



# JOINING TECHNOLOGIES

## PRODUCT CATALOG



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](mailto: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](http://worthingtonjoiningtech.com)

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JOINING TECHNOLOGIES



Tank Not Included

## “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 Regulator With Tanktote Handle, Gauge Guard And 2" Easy Read Gauge

WOR: 331778 “B”  
WOR: 331943 “MC”



AA Torch Handle

WOR: 331781



AA Hose

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



Tanktote Sleeve

WOR: 331942 (B)  
WOR: 331973 (MC)



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



Tank Key

WOR: 331775

See features and details on pages 6-8.



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



Self-Igniting Tip Shown

## STANDARD AIR ACETYLENE KITS

**FIT ANY BRAND  
UNIVERSAL PARTS**

### Built-In Durability And Performance

#### 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 Torch Handle

WOR: 331781



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.



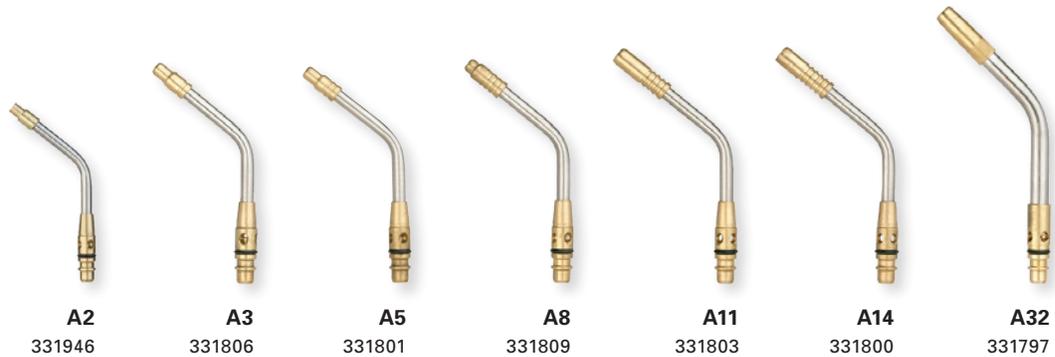
## AIR ACETYLENE TORCH TIPS

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

**FIT ANY BRAND  
 UNIVERSAL PARTS**

### Swirl Flame

| WOR PROD NO | DESCRIPTION              | TIP SIZE |      | PIPE SIZE   |         | BRAZING   |        |
|-------------|--------------------------|----------|------|-------------|---------|-----------|--------|
|             |                          | IN.      | MM.  | SOFT SOLDER | MM.     | IN.       | MM.    |
| 331946      | A2-Light-duty HVAC tip   | 1/8      | 3    | 1/8-1/2     | 3-13    | 1/8-1/4   | 3-6    |
| 331806      | A3-Light-medium-duty tip | 3/16     | 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       | 7/16     | 11.1 | 1-1/2-3     | 40-75   | 7/8-1-5/8 | 22-41  |
| 331800      | A14-Extra-heavy-duty tip | 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 |



### Self-Igniting Swirl Flame

| WOR PROD NO | DESCRIPTION                 | TIP SIZE |      | PIPE SIZE   |        | BRAZING |       |
|-------------|-----------------------------|----------|------|-------------|--------|---------|-------|
|             |                             | IN.      | MM.  | SOFT SOLDER | 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 |



**AA500** 331951      **AA800** 331947      **AA900** 331948

## AIR ACETYLENE ACCESSORIES

**FIT ANY BRAND  
UNIVERSAL PARTS**



**"B" Tanktote Sleeve**  
WOR: 331942



**"MC" Tanktote Sleeve**  
WOR: 331973



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

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"  
(15.24cm x 20.32cm)



**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

Made in the USA WITH GLOBAL COMPONENTS



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

## 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

## AIR PROPANE / PROPYLENE ACCESSORIES

**FIT ANY BRAND  
UNIVERSAL PARTS**



**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

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

**FIT ANY BRAND  
 UNIVERSAL PARTS**

### Swirl Flame

| MODELS    | WOR PROD NO | TIP SIZE |      | COPPER TUBING SIZE WITH PROPANE |        |           |       | COPPER TUBING SIZE WITH MAP-PRO™ |        |           |        |
|-----------|-------------|----------|------|---------------------------------|--------|-----------|-------|----------------------------------|--------|-----------|--------|
|           |             | IN.      | MM.  | SOFT SOLDER                     |        | BRAZING   |       | SOFT SOLDER                      |        | BRAZING   |        |
| <b>P2</b> | 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    |
| <b>P3</b> | 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   |
| <b>P4</b> | 331972      | 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   |
| <b>P5</b> | 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  |
| <b>P6</b> | 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 |



**P2** 331964      **P3** 331967      **P4** 331972      **P5** 331954      **P6** 331957



### Self-Igniting Swirl Flame

| MODELS      | WOR PROD NO | TIP SIZE |      | COPPER TUBING SIZE WITH PROPANE |      |         |      | COPPER TUBING SIZE WITH MAP-PRO™ |      |           |      |
|-------------|-------------|----------|------|---------------------------------|------|---------|------|----------------------------------|------|-----------|------|
|             |             | IN.      | MM.  | SOFT SOLDER                     |      | BRAZING |      | SOFT SOLDER                      |      | BRAZING   |      |
| <b>P300</b> | 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 |
| <b>P400</b> | 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 |



**P300** 331815      **P400** 331816



**HOLDS:**

- Two 14.1 oz gas cylinders

Fuel and Solder accessories not included

## MOBILE TORCH SYSTEM II

Hot Performance. Cool Mobility.

### Accessibility

- MTS II extends the reach and access to any job situation – crawl spaces, attics, under cabinets, on ladders and more

### Greater Storage

- Improved carrying case now holds two 14.1 oz gas cylinders
- Added space for more solder accessories and tools

### Protection

- Integrated hose wrap - keeps hose in place
- Tip holder - protects and cools tip after use
- All tools and accessories - protected inside the durable case

| WOR PROD NO | DESCRIPTION            | TIPS INCLUDED |
|-------------|------------------------|---------------|
| 331810      | Mobile Torch System II | LP300 3/8"    |
| 331796      | Mobile Torch System II | LP400 1/2"    |
| 331976      | All Brass Regulator    | —             |

**FIT ANY BRAND  
UNIVERSAL PARTS**

### All systems contain the following:



#### MobileTorch II Case

**WOR: 331977**

- Store and transport two gas cylinders, solder, tools and accessories
- Integrated hose wrap and tip holder



#### All Brass Regulator

**WOR: 331976**

- CGA-600 cylinder connection for MAP-Pro™ and Propane



#### 12-1/2' Hose with Metal Strain Relief

**WOR: 331780**

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



#### AP Handle

**WOR: 331941**

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



#### Self-igniting Swirl Flame Air Propane / Propylene Tip

**WOR: 331815  
WOR: 331816**

- Replaceable burn tip, orifice and "O" ring



## 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 |



| MODELS | WOR PROD NO | REBUILD KITS<br>PRODUCT NO | REPLACEMENT<br>BURN TIP ASSEMBLY | COPPER TUBING SIZE WITH PROPANE |       |          |      | COPPER TUBING SIZE WITH MAP-PRO™ |        |           |      |
|--------|-------------|----------------------------|----------------------------------|---------------------------------|-------|----------|------|----------------------------------|--------|-----------|------|
|        |             |                            |                                  | SOFT SOLDER                     |       | BRAZING  |      | SOFT SOLDER                      |        | BRAZING   |      |
|        |             |                            |                                  | 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 KIT

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 INCLUDED |
|-------------|--|---------------------|
| 354947      | Case Only  | —                   |
| 354949      | Hand Torch & Case Only   | LT92                |
| 354954      | Hand Torch, Case, MAP-Pro™ Cylinders                           | LT92                |
| 354957      | Hand Torch, Case, Transport Canada Approved MAP-Pro™ Cylinders | LT92                |
| 354951      | Hand Torch, Case, MAP-Pro™ Cylinders, Solder, Flux, Brush      | LT92                |
| 360878      | Hand Torch, Case, MAP-Pro™ Cylinders                           | LT91                |
| 360879      | Hand Torch, Case, Transport Canada 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\*

\*Transport Canada Approved MAP-Pro™ Cylinders



## FUEL

| WOR PROD NO | DESCRIPTION                       | CASE PACK |
|-------------|-----------------------------------|-----------|
|             |                                   | 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        |



Made in the USA WITH GLOBAL COMPONENTS



## 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



| WOR<br>PROD<br>NO | DESCRIPTION         | WEIGHT |      | DIAMETER |     | CARTON<br>QTY. |
|-------------------|---------------------|--------|------|----------|-----|----------------|
|                   |                     | LB.    | G.   | IN.      | MM. |                |
| 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             |

\*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



| WOR PROD<br>NO | DESCRIPTION       | WEIGHT |     | DIAMETER |     | CARTON<br>QTY. |
|----------------|-------------------|--------|-----|----------|-----|----------------|
|                |                   | LB.    | G.  | IN.      | MM. |                |
| 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             |

\*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



| WOR PROD<br>NO | DESCRIPTION          | WEIGHT |     | DIAMETER |     | CARTON<br>QTY. |
|----------------|----------------------|--------|-----|----------|-----|----------------|
|                |                      | LB.    | G.  | IN.      | MM. |                |
| 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             |

\*Spool is not sold in an individual box

Made in the USA WITH GLOBAL COMPONENTS



## 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                     | WEIGHT |     | DIAMETER |     | CARTON QTY. |
|-------------|---------------------------------|--------|-----|----------|-----|-------------|
|             |                                 | LB.    | G.  | IN.      | MM. |             |
| 331762      | Silver Bearing Alloy Spool      | 1      | 454 | .118     | 3   | 50          |
| 331910      | Silver Bearing Alloy Wire Spool | 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
- Melts, flows and performs better than 95/5
- Tensile strength: 5800 psi



| WOR PROD NO | DESCRIPTION     | WEIGHT |     | DIAMETER |     | CARTON QTY. |
|-------------|-----------------|--------|-----|----------|-----|-------------|
|             |                 | LB.    | G.  | IN.      | MM. |             |
| 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



| WOR PROD NO | DESCRIPTION     | WEIGHT |     | DIAMETER |     | CARTON QTY. |
|-------------|-----------------|--------|-----|----------|-----|-------------|
|             |                 | LB.    | G.  | IN.      | MM. |             |
| 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

| WOR PROD NO | DESCRIPTION          | WEIGHT |     | DIAMETER |     | CARTON QTY. |
|-------------|----------------------|--------|-----|----------|-----|-------------|
|             |                      | LB.    | G.  | IN.      | MM. |             |
| 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

| WOR PROD NO | DESCRIPTION          | WEIGHT |     | DIAMETER |     | CARTON QTY. |
|-------------|----------------------|--------|-----|----------|-----|-------------|
|             |                      | LB.    | G.  | IN.      | MM. |             |
| 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

| WOR PROD NO   | DESCRIPTION          | WEIGHT |     | DIAMETER |     | CARTON QTY. |
|---------------|----------------------|--------|-----|----------|-----|-------------|
|               |                      | LB.    | G.  | IN.      | MM. |             |
| <b>331865</b> | Acid Core Wire Spool | 1      | 454 | .062     | 1.6 | 50          |
| <b>331866</b> | Acid Core Wire Spool | 1      | 454 | .125     | 3.2 | 50          |
| <b>331907</b> | 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

| WOR PROD NO   | DESCRIPTION           | WEIGHT |     | DIAMETER |     | CARTON QTY. |
|---------------|-----------------------|--------|-----|----------|-----|-------------|
|               |                       | LB.    | G.  | IN.      | MM. |             |
| <b>331868</b> | Rosin Core Wire Spool | 1      | 454 | .062     | 1.6 | 50          |
| <b>331867</b> | Rosin Core Wire Spool | 1      | 454 | .031     | .8  | 50          |
| <b>331870</b> | Rosin Core Wire Spool | 1      | 454 | .040     | 1   | 50          |
| <b>331869</b> | Rosin Core Wire Spool | 1      | 454 | .050     | 1.3 | 50          |
| <b>331871</b> | Rosin Core Wire Spool | 1      | 454 | .100     | 2.5 | 50          |
| <b>331872</b> | Rosin Core Wire Spool | 1      | 454 | .125     | 3.2 | 50          |
| <b>331909</b> | Rosin Core Wire Spool | 1/4    | 113 | .062     | 1.6 | 50          |
| <b>331908</b> | 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

| WOR PROD NO | DESCRIPTION      | WEIGHT |      | DIAMETER |     | CARTON |
|-------------|------------------|--------|------|----------|-----|--------|
|             |                  | 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

| WOR PROD NO | DESCRIPTION      | WEIGHT |     | DIAMETER |     | CARTON |
|-------------|------------------|--------|-----|----------|-----|--------|
|             |                  | 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

| WOR PROD NO | DESCRIPTION      | WEIGHT |     | DIAMETER |     | CARTON |
|-------------|------------------|--------|-----|----------|-----|--------|
|             |                  | LB.    | G.  | IN.      | 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

| WOR PROD NO | DESCRIPTION                 | WEIGHT |     | DIAMETER |     | CARTON |
|-------------|-----------------------------|--------|-----|----------|-----|--------|
|             |                             | 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

| WOR PROD NO | DESCRIPTION                 | WEIGHT |     | DIAMETER |     | CARTON |
|-------------|-----------------------------|--------|-----|----------|-----|--------|
|             |                             | 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

| WOR PROD NO | DESCRIPTION              | WEIGHT |     | DIAMETER |      | CARTON |
|-------------|--------------------------|--------|-----|----------|------|--------|
|             |                          | LB.    | G.  | IN.      | MM.  | QTY.   |
| 331851      | 50/50 Extruded Bar       | 1      | 454 | —        | —    | 50     |
| 331885      | 50/50 Extruded Meter Bar | 1/2    | 227 | —        | —    | 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     |



## INDUSTRIAL ALLOYS

### Babbitt/Pewter/Tin Industrial Metals

- Consists of one or more non-ferrous metals in various 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

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

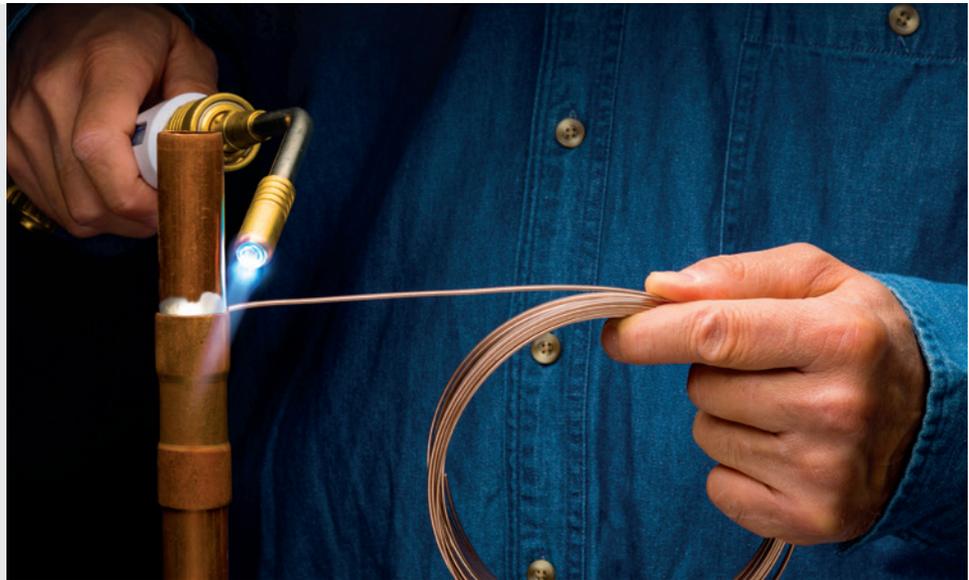
**Easy Staging And Storing**

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

**QUICKCoil®**

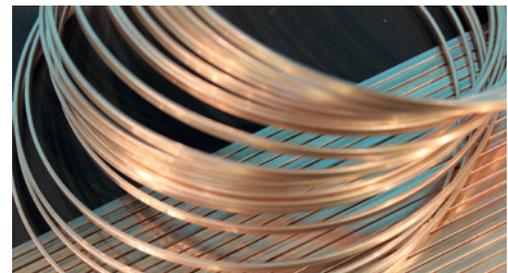
Continuous Phos-Copper Brazing

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

| WOR PROD NO | DESCRIPTION            | LENGTH |     | AWS 5.8 SPEC | SOLIDUS TEMPERATURE | LIQUIDUS TEMPERATURE | CARTON QTY. |
|-------------|------------------------|--------|-----|--------------|---------------------|----------------------|-------------|
|             |                        | FT.    | M.  |              |                     |                      |             |
| 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



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



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

Made in the USA WITH GLOBAL COMPONENTS

## 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



| WOR PROD NO   | DESCRIPTION        | CARTON              |
|---------------|--------------------|---------------------|
|               |                    | QTY.                |
| <b>361204</b> | Round Brazing Rods | 25 lb. Bulk         |
| <b>361207</b> | Flat Brazing Rods  | 25 lb. Bulk         |
| <b>361205</b> | Round Brazing Rods | 12 x 28 stick tubes |
| <b>331751</b> | Flat Brazing Rods  | 12 x 28 stick tubes |
| <b>361206</b> | Round Brazing Rods | 12 x 7 stick tubes  |
| <b>331752</b> | 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®\*



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



\*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



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



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



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



## 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

| WOR PROD NO   | DESCRIPTION  | WEIGHT   |     | CARTON |
|---------------|--------------|----------|-----|--------|
|               |              | TROY OZ. | G.  | QTY.   |
| <b>360901</b> | Brazing Wire | 1        | 31  | 6      |
| <b>360902</b> | Brazing Wire | 3        | 93  | 6      |
| <b>360903</b> | Brazing Wire | 5        | 156 | 6      |

### 1205 Silver Brazing Wire

- 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

| WOR PROD NO   | DESCRIPTION  | WEIGHT   |     | CARTON |
|---------------|--------------|----------|-----|--------|
|               |              | TROY OZ. | G.  | QTY.   |
| <b>331748</b> | Brazing Wire | 1        | 31  | 6      |
| <b>331749</b> | Brazing Wire | 3        | 93  | 6      |
| <b>331750</b> | Brazing Wire | 5        | 156 | 6      |

### 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

| WOR PROD NO   | DESCRIPTION  | WEIGHT   |     | CARTON |
|---------------|--------------|----------|-----|--------|
|               |              | TROY OZ. | G.  | QTY.   |
| <b>360907</b> | Brazing Wire | 1        | 31  | 6      |
| <b>360908</b> | Brazing Wire | 3        | 93  | 6      |
| <b>360909</b> | Brazing Wire | 5        | 156 | 6      |

### 1370 Silver Brazing Wire

- 45% Silver, 25% Zinc, remainder Copper
- Solidus Temperature: 1225°F, 663°C
- Liquidus Temperature: 1370°F, 743°C
- Recommended Brazing Range: 1370-1550°F, 740-845°C

| WOR PROD NO   | DESCRIPTION  | WEIGHT   |     | CARTON |
|---------------|--------------|----------|-----|--------|
|               |              | TROY OZ. | G.  | QTY.   |
| <b>331742</b> | Brazing Wire | 1        | 31  | 6      |
| <b>331744</b> | Brazing Wire | 3        | 93  | 6      |
| <b>331745</b> | 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

| WOR PROD NO | DESCRIPTION        | WEIGHT |     | CARTON |
|-------------|--------------------|--------|-----|--------|
|             |                    | 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

| WOR PROD NO | DESCRIPTION                        | WEIGHT |     | CARTON |
|-------------|------------------------------------|--------|-----|--------|
|             |                                    | 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

| WOR PROD NO   | DESCRIPTION                                      | WEIGHT |     | CARTON |
|---------------|--|--------|-----|--------|
|               |  | OZ.    | G.  | QTY.   |
| <b>331928</b> | General Purpose Liquid Soft Solder Flux - USA    | 4      | 113 | 6      |
| <b>334052</b> | 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

| WOR PROD NO   | DESCRIPTION                          | WEIGHT |     | CARTON |
|---------------|--------------------------------------|--------|-----|--------|
|               |                                      | OZ.    | G.  | QTY.   |
| <b>331929</b> | Stainless Steel Liquid Flux - USA    | 4      | 113 | 6      |
| <b>334053</b> | 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

| WOR PROD NO   | DESCRIPTION               | WEIGHT |     | CARTON |
|---------------|---------------------------|--------|-----|--------|
|               |                           | OZ.    | G.  | QTY.   |
| <b>331932</b> | 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

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



### Sand Cloth

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

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

Patented Thermal Shield Gel

- Slows the transfer of heat in metal while soldering, brazing or welding
- 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

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



Fitting Brush



Tube Cleaning Brush

4-in-1 Brush



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

| WOR PROD NO | DESCRIPTION                            | COLOR | CARTON QTY. |
|-------------|--|-------|-------------|
| 331766      | 1/2" Fitting Brush                     | ●     | 12          |
| 331767      | 3/4" Fitting Brush                     | ○     | 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               | ○     | 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



| MODEL                         | SMALL RECOVERY    |                   | LARGE RECOVERY    |                   |                   |
|-------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                               | 30 LBS.           | 50 LBS.           | 123 LBS.          | 239 LBS.          | 1,000 LBS.        |
| Height (IN.)                  | 17.7              | 18.8              | 54.8              | 48.7              | 57.3              |
| Water Capacity (LBS.)         | 26.2              | 47.7              | 123               | 239               | 1,000             |
| Nominal Tare Weight (LBS.)    | 17                | 27.8              | 58                | 78.5              | 334               |
| Cylinder Diameter (IN.)       | 9.1               | 12.3              | 10                | 14.7              | 30                |
| Cylinder Volume (CU. IN)      | 726               | 1,324             | 3,405             | 6,515             | 27,680            |
| Collar Diameter (IN.)         | 6.5               | 6.5               | 3.9               | 11.4              | 16                |
| Collar Height (IN.)           | 5.1               | 5.1               | —                 | 6.4               | 6.9               |
| Footring Diameter (IN.)       | 7.8               | 7.8               | 10                | 14.5              | 22                |
| <b>STANDARD SPECIFICATION</b> | <b>DOT-4BA400</b> | <b>DOT-4BA400</b> | <b>DOT-4BW400</b> | <b>DOT-4BA260</b> | <b>DOT-4BA260</b> |
| Service Pressure (PSIG)       | 400               | 400               | 400               | 260               | 260               |
| Test Pressure (PSIG)          | 800               | 800               | 800               | 520               | 520               |
| <b>OPTIONAL SPECIFICATION</b> | —                 | —                 | —                 | <b>DOT-4BW400</b> | <b>DOT-4BW400</b> |
| Service Pressure (PSIG)       | —                 | —                 | —                 | 400               | 400               |
| Test Pressure (PSIG)          | —                 | —                 | —                 | 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°/25°C + cylinder tare weight.

Cylinder photos are not shown to scale.

## THREE-YEAR LIMITED WARRANTY

**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, Mobile Torch System II**

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 Propane/Propylene Torch Accessories, Air Propane / Propylene Torch Tips and Mobile Torch System II 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.

