



# JOINING TECHNOLOGIES PRODUCT CATALOG

T O R C H E S  
F U E L  
S O L D E R  
A C C E S S O R I E S







Worthington Cylinders is the leading global supplier of pressure cylinders and related products including torches, helium balloon kits and propane appliance accessories.

Worthington Cylinders delivers products and value-added services to its customers designed to exceed their expectations in quality, service and value. Our most complete line of pressure cylinders in the industry includes storage of liquefied petroleum, refrigerant, oxygen and industrial gases. Balloon Time®, BernzOmatic® and Worthington™ products are available at retailers and distributors nationwide and provide consumers products for home, industrial and equipment repair; grilling; party decorating; and outdoor leisure activities.

### **Contact Worthington Cylinders Customer Service or a Representative near you:**

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# Joining Technologies

## “B” AIR ACETYLENE KITS

Pack Higher Performance in an Easier-To-Carry Package

WOR PROD NO	LENOX PROD NO	DESCRIPTION	TIPS INCLUDED
331805	21835LX3B	"B" Air Acetylene Kit	A3 3/16" Swirl Flame Tip
331959	21836LX5B	"B" Air Acetylene Kit	A5 1/4" Swirl Flame Tip
331799	21837LX514B	"B" Air Acetylene Kit	A5 1/4" & A14 1/2" Swirl Flame Tips
331811	21838LX500B	"B" Air Acetylene Kit	AA500 1/4" Self-Igniting Swirl Flame Tip
331945	21839LX800B	"B" Air Acetylene Kit	AA800 5/16" Self-Igniting Swirl Flame Tip

Tip size and quantity vary by kit. See chart above



FIT ANY BRAND  
UNIVERSAL PARTS

TANK NOT INCLUDED

## “MC” AIR ACETYLENE KITS

Pack Higher Performance in an Easier-To-Carry Package

WOR PROD NO	LENOX PROD NO	DESCRIPTION	TIPS INCLUDED
331953	21840LX5MC	"MC" Air Acetylene Kit	A5 1/4" Swirl Flame Tip
331812	21841LX38MC	"MC" Air Acetylene Kit	A3 3/16" & A8 5/16" Swirl Flame Tips
331960	21842LX500MC	"MC" Air Acetylene Kit	AA500 1/4" Self-Igniting Swirl Flame Tip
331949	21843LX800MC	"MC" Air Acetylene Kit	AA800 5/16" Self-Igniting Swirl Flame Tip

Tip size and quantity vary by kit. See chart above



FIT ANY BRAND  
UNIVERSAL PARTS

### ALL KITS CONTAIN THE FOLLOWING:



**AIR ACETYLENE PISTON  
REGULATOR WITH TANKTOTE  
HANDLE, GAUGEGUARD AND  
2" EASY READ GAUGE**  
Provides consistent fuel regulation  
Durable brass construction protects  
2" Easy Read Gauge from damage  
Transport tank easily  
Ergonomically designed for comfort  
Integrated tank key storage



**AA TORCH HANDLE**  
Comfortable grip with  
on/off valve and quick  
connect, "A" size  
fittings 3/8"



**AA HOSE**  
12-1/2' hose with metal  
strain relief keeps hose  
from kinking at fittings,  
"A" size fittings 3/8"



**TANKTOTE  
SLEEVE**



**ONE OR MORE  
SWIRL FLAME, OR  
SELF-IGNITING  
SWIRL FLAME TIPS**



**"B" TANK KEY**



# Joining Technologies

## STANDARD AIR ACETYLENE KITS

Durability and Performance

**FIT ANY BRAND  
UNIVERSAL PARTS**

### BUILT-IN DURABILITY AND PERFORMANCE

#### ALL BRASS PISTON REGULATOR

Provides consistent performance

#### METAL STRAIN RELIEF

Keeps hose from kinking

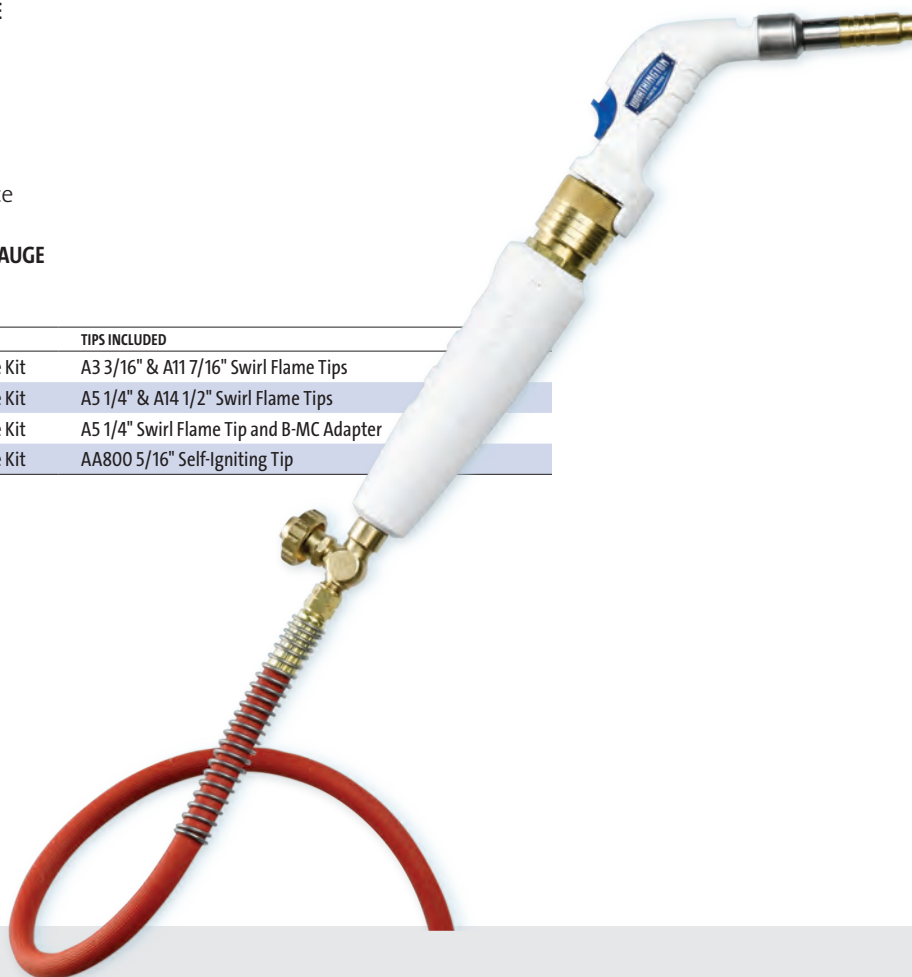
#### HIGH PERFORMANCE SWIRL FLAME TIPS

With replaceable burn tips produce maximum heat output

#### GAUGE GUARD PROTECTS 2" EASY READ GAUGE

WOR PROD NO	LENOX PROD NO	DESCRIPTION	TIPS INCLUDED
331804	10835LX311AB	Air Acetylene Kit	A3 3/16" & A11 7/16" Swirl Flame Tips
331807	10836LX4AB	Air Acetylene Kit	A5 1/4" & A14 1/2" Swirl Flame Tips
331952	10837LX5ABMC	Air Acetylene Kit	A5 1/4" Swirl Flame Tip and B-MC Adapter
331956	10838LX800AB	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**



**AA TORCH HANDLE**  
Comfortable grip with  
on/off valve and quick  
connect, "A" size  
fittings 3/8"



**AA HOSE**  
12-1/2' Hose with metal  
strain relief keeps hose  
from kinking at fittings,  
"A" size fittings 3/8"



**"B" TANK KEY**



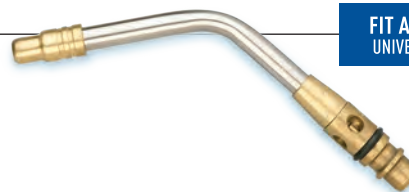
**ONE OR MORE  
SWIRL FLAME, OR  
SELF-IGNITING SWIRL  
FLAME TIPS**



# Joining Technologies

## AIR ACETYLENE TORCH TIPS

BRASS AND STAINLESS CONSTRUCTION  
REPLACEABLE BURN TIP, ORIFICE & "O" RING  
QUICK CONNECT



FIT ANY BRAND  
UNIVERSAL PARTS

### SWIRL FLAME

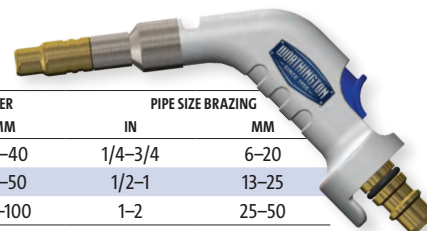
WOR PROD NO	LENOX PROD NO	DESCRIPTION	TIP SIZE		PIPE SIZE SOFT SOLDER		PIPE SIZE BRAZING	
			IN	MM	IN	MM	IN	MM
331946*	10850A2	Light-duty HVAC tip	1/8	3	1/8-1/2	3-13	1/8-1/4	3-6
331806	21844A3	Light-medium-duty tip	3/16	4.8	1/4-1	6-25	1/8-1/2	3-13
331801	21845A5	Medium-duty tip	1/4	6.3	3/4-1 1/2	19-40	1/4-3/4	6-20
331809	21846A8	Medium-heavy-duty tip	5/16	7.9	1-2	25-50	1/2-1	13-25
331803	21847A11	Heavy-duty tip	7/16	11.1	1 1/2-3	40-75	7/8-1 5/8	22-41
331800	21848A14	Extra-heavy-duty tip	1/2	12.7	2-3 1/2	50-90	1-2	25-50
331797	21849A32	Heaviest-duty tip	5/8	15.9	4-6	100-150	1 1/2-4	40-100

\*Rosebud flame tip for use with small diameter tubing



### SELF-IGNITING SWIRL FLAME

WOR PROD NO	LENOX PROD NO	DESCRIPTION	TIP SIZE		PIPE SIZE SOFT SOLDER		PIPE SIZE BRAZING	
			IN	MM	IN	MM	IN	MM
331951	21850AA500	Medium-duty tip	1/4	6.3	3/4-1 1/2	20-40	1/4-3/4	6-20
331947	21851AA800	Medium-heavy-duty tip	5/16	7.9	1-2	25-50	1/2-1	13-25
331948	21852AA900	Extra-heavy-duty tip	1/2	12.7	2-4	50-100	1-2	25-50



## AIR ACETYLENE ACCESSORIES

**FIT ANY BRAND  
UNIVERSAL PARTS**



**"B" TANKTOTE SLEEVE**  
WOR: 331942  
LENOX PROD NO: 10840BSLEEVE



**"MC" TANKTOTE SLEEVE**  
WOR: 331973  
LENOX PROD NO: 10841MCSLEEVE



**AIR ACETYLENE PISTON REGULATOR  
WITH TANKTOTE HANDLE, GAUGEGUARD  
AND 2" EASY READ GAUGE**

**WOR: 331778 "B"**  
LENOX PROD NO: 21854BREG

**WOR: 331943 "MC"**  
LENOX PROD NO: 21855MCREG

- Protects 2" Easy Read Gauge from damage
- Transport tank easily
- Integrated tank key storage



**AA TORCH HANDLE**  
WOR: 331781  
LENOX PROD NO: 21856AAH

- Comfortable grip with on/off valve and quick connect
- "A" Size fittings 3/8"



**ALL BRASS PISTON REGULATOR  
WITH GAUGEGUARD**  
WOR: 331944  
LENOX PROD NO: 10839ABR

- Solid brass regulator with gauge B connection



**STRIKER**  
WOR: 331774  
LENOX PROD NO: 10842STRIKER1



**"B" TANK KEY**  
WOR: 331775  
LENOX PROD NO: 10844TANKKEY



**TORCH HEAT SHIELD CLOTH**  
WOR: 331939  
LENOX PROD NO: 10845HSCLOTH

- 9"x12" (15.24cm x 20.32cm)



**AA HOSE**  
WOR: 331776 (12 1/2")  
LENOX PROD NO: 21857HOSE12

**WOR: 331783 (25")**  
LENOX PROD NO: 21858HOSE25

- Metal strain relief keeps hose from kinking at fittings
- "A" size fittings 3/8"



**"B" TO "MC" ADAPTER**  
WOR: 331779  
LENOX PROD NO: 21853BMC

- Adapts "B" regulator to fit "MC" tanks



**FLINT 5 PACK**  
WOR: 331777  
LENOX PROD NO: 10843FLINT5





## AIR PROPANE / MAP//PRO 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



**FIT ANY BRAND  
UNIVERSAL PARTS**

TANK NOT INCLUDED

WOR PROD NO	LENOX PROD NO	DESCRIPTION	TIPS INCLUDED
331950	21859LX35P	Air Propane / Map//Pro Kit	LP3 3/8" & LP5 3/4" Swirl Flame Tips
331966	21860LX4P	Air Propane / Map//Pro Kit	LP4 1/2" Swirl Flame Tip
331955	21861LX300P	Air Propane / Map//Pro Kit	LP300 3/8" Self-Igniting Swirl Flame Tip
331963	21862LX400P	Air Propane / Map//Pro Kit	LP400 1/2" Self-Igniting Swirl Flame Tip

Tip size and quantity vary by kit. See chart above

## AIR PROPANE / MAP//PRO ACCESSORIES

**FIT ANY BRAND  
UNIVERSAL PARTS**



**AIR PROPANE / MAP//PRO PISTON  
REGULATOR WITH GAUGE GUARD  
AND 2" EASY READ GAUGE**  
WOR: 331940

LENOX PROD NO: 21868APREG

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



**AIR PROPANE / MAP//PRO TORCH  
HANDLE**  
WOR: 331941

LENOX PROD NO: 21869APH

- Comfortable grip with on/off valve and quick connect
- Fitting size 9/16"



**12-1/2' HOSE WITH METAL STRAIN RELIEF**  
WOR: 331780

LENOX PROD NO: 21870PHOSE112

**25' HOSE WITH METAL STRAIN RELIEF**  
WOR: 331782

LENOX PROD NO: 21871PHOSE25

- Metal strain relief keeps hose from kinking at fittings



# Joining Technologies

## AIR PROPANE / MAP//PRO TIPS

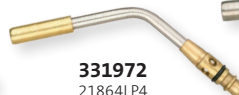
FIT ANY BRAND  
UNIVERSAL PARTS

BRASS AND STAINLESS CONSTRUCTION  
REPLACEABLE BURN TIP, ORIFICE & "O" RING  
QUICK CONNECT



### SWIRL FLAME

WOR PROD NO	LENOX PROD NO	TIP SIZE		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	IN	MM
331964	10852LP2	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
331967	21863LP3	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
331972	21864LP4	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
331954	21865LP5	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
331957	10854LP6	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

WOR PROD NO	LENOX PROD NO	TIP SIZE		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	IN	MM
331815	21866LP300	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
331816	21867LP400	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

### COMPATIBLE WITH COMPETITIVE COMPONENTS

Durable, lightweight case can be used with competitor's torch, fuel and accessories



### HOLDS:

two 14.1 oz gas cylinders

FUEL AND SOLDER

ACCESSORIES NOT INCLUDED

WOR PROD NO	LENOX PROD NO	DESCRIPTION	TIP INCLUDED
331810	14812LX300FB	Mobile Torch System II	LP300 3/8"
331796	14813LX400FB	Mobile Torch System II	LP400 1/2"
331976	10886LXPSREG	All Brass Regulator	—

### ALL SYSTEMS CONTAIN THE FOLLOWING:



#### MOBILE TORCH II CASE

WOR: 331977

LENOX PROD NO: 14814LXFB

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



#### ALL BRASS REGULATOR

WOR: 331976

LENOX PROD NO: 19886LXPREG

- CGA-600 cylinder connection for MPP and Propane



#### 12-1/2' HOSE WITH METAL STRAIN RELIEF

WOR: 331780

LENOX PROD NO: 21870HOSE12

- Metal strain relief keeps hose from kinking at fittings



#### AP HANDLE

WOR: 331941

LENOX PROD NO: 21869APH

- Comfortable grip with on/off valve and quick connect
- Fitting size 9/16"



#### SELF-IGNITING SWIRL FLAME AIR PROPANE / MAP//PRO TIP

WOR: 331815

LENOX PROD NO: 21866LP300

WOR: 331816

LENOX PROD NO: 21867LP400

- Replaceable burn tip, orifice and "O" ring

**FIT ANY BRAND  
UNIVERSAL PARTS**



# Joining Technologies

## SELF-IGNITING HAND TORCHES

Maximum Heat Output, Durability, and Safety

### TARGETED HEAT OUTPUT

For accurate and efficient performance

### CAST ALUMINUM CONSTRUCTION

Provides outstanding durability

### SOLID BRASS REGULATORS

For efficient fuel regulation



WOR PROD NO	LENOX PROD NO	REPLACEMENT BURN TIPS	DESCRIPTION
331784	21178LT92	—	Ultra Swirl with Adjustable Flame
331802	21179LT92R	331795	Adjustable Ultra Swirl Replacement Assembly
331785	21176LT91	—	Swirl with Adjustable Flame
331813	21177LT91R	331794	Adjustable Swirl Replacement Assembly
331789	21174LT90	—	Swirl Flame Hand Torch
331979	21175LT90R	331794	Swirl Flame Replacement Assembly
331786	21183LT60	—	Heat Shrink Hand Torch
331980	21184LT60R	331798	Heat Shrink Replacement Assembly
331790	21172LS20	—	Self-igniting 360° Swivel Torch
331981	21173LS20R	331814	Self-igniting 360° Swivel Torch Replacement Assembly
331792	21170LS10	—	360° Swivel Torch
331978	21171LS10R	—	360° Swivel Torch Replacement Assembly



WOR PROD NO	LENOX PROD NO	REBUILD KITS PROD NO	REPLACEMENT 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
331789	21174LT90	331979	331794	1/8-2	3-50	1/16-3/4	2-19	1/8-3	3-75	1/16-1	2-25
331785	21176LT91	331813	331794	1/8-2	3-50	1/16-3/4	2-19	1/8-3	3-75	1/16-1	2-25
331784	21178LT92	331802	331795	3/4-3	19-75	1/4-1	6-25	3/4-4	19-100	1/4-1-3/4	6-45
331786	21183LT60	331980	331798	—	—	—	—	—	—	—	—
331792	21170LS10	331978	—	1/4-3	6-75	1/4-1	6-25	1/4-3-1/2	6-85	1/4-1-3/4	6-45
331790	21172LS20	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





## LT92KFB HAND TORCH KIT

Hot Performance. Cool Mobility.

### STORAGE

Improved carrying case holds two Worthington 14.1 oz gas cylinders

Store and transport LENOX Self-Igniting Hand Torch

Handle folds down for easy storage

Added space for tubing cutter, solder and accessories

### PROTECTION

Durable case protects fuel, torch and accessories

### COMPATIBLE WITH COMPETITIVE COMPONENTS

Durable, lightweight case can be used with competitors fuel and accessories

**FIT ANY BRAND  
UNIVERSAL PARTS**



### HOLDS:

two 14.1 oz gas cylinders

SOLDER ACCESSORIES & TOOLS NOT INCLUDED



WOR PROD NO	LENOX PROD NO	DESCRIPTION	HAND TORCH INCLUDED
331808	14816LT92FB	Hand Torch & Case Only	LT92
332399	N/A	14.1 oz NRT Propane Gas - US	—
332400	N/A	14.1 oz NRT Propane Gas - CANADA	—
332401	N/A	14.1 oz NRT Map Pro Gas - US	—
332402	N/A	14.1 oz NRT Map Pro Gas - CANADA	—



## 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

Formula advantages

Lowest melting temperature: 410° F

Best flowing lead-free solder available

Highest tensile strength: 7130 psi



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON QTY
			LB	G	IN	MM	
331755	WS15086	Sterling Wire Spool	1	454	.118	3	50
331842*	WS15086NB*	Sterling Wire Spool	1	454	.118	3	50
331841	WS15259	Sterling Wire Spool	1	454	.118	3	20
331843	WS15084	Sterling Wire Spool	1	454	.062	1.6	50
331897	WS15090	Sterling Wire Spool	1/4	113	.118	3	50
331896	WS15092	Sterling Wire Spool	1/2	227	.118	3	50
331898	WS15091	Sterling Wire Spool	5	2270	.118	3	10
331895	WS15284	Sterling Wire Spool	5	2270	.062	1.6	10
331899	WS15081	Sterling Sm Ingot	5	2270	—	—	10

\* Spool is not sold in an individual box

### PREMIUM SILVER LEAD-FREE

Wide pasty range (440°–640° F) allows for more working time

Ideal for use on large diameter pipe

High tensile strength: 6900 psi

Low melting temperature: 440° F



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON QTY
			LB	G	IN	MM	
331756	WS15318	Silver Wire Spool	1	454	.118	3	50
331859*	WS15318NB*	Silver Wire Spool	1	454	.118	3	50
331844	WS15344	Silver Wire Spool	1	454	.118	3	20
331900	WS15319	Silver Wire Spool	1/4	113	.118	3	50

\* Spool is not sold in an individual box

### SELECT LEAD-FREE

Formula advantages

Low melting temperature: 419° F

Increased flow properties

High tensile strength: 6950 psi



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON QTY
			LB	G	IN	MM	
331754	WS15037	Lead-Free Wire Spool	1	454	.118	3	50
331838*	WS15037NB*	Lead-Free Wire Spool	1	454	.118	3	50
331836	WS15262	Lead-Free Wire Spool	1	454	.093	2.4	50
331894	WS15039	Lead-Free Wire Spool	1/4	113	.118	3	50
331893	WS15041	Lead-Free Wire Spool	1/2	227	.118	3	50

\* Spool is not sold in an individual box

Unit lot numbering ensures complete traceability

## 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	LENOX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON
			LB	G	IN	MM	QTY
331762	WS15067	Silver Bearing Alloy Spool	1	454	.118	3	50
331910	WS15068	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

Melts, flows and performs better than 95/5

Melting temperature: 445° F

Tensile strength: 5800 psi

ASTM B-32



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON
			LB	G	IN	MM	QTY
331761	WS15064	97/3 Wire Spool	1	454	.118	3	50
331864	WS15397	97/3 Wire Spool	1	454	.062	1.6	50
331904	WS15355	97/3 Wire Spool	1/4	113	.118	3	50
331903	WS15066	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	LENOX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON
			LB	G	IN	MM	QTY
331760	WS15018	95/5 Wire Spool	1	454	.118	3	50
331861	WS15181	95/5 Wire Spool	1	454	.093	2.4	50
331902	WS15312	95/5 Wire Spool	1/4	113	.118	3	50
331901	WS15313	95/5 Wire Spool	1/2	227	.118	3	50

Unit lot numbering ensures complete traceability



## SPECIALTY 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	LENEX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON QTY
			LB	G	IN	MM	
331863	WS15100	96/4 HVAC Wire Spool	1	454	.118	3	10
331862	WS15204	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	LENEX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON QTY
			LB	G	IN	MM	
331860	WS15098	94/6 HVAC Wire Spool	1	454	.118	3	10

### 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	LENEX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON QTY
			LB	G	IN	MM	
331865	WS15023	Acid Core Wire Spool	1	454	.062	1.6	50
331866	WS15406	Acid Core Wire Spool	1	454	.125	3.2	50
331907	WS15025	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	LENEX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CTN QTY
			LB	G	IN	MM	
331868	WS15030	Rosin Core Wire Spool	1	454	.062	1.6	50
331867	WS15401	Rosin Core Wire Spool	1	454	.031	.8	50
331870	WS15402	Rosin Core Wire Spool	1	454	.040	1	50
331869	WS15403	Rosin Core Wire Spool	1	454	.050	1.3	50
331871	WS15404	Rosin Core Wire Spool	1	454	.100	2.5	50
331872	WS15405	Rosin Core Wire Spool	1	454	.125	3.2	50
331909	WS15031	Rosin Core Wire Spool	1/4	113	.062	1.6	50
331908	WS15032	Rosin Core Wire Spool	1/2	227	.062	1.6	18

Unit lot numbering ensures complete traceability



# Solder

## LEADED SOLDER

FOR USE ONLY IN NON-POTABLE WATER APPLICATIONS

### 50/50 LEADED

50% Tin, 50% Lead Solder

WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON QTY
			LB	G	IN	MM	
331753	WS10098	50/50 Wire Spool	1	454	.125	3.2	50
331887	WS10305	50/50 Wire Spool	1/4	113	.125	3.2	50
331886	WS10306	50/50 Wire Spool	1/2	227	.125	3.2	50
331888	WS10100	50/50 Wire Spool	5	2270	.125	3.2	10

### 40/60 LEADED

40% Tin, 60% Lead Solder

WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON QTY
			LB	G	IN	MM	
331881	WS10307	40/60 Wire Spool	1/2	227	.125	3.2	50
331850	WS10088	40/60 Wire Spool	1	454	.125	3.2	50

### 60/40 LEADED

60% Tin, 40% Lead Solder

WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON QTY
			LB	G	IN	MM	
331858	WS10261	60/40 Wire Spool	1	454	.125	3.2	50



### EXTRUDED LEADED BARS

Various Ratios

WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON QTY
			LB	G	IN	MM	
331851	WS10257	50/50 Extruded Bar	1	454	—	—	50
331885	WS10161	50/50 Extruded Meter Bar	1/2	227	—	—	50
331882	WS10297	50/50 Extruded Tri Bar	1/4	113	1/4	6.4	50
331883	WS10298	50/50 Extruded Tri Bar	13/32	184	5/16	7.9	50
331884	WS10299	50/50 Extruded Tri Bar	1/2	227	7/16	11.1	50
331853	WS10069	60/40 Extruded Bar	1	454	—	—	20
331848	WS10300	40/60 Extruded Bar	1	454	—	—	50
331845	WS10316	30/70 Extruded Bar	1	454	—	—	50

## SPECIALTY LEADED SOLDER

FOR USE ONLY IN NON-POTABLE WATER APPLICATIONS

### 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	LENOX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON QTY
			LB	G	IN	MM	
331846	WS10317	30/70 Acid Core Wire Spool	1	454	.125	3.2	50
331852	WS10314	60/40 Acid Core Wire Spool	1	454	.062	1.6	50
331847	WS10315	40/60 Acid Core Wire Spool	1	454	.062	1.6	50
331880	WS10196	3/2/95 Acid Core Wire Spool	1/2	227	.125	3.2	50

### ROSIN CORE LEADED

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

WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		DIAMETER		CARTON QTY
			LB	G	IN	MM	
331855	WS10312	60/40 Rosin Core Wire Spool	1	454	.062	1.6	50
331856	WS10318	60/40 Rosin Core Wire Spool	1	454	.031	.8	50
331854	WS10321	60/40 Rosin Core Wire Spool	1	454	.100	2.5	50
331857	WS10322	60/40 Rosin Core Wire Spool	1	454	.125	3.2	50
331849	WS10313	40/60 Rosin Core Wire Spool	1	454	.062	1.6	50





# Solder

## PLUMBING KITS

### PREMIUM 8 OZ SOLDERING KIT WOR: 331935 WS15224

Includes everything needed to make professional quality repairs: Worthington 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

Solder Listed



### 4 OZ PLUMBING KIT WOR: 331769 WS15223

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

Solder Listed



## 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	LENOX PROD NO	DESCRIPTION	WEIGHT		CTN QTY
			OZ	G	
331912	WS80325	Cold Coat Thermal Shield Gel Spray	32	94.6	8

## BRAZING RODS

.125" x .050" x 20"

3.175MM x 1.27MM x 508MM

**BRAZING RODS FOR JOINING COPPER, BRASS AND BRONZE**

**PACKAGED IN CONVENIENT PLASTIC TUBES**

1lb / 454g, 1/2lb / 227g & 1/4lb / 113g



### 15% SILVER BRAZING RODS

15% Silver, 5% Phosphorus, balance 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 LENOX Brazing Flux (331932/WS78172)

Temperature: Melt 1190° F, Flow 1475° F

Meets AWS BCuP-5



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		CARTON QTY
			LB	G	
331740	WS78171	Brazing Rods	1	454	12
331741	WS78169	Brazing Rods	1/4	113	12

### 6% SILVER BRAZING RODS

6% Silver, 7.5% Phosphorus, balance 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 LENOX Brazing Flux (331932/WS78172)

Temperature: Melt 1190° F, Flow 1460° F

Meets AWS BCuP-4



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		CARTON QTY
			LB	G	
331751	WS78168	Brazing Rods	1	454	12
331752	WS78166	Brazing Rods	1/4	113	12

### 5% SILVER BRAZING RODS

5% Silver, 6% Phosphorus, balance 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 LENOX Brazing Flux (331932/WS78172)

Temperature: Melt 1190° F, Flow 1495° F

Meets AWS BCuP-3



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		CARTON QTY
			LB	G	
331746	WS78165	Brazing Rods	1	454	12
331747	WS78163	Brazing Rods	1/4	113	12

### 0% SILVER BRAZING RODS

0% Silver, 7.25% Phosphorus, balance Copper

Phosphorus acts as a fluxing agent when joining copper to copper. When joining brass use LENOX Brazing Flux (331932/WS78172)

Very fluid, medium temperature brazing alloy

Temperature: Melt 1310° F, Flow 1460° F

Meets AWS BCuP-2



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		CARTON QTY
			LB	G	
331738	WS78162	Brazing Rods	1	454	12
331739	WS78160	Brazing Rods	1/4	113	12



# Solder

## BRAZING WIRE

### 45% SILVER BRAZING WIRE

45% Silver, 25% Zinc, balance Copper  
Melting temperature: 1225°–1500° F  
Meets AWS Bag-5  
Sold in troy ounces

WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		CARTON QTY
			TROY OZ	G	
331742	WS78045	Brazing Wire	1	31	1
331744	WS78104	Brazing Wire	3	93	1
331745	WS78013	Brazing Wire	5	156	1

### 56% SILVER BRAZING WIRE

56% Silver, 17% Zinc, 5% Tin, balance Copper  
Melting temperature: 1145°–1500° F  
Meets AWS Bag-7  
Sold in troy ounces

WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		CARTON QTY
			TROY OZ	G	
331748	WS78185	Brazing Wire	1	31	1
331749	WS78186	Brazing Wire	3	93	1
331750	WS78063	Brazing Wire	5	156	1



## 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 #

Certificate of Analysis and Certification to Specification available if required



WOR PROD NO	LENOX PROD NO	DESCRIPTION	ALLOY	CARTON QTY
331878	WS00533	Pure Tin Bar	Sn100	70 lb
331873	WS44014	#3 Babbitt (Willard #3) Genuine Sm 5.5# Ingot	Sn87 Sb10 Cu3	55 lb
331876	WS44016	B23-G2 89/7.5/3.5 Babbitt Lg 17.5# Ingot	Sn89 Sb7.5 Cu3.5	35 lb
331877	WS44017	B23-G2 Babbitt Sm 5.5# Ingot	Sn89 Sb7.5 Cu3.5	55 lb
331875	WS44028	4x Nickel Babbitt Sm 5.5# Ingot	Sn89 Sb7.5 Cu3.0 Ni0.5	55 lb
331874	WS42050	#4 Babbitt Pb96 Sn4 S8.5# avg Sm Ingot	Pb96 Sb4	50 lb
331879	WS42051	Univ Babbitt B23-G7 8.5# avg Sm Ingot	Pb75.5 Sb15 Sn9.5	50 lb

MSDS available in hard copy or downloadable from [worthingtoncylinders.com](http://worthingtoncylinders.com)

## SOLDERING AND BRAZING FLUX

**CRITICAL FOR PROPER SOLDERING AND SELECTED BRAZING ACTIVITIES**  
**AIDS REMOVAL OF OXIDES AND IMPURITIES**  
**HELPS DRAW SOLDER AND BRAZING ALLOYS INTO JOINTS**  
**PROVIDES BETTER ADHESION OF ALLOY TO PIPE**



### WATER SOLUBLE FLUX

NSF 61 certified safe for potable water applications

Water soluble lead-free flux

Meets ASTM B-813

Excellent performance with any lead-free Solder

Unit lot numbering ensures complete traceability



### TINNING FLUX

NSF 61 certified safe for potable water applications

Petroleum based lead-free flux with metals for pre-tinning copper

Check local plumbing codes for usage and restrictions

Unit lot numbering ensures complete traceability



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		CTN
			OZ	G	QTY
331771	WS78091	Water Soluble Flux	1.7	48	30
331934	WS78092	Water Soluble Flux	8	227	12
331933	WS78093	Water Soluble Flux	16	454	12

WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		CTN
			OZ	G	QTY
331936	WS78096	Tinning Flux	1.7	48	30

### 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 flux metals: BAg, BCuP

AWS A5.31-91, Type FB3A



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		CTN
			OZ	G	QTY
331932	WS78172	Silver Brazing Paste Flux	6	170	6

### PASTE 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



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT		CTN
			OZ	G	QTY
331770	WS78090	Paste Flux	2	57	30
331931	WS78130	Paste Flux	8	227	12
331917	WS81144	Paste Flux - Bottle with Brush Cap	4	113	6
331930	WS80143	Paste Flux	16	454	12



# Solder

## GENERAL PURPOSE LIQUID SOFT SOLDER FLUX

Formulated for soldering stainless steel, Monel®, high-chrome alloys, Inconel®, nickel, copper, brass, ferrous alloys and many other metals

Excellent across a broad range of base metals, solders and temperatures

Aggressively removes oxide coatings and other impurities

Use for soft soldering



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT OZ G	CTN QTY
331928	WS78209	General Purpose Liquid Soft Solder Flux - USA	4 113	6
334052	WS78209	General Purpose Liquid Soft Solder Flux - CANADA	4 113	6

## HIGH ACTIVITY, STAINLESS STEEL LIQUID FLUX

Formulated for soldering stainless steel and high-chrome alloys

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



WOR PROD NO	LENOX PROD NO	DESCRIPTION	WEIGHT OZ G	CTN QTY
331929	WS78208	Stainless Steel Liquid Flux - USA	4 113	6
334053	WS78208	Stainless Steel Liquid Flux - CANADA	4 113	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	LENOX PROD NO	DESCRIPTION	CARTON QTY
331923	WS80138	2 Yard Open Mesh Cloth	36
331924	WS80139	5 Yard Open Mesh Cloth	12
331919	WS78119	10 Yard Open Mesh Cloth	6
331921	WS80319	25 Yard Open Mesh Cloth	6

### SAND CLOTH

Flexible cloth backing

Water resistant resin coating

Long lasting performance

120 Grit



WOR PROD NO	LENOX PROD NO	DESCRIPTION	CARTON QTY
331768	WS78117	2 Yard Sand Cloth	36
331925	WS80136	5 Yard Sand Cloth	12
331920	WS80137	10 Yard Sand Cloth	6
331922	WS78118	25 Yard Sand Cloth	6

## 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	LENOX PROD NO	DESCRIPTION	COLOR	CARTON QTY
331766	WS78121	1/2" Fitting Brush	Black	12
331767	WS78122	3/4" Fitting Brush	White	12
331916	WS80114	1" Fitting Brush	Red	12
331915	WS80186	1-1/4" Fitting Brush	Black	12
331914	WS80187	1-1/2" Fitting Brush	Blue	12
331913	WS80188	2" Fitting Brush	Red	12
331772	WS80145	1/2" Tube Cleaning Brush	Black	12
331773	WS80146	3/4" Tube Cleaning Brush	White	12
331938	WS80147	1" Tube Cleaning Brush	Red	12
331764	WS78120	Multi-Purpose 4-IN-1 Brush 3/4" & 1/2"		12
331765	WS80129	General Purpose Acid Brush 5-pack		12



## ACCESSORIES

### DEBURRING TOOL KIT

Pencil deburring tool removes burrs



WOR PROD NO	LENOX PROD NO	DESCRIPTION	CARTON QTY
331927	WS78188	10 piece Deburring Tool Kit	10





## Limited Warranty

Worthington Cylinders warrants to the original owner that its products are free from defects in material and workmanship for the following period from the date of the original purchase: Torches and torch accessories are warranted for three years. Please provide proof of date of purchase when making claim.

All other products are covered under our manufacturer's warranty which guarantees the products to be free from defects in material and workmanship for a period of 90 days.

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. This warranty is void if the product is repaired or modified in any way by anyone other than Worthington Cylinders.

WORTHINGTON CYLINDERS MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE. IN NO EVENT SHALL WORTHINGTON CYLINDERS BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.





[www.WorthingtonCylinders.com](http://www.WorthingtonCylinders.com)