

Spectrum[®] 875/875 Auto-Line™

Issued Dec. 2025 • Index No. PC/9.8

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.



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).

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-Refire™ 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.



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



Miller Electric Mfg. LLC
An ITW Welding Company
1635 West Spencer Street
P.O. Box 1079
Appleton, WI 54912-1079 USA

Equipment Sales US and Canada
Phone: 866-931-9730
International Phone: 920-735-4554

MillerWelds.com



Specifications (Subject to change without notice.)

DC

1
Phase

3
Phase

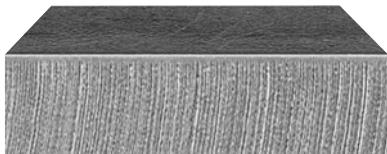
Non-Auto-Line model
is 1-phase only.

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 230 V: 60 A at 140 VDC, 50% duty cycle 208/230 V: 50 A at 140 VDC, 60% duty cycle 208/230 V: 40 A at 140 VDC, 100% duty cycle	208 V: 45.8 230 V: 40.9	208 V: 9.9 230 V: 9.7	208 V: 9.8 230 V: 9.6	305 VDC	Air or nitrogen only	H: 13.5 in (343 mm) W: 8.75 in (222 mm) D: 18.5 in (470 mm)	20 ft. (6.1 m): 48 lb. (21.8 kg) 50 ft. (15.2 m): 57 lb. (25.9 kg)
Spectrum 875 Auto-Line™ 208–575 V, 50/60 Hz	208–575 V, 1-phase, 50/60 Hz	208 V: 60 A at 140 VDC, 30% duty cycle 208–575 V: 60 A at 140 VDC, 40% duty cycle 230–575 V: 50 A at 140 VDC, 60% duty cycle 230–575 V: 45 A at 140 VDC, 100% duty cycle	208 V: 47.6 230 V: 42.9 380 V: 25.6 460 V: 20.9 575 V: 16.8	208 V: 9.9 230 V: 9.7 380 V: 9.7 460 V: 9.7 575 V: 9.7	208 V: 9.7 230 V: 9.6 380 V: 9.6 460 V: 9.6 575 V: 9.6	360 VDC			20 ft. (6.1 m): 51 lb. (23.1 kg) 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 230 V: 60 A at 140 VDC, 40% duty cycle 208–230 V: 55 A at 140 VDC, 60% duty cycle 380–575 V: 60 A at 140 VDC, 60% duty cycle 208–575 V: 50 A at 140 VDC, 100% duty cycle	208 V: 28.2 230 V: 25.3 380 V: 15 460 V: 12.3 575 V: 9.8	208 V: 9.9 230 V: 9.9 380 V: 9.9 460 V: 9.9 575 V: 9.8	208 V: 9.5 230 V: 9.5 380 V: 9.4 460 V: 9.4 575 V: 9.8				

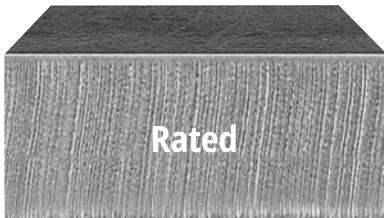


Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

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%.

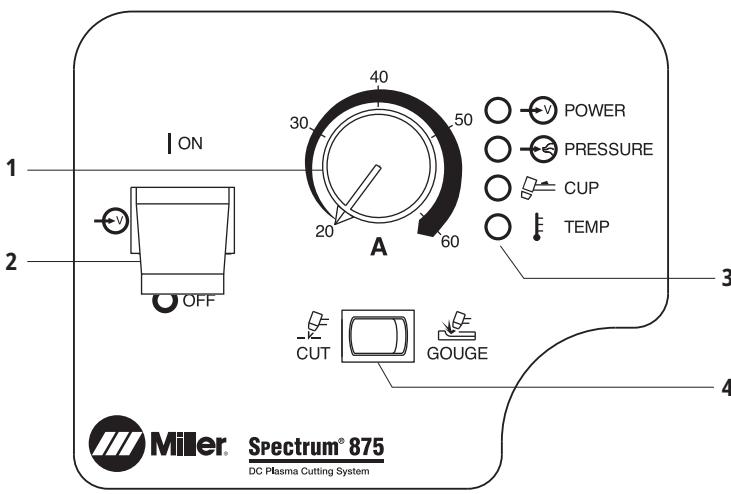
Rated cut capacity is based on traveling approximately 15 inches per minute to achieve a steady, precise cut. This is the key rating that should meet or exceed your typical cutting thickness requirements.

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.

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 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

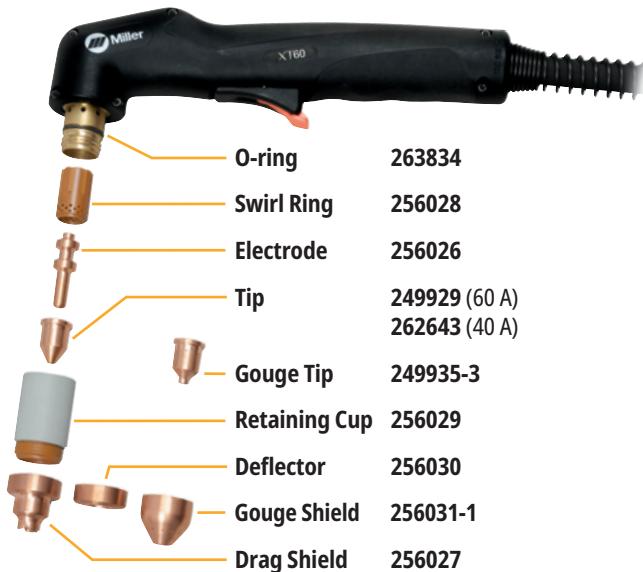
Safety Glasses

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
Spectrum® 875 208/230 V, 1-phase	907850 907850001	With 20 ft. (6.1 m) XT60 hand-held torch With 50 ft. (15.2 m) XT60 hand-held torch		
Spectrum® 875 Auto-Line™ 208–575 V, 1- or 3-phase	907851 907851001	With 20 ft. (6.1 m) XT60 hand-held torch With 50 ft. (15.2 m) XT60 hand-held torch		
Replacement Torches and Consumables		See above		
Accessories				
Full KVA Adapter Cord	300517	Adapts engine drive 120/240 V plug to Spectrum® 240 V plug		
XT60 Consumable Kit	256033			
Plasma Standoff Roller Guide	253054			
Plasma Circle-Cutting Guide	253055			
Suction/Magnetic Pivot Base	195979			
RTI Filter and Bracket	300491			
RTI Filter Replacement Element	212771	For RTI filter 300491		
In-Line Air Filter Kit	228926			
In-Line Air Filter Replacement Element	228928	For in-line filter 228926 See page 3		
Torch Cable Covers				
Flexible Work Cable w/Heavy-Duty Clamp	234838 234930	20 ft. (6.1 m) cable with quick connect 50 ft. (15.2 m) cable with quick connect.		
Safety Glasses		See page 3		

Date: _____ Total Quoted Price: _____

Distributed by: _____

