

Spectrum® 375 CutMate™

Issued October 2001 • Index No. PC/9.1

**Air Plasma
Cutter** 

Quick Specs

Industrial Applications

Maintenance
Light Construction
Prototyping
Body Shops
Fabrication
HVAC Ductwork

Process

Air Plasma Cutting

Rated Output

27 A at 90 VDC,
35% Duty Cycle

Cutting Capability

1/16 in Standoff Cutting
Rated: 3/8 in (10 mm)
Quality: 1/2 in (13 mm)
Sever: 5/8 in (16 mm)

Drag Cutting

Rated: 5/16 in (8 mm)
Quality: 3/8 in (10 mm)
Sever: 1/2 in (13 mm)

Plasma Gas Flow/Pressure 4.5 CFM (129 L/min) at 60 PSI (414 kPa)

Weight Net: 49 lb (22 kg) Ship: 55 lb (25 kg)

The Power of Blue.®

Dual input voltage located in back of unit allows either 115 or 230 VAC input power and provides patented protection in case of incorrect switch position. Unit provides full cutting capacity when powered by most engine-driven welders with 240 VAC auxiliary receptacles.

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

NEW! Pilot Arc Controller increases cutting capabilities and speeds, and improves tip life.

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

Power factor correction expands operator's work area via extension cords while minimizing nuisance trips caused by voltage drops.

LED indicators for pressure, power, cup and temperature allow faster troubleshooting, eliminating unnecessary downtime.

Compatible with engine-driven welders capable of cutting 3/8 to 1/2 in mild steel when powered by a Miller engine-driven welder with 6000 watts, 240 V receptacle.



Comes Complete With:

- ICE-27C hand-held torch with 20 ft (6 m) cable
- 15 ft (4.6 m) heavy-duty work cable with clamp
- Extra consumables (3 electrodes, 3 tips and 1 air fitting)
- 10 ft (3 m) power cord with 115 VAC, 20 A plug
- Easy-to-connect, built-in gas/air filter and regulator with extra protection

Consumables storage compartment provides convenient access to consumables and parts.

Postflow cooling circuit extends the life of the consumables and torch by cooling them with postflow air after the trigger is released.

NEW! Includes heavy-duty clamp.

NEW! Ergonomic design ICE-27C torch with increased comfort, safety trigger, and improved swirl ring and cup. Accepts consumables from prior ICE-25C model torch.

Gas/air filter/regulator inside the power source provides added protection during transportation. Standard air connection on back panel for easy gas or air hookup.

TRUE BLUE
3YR WARRANTY

Plasma cutter is warranted for 3 years, parts and labor.
Torch is warranted for 1 year.

MADE IN **USA**
APPLETON, WI **USA**



Miller Electric Mfg. Co.
An Illinois Tool Works Company
1635 West Spencer Street
Appleton, WI 54914 USA

International Headquarters
Phone: 920-735-4505
USA FAX: 920-735-4134
Canadian FAX: 920-735-4169
International FAX: 920-735-4125

Web Site
www.MillerWelds.com



Specifications (Subject to change without notice.)



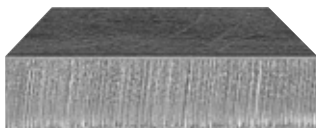
Rated Output	Max. Open-Circuit Voltage	Amps Input at Rated Output, 60 Hz, 1-Phase				Plasma Gas Flow/Pressure	Dimensions	Net Weight	Ship Weight
		115 V	230 V	KVA	KW				
27 A at 90 VDC, 35% duty cycle	288 VDC	28*	14	3.3	3.2	4.5 CFM (129 L/min) at 60 PSI (414 kPa)	H: 12 in (305 mm) W: 8-1/2 in (216 mm) D: 15-3/4 in (400 mm)	49 lb (22 kg)	55 lb (25 kg)

*Recommended 30 A branch circuit for maximum performance. Performance on 20 A branch service may be limited due to breaker/line fuse. Reducing unit output amperage will minimize nuisance breaker/line fuse tripping.

Mild Steel Cutting Capability (Thickness to scale.)

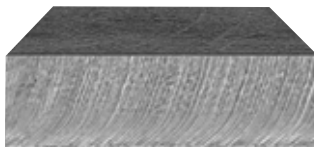
1/16 in Standoff Cutting

Rated



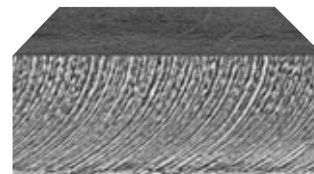
3/8 in (10 mm)

Quality



1/2 in (13 mm)

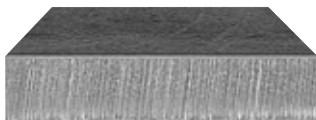
Sever



5/8 in (16 mm)

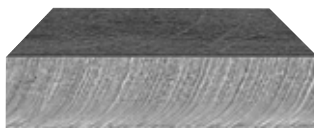
Drag Cutting

Rated



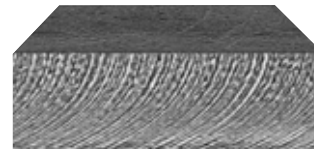
5/16 in (8 mm)

Quality



3/8 in (10 mm)

Sever



1/2 in (13 mm)

Rated Cutting Capacity

10 inches per minute (minimum speed at which an operator achieves a smooth, steady cut using a hand-held torch).

Maximum Quality Cutting Capacity

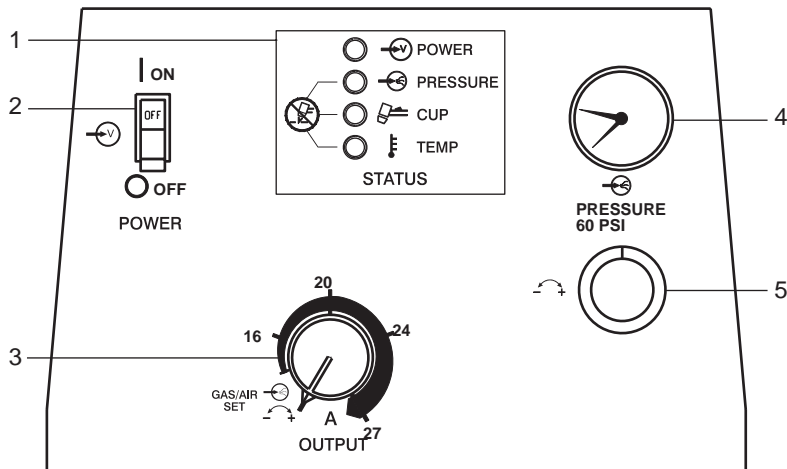
Good-quality cut achieved at lower speeds.

Sever Cut Capacity

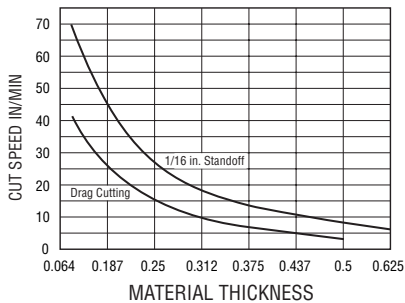
Maximum cut achieved in ideal conditions.

Control Panel

1. Status and Troubleshooting Lights
2. Power Switch
3. Output Control
4. Gas/Air Pressure Gauge
5. Gas/Air Pressure Adjustment Control



Cutting Performance



To determine the maximum rated cutting thickness, follow the dashed line from the 10 IPM (inches per minute) point on the cutting chart. The point at which this line intersects the cutting curve determines the maximum recommended production cutting thickness of the unit.

Note: The rating is based on 10 IPM because this is the minimum speed at which the operator achieves a smooth, steady cut when using a hand-held torch.

Engine Drive Compatibility

Equipment	Steel Quality Cut	Spectrum Output Amp Setting
Du-Op CC/CV	3/8 in	27 A, 240 V, full KVA plug
Pipe Pro CC/CV	3/8 in	27 A, 240 V, full KVA plug
TrailblazerPro 350	3/8 in	27 A, 240 V, full KVA plug
Bobcat	3/8 in	27 A, 240 V, full KVA plug
Trailblazer 251/280NT	3/8 in	27 A, 240 V, full KVA plug
Trailblazer 300D	3/8 in	27 A, 240 V, full KVA plug
Legend	3/8 in	27 A, 240 V, full KVA plug
Blue Star 6000	3/8 in	27 A, 240 V, full KVA plug

Genuine Miller Accessories

Full KVA Plug Kit #119 172 Field
240 VAC, 50 amp plug (NEMA 14-50P) to fit full KVA receptacle on Bobcat.

115 VAC, 20 A Receptacle #141 432 Field
Receptacle matches 20 amp plug supplied with Spectrum 375 (#903 891 and #903 871).

115 VAC, 15 A Plug Kit #073 690 Field
Allows connection to 15 amp household receptacle.



Plastic Consumables Box with Compartments #127 493
For storing additional parts and accessories.



Plasma Standoff Roller Guide #194 883
Helps maintain recommended standoff distance to maximize cutting performance and improve tip life.



Plasma Circle-Cutting Guide #195 981 ICE-12C, 25C, 27C, 50C, 55C, 80C
Cut straight lines or circles up to 12 in 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 in diameter.



Motor Guard Air Filter #042 306
This filter is equipped with a mounting bracket that allows installation on the top, side, or rear panel of most plasma cutters. The filter is equipped with a 1/4 in NPT port to match the fittings on most plasma systems; it has a rated airflow of over 45 SCFM.

Replacement Filter Element #042 312
Carton of four filters for use with motor guard air filter #042 306.



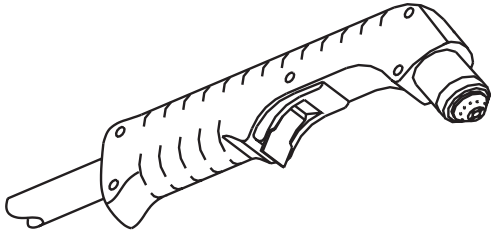
#30 Economy Running Gear and Cord Wrap #195 443
Economical running gear with angle for easy front panel access provides storage for

gloves and tools. (Fits Spectrum® Thunder, 375 CutMate™, 2050 and 3080, XMT® 304, Maxstar®, and Dynasty™).

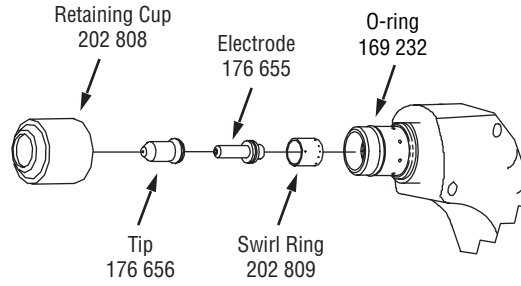


Cord Wrap #194 710
Add these to your Spectrum 375 for portability and convenient storage of cords and torch. Just wrap your cords and go.

Replacement Torch and Consumables



ICE-27C Hand-Held 20 ft Torch #195 014



Ordering Information

Equipment and Options	Stock No.	Description	Qty.	Price
Power Source				
Spectrum® 375 CutMate™	#903 891	115/230 VAC, 60 Hz, with ICE-27C 20 ft (6 m) Hand-Held Torch*		
	#903 871	115/230 VAC, 50/60 Hz, with ICE-27C 20 ft (6 m) Hand-Held Torch**		
Torch Accessories				
Silicone Grease	#169 231			
Consumables		See above		
Accessories				
Full KVA Plug Kit	#119 172	Field		
115 VAC, 20 A Receptacle	#141 432	Field		
115 VAC, 15 A Plug Kit	#073 690	Field		
Plastic Consumables Box	#127 493	With compartments		
Plasma Standoff Roller Guide	#194 883			
Plasma Circle-Cutting Guide	#195 981	For ICE-12C, 25C, 27C, 50C, 55C, 80C		
Suction/Magnetic Pivot Base	#195 979			
Motor Guard Air Filter	#042 306			
Replacement Filter Element	#042 312	Box of four		
#30 Economy Running Gear and Cord Wrap	#195 443			
Cord Wrap	#194 710			

Date: Total Quoted Price:

* Certified by Canadian Standards Association to both Canadian and U.S. standards.

** Manufactured according to the Standards IEC-974-1 and EN-60974-1.

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