

Spectrum® 875/875 Auto-Line™

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**Air Plasma Cutting
and Gouging**



Quick Specs

Industrial Applications

Construction
Maintenance/Repair
Fabrication

Process

Air Plasma Cutting
and Gouging

Rated Input

875: 208 or 230 V, 1-Phase

875 Auto-Line: 208–575 V, 1- or 3-Phase

Rated Output at 104° F (40° C)

875/875 Auto-Line: 1-Phase: 60 A at 140 VDC,
208 V: 40% Duty Cycle, 230 V: 50% Duty Cycle

875 Auto-Line: 3-Phase: 60 A at 140 VDC,
208 V: 40% Duty Cycle

230–380 V: 50% Duty Cycle

380–575 V: 60% Duty Cycle

See page 2 for 100% Duty Cycle ratings

Cutting Capability

Rated: 7/8 in. (22.2 mm)

Sever: 1-1/4 in. (32 mm)

System Weight

875: With 20-ft. torch: 51 lb. (23.1 kg)

With 50-ft. torch: 62 lb. (28.1 kg)

875 Auto-Line with hand-held torch:

With 20-ft. torch: 56 lb. (25.5 kg)

With 50-ft. torch: 67 lb. (30.5 kg)

875 Auto-Line with machine-held torch:

With 25-ft. torch: 59 lb. (27 kg)

With 50-ft. torch: 68 lb. (30.8 kg)

Required Input Pressure/Flow

6.75 SCFM

(191 L/min.) at

90 PSI MIN

(621 kPa)

120 PSI MAX

(828 kPa)

The Power of Blue.®

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.

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.

Ultra-Quick Connect™ torch and work cable offer the fastest plasma torch and work cable connection and removal in the industry.

ICE-60T/TM torch offers improved plasma flow characteristics for increased cutting speeds and longer consumable set life.



Can be powered by any Miller engine drive with generator power at or above 11 kW (e.g. Bobcat™), or by equivalent competitive equipment. See page 2 for engine drive compatibility and recommended settings.



Power source is warranted for 3 years, parts and labor.
ICE torch is warranted for 1 year, parts and labor.

Comes Complete With:

- ICE-60T hand-held torch with 20-ft. (6 m) or 50-ft. (15.2 m) cable; **or** ICE-60TM machine-held torch kit (Auto-Line model only, see page 3 for more information) with 25-ft. (7.6 m) or 50-ft. (15.2 m) cable
- Heavy-duty work clamp with 20-ft. (6 m) or 50-ft. (15.2 m) cable
- 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.

Automation kits and accessories are available. See page 3 for more information.



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Specifications (Subject to change without notice.)



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

Model	Rated Output at 104° F (40° C)*	Amps Input at Rated Output, 50/60 Hz	Max. Open-Circuit Voltage	Plasma Gas	Dimensions	Net Weight
875	1-Phase: 60 A at 140 VDC, 208 V: 40% duty cycle 230 V: 50% duty cycle	208 V: 47 KVA: 9.9 230 V: 42 KW: 9.8	400 VDC	Air or Nitrogen only	H: 13.5 in (343 mm) W: 8.75 in (222 mm) D: 18.5 in (470 mm)	With Hand-Held Torch* 20 ft. (6.1 m): 51 lb. (23.1 kg) 50 ft. (15.2 m): 62 lb. (28.1 kg)
875 Auto-Line™	1-Phase: 60 A at 140 VDC, 208: 40% duty cycle 230 V: 50% duty cycle 230 V: 100% duty cycle at 50 A	208 V: 47.4 KVA: 9.9 230 V: 42.2 KW: 9.7	400 VDC	Air or Nitrogen only		With Hand-Held Torch* 20 ft. (6.1 m): 56 lb. (25.4 kg) 50 ft. (15.2 m): 67 lb. (30.4 kg) With Machine-Held Torch** 25 ft. (7.6 m): 59 lb. (27 kg) 50 ft. (15.2 m): 68 lb. (30.8 kg)
	3-Phase: 60 A at 140 VDC, 208 V: 40% duty cycle 230–380 V: 50% duty cycle 380–575 V: 60% duty cycle 380–575 V: 100% duty cycle at 50 A	208 V: 27.5 KVA: 9.9 230 V: 25 KW: 9.4 380 V: 15 460 V: 12.4 575 V: 9.8				

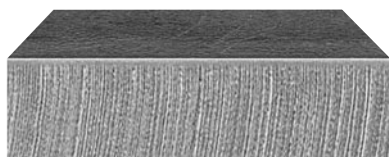
*Add 8.5 lb. (3.9 kg) for shipping weight.

**Add 11.5 lb. (5.2 kg) for shipping weight.



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 27 IPM



7/8 in. (22.2 mm) at 11 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 10 inches per minute to achieve a steady, precise cut.

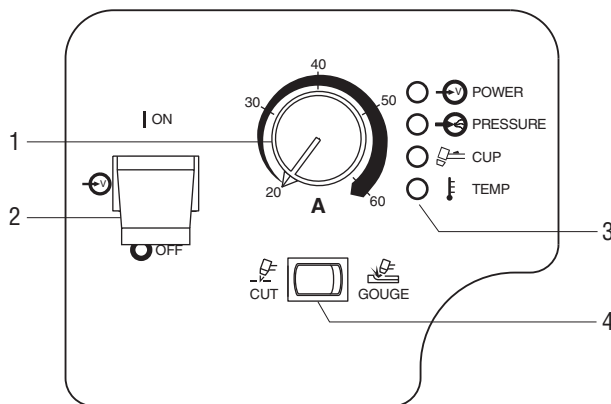
This is the key rating that should meet or exceed your typical cutting thickness requirements.

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)	50 IPM (1270 mm/min.)
1/2 in. (12.7 mm)	34 IPM (864 mm/min.)
3/4 in. (19.0 mm)	17 IPM (431 mm/min.)
7/8 in. (22.2 mm)	11 IPM (279 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

Equipment	Generator Power	Mild Steel Cut Capacity (Approximate)	Spectrum Output Amp Setting
Bobcat™, Trailblazer®	11 kW	1/2 in.	45 A, 240 V, full KVA plug
Big Blue® 300 Pro, Big Blue® 350 PipePro®	12 kW	5/8 in.	50 A, 240 V, full KVA plug
Big 40® CC/CV	15 kW (optional)	7/8 in.	60 A, 240 V, full KVA plug
Big Blue® 500 CC/CV	20 kW (optional)	7/8 in.	60 A, 240 V, full KVA plug

Note: LP powered machines need to be derated by 15%.

Genuine Miller® Accessories



No. 30B Economy Running Gear and Cord Wrap #300 511

Economical running gear with angle for easy front panel access provides storage for gloves and tools.



Protective Cover #300 388

Mildew-resistant, odor-free, waterproof cover protects your machine's finish. Cable

management pouches provide storage for 20-foot (6.1 m) torch and work cables.



Female Receptacle



Adapter Cord, Full KVA #300 517 Field NEMA 14-50P to NEMA 6-50R. Adapts engine drive 120/240 V plug to Spectrum® 240 V plug.



RTI Filter and Bracket Kit #300 491

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.

Miller Service Parts Accessories

The following accessories must be ordered from Miller Service Parts.

RTI Replacement Filter Element #212 771

For kit #300 491.



ICE-60T Consumable Kit #239 086

Consumable kit includes 3 standard electrodes, 3 standard tips, 2 extended tips, 1 gouge tip, 1 gouge shield, 1 drag shield, 1 retaining cup, 3 o-rings and silicone grease.



Plasma Standoff Roller Guide #253 054

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



Plasma Circle-Cutting Guide #253 055

Cut straight lines or circles up to 12-inch diameter with ease.



Suction/Magnetic Pivot Base #195 979

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



Torch Cable Cover Kits

- #239 642 20 ft. (6.1 m)
- #231 867 25 ft. (7.6 m)
- #231 868 50 ft. (15.2 m)



In-Line Air Filter Kit #228 926

Mounts to the back of the Spectrum® 375 X-TREME™, 375, 625 X-TREME™, 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 #228 928

For in-line filter #228 926.



MIG Gloves

- #249 175 Medium
 - #249 176 Large
 - #249 177 X-Large
- Breathable pigsplit back with genuine American deerskin palm for ultimate comfort. Moisture-wicking fleece lining provides additional protection.

Automation Accessories

For Spectrum 875

Machine-Held Torch Kits are not available for the Spectrum 875. For automation applications like pipe beveling, straight line track cutting, etc., the following accessories are required and can be purchased individually.

Remote Control Cable #220 240

For remote on/off.

Torch Sense Tab #226 763

Remote Pendant Control with Hand-Held Switch #195 513

For manual remote on/off.

Voltage Sensing Kit for Torch Height Control #300 872

Internal Harness #250 098

For remote on/off.

External Reed Switch #190 602

Provides dry contact closure for "ok to move" function.

ICE-60TM Machine-Held Torch

#234 136 25 ft. (7.6 m)

#234 138 50 ft. (15.2 m)

For Spectrum 875 Auto-Line

More advanced automation applications like CNC/robotic, etc. require Spectrum 875 Auto-Line models (#907 396-00-2 and #907 396-00-3), which include one of the Machine-Held Torch Kits listed below.

ICE-60TM Machine-Held Torch Kits

#300 759 25 ft. (7.6 m)

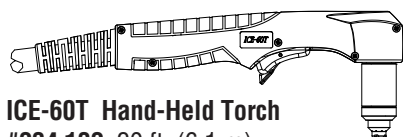
#300 760 50 ft. (15.2 m)

Kits consist of the following:

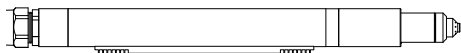
- **Remote Control Cable #220 240**
For remote on/off for CNC/robotic interface.
- **Torch Sense Tab #226 763**
- **Remote Pendant Control with Hand-Held Switch #195 513**
For manual remote on/off.
- **Voltage Sensing Kit for Torch Height Control #246 285**
- **Internal Remote Control Lead Kit #246 287**
For remote on/off for CNC/robotic interface.
- **ICE-60TM Machine-Held Torch**



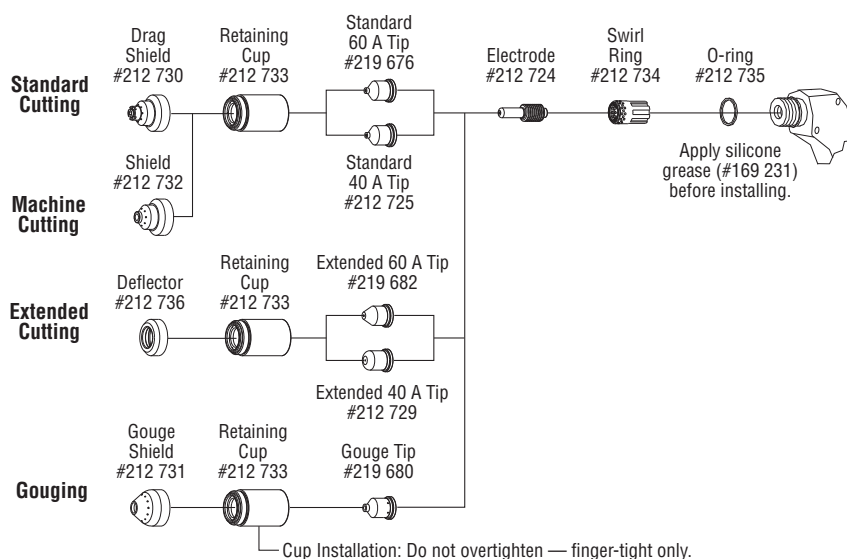
Replacement Torches and Consumables



ICE-60T Hand-Held Torch
#234 132 20 ft. (6.1 m)
#234 134 50 ft. (15.2 m)



ICE-60TM Machine-Held Torch
#234 136 25 ft. (7.6 m)
#234 138 50 ft. (15.2 m)



Ordering Information

Power Source	Stock No.	Description	Qty.	Price
Spectrum® 875 208/230 V, 1-phase	#907 390-01-1 #907 390-01-2	With 20-ft. (6.1 m) ICE-60T hand-held torch With 50-ft. (15.2 m) ICE-60T hand-held torch		
Spectrum® 875 Auto-Line™ 208–575 V, 1- or 3-phase See page 3 for machine-held torch kit contents	#907 396 #907 396-00-1 #907 396-00-2 #907 396-00-3	With 20-ft. (6.1 m) ICE-60T hand-held torch With 50-ft. (15.2 m) ICE-60T hand-held torch With 25-ft. (7.6 m) ICE-60TM machine-held torch kit With 50-ft. (15.2 m) ICE-60TM machine-held torch kit		
Note: Each Spectrum unit includes extra consumables (2 standard electrodes, 2 standard tips, 1 extended tip and 1 deflector).				
Replacement Torches and Kits				
ICE-60T Hand-Held Torch	#234 132 #234 134	20 ft. (6.1 m). Order from Miller Service Parts 50 ft. (15.2 m). Order from Miller Service Parts		
ICE-60TM Machine-Held Torch	#234 136 #234 138	25 ft. (7.6 m). Order from Miller Service Parts 50 ft. (15.2 m). Order from Miller Service Parts		
ICE-60TM Machine-Held Torch Kit For Spectrum 875 Auto-Line only	#300 759 #300 760	25 ft. (7.6 m). See page 3 for contents. Order from Miller Service Parts 50 ft. (15.2 m). See page 3 for contents. Order from Miller Service Parts		
Accessories				
No. 30B Economy Cart	#300 511			
Protective Cover	#300 388			
Adapter Cord, Full KVA	#300 517	Adapts engine drive 120/240 V plug to Spectrum® 240 V plug		
RTI Filter and Bracket	#300 491			
RTI Filter Replacement Element	#212 771	For RTI filter #300 491. Order from Miller Service Parts		
ICE-60T Consumable Kit	#239 086	Order from Miller Service Parts		
Plasma Standoff Roller Guide	#253 054	Order from Miller Service Parts		
Plasma Circle-Cutting Guide	#253 055	Order from Miller Service Parts		
Suction/Magnetic Pivot Base	#195 979	Order from Miller Service Parts		
Torch Cable Cover Kits		See page 3. Order from Miller Service Parts		
In-Line Air Filter Kit	#228 926	Order from Miller Service Parts		
In-Line Air Filter Replacement Element	#228 928	For in-line filter #228 926. Order from Miller Service Parts		
MIG Gloves		See page 3. Order from Miller Service Parts		
Automation Accessories		See page 3		

Date:

Total Quoted Price:

Distributed by:

