

Spectrum[®] 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)

Spectrum 875

1-phase: 50 A at 140 VDC, 60% duty cycle

1-phase: 40 A at 140 VDC, 100% duty cycle

Spectrum 875 Auto-Line

1-phase: 208/230 V: 50 A at 140 VDC, 60% duty cycle

1-phase: 208/230 V: 45 A at 140 VDC, 100% duty cycle

3-phase: 208/230 V: 55 A at 140 VDC, 60% duty cycle

3-phase: 208/230 V: 50 A at 140 VDC, 100% duty cycle

3-phase: 380–575 V: 60 A at 140 VDC, 60% duty cycle

3-phase: 380–575 V: 50 A at 140 VDC, 100% duty cycle

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.

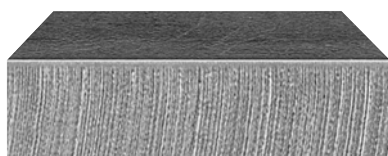
Model	Input Power	Rated Output at 104°F (40°C)	Amps Input at Rated Output	KVA	KW	Max. Open-Circuit Voltage	Plasma Gas	Dimensions	Net Weight with Torch
875 208/230 V, 50/60 Hz	1-phase	50 A at 140 VDC, 60% duty cycle 40 A at 140 VDC, 100% duty cycle	208 V: 45.8 230 V: 40.9	208 V: 9.9 230 V: 9.7	208 V: 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)
875 Auto-Line™ 208–575 V, 50/60 Hz	1-phase	208/230 V: 50 A at 140 VDC, 60% duty cycle 208/230 V: 45 A at 140 VDC, 100% duty cycle	208 V: 47.6 230 V: 42.9	208 V: 9.9 230 V: 9.7	208 V: 9.7 230 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)
	3-phase	208/230 V: 55 A at 140 VDC, 60% duty cycle 208/230 V: 50 A at 140 VDC, 100% duty cycle	208 V: 28.2 230 V: 25.3	208 V: 9.9 230 V: 9.9	208 V: 9.5 230 V: 9.5				
		380–575 V: 60 A at 140 VDC, 60% duty cycle 380–575 V: 50 A at 140 VDC, 100% duty cycle	380 V: 15 460 V: 12.3 575 V: 9.8	380 V: 9.9 460 V: 9.9 575 V: 9.8	380 V: 9.4 460 V: 9.4 575 V: 9.3				

Note: For more rated output information refer to the Owner's Manual.

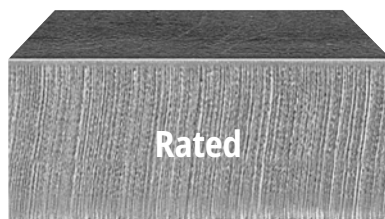


Certified by Canadian Standards Association to both the Canadian and U.S. Standards.

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

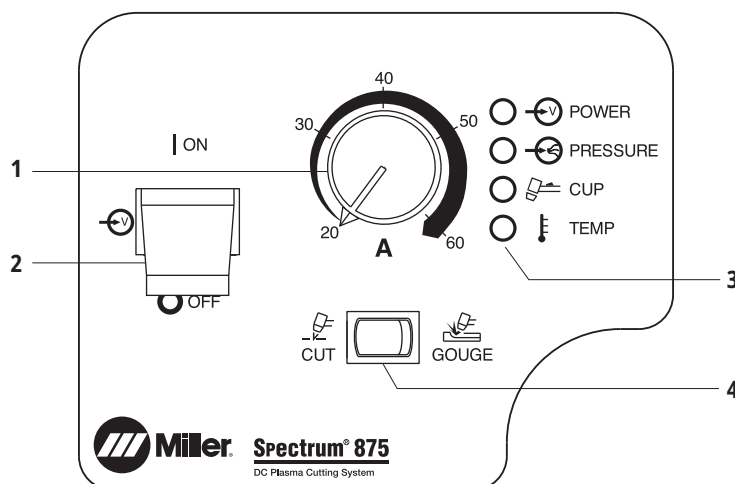
Thickness	Approximate Travel Speeds*
1/4 in. (6.4 mm)	105 ipm (2667 mm/min.)
3/8 in. (9.5 mm)	54 ipm (1372 mm/min.)
1/2 in. (12.7 mm)	34 ipm (864 mm/min.)
5/8 in. (15.9 mm)	27 ipm (686 mm/min.)
3/4 in. (19.0 mm)	18 ipm (457 mm/min.)
7/8 in. (22.2 mm)	15 ipm (381 mm/min.)
1 in. (25.4 mm)	10 ipm (254 mm/min.)

*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 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.



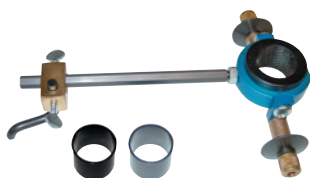
XT60 Consumable Kit 256033

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

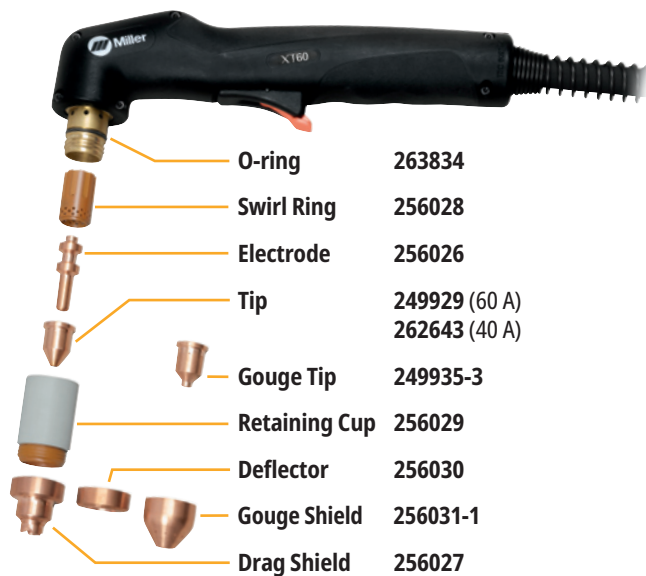
Safety Glasses

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	907850	With 20 ft. (6.1 m) XT60 hand-held torch		
208/230 V, 1-phase	907850001	With 50 ft. (15.2 m) XT60 hand-held torch		
Spectrum® 875 Auto-Line™	907851	With 20 ft. (6.1 m) XT60 hand-held torch		
208–575 V, 1- or 3-phase	907851001	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		
Torch Cable Covers		See page 3		
Flexible Work Cable w/Heavy-Duty Clamp	234838	20 ft. (6.1 m) cable with quick connect		
	234930	50 ft. (15.2 m) cable with quick connect.		
Safety Glasses		See page 3		

Date:

Total Quoted Price:

Distributed by:

