

**TORCHES / FUELS / ACCESSORIES** 

# BERNZOMATIC

# **TORCH AND FUEL BASICS**

### MAP//PRO VS. PROPANE

Work is completed most efficiently with the primary flame

### Map//Pro fuel has 40% more heat transfer in the primary flame than Propane

Fuel Type	Flame temperature in air (°F)	Primary combustion heating value (BTU/Cu.Ft.)
P Propane	3,600	255
MAP//Pro	3,730	433

\*Temperatures are approximate

**SOLDERING** - The process of joining two copper pipes to create a water tight seal.

#### Steps:

- 1. Clean fitting and pipe with an abrasive cloth.
- 2. Apply flux to the fitting and pipe.
- 3. Heat joint with primary flame until flux sizzles.
- 4. Apply solder to the joint.

Note: Solder should be melted by the heat of the pipe and fitting, not direct contact with the flame.

Recommended Torches:

TS8000 / BZ82500HT / TS4000 / TS99 / TS839 / TS3000 / UL2317

**BRAZING -** The process of joining two independent pieces of metal to form one strong weight bearing joint.

#### Steps:

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- 1. Stage metal pieces into desired position.
- 2. Heat joint until it glows.
- 3. Apply brazing rod to joint while continuing to heat.

Note: Brazing rod should be melted by the heat of the metal pieces, not direct contact with the flame.

Recommended Torches: 0X2550 / TS8000 / BZ8250HT / TS99 / TS839 / TS4000

### FIND THE RIGHT TORCH IN 3 EASY STEPS

1 Application	2	Match application to corresponding fuel		onding fuel	
	Micro		Professional U	se	Specialty
Soldering electronic circuits	B	P	M		
Heat shrink	В	P	M		
Jewelry design and repair	В	P	M		
Soldering copper pipes (up to 3/4")		P	M		
Thawing frozen pipes and locks		P	M		
Loosening rusted nuts and bolts		P	M		
Removing paint, caulk and putty		P	M		
Lighting pilot lights and grills		P	M		
Soldering copper pipes (over 3/4")			M		
Brazing copper pipes			M		
Brazing steel			M		
Hardening steel			M	&	•
Repairing garden tools			M	&	•
Light welding			M	&	•
Thin metal cutting			M	&	•
3 Choose corresponding torch head, kits and accessories					
BUTANE PROPANE		MAP//PRO			

# **STANDARD USE**

BernzOmatic<sup>®</sup> standard torches are designed for light duty tasks using propane fuel. In addition to light soldering, standard torches are used for a variety of applications like general heating and thawing frozen pipes. The standard torch category offers multiple flame types for all light duty jobs.

#### TORCHES

BernzOmatic<sup>®</sup> standard torches are engineered for efficient use with propane fuel only. These torches are designed for soldering and heating applications.

# TS1500

Self-Igniting Torch Trigger start for ease of lighting. Stainless steel burn tube and brass tip for durability.

•General purpose flame for basic use

**TS1500KC**—Kit includes TS1500 torch and 14.1 oz. propane fuel.

**PK1500KC**—Kit includes TS1500 torch, 14.1 oz. propane fuel, lead-free solder wire, soldering paste and flux brush.



#### TS3000 Self-Igniting Torch

Ergonomically designed comfort grip. Trigger start for ease of lighting. Stainless steel burn tube and brass tip for durability.

• Pressure regulated for consistent performance

**TS3000KC**—Kit includes **TS3000** torch and 14.1 oz. propane fuel.

#### WT2301 Self-Igniting Torch

Multipurpose self-igniting propane torch. Designed for small, soft soldering and general household use. Adjustable flame control knob.

**WK2301**—Kit includes WT2301 torch and 14.1 oz. Propane fuel.

**WPK2301**—Kit includes WT2301 torch, 14.1 oz. Propane fuel, lead-free solder wire, soldering paste and flux brush.







#### UL2317 Basic Pencil Flame Torch

Produces 1/2" wide pencil flame for light work.

•Brass burn tube for durability

Solid brass regulators for durability
Adjustable flame for controlled heat output

**UL100**—Kit includes UL100 torch and 14.1 oz. propane fuel.

UL125—7-piece pencil flame torch kit includes: Solid brass torch, spark lighter, utility flame tip, durable storage case, 14.1 oz. propane fuel cylinder, flame spreader, and extra sparker flints.

**PK1001KC**—5-piece pencil flame plumbers kit includes: UL100 torch, 14.1 oz. propane fuel, lead-free solder wire, soldering paste and flux brush.



# BZ4500HS

Heat Shrink Torch Wide flame optimized for heat shrink applications.

•Continuous run lock

- Instant on/off trigger igniter
- •Cast aluminum body
- For best results use with propane fuelPressure regulated for consistent
- Pressure regulated performance



#### JT680 Jumbo Flame Torch

Produces a high volume 1-1/2" flame for heavy duty soldering and heating jobs. Brass burn tube for durability. Fuel control knob.

Solid brass regulators for durability
Adjustable flame for controlled heat output



#### JT850 Self-Igniting Outdoor Torch Easy-start yard and utility torch produces 20,000 BTU output.

# **PROFESSIONAL USE**

BernzOmatic<sup>®</sup> professional torches are designed for heavy duty jobs using Map-Pro or propane fuel. In addition to light duty tasks, professional torches provide higher heat output for applications like brazing and hard soldering. Professional torches feature swirl flame technology that mixes fuel to burn more efficiently in the primary flame creating higher working temperatures which completes the job faster.

#### TORCHES

BernzOmatic<sup>®</sup> professional torches are engineered for efficient use with Map-Pro fuel. These torches are designed for soldering, heating, and brazing applications. (See Torch and Fuel basics for Map-Pro advantages).

#### TS8000

#### **High Intensity Trigger Start Torch**

Instant on/off trigger ignition provides easier lighting and increased fuel savings. Large, optimized swirl flame burns hotter. High intensity flame for maximum heat output provides 30% faster soldering time\*.

- Adjustable flame control allows for a more precise flame
- •Run lock button keeps torch lit for finger-free use
- Pressure regulated for consistent performance
- Cast aluminum construction provides added durability

**TS8000BZKC**—Kit includes TS8000 torch and 14.1 oz. MAP-Pro fuel. \*Than TS4000



# BZ8250HT Trigger Start Hose Torch

Provides maximum accessibility to tight spaces with a 5 foot hose and slender body design. Instant on/off trigger ignition provides easier lighting and increased fuel saving. Optimized swirl flame burns hotter.



- Adjustable flame control allows for a more precise flame
- •Lock button keeps torch lit for finger-free use
- Pressure regulated for consistent performance
- Stainless steel burn tube for durability

**BZ8250HTKC**—Kit includes BZ8250HT hose torch, fuel holster, and 14.1 oz MAP-Pro fuel.

#### TS4000 Trigger-Star

## Trigger-Start Torch

Instant on/off trigger increases fuel savings and convenience. Lock button keeps torch lit for finger-free use. Replaceable brass tip. Burn tip produces swirl flame for maximum heat output. Pressure regulated to burn in all directions.

- Efficient swirl flame provides high heat output
- Cast aluminum construction provides added durability

**TS4000ZKC**—Kit includes TS4000 torch and 14.1 oz. MAP-Pro fuel.



#### TS7000 Trigger Start Torch

Instant on/off trigger ignition provides easier lighting and increased fuel savings. Optimized swirl flame burns hotter. Adjustable flame for a more precise flame.

• Swirl flame provides high heat output

- •Lock button keeps torch lit for finger-free use
- Pressure regulated for consistent performance
- Cast aluminum construction provides added durability



#### BZ4600SW Swivel Torch

360° swivel head allows for accessibility in tight work spaces. Double "O" ring connection to help prevent gas leaks. Adjustable flame for a more precise flame.



•Swirl flame provides high heat output

• Pressure regulated for consistent performance

Stainless steel burn tube for durability

#### TS99

#### Trigger Start Swivel Torch

360° swivel head allows for accessibility in tight work spaces. Trigger start ignition for easier lighting. Double "O" ring connection to help prevent gas leaks. Adjustable flame for a more precise flame.

Swirl flame provides high heat outputPressure regulated for consistent performance.

**TS99ZKC**—Kit includes TS99 torch, 14.1 oz. MAP-Pro fuel.

**PK99KC**—Kit includes TS99 torch, 14.1 oz. MAP-Pro fuel, lead-free solder wire, soldering paste and flux brush.

#### TS839 Trigger Start Swivel Torch

360° swivel head allows for accessibility in tight work spaces. Push button ignition for easy lighting. Adjustable flame for a more precise flame.

Swirl flame provides high heat output

• Pressure regulated for consistent performance

• Stainless steel burn tube for durability

**TS839ZKC**—Kit includes TS839 torch, 14.1 oz. MAP-Pro fuel.



#### OX2550KC CUTTING, WELDING, AND BRAZING TORCH KIT

Kit includes burner wand, hose, oxygen regulator, fuel gas valve, cylinder stand, 1.4 cubic foot oxygen, 14.1 oz. MAP-Pro fuel, spark lighter, and 5 brazing/welding rods.





# **SPECIALTY USE**

BernzOmatic<sup>®</sup> specialty torches provide a number of different solutions for unique jobs. Specialty torches offer specific tools for applications like electrical soldering, food preparation and outdoor care. These torches use various fuels depending on the application and torch solution.

#### **MICRO TORCHES**

BernzOmatic<sup>®</sup> micro torches are engineered for efficient use with butane fuel. The torches are designed for precision soldering of electronics, hobby work and jewelry.



#### **ST200 Micro Torch**

- Precision flame for
- detailed application/use. Adjustable flame control knob for ease in switching between different applications.



### UTILITY LIGHTERS

BernzOmatic® offers a versatile assortment of innovative utility lighters-there's a perfect lighter for every need. Use them throughout the year, wherever you relax, work or play. All BernzOmatic® lighters are manufactured to the highest standards.

#### BZLTR200 **Flexible Lighter**

Perfect for hard to reach places. Large circular flame for outdoor use. Adjustable flame control knob for ease in switching between different applications.

- •Flexible stem for hard-toreach places
- •Adjustable windproof flame •Comfortable ergonomic
- design
- •Large fuel window
- Refillable



# BZLTR300R

**Premium Flexible Lighter** Great for camping or tailgating. • Flexible stem for hard-to-reach places

- •Adjustable windproof flame
- •Built in LED light
- Comfortable ergonomic design
- •Large fuel window
- Refillable





#### BZLTR100R **Utility Lighter**

Ideal for everyday use. Lighting candles, indoor fire places, gas stoves, and general indoor use.

- Adjustable flame • Comfortable, ergonomic
- design Large fuel window
- Refillable



# FUELS

We provide the fuels that put your tools to work. Our industry-preferred 14.1 oz BernzOmatic® fuels can connect to torch applications for maximum mobility in tight spaces. We also feature a full line of steel propane cylinders for cooking, temporary heating and more.

#### BernzOmatic<sup>®</sup> Propane, MAP-Pro™, Oxygen, and Butane fuels

BernzOmatic<sup>®</sup> Propane, Max Power Propylene and Oxygen fuels.





MG9 14.1 oz. Map//Pro Fuel Cylinder Ideal for medium to heavy soldering and brazing. • Flame temperature in air = 3600 F



#### OX9 1.4 oz. Oxygen Cylinder

To be used with Max Power Propylene gas for higher temperature combustion. Ideal for:

- •Brazing / Welding
- •Medium to heavy soldering
- •Cutting thin sheet metal
- Surface hardening of metalFlame temperature in air is dependent
- on fuel gas

TS916 16.4 oz. Propane Cylinder For use with most portable recreational appliances requiring propane. • Also available in a 2-pack or 4-pack.

Reconstruction





### BZLTR-R

Butane Lighter Refills • For use with BernzOmatic lighters: BZLTR100R, BLTR200, and BZLTR300R.



BERNZ<mark>O</mark>MATIL

### BernzOmatic<sup>®</sup> Fuel Portables

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Used for portable cooking, propane-fueled appliances, temporary heating, and more. Painted with Durabond™ powder coat paint—the most durable in the industry for long life. All steel construction. Made in the USA.

4.25 lb. Propane Cylinder	30 lb. Propane Cylinder	100 lb. Propane Cylinder	
11 lb. Propane Cylinder	40 lb. Propane Cylinder		
20 lb. Propane Cylinder	oyunuci		

#### WELDING & BRAZING RODS

BernzOmatic<sup>®</sup> offers a wide variety of welding and brazing rods for various types of metals.

Welding/Brazing Rods	Working Temp	Brinnell Hardness	PSI Tensile Strength
AL3 Aluminum Rods	700° F - 750° F	100	
PC3 Phosphorous Copper Rods	1310º F - 1475º F		40,000
NS3 Nickle Silver Rods	1680º F		85,000
<b>WB5</b> Bronze Rods	1620º F		60,000

#### Brazing and welding alloy

ITEM#	DESCRIPTION	CASE PACK
NS3	2pc. Nickel-Silver	2
PC3	3pc. Copper Phosphorus	2
WB5	4pc. Bronze	2
AL3	2pc. Aluminum	2

#### SOLDER AND FLUX

BernzOmatic® offers solid, rosin core, and acid core wire solder and flux for various types of soldering applications.

Plumbing Flux	x		BERNZOMATIC	
ITEM#	DESCRIPTION	CASE PACK		
SWSF100	1oz. Water Soluble & Brush	6		
PF200	2oz. Petroleum & Brush	6		
PTF800	8oz. Tinning Flux	6		

Abrasives and	d thermal inhibitors			BERNZOMATIC
ITEM#	DESCRIPTION	CASE PACK	1.5° X 10 yds	HEAT CLOTH " REAT CLOTH III REAT CLOTH NEAR RESOLUTION OF CALOR LINE CALORIVAL
SCSYD HC9X12	2yd. Sand Cloth Heat Cloth	6 6		A set of management of the set of

#### Plumbing flux

ITEM#	DESCRIPTION	CASE PACK	BERNZON
SSW300PK	Premium Solder, Water Soluble Flux, Flux Brush, Sand Cloth	6	



#### SOLDER

#### Premium silver bearing lead-free, NSF certified

ITEM#	DESCRIPTION	CASE PACK
SSW300	3oz. Solid Wire	6
SSW800	8oz. Solid Wire	12
SSW1600	16oz. Solid Wire	6



BERNZIMATIC

MATII



Fully compliant for use with new 2014 lead-free fittings.

# Premium silver bearing lead-free, acid coreITEM#DESCRIPTIONCASE PACKSAC3003oz. Solid Wire6SAC8008oz. Solid Wire12

Premium silv	ver bearing lead-free, rosi	in core
ITEM#	DESCRIPTION	CASE PACK
SRC050	.5oz.	6
SRC300	3oz.	6
SRC800	8oz.	12

#### **Speciality Kits**

ITEM# SSWS100 DESCRIPTION 96/4 Solid Wire & Flux CASE PACK



#### **GENERAL PARTS**

BernzOmatic® offers a selection of accessories for work preparation.



S4N1B Four-in-One Brush Cleans 1/2" and 3/4" copper tubing and fittings. • Quick brush replacement



TX405 Spark Lighter Creates a spark to light most propane and propylene gas fueled torches quickly and easily.



TX406 Replacement Flints Use to refill on TX405 Spark Lighter.

#### **COMPANY HISTORY**

In 1876, Otto Bernz founded the Otto Bernz Co. in Newark, NJ to sell plumbers' tools, furnaces and torches. Gasoline torches with the "Always Reliable" brand also began to appear.

In the 1940s, the name changed to BernzOmatic, and the company relocated to Rochester, NY.

In the 1950s, the first propane torch and fuel cylinder were developed. The use for the propane fuel cylinder was expanded to include leisure time products, cook stoves, lanterns and portable heaters.

In the 1960-70s, product line expansions included fire extinguishers, charcoal fire starters, heat and smoke detectors, Bernz cutters, tire inflators, refrigerators, charcoal grills, insect foggers and hand tools including wrenches, pliers, drivers, socket sets and adjustable wrenches. BernzOmatic purchased the Birds-Eye plant in Medina, NY in 1969. A new 128,000 square foot manufacturing addition was added to the Medina plant in 1973. All manufacturing and offices were relocated to Medina, NY between 1976 and 1979.

In 1982, BernzOmatic became a Division of Newell Rubbermaid and began to regain its prominence as a profitable and highly respected brand name manufacturer concentrating on hand torches.

In 2011, BernzOmatic was acquired by Worthington Cylinders as part of Worthington's acquisition of Newell Rubbermaid's torch and solder products. The BernzOmatic brand was expanded to include a full line of products that put the flame to work, including hand torches, solder, plumbing accessories, hand torch fuel, camping gas and portable propane. Worthington Cylinders is the leading manufacturer of pressure cylinders, offering a single source for fuel, torches, solder and plumbing accessories.

FREIGHT ALLOWANCES:

All shipments in the United States are F.O.B. BernzOmatic facility with full freight allowed on \$1,000 or more in standard packaged quantities to one destination except Alaska and Hawaii, where freight is allowed to point of embarkation. All BernzOmatic products may be included toward these freight requirements.

PRICE TERMS:

Prices and terms are subject to change without notice. All prices are F.O.B. BernzOmatic facility. Orders are accepted on the basis of prices in effect on date of shipment.

CONDITIONS:

Unless otherwise agreed in writing, this price list will constitute our entire terms and obligations upon acceptance of any order. Orders are filled per our terms of sale without addition, deletion or modification. Special terms printed on customers orders will not be recognized where they differ from ours.

**RETURN OF MERCHANDISE:** 

Returned merchandise will not be accepted for credit, repair or replacement from wholesalers or dealers except by original invoice price less inspection and a restocking charge of 15%. We cannot authorize return of obsolete or discontinued products. No credit will be issued on BernzOmatic products returned as a result of pilferage.

MINIMUM ORDER VALUE: \$500.00

HAZARDOUS MATERIAL HANDLING CHARGES: All applicable Hazardous Material Charges will be added to invoice.

Re-shipment of BernzOmatic merchandise by Distributors to their customers within the continental United States.

In accordance with new D.O.T. regulations, it is required that proper shipping papers accompany all re-shipments. All re-shipments of compressed gases must bear a "special label" such as the one used by BernzOmatic in making the original shipment to the wholesaler. Re-shipment of this merchandise can be made by freight, express or parcel post. For additional information, consult D.O.T. regulation CFR49, parts 100 through 199.



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