

# ***Precision Tools for Motorsports***

## ***2013 Edition***



# **Starrett®**

starrett.com

WHAT'S THE TRUE MEASURE OF PERFORMANCE RACING?

***Winning.***

WHAT'S THE TRUE MEASURE OF PERFORMANCE TOOLS?

***Precision.***

That's why motorsports and Starrett tools go way back. Mechanics and technicians know that the difference between winning and losing can be a single, absolutely precise measurement. They choose Starrett tools because they're designed for the high precision, maximum reliability, hard-knocks world of motorsports. When performance is critical, only the best tools will do.

**WANT TO WIN, RACE AFTER RACE?**

**COUNT ON STARRETT PRECISION,  
MEASUREMENT AFTER MEASUREMENT.**



***1<sup>ST</sup> in Performance. 1<sup>ST</sup> in Precision.***

### Starrett provides ride height measurement for Porsche GT3 Cup Racing.

Controlling the ride-height of a car is one of the most strict rules in racing. Starrett developed a custom-engineered Ride Height Gage that provides easier, more precise measurement before and after the race. IMSA's technical inspection team now has better accuracy, repeatability and traceability of this key parameter.



### Starrett provides Piston Racing Gage for Porsche.

This L.S. Starrett Special Gage design is to access the engine's piston cylinder cavity through the spark plug opening. The design allows a quick check of racing specifications of the cylinder cavity diameter, especially modifications beyond what's acceptable, without the need to dismantling the engine block for access.



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# 1<sup>ST</sup> in Winning.

## MICROMETERS

### Outside Micrometers

- Advanced sleeve design with staggered lines and distinct figures for precise readability
- Micro-lapped carbide measuring faces
- Starrett satin chrome finish – no glare – resists rust
- Set includes six micrometers with standards in a wood case



Catalog No.	EDP	Range	Resolution
<b>436 OUTSIDE MICROMETERS</b>			
436.1XRL-1	67994	0-1"	.001"
436.1XRL-2	68003	1-2"	.001"
436.1XRL-3	68011	2-3"	.001"
<b>OUTSIDE MICROMETER SET</b>			
S436.1CXRLZ	68044	0-6"	.001"

### Depth Micrometers

- Range: .001" (0.01mm)
- 3" (75mm) base
- Combination ratchet and speeder



Catalog No.	EDP	Range	Resolution
445AZ-3RL	52208	0-3"	.001"
445AZ-6RL	52212	0-6"	.001"
445AZ-9RL	52216	0-9"	.001"
445AZ-12RL	67117	0-12"	.001"

### Solid-Rod Inside Micrometers

- .001" Graduation
- Rods are insulated
- Each rod marked with length



Catalog No.	EDP	Range	Movement of Screw	No. Measuring Rods	No. Micrometer Heads
124AZ	50542	2-8"	1/2"	6	One 1/2"
124BZ	50546	2-12"	1/2"	10	One 1/2"

### Electronic Outside Micrometers

- 796 Series has IP67 level of protection against coolant, water, dirt and dust
- Balanced, tapered frame and hard, stable one piece spindle
- Zero tool at any position – retain and return to true zero
- Large, easy-to-read LCD readout
- Micro-lapped carbide measuring faces
- All models without output



Catalog No.	EDP	Range	Resolution
796XFL-1	67828	0-1" (0-25mm)	.00005" (.001mm)
796XRL-1	69089	0-1" (0-25mm)	.00005" (.001mm)
796MXFL-25	69084	0-25mm Metric Model	.001mm (.00005")
3732XFL-1	12268	0-1" (0-25mm)	.00005" (.001mm)
3732XFL-2	12269	1-2" (25-50mm)	.00005" (.001mm)
3732XFL-3	12270	2-3" (50-75mm)	.00005" (.001mm)
3732XFL-4	12271	3-4" (75-100mm)	.00005" (.001mm)
3732XFL-5	12272	4-5" (100-125mm)	.0001" (.001mm)
3732XFL-6	12273	5-6" (125-150mm)	.0001" (.001mm)

### Outside Micrometer Stand

- Converts outside micrometer to a bench gage



Catalog No.	EDP	Range
3206	68917	Outside Micrometer Stand

MICROMETERS

**V-Anvil Micrometers**

- Used to check out-of-roundness from centerless grinding and other machining operations
- Starrett satin chrome finish – no glare – resists rust
- Advanced sleeve design with staggered lines and distinct figures for precise and easy readability



Catalog No.	EDP	Range	Resolution
T483XRL-1	52491	.093-1"	.0001"
T483XRL-2	52494	1-2"	.0001"

**Crankshaft & Automotive Disk Brake Micrometers**

**Crankshaft Micrometer**

- Designed for automotive work and crankshaft measuring
- Measures the diameter of the journal bearing and main bearing of most crankshafts
- Starrett satin chrome finish - no glare - resists rust
- 2-5/8" (66mm) throat depth



**Automotive Disk Brake Micrometer**

- Measures wear grooves in the disc of brake systems
- Flat carbide spindle and a carbide anvil with a 60° point
- Advanced sleeve design with staggered lines and distinct figures for precise readability
- Starrett satin chrome finish – no glare – resists rust



Catalog No.	EDP	Range	Resolution
<b>CRANKSHAFT MICROMETER</b>			
T436RLS-3 1/2	65493	1-1/2" (38mm) - 3-1/2" (88mm)	.0001"
<b>AUTOMOTIVE DISK BRAKE MICROMETER</b>			
458AXR	67534	.300-1.300"	.001"
458AXRS	67535	.300-1.300"	.001"
458BXR	67536	1-2"	.001"
458BXR	67537	1-2"	.001"

**Inside Micrometer Calipers**

- Caliper-type jaws permit quick inside measurements
- Jaws are hardened and ground on a radius for accurate feel without cramping
- Satin chrome reading surface is glare free and resists rust



Catalog No.	EDP	Range	Resolution
700A	52909	0.200-1.200"	.0002"

**Blade Micrometers with Non-Rotating Spindle**

- Designed for measurements of circular form tools, diameter and depth of narrow grooves, slots, keyways and recesses and fins
- Non-rotating spindle
- .030" (0.8mm) thick blade
- Blades will measure to 5/16" (8mm) depths
- With speeder



Catalog No.	EDP	Range	Graduation
486P-1	52499	0-1"	.001"
486P-2	52501	1-2"	
486P-3	52503	2-3"	
486P-4	52505	3-4"	
486P-5	52507	4-5"	
486P-6	52509	5-6"	

## SLIDE CALIPERS

### Electronic Calipers

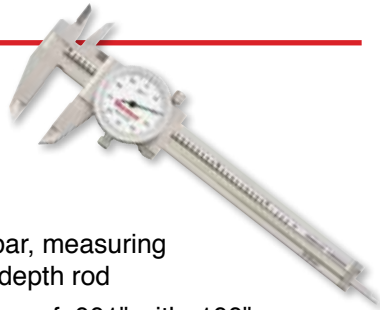
- 798 Series has IP67\* level of protection against coolant, water, dirt and dust
- Hardened stainless steel body for long life
- Fine adjustment thumb wheel
- Large easy-to-read display
- Integrated depth rod
- Resolution: .0005" (0.01mm)
- Accuracy: DIN862



Catalog No.	EDP	Range
799A-6/150	67410	0-6" (0-150mm)
799A-8/200	67412	0-8" (0-200mm)
799A-12/300	67621	0-12" (0-300mm)
799AZ-24/600	11978	0-24" (0-600mm)
799AZ-40/1000	11979	0-40" (0-1000mm)
798A-6/150	20798	0-6" (0-150mm)
798A-8/200	20799	0-8" (0-200mm)
798B-12/300	12525	0-12" (0-300mm)

### Dial Calipers

- Quick, accurate measurement of O.D., I.D. and depth
- Hardened stainless steel bar, measuring surfaces, rack, gears and depth rod
- Sharp, clear dial graduations of .001" with .100" per revolution
- Sharp, black graduations on the satin finished bar, every .100"
- 1/64" - .01" on fractional calipers



Catalog No.	EDP	Range	Resolution
1202-6	66964	0-6"	.001"
1202-8	66979	0-8"	.001"
1202-12	66980	0-12"	.001"
1202F-6	68931	0-6"	1/64th - .01"
1202F-8	69757	0-8"	1/64th - .01"
1202F-12	69758	0-12"	1/64th - .01"
120A-6	64514	0-6"	.001"

### Carbon Fiber Calipers

- Carbon fiber construction significantly reduces weight, improving maneuverability
- Titanium coated stainless steel outside measurement jaws for long life and superior flatness
- Large easy-to-read display
- Double sliding jaws with clamping screws
- Includes disk contacts as shown for groove distance measurements
- Conical and step contacts also available



Catalog No.	EDP	Range	Resolution
5002BZ-24/600	14577	0-24" (0-600mm)	.0005" (0.01mm)

### Vernier Calipers - Metric/Inch with Thumb Roll

- High quality, basic vernier caliper that offers inch and metric measurement
- Sharp, black graduations on the satin finished bar
- Plastic case included

Catalog No.	EDP	Range
125MEA-6/150	61660	0-6" (0-150mm)
125MEA-8/200	61882	0-8" (0-200mm)
125MEA-12/300	61886	0-12" (0-300mm)

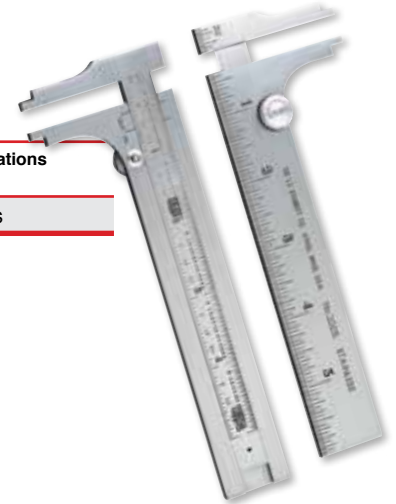


SLIDE CALIPERS

**Stainless Steel Pocket Slide Caliper**

- Accurate readings for inside and outside measurements
- Inch scale on back of stock
- Knurled thumb pieces

Catalog No.	EDP	Size	Range Outside	Range Inside	Depth of Jaws	Width of Nibs Closed	Graduations Slide	Graduations Stock
1025-6	53124	6"	0 - 4-3/4"	1/4 - 5"	1-3/8"	1/4"	32nds & 64ths	32nds



**Electronic Tool Sets**

Basic Tool Sets

- Basic starter sets for electronic measuring
- Includes slide calipers and 1" (25mm) micrometer
- Sets include an attractive, protective case

Set of four Micrometers

- Balanced frame design for comfortable and accurate measuring
- Large, easy-to-read, high-contrast LCD digital readout
- Starrett No-glare satin chrome finish on thimble and sleeve minimizes annoying surface glare under bright lights
- No-glare black wrinkle finish on frame

Catalog No.	EDP	Description
<b>BASIC TOOL SETS</b>		
S766AZ	12206	799A-6/150 Caliper / 3732XFL-1 Micrometer
S766MAZ	12207	799A-6/150 Caliper / 3732MXFL-25 Micrometer
<b>SET OF FOUR MICROMETERS</b>		
S3732BXFLZ	12726	0 to 4" Set of Four Micrometers in Metal Case
S3732CXFLZ	12727	0-6" Set of Four Micrometers in Metal Case



TOOL SETS

## HEIGHT & DEPTH GAGES

### Electronic Height Gage

#### Electronic Height Gage with output

- Resolution: .0005" (0.01mm)
- "Hold" control feature retains a reading at any position
- Fine adjustment for precise positioning accuracy
- Lock screw to hold slide in position

#### Electronic Height Gage

- Hardened, stainless steel bar for long life
- Fine adjustment thumb roll for precision measurements
- Lock to hold the slide in position
- Hardened, ground, and lapped base with finger grooves

### Electronic Height Gage

- Hardened, stainless steel bar, gears, scriber, and scriber carrier
- Zero/reset button located on the digital counter
- Carbide tipped scriber and clamp
- Locking lever
- Hardened and ground base lapped for flatness

Catalog No.	EDP	Range
<b>ELECTRONIC HEIGHT GAGE WITH OUTPUT</b>		
3752-12/300	68815	0-12" (300mm)
3751AZ-6/150	12221	0-6" (150mm)
<b>DIAL HEIGHT GAGE</b>		
3259-12	12219	0-12"
3259-24	69906	0-24"



### Electronic & Dial Depth Gages

#### Electronic Depth Gages

- Exclusive Starrett designed microprocessor chip
- Hardened stainless steel body and slide for long life
- Removable hook has the screw permanently attached to prevent loss

#### Dial Depth Gages

- Sharp, easy-to-read dial graduations of .001-.100" (0.02-2mm) in one revolution
- Sharp, black graduations on the satin chrome finished bar, every .100" (1mm)
- Removable hook attachment permits readings from the edge of a workpiece



Catalog No.	EDP	Description
<b>ELECTRONIC DEPTH GAGES</b>		
3753A-6/150	12258	Electronic Depth Gages 0-6" (0-150mm) Range
3753A-8/200	12259	Electronic Depth Gages 0-8" (0-200mm) Range
3753A-12/300	12260	Electronic Depth Gages 0-12" (0-300mm) Range
<b>DIAL DEPTH GAGES</b>		
450-6	56766	0-6"
450-12	56768	0-12"

### Dial Depth Gage

- Knife-edge base and a needle point contact
- Point is 1/2" (12.7mm) long with a 60° included angle
- Padded Case



Catalog No.	EDP	Range	Graduation	Dial Reading
643JZ	52714	0-.125"	.0005"	0-25-0

### Steel Rule Depth Gages

- Nicely finished hardened steel head and accurate, machine divided, tempered steel rule
- Base is cut out on one side, adjacent to the rule, permitting easier readings and more accurate measurements



Catalog No.	EDP	Range	Graduation	Head Length x Width
237	51080	0-6"	32nds, 64ths	2-5/8" x 1/8"
237M	51081	0-150mm	mm, 1/2mm	66 x 3mm



TESTERS

**Hardness Tester**

- Provides reliable Rockwell Hardness values on all types of metal and alloys, hard or soft, and in many shapes
- Conforms to ASTM E-18 standard
- Furnished with a diamond indenter, a 1/16" (1.6mm) ball indenter, three certified test blocks, four test tables – 5.87" (149mm) and 2.5" anvils, 5/8" (15.9mm) spot anvil and a (63.5mm) flat standard vee anvil – and an accessory case



Catalog No.	EDP
3814	67754

**Electronic Durometer**

- Extra large LED display
- Simple 3-button control
- Auto Hold feature
- Custom carrying case



Catalog No.	EDP
3805B	69882

**Ultrasonic Thickness Gage**

- Menu driven, multifunctional tester with basic measurement capabilities
- Designed to measure the thickness of metallic and non-metallic materials such as aluminum, titanium, plastics, ceramics, glass and any other good ultrasonic wave conductor, as long as it has parallel top and bottom surfaces



Catalog No.	EDP
3812	67668

GAGE BLOCKS

**MicroAccurate®  
B-Grade Rectangular Steel**

- Etched, unique serial numbers are included on each block
- Very affordable price makes them ideal for general shop floor use
- Inch System sets have a tolerance of  $\pm 50 \mu\text{m}$ .
- Sturdy case

Catalog No.	Measuring Range	Blocks Per Set	Blocks Included In Sets
RS81B	.100-12.000 in steps of .001 .200-12.000 in steps of .0001	81	9 blocks .1001" through .1009" (steps of .0001) 49 blocks .101" through .149" (steps of .001") 19 blocks .050" through .950" (steps of .050") 4 blocks 1.000" through 4.000" (steps of 1 inch)



## INDICATORS & GAGES

### Electronic Indicators

- Simple, powerful, easy-to-use functions
- Large, easy-to-read LCD

Catalog No.	EDP	Description
3600-5	68813	0.500" range
3600M-5	68918	12.5mm range



### Electronic Indicators

- True Absolute Sensor Technology – remembers position and zero set point even during battery replacement. Cannot be “over-spiced” into failure.
- Intuitive design and layout – easy to learn and use

#### Rectangular Electronic Indicators

- Rugged, sealed enclosures
- Our most versatile line of electronic indicators
- Available in three styles
- Remote display and accompanying probe series

Catalog No.	EDP	Range	Resolution
<b>2900 ELECTRONIC INDICATORS</b>			
2900-1	09980	.5"	.00005"
2900-2	09981	.5"	.0001"
2900-4	09983	.5"	.0005"/.0001"/.00005"
2900-6	09985	.5"	.0005"/.0001"/.00005"

### Inspection Kits

- Used for tasks such as setting proper distance or alignment
- Secure a measuring fixture to a stable, reliable surface at various odd angles in tightly confined spaces
- Invaluable to auto mechanics

Catalog No.	EDP	Description
S898Z-1	12438	Gripping Plier Inspection Kit, Flex Arm With Indicator and Case
S898Z-2	12437	Gripping Plier Inspection Kit, Flex Arm With Indicator, Mag Base and Case

### Magnetic Base Indicator Holders

- Selection of tools for a variety of indicator holding tasks

Catalog No.	EDP	Description
660	68621	Magnetic Base 3-pivot Indicator Holder. Holds up to 70lbs.
661	68620	Mini Magnetic Base Indicator Holder
657-1	64436	Magnetic Base Universal Indicator Holder
657T	52760	Flex-O-Post Magnetic Indicator Holder
657D	52749	Magnetic Base Indicator Holder



INDICATORS & GAGES

**Dial Test Indicators with Dovetail Mounts**

- Three dovetail positioning mounts
- Contact points reverse automatically, always maintaining clockwise hand rotation
- Narrow body for inreach versatility
- Satin chrome finish
- Contacts are frictionally adjustable and replaceable
- Easy-to-read angled head with white dial
- Replaceable contacts are frictionally adjustable



Catalog No.	EDP	Graduation	Range	Dial Reading	Carbide Contact Point Length	Carbide Contact Point Ball Dia.	Description
708ACZ	64217	.0001"	.010"	0-5-0	13/16" (20mm)	.078" (2mm)	With Attachments*
709ACZ	64219	.0005"	.030"	0-15-0	13/16" (20mm)	.078" (2mm)	With Attachments*

\*Attachments include dovetail body clamp, tool post holder, swivel post snug with dovetail indicator clamp, snug and rod unit

**Dial Test Indicators with Swivel Head**

- Swivel head feature allows positioning to suit your line of sight from horizontal to vertical and at any angle in between 90°
- Smooth, jeweled movement

Catalog No.	EDP	Graduation	Range	Dial Reading	Steel Contact Point Length	Steel Contact Point Ball Dia.	Description
811-1CZ	57081	.001"	.060"	0-30-0	1-5/16" (33mm)	.078" (2mm)	In Case with Attachments*

\*Attachments include dovetail body clamp (PT22429/EDP No. 72441), tool post holder (PT 11770A/EDP No. 71361), swivel post snug with dovetail indicator clamp (PT22428/EDP No. 72440), and snug and rod unit (Inch: PT22430/EDP No. 72442 or Millimeter: PT27171/EDP No. 66457)

**Last Word Dial Test Indicator**

- Steel contact points length: 5/32" (4mm)
- Steel contact points ball diameters: .035" (0.9mm), .062" (1.6mm), .120" (3mm)
- Ideal for precise measurements in machining, layout, and inspection work
- Hard chrome-plated ratchet contact point

Catalog No.	EDP	Graduation	Range	Dial Reading	Description
711GCSZ	52943	.001"	.030"	0-15-0	Indicator with ALL attachments*

\*Attachments include 3 contact points – body clamp – universal friction holder with shank – universal shank complete with long and short arm – double-jointed attachment – height gage attachment – surface gage attachment – coupling with 3/16" (4.8mm) hole



**Shaft Alignment Clamp Sets**

- Designed for fast, precise alignment of motors, pumps, and compressors
- Lightweight clamp design - black anodized aluminum
- Sets are available with either two Starrett 196B5 or 81-141J indicators or clamps alone

Catalog No.	EDP	Description
S668CZ	67152	Shaft Alignment Set, 196B5 Indicators, Case
S668DZ	67153	Shaft Alignment Set, 81-141J Indicators, Case
S668BZ	67151	Shaft Alignment Set, Clamp, Plate and Posts, Case
S668A	67150	Shaft Alignment Clamp, Plate and Posts
668	67155	Shaft Alignment Clamp Only



## INDICATORS & GAGES

### Dial Indicator Groove Gage

- Used for in-process or bench inspection of oil grooves, snap ring retainer grooves and "O" ring seat retainer grooves
- Supplied with two sets of jaws
- Includes three sets of contacts
- Contacts have flush ends so that grooves at the bottom of blind holes can be gaged
- Contacts are hardened steel with a hard chrome finish for long life



Catalog No.	EDP	Graduation	Range	Range per Revolution	Dial Reading
1175Z	53173	.0005"	.375-6"	.060"	+/- 30

### Universal Back Plunger Dial Indicators

- Accurate and reliable, simple to operate, rugged with few moving parts, smooth in operation
- Includes three hardened contact points, adapter, and four attachments (clamp, tool post holder, snug and hole attachment) in case



Catalog No.	EDP	Graduation	Range	Range per Revolution	Dial Reading
196A1Z	50697	.001"	.200"	.100"	0-100

### Dial Indicators

- Shockless, hardened steel gear train and jewel bearings
- Lug-on-center back
- 2-1/4" bezel diameter



Catalog No.	EDP	Description	Range
25-441J	53295	Dial Indicator	1.00"
25-2041J	53309	Dial Indicators w/long range	2.00"
25-3041J	53310	Dial Indicators w/long range	3.00"
25-4041J	53311	Dial Indicators w/long range	4.00"

### Cylinder & Crankshaft Distortion Dial/Strain Gages

#### Cylinder Gage

- Used to determine taper and out-of-roundness of bores, offering a quick and accurate way to show your customer whether new rings or reconditioning is necessary
- Ranges are achieved by the use of two measuring contact rods; one in the tool and one stored in the hollow handle
- Sled is hardened and ground for long, accurate life and has two long-line contacts in constant alignment with the cylinder wall

#### Crankshaft Distortion Dial/Strain Gage

- Ideal for checking bearing alignment or shaft deflection without dismantling the engine
- Inside measuring gage checks the distortion of crankshaft

Catalog No.	EDP	Range	Graduation
<b>CYLINDER GAGE</b>			
452B	52339	2-1/2 - 6"	.001"
<b>CRANKSHAFT DISTORTION DIAL/STRAIN GAGE</b>			
696Z	52901	2-3/8 - 18"	.001"



### Carbon Fiber & Electronic Snap Gages

#### Carbon Fiber Snap Gages

- Carbon fiber insulated handle
- Precise aluminum body
- Adjustable support ensures accuracy

#### Electronic Snap Gage

- Balanced and compact for comfortable handling
- Simple, logical control buttons for ease-of-use
- Lightweight aluminum frame



Catalog No.	EDP	Range	Resolution
<b>CARBON FIBER SNAP GAGES</b>			
5003Z-431-2J	12984	0-2" (0-50mm)	.0005"
5003Z-431-4J	12985	2-4" (50-100mm)	.0005"
5003Z-431-6J	12986	4-6" (100-150mm)	.0005"
5003Z-431-8J	12987	6-8" (150-200mm)	.0005"
<b>ELECTRONIC SNAP GAGE</b>			
765A	67659	0-1/2" (0-12.7mm)	.0005"

## Dial Bore Gages

### 84 Series

- Easily held to inspect bores and hole sizes without removing the workpiece
- All contacts and centralized plungers are hardened tool steel for wear and spring-loaded
- Aluminum housing and knurled handle for light weight and good balance

### 3089 Series

- Ergonomic design with non-slip insulating grip
- Carbide contacts for extended wear
- 2-point contact
- Resolution: .0005"

### 82 Series

- Measurements are taken by comparison - master should be used as a reference standard
- Split-ball contact is self-centering and the two-point contact makes the gage useful for detecting hole geometry problems
- Useful for controlling approach to tolerance without removing the workpiece from a machine
- Interchangeable probes are hard chrome plated and polished

Catalog No.	EDP	Range	Graduation
84Z-134-4J	56270	1-1/2 - 3"	.0005"
84Z-134-5J	50392	3 - 5-3/16"	.0005"
3089Z-131-715J	12456	.7 - 1.5"	.0005"
3089Z-131-1424J	12457	1.4 - 2.4"	.0005"
3089Z-131-26J	12458	2 - 6"	.0005"
82AZ	55791	.107 - .266"	.0001"
82BZ	55792	.217 - .594"	.0001"
82CZ	55793	.560 - 1.565"	.0001"



## Bore Micrometer

- Ground contact points seat the internal micrometer faster and more accurately than the spherical contacts found in other gages
- Resolution: .00025"
- Tungsten carbide measuring faces on all with 3-point carbide contact
- Setting rings included



Catalog No.	EDP	Description
78XTZ-500	68131	3/8 - 1/2" Range
78XTZ-625	68132	1/2 - 5/8" Range
78XTZ-750	68133	5/8 - 3/4" Range
78XTZ-1	68134	3/4 - 1" Range
78XTZ-138	67674	1 - 1-3/8" Range
78XTZ-2	67675	1-3/8 - 2" Range

## Electronic Internal Micrometers

- IP65 level of protection against coolant, water, dirt and dust
- Resolution to .00005" (0.001mm)
- Carbide measuring faces

Catalog No.	EDP	Range
780XTZ-1	12027	.750 - 1" (20-25mm)
780XTZ-138	12028	1 - 1.375" (25-35mm)
780XTZ-2	12029	1.375 - 2" (35-50mm)

## AccuBore®

- High-quality, trigger-activated, three-point bore gages
- Convenient, single-hand operation provides speed and control
- Resolution: .00005" (0.001mm)

Catalog No.	EDP	Range
781XTZ-1	68651	.750 - 1" (20-25mm)
781XTZ-138	67685	1 - 1.375" (25-35mm)
781XTZ-2	67686	1.375 - 2" (35-50mm)

## SQUARES

### Toolmakers' Grade Stainless Steel Squares

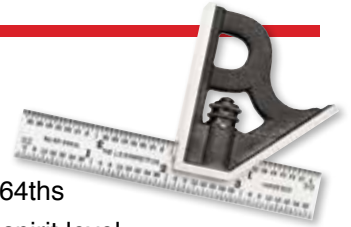
- Hardened steel squares are used when extreme accuracy is required
- Beams and blades are hardened, ground, and lapped to ensure parallelism and straightness
- Beam is grooved at the inner corner for clearance of burr or dirt

Catalog No.	EDP	Size – Length of Blade	Length of Beam
3020-3	12225	2-31/32" (75mm)	1-31/32" (50mm)
3020-4	12226	3-31/32" (100mm)	2-31/32" (75mm)
3020-6	12227	5-29/32" (150mm)	3-29/32" (100mm)
3020-12	12228	12-1/32" (300mm)	6-7/8" (175mm)



### Combination Squares

- Hardened steel blade
- 4R Grads – 8ths, 16ths, Quick Reading 32nds, 64ths
- Reversible lock bolts, scribe, spirit level



Catalog No.	EDP	Size	Blade	Heads
C11H-4-4R	56360	4"	Satin Chrome	Cast Iron
C11H-6-4R	56362	6"	Satin Chrome	Cast Iron
C11H-12-4R	56366	12"	Satin Chrome	Cast Iron

### 12" Combination Square Set

- Direct reading double 180° protractor scale
- Set includes square and blade, center head and protractor head
- 4R Grads

Catalog No.	EDP	Blade	Heads
C434-12-4R	51548	Satin Chrome	Forged Steel

## PRECISION RULES, STRAIGHT EDGES & PARALLELS

### Steel Rules

- 5R Grads – Quick-Reading 10ths, Aircraft Quick-Reading 100ths, 32nds and 64ths
- Made of fine quality steel with easy-to-read satin chrome finish
- Inspected to Starrett Master Standards

Catalog No.	EDP	Length	Width x Thickness	Type
C305R-6	51347	6"	1/2" x 1/64"	Full-flexible
C305R-12	51348	12"	1/2" x 1/64"	Full-flexible
C305R-18	51349	18"	3/4" x 1/50"	Full-flexible
C305R-24	51350	24"	3/4" x 1/50"	Full-flexible

### 6" Steel Rule with Decimal Equivalents

- Fraction and decimal equivalent table

Catalog No.	EDP	Type
C622R-6	56660	Spring-Tempered



### Precision Rules

- 4R Grads – 8ths, 16ths, Quick-Reading 32nds, 64ths

Catalog No.	EDP	Length	Hook Type	Type
C604R-6	52678	6"		Spring-Tempered
C604RE-6	52660	6"		Spring-Tempered
CH604R-6	52673	6"	Reversible Hook	Spring-Tempered
C604R-12	52679	12"		Spring-Tempered
CH604R-12	52674	12"	Reversible Hook	Spring-Tempered
C604R-18	52680	18"		Spring-Tempered
CH604R-18	52675	18"	Hook	Spring-Tempered
C604R-24	52681	24"		Spring-Tempered
CH604R-24	52676	24"	Hook	Spring-Tempered

### Steel Folding Rule with Circumference Measurement

- Measures diameters up to 24" as well as the equivalent circumference measurement in direct reading circumference inches, up to 75"
- 8ths and Circumference 8ths on One Side - 16ths on Reverse Side



Catalog No.	EDP	Width x Thickness
471	52483	3/4" x 1/32"

**PROTRACTORS & ANGLE MEASUREMENT**

**Steel Protractors**

- Rectangular head on C183 provides four convenient working edges
- Useful for setting bevels, transferring angles, small squaring tasks, checking cutter clearances within certain limits
- Double graduations from 0-180° in opposite directions permitting the direct reading of angles and supplementary angles



Catalog No.	EDP	Blade Length	Range
C183	50672	6"	0-180°
C19	50127	6"	0-180°

**AM-2 Angle Meter**

- 0-90°
- Fast, easy and inexpensive angle measurement
- Magnetic base frees hands when used on ferrous surfaces
- Handy rise, run, angle, and pitch information on back of tool



Catalog No.	EDP
AM-2	36080

**Miter and Combination Protractors**

Catalog No.	EDP	Description
CP505A-12	12256	Combination Protractor, Miter Gage, With Compound Cut Conversion Table and Quick Roof Pitch Reference
CP505E-12	20939	Electronic Protractor provides direct readings for setting a saw for miter and straight cuts, a full protractor function with a choice of output and a full 360° swing, horizontal and vertical levels.



**Machinists' Levels with Ground and Graduated Vials**

- Ground and graduated main vials
- Adjustable to a positive setting
- Satin finished brass tube with friction-fit closing cover
- Involute groove running the length of the base

Catalog No.	EDP	Size	Description
98-6	50441	6" (150mm)	With Cross Test Vial
98-8	50442	8" (200mm)	With Cross Test Vial
98-12	50443	12" (300mm)	With Single Plumb Vial and Cross Test Vial

**Cross Test Level and Plumb**

- Cast iron with satin nickel finish
- Plumb level at the top for checking squareness

Catalog No.	EDP	Size	Description
134	50569	2 x 3" (50 x 75mm)	With Cross Test Vials and Plumb Vial



**Master Precision Level**

- Precision-machined on the reference surface
- Groove and bearing flats are machined together
- Auxiliary level vial shows lateral position and assists in horizontal setting
- Reference surface is scraped

Catalog No.	EDP	Length Base	Width Base	Height Level
199Z	50719	15" (380mm)	1-5/8" (40mm)	3" (75mm)



**LEVELS**

## HOLE GAGES

### Engineers' Combination Taper, Wire and Thickness Gage

- Compact steel case
- Locking device keeps leaves in position
- Reverse side has decimal equivalents in thousandths



Catalog No.	EDP	Description
245	51170	Inch Reading, with Taper Gage, English Standard Wire Gage and 9 Inch Reading Thickness Gage Leaves
245M	51171	Millimeter Reading, with Taper Gage, English Standard Wire Gage and 11mm Reading Thickness Gage Leaves

### Taper Gage

- A very useful tool, especially for bearing work and for gaging slots
- Accurately tapered throughout its entire length

Catalog No.	EDP	Range
270	51292	.010-.150" (0.3-4mm)



### Telescoping Gage Sets

- 229 Series range: 1/2-6" (13-150mm)
- Each gage has a handle, one rigid contact arm and one spring-tensioned telescoping contact arm
- 579 gages have two telescoping contacts
- Handles are rigidly attached to contact plungers and are automatically self-centering



Catalog No.	EDP	Description
S229GZ	50929	Set of 5, range of 1/2" – 6" in case
S579GZ	52616	Set of 4, 5/16" – 2-1/8" (8mm – 54mm) in case
S579HZ	52617	Set of 6, 5/16" – 6" (8mm – 150mm) in case

### Small Hole Gages

- Range: .125"-.500"
- All gages are approximately 2" long
- Smooth, sensitive adjustment

Catalog No.	EDP	Description
S830FZ	53081	Set of 5 (830A, 830B, 830C, 830D, 830E) in case

### Small Hole Gages

- Well balanced
- 829 gages for general work; full-ball gages
- 831 gages ideal for accurately measuring small holes, slots, grooves, and recesses

Catalog No.	EDP	Type	Range	Length
829A	53070	Full ball	.125-.200" (3.2-5.1mm)	2-7/8" (75mm)
829B	53071	Full ball	.200-.300" (5.1-7.6mm)	3" (80mm)
829C	53072	Full ball	.300-.400" (7.6-10.2mm)	3-3/8" (85mm)
829D	53073	Full ball	.400-.500" (10.2-12.7mm)	3-1/2" (90mm)
S829EZ	53074	Full ball-Set of 4 in Case	.125-.500" (3.2-12.7mm)	2-7/8 - 3-1/2" (75-90mm)
831A	53083	Half Ball	.125-.200" (3.2-5.1mm)	2-13/16" (70mm)
831B	53084	Half Ball	.200-.300" (5.1-7.6mm)	3-1/8" (80mm)
831C	53085	Half Ball	.300-.400" (7.6-10.2mm)	3-3/8" (85mm)
831D	53086	Half Ball	.400-.500" (10.2-12.7mm)	3-1/2" (90mm)
S831EZ	53087	Half Ball-Set of 4 in Case	.125-.500" (3.2-12.7mm)	2-13/16 - 3-1/2" (70-90mm)





**Time Saver® Tap – hardened, Jobbers’ – hardened & Standard Letter Size Drill Gages**

Time Saver® Tap and Drill Gage – hardened

- Nos. 1 - 60 (.228-.040") range
- Approximate size, 5/64" thick by 2-5/16" wide by 6-1/4" long
- Shows correct tap drill for any common size machine screw tap in National Fine (NF) or National Coarse (NC) Thread Series
- Gage shows the correct body size drill to use



Jobbers' Drill Gage – hardened

- Determine size of any twist drill from 1/16-1/2" by 64ths
- 29 holes marked with the drill size in inches and decimal equivalents

Standard Letter Size Drill Gage

- Quick, convenient checking of letter size drills
- 26 holes for "A" through "Z" drill sizes and decimal equivalents .234" through .413"
- Satin finish

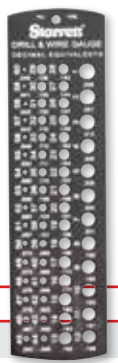
Catalog No.	EDP	Tap Size	Tap Drill	Body Drill
<b>TIME SAVER® TAP AND DRILL GAGE – HARDENED</b>				
185	50675	2-56 to 1/4-28	50 to 3	44 to 1/4

Catalog No.	EDP	Description
<b>JOBBER'S DRILL GAGE – HARDENED</b>		
187	50677	Jobbers' Drill Gage

Catalog No.	EDP	Description
<b>STANDARD LETTER SIZE DRILL GAGE</b>		
198	50718	Standardized Letter Size Drill Gage

**Drill and Steel Wire Gage-hardened**

- Used for selecting correct size of twist drills and steel drill rod
- Each hole is marked with the size number and the corresponding decimal equivalent
- 186 gages have 60 holes for gaging drills from No. 1 to 60 (.228-.040") range
- 286 gages have 20 holes for gaging drills from 61-80 (0.039 - 0.0135") range



Catalog No.	EDP	Description
186	50676	Drill and Steel Wire Gage
286	51320	Drill and Steel Wire Gage-hardened

**Screw Pitch Gages**

- Whitworth Standard
- 55° Threads
- 3-1/2-60 TPI (Inch)
- With positive stop



**FIXED GAGE STANDARDS**

Catalog No.	EDP	Leaf No.	Sizes
476	52488	30	3-1/2, 4, 4-1/2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 36, 40, 44, 48, 50, 60

- V, Unified, American National 60° threads
- International Metric Standard 60° threads
- Consists of a substantial steel case with folding leaves
- Each leaf has teeth corresponding to a definite pitch marked on the leaf
- Various sizes available

Catalog No.	EDP	Description	Leaf No.
6	50035	Screw Pitch Gage V Unified, TPI 4 to 42	30
472	52484	Screw Pitch Gage V Unified, TPI 4 to 84	51
474	52486	Screw Pitch Gage V Unified, 4 to 80	28
156M	50589	Screw Pitch Gage Metric, .25 to 2.5	28
159M	50591	Screw Pitch Gage Metric, 1 to 11.5	28

**Thickness Gages**

- Leaves made of tempered-steel and marked with thickness
- Locking device permits locking leaves in position
- Leaves easily removed or replaced
- Rugged steel case protects leaves
- Carefully finished to correct thickness
- Various leaf sizes available



Catalog No.	EDP	Description	Range	Leaf Size	Leaf No.	Leaf Type
66	50314	Thickness Gage, 26 Straight Leaves	0.0015-0.25"	1/2 x 3-1/32"	26	Straight
66T	50315	Thickness Gage, 26 Tapered Leaves	0.0015-0.25"	1/2-1/4 x 3-1/32"	26	Tapered
467	52464	Thickness Gage, 13 Straight Leaves	0.0015-0.200"	1/2 x 4-1/2"	13	Straight
572A	57098	Thickness Gage, 22 Leaves Plus SP Wires	0.0015-0.035"	1/2 x 3-1/32"	22	Straight

## PRECISION SHOP TOOLS

### Center Punches

- Made of specially selected steel, hardened and tempered
- Points are ground at the proper angle to give maximum service
- Well proportioned with a knurled finger grip
- Tips are accurately centered and ground at the proper angle to give maximum service



ROUND HEAD			
Catalog No.	EDP	Length	Dia. at Top of Tapered Point
117AA	50482	3" (75mm)	1/16" (1.5mm)
117A	50483	4" (100mm)	5/64" (2mm)
117B	50484	4" (100mm)	3/32" (2.5mm)
117C	50485	4" (100mm)	1/8" (3mm)
117D	50486	4" (100mm)	5/32" (4mm)
117E	50487	5" (125mm)	1/4" (6.5mm)
S117PC	50488	Set of 5, 117AA, A, B, C, D in plastic case	

SQUARE HEAD				
Catalog No.	EDP	Length	Dia. at Top of Tapered Point	Square Thickness
264A	51278	3" (75mm)	1/16" (1.5mm)	3/8" (9.5mm)
264B	51279	3-1/2" (88mm)	5/64" (2mm)	3/8" (9.5mm)
264C	51280	3-3/4" (95mm)	3/32" (2.5mm)	3/8" (9.5mm)
264D	51281	4" (100mm)	1/8" (3mm)	3/8" (9.5mm)
264E	51282	4-1/4" (108mm)	5/32" (4mm)	3/8" (9.5mm)
264F	51283	4-1/2" (114mm)	3/16" (5mm)	7/16" (11mm)
264G	51284	5" (125mm)	1/4" (6mm)	7/16" (11mm)
S264WB	51285	Set of 7, 264A, B, C, D, E, F, G in round box		

### Edge Finders

- Locate work surfaces easily, quickly and accurately
- Body and contacts made of tool steel, hardened, ground and lapped to close tolerances



Catalog No.	EDP	Description	Body Diameter	Contact Diameter
827A	53062	Single End	.375"	.200"
827B	53063	Double End	.500"	.200" and pointed contact

### Drive Pin Punches for Machine Shop and Motor Service Work

- Drive pin sections are 3-1/2" (90mm) long
- Well-proportioned, hardened, properly tempered
- Designed to withstand hard use
- Each punch has the size stamped on the head
- Knurled grip



Catalog No.	EDP	Length	Diameter Punch
248A	51181	8" (200mm)	1/8" (3mm)
248B	51182	8" (200mm)	3/16" (5mm)
248C	51183	8" (200mm)	1/4" (6mm)
248D	51184	8" (200mm)	5/16" (8mm)
248E	51185	8" (200mm)	3/8" (9.5mm)
S248PC	51186	Set of 5 punches (1 of each size) in protective vinyl case	
565A	52578	4" (100mm)	1/16" (1.5mm)
565B	52579	4" (100mm)	3/32" (2.5mm)
565C	52580	4" (100mm)	1/8" (3mm)
565D	52581	4" (100mm)	5/32" (4mm)
565E	52582	4" (100mm)	3/16" (5mm)
565F	52583	4" (100mm)	7/32" (5.5mm)
565G	52584	4" (100mm)	1/4" (6mm)
565H	52585	4" (100mm)	5/16" (8mm)
S565WB	52586	Set of 8 punches (1 of each size) in round box	
S565PC	52587	Set of 8 punches (1 of each size) in protective vinyl case	

### Square-Head Nail Sets

- Round knurled grip
- Large, square head provides a large striking surface
- Punch surface is cupped to follow the nail without sliding off
- Punch diameter clearly marked on the head



Catalog No.	EDP	Length	Punch Diameter
800A	53029	4" (100mm)	1/32" (0.8mm)
800B	53030	4" (100mm)	1/16" (1.5mm)
800C	53031	4" (100mm)	3/32" (2.5mm)
800D	53032	4" (100mm)	1/8" (3mm)
800E	53033	4" (100mm)	5/32" (4mm)
SET OF 5 IN PROTECTIVE PLASTIC CASE. ONE EACH OF 800A, B, C, D, E			
S800PC	64131		

PRECISION SHOP TOOLS

**Prick Punches**

- Use when precise positioning of a point or an intersection is required
- Points ground to the correct taper – sharper than the normal center punch
- Allows exact placement of point to provide sharp impressions



Catalog #	EDP #	Length	Diameter at Top of Tapered Point
816A	53043	4" (100mm)	5/64" (2mm)
816B	53044	4" (100mm)	1/8" (3mm)
816D	53046	4" (100mm)	5/32" (4mm)
S816PC	57078	One each 816A, B, D and two center punches 117AA, B – in plastic case	

**Brass Drive Pin Punches**

- Drive pin sections are 3-1/2" (90mm) long
- Non-marking brass
- Knurled grip
- Well proportioned, hardened, properly tempered
- Each punch has the size stamped on the head



Catalog No.	EDP	Description
B248B	12460	Brass Drive Pin Punch, 8", 3/16" Dia
B248C	12461	Brass Drive Pin Punch, 8", 1/4" Dia
B248D	12462	Brass Drive Pin Punch, 8", 5/16" Dia
B248E	12463	Brass Drive Pin Punch, 8", 3/8" Dia
SB248Z	12464	Brass Drive Pin Punch, Set, B248B/C/D/E, case
B565A	12465	Brass Drive Pin Punch, 4", 1/16" Dia
B565B	12466	Brass Drive Pin Punch, 4", 3/32" Dia
B565C	12467	Brass Drive Pin Punch, 4", 1/8" Dia
B565D	12468	Brass Drive Pin Punch, 4", 5/32" Dia
B565E	12469	Brass Drive Pin Punch, 4", 3/16" Dia
B565F	12470	Brass Drive Pin Punch, 4", 7/32" Dia
B565G	12471	Brass Drive Pin Punch, 4", 1/4" Dia
B565H	12472	Brass Drive Pin Punch, 4", 5/16" Dia
SB565Z	12473	Brass Drive Pin Punch Set, 8 piece, case

**Automatic Center Punch with Adjustable Stroke**

- Lightweight, knurled aluminum handle for a positive grip and easy handling
- No hammer required. Just hold the punch in an upright position and press the handle down to strike a perfect center mark every time
- Force of the blow can be adjusted by turning the knurled cap
- Hardened tool steel point is easily removed for resharpener or replacement



Catalog No.	EDP	Length	Diameter
818	53048	5" (125mm)	5/8" (16mm)

**Tap Wrenches**

Tap Wrenches

- Strong and well-proportioned
- Tempered gripping surfaces firmly hold square or round shanks
- Plunger operated by knurled sleeve



T-Handle Tap Wrenches

- For holding taps, drills, reamers and small tools to be turned by hand
- Body is centered for use on lathe centers or upright drilling machines to start tap straight

TAP WRENCHES				
Catalog No.	EDP	Capacity Tap Size	Square Shank	Body Length
91A	50419	1/16 - 1/4" (1.6 - 6.35mm)	3/32 - 5/32" (2.4 - 4mm)	6" (150mm)
91B	50420	3/16 - 1/2" (4.7 - 12.7mm)	5/32 - 9/32"	9" (225mm)
91C	50421	1/4 - 5/8" (6.35 - 16mm)	5/32 - 3/8" (4 - 9.5mm)	12" (300mm)
91D	50422	5/16 - 3/4"	13/64 - 7/16" (5.2 - 11mm)	16" (400mm)

T-HANDLE TAP WRENCHES				
Catalog No.	EDP	Capacity Tap Size	Capacity Square Shank	Body Length
93A	50427	1/16 - 3/16" (1.6 - 4.7mm)	1/16 - 5/32" (1.6 - 4mm)	2" (50mm)
93B	50428	7/32 - 7/16" (5.5 - 11mm)	5/32 - 1/4" (4 - 6.4mm)	2-1/2" (65mm)
93C	50429	1/4 - 1/2" (6.4 - 12.7mm)	3/16 - 5/16" (4.7 - 8mm)	3-1/2" (90mm)

**Pin Vises with Insulated, Octagonal Handles**

- Useful for holding small stock, taps, drills, reamers, scribes, wire, small files, and other tools
- A hole extends through the full length of the handle so that wires can be held



Catalog No.	EDP	Range
166A	50609	0 - .040" (0-1mm)
166B	50610	.030 - .062" (0.8 - 1.6mm)
166C	50611	.050 - .125" (1.3 - 3.2mm)
166D	50612	.115 - .187" (2.9 - 4.8mm)
S166Z	50614	Set of all 4 sizes in protective vinyl case

## PRECISION SHOP TOOLS

### V-Blocks and Clamps for Round or Square Work

- Clamps have screw holes at 45° and 90° to hold either round or square work
- 3/8-16 tapped holes for mounting blocks on faceplates or angle irons
- Hardened steel, precision ground, parallel, and square



Catalog No.	EDP	Description	Capacity
568A	52590	1 V-Block and Clamp	2" (50mm) round, 1-7/16" (36mm) square (1-9/16" (40mm) with Screw at Top)
568C	52592	Complete set with 2 V-Blocks and 2 Clamps (matched pair)	2" (50mm) round, 1-7/16" (36mm) square (1-9/16" (40mm) with Screw at Top)

### Dual-Vee Magnetic V-Block

- All working surfaces are precision ground
- Two precision vees will hold round stock sizes from 1/4 - 1-3/4" (6.4 - 44mm) diameters
- Powerful, permanent magnet controlled by a rotary switch provides sufficient holding power for positive location
- All working surfaces are heat treated for long wear and stability

Catalog No.	EDP	Description	Capacity
566	63323	Dual-Vee Magnetic Block	1-3/4" (44mm)

### V-Blocks and Clamp

- The blocks are made of cast iron, each 1-1/2" (38mm) square and 2" (50mm) long
- The clamp is ribbed for extra strength and will hold work up to 1-1/8" (28mm) in diameter

Catalog No.	EDP	Description	Capacity
268C	51289	2 V-Blocks (One Pair) Clamp	1-1/8"



### Video Borescope

- Camera has a tempered glass lens and durable, corrosion resistant stainless steel body
- Flexible, water resistant 10mm x 39.4mm conduit with metal tip

Catalog No.	EDP	Description
698-10	62810	Video Borescope, manual, video output cable, case.
699-10	62812	Video Borescope, manual, video output cable, USB cable, 2GB Micro SD card, case.

## Lubricants

### M1® All-Purpose Lubricant

- Dries as it protects, avoiding dirt and grime that other lubricants attract
- Prevents rust and corrosion damage with a molecular shield that bonds to the metal
- Cleans and polishes for lasting protection
- Non-soluble in water with a film that protects and lubricates



### Tool and Instrument Oil

- Provides thorough lubrication of close-fitting parts
- Leaves a strong lasting film

Catalog No.	EDP	Description
<b>M1® ALL-PURPOSE LUBRICANT</b>		
M1 95173	95173	12 oz. (0.3 Liter) Aerosol Cans (case of 12)
M-1.01	93221	1 Gal. (3.75 Liters) Container
M-1.05	93227	5 Gal. (19 Liters) Pail
<b>TOOL AND INSTRUMENT OIL</b>		
1620	53216	4 fl. oz. (0.1 liter) Plastic Bottle

## Precision Screwdrivers

- Precision-machined tips
- Vapor-chromed non-slip tips
- Hardened for maximum durability
- Tapered handles allow rapid rotation
- Spin-free finger control cap for precise turning and control

Catalog No.	EDP	Description
S551Z-7	67203	Set of 7 Screwdrivers with Case

## Toolmakers Hammer

- Allows faster, easier and more accurate spotting and punching of centerlines and intersections
- A magnifying lens built into the head of the hammer eliminates the need for a separate glass
- High-power magnification makes it easier to spot the punch and strike
- Chromium plated finish



Catalog No.	EDP
815	53041

## Adjustable-Jaw Cut Nippers

- Ideal for all applications involving wire cutting
- Special design provides powerful leverage for efficient and clean cutting
- Jaws can be adjusted on the frames
- Each jaw has an allowance of about 1/4" (6.4mm)



Catalog No.	EDP
1X-7	50005

### Starrett HB400 Optical Comparator

- 16" (400mm) screen diameter
- Vertically correct image v
- 12" x 6" (300 x 150mm) measuring range (extended 16" X-axis measuring range available)
- 21.25" x 5.125" (540 x 130mm) staging area
- Dual fixturing slots
- Screen-mounted overlay chart clips
- Twin-bundle, adjustable on-axis, fiber optic surface illumination
- Operator glare shields for surface illumination
- Helix angle stage adjustable +/- 15°
- Quick-change, bayonet style lens mount
- Heidenhain .00005" (0.001mm) resolution scales
- Centrally mounted vertical (Y-axis) scale (in-line with lens/workpiece)
- Threadless X-axis quick release for "zero" backlash
- Protective guideway covers for both X and Y axes
- 10x, 20x, 25x, 31.25x, 50x, and 100x magnifications available



Catalog No.	Description
HB400	Optical Comparator

To see our complete lineup of Optical Comparators, Video and Multi-Sensor measuring systems, please go to [Starrett.com](http://Starrett.com).



### VISION & OPTICAL

### KineScope Digital Video Camera

- Precision optics and LED lighting
- Fits in the palm of your hand
- 40-140x magnification to zoom in on the fine details
- Capture images or video and easily add labels, make measurements, and draw on the live image
- Connects to your computer's USB port
- Includes VLink imaging software
- Resolution: 4 microns



Catalog No.	Description
KineScope	Digital Video Camera

### KineMic™ Video Microscope

- Modular-video based inspection system
- Ideal for quality assurance, receiving inspection, training, manufacturing, assembly, research and documentation
- Includes a microscope stand with coarse-fine focus control and zoom lens with a 6:1 ratio magnification range, LED illumination, hi-resolution color video camera and 15" LCD monitor
- Features, Specifications & Options:
  - Monitor: 34x to 215x
  - Field of view: .360" low to .056" high
  - Camera: Color CCD/S-Video output
  - Lighting: LED Ring



Catalog No.	Description
KineMic™	Video Microscope

### CUSTOM SOLUTIONS

### Custom Solutions

- Call for a solution custom built to your specific needs

Cylinder Gage - custom built for Porsche



Ride Height Gage - custom built for Porsche



## SAWS AND WORKSHOP

### Reciprocating Blades

- Bi-metal unique® saw blades for pneumatic (or air) reciprocating saws
- Line includes three blades for metal and a variable pitch multipurpose blade for composites, steel sheets and wood
- Dimensions (Length x Width x Thickness): 3-5/8" x 1/2" x .024" (92mm x 13mm x 0.60mm)



TPI	Catalog No. (2 Pack)	EDP (2 Pack)	Catalog No. (5 Pack)	EDP (5 Pack)	Catalog No. (20 Pack)	EDP (20 Pack)
14	B414-2	16970	B414-5	15319	B414-20	20104
18	B418-2	16971	B418-5	15320	B418-20	20105
24	B424-2	16972	B424-5	15321	B424-20	20106

### Pneumatic Reciprocating Blades

- Industrial quality, high speed steel edge bi-metal blades
- High speed steel cutting edge is welded to a tough, flexible back
- Provides long life and makes them virtually unbreakable
- Dimensions (Length x Width x Thickness): 4" x 3/4" x .035" (100mm x 19mm x 0.90mm)



TPI	Application	Catalog No. (5 Pack)	EDP (5 Pack)	Catalog No. (20 Pack)	EDP (20 Pack)
32	Metal Cutting	BS226-5	13001	BS226-20	13005
24	Metal Cutting	BS227-5	13002	BS227-20	13006
18	Metal Cutting	BS228-5	13003	BS228-20	13007
14-18	Multi-Cutting	BS229-5	13004	BS229-20	13008

### Unified Shank® Jig Saw Blades

- Starrett's exclusive, patented design has changed the shape of one of the most commonly used tools in the industry
- The first and only blades that fit both Universal and Bosch tools
- Perfect for contractors with multiple saws



Catalog No.	EDP	Description
BU3	68750	5 Blade/Pitch Metal Cutting Assortment Pack

### Hole Saw Kits

- Starrett variable pitch bi-metal hole
- Hardened, heat resistant and positive rake high speed steel teeth.



Catalog No.	EDP	Description
<b>GENERAL PURPOSE HOLE SAW KITS</b>		
KDP09051-N	69970	9 Saws, 5 Arbors & Accessories
KDP22051-N	69975	22 Saws, 5 Arbors & Accessories

### Heavy Duty Hacksaw Frame with Blade

- Professional quality closed grip
- High-tension, heavy duty with easy to use adjustment lever and sure ergonomic grip
- **bi-metal unique® HSS Safe-Flex® Hacksaw Blades**
- Reduces blade fracture and breakage for faster cuts and longer life



Catalog No.	EDP	Description
K145	67818	Closed Grip High-Tension Heavy-Duty Hand Hacksaw Frame

### BI-METAL UNIQUE® HSS SAFE-FLEX® HACKSAW BLADES

Catalog No.	EDP	Description	Pack
KBS1024-2	40334	10" x 1/2" x 025"	2/Card
KBS1218-2	40336	10" x 1/2" x 025"	2/Card
KBS1224-2	40337	10" x 1/2" x 025"	2/Card
KBS1232-2	40338	10" x 1/2" x 025"	2/Card
KBS1218-10	40342	10" x 1/2" x 025"	10/Pack
KBS1224-10	40343	10" x 1/2" x 025"	10/Pack
KBS1232-10	40344	10" x 1/2" x 025"	10/Pack

### Wooden Tool Box

- Solid red oak and veneered plywood construction
- Green felt-lined interior
- Lacquer finish
- Polished chrome plated hardware
- Front lid stows under drawers in the open position, and covers drawers in locked position



Catalog No.	Description
300W	20819

**WORKSHOP**

**Measuring Tapes**

- New! Good, Better, Best product line of Pocket tapes.

Catalog No.	EDP	Blade Size	Description
<b>MEASURING TAPES</b>			

**Good**

KTS12-12-N	30660	1/2" x 12'	English
KTS12-12ME-N	30661	1/2" x 12' (3.5m)	English/Metric
KTS12-3.5M-N	30659	1/2" x 3.5m	Metric
KTS34-16-N	30663	3/4" x 16'	English
KTS34-16ME-N	30664	3/4" x 16' (5m)	English/Metric
KTS34-5M-N	30662	3/4" x 5m	Metric
KTS1-25-N	30665	1" x 25'	English
KTS1-26ME-N	30666	1" x 26'/8m	English/Metric
KTS1-8M-N	30667	1" x 8m	Metric
KTS1-30-N	30669	1" x 30'	English
KTS1-33-N	30672	1" x 33'	English
KTS1-33ME-N	30673	1" x 33' (10m)	English/Metric

**Better**

KTX12-12-N	30649	1/2" x 12'	English
KTX12-12ME-N	30650	1/2" x 12' (3.5m)	English/Metric
KTX12-3.5M-N	30648	1/2" x 3.5m	Metric
KTX34-16-N	60400	3/4" x 16'	English
KTX34-16ME-N	30652	3/4" x 16' (5m)	English/Metric
KTX34-5M-N	30651	3/4" x 5m	Metric
KTX1-16-N	30653	1" x 16'	English
KTX1-25-N	30654	1" x 25'	English
KTX1-26ME-N	30655	1" x 26' (8m)	English/Metric
KTX1-8M-N	30656	1" x 8m	Metric
KTX1-30-N	30657	1" x 30'	English
KTX1-35-N	30658	1" x 35'	English

**Best**

KTXP106-16-N	30636	1.06" x 16'	English
KTXP106-16ME-N	30637	1.06" x 16' (5m)	English/Metric
KTXP106-5M-N	30635	1.06" x 5m	Metric
KTXP106-25-N	30638	1.06" x 25'	English
KTXP106-26ME-N	30639	1.06" x 26' (8m)	English/Metric
KTXP106-8M-N	30640	1.06" x 8m	Metric
KTXP106-30-N	30641	1.06" x 30'	English
KTXP106-35-N	30645	1.06" x 35'	English

**Good**

- High quality value priced tape measure
- High visibility impact resistant case
- Positive lock holds blade securely in place.



**Better**

- High quality tape measure
- Impact resistant case and overmolding for improved grip
- Blade protection coating
- Positive lock holds blade securely in place



**Best**

- Heavy-duty impact resistant case with heavy-duty overmolding
- Blade is 1.06" wide providing longer stand out
- Extreme blade protection coating
- Positive lock holds blade securely in place



\*Blade Graduation Style:  
 English: Graduated in 1/16"  
 Metric: Graduated in Millimeters  
 English/Metric: Graduated 1/16" and Millimeters

**STAGGER GAGE**

**Stagger Pro1000**

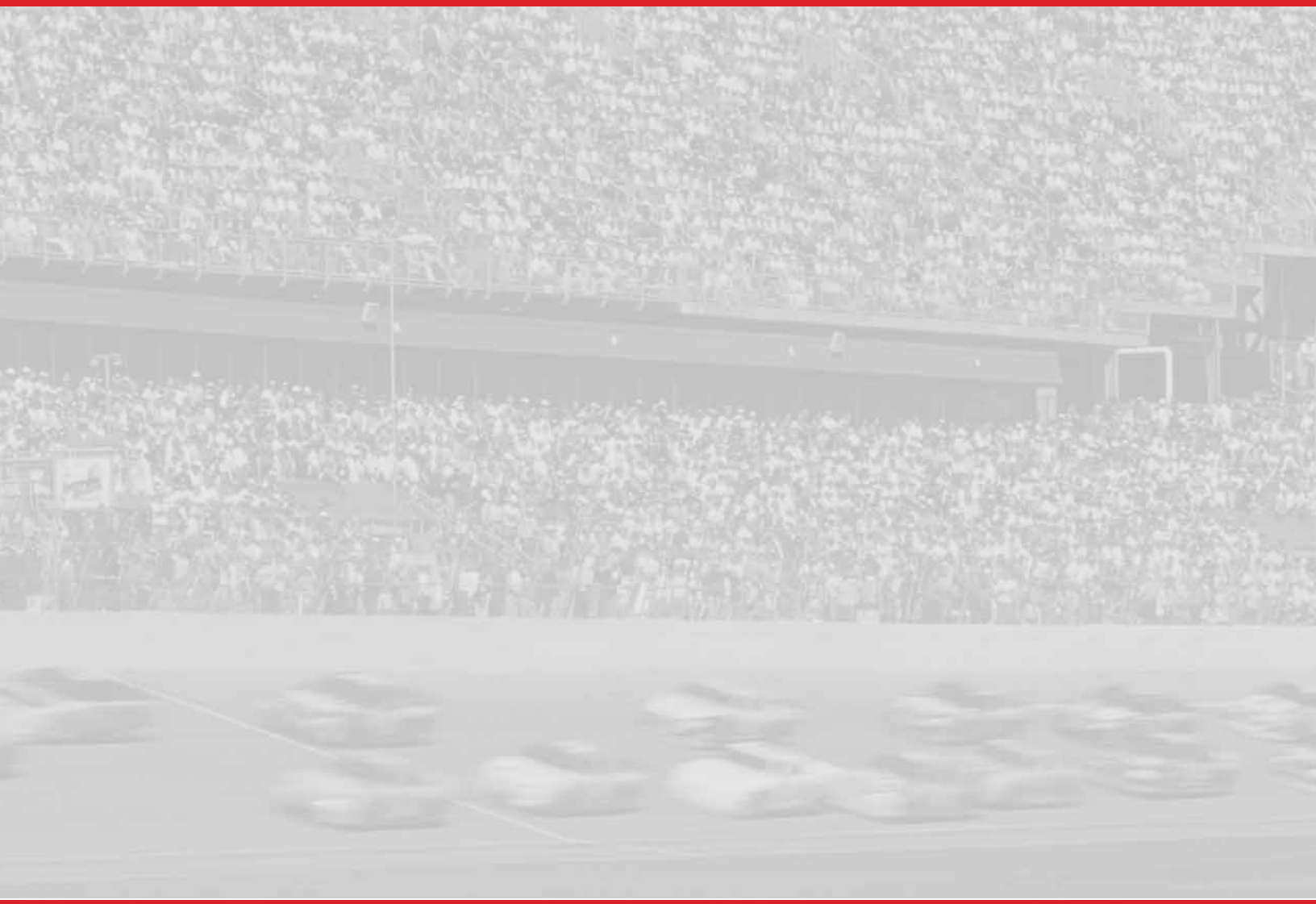
The Stagger Pro 1000 utilizes Starrett electronic caliper technology to quickly and accurately record front and rear stagger for oval track car setup. The Stagger Pro is simple to use and eliminates potential errors that could result in costly setup mistakes. With simple button presses the Stagger Pro quickly measures each tire and calculates the front and rear stagger. Adjustable to accommodate a variety of tire sizes.



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