

# JOINING TECHNOLOGIES PRODUCT CATALOG

WORTHINGTON

WORTHINGTON

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, qualitytested 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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JOINING TECHNOLOGIES



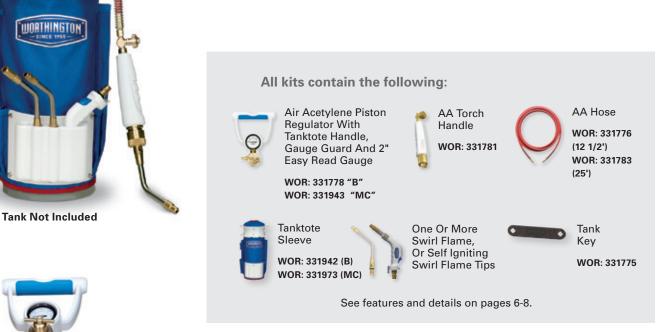
# **"B" AIR ACETYLENE KITS**

FIT ANY BRAND UNIVERSAL PARTS

Pack Higher Performance in an Easier-To-Carry Package

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



# **"MC" AIR ACETYLENE KITS**

#### FIT ANY BRAND UNIVERSAL PARTS

Pack Higher Performance in an Easier-To-Carry Package

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







# STANDARD AIR ACETYLENE KITS

FIT ANY BRAND UNIVERSAL PARTS

**Built-In Durability And Performance** 

All Brass Piston Regulator Provides consistent performance

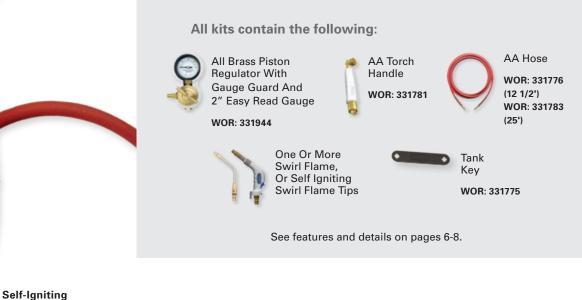
Metal Strain Relief Keeps hose from kinking

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



Self-Igniting

Made in the USA with global components





# **AIR ACETYLENE TORCH TIPS**

FIT ANY BRAND UNIVERSAL PARTS

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

Swirl Fla	me			PIPE SIZE				
Swiirria	ine	TIP SIZE		SOFT SOLDEF	SOFT SOLDER			
WOR PROD NO	DESCRIPTION	IN.	MM.	IN.	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				PIPE SIZE			
		TIP SIZE		SOFT SOLDER		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





### **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

Striker

WOR: 331774

- "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"

Tank Key

WOR: 331775

• Inlet is CGA021, 3/8-24 UNF LH thread



All Brass Piston **Regulator With** Gauge Guard

WOR: 331944

**Torch Heat** 

WOR: 331939

•9"x12"

Shield Cloth

(15.24cm x 20.32cm)

 Solid brass regulator with gauge B connection

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







# **AIR PROPANE / PROPYLENE KITS**



Pack High Performance in a Durable Kit

#### 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**

# 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**

FIT ANY BRAND UNIVERSAL PARTS

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

#### Swirl Flame

				CUFFENTUBIN	CUFFEN TUDINU SIZE WITH FNUFANE				CUFFEN IUDING SIZE WITH WAF-FNU				
		TIP SIZ	E	SOFT SOLDER BRAZING SO		SOFT SOLDE	SOFT 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	1/4-2-1/2	6-63	1/4-1-1/4	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		



### Self-Igniting Swirl Flame

				COPPER TUBING SIZE WITH PROPANE			COPPER TUBING SIZE WITH MAP-PRO™				
		TIP SIZ	Έ	SOFT SOLDE		BRAZING		SOFT SOLDER		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









# **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

12-1/2' Hose with Metal Strain Relief

Metal strain relief

keeps hose from

kinking at fittings

9/16-18 UNF

• Fittings are CGA023,

WOR: 331780

#### 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



### AP Handle

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

All Brass Regulator

WOR: 331976 • CGA-600 cylinder connection for MAP-Pro<sup>™</sup> and Propane



Self-igniting Swirl Flame Air Propane / Propylene Tip WOR: 331815

WOR: 331816 • Replaceable burn tip, orifice and "O" ring



#### Made in the USA WITH GLOBAL COMPONENTS





# **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



				COPPER TUBIN	NG SIZE WITH	PROPANE		COPPER TUB	ING SIZE WIT	HMAP-PRO™	
		REBUILD KITS	REPLACEMENT	SOFT SOLDER		BRAZING		SOFT SOLDEF		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
							m				Ĩ
				LT92T		LT90/91	10.0	LT601		LS20	
				331795		33179	4 💻	331798	3 💷	33181	14 🔍

331794 📕

# TORCHES





# 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 <sup>™</sup> 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 <sup>™</sup> Cylinders	LT91
360879	Hand Torch, Case, Transport Canada Approved MAP-Pro™ Cylinders	LT91



#### WLT9C wor: 354947

 Carrying Case Only



WLT92C wor: 354949

Carrying CaseLT92 Hand Torch



WLT92CF/ WLT92CF-TC\*

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

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



#### WLT92STRL WOR: 354951

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

\*Transport Canada Approved MAP-Pro<sup>w</sup>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 <sup>™</sup> Gas - US	12
332402	14.1 oz NRT MAP-Pro <sup>™</sup> Gas - CANADA	12





Customer Service **877-974-8672** 

# **LEAD-FREE SOLDER**





# **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

		WEIGHT		DIAMETER		CARTON
WOR 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
× 0						

\*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

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

\*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

		WEIGHT		DIAME	TER	CARTON
WOR PROD 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
*Spool is	s not sold in an individual b					





# **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



		WEIGHT		DIAME	FER	CARTON
WOR PROD NO	DESCRIPTION	LB.	G.	IN.	MM.	QTY.
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

		WEIGH	WEIGHT		TER	CARTON
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 psiASTM B-32

			WEIGH	T	DIAMETER		CARTON
	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
j	331902	95/5 Wire Spool	., .	113	.118	3	50

### **LEAD-FREE SOLDER**





# **HVAC LEAD-FREE SOLDER**



#### Lead-Free 96%, Tin 4% Silver HVAC Solder

96/4 Lead-Free

- 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		DIAMET	FER	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

		WEIGHT		DIAMETER		CARTON
WOR PROD NO	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

	WEIG	WEIGHT		TER	CARTON
DESCRIPTION	LB.	G.	IN.	MM.	QTY.
Rosin Core Wire Spool	1	454	.062	1.6	50
Rosin Core Wire Spool	1	454	.031	.8	50
Rosin Core Wire Spool	1	454	.040	1	50
Rosin Core Wire Spool	1	454	.050	1.3	50
Rosin Core Wire Spool	1	454	.100	2.5	50
Rosin Core Wire Spool	1	454	.125	3.2	50
Rosin Core Wire Spool	1/4	113	.062	1.6	50
Rosin Core Wire Spool	1/2	227	.062	1.6	18
	Rosin Core Wire Spool Rosin Core Wire Spool	DESCRIPTIONLB.Rosin Core Wire Spool1Rosin Core Wire Spool1	DESCRIPTIONLB.G.Rosin Core Wire Spool1454Rosin Core Wire Spool1/4113	DESCRIPTION         LB.         G.         IN.           Rosin Core Wire Spool         1         454         .062           Rosin Core Wire Spool         1         454         .031           Rosin Core Wire Spool         1         454         .040           Rosin Core Wire Spool         1         454         .050           Rosin Core Wire Spool         1         454         .100           Rosin Core Wire Spool         1         454         .125           Rosin Core Wire Spool         1/4         113         .062	DESCRIPTION         LB.         G.         IN.         MM.           Rosin Core Wire Spool         1         454         .062         1.6           Rosin Core Wire Spool         1         454         .031         .8           Rosin Core Wire Spool         1         454         .040         1           Rosin Core Wire Spool         1         454         .050         1.3           Rosin Core Wire Spool         1         454         .100         2.5           Rosin Core Wire Spool         1         454         .125         3.2           Rosin Core Wire Spool         1/4         113         .062         1.6



# **LEADED SOLDER**





# LEADED SOLDER

For Use Only In Non-Potable Water Applications

### 50/50 Leaded

• 50% Tin, 50% Lead Solder

		WEIGHT		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

		WEIGHI		DIAME	IEK	CARIUN
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, 4	0% Lead Solder					
00/0 111, 1			WEIGHT		DIAME	FER	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 LeadedUse for speaker wire,

- motors, appliances and general electronic repairs
- Tin-Lead Rosin Core Solder

		WEIGHT		DIAMETER		CARTON
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

		WEIGHT		DIAMETER		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**

		WEIGHT	г	DIAMET	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	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



#### 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) 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.



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**

3 Rods

COIL LENGTH 20" Rods

6 Rods 13.2 Rods

22'



10'



# **QUICKCOIL® DUCTILE BRAZING ALLOYS**

		LENG	тн				CARTON
WOR PROD NO	DESCRIPTION	FT.	M.	AWS 5.8 SPEC	SOLIDUS TEMPERATURE	LIQUIDUS 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 <sup>®</sup> 15 QuickCoil <sup>®</sup>	22	6.7	Patented	1044°F, 562°C	1348°F, 729°C	25
360899	SilTron <sup>®</sup> 15 QuickCoil <sup>®</sup>	10	3.0	Patented	1044°F, 562°C	1348°F, 729°C	25
360322	SilTron <sup>®</sup> 15 QuickCoil <sup>®</sup>	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<sup>®</sup> 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

		CARTON
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 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<sup>®</sup> 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 28 stick tubes
360897	Flat Brazing Rods	12 x 28 stick tubes

Made in the USA



### 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

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		UAITION
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 28 stick tubes
331751	Flat Brazing Rods	12 x 28 stick tubes
361206	Round Brazing Rods	12 x 7 stick tubes
331752	Flat Brazing Rods	12 x 7 stick tubes

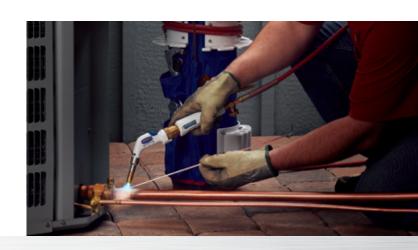
### PowerGlide<sup>®</sup> Brazing Rods

- 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 28 stick tubes
360894	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

		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 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)
- Liquidus Temperature: 1450°F, 788°C

Liquidus Temperature: 1460°F, 793°C

Recommended Brazing Range:

- Recommended Brazing Range: 1350-1500°F, 730-815°C
- Meets AWS BCuP-6
- Solidus Temperature: 1190°F, 643°C

		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 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)
  - en joining brass 1350-1550°F, 730-845°C
    - Meets AWS BCuP-2
- Very fluid, medium temperature brazing alloy
- Solidus Temperature: 1310°F, 710°C

		CANTUN
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 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

Made in the USA

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### BRAZING





# **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

1005 Cilver Drozin a Wire	WEIGHT		CARTON		
1205 Silver Brazing Wire	WOR PROD NO	DESCRIPTION	TROY OZ.	G.	QTY.
<ul> <li>56% Silver, 17% Zinc, 5% Tin,</li> </ul>	331748	Brazing Wire	1	31	6
remainder Copper	331749	Brazing Wire	3	93	6
• Solidus Temperature: 1145°F, 618°C	331750	Brazing Wire	5	156	6

• Liquidus Temperature: 1205°F, 652°C

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

274 Silver Brazing Wire			WEIGHT	CARTON	
1274 Silver Brazing Wire	WOR PROD NO	DESCRIPTION	TROY OZ.	G.	QTY.
<ul> <li>24% Silver, remainder proprietary</li> </ul>	360907	Brazing Wire	1	31	6
<ul> <li>Cost-effective alternative to 45% silver</li> </ul>	360908	Brazing Wire	3	93	6
<ul> <li>Cost-effective alternative to 45% sliver brazing filler metals</li> </ul>	360909	Brazing Wire	5	156	6

- Solidus Temperature: 1130°F, 610°C
- Liquidus Temperature: 1274°F, 690°C
- Recommended Brazing Range: 1120-1400°F, 608-759°C

1070 Cilver Dro-ing Mire	WEIGHT		CARTON		
1370 Silver Brazing Wire	WOR PROD NO	DESCRIPTION	TROY OZ.	G.	QTY.
<ul> <li>45% Silver, 25% Zinc, remainder Copper</li> </ul>	331742	Brazing Wire	1	31	6
	331744	Brazing Wire	3	93	6
<ul> <li>Solidus Temperature: 1225°F, 663°C</li> </ul>	331745	Brazing Wire	5	156	6
<ul> <li>Liquidus Temperature: 1370°F, 743°C</li> </ul>					

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

		WEIGHT		CARTON
WOR PROD NO	DESCRIPTION	TROY OZ.	G.	QTY.
360901	Brazing Wire	1	31	6
360902	Brazing Wire	3	93	6
360903	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	IT	CARTON
WOR PROD NO	DESCRIPTION	0Z.	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

		WEIGH	IT	CARTON
WOR PROD NO	DESCRIPTION	0Z.	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

### Made in the USA

25





### 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

		WEIGH	łT	CARTON
WOR PROD NO	DESCRIPTION	0Z.	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
- Aggressively removes oxide coatings and other impurities
- Provides excellent capillary actions
- Recommended soldering range: 200-800°F (95-425°C).
- RoHS compliant
- Added bi-fluoride element increases etching ability
- Excellent across a broad range of base metals, solders and temperatures

		WEIGH	IT	CARTON
WOR PROD NO	DESCRIPTION	0Z.	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	Г	CARTON
WOR PROD NO	DESCRIPTION	0Z.		QTY.
331932	Silver Brazing Paste Flux	6	170	6



# ACCESSORIES



# **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



Customer Service 877-974-8672



### **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

		WEIGH	łT	CARTON
WOR PROD NO	DESCRIPTION	0Z.	G.	QTY.
331912	Cold Coat Thermal Shield Gel Spray	32	94.6	6





Fitting 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

			CARTON
WOR PROD NO	DESCRIPTION	COLOR	QTY.
331766	1/2" Fitting Brush		12
331767	3/4" Fitting Brush	$\bigcirc$	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	$\bigcirc$	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	DOT-4BA400	DOT-4BA400
Service Pressure (PSIG)	400	400
Test Pressure (PSIG)	800	800
OPTIONAL SPECIFICATION	—	—
Service Pressure (PSIG)	_	—
Test Pressure (PSIG)	—	—

LARGE RECOVERY				
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		
DOT-4BW400	DOT-4BA260	DOT-4BA260		
400	260	260		
800	520	520		
—	DOT-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  $0.8 \times$  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 WARRANTY

Worthington<sup>®</sup> 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 Propan/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<sup>®</sup> 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.

