

Worthington Joining Technologies, a brand of Worthington Industries, markets a complete line of joining technologies products made by professionals for professionals, with 60-plus years of American manufacturing experience going into every product. Worthington products are precisely engineered, quality-tested and safety-assured for guaranteed performance letting our pro customers work without worry.

When you carry the Worthington line of torches, fuel, solder, brazing and accessories, you get more than just professional-grade products. You get the confidence of a direct, manufacturer-to-distributor relationship. We manufacture products and deliver straight to our distributors, so we control quality, customer service and lead time expectations. No middlemen, no hassles, no headaches.

Worthington products are offered through wholesale plumbing and HVAC distributors.

# Contact Worthington Joining Technologies Customer Service or a Representative near you:

For faxed orders, please send orders to: 614-840-4721

For emailed orders, please send orders to: joiningtech@worthingtonindustries.com

For all phone inquiries, please dial: **877-974-8672** or **614-438-3013** 

Worthington Cylinders Remit-To Address: Worthington Cylinders 27406 Network Place Chicago, IL 60673-1274

See price sheet for order minimums and pre-paid freight information.

SDS available in hard copy or downloadable from worthingtonjoiningtech.com

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### **"B" AIR ACETYLENE KITS**

Pack Higher Performance in an Easier-To-Carry Package

FIT ANY BRAND UNIVERSAL PARTS

| WOR PROD NO | DESCRIPTION           | TIPS INCLUDED                             |
|-------------|-----------------------|---|
| 331805      | "B" Air Acetylene Kit | A3 3/16" Swirl Flame Tip                  |
| 331959      | "B" Air Acetylene Kit | A5 1/4" Swirl Flame Tip                   |
| 331799      | "B" Air Acetylene Kit | A5 1/4" & A14 1/2" Swirl Flame Tips       |
| 331811      | "B" Air Acetylene Kit | AA500 1/4" Self-Igniting Swirl Flame Tip  |
| 331945      | "B" Air Acetylene Kit | AA800 5/16" Self-Igniting Swirl Flame Tip |

Tip size and quantity vary by kit. See chart above

#### All kits contain the following: Air Acetylene Piston AA Hose AA Torch Regulator With Handle WOR: 331776 Tanktote Handle, WOR: 331781 (12 1/2') Gauge Guard And 2" WOR: 331783 Easy Read Gauge (25') WOR: 331778 "B" WOR: 331943 "MC" Tanktote One Or More Tank Sleeve Swirl Flame, Key Or Self Igniting WOR: 331942 (B) WOR: 331775 Swirl Flame Tips WOR: 331973 (MC) See features and details on pages 6-8.

**Tank Not Included** 

**Tank Not Included** 

### "MC" AIR ACETYLENE KITS

Pack Higher Performance in an Easier-To-Carry Package

FIT ANY BRAND UNIVERSAL PARTS

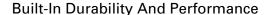
| WOR PROD NO | DESCRIPTION            | TIPS INCLUDED                             |
|-------------|------------------------|---|
| 331953      | "MC" Air Acetylene Kit | A5 1/4" Swirl Flame Tip                   |
| 331812      | "MC" Air Acetylene Kit | A3 3/16" & A8 5/16" Swirl Flame Tips      |
| 331960      | "MC" Air Acetylene Kit | AA500 1/4" Self-Igniting Swirl Flame Tip  |
| 331949      | "MC" Air Acetylene Kit | AA800 5/16" Self-Igniting Swirl Flame Tip |

Tip size and quantity vary by kit. See chart above





FIT ANY BRAND UNIVERSAL PARTS



All Brass Piston Regulator

Provides consistent performance

Metal Strain Relief

Keeps hose from kinking

High Performance Swirl Flame Tips

With replaceable burn tips produce maximum heat output

Gauge Guard Protects 2" Easy Read Gauge

| WOR PROD NO | DESCRIPTION       | TIPS INCLUDED                            |
|-------------|-------------------|--|
| 331804      | Air Acetylene Kit | A3 3/16" & A11 7/16" Swirl Flame Tips    |
| 331807      | Air Acetylene Kit | A5 1/4" & A14 1/2" Swirl Flame Tips      |
| 331952      | Air Acetylene Kit | A5 1/4" Swirl Flame Tip and B-MC Adapter |
| 331956      | Air Acetylene Kit | AA800 5/16" Self-Igniting Tip            |

Tip size and quantity vary by kit. See chart above

## All kits contain the following:



All Brass Piston Regulator With Gauge Guard And 2" Easy Read Gauge

WOR: 331944





AA Hose

WOR: 331776
(12 1/2')

WOR: 331783

(25')



One Or More Swirl Flame, Or Self Igniting Swirl Flame Tips



Tank Key

WOR: 331775

See features and details on pages 6-8.

Made in the USA

Self-Igniting Tip Shown





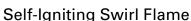
### **AIR ACETYLENE TORCH TIPS**

FIT ANY BRAND UNIVERSAL PARTS

Brass And Stainless Construction Replaceable Burn Tip, Orifice & "O" Ring Quick Connect

| ( | Swirl Flar  | ma  |          |      | PIPE SIZE   |         |           |        |
|---|---|---|----------|------|-------------|---------|-----------|--------|
| • | יייייי ווועעכ   | 116   | TIP SIZE |      | SOFT SOLDER |         | BRAZING   |        |
|   | WOR PROD NO   | DESCRIPTION   | IN.      | MM.  | IN.         | MM.     | IN.       | MM.    |
|   | 331946  | 331946 A2-Light-duty HVAC tip 331806 A3-Light-medium-duty tip |          | 3    | 1/8-1/2     | 3–13    | 1/8-1/4   | 3-6    |
|   | 331806  |   |          | 4.8  | 1/4-1       | 6–25    | 1/8-1/2   | 3-13   |
|   | 331801  | A5-Medium-duty tip  | 1/4      | 6.3  | 3/4-1-1/2   | 19-40   | 1/4-3/4   | 6-20   |
|   | 331809  | A8-Medium-heavy-duty tip                                      | 5/16     | 7.9  | 1–2         | 25-50   | 1/2-1     | 13-25  |
|   | 331803 A11-Heavy-duty tip 331800 A14-Extra-heavy-duty tip |   | 7/16     | 11.1 | 1-1/2-3     | 40-75   | 7/8-1-5/8 | 22-41  |
|   |   |   | 1/2      | 12.7 | 2-3-1/2     | 50-90   | 1–2       | 25-50  |
|   | 331797  | A32-Heaviest-duty tip   | 5/8      | 15.9 | 4-6         | 100-150 | 1-1/2-4   | 40-100 |





| Sen-igniting Swin Flame |                             |          |      |            |        |         |       |
|-------------------------|-----------------------------|----------|------|------------|--------|---------|-------|
| Jon Igilitili           | 9 3 7 7 11 11 11 11         | TIP SIZE |      | SOFT SOLDE |        | BRAZING |       |
| WOR PROD NO             | DESCRIPTION                 | IN.      | MM.  | IN.        | MM.    | IN.     | MM.   |
| 331951                  | AA500-Medium-duty tip       | 1/4      | 6.3  | 3/4-1-1/2  | 20-40  | 1/4-3/4 | 6-20  |
| 331947                  | AA800-Medium-heavy-duty tip | 5/16     | 7.9  | 1–2        | 25-50  | 1/2-1   | 13-25 |
| 331948                  | AA900-Extra-heavy-duty tip  | 1/2      | 12.7 | 2-4        | 50-100 | 1–2     | 25-50 |



PIPE SIZE



### **AIR ACETYLENE ACCESSORIES**



"B" Tanktote Sleeve wor: 331942



"MC" Tanktote Sleeve wor: 331973



Air Acetylene Piston Regulator with TankTote Handle, Gauge Guard and 2" Easy Read Gauge

FIT ANY BRAND UNIVERSAL PARTS

WOR: 331778 "B" WOR: 331943 "MC"

- Protects 2" Easy Read Gauge from damage
- Transport tank easily
- Integrated tank key storage
- "B" tank = CGA520
- "MC" tank = CGA200
- Outlet = CGA021, 3/8-24 UNF LH thread



AA Torch Handle

WOR: 331781

- Comfortable grip with on/off valve and quick connect
- "A" Size fittings 3/8"
- Inlet is CGA021, 3/8-24 UNF LH thread



All Brass Piston Regulator With Gauge Guard

WOR: 331944

• Solid brass regulator with gauge B connection



Striker WOR: 331774



Tank Key WOR: 331775



Torch Heat Shield Cloth

WOR: 331939

• 9"x12" (22.86cm x 30.48cm)



#### AA Hose

WOR: 331776 (12 1/2') WOR: 331783 (25')

- Metal strain relief keeps hose from kinking at fittings
- "A" size fittings 3/8"
- Fittings are CGA021, 3/8-24 UNF LH thread



"B" to "MC" Adapter wor: 331779

- Adapts "B" regulator to fit "MC" tanks
- "B" tank = CGA520
- "MC" tank = CGA200



Flint 5 pack wor: 331777







### **AIR PROPANE / PROPYLENE KITS**

Pack High Performance in a Durable Kit

FIT ANY BRAND UNIVERSAL PARTS

#### All Kits Contain The Following:

- All Brass Piston Regulator with Gauge Guard and 2" Easy Read Gauge
- 12-1/2' Hose with Metal Strain Relief
- AP Handle

**((((((((()))))))))** 

One or More Swirl Flame Tip or Self-Igniting Swirl Flame Tip

| WOR PROD NO | DESCRIPTION                 | TIPS INCLUDED                            |
|-------------|-----------------------------|--|
| 331950      | Air Propane / Propylene Kit | LP3 3/8" & LP5 3/4" Swirl Flame Tips     |
| 331966      | Air Propane / Propylene Kit | LP4 1/2" Swirl Flame Tip                 |
| 331955      | Air Propane / Propylene Kit | LP300 3/8" Self-Igniting Swirl Flame Tip |
| 331963      | Air Propane / Propylene Kit | LP400 1/2" Self-Igniting Swirl Flame Tip |
|             |                             |  |

Tip size and quantity vary by kit. See chart above

**Tank Not Included Self-Igniting Tip Shown** 

### **AIR PROPANE / PROPYLENE ACCESSORIES**





Air Propane / Propylene Piston Regulator with Gauge Guard and 2" Easy Read Gauge

WOR: 331940

- Provides consistent fuel regulation
- Durable brass construction
- Protects 2" Easy Read Gauge from damage



Air Propane / Propylene Torch Handle

WOR: 331941

- Comfortable grip with on/off valve and quick connect
- Fitting size 9/16"
- Inlet is CGA023. 9/16-18 UNF



12-1/2' Hose with metal strain relief

WOR: 331780

25' Hose with metal strain relief

WOR: 331782

- Metal strain relief keeps hose from kinking at fittings
- Fittings are CGA023, 9/16-18 UNF







### **AIR PROPANE / PROPYLENE TIPS**

FIT ANY BRAND UNIVERSAL PARTS

Brass And Stainless Construction Replaceable Burn Tip, Orifice & "O" Ring Quick Connect

#### Swirl Flame

|        |             |  |      | CUPPER TUBING SIZE WITH PRUPANE |        |              |                    | CUPPERTUE      | SING SIZE W | ITH MAP-PKU    | J      |
|--------|-------------|--|------|---------------------------------|--------|--------------|--------------------|----------------|-------------|----------------|--------|
|        |             | TIP SIZE SOFT SOLDER BRAZING SOFT SOLD |      |                                 |        | SOFT SOLDE   | OFT SOLDER BRAZING |                |             |                |        |
| MODELS | WOR PROD NO | IN.                                    | MM.  | IN.                             | MM.    | IN.          | MM.                | IN.            | MM.         | IN.            | MM.    |
| P2     | 331964      | 5/16                                   | 7.9  | 1/8-1/4                         | 3-6    | 1/16-1/4     | 2-6                | 1/8-1/2        | 3–13        | 1/8-1/4        | 3-6    |
| P3     | 331967      | 3/8                                    | 9.5  | 1/4-1                           | 6-25   | 1/8-1/2      | 3-13               | 1/4-1-1/2      | 6-40        | 1/4-1/2        | 6–13   |
| P4     | 331972      | 1/2                                    | 12.7 | 1/4-1-1/2                       | 6-40   | 1/4-3/4 6-19 | 6-19               | 1/4-2-1/2 6-63 | 6-63        | 1/4-1-1/4 6-32 | 6-32   |
| P5     | 331954      | 3/4                                    | 19   | 1-1/2-2-1/2                     | 40-63  | 1/2-1-1/4    | 13-32              | 1-4            | 25-100      | 1/2-2          | 13-50  |
| P6     | 331957      | 1                                      | 25   | 1-1/2-4                         | 40-100 | 3/4-2        | 19-50              | 1-1/2-6        | 40-150      | 3/4-4          | 19-100 |





|        |             |     |      | CUPPER TUBING SIZE WITH PRUPANE |                       |         | UBING SIZE WITH PRUPANE CUPPER TUBING SIZE WITH MAP-PRU |            |      |           |      |
|--------|-------------|-----|------|---------------------------------|-----------------------|---------|---|------------|------|-----------|------|
|        | TIP SIZE    |     |      | SOFT SOLDE                      | SOFT SOLDER BRAZING S |         |   | SOFT SOLDE |      | BRAZING   |      |
| MODELS | WOR PROD NO | IN. | MM.  | IN.                             | MM.                   | IN.     | MM.   | IN.        | MM.  | IN.       | MM.  |
| P300   | 331815      | 3/8 | 9.5  | 1/4-1                           | 6-25                  | 1/8-1/2 | 3-13  | 1/4-1-1/2  | 6-40 | 1/4-1/2   | 6-13 |
| P400   | 331816      | 1/2 | 12.7 | 1/4-1-1/2                       | 6-40                  | 1/4-3/4 | 6-19  | 1/4-2-1/2  | 6-63 | 1/4-1-1/4 | 6-32 |









### **SELF-IGNITING HAND TORCHES**

Maximum Heat Output, Durability, and Safety

Targeted Heat Output
For accurate and efficient performance

#### **Cast Aluminum Construction**

Provides outstanding durability

| MODELS | WOR PROD NO | REPLACEMENT BURN TIPS | DESCRIPTION  |
|--------|-------------|-----------------------|--|
| LT92   | 361508      | _                     | Ultra Swirl with Adjustable Flame                    |
| LT92R  | 331802      | 331795                | Adjustable Ultra Swirl Replacement Assembly          |
| LT91   | 361506      | _                     | Swirl with Adjustable Flame                          |
| LT91R  | 331813      | 331794                | Adjustable Swirl Replacement Assembly                |
| LT90   | 361504      | _                     | Swirl Flame Hand Torch                               |
| LT90R  | 331979      | 331794                | Swirl Flame Replacement Assembly                     |
| LT60   | 361502      | _                     | Heat Shrink Hand Torch                               |
| LT60R  | 331980      | 331798                | Heat Shrink Replacement Assembly                     |
| LS20   | 361499      | _                     | Self-Igniting 360° Swivel Torch                      |
| LS20R  | 331981      | 331814                | Self-Igniting 360° Swivel Torch Replacement Assembly |







### **REPLACEMENT HAND TORCH TIPS**

Replacement Torch Tips for Worthington Hand Torches



|        |             |              |                   | COPPERTUBIN | COPPER TUBING SIZE WITH PROPANE |          |      | COPPER TUBING SIZE WITH MAP-PRO™ |        |           |      |
|--------|-------------|--------------|-------------------|-------------|---------------------------------|----------|------|----------------------------------|--------|-----------|------|
|        |             | REBUILD KITS | REPLACEMENT       | SOFT SOLDER |                                 | BRAZING  |      | SOFT SOLDER                      |        | BRAZING   |      |
| MODELS | WOR PROD NO | PRODUCT NO   | BURN TIP ASSEMBLY | IN.         | MM.                             | IN.      | MM.  | IN.                              | MM.    | IN.       | MM.  |
| LT90   | 361504      | 331979       | 331794            | 1/8-2       | 3-50                            | 1/16-3/4 | 2-19 | 1/8-3                            | 3-75   | 1/16–1    | 2-25 |
| LT91   | 361506      | 331813       | 331794            | 1/8-2       | 3-50                            | 1/16-3/4 | 2-19 | 1/8-3                            | 3-75   | 1/16–1    | 2-25 |
| LT92   | 361508      | 331802       | 331795            | 3/4-3       | 19-75                           | 1/4-1    | 6-25 | 3/4-4                            | 19-100 | 1/4-1-3/4 | 6-45 |
| LT60   | 361502      | 331980       | 331798            | _           | _                               | _        | _    | _                                | _      | _         | _    |
| LS20   | 361499      | 331981       | 331814            | 1/4-3       | 6-75                            | 1/4-1    | 6-25 | 1/4-3-1/2                        | 6-85   | 1/4-1-3/4 | 6-45 |







### **HAND TORCH KITS**

Hot Performance. Cool Mobility.

#### Storage

- Improved carrying case holds two Worthington 14.1 oz gas cylinders
- Store and transport any cast-body aluminum torch
- Handle folds down for easy storage
- Added space for solder, flux and accessories

#### Protection

• Durable case protects fuel, torch and accessories



#### **HOLDS:**

- One cast-body aluminum torch
- Two 14.1 oz torch fuel cylinders
- One 1lb. solder
- One 8 oz. flux
- One 4-in-1 brush

Solder accessories & tools only included in WLT92STRL, shown below

| WOR PROD NO | DESCRIPTION   | HAND TORCH<br>INCLUDED |
|-------------|---|------------------------|
| 354947      | Case Only   | _                      |
| 354949      | Hand Torch & Case Only  | LT92                   |
| 354954      | Hand Torch, Case, MAP-Pro™ Cylinders                              | LT92                   |
| 354957      | Hand Torch, Case, Transport Canada<br>Approved MAP-Pro™ Cylinders | LT92                   |
| 354951      | Hand Torch, Case, MAP-Pro™ Cylinders,<br>Solder, Flux, Brush      | LT92                   |
| 360878      | Hand Torch, Case, MAP-Pro™ Cylinders                              | LT91                   |
| 360879      | Hand Torch, Case, Transport Canada<br>Approved MAP-Pro™ Cylinders | LT91                   |



WLT9C wor: 354947

 Carrying Case Only



WLT92C

WOR: 354949

- Carrying Case
- LT92 Hand Torch



WLT92CF/ WLT92CF-TC\*

WOR: 354954 (WLT92CF) 354957 (WLT92CF-TC\*)

- Carrying Case
- LT92 Hand Torch
- 2 14.1 Oz. MAP-Pro™ Cylinders\*



WLT92STRL

#### WOR: 354951

- Carrying Case
- LT92 Hand Torch
- 2 14.1 Oz. MAP-Pro™ Cylinders
- 1 Lb. Sterling Solder
- 8 Oz. Water-Soluble Flux
- 4-In-1 Brush



#### WLT91CF/ WLT91CF-TC\*

WOR: 360878 (WLT91CF)
360879 (WLT91CF-TC\*)

- Carrying Case
- LT91 Hand Torch
- 2 14.1 Oz. MAP-Pro™ Cylinders\*

<sup>\*</sup>Transport Canada Approved MAP-Pro™ Cylinders







## **FUEL**

|             |                                   | CASE PACK |
|-------------|-----------------------------------|-----------|
| WOR PROD NO | DESCRIPTION                       | QTY.      |
| 332399      | 14.1 oz NRT Propane Gas - US      | 12        |
| 332400      | 14.1 oz NRT Propane Gas - CANADA  | 12        |
| 332401      | 14.1 oz NRT MAP-Pro™ Gas - US     | 12        |
| 332402      | 14.1 oz NRT MAP-Pro™ Gas - CANADA | 12        |







### PREMIUM LEAD-FREE SOLDER

#### Meets Highest Product Standards

NSF 61 Certification for safe use in potable water applications

### 100% Environmentally Safe

Completely free of antimony or nickel





#### Sterling Lead-Free

- Lowest melting temperature: 410° F
- Highest tensile strength: 7130 psi
- Best flowing lead-free solder available
- Formula advantages

|                |                     | WFIG | WEIGHT |      | DIAMETER |      |
|----------------|---------------------|------|--------|------|----------|------|
| WOR<br>PROD NO | DESCRIPTION         | LB.  | G.     | IN.  | MM.      | QTY. |
| 331755         | Sterling Wire Spool | 1    | 454    | .118 | 3        | 50   |
| 331842*        | Sterling Wire Spool | 1    | 454    | .118 | 3        | 50   |
| 331841         | Sterling Wire Spool | 1    | 454    | .118 | 3        | 20   |
| 331843         | Sterling Wire Spool | 1    | 454    | .062 | 1.6      | 50   |
| 331897         | Sterling Wire Spool | 1/4  | 113    | .118 | 3        | 50   |
| 331896         | Sterling Wire Spool | 1/2  | 227    | .118 | 3        | 50   |
| 331898         | Sterling Wire Spool | 5    | 2270   | .118 | 3        | 10   |
| 331895         | Sterling Wire Spool | 5    | 2270   | .062 | 1.6      | 10   |
| 331899         | Sterling Sm Ingot   | 5    | 2270   | _    | _        | 10   |

<sup>\*</sup>Spool is not sold in an individual box





#### Premium Silver Lead-Free

- Low melting temperature: 440° F
- · High tensile strength: 6900 psi
- Ideal for use on large diameter pipe
- Wide pasty range (440°-640° F) allows for more working time

|                |                   | WEIG | WEIGHT |      | DIAMETER |      |
|----------------|-------------------|------|--------|------|----------|------|
| WOR PROD<br>NO | DESCRIPTION       | LB.  | LB. G. |      | MM.      | QTY. |
| 331756         | Silver Wire Spool | 1    | 454    | .118 | 3        | 50   |
| 331859*        | Silver Wire Spool | 1    | 454    | .118 | 3        | 50   |
| 331844         | Silver Wire Spool | 1    | 454    | .118 | 3        | 20   |
| 331900         | Silver Wire Spool | 1/4  | 113    | .118 | 3        | 50   |
|                |                   |      |        |      |          |      |

<sup>\*</sup>Spool is not sold in an individual box





#### Select Lead-Free

- Low melting temperature: 419° F
- High tensile strength: 6950 psi
- Increased flow properties
- Formula advantages

|                |                      | WEIG | WEIGHT |      | DIAMETER |      |
|----------------|----------------------|------|--------|------|----------|------|
| WOR PROD<br>NO | DESCRIPTION          | LB.  |        |      | MM.      | QTY. |
| 331754         | Lead-Free Wire Spool | 1    | 454    | .118 | 3        | 50   |
| 331838*        | Lead-Free Wire Spool | 1    | 454    | .118 | 3        | 50   |
| 331836         | Lead-Free Wire Spool | 1    | 454    | .093 | 2.4      | 50   |
| 331894         | Lead-Free Wire Spool | 1/4  | 113    | .118 | 3        | 50   |
| 331893         | Lead-Free Wire Spool | 1/2  | 227    | .118 | 3        | 50   |

<sup>\*</sup>Spool is not sold in an individual box





### Ranger Lead-Free

- Designed to imitate the flow characteristics of the federally banned tin-lead solders for potable water systems
- Low melting temperature: 460° F
- Wide pasty range (460°-660° F) for both tight and loose fitting connections

|                |                   | WEIGHT |     | DIAMETER |     | CARTON |
|----------------|-------------------|--------|-----|----------|-----|--------|
| WOR PROD<br>NO | DESCRIPTION       | LB.    |     |          | MM. | QTY.   |
| 374243         | Ranger Wire Spool | 1      | 454 | .062     | 1.6 | 50     |
| 374240         | Ranger Wire Spool | 1      | 454 | .118     | 3   | 50     |





### **LEAD-FREE SOLDER**

For Use In Plumbing And Potable Water Applications



#### Silver Bearing Alloy Lead-Free

- NSF 61 Certification for safe use in potable water applications
- Lead-Free Tin-Copper-Silver Solder
- Wide pasty range

• Melting temperature: 440° F

• Tensile strength: 6600 psi

• ASTM B-32



| WOR PROD NO | DESCRIPTION                     |  |
|-------------|---------------------------------|--|
| 331762      | Silver Bearing Alloy Spool      |  |
| 331910      | Silver Bearing Alloy Wire Spool |  |

|   | WEIGH | l   | DIAME | IEN | CANTUN |
|---|-------|-----|-------|-----|--------|
|   | LB.   |     |       | MM. | QTY.   |
|   | 1     | 454 | .118  | 3   | 50     |
| l | 1/4   | 113 | .118  | 3   | 50     |



#### 97/3 Lead-Free

- NSF 61 Certification for safe use in potable water applications
- Lead-Free Tin-Copper Solder
- Melting temperature: 445° F

| - 1 | vieits, | TIOWS | ana | pertorms | petter |
|-----|---------|-------|-----|----------|--------|
| t   | han 9   | 5/5   |     |          |        |

• Tensile strength: 5800 psi



|             |                 | WEIGH | WEIGHT |      | DIAMETER |      |
|-------------|-----------------|-------|--------|------|----------|------|
| WOR PROD NO | DESCRIPTION     | LB.   | G.     | IN.  | MM.      | QTY. |
| 331761      | 97/3 Wire Spool | 1     | 454    | .118 | 3        | 50   |
| 331864      | 97/3 Wire Spool | 1     | 454    | .062 | 1.6      | 50   |
| 331904      | 97/3 Wire Spool | 1/4   | 113    | .118 | 3        | 20   |
| 331903      | 97/3 Wire Spool | 1/2   | 227    | .118 | 3        | 50   |



#### 95/5 Lead-Free

- Lead-Free Tin-Antimony Solder
- Narrow pasty range
- Melting temperature: 455° F

• Tensile strength: 5500 psi

• ASTM B-32



|             |                 | WEIGH | WEIGHT |      | DIAMETER |      |
|-------------|-----------------|-------|--------|------|----------|------|
| WOR PROD NO | DESCRIPTION     | LB.   | G.     | IN.  | MM.      | QTY. |
| 331760      | 95/5 Wire Spool | 1     | 454    | .118 | 3        | 50   |
| 331861      | 95/5 Wire Spool | 1     | 454    | .093 | 2.4      | 50   |
| 331902      | 95/5 Wire Spool | 1/4   | 113    | .118 | 3        | 50   |
| 331901      | 95/5 Wire Spool | 1/2   | 227    | .118 | 3        | 50   |





### **HVAC LEAD-FREE SOLDER**





#### 96/4 Lead-Free

- Lead-Free 96%, Tin 4% Silver HVAC Solder
- NSF 61 Certification for safe use in potable water applications
- Alternative to silver brazing rods
- Use for joining copper or brass to copper or brass, copper or brass to steel or stainless, steel or stainless to steel or stainless
- Melting temperature: 430° F
- Tensile strength: 14,000 psi
- ASTM B-32 Sn96

|             |                      | WEIGHT |     | DIAMETER |     | CARTON |
|-------------|----------------------|--------|-----|----------|-----|--------|
| WOR PROD NO | DESCRIPTION          | LB.    | G.  | IN.      | MM. | QTY.   |
| 331863      | 96/4 HVAC Wire Spool | 1      | 454 | .118     | 3   | 10     |
| 331862      | 96/4 HVAC Wire Spool | 1      | 454 | .062     | 1.6 | 10     |







#### 94/6 Lead-Free

- Lead-Free 94%, Tin 6% Silver HVAC Solder
- NSF 61 Certification for safe use in potable water applications
- Alternative to silver brazing rods
- Use for joining copper or brass to copper or brass, copper or brass to steel or stainless, steel or stainless to steel or stainless
- Melting temperature: 430° F
- Pasty range: 430°–535° F
- Tensile strength: 15,000 psi
- ASTM B-32 Sn94

|             |                      | WEIGHT |     | DIAMETER |     | CARTON |
|-------------|----------------------|--------|-----|----------|-----|--------|
| WOR PROD NO | DESCRIPTION          | LB.    | G.  | IN.      | MM. | QTY.   |
| 331860      | 94/6 HVAC Wire Spool | 1      | 454 | .118     | 3   | 10     |



### **SPECIALTY LEAD-FREE SOLDER**



#### Acid Core Lead-Free

- Use for tin repairs, sheet metal, auto radiators, metal gutters, non-electrical and non-plumbing applications
- Melting temperature: 445° F
- Not for use in plumbing or potable water applications

|            |                      | WEIGH | IT  | DIAMET | TER | CARTON |
|------------|----------------------|-------|-----|--------|-----|--------|
| WOR PROD N | O DESCRIPTION        | LB.   | G.  | IN.    | MM. | QTY.   |
| 331865     | Acid Core Wire Spool | 1     | 454 | .062   | 1.6 | 50     |
| 331866     | Acid Core Wire Spool | 1     | 454 | .125   | 3.2 | 50     |
| 331907     | Acid Core Wire Spool | 1/2   | 227 | .062   | 1.6 | 18     |



#### Rosin Core Lead-Free

- Lead-Free Rosin Core Solder
- Use for speaker wire, motors, appliances and general electronic repairs
- Melting temperature: 445° F
- Not for use in plumbing or potable water applications

|             |                       | WEIGH | IT  | DIAMET | ΓER | CARTON |
|-------------|-----------------------|-------|-----|--------|-----|--------|
| WOR PROD NO | DESCRIPTION           | LB.   | G.  | IN.    | MM. | QTY.   |
| 331868      | Rosin Core Wire Spool | 1     | 454 | .062   | 1.6 | 50     |
| 331867      | Rosin Core Wire Spool | 1     | 454 | .031   | .8  | 50     |
| 331870      | Rosin Core Wire Spool | 1     | 454 | .040   | 1   | 50     |
| 331869      | Rosin Core Wire Spool | 1     | 454 | .050   | 1.3 | 50     |
| 331871      | Rosin Core Wire Spool | 1     | 454 | .100   | 2.5 | 50     |
| 331872      | Rosin Core Wire Spool | 1     | 454 | .125   | 3.2 | 50     |
| 331909      | Rosin Core Wire Spool | 1/4   | 113 | .062   | 1.6 | 50     |
| 331908      | Rosin Core Wire Spool | 1/2   | 227 | .062   | 1.6 | 18     |







### **LEADED SOLDER**

For Use Only In Non-Potable Water Applications

#### 50/50 Leaded

• 50% Tin. 50% Lead Solder

| ,           |                  | WEIGH | T    | DIAME | TER | CARTON |
|-------------|------------------|-------|------|-------|-----|--------|
| WOR PROD NO | DESCRIPTION      | LB.   | G.   | IN.   | MM. | QTY.   |
| 331753      | 50/50 Wire Spool | 1     | 454  | .125  | 3.2 | 50     |
| 331887      | 50/50 Wire Spool | 1/4   | 113  | .125  | 3.2 | 50     |
| 331886      | 50/50 Wire Spool | 1/2   | 227  | .125  | 3.2 | 50     |
| 331888      | 50/50 Wire Spool | 5     | 2270 | .125  | 3.2 | 10     |

#### 40/60 Leaded

• 40% Tin, 60% Lead Solder

|             |                  | WLIGH |     | DIAIVIL | LII . | CAITTON |
|-------------|------------------|-------|-----|---------|-------|---------|
| WOR PROD NO | DESCRIPTION      | LB.   | G.  | IN.     | MM.   | QTY.    |
| 331881      | 40/60 Wire Spool | 1/2   | 227 | .125    | 3.2   | 50      |
| 331850      | 40/60 Wire Spool | 1     | 454 | .125    | 3.2   | 50      |

#### 60/40 Leaded

60% Tin, 40% Lead Solder

|             |                  | WEIGH | T   | DIAME | TER | CARTON |
|-------------|------------------|-------|-----|-------|-----|--------|
| WOR PROD NO | DESCRIPTION      | LB.   |     |       | MM. | QTY.   |
| 331858      | 60/40 Wire Spool | 1     | 454 | .125  | 3.2 | 50     |

### **SPECIALTY LEADED SOLDER**

For Use Only In Non-Potable Water Applications



#### Rosin Core Leaded

- Use for speaker wire, motors, appliances and general electronic repairs
- Tin-Lead Rosin Core Solder

|             |                             | WEI | jH I | DIAME | IEK | CARION |
|-------------|-----------------------------|-----|------|-------|-----|--------|
| WOR PROD NO | DESCRIPTION                 | LB. | G.   | IN.   | MM. | QTY.   |
| 331855      | 60/40 Rosin Core Wire Spool | 1   | 454  | .062  | 1.6 | 50     |
| 331856      | 60/40 Rosin Core Wire Spool | 1   | 454  | .031  | .8  | 50     |
| 331854      | 60/40 Rosin Core Wire Spool | 1   | 454  | .100  | 2.5 | 50     |
| 331857      | 60/40 Rosin Core Wire Spool | 1   | 454  | .125  | 3.2 | 50     |
| 331849      | 40/60 Rosin Core Wire Spool | 1   | 454  | .062  | 1.6 | 50     |

#### Acid Core Leaded

- Use for tin repairs, sheet metal, auto radiators, metal gutters, and non-electrical and non-plumbing applications
- Tin-Lead Acid Core Solder

|             |                             | WEIG | SHT | DIAME | TER | CARTON |
|-------------|-----------------------------|------|-----|-------|-----|--------|
| WOR PROD NO | DESCRIPTION                 | LB.  | G.  | IN.   | MM. | QTY.   |
| 331846      | 30/70 Acid Core Wire Spool  | 1    | 454 | .125  | 3.2 | 50     |
| 331852      | 60/40 Acid Core Wire Spool  | 1    | 454 | .062  | 1.6 | 50     |
| 331847      | 40/60 Acid Core Wire Spool  | 1    | 454 | .062  | 1.6 | 50     |
| 331880      | 3/2/95 Acid Core Wire Spool | 1/2  | 227 | .125  | 3.2 | 50     |





### **EXTRUDED LEADED BARS**

|             |                          | WEIGH | Г   | DIAME | rer  | CARTON |
|-------------|--------------------------|-------|-----|-------|------|--------|
| WOR PROD NO | DESCRIPTION              | LB.   | G.  | IN.   | MM.  | QTY.   |
| 331851      | 50/50 Extruded Bar       | 1     | 454 | _     | _    | 50     |
| 331885      | 50/50 Extruded Meter Bar | 3/8   | 170 | _     | _    | 50     |
| 331882      | 50/50 Extruded Tri Bar   | 1/4   | 113 | 1/4   | 6.4  | 50     |
| 331883      | 50/50 Extruded Tri Bar   | 13/32 | 184 | 5/16  | 7.9  | 50     |
| 331884      | 50/50 Extruded Tri Bar   | 1/2   | 227 | 7/16  | 11.1 | 50     |
| 331853      | 60/40 Extruded Bar       | 1     | 454 | _     | _    | 50     |
| 331848      | 40/60 Extruded Bar       | 1     | 454 | _     | _    | 50     |
| 331845      | 30/70 Extruded Bar       | 1     | 454 | _     | _    | 50     |



#### Babbitt/Pewter/Tin Industrial Metals

- Consists of one or more non-ferrous metals invarious proportions
- Babbitt/Pewter can be used for lining bearings
- A high Tin alloy is desirable for heavy or high speed bearing loads

#### **Quality Control**

- All product is metal imprinted with the noun name abbreviation and the lot number.
- Certificate of Analysis and Certification to Specification available if required

### **INDUSTRIAL ALLOYS**

|             |  |                           | CARTON    |
|-------------|--|---------------------------|-----------|
| WOR PROD NO | DESCRIPTION                                      | ALLOY                     | QTY.      |
| 331878      | Pure Tin Bar                                     | Sn100                     | 45-70 lb. |
| 331873      | #3 Babbitt (Willard #3)<br>Genuine Sm 5.5# Ingot | Sn87 Sb10 Cu3             | 5.5 lb.   |
| 331876      | B23-G2 89/7.5/3.5<br>Babbitt Lg 17.5# Ingot      | Sn89 Sb7.5 Cu3.5          | 17.5 lb.  |
| 331877      | B23-G2 Babbitt<br>Sm 5.5# Ingot                  | Sn89 Sb7.5 Cu3.5          | 5.5 lb.   |
| 331875      | 4x Nickel Babbitt<br>Sm 5.5# Ingot               | Sn89 Sb7.5 Cu3.0<br>Ni0.5 | 5.5 lb.   |
| 331874      | #4 Babbitt Pb96 Sn4<br>S8.5# avg Sm Ingot        | Pb96 Sb4                  | 8 lb.     |
| 331879      | Univ Babbitt B23-G7<br>8.5# avg Sm Ingot         | Pb75.5 Sb15 Sn9.5         | 9 lb.     |







### **QUICKCOIL® DUCTILE BRAZING ALLOYS**

Non-Stop Brazing with a Lot Less Waste and a Lot Less Wasted Time.

#### Up To 22 Feet Of Continuous Brazing

No more time wasted swapping out 20-inch rods. That's pure productivity.

#### Waste Drastically Reduced

With rods, you lose up to 20% of your alloy in stubs that you throw away or braze together. QuickCoil cuts waste to near zero.

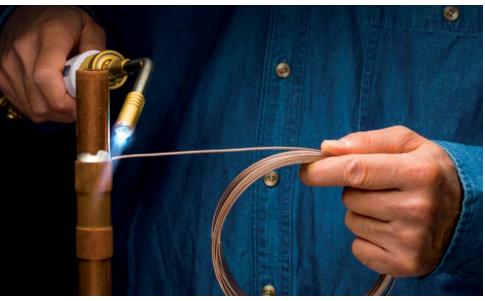
Easy Bending With No Preheating Required Just finger-bend it any way you want.

#### Easy Staging And Storing

Just loop QuickCoil over your tank between jobs – no need for extra storage containers.



We've developed a way to make silver phosphorus copper brazing alloy more ductile and to offer it in 5, 10, & 22-foot coils. The result is QuickCoil® Ductile Brazing Alloy, the perfect alternative to those stiff traditional brazing rods that waste time and money.



### Coil-to-Rod Comparison

| COIL LENGTH | 5'     | 10'    | 22'       |
|-------------|--------|--------|-----------|
| 20" Rods    | 3 Rods | 6 Rods | 13.2 Rods |





### **QUICKCOIL® DUCTILE BRAZING ALLOYS**

|             |                        | LENG1 | ГН  |              |                        |                         | CARTON |
|-------------|------------------------|-------|-----|--------------|------------------------|-------------------------|--------|
| WOR PROD NO | DESCRIPTION            | FT.   | M.  | AWS 5.8 SPEC | SOLIDUS<br>TEMPERATURE | LIQUIDUS<br>TEMPERATURE | QTY.   |
| 360311      | 5% Silver QuickCoil®   | 22    | 6.7 | BCuP-3       | 1190°F, 643°C          | 1495°F, 813°C           | 25     |
| 360310      | 5% Silver QuickCoil®   | 10    | 3.0 | BCuP-3       | 1190°F, 643°C          | 1495°F, 813°C           | 25     |
| 360309      | 5% Silver QuickCoil®   | 5     | 1.5 | BCuP-3       | 1190°F, 643°C          | 1495°F, 813°C           | 25     |
| 360314      | 6% Silver QuickCoil®   | 22    | 6.7 | BCuP-4       | 1190°F, 643°C          | 1325°F, 718°C           | 25     |
| 360313      | 6% Silver QuickCoil®   | 10    | 3.0 | BCuP-4       | 1190°F, 643°C          | 1325°F, 718°C           | 25     |
| 360312      | 6% Silver QuickCoil®   | 5     | 1.5 | BCuP-4       | 1190°F, 643°C          | 1325°F, 718°C           | 25     |
| 360321      | PowerGlide® QuickCoil® | 22    | 6.7 | Proprietary  | 1190°F, 643°C          | 1465°F, 796°C           | 25     |
| 360319      | PowerGlide® QuickCoil® | 10    | 3.0 | Proprietary  | 1190°F, 643°C          | 1465°F, 796°C           | 25     |
| 360318      | PowerGlide® QuickCoil® | 5     | 1.5 | Proprietary  | 1190°F, 643°C          | 1465°F, 796°C           | 25     |
| 360317      | 15% Silver QuickCoil®  | 22    | 6.7 | BCuP-5       | 1190°F, 643°C          | 1475°F, 802°C           | 25     |
| 360316      | 15% Silver QuickCoil®  | 10    | 3.0 | BCuP-5       | 1190°F, 643°C          | 1475°F, 802°C           | 25     |
| 360315      | 15% Silver QuickCoil®  | 5     | 1.5 | BCuP-5       | 1190°F, 643°C          | 1475°F, 802°C           | 25     |
| 360900      | SilTron® 15 QuickCoil® | 22    | 6.7 | Patented     | 1044°F, 562°C          | 1348°F, 729°C           | 25     |
| 360899      | SilTron® 15 QuickCoil® | 10    | 3.0 | Patented     | 1044°F, 562°C          | 1348°F, 729°C           | 25     |
| 360322      | SilTron® 15 QuickCoil® | 5     | 1.5 | Patented     | 1044°F, 562°C          | 1348°F, 729°C           | 25     |

### SILTRON® 15 QUICKCOIL® DUCTILE BRAZING ALLOY

#### Faster Brazing

Brazing temp is 1348° F, that's 127° F cooler than BCuP–5, regular 15% Silver for faster, more efficient brazing time.

#### Low Oxidation

Clean and visible bright braze vs. BCuP–5 which is very black and difficult to see any imperfections.

#### **Highly Ductile**

Bend rod over 180° without heating for easy use.

#### Siltron® 15

| SOLIDUS | LIQUIDUS | RECOMMENDED BRAZING RANGE |
|---------|----------|---------------------------|
| 1044° F | 1348° F  | 1250 - 1370° F            |
| 562° C  | 729° C   | 678° - 743° C             |









### **BRAZING RODS**

Flat: .125" x .050" x 20" or Round: .093" x 20" 3.175mm x 1.27mm x 508mm or 2.38mm x 508mm

Brazing Rods For Joining Copper, Brass And Bronze

Packaged In Convenient Plastic Tubes 1lb / 454g & 1/4lb / 113g

Color-Coded Caps for Easy Composition Identification

#### 15% Silver Brazing Rods

- 15% Silver, 5% Phosphorus, remainder Copper
- Best alloy at filling gaps when close fit-ups cannot be made
- Highest joint ductility and strength in HVAC-R applications
- Phosphorus acts as a fluxing agent when joining copper to copper. When joining brass use Worthington Brazing Flux (331932)
- Solidus Temperature: 1190°F, 643°C
- Liquidus Temperature: 1475°F, 802°C
- Recommended Brazing Range: 1300-1500°F, 705-815°C
- Meets AWS BCuP-5



|             |                    | CARION              |
|-------------|--------------------|---------------------|
| WOR PROD NO | DESCRIPTION        | QTY.                |
| 361211      | Round Brazing Rods | 25 lb. Bulk         |
| 361214      | Flat Brazing Rods  | 25 lb. Bulk         |
| 361212      | Round Brazing Rods | 12 x 24 stick tubes |
| 331740      | Flat Brazing Rods  | 12 x 28 stick tubes |
| 361213      | Round Brazing Rods | 12 x 6 stick tubes  |
| 331741      | Flat Brazing Rods  | 12 x 7 stick tubes  |

### SilTron® 15 Brazing Rods

- Patented formulation
- Lower melting temperature, less oxidation and brighter finish than BCuP-5
- Phosphorus acts as a fluxing agent when joining copper to copper. When joining brass use Worthington Brazing Flux (331932)
- Solidus Temperature: 1044°F, 562°C
- Liquidus Temperature: 1348°F, 729°C
- Recommended Brazing Range: 1250-1370°F, 678-743°C



|             |                    | CARTON              |
|-------------|--------------------|---------------------|
| WOR PROD NO | DESCRIPTION        | QTY.                |
| 361215      | Round Brazing Rods | 25 lb. Bulk         |
| 360896      | Flat Brazing Rods  | 25 lb. Bulk         |
| 361216      | Round Brazing Rods | 12 x 24 stick tubes |
| 360897      | Flat Brazing Rods  | 12 x 28 stick tubes |
|             |                    |                     |





#### 6% Silver Brazing Rods

- 6% Silver, 7.5% Phosphorus, remainder Copper
- Similar to 15% silver phosphorus copper with the ability to fill gaps and form fillets without adversely affecting strength
- Phosphorus acts as a fluxing agent when joining copper to copper. When joining brass use Worthington Brazing Flux (331932)
- Solidus Temperature: 1190°F, 643°C
- Liquidus Temperature: 1325°F, 718°C
- Recommended Brazing Range: 1275-1450°F, 690-790°C
- Meets AWS BCuP-4



|             |                    | CARTON              |
|-------------|--------------------|---------------------|
| WOR PROD NO | DESCRIPTION        | QTY.                |
| 361204      | Round Brazing Rods | 25 lb. Bulk         |
| 361207      | Flat Brazing Rods  | 25 lb. Bulk         |
| 361205      | Round Brazing Rods | 12 x 24 stick tubes |
| 331751      | Flat Brazing Rods  | 12 x 28 stick tubes |
| 361206      | Round Brazing Rods | 12 x 6 stick tubes  |
| 331752      | Flat Brazing Rods  | 12 x 7 stick tubes  |

### PowerGlide® Brazing Rods

- Proprietary formulation
- PowerGlide is an economical alternative to 15% silver. It melts and performs similar to BCuP-5 alloy.
- 6% Silver, 6.1% Phosphorus, remainder copper.

- Solidus Temperature: 1190°F, 643°C
- Liquidus Temperature: 1465°F, 796°C
- Recommended Brazing Range: 1275-1550°F, 691-840°C
- Direct cross-reference to Dynaflow<sup>®\*</sup>



|             |                    | CARTON              |
|-------------|--------------------|---------------------|
| WOR PROD NO | DESCRIPTION        | QTY.                |
| 361208      | Round Brazing Rods | 25 lb. Bulk         |
| 360893      | Flat Brazing Rods  | 25 lb. Bulk         |
| 361209      | Round Brazing Rods | 12 x 24 stick tubes |
| 360894      | Flat Brazing Rods  | 12 x 28 stick tubes |



<sup>\*</sup>Dynaflow is a registered trademark of Harris Products Group



#### 5% Silver Brazing Rods

- 5% Silver, 6% Phosphorus, remainder Copper
- Similar to 15% silphos with the ability to fill gaps and form fillets without adversely affecting strength
- Phosphorus acts as a fluxing agent when joining copper to copper. When joining brass use Worthington Brazing Flux (331932)
- Solidus Temperature: 1190°F, 643°C
- Liquidus Temperature: 1495°F, 813°C
- Recommended Brazing Range: 1325-1500°F, 720-815°C
- Meets AWS BCuP-3



|             |                    | CARTON              |
|-------------|--------------------|---------------------|
| WOR PROD NO | DESCRIPTION        | QTY.                |
| 361200      | Round Brazing Rods | 25 lb. Bulk         |
| 361203      | Flat Brazing Rods  | 25 lb. Bulk         |
| 361201      | Round Brazing Rods | 12 x 24 stick tubes |
| 331746      | Flat Brazing Rods  | 12 x 28 stick tubes |
| 361202      | Round Brazing Rods | 12 x 6 stick tubes  |
| 331747      | Flat Brazing Rods  | 12 x 7 stick tubes  |

#### 2% Silver Brazing Rods

- 2% Silver, 7% Phosphorus, remainder Copper
- Phosphorus acts as a fluxing agent when joining copper to copper. When joining brass use Worthington Brazing Flux (331932)
- Solidus Temperature: 1190°F. 643°C
- Liquidus Temperature: 1450°F, 788°C
- Recommended Brazing Range: 1350-1500°F. 730-815°C
- Meets AWS BCuP-6



|             |                    | CARTON              |
|-------------|--------------------|---------------------|
| WOR PROD NO | DESCRIPTION        | QTY.                |
| 361197      | Round Brazing Rods | 25 lb. Bulk         |
| 360887      | Flat Brazing Rods  | 25 lb. Bulk         |
| 361198      | Round Brazing Rods | 12 x 24 stick tubes |
| 360888      | Flat Brazing Rods  | 12 x 28 stick tubes |

#### 0% Silver Brazing Rods

- 0% Silver, 7.25% Phosphorus, remainder Copper
- Phosphorus acts as a fluxing agent when joining copper to copper. When joining brass use Worthington Brazing Flux (331932)
- Very fluid, medium temperature brazing alloy
- Solidus Temperature: 1310°F, 710°C
- Liquidus Temperature: 1460°F, 793°C
- Recommended Brazing Range: 1350-1550°F, 730-845°C
- Meets AWS BCuP-2



|             |                    | CARTON              |
|-------------|--------------------|---------------------|
| WOR PROD NO | DESCRIPTION        | QTY.                |
| 361193      | Round Brazing Rods | 25 lb. Bulk         |
| 361194      | Flat Brazing Rods  | 25 lb. Bulk         |
| 361195      | Round Brazing Rods | 12 x 24 stick tubes |
| 331738      | Flat Brazing Rods  | 12 x 28 stick tubes |
| 361196      | Round Brazing Rods | 12 x 6 stick tubes  |
| 331739      | Flat Brazing Rods  | 12 x 7 stick tubes  |





CARTON

CARTON

CARTON

6

6

6

6

6

6

6

6

6

WEIGHT

WEIGHT

3

5

3

31

93

156

31

93

156

31



#### **BRAZING WIRE**

360901

360902

360903

331748

331749

331750

360907

**Brazing Wire** 

**Brazing Wire** 

**Brazing Wire** 

**Brazing Wire** 

**Brazing Wire** 

**Brazing Wire** 

#### 1105 Silver Brazing Wire

- 40% Silver, remainder proprietary
- Cost-effective alternative to 1205 BAg-7 alloy with 56% silver
- Low liquidus temperature speeds production
- Excellent choice for use with other alloys in step brazing processes
- Solidus Temperature: 1068°F, 576°C
  Liquidus Temperature: 1105°F, 596°C
- Recommended Brazing Range: 1100-1200°F, 538-649°C

### 1205 Silver Brazing Wire

AWS-A5.8 BAg-7

 56% Silver, 17% Zinc, 5% Tin, remainder Copper

Solidus Temperature: 1145°F, 618°C
Liquidus Temperature: 1205°F, 652°C

Recommended Brazing Range: 1205-1400°F, 650-760°C

### 1274 Silver Brazing Wire

- 24% Silver, remainder proprietary
- Cost-effective alternative to 45% silver brazing filler metals

Solidus Temperature: 1130°F, 610°C
Liquidus Temperature: 1274°F, 690°C

Recommended Brazing Range: 1120-1400°F, 608-759°C

| 5% silver |        |              |   |    |
|-----------|--------|--------------|---|----|
|           | 360908 | Brazing Wire | 3 | 93 |
|           | 360909 | Brazing Wire | 5 | 15 |
| C100C     |        |              |   |    |

Brazing Wire

### 1370 Silver Brazing Wire

• AWS-A5.8 BAg-5

• 45% Silver, 25% Zinc, remainder Copper

Solidus Temperature: 1225°F, 663°C
Liguidus Temperature: 1370°F, 743°C

Recommended Brazing Range: 1370-1550°F, 740-845°C

|             |              | WEIGHT   |     | CARTON |
|-------------|--------------|----------|-----|--------|
| WOR PROD NO | DESCRIPTION  | TROY OZ. |     | QTY.   |
| 331742      | Brazing Wire | 1        | 31  | 6      |
| 331744      | Brazing Wire | 3        | 93  | 6      |
| 331745      | Brazing Wire | 5        | 156 | 6      |





#### **SOLDERING FLUX**

Aids removal of oxides and impurities and helps draw solder into joints to provide better adhesion of alloy to pipe



#### Water Soluble Soldering Flux

- NSF 61 certified safe for potable water applications
- Water soluble lead-free flux
- Excellent performance with any lead-free Solder
- Unit lot numbering ensures complete traceability
- Meets ASTM B-813 and Copper Development Association requirements.
- Recommended soldering range: 200-600°F (93-315°C)
- RoHS Compliant

|             |                    | WEIGH | l   | CARION |
|-------------|--------------------|-------|-----|--------|
| WOR PROD NO | DESCRIPTION        | OZ.   | G.  | QTY.   |
| 331771      | Water Soluble Flux | 1.7   | 48  | 30     |
| 331934      | Water Soluble Flux | 8     | 227 | 12     |
| 331933      | Water Soluble Flux | 16    | 454 | 12     |
| 333516      | Water Soluble Flux | 16    | 454 | 6      |



#### Paste Soldering Flux

- NSF 61 certified safe for potable water applications
- Petroleum based lead-free flux
- Check local plumbing codes for usage and restrictions
- Unit lot numbering ensures complete traceability
- Conforms to O-F-506C, Type 1, Form B; MIL-S-6872A.
- Recommended soldering range: 200-600°F (93-315°C)
- RoHS Compliant

|             |                                    | WEIGI | ΗT  | CARTON |
|-------------|------------------------------------|-------|-----|--------|
| WOR PROD NO | DESCRIPTION                        | OZ.   | G.  | QTY.   |
| 331770      | Paste Flux                         | 2     | 57  | 30     |
| 331931      | Paste Flux                         | 8     | 227 | 12     |
| 331917      | Paste Flux - Bottle with Brush Cap | 4     | 113 | 5      |
| 331930      | Paste Flux                         | 16    | 454 | 12     |







#### General Purpose Liquid Soft Soldering Flux

- Good for soldering copper, brass, nickel, carbon steel, stainless steel, and other metals.
- Excellent across a broad range of base metals, solders and temperatures
- Aggressively removes oxide coatings and other impurities
- Use for soft soldering
- Recommended soldering range: 200-650°F (93-345°C).
- Conforms to IPC ANSI J-STD-004, Type INH1.
- RoHS compliant

|             |  | WEIGI | łT  | CARTON |
|-------------|--|-------|-----|--------|
| WOR PROD NO | DESCRIPTION                                      | OZ.   | G.  | QTY.   |
| 331928      | General Purpose Liquid Soft Solder Flux - USA    | 4     | 113 | 6      |
| 334052      | General Purpose Liquid Soft Solder Flux - CANADA | 4     | 113 | 6      |



#### High Activity, Stainless Steel Liquid Soldering Flux

- Excellent for use on Stainless Steel, Monel, High-Chrome Alloys, Inconel, Nickel, Copper, Brass, Ferrous Alloys and many more metals. It is not recommended for Aluminum and Magnesium
- Added bi-fluoride element increases etching ability
- Excellent across a broad range of base metals, solders and temperatures
- Aggressively removes oxide coatings and other impurities
- Provides excellent capillary actions
- Recommended soldering range: 200-800°F (95-425°C).
- RoHS compliant

|             |                                      | WEIGH. | Г   | CARTON |
|-------------|--------------------------------------|--------|-----|--------|
| WOR PROD NO | DESCRIPTION                          | OZ.    | G.  | QTY.   |
| 331929      | Stainless Steel Liquid Flux - USA    | 4      | 113 | 6      |
| 334053      | Stainless Steel Liquid Flux - CANADA | 4      | 113 | 6      |

### **BRAZING FLUX**



### Silver Brazing Paste Flux

- General purpose brazing paste flux
- Brazes copper, brass, nickel, carbon steel, stainless steel, and precious metals.
- Residues are water soluble
- Brush cap dispenser included
- Appropriate filler metals: BAg, BCuP AWS A5.31-91, Type FB3A
- Recommended brazing range: 1000-1600°F (540-870°C).
- RoHS compliant
- Conforms to MS 3410; AWS A5.31-91, Type FB3A; and Federal Specification 0-F-499, Type B

|             |                           | WEIGH | T   | CARTON |
|-------------|---------------------------|-------|-----|--------|
| WOR PROD NO | DESCRIPTION               | OZ.   | G.  | QTY.   |
| 331932      | Silver Brazing Paste Flux | 6     | 170 | 6      |



### **ABRASIVES**



#### Open Mesh Cloth

- Grain bonded on both sides of cloth
- Fully waterproof
- Lasts longer than sand cloth
- Leaves less gritty residue
- 180 Grit

|             |                         | CARTON |
|-------------|-------------------------|--------|
| WOR PROD NO | DESCRIPTION             | QTY.   |
| 331923      | 2 Yard Open Mesh Cloth  | 36     |
| 331924      | 5 Yard Open Mesh Cloth  | 12     |
| 331919      | 10 Yard Open Mesh Cloth | 6      |
| 331921      | 25 Yard Open Mesh Cloth | 6      |



#### Sand Cloth

- Flexible cloth backing
- Water resistant resin coating
- Long lasting performance
- 120 Grit

|             |                    | CARTON |
|-------------|--------------------|--------|
| WOR PROD NO | DESCRIPTION        | QTY.   |
| 331768      | 2 Yard Sand Cloth  | 36     |
| 331925      | 5 Yard Sand Cloth  | 12     |
| 331920      | 10 Yard Sand Cloth | 6      |
| 331922      | 25 Yard Sand Cloth | 6      |



#### **PLUMBING KITS**



#### Premium 8 oz Soldering Kit

#### WOR: 331935

- Includes everything needed to make professional quality repairs: Sterling premium Lead-Free 8 oz solder, Worthington water soluble 1.7 oz flux, 1/2" wire fitting brush, sand cloth and flux brush
- · Carton quantity: 6



#### Basic 4 oz Soldering Kit

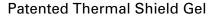
#### WOR: 331769

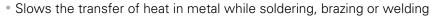
- Includes everything needed to make professional quality repairs: Worthington Lead-Free 4 oz solder, Worthington water soluble 1 oz flux, sand cloth and flux brush
- Carton quantity: 12





### **COLD COAT**





- Shields adjoining surfaces from overheating, discoloration, damage or distortion
- Rapidly cools hot materials
- Reduces the risk of hidden fires and heat damage when soldering or welding in compromised areas
- Protects sensitive valves, gaskets, and previously soldered joints that may be damaged during soldering or welding
- Non-Toxic And 100% Biodegradable

|             |                                    | WEIGH | łT   | CARTON |
|-------------|------------------------------------|-------|------|--------|
| WOR PROD NO | DESCRIPTION                        | OZ.   |      | QTY.   |
| 331912      | Cold Coat Thermal Shield Gel Spray | 32    | 94.6 | 6      |







**Fitting Brush** 



Multi-Purpose Brushes
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General Purpose Brushes

### **BRUSHES**

#### Fitting Brush

- High quality dense wire for long life, quick cleaning, and etching
- Color coded by size for easy identification

#### **Tube Cleaning Brush**

- High quality dense wire for long life, quick cleaning, and etching
- Color coded by size for easy identification

#### 4-in-1 Brush

- High quality dense wire for long life, quick cleaning, and etching
- Includes 1/2" & 3/4" fitting and tube cleaning brushes

#### **General Purpose**

- 4" brush can be used for applying flux, instant solder pastes, grease, and other general purpose brushing needs
- 5 brushes per package

|             |  |         | CARTON |
|-------------|--|---------|--------|
| WOR PROD NO | DESCRIPTION                            | COLOR   | QTY.   |
| 331766      | 1/2" Fitting Brush                     | •       | 12     |
| 331767      | 3/4" Fitting Brush                     | $\circ$ | 12     |
| 331916      | 1" Fitting Brush                       |         | 12     |
| 331915      | 1-1/4" Fitting Brush                   |         | 12     |
| 331914      | 1-1/2" Fitting Brush                   |         | 12     |
| 331913      | 2" Fitting Brush                       |         | 12     |
| 331772      | 1/2" Tube Cleaning Brush               |         | 12     |
| 331773      | 3/4" Tube Cleaning Brush               | $\circ$ | 12     |
| 331938      | 1" Tube Cleaning Brush                 |         | 12     |
| 331764      | Multi-Purpose 4-IN-1 Brush 3/4" & 1/2" |         | 12     |
| 331765      | General Purpose Acid Brush 5-pack      |         | 12     |



### REFRIGERANT RECOVERY CYLINDERS

High-quality refrigerant cylinders in a range of sizes and specifications

No limit to the number of times Worthington recovery cylinders can be recertified





|                            | SMALL RECOVERY |            |
|----------------------------|----------------|------------|
| MODEL                      | 30 LBS.        | 50 LBS.    |
| Height (IN.)               | 17.7           | 18.8       |
| Water Capacity (LBS.)      | 26.2           | 47.7       |
| Nominal Tare Weight (LBS.) | 17             | 27.8       |
| Cylinder Diameter (IN.)    | 9.1            | 12.3       |
| Cylinder Volume (CU. IN)   | 726            | 1,324      |
| Collar Diameter (IN.)      | 6.5            | 6.5        |
| Collar Height (IN.)        | 5.1            | 5.1        |
| Footring Diameter (IN.)    | 7.8            | 7.8        |
| STANDARD SPECIFICATION     | D0T-4BA400     | DOT-4BA400 |
| Service Pressure (PSIG)    | 400            | 400        |
| Test Pressure (PSIG)       | 800            | 800        |
| OPTIONAL SPECIFICATION     | _              | _          |
| Service Pressure (PSIG)    | _              | _          |
| Test Pressure (PSIG)       | _              | _          |

| LARGERECOVERY |            |            |  |  |
|---------------|------------|------------|--|--|
| 123 LBS.      | 239 LBS.   | 1,000 LBS. |  |  |
| 54.8          | 48.7       | 57.3       |  |  |
| 123           | 239        | 1,000      |  |  |
| 58            | 78.5       | 334        |  |  |
| 10            | 14.7       | 30         |  |  |
| 3,405         | 6,515      | 27,680     |  |  |
| 3.9           | 11.4       | 16         |  |  |
| _             | 6.4        | 6.9        |  |  |
| 10            | 14.5       | 22         |  |  |
| D0T-4BW400    | D0T-4BA260 | DOT-4BA260 |  |  |
| 400           | 260        | 260        |  |  |
| 800           | 520        | 520        |  |  |
| _             | D0T-4BW400 | DOT-4BW400 |  |  |
| _             | 400        | 400        |  |  |
| _             | 800        | 800        |  |  |

All tare weights and dimensions are approximate.

To convert to refrigerant capacity:

Maximum allowable gross cylinder fill weight is  $0.8 \, x$  water capacity x specific gravity of the refrigerant recovered @  $77^{\circ}/25^{\circ}C$  + cylinder tare weight.

Cylinder photos are not shown to scale.



#### THREE-YEAR LIMITED WAR-RANTY

Worthington® LS20, LS20R, LS20T, LT2301, Air Acetylene Torch Kits, Air Acetylene Accessories, Air Acetylene Torch Tips, Air Propane/Propylene Torch Kits, Air Propane/Propylene Torch Accessories, Air Propane/Propylene Torch Tips

Worthington® warrants to the original purchaser that this product is free from defects in material and workmanship for three years from the date of purchase. This warranty is valid for all purchases of the LS20, LS20R, LS20T, LT2301, Air Acetylene Torch Kits, Air Acetylene Accessories, Air Acetylene Torch Tips, Air Propane/Propylene Torch Kits, Air Propan/Propylene Torch Accessories, and Air Propane / Propylene Torch Tips on or after June 1, 2016. This warranty does not apply to product that has been damaged as a result of improper maintenance, accident or other misuse, or which fails to operate due to normal wear and tear. Worthington recommends, but does not require, the use of replacement parts specifically manufactured by Worthington for this product. Improper or incorrectly performed repair or modification of the product, or the use of replacement parts other than those manufactured for that purpose by Worthington, that causes damage to your product may void this warranty.

Worthington will repair the product if it proves to be defective in materials or workmanship. At the choice of Worthington, a replacement product may be provided instead of repairing a defective product. The sole obligation of Worthington and your exclusive remedy under this warranty are limited to such repair or replacement.

To make a claim under this Limited Three Year Warranty, contact any Worthington distributor or contact Worthington directly at 1-877-974-8672. A service representative will assist you. Please provide proof of date of purchase when making a claim.

Worthington makes no other warranties concerning the product, and limits any implied warranties to the length of this Limited Three Year Warranty. In no event shall Worthington be liable for incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### LIFETIME LIMITED WARRANTY

Worthington® LT60, LT60R, LT60T, LT8250, LT90, LT90R, LT90T, LT91, LT92T, LT91R, LT91T, LT92, LT92R, LT92T

Worthington® warrants to the original purchaser that this product is free from defects in material and workmanship for as long as you own your Worthington torch. This warranty is valid for all purchases of Worthington® LT60, LT60R, LT60T, LT8250, LT90, LT90R, LT90T, LT91, LT92T, LT91R, LT91T LT92, LT92R, LT92T torches, replacement torch assemblies, and replacement torch tips on or after June 1, 2016. This warranty does not apply to product that has been damaged as a result of improper maintenance, accident or other misuse, or which fails to operate due to normal wear and tear. Worthington recommends, but does not require, the use of replacement parts specifically manufactured by Worthington for this product. Improper or incorrectly performed repair or modification of the product, or the use of replacement parts other than those manufactured for that purpose by Worthington, that causes damage to your product may void this warranty.

Worthington will repair the product if it proves to be defective in materials or workmanship. At the choice of Worthington, a replacement product may be provided instead of repairing a defective product. The sole obligation of Worthington and your exclusive remedy under this warranty are limited to such repair or replacement.

To make a claim under this Lifetime Limited Warranty, contact any Worthington distributor or contact Worthington directly at 1-877-974-8672.

A service representative will assist you. Please provide proof of date of purchase when making a claim.

Worthington makes no other warranties concerning the product. In no event shall Worthington be liable for incidental or consequential damages. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

