVER3	3 - 15 in lb (34 - 169 N•cm)	.2 in lb	6 1/4
QDRIVER4	5 - 40 in lb (56 - 451 N•cm)	.5 in lb	6 11/16
QDRIVER4NM	50 - 450 N•cm		6 11/16



QTS135

#### QTSP135 U.S. Preset Limiting Driver.

- Clutch mechanism to help prevent over torquing by allowing free rotation upon reaching the set torque value
- Ideal selection for assembly line work where the same requirement is constant
- Can be reset at different torque values or readjusted for accuracy whenever necessary

### Torque Wrench Bodies/Adjustable/ $\pm 4\%$ Accuracy

Stock No.	Model Type	Shank Diameter	Range	Increments	Length, inches
QC1I200	Adjustable	J (0.425")	40-200 in lb	1 in lb	9 3/8
QC2I75	Adjustable	J (0.425")	5-75 ft lb	.5 ft lb	13

### Torque Wrench Bodies/Pre-Set/ $\pm 4\%$ Accuracy

Stock No.	Model Type	Shank Diameter	Range	Length, inches
QC1P60	Preset	J (0.425")	10-60 in lb (11-66 dN•m)	6
QC1P100	Preset	J (0.425")	15-100 in lb (17-113 dN•m)	8
QC1P300	Preset	J (0.425")	60-300 in lb (68-339 dN•m)	10
QC2P75	Preset	J (0.425")	5-75 ft lb (7-100 N•m)	11
QC3P150	Preset	Y (0.560")	30-150 ft lb (41-203 N•m)	23
QC3P200	Preset	Y (0.560")	40-200 ft lb (55-270 N•m)	23
QC4P300	Preset	X (0.735")	60-300 ft lb (82-400 N•m)	27

## Interchangeable Head, Click-Type Torque Wrenches

### Torque Wrench Bodies/Adjustable/Dual Range

- Plug and play system of interchangeable heads are consistently sized from pin to the center of the fastener, so no adjustment calculations are needed
- Includes certificate of calibration
- Minimal friction "Hour Glass" cam retains and releases lubricant where needed to reduce friction
- Push buttons for quick release of interchangeable head
- Laser etched scale for easier reading in varying light sources
- Positive stop ensures instrument cannot be accidentally disassembled if wound down past scale
- Each instrument comes in a molded storage case for long term protection

Stock No.	Range, ft lb	Range, N•m	Increments	Shank Type	Weight, lbs (kg)	Length, inches (mm)
QD2IN50	8-36	10-50	0.5 N•m/0.4 ft lb	J	2.3 (1.12)	14 1/2 (368)
QD2IN100	16-72	20-100	0.5 N•m/0.4 ft lb	J	2.3 (1.12)	14 1/2 (368)
QD3IN200	20-150	40-200	2 N•m/1.2 ft lb	Y	3.36 (1.64)	23 (584)
QD3IN350	59-251	70-350	2 N•m/1.2 ft lb	X	3.36 (1.64)	23 (584)
QD4IN800*	120-600	150-800	5 N•m/4.3 ft lb	Z	11.14 (5.46)	41 1/2 (1054)

\* For use with dual pin heads only  
ASME® B107.300



QD3IN200



QJD12A



QYSD16A

### Square Drive Heads/Ratcheting

Allow use of torque wrench bodies on previous page with sockets, crowfoot wrenches or other similar attachment.

Square Drive, inches	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	Head O.D., inches	Depth, inches	Center of Fastener to Retaining Pin	Ratchet Service Kit
1/4	QJD8A-72** (350)	—	—	—	17/32	9/64	QJD Series - 2.50"	RKRT72
3/8	QJD12A** (900)	QYD12A** (1,200)	—	—	21/32	11/64	QYD Series - 3.00"	RKRF936
1/2	QJD16A** (900)	QYD16A** (2,400)	QXD16A** (3,000)	—	21/32	11/64	QXD Series - 4.50"	RKRS936
3/4	—	—	QXD24A (3,600)	QZD24BDP (7,200)	25/32	11/64	QZD Series - 5.75"	RKRQC4
1	—	—	QXD32A (3,600)	QZD32BDP (7,200)	29/32	11/64	—	RKRQC5

\*\* U.S. Patent 6,125,722

Value in parentheses in chart is the Maximum Recommended Working Torque, in lb

- Ratcheting box head allows constant contact with the fastener
- Plug and play shanks are consistently sized from pin to the center of the fastener, so no adjustment calculations are needed
- Reverse lever is located on top of the head to reduce the chance of accidental ratchet reversal



QJBOERM16A



QJBOER16A

### Ratcheting Box End Heads, 12 Point, mm

Size, mm	Stock No.	Shank Diameter	O.D., mm	Head Depth, mm
10	QJBOERM10A	J (0.425")	21.9	5.0
13	QJBOERM13A	J (0.425")	25.9	6.3
16	QJBOERM16A	J (0.425")	33.6	7.0
17	QJBOERM17A	J (0.425")	36.5	7.0
18	QJBOERM18A	J (0.425")	38.5	8.0
19	QJBOERM19A	J (0.425")	38.7	8.7
22	QJBOERM22A	J (0.425")	45.7	9.4
24	QJBOERM24A	J (0.425")	49.5	11.2

### Ratcheting Box End Heads, 12 Point, inches

Size, inches	Stock No.	Shank Diameter	O.D., inches	Head Depth, inches
3/8	QJBOER12A	J (0.425")	7/8	3/16
7/16	QJBOER14A	J (0.425")	15/16	7/32
1/2	QJBOER16A	J (0.425")	1 1/32	1/4
9/16	QJBOER18A	J (0.425")	1 3/16	1/4
5/8	QJBOER20A	J (0.425")	1 5/16	9/32
3/4	QJBOER24A	J (0.425")	1 17/32	11/32

All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)

All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20 to 100% of full scale, using NIST traceable equipment.



**WARNING**



• Do not exceed rated torque • Do not use to break fasteners loose

• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages W1 to W4


# TORQUE

## Interchangeable Head, Click-Type

### 12 Point Box End Heads, mm



QYXM21A

	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	O.D., mm	Head Depth, mm
6	QJXM6A (180)	—	—	—	11	5
7	QJXM7A (240)	—	—	—	11	5
8	QJXM8A (265)	—	—	—	13	6
9	QJXM9A (355)	—	—	—	14	6
10	QJXM10A (630)	—	—	—	15	7
11	QJXM11A (710)	—	—	—	17	8
12	QJXM12A (805)	—	—	—	18	8
13	QJXM13A (900)	—	—	—	20	9
14	QJXM14A (900)	QYXM14A (1,400)	QXXM14A (1,400)	—	21	9
15	QJXM15A (900)	QYXM15A (1,770)	—	—	22	10
16	QJXM16A (900)	QYXM16A (2,195)	QXXM16A (2,195)	—	24	10
17	QJXM17A (900)	QYXM17A (2,365)	QXXM17A (2,365)	—	25	11
18	QJXM18A (900)	QYXM18A (2,400)	QXXM18A (2,690)	—	27	12
19	QJXM19A (900)	QYXM19A (2,400)	QXXM19A (2,860)	—	28	12
20	QJXM20A (900)	QYXM20A (2,400)	QXXM20A (3,070)	—	30	13
21	QJXM21A (900)	QYXM21A (2,400)	QXXM21A (3,295)	—	31	13
22	QJXM22A (900)	QYXM22A (2,400)	QXXM22A (3,600)	—	32	14
23	QJXM23A (900)	QYXM23A (2,400)	QXXM23A (3,600)	—	34	15
24	QJXM24A (900)	QYXM24A (2,400)	QXXM24A (3,600)	QZXM24ADP (4,505)	35	15
25	—	—	QXXM25A (3,600)	QZXM25ADP (4,950)	37	16
26	QJXM26A (900)	QYXM26A (2,400)	—	QZXM26A (5,380)	38	16
27	QJXM27A (900)	QYXM27A (2,400)	QXXM27A (3,600)	QZXM27ADP (5,940)	39	17
29	—	QYXM29A (2,400)	QXXM29A (3,600)	QZXM29A (6,640)	42	18
30	—	QYXM30A (2,400)	QXXM30A (3,600)	QZXM30ADP (7,035)	44	19
32	—	QYXM32A (2,400)	QXXM32A (3,600)	QZXM32ADP (7,200)	46	19
34	—	QYXM34A (2,400)	QXXM34A (3,600)	QZXM34ADP (7,200)	48	19
36	—	QYXM36A (2,400)	QXXM36A (3,600)	QZXM36ADP (7,200)	53	22

Center of fastener to retaining pin:

- \* QJXM Series - 2.50"
- \* QYXM Series - 3.00"
- \* QXXM Series - 4.50"
- \* QZXM Series - 5.75"

Value in parentheses is the Maximum Recommended Working Torque, in lb


### 12 Point Box End Heads, inches



QJX12A



QXX52A

	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	O.D., inches	Head Depth, inches
1/4	QJX8A (220)	—	—	—	13/32	3/16
9/32	QJX9A (250)	—	—	—	13/32	3/16
3/8	QJX12A (490)	—	—	—	9/32	1/4
7/16	QJX14A (715)	—	—	—	21/32	5/16
1/2	QJX16A (900)	QYX16A (900)	—	—	3/4	11/32
9/16	QJX18A (900)	QYX18A (1,340)	—	—	27/32	3/8
5/8	QJX20A (900)	QYX20A (2,050)	—	—	15/16	13/32
11/16	QJX22A (900)	QYX22A (2,400)	—	—	1 1/32	7/16
3/4	QJX24A (900)	QYX24A (2,400)	QXX24A (2,630)	—	1 1/8	15/32
13/16	QJX26A (900)	QYX26A (2,400)	QXX26A (3,600)	QZX26ADP (3,300)	1 3/16	17/32
7/8	QJX28A (900)	QYX28A (2,400)	QXX28A (3,600)	—	1 9/32	9/16
15/16	QJX30A (900)	QYX30A (2,400)	QXX30A (3,600)	—	1 3/8	19/32
1	QJX32A (900)	QYX32A (2,400)	QXX32A (3,600)	—	1 15/32	21/32
1 1/16	QJX34A (900)	QYX34A (2,400)	—	QZX34ADP (5,940)	1 9/16	11/16
1 1/8	—	QYX36A (2,400)	QXX36A (3,600)	QZX36ADP (6,430)	1 5/8	11/16
1 3/16	—	QYX38A (2,400)	QXX38A (3,600)	QZX38ADP (7,200)	1 3/4	3/4
1 1/4	—	QYX40A (2,400)	QXX40A (3,600)	QZX40ADP (7,200)	1 13/16	3/4
1 5/16	—	QYX42A (2,400)	QXX42A (3,600)	QZX42ADP (7,200)	1 29/32	3/4
1 7/16	—	—	QXX46A (3,600)	QZX46ADP (7,200)	2 1/16	7/8
1 1/2	—	QYX48A (2,400)	QXX48A (3,600)	QZX48ADP (7,200)	2 5/32	7/8
1 9/16	—	—	QXX50A (3,600)	QZX50ADP (7,200)	2 1/4	7/8
1 5/8	—	QYX52A (2,400)	QXX52A (3,600)	QZX52ADP (7,200)	2 11/32	7/8
1 3/4	—	—	QXX56A (3,600)	QZX56ADP (7,200)	2 17/32	1 1/32
1 13/16	—	—	QXX58A (3,600)	QZX58ADP (7,200)	2 5/8	1 1/32
1 7/8	—	—	—	QZX60ADP (7,200)	2 11/32	1 1/32
2	—	—	QXX64A (3,600)	QZX64ADP (7,200)	2 7/8	1 1/32
2 1/16	—	—	—	QZX66ADP (7,200)	2 21/32	1 3/16
2 1/8	—	—	—	QZX68ADP (7,200)	3 1/16	1 3/16
2 1/4	—	—	—	QZX72ADP (7,200)	3 7/32	1 3/16
2 1/2	—	—	—	QZX80ADP (7,200)	3 19/32	1 5/16

Value in parentheses is the Maximum Recommended Working Torque, in lb

## Interchangeable Head, Click-Type

### Open End Heads, mm

mm	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	O.D., mm	Head Depth, mm
6	QJOM6A* (60)	—	—	—	13.5	3.6
7	QJOM7A* (75)	—	—	—	13.5	3.6
8	QJOM8A* (120)	—	—	—	16.5	3.3
9	QJOM9A (170)	—	—	—	19.8	4.8
10	QJOM10A (265)	—	—	—	19.8	4.8
11	QJOM11A (400)	—	—	—	22.9	5.6
12	QJOM12A (430)	—	—	—	26.9	6.1
13	QJOM13A (495)	—	—	—	26.9	6.1
14	QJOM14A (665)	QYOM14A (665)	—	—	29.5	6.6
15	QJOM15A (885)	QYOM15A (885)	—	—	33.3	6.9
16	QJOM16A (900)	QYOM16A (1,060)	—	—	33.3	6.9
17	QJOM17A (900)	QYOM17A (1,235)	QXOM17A (1,235)	—	37.1	7.3
18	QJOM18A (900)	QYOM18A (1,375)	QXOM18A (1,375)	—	37.1	7.3
19	QJOM19A (900)	QYOM19A (1,650)	QXOM19A (1,650)	—	40.4	7.6
20	QJOM20A (900)	QYOM20A (1,925)	QXOM20A (1,925)	—	43.7	9.2
21	QJOM21A (900)	QYOM21A (2,160)	QXOM21A (2,160)	—	43.7	9.2
22	QJOM22A (900)	QYOM22A (2,400)	QXOM22A (2,470)	—	43.7	9.2
23	QJOM23A (900)	QYOM23A (2,400)	QXOM23A (2,745)	—	47	10
24	QJOM24A (900)	QYOM24A (2,400)	QXOM24A (2,970)	QZOM24ADP (2,970)	49	11
25	QJOM25A (900)	QYOM25A (2,400)	QXOM25A (3,570)	QZOM25ADP (3,295)	52	11
26	QJOM26A (900)	QYOM26A (2,400)	QXOM26A (3,570)	QZOM26ADP (3,570)	53	11
27	QJOM27A (900)	QYOM27A (2,400)	QXOM27A (3,600)	QZOM27ADP (3,825)	55	12
29	QJOM29A (900)	QYOM29A (2,400)	QXOM29A (3,600)	QZOM29ADP (4,550)	58	12
30	—	QYOM30A (2,400)	QXOM30A (3,600)	QZOM30ADP (4,950)	61	13
32	—	QYOM32A (2,400)	QXOM32A (3,600)	QZOM32ADP (5,755)	65	14
34	—	QYOM34A (2,400)	QXOM34A (3,600)	QZOM34ADP (6,595)	68	14
36	QJOM36A (900)	QYOM36A (2,400)	QXOM36A (3,600)	QZOM36ADP (7,200)	74	15



QJOM11A

Center of fastener to retaining pin:

- \* QJOM Series - 2.50"
- \* QYOM Series - 3.00"
- \* QXOM Series - 4.50"
- \* QZOM Series - 5.75"

Value in parentheses is the Maximum Recommended Working Torque, in lb

\*Use with QC1P100 and QC1200 Torque bodies only; other heads may be used with all listed torque bodies.

### Open End Heads, inches

in	J (0.425")	Y (0.560")	X (0.735")	Z (0.990")	O.D., inches	Head Depth, inches
1/4	QJ08A* (55)	—	—	—	17/32	9/64
5/16	QJ010A (110)	—	—	—	21/32	11/64
3/8	QJ012A (220)	—	—	—	25/32	11/64
7/16	QJ014A (310)	—	—	—	29/32	11/64
1/2	QJ016A (410)	QY016A (410)	—	—	1 1/16	11/64
9/16	QJ018A (695)	QY018A (695)	—	—	1 1/16	11/64 [QJ018A = 9/32]
5/8	QJ020A (835)	QY020A (835)	—	—	1 5/16	11/64 [QJ020A = 9/32]
11/16	QJ022A (900)	QY022A (1,185)	—	—	1 7/16	11/64 [QJ022A = 5/16]
3/4	QJ024A (900)	QY024A (1,500)	QX024A (1,500)	—	1 19/32	11/64 [QJ024A = 11/32]
13/16	QJ026A (900)	QY026A (2,310)	QX026A (1,965)	—	1 23/32	3/8
7/8	QJ028A (900)	QY028A (2,310)	—	—	1 23/32	3/8
15/16	QJ030A (900)	QY030A (2,400)	QX030A (2,400)	—	1 29/32	13/32
1	QJ032A (900)	QY032A (2,400)	QX032A (3,575)	QZ032ADP (3,575)	2 1/32	7/16
1 1/16	QJ034A (900)	QY034A (2,400)	QX034A (3,600)	—	2 3/16	15/32
1 1/8	QJ036A (900)	QY036A (2,400)	QX036A (3,600)	QZ036ADP (4,400)	2 5/16	15/32
1 3/16	—	QY038A (2,400)	QX038A (3,600)	QZ038A (5,200)	2 7/16	1/2
1 1/4	QJ040A (900)	QY040A (2,400)	QX040A (3,600)	QZ040ADP (5,775)	2 9/16	17/32
1 5/16	—	QY042A (2,400)	QX042A (3,600)	QZ042A (5,600)	2 21/32	9/16
1 3/8	QJ044A (900)	QY044A (2,400)	QX044A (3,600)	QZ044ADP (7,200)	2 3/16	19/32
1 7/16	—	QY046A (2,400)	QX046A (3,600)	QZ046ADP (7,200)	3	19/32
1 1/2	QJ048A (900)	QY048A (2,400)	QX048A (3,600)	QZ048ADP (7,200)	3 1/16	5/8
1 9/16	—	QY050A (2,400)	QX050A (3,600)	QZ050ADP (7,200)	3 3/16	21/32
1 5/8	—	QY052A (2,400)	QX052A (3,600)	QZ052ADP (7,200)	3 11/32	11/16
1 11/16	—	—	QX054A (3,600)	QZ054ADP (7,200)	3 13/32	23/32
1 3/4	—	—	QX056A (3,600)	QZ056ADP (7,200)	3 9/16	23/32
1 13/16	—	—	QX058A (3,600)	QZ058ADP (7,200)	3 21/32	13/32
1 7/8	—	—	QX060A (3,600)	QZ060ADP (7,200)	3 13/16	25/32
2	—	—	QX064A (3,600)	QZ064ADP (7,200)	4 1/16	27/32
2 1/16	—	—	QX066A (3,600)	QZ066ADP (7,200)	4 3/16	27/32
2 1/8	—	—	—	QZ068ADP (7,200)	4 5/16	5/8
2 1/4	—	—	—	QZ072ADP (7,200)	4 9/16	15/16
2 1/2	—	—	—	QZ080ADP (7,200)	5 1/16	1



QJ028A

Center of fastener to retaining pin:

- \* QJO Series - 2.50"
- \* QYO Series - 3.00"
- \* QXO Series - 4.50"
- \* QZO Series - 5.75"

Value in parentheses is the Maximum Recommended Working Torque, in lb

\*Use with QC1P100 and QC1200 Torque Bodies only; other heads may be used with all listed torque bodies.



**WARNING**



• Do not exceed rated torque • Do not use to break fasteners loose

• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages W1 to W4



# TORQUE

## Interchangeable Head, Click-Type

### Flare Nut Heads, 6 Point, mm

mm	Shank Dia. J (0.425")	Shank Dia. Y (0.560")	O.D., mm	Head Depth, mm
10	QJRXSM10A (400)	—	20	8
11	QJRXSM11A (500)	—	21	9
12	QJRXSM12A (600)	—	22	9
13	QJRXSM13A (700)	—	24	9
14	QJRXSM14A (740)	—	25	10
16	—	QYRXSM16A (900)	27	11
17	QJRXSM17A (900)	QYRXSM17A (1,000)	29	11
18	QJRXSM18A (900)	QYRXSM18A (1,125)	30	12
19	QJRXSM19A (900)	QYRXSM19A (1,250)	32	12
20	—	QYRXSM20A (1,350)	33	13

Value in parentheses is the Maximum Recommended Torque, in lb

### Flare Nut Heads, 6 Point, inches

	Shank Dia. J (0.425")	Shank Dia. Y (0.560")	O.D., inches	Head Depth, inches
7/16	QJRXS14A (500)	—	27/32	11/32
5/8	QJRXS20A (720)	QYRXS20A (950)	1 3/32	7/16
11/16	QJRXS22A (720)	QYRXS22A (1,100)	1 5/32	15/32
3/4	QJRXS24A (720)	QYRXS24A (1,245)	1 1/4	1/2
13/16	QJRXS26A (720)	QYRXS26A (1,400)	1 9/16	17/32
7/8	QJRXS28A (720)	QYRXS28A (1,600)	1 13/32	9/16
15/16	QJRXS30A (900)	QYRXS30A (1,750)	1 1/2	19/32
1	QJRXS32A (900)	QYRXS32A (1,900)	1 9/16	5/8
1 1/8	—	QYRXS36A (2,200)	1 3/4	11/16

Value in parentheses is the Maximum Recommended Working Torque, in lb



QJRX18A

Center of fastener to retaining pin:

QJRXS Series - 2.50"

QYRXS Series - 3.00"

QJRXSM Series - 2.50"

QYRXSM Series - 3.00"

QJRX Series - 2.50"

QYRX Series - 3.00"

QJRO Series - 2.50"

QYRO Series - 3.00"

QJROM Series - 2.50"

QYROM Series - 3.00"

### Flare Nut Heads, 12 Point, inches

	Shank Dia. Y (0.560")	O.D., inches	Head Depth, inches
9/16	QYRX18A (800)	1	13/32
5/8	QYRX20A (950)	1 3/32	7/16
3/4	QYRX24A (1,245)	1 1/4	1/2
13/16	QYRX26A (1,400)	1 11/32	17/32
7/8	QYRX28A (1,600)	1 13/32	9/16
15/16	QYRX30A (1,750)	1 1/2	19/32
1	QYRX32A (1,900)	1 19/32	21/32
1 1/16	QYRX34A (2,050)	1 21/32	11/16
1 1/8	QYRX36A (2,200)	1 3/4	23/32
1 3/16	QYRX38A (2,400)	1 7/16	3/4
1 1/4	QYRX40A (2,400)	1 29/32	25/32

Value in parentheses is the Maximum Recommended Torque, in lb

## Geared Head Multipliers



YA391



YA394

### Geared Head Multipliers

- Some models feature a replacement square drive to protect components by automatically shearing when rated output is exceeded by 3 to 10%
- All models include an input/output conversion chart in ft lb and N•m

Specifications	YA290PLUS	YA300	YA391	YA292	YA392	YA393	YA394	YA395
Reaction Type	Bar	Bar	Bar	Bar	Bar	Bar	Plate	Plate
Output Capacity, ft lb	750	1,000	1,200	2,000	2,200	3,200	5,000	8,000
Input Capacity, ft lb	227	303	200	500	162	173	189	154
Gear Ratio	4:1	4.0:1	6.3:1	4.27:1	15.0:1	20.25:1	29.25:1	60.0:1
Torque Ratio	3.3:1	3.3:1**	6.0:1*	3.7:1**	13.6:1*	18.5:1*	26.5:1*	52.0:1*
Reductions	1	1	1	2	2	3	2	2
Input Drive Female Square, inches	1/2	1/2	1/2	3/4	1/2	1/2	1/2	1/2
Output Drive Male Square, inches	3/4	3/4	3/4	1	1	1	1 1/2	1 1/2
Bearings			Needle		Needle	Needle	Needle	Needle
Length, inches	8 3/4	17 1/2	20	19 1/2	20	20	15	15 1/2
Width, inches	2 3/4	2 13/16	4	4 1/2	4	4	8 5/8	6
Height, inches	3 1/4	3 5/16	4 1/16	3 3/4	5 13/16	6 1/2	8 3/4	10 3/4
Storage Case	Yes		Yes		Yes	Yes	Yes	Yes
Angle Protractor			Yes		Yes	Yes		
Anti Backlash					Yes	Yes	Yes	Yes
Replacement Square Drive			YA391RK		YA392RK	YA393RK	YA394RK	YA395RK

\*Accuracy of Torque Ratio is ±5%.

\*\*Accuracy of Torque Ratio is ±10%.

Handle or other anchor plate serves as a "reaction bar" and must be placed against a strong fixed object.



YA390

### YA390 Reversible Air Motor.

- Provides up to 200 ft lb of input power for each of the YA Series gear Multipliers
- Output drive: 1/2"
- Maximum operating air pressure: 60 PSI
- Free speed: 70 RPM, Dimensions: 16 1/4" x 3 1/8" x 4 3/4"

## Geared Head Multipliers

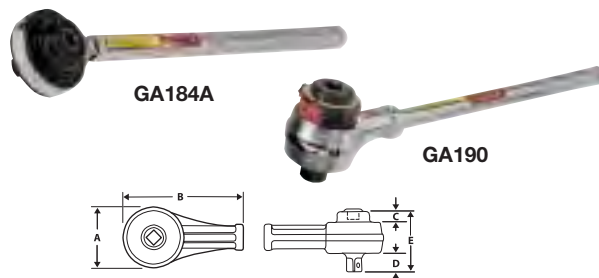
### Geared Head Multipliers X4 Models

- Use singularly or stack up to 3 X4 models
- Stacking multiplies torque ratios; resulting torque can be considerable
- Only the torque ratio changes; total capacity is equal to and does not exceed the capacity of the largest wrench in the stack

Specifications	GA184A	GA185	GA190
Reaction Type	Bar	Bar	Bar
Output Capacity, ft lb	1,000	2,000	2,000
Input Capacity, ft lb	294	588	588
Gear Ratio	4.0:1	4.0:1	4.0:1
Torque Ratio	3.4:1**	3.4:1**	3.4:1**
Reductions	1	—	1
Input Drive Female Square, inches	1/2	3/4	3/4
Output Drive Male Square, inches	3/4	1	1
Dimension A, O.D., inches	3 1/2	3 3/4	3 3/4
Dimension B, Length, inches	6 5/8	6 5/8	6 5/8
Dimension C, Head Height, inches	1/2	3/4	1 1/2
Dimension D, Drive End Height, inches	3/4	1	1
Dimension E, Overall Height, inches	3 11/32	4 3/8	5
Overall Length, inches	22	25	25
Anti Backlash	—	—	Yes

\*\*Accuracy of Torque Ratio is ±10%.

Handle or other anchor plate serves as a "reaction bar" and must be placed against a strong fixed object.



### Electronic Dial Type Torque Wrenches

- Great for worldwide automotive, nuclear, military and industrial markets
- Digital accuracy is ±1% from 20 to 100% of full scale in both directions
- 3 step LED visual signal system: Over torque alarm (Red), Approaching target warning signal when getting close (Yellow at 90% of target), and target achieved signal when desired torque is obtained (Green)
- Secondary audible alarm goes off when desired torque is reached



ED2600

Stock No.	Square Drive, inches	in lb	ft lb	N•m	kg cm	Length, inches (mm)	Weight, lbs (kgs)
ED1050 †	1/4	5-50	.42-417	.56-5.65	57-57.61	11.5 (292)	1.25 (57)
ED2250 †	3/8	25-250	2.08-20.83	2.82-28.25	28-280.03	14.5 (368)	1.51 (66)
ED2600 †	3/8	60-600	5-50	6.79-67.79	69-691.27	14.5 (368)	1.51 (66)

† C E

- Largest storage capacity available: memory stores up to 4,000 torque values
- Downloading capability: individual torque values and store values in memory may be directly downloaded to a printer or data logger via an RS-232 connection
- Selectable modes of operation: "peak hold" and "track" modes of operation are standard
- Range: available from 5 in lb to 600 ft lb engineering units can be selected through the keypad (in oz, in lb, ft lb, N•m, dN•m, k gm, and kg cm)
- Accuracy: ±1% from 10 to 100% of scale
- Quality Construction: proven industrial quality
- 9 V alkaline battery included

### Electrotork Torque Wrenches

- All Electrotork® electronic torque wrenches are designed for continuous use
- High degree of accuracy, clockwise or counterclockwise regardless of handhold position
- Easy to read scales and sealed membrane keypad enhance operator usefulness
- Each wrench includes a storage case

Stock No.	Square Drive, inches	Range	Increments	Length, inches
QCE115A	1/4	5-50 in lb, 5.6-56 dN•m, 5.7-57 kg cm, 80-800 in oz	.01 in lb, .01 dN•m, .01 kg cm, .10 in oz	13 1/2
QCE215A	3/8	25-250 in lb, 28-282 dN•m, 29-288 kg cm	.01 in lb, .10 dN•m, .10 kg cm	14 7/8
QCE225A	3/8	5-50 ft lb, 68-677 dN•m, 69-691 kg cm, 60-600 in lb	.01 ft lb, .10 dN•m, .10 kg cm, .10 in lb	14 7/8
QCE325A	1/2	25-250 ft lb, 34-338 N•m, 3.4-34 kg m	.10 ft lb, .10 N•m, .01 kg m	21 1/2
QCE425A	3/4	60-600 ft lb, 81-813 N•m, 8.3-83 kg m	.10 ft lb, .10 N•m, .01 kg m	46 1/2

The certification of accuracy provided per ASME® and ISO® Standards is 20 to 100% of full scale.

P11350 Optional PC download cable is available.

All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)

All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20 to 100% of full scale, using NIST® traceable equipment.



**WARNING**



• Do not exceed rated torque • Do not use to break fasteners loose

• Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages W1 to W4

## Electronic Torque Wrenches

Features:

- Display can be turned 180° to allow left hand usage
- 4 units of measurement on the same torque wrench: in lb, ft lb, N•m, Kg cm
- Large 2" easy to read single scale eliminates confusion on conversion scales
- Tough polycarbonate body ensures durability
- Comfort cushion grip reduces strain for prolonged use
- Rubber boot protects work piece
- The durable, composite and steel body beam provides years of accurate service
- Packaged in storage box for maximum protection
- 9 V battery with long life and easy replacement, 80 hours
- Battery cover designed to be FOD proof



QCE215A

# TORQUE

## Torque Testers



QC3DTT250

### Digital Torque Tester™ (DTT)

The Snap-on® *Digital Torque Tester (DTT)* is designed to be a low cost torque tester that can be mounted on a wall or in a bench top vise to allow operator to conveniently test torque wrenches and torque screwdrivers. It features an easy to use touch pad screen to capture peak torque values during a test in real time and download stored torque data to a PC. All DTT torque testers are sold in a kit with the complete tester, ac/dc power supply, USB cable adaptor and carrying case. The fast and accurate *Snap-on Digital Torque Tester (DTT)* Torque testing device. Also includes test adaptor

- Easy to use touch screen
- Intuitive screen layout
- Testing options: quick check or ASME® style test
- Refresh rate of 1,000 data points per second
- Fast change of units or target torque
- Record and track torque wrench test results by serial number
- Choose your wrench type
- Adds traceability by using wrench serial numbers and technician I.D.
- Color coded numbers indicate a low, good and high torque readings
- Color bar at the top allows the user to see progress relative to the target torque
- Data can be stored for download later on your computer via USB

Specifications	QC1DTT10	QC1DTT50	QC2DTT250	QC3DTT250	QC4DTT600
<b>Sq. Drive, inches</b>	1/4	1/4	3/8	1/2	3/4
<b>Range, English</b>	10-100 in oz	5-50 in lb	25-250 in lb	25-250 ft lb	60-600 ft lb
<b>Range, Nm</b>	.07-.706 Nm	.57-5.6 Nm	2.9-28.2 Nm	33.9-338.9 Nm	81.3-813.4 Nm
<b>Accuracy</b>	±0.50% ±1 count 10% CW & CCW of indicated test value@ 25 C				
<b>Units of Measure</b>	Nm, kgcm, ft lb, in lb, in oz				
<b>Operation Modes</b>	TRACK, PEAK, FIRST PEAK				
<b>Operating Temperature</b>	10 to 32 C (50 to 90 F)				
<b>Storage Temperature</b>	-20 to 50 C (-2 to 122 F)				
<b>Humidity</b>	85% Relative Humidity @ 21 °C (70 °F)				
<b>Power Supply</b>	Included 9 V ac/dc adaptor, 6 AA batteries included				
<b>Data/Storage/Recall</b>	Memory Capacity - 500 records (complete check mode only)				

## Electronic Torque Testers



QC1ETT50

### Electronic Torque Tester™

Designed to be a sturdy, low cost tester, these electronic torque testers can be placed on the wall in the factory or on a bench to allow operators to test torque wrenches or power tools without having to leave their station.

- Track and peak modes
- Can be used with nonimpacting power tools (joint rate simulators required)
- Dual scale (English/N•m or English/dN•m)
- Reads bidirectional (clockwise and counterclockwise)
- Uses rechargeable Ni-Cad batteries (2 Ni-Cad 9 V). Charger included

Stock No.	Square Drive, inches	Range, English	Range, N•m
QC1ETT10	1/4	10-100 in oz	7.0-70.6 cN•m
QC1ETT400	1/4	40-400 in oz	28-280 cN•m
QC1ETT50	1/4	5-50 in lb	5.6-56 dN•m
QC1ETT100	1/4	10-100 in lb	11.3-113 dN•m
QC2ETT250	3/8	25-250 in lb	28-280 dN•m
QC2ETT1000	3/8	100-1,000 in lb	113-1,130 dN•m
QC3ETT250	1/2	25-250 ft lb	34-339 N•m
QC4ETT600	3/4	60-600 ft lb	81-813 N•m

The certification of accuracy provided per ASME and ISO® Standards is 10 to 100% of full scale.

All Snap-on torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)  
All wrenches and drivers are calibrated per ASME and ISO standards for accuracy, from 20 to 100% of full scale, using NIST® traceable equipment.

## Versatorq® Torque Metering/Data Acquisition System

The *Versatorq* system can be used for any job requiring repetitive torque applications or regular inspection of fastener torque. This system can also be used to verify pneumatic and mechanical torque wrench accuracy. Peak torque can be captured by using a rotary sensor with a non-impact power tool operating at less than 1,000 RPM and being driven into a soft joint. Inspectors can check critical fastener torque and record data for quality audits. Perfect for process quality control. The *Versatorq* system can internally perform statistical analysis, including histograms, and print to a serial printer.

- **Versatile** - battery operated and lightweight, with available ranges from 2 to 20 in oz to 150 to 1,500 ft lb and 7 units of measure: in oz, in lb, ft lb, N•m, d•Nm, kgm, and kgcm. The *Versatorq* system can be used with sockets, extensions, universal joints, ratcheting drivers or any of these combined
- **Data Acquisition** - store and recall up to 3,500 readings. An internal memory backup battery retains setup and last memory data for up to 10 years
- **Track or Peak Mode** - track mode displays applied torque value and peak mode displays highest torque value
- **Easily Calibrated** - customer calibration supports ISO9000. Instructions for step by step calibration provided in the users manual
- **Smart Sensors** - built in EEPROM memory chip stores sensor identification and calibration factors. Factory calibrated, a sensor retains its accuracy with all *Versatorq* meters; just plug in the desired sensor. Periodic recalibration is necessary
- **120VAC/220VAC, 60 Hz Adaptor** - rechargeable battery and belt clip allow you to take it to the task or use it at the bench with the optional table stand and AC adaptor
- **PC Statistical Analysis Output** - download histogram, minimum and maximum reading, mean, sigma N, sigma, Cp, Cpk, % error and number of readings under and over tolerance
- **Serial Port Interface with Computer or Printer** - true RS-232 communications port for downloading to computer or serial printer or configurable to MITUTOYO statistical printer protocol
- **Visual and Audio Cues** - analog bar graph at top of display provides a live indication of applied torque. An OVER warning flag comes on to indicate that maximum sensor range has been exceeded. Green MIN LED indicates lower tolerance has been achieved, and Red MAX LED indicates upper tolerance has been exceeded. Audio alarm produces a distinctive 2 kHz tone. Includes an audio output jack for optional headphones in a noisy environment

### Versatorq1® System Specifications

Specifications	Description
<b>VERSATORQ1</b>	120 V ac Charger, and Carrying Case. Basic Torque Acquisition Meter
<b>Display</b>	4 digit with alpha and numeric function flags
<b>Display Capacity*</b>	± 4 digits, 8,000 counts
<b>Accuracy</b>	±1% of Reading (10 to 100% of Sensor Range) (± 2% with VERSA1S10 and VERSA1S20 Sensors)
<b>Push-Button Keypad</b>	MIN/MAX Alarm, ZERO TARE, SET-UP, UNITS, STORE/RECALL/CLEAR, SEND, STATISTICS, ENTER
<b>Units Of Measure</b>	in oz, in lb, ft lb, N•m, dN•m, kg•m, kg•cm
<b>Operating Temperature</b>	5 °C to 42 °C (40 °F to 110 °F)
<b>Storage Temperature</b>	-10 °C to 50 °C (-2 °F to 12 °F)
<b>Humidity</b>	Up to 90%, non-condensing
<b>Dimensions</b>	3" W, 2.5" H (3" with belt clip), 6" D
<b>Weight</b>	1 lb
<b>Charge Life (full charge to shutoff)</b>	20 hours continuous
<b>Battery Charger</b>	120 V ac or 220 V ac, 50-60 Hz
<b>Data Storage/Recall</b>	3,500 measurements
<b>Battery Charger Output</b>	9 V dc, 200 mA
<b>Serial Output Port - VERSATORQ1</b>	RS-232 (True), 300-19.2K baud and Mitutoyo (statistical protocol)
<b>Statistical Analysis - VERSATORQ1</b>	MAX, MIN, Sigma, Cp, Cpk, % Error, -No o, +No o
<b>Histogram - VERSATORQ1</b>	Lower set limit, upper set limit, 10 divisions

\*Versatorq display ignores torque input less than .5% of full scale in track mode and 2.0% of full scale in peak mode.

Please reference the *Versatorq* instruction manual for the sensor ranges and resolutions in different units of torque measurement.

### Versatorq Sensors

Stock No.	Square Drive, inches	Range	Sensor Diameter, inches	Sensor Length, inches	Cable Length, inches
VERSA1S20*	1/4	2-20 in oz	.5	2.9	48
VERSA1S10*	1/4	1-10 in lb	.7	2.9	48
VERSA1S50	1/4	5-50 in lb	.9	2.1	48
VERSA1S200	1/4	20-200 in lb	.9	2.1	48
VERSA2S100	3/8	10-100 ft lb	1.2	2.4	48
VERSA3S250	1/2	25-250 ft lb	1.4	2.6	48
VERSA4S600	3/4	60-600 ft lb	2.0	3.9	96
VERSA5S1500**	1	150-1,500 ft lb	2.4**	4.4	92

\*Knurled handles allow for fingertip control.

\*\*Diameter does not include side mounted connector.

Heavy duty coiled cord with 4 pin MS style connector.

**VERSATORQ1**  
Torque Acquisition Meter  
Includes VERSACHARGE1  
charger and PB57A case.  
Sensors sold separately.



### Versatorq System Accessories

Stock No.	Description
VERSACHARGE1	Power Pack, 120 V ac to 9 V dc
VERSACABLE	RS-232 Serial Printer Cable
VERSACABLE2	PC Interface Cable
PB57A	Carrying Case



VERSA2S100



**WARNING**



- Do not exceed rated torque • Do not use to break fasteners loose
- Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages W1 to W4



# TORQUE

## Versatest™ Electronic Torque Tester



VERSATEST

The *Versatest* Indicator is a laboratory grade instrument used for precise, in house torque wrench testing and calibration. High precision torque transducers provide system readings with an accuracy of  $\pm 0.25\%$  of indicated value. Transducers are available in ranges from 15 to 200 in oz to 200 to 2,000 ft lb and feature a special built in memory chip that identifies the range and maintains the calibration between all *Versatest* Indicators. Setup and calibration programming is entered via front panel membrane keys. The *Versatest* can store and recall up to 3,000 different torque/force readings. Statistical analysis stored in memory can be downloaded to a computer or serial printer. A hard wired lithium battery keeps the internal memory and the date/time clock operating for up to 10 years.

### Versatest Specifications

Specifications	Description
<b>Display</b>	Large 5.5" x 1.5" backlit LCD graphics display (240 x 64 dot matrix, 0.67" torque digits character height)
<b>Capacity</b>	5 significant digits $\pm 32,000$ counts (16 bit A/D)
<b>Sample Rate</b>	2,000 samples per second
<b>Display Rate</b>	5 updates per second
<b>Accuracy*</b>	$\pm 0.25\%$ OF READING AT 25 C (with TTC Transducer calibration)
<b>Temperature Drift</b>	+ 0.03% / °C (+0.017% / °F)
<b>Bar Graph</b>	100 segment analog of applied torque scaled to Limits Set value
<b>Units Of Measure</b>	in oz, in lb, ft lb, N•m, dN•m, kg cm and kg m
<b>Modes</b>	TRACK, PEAK HOLD, FIRST PEAK, POWER TOOL
<b>Soft Key User Interface</b>	Units, Calibration, Date/Time, Statistics, Hi/Low Limits Set, Data Store, Data Recall, Printer Setup, Zero, Auto/Manual Store/Send/Clear
<b>Select Keys</b>	Increment, Decrement, Shift Left, Shift Right, Enter
<b>Operating Temperature</b>	10 to 32 °C (50 to 90 °F)
<b>Storage Temperature</b>	-20 to 50 °C (-2 to 122 °F)
<b>Humidity</b>	85% Relative Humidity @ 21 °C (70 °F)
<b>Dimensions</b>	10" wide x 4" high x 10.5" deep (including carry handle)
<b>Power Supply</b>	Auto Switching 100 V AC-24 V AC, 50/60 Hz, 50 W
<b>Data Storage/Recall</b>	3,000 Measurements
<b>Statistical Analysis</b>	Max, Min, Range, Mean, Sigma N, Sigma, Cp, Cpk, % Error, -NoGo, +NoGo
<b>Histogram</b>	Lower Set Limit, Upper Set Limit, 10 Divisions
<b>Printer/Computer Serial Output Port</b>	RS232 (True), 300-19.2K Baud
<b>Computer Serial Com Port</b>	RS232 (True), 300-19.2K Baud
<b>Analog Output</b>	+(CW)/-(CCW) 1.8V at Transducer Full Range Linearity, $\pm 1\%$ of reading
<b>Loader Control Relays</b>	Two, Normally Open, Form A, Rated 12 V DC @ 1/2A close contact at 110% CW or CCW or torque/force transducer range

Refer to Transducer Chart on pg 245 for additional information.

### Features:

- Automatic downloading
- RS232C serial port - use with printer or PC
- Data storage/recall (with date/time stamp) holds up to 3,000 measurements
- Real time clock
- Smart transducers
- Analog output: connect to oscilloscope or X-Y plotter
- External printer can be mounted on top of the *Versatest* unit
- Remote foot switch interface for send/print functions
- Four modes: TRACK, PEAK HOLD, FIRST PEAK, POWER TOOL
- Statistic Process Control (SPC) built in



VERSA600LDR2

### VERSATEST600 Electronic Torque Metering System.

Provides high speed monitoring of static and dynamic torque inputs. Includes the *Versatest* indicator, VERSA600LDR2 loader, TTC12 transducer, TTC400 4-in-1 transducer and TTC5000-1 4-in-1 adaptor plate.

**VERSA600LDR2 Mechanical Loader.** Unit will load dial, micrometer, beam and electronic torque wrenches. Maximum capacity of 600 ft lb Use with any TTC series transducer from 15 in oz to 600 ft lb

### Accessories

<b>TTC3421</b>	Table Mounting Bracket for Transducers up to 1,000 in lb
<b>TTC3422</b>	Table Mounting Bracket for Transducers from 125-600 ft lb
<b>CDI200015003</b>	Table Mounting Bracket for Transducers from 1,000-2,000 ft lb
<b>TTC501</b>	Connects TTC610 Digital Indicator to PC
<b>TTC502</b>	Connects TTC610 Digital Indicator to printer
<b>TTC75006</b>	Torque Screwdriver Testing Kit

All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)

All wrenches and drivers are calibrated per ASME® and ISO® standards for accuracy, from 20 to 100% of full scale, using NIST® traceable equipment.

## TTC2000 Electronic Torque Tester™

- Automatic sensor recognition with TTC series Smart transducers
- Range: 15 in oz to 2,000 ft lb (bidirectional)
- Total uncertainty (10% to 100% of range):  $\pm 0.25\%$  of indicated torque value
- Alpha numeric 8 digit display
- Memory to 3,000 values
- Includes low profile serial printer
- Date and time stamp for stored values
- Statistical analysis performed on stored data
- Programmable manual or automatic options for clear, store and print functions
- Recall and review of stored torque values
- Modes: TRACK, PEAK, FIRST PEAK and POWER TOOL
- Optional angle encoder
- RS232C port is standard
- Analog output is standard
- Full digital circuitry
- 8 torque measurement units: in oz, in lb, ft lb, cN•m, dN•m, N•m, kg cm and kg m
- Automatic lock up for transducer protection
- Automatic zero
- Automatic transducer recognition
- Operates on 120 V AC or 240 V AC



TTC2800

### TTC2000/TTC2800 System Specifications

<b>TTC2000 Manual Loader System</b>	Torque/Force Display	Eight digit, alpha-numeric, super bright red LED, 0.55 inch character height
	Capacity	8 digits $\pm 32,000$ counts (16 bit A/D)
	Accuracy*	$\pm 0.25\%$ of reading at 25 °C (with TTC Transducer calibration)
	Temperature Drift	+ 0.03% / C (+ 0.017% / F)
	Units Of Measure	TORQUE: ft lb, in lb, in oz, N•m, dN•m, kg cm and kg m; FORCE: lbf, ozf, N, dN, kp and gf
	Maximum Range Display	2-line x 16 character 5 x 8 dot-matrix LCD used for MAX. Transducer range, Units, Angle, Calibration, Date/Time, Statistics, Torque/Force or Torque/Angle Limits Set, Data Store/Recall, Printer Set Up
	Modes	Track, Peak Hold, Angle, First Peak, Power Tool
	Operating Temperature	10 to 32 °C (50 to 90 °F)
	Storage Temperature	-20 to 50 °C (-2 to 122 °F)
	Humidity	Up to 90%, Noncondensing
	Power Supply	120 V AC $\pm 10\%$ , 50/60 Hz @ 3.14 A (including motor current)
	Data Storage/Recall	3,000 Measurements
	Statistical Analysis	Max, Min, Range, Mean, SigmaN, Sigma, Cp, Cpk, % Error, -No o, +No o
	Histogram	Lower Set Limit, Upper Set Limit, 10 Divisions
	Printer/Computer Serial Output Port	RS232 (True), 300-19.2K Baud
	Computer Serial Com Port	RS232 (True), 300-19.2K Baud (Optional)
	Analog Output	+(CW)/-(CCW) 1.8 V at Transducer Full Range Linearity, $\pm 1\%$ of reading
Loader Control Relays	Two, Normally Open, Form A, Rated 12 V DC @ 1/2 A close contact at 110% CW or CCW or torque/force transducer range	
Loader Hand Crank	Input torque 8 ft lb Maximum, Output Torque 2,000 ft lb Maximum	
<b>TTC2800 Motorized Control Loader System</b>	Motorized Loader Modes	Manual; Auto Dial; Auto 1st Peak
	Motorized Loader Power Supply	120 V AC $\pm 10\%$ Hz @ 3.14 A (including motor current); (optional step down transformer for 240 V AC operation)

### TTC2000/TTC2800 System Components

	Stock No.	Description	Application
<b>TTC2000 Components</b>	<b>TTC600</b>	Mechanical Loader	Applies load to torque wrenches for testing on TTC2000. Includes loader, torque indicator stand, torque pin, protective shield, small transducer adaptor and power cord. 45" W x 24" D x 9.5" H
	<b>TTC610</b>	Digital Indicator	Torque tester for the TTC2000 System.
	<b>KRA2411PDC</b>	Roller/Storage Cabinet	Used to mount TTC600/TTC610 (TTC2000) or TTC800/TTC810 (TTC2800) and store accessories. Not available individually
<b>TTC2800 Components</b>	<b>TTC800</b>	Motorized Loader	Applies load to torque wrenches for testing on TTC2800 System
	<b>TTC810</b>	Digital Indicator	Torque Tester for the TTC2800 System
	<b>KRA2411PDC</b>	Roller/Storage Cabinet	Used to mount TTC600/TTC610 (TTC2000) or TTC800/TTC810 (TTC2800) and store accessories. Not available individually

All Snap-on® torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)

All wrenches and drivers are calibrated per ASME® and ISO® standards for accuracy, from 20 to 100% of full scale, using NIST® traceable equipment.



**WARNING**



- Do not exceed rated torque • Do not use to break fasteners loose
- Periodic recalibration is necessary to maintain accuracy • Read safety precautions on pages W1 to W4

# TORQUE

## Electronic Torque Tester and Calibrator



### Transducers

All TTC series transducers include the correct adaptor for the indicated torque range.

Stock No.	Description	Sq. Drive Size	Range	Bench Top Mounting Bracket
TTC4	Transducer	1/4	5-50 in oz	TTC3421
TTC5	Transducer	1/4	15-200 in oz	TTC3421
TTC6	Transducer	1/4	4-50 in lb	TTC3421
TTC65	Transducer	1/4	15-150 in lb	TTC3421
TTC7	Transducer	3/8	30-400 in.lb.	TTC3421
TTC8	Transducer	3/8	80-1,000 in lb	TTC3421
TTC10	Transducer	1/2	10-125 ft lb	TTC3422
TTC11	Transducer	1/2	20-250 ft lb	TTC3422
TTC12	Transducer	3/4	60-600 ft lb	TTC3422
TTC13	Transducer	1	100-1,000 ft lb	TTC15002
TTC14	Transducer	1	200-2,000 ft lb	TTC15002
TTC400*	4-in-1 Transducer	1/4 3/8 3/8 1/2	4-50 in lb 30-400 in lb 80-1,000 in lb 20-250 ft lb	
TTC5000-1**	4-in-1 Adaptor Plate			

\*TTC400 requires the TTC5000-1 adaptor plate when used with the TTC600 manual loader, TTC800 motorized loader and VERSA600LDR

\*\*Required for TTC400 4-in-1 torque transducer to be used on TTC600/TTC800 loaders.

### Calibration Wheels/Arms

Use to calibrate any TTC series transducer. Arms are certified to manufacturer s standards.

TTC500	2.5" Calibration Wheel, 1/4" square drive
TTC1510	5" Calibration Wheel, 1/4" drive (includes 3/8" adaptor)
TTC1520	10" Calibration Butterfly, 1/2" square drive
TTC1540	40" Calibration Arm, 1 1/4" square drive (includes 3/4" adaptor)



TTC25002

### Accessories

Stock No.	Description
TTC501	Connects TTC610 Digital Indicator to PC
TTC502	Connects TTC610 Digital Indicator to printer
TTC25002	Free standing calibration stand with mounting block and hardware for use with TTC2000/TTC2800 Systems and all TTC Series Transducers
TTC75002	Torque Screwdriver Testing Kit
TTC5500-1	Extension Arm (required for wrenches longer than 45")

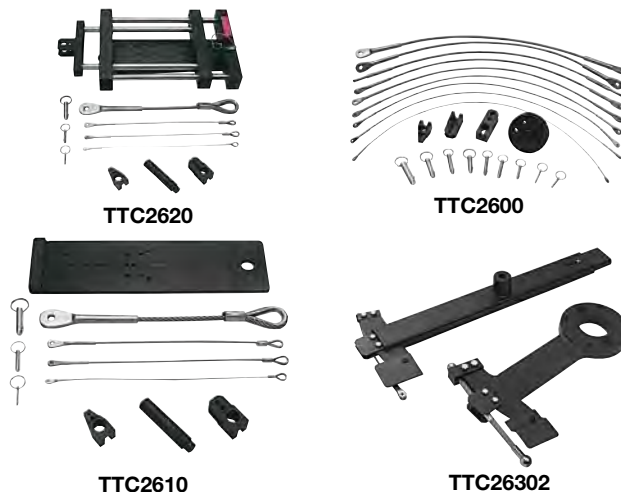


QC2JRS400

### Joint Rate Simulator Adaptors

- Use with torque tester when testing nonimpacting power tools
- Square drive adaptor is placed on top of square drive of the torque tester and tightened with a set screw
- Adaptor bit is inserted into the power tool and mated to the top of the joint adaptor
- By stacking the Belleville washers in set patterns, the joint rate adaptor can simulate soft, medium, or hard joints

Stock No.	Square Drive, inches	Capacity, in lb	Adaptor Bit	Load Screw
QC1JRS50	1/4	50	1/4" Hex x 3/16" Hex	1/4" x 28 x 1
QC2JRS400	3/8	400	3/8" Square Internal x 3/8" Hex	7/16" x 20 x 1.5
QC2JRS1000	3/8	1,000	3/8" Square Internal x 1/2" Hex	5/8" x 18 x 1.5



### Force Testing Equipment

- Reaction arms, cables, mounting plates and fixtures are available for testing tensiometers plus compression and tension gauges. The TTC600 and TTC800 loaders and TTC series transducers can be configured to deliver compression and tension loads
- The TTC610/TTC810 indicator also provides measurement, display, storage and statistical analysis for FORCE inputs

TTC2600	Tensiometer Testing Kit
TTC2610	Tension Gauge Testing Kit
TTC2620	Compression Gauge Testing Kit
TTC26302	Force Arm Kit (Only one is needed for any Force Testing Kit)

### Weight Sets

Use to calibrate any TTC series transducer. All weights are NIST (NBS) traceable.

TTC3200	Weight Set #1 (Use for all TTC Series Transducers)
TTC3210	Weight Set #2 (For 200 in oz to 250 ft lb TTC Series Transducers)
TTC3220	Weight Set #3 (For 600 ft. lb To 2,000 ft lb TTC Series Transducers)



TTCWEIGHTS

### Weight Hangers/Trays

Use to calibrate any TTC series transducer. Weight trays certified as to weight.

TTC301	Weight Hanger, 8 oz
TTC3040	Weight Tray, 7.5 lb
TTC3020	Weight Tray, 15 lb
TTC3030	Weight Tray, 50 lb

## Electronic Bench Top Torque Testers

### Horizontal Torque Testers and Transducers

#### TBT600A Horizontal Torque Tester.

- Designed to be a complete and flexible calibration solution
- Peak hold feature incorporates hands free mode to increase efficiency
- Certificate generation function allows unit to print certifications directly to a printer or computer
- NTEP® certified scale is independently traceable to NIST® standard Handbook 44 and stored data of tester calibration for auditing purposes



TBT600A

### Transducers(optional)

Stock No.	Description	Range	Resolution
TBTT16A	Transducer	7.5 to 200 in lb	.002 ft lb, .02 in lb, .025 in oz, .002 N•m., .0002 kg m., .02 kg cm
TBTT100A	Transducer	5 to 100 ft lb	.01 ft lb, .1 in lb, 2 in oz, .01 N•m., .001 kg m., .1 kg cm
TBTT600A	Transducer	30 to 600 ft lb	.05 ft lb, .5 in lb, 10 in oz, .1 N•m., .01 kg m., .1 kg cm



TCR175



TCR600

### Torque Comparators

#### TCR175 Torque Comparator.

- To determine if a torque wrench requires calibration to maintain proper application of torque
- Large and easy to read dial and simple operation makes the tester quick and easy to use for everyday verification of torque calibration
- 1/2" female square drive input and 175 ft lb capacity with 5 ft lb graduations and 230 N•m capacity with 10 N•m increments is a perfect fit for the most popular torque wrenches
- Integrated exercise adaptor makes it easy to break in simple, providing the most accurate results (as per B107-300 standard)
- 2% accurate within  $\pm 2\%$  of the reading from 20% of full scale to full scale clockwise and counterclockwise
- Can check a 3/8" drive torque wrench by using an A2A or AF2A adaptor

#### TCR600 Torque Comparator.

Similar to TCR175 except for these differences:

- 3/4" female square drive input and 600 ft lb capacity with 10 ft lb graduations and 800 N•m capacity with 20 N•m increments
- Compact design with 1/4" steel mounting plate allows for convenient installation in any direction: horizontally on a bench, vertically on a wall, or on any other sturdy, flat surface
- Use on most 3/4" drive torque wrenches including these popular Snap-on® models: ATECH4R600, TECH4R600/TECH4RM600, QD4400/QD4R400, QD4600/QD4R600, TQR400E/TQR600E, TE352A/TE602A series and TEC352A/TEC602A series
- Does not include certificate of calibration

All Snap-on torque wrenches, drivers and testers are provided with a Certificate of Calibration. (unless otherwise indicated)  
 All wrenches and drivers are calibrated per ASME® and ISO® standards for accuracy, from 20 to 100% of full scale, using NIST® traceable equipment.



**WARNING**



- Do not exceed rated torque
- Do not use to break fasteners loose
- Periodic recalibration is necessary to maintain accuracy
- Read safety precautions on pages W1 to W4



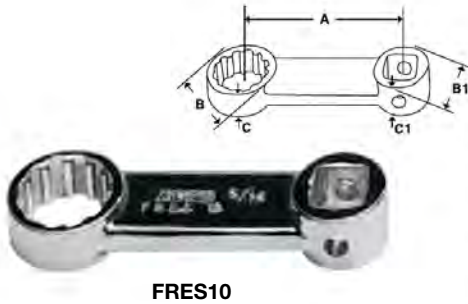
# HIGH PERFORMANCE/SPLINE

## Spline Torque Adaptors

Snap-on® spline wrenching tools have been developed to service high tensile strength spline nuts and bolts widely used on both military and commercial aircraft.

Precise, radial spline teeth engage the fastener teeth over a wider area to minimize stress, and allow application of high torque to reduce risk of damage to the fastener or to the tool.

Chrome tools comply with Military Spec. MS-33787 and MIL-W-89823. (Industrial finish tools comply with performance specifications and differ only in finish.) The unique spline wrenching configuration can also be used on ordinary 6 and 12 point fasteners with an advantage similar to the Snap-on Flank Drive® wrenching system.



FRES10

### 3/8" Drive Spline, inches

#	Hex	Stock No.	Working Torque, in lb	A	B-B1	C-C1
#7	7/32	FRES7	140	2	.375-.750	1/4-7/16
#8	1/4	FRES8	195	2	.400-.750	1/4-7/16
#9	9/32	FRES9	220	2	.445-.750	1/4-7/16
#10	5/16	FRES10	250	2	.490-.750	1/4-7/16
#12	3/8	FRES12	515	2	.590-.750	5/16-7/16
#14	7/16	FRES14	875	2	.680-.750	5/16-7/16
#16	1/2	FRES16	1,575	2	.745-.750	5/16-7/16
#18	9/16	FRES18	1,750	2	.825-.750	3/8-7/16
#20	5/8	FRES20	1,750	2	.895-.750	3/8-7/16
#22	11/16	FRES22	1,750	2	.997-.750	1/2-7/16
#24	3/4	FRES24	1,750	2	1.08-.750	9/16-7/16



SRES30A

### 1/2" Drive Spline, inches

#	Hex	Stock No.	Working Torque, in lb	A	B-B1	C-C1	Set Contains:
#18	9/16	SRES18	2,275	3	.818-1.04	13/32-1/2	•
#20	5/8	SRES20	2,450	3	.900-1.04	1/2-1/2	•
#22	11/16	SRES22	2,975	3	.989-1.04	1/2-1/2	•
#24	3/4	SRES24	3,500	3	1.08-1.04	1/2-1/2	•
#26	13/16	SRES26	4,410	3	1.16-1.04	1/2-1/2	•
#28	7/8	SRES28	4,900	3	1.26-1.04	1/2-1/2	•
#30	15/16	SRES30A	6,000	3	1.26-1.04	37/64-37/64	•

Set Contains: SRES30A

### 3/8" Drive Torque Adaptors, Non-Spline



FRDHM18



205FRDH

### Flank Drive Torque Adaptors, mm

Working Torque, in lb	mm	12	A	B	C	D	E
420	10	FRDHM10	17.1	18.8	7.8	11.1	50.8
720	13	FRDHM13	21.0	18.8	7.8	11.1	50.8
1,200	15	FRDHM15	25.1	18.8	7.8	11.1	50.8
1,480	18	FRDHM18	22.4	18.8	13.3	11.1	50.8

### Flank Drive Torque Adaptors, inches

Working Torque, in lb	Hex	12	A	B	C	D	E	12
190	5/16	FRDH101	.475	.750	1/4	7/16	2	•
420	3/8	FRDH121	.570	.750	5/16	7/16	2	•
500	7/16	FRDH141	.655	.750	11/32	7/16	2	•
710	1/2	FRDH161	.740	.750	11/32	7/16	2	•
1,050	9/16	FRDH181	.825	.750	3/8	7/16	2	•

Set Contains: 205FRDH

Conventional hex