

# Spectrum<sup>®</sup> 875/875 Auto-Line™

**Air Plasma Cutting  
and Gouging**



## Quick Specs

### Industrial Applications

Construction  
Maintenance/repair  
Fabrication

### Process

Air plasma cutting  
and gouging

### Rated Input

**Spectrum 875:** 208/230 V, 1-phase

**Spectrum 875 Auto-Line:** 208–575 V, 1- or 3-phase

### Rated Output at 104°F (40°C)

See page 2

### Cutting Capability

Rated: 7/8 in. (22.2 mm), Sever: 1-1/4 in. (32 mm)

### Required Input Pressure/Flow

6.75 cfm (191 L/min.) at 90 psi minimum (621 kPa),  
120 psi maximum (828 kPa)

### Net Weight with Torch

**Spectrum 875**

20 ft. torch: 48 lb. (21.8 kg), 50 ft. torch: 57 lb. (25.9 kg)

**Spectrum 875 Auto-Line**

20 ft. torch: 51 lb. (23.1 kg), 50 ft. torch: 60 lb. (27.2 kg)

**875 Auto-Line™** unit automatically connects to any primary input voltage from 208–575 volts single- or three-phase, 50 or 60 Hz.

**LVC™ line voltage compensation** provides peak performance power under variable conditions (power fluctuations up to ±15 percent) for steady cuts and cleaner ending cuts.

**Consumables storage compartment** provides convenient access to consumables and parts.

**Heavy-duty work clamp** with flexible cable and quick connect.

**Wind Tunnel Technology™** prevents abrasive dust and particles from damaging internal components.

**Fan-On-Demand™** cooling system operates only when needed. In dirty or dusty environments, this feature reduces the amount of airborne dust/dirt pulled through the unit.

**Auto postflow** calculates the length of postflow time based on the amount of cutting time to optimize consumable life and eliminate excessive air usage.

**Can be powered by Miller engine drives with auxiliary power.** See page 3 for engine drive compatibility and recommended settings.



### Comes complete with:

- XT60 hand-held torch with 20 ft. (6 m) or 50 ft. (15.2 m) cable — torches include a complete set of 60 A consumables
- Heavy-duty work clamp and flexible cable with quick connect
- 10 ft. (3 m) power cord
- Extra consumables

**Auto-Retire™ technology** provides ultimate customer convenience by automatically controlling the pilot arc when cutting expanded metal or multiple pieces of metal. The pilot arc will switch in and out as fast as needed when cutting expanded metal and provides maximum power for cutting thicker metal — all automatically! No need for manual re-triggering which reduces user hand fatigue.

**Starts without high-frequency** so it will not interfere with or damage controls or computers.

**Automatic air regulation.** For end user convenience, the unit has no pressure gauge or manual regulator knob. The unit automatically adjusts the air pressure to the torch for optimum cutting and gouging. No adjustments necessary.



**Ultra-Quick Connect™ XT60 torch** with an ergonomic handle to help prevent operator fatigue and a flexible cable that makes maneuvering easier (see page 4 for more detail).



Power source is warrantied for three years, parts and labor.  
XT torch is warrantied for one year, parts only.



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f X y o i n



# Specifications (Subject to change without notice.)

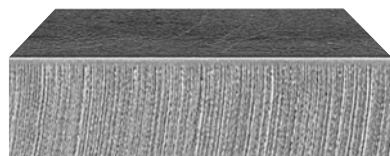


Non-Auto-Line model is 1-phase only.

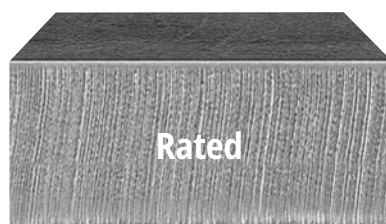
| Model  | Input Power                  | Rated Output at 104°F (40°C)  | Rated Maximum Input Amps  | KVA  | KW   | Max. Open-Circuit Voltage | Plasma Gas           | Dimensions  | Net Weight with Torch   |
|--|------------------------------|---|---|--|--|---------------------------|----------------------|---|---|
| Spectrum 875                                   | 208/230 V, 1-phase, 50/60 Hz | 208 V: 60 A at 140 VDC, 40% duty cycle<br>230 V: 60 A at 140 VDC, 50% duty cycle<br>208/230 V: 50 A at 140 VDC, 60% duty cycle<br>208/230 V: 40 A at 140 VDC, 100% duty cycle   | 208 V: 45.8<br>230 V: 40.9  | 208 V: 9.9<br>230 V: 9.7   | 208 V: 9.8<br>230 V: 9.6   | 305 VDC                   | Air or nitrogen only | H: 13.5 in (343 mm)<br>W: 8.75 in (222 mm)<br>D: 18.5 in (470 mm) | 20 ft. (6.1 m): 48 lb. (21.8 kg)<br>50 ft. (15.2 m): 57 lb. (25.9 kg) |
| Spectrum 875 Auto-Line™<br>208–575 V, 50/60 Hz | 208–575 V, 1-phase, 50/60 Hz | 208 V: 60 A at 140 VDC, 30% duty cycle<br>208–575 V: 60 A at 140 VDC, 40% duty cycle<br>230–575 V: 50 A at 140 VDC, 60% duty cycle<br>230–575 V: 45 A at 140 VDC, 100% duty cycle   | 208 V: 47.6<br>230 V: 42.9<br>380 V: 25.6<br>460 V: 20.9<br>575 V: 16.8 | 208 V: 9.9<br>230 V: 9.7<br>380 V: 9.7<br>460 V: 9.7<br>575 V: 9.7 | 208 V: 9.7<br>230 V: 9.6<br>380 V: 9.6<br>460 V: 9.6<br>575 V: 9.6 | 360 VDC                   |                      |   | 20 ft. (6.1 m): 51 lb. (23.1 kg)<br>50 ft. (15.2 m): 60 lb. (27.2 kg) |
|  | 208–575 V, 3-phase, 50/60 Hz | 208 V: 60 A at 140 VDC, 30% duty cycle<br>230 V: 60 A at 140 VDC, 40% duty cycle<br>208–230 V: 55 A at 140 VDC, 60% duty cycle<br>380–575 V: 60 A at 140 VDC, 60% duty cycle<br>208–575 V: 50 A at 140 VDC, 100% duty cycle | 208 V: 28.2<br>230 V: 25.3<br>380 V: 15<br>460 V: 12.3<br>575 V: 9.8    | 208 V: 9.9<br>230 V: 9.9<br>380 V: 9.9<br>460 V: 9.9<br>575 V: 9.8 | 208 V: 9.5<br>230 V: 9.5<br>380 V: 9.4<br>460 V: 9.4<br>575 V: 9.8 |                           |                      |   |   |

Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

## Mild Steel Cutting Capability (Thickness to scale.)



1/2 in. (12.7 mm) at 34 ipm



7/8 in. (22.2 mm) at 15 ipm

Note: Recommended maximum piercing capacity for hand-held and automated applications is 7/16 inch (11 mm).  
Maximum sever cut of 1-1/4 inches (32 mm) at 3 ipm.  
For aluminum and other metals with high thermal conductivity, cutting capabilities will be derated as much as 30%.

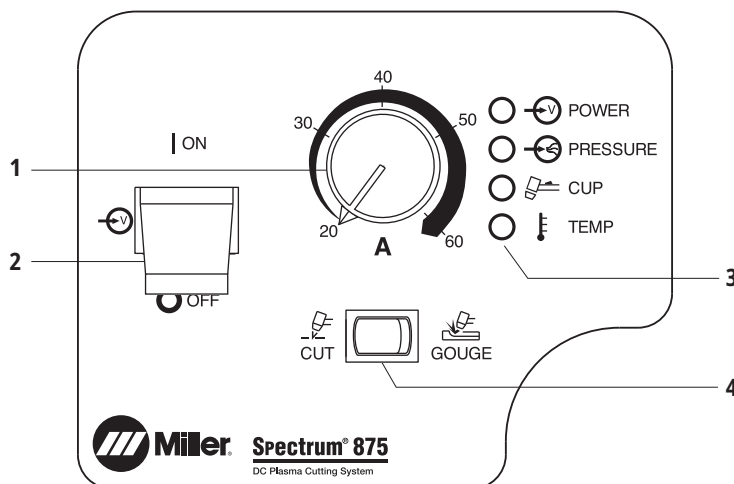
### Mild Steel Recommended Cut Speed

| Thickness         | Approximate Travel Speeds* |
|-------------------|----------------------------|
| 1/4 in. (6.4 mm)  | 105 ipm (2667 mm/min.)     |
| 3/8 in. (9.5 mm)  | 54 ipm (1372 mm/min.)      |
| 1/2 in. (12.7 mm) | 34 ipm (864 mm/min.)       |
| 5/8 in. (15.9 mm) | 27 ipm (686 mm/min.)       |
| 3/4 in. (19.0 mm) | 18 ipm (457 mm/min.)       |
| 7/8 in. (22.2 mm) | 15 ipm (381 mm/min.)       |
| 1 in. (25.4 mm)   | 10 ipm (254 mm/min.)       |

\*Travel speeds are approximately 80% of maximum.

Rated cut capacity is based on traveling approximately 15 inches per minute to achieve a steady, precise cut.  
This is the key rating that should meet or exceed your typical cutting thickness requirements.

## Control Panel



1. Output Control
2. Power Switch
3. Status and Troubleshooting Lights
4. Process Control

## Engine Drive Compatibility

| Engine-Driven Welder                         | Continuous Generator Power                     | Steel Quality Cut (approximate) | Spectrum Output Amp Setting (240 V full KVA adapter cord) |
|--|--|---------------------------------|---|
| Bobcat™ 230, 230 3 Phase, 265                | 9,500 watts                                    | 1/2 in.                         | 45 A  |
| Trailblazer® Series                          | 10,500 watts                                   | 1/2 in.                         | 45 A  |
| Big Blue® 400 Series                         | 10,000 watts                                   | 1/2 in.                         | 45 A  |
| Big Blue® 500 Pro, 600 Series and 800 Series | 1-phase: 12,000 watts<br>3-phase: 20,000 watts | 7/8 in.                         | 50 A  |

## Genuine Miller® Accessories



Female Receptacle 

**Full KVA Adapter Cord 300517** Field NEMA 14-50P to NEMA 6-50R. Adapts engine drive 120/240 V plug to Spectrum® 240 V plug.



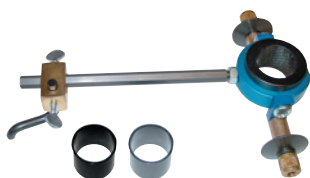
**XT60 Consumable Kit 256033**

Consumable kit includes 3 standard electrodes, 3 standard tips, 1 drag shield, 1 deflector, 1 o-ring, 1 swirl ring, 1 retaining cup, 1 gouge tip, 1 gouge shield and silicone grease.



**Plasma Standoff Roller Guide 253054**

Helps maintain recommended standoff distance to maximize cutting performance and improve tip life.



**Plasma Circle-Cutting Guide 253055**  
Cut straight lines or circles up to 12-inch diameter with ease.



**Suction/Magnetic Pivot Base 195979**

Add this to your cutting guide for convenient attachment to all flat surfaces. The extended arm accommodates holes up to 30-inch diameter.



**RTI Filter and Bracket 300491**

Dryer will remove water, dirt and oil as small as one micron with 99.9 percent efficiency. Can be mounted on plasma cutter or on wall. Install as close as possible to point of air consumption.

**RTI Replacement Filter Element 212771**

For RTI filter 300491.



**In-Line Air Filter Kit 228926**

Mounts to the back of the Spectrum® 875 and 875 Auto-Line™. Includes male and female 1/4-inch NPT quick-disconnect fittings and hose for easy on/off connection. The replaceable filter element

filters to .85 microns for removal of 99.9 percent of water, dirt and oil.

**In-Line Air Filter Replacement Element 228928**

For in-line filter 228926.



**Torch Cable Covers**  
**239642** 20 ft. (6.1 m)  
**231867** 25 ft. (7.6 m)  
**231868** 50 ft. (15.2 m)



**Flexible Work Cable**

**234838** 20 ft. (6.1 m)

**234930** 50 ft. (15.2 m)

Work cable with quick connect and heavy-duty clamp.



Gen 1



Slag

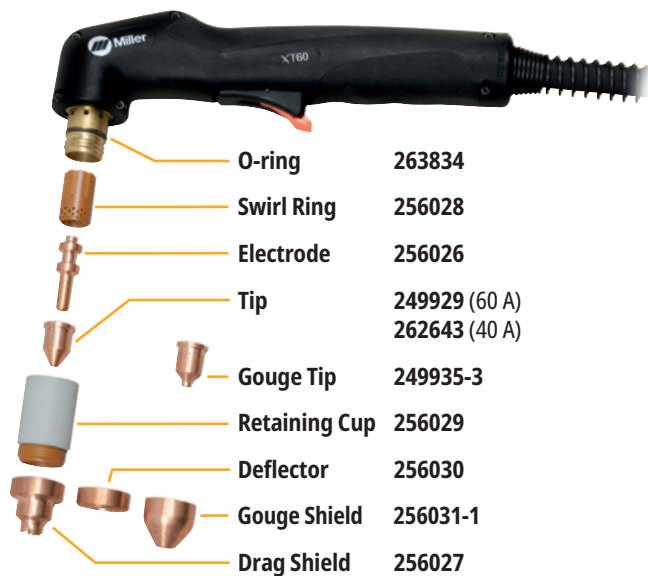
**Safety Glasses**

**235658** Gen 1 black frame, shade 5 lenses

**272209** Slag™ black frame, shade 5 lenses

Form-fitting orbital eye coverage with increased comfort and style. Meets ANSI Z87.1 standards.

# XT60 Replacement Torches and Consumables



Note: Replacing drag shield with deflector offers improved arc visibility while maintaining 1/16-inch standoff. For gouging, replace the tip and drag shield with gouge tip and gouge shield. The rest of the XT60 consumables are common.

## XT60 Hand-Held Torch

249953 20 ft. (6.1 m)

249954 50 ft. (15.2 m)

**No-slip grip** for easy control and torch dexterity.

**Ergonomic design** with unique thumb guide and finger grip contours.

**Trigger guard** protects against inadvertent arc initiation.

**80-degree handle** provides natural arm and elbow positioning while cutting.

**Robust tip front end design** optimizes arc performance and tip life.

**Laser-etched tip** for easy identification.

**New retaining cup design** provides increased cutting visibility and quick turn for easy consumable change.

**Strain relief** is durable and corrosion resistant, and **more flexible cable** has improved bend radius.



## Ordering Information

| Power Source                               | Stock No.                      | Description  | Qty. | Price |
|--|--------------------------------|--|------|-------|
| <b>Spectrum® 875</b>                       | <b>907850</b>                  | With 20 ft. (6.1 m) XT60 hand-held torch   |      |       |
| 208/230 V, 1-phase                         | <b>907850001</b>               | With 50 ft. (15.2 m) XT60 hand-held torch  |      |       |
| <b>Spectrum® 875 Auto-Line™</b>            | <b>907851</b>                  | With 20 ft. (6.1 m) XT60 hand-held torch   |      |       |
| 208–575 V, 1- or 3-phase                   | <b>907851001</b>               | With 50 ft. (15.2 m) XT60 hand-held torch  |      |       |
| <b>Replacement Torches and Consumables</b> |                                | See above  |      |       |
| <b>Accessories</b>                         |                                |  |      |       |
| Full KVA Adapter Cord                      | <b>300517</b>                  | Adapts engine drive 120/240 V plug to Spectrum® 240 V plug                           |      |       |
| XT60 Consumable Kit                        | <b>256033</b>                  |  |      |       |
| Plasma Standoff Roller Guide               | <b>253054</b>                  |  |      |       |
| Plasma Circle-Cutting Guide                | <b>253055</b>                  |  |      |       |
| Suction/Magnetic Pivot Base                | <b>195979</b>                  |  |      |       |
| RTI Filter and Bracket                     | <b>300491</b>                  |  |      |       |
| RTI Filter Replacement Element             | <b>212771</b>                  | For RTI filter 300491  |      |       |
| In-Line Air Filter Kit                     | <b>228926</b>                  |  |      |       |
| In-Line Air Filter Replacement Element     | <b>228928</b>                  | For in-line filter 228926  |      |       |
| Torch Cable Covers                         |                                | See page 3   |      |       |
| Flexible Work Cable w/Heavy-Duty Clamp     | <b>234838</b><br><b>234930</b> | 20 ft. (6.1 m) cable with quick connect<br>50 ft. (15.2 m) cable with quick connect. |      |       |
| Safety Glasses                             |                                | See page 3   |      |       |

Date:

Total Quoted Price:

Distributed by:

