

Spectrum® 375

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**Air Plasma
Cutting** 

Quick Specs

Industrial Applications

Maintenance
Light Construction
Prototyping
Body Shops
Fabrication
HVAC Ductwork

Process

Air Plasma Cutting

Rated Output

27 A at 92 VDC,
35% Duty Cycle

Cutting Capability

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

Weight

With torch: 55 lb (25 kg)

Required Input Pressure/Flow

4.5 SCFM (128 L/min) at
90 PSI MIN (621 kPa)
120 PSI MAX (828 kPa)

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.

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 $\pm 15\%$) 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.

Can be powered by any Miller engine drive with generator power (e.g. Bobcat™) or equivalent competitive equipment. See page 3 for engine drive compatibility and recommended settings.



Comes Complete With:

- ICE-27C hand-held torch with 20 ft (6.1 m) cable
- Heavy-duty work clamp with 20 ft (6.1 m) cable
- Extra consumables (3 electrodes, 3 tips and 1 air fitting)
- 10 ft (3 m) power cord with 115 VAC, 20 A plug
- Built-in gas/air filter and regulator

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.

Includes **heavy-duty clamp**.

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

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

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



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Web Site
www.MillerWelds.com



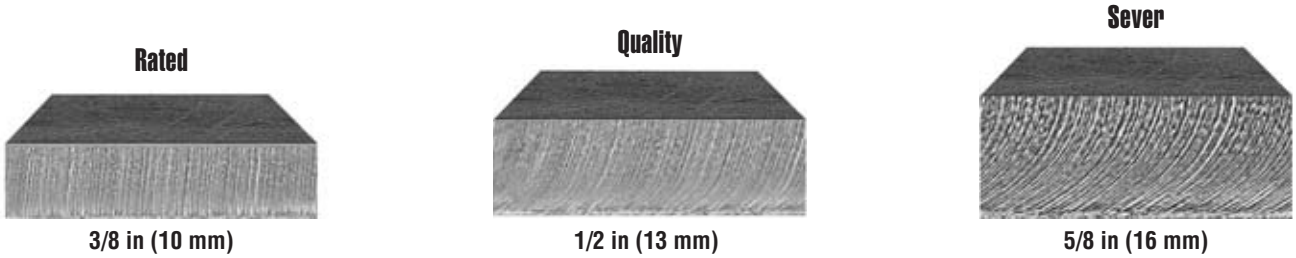
Specifications (Subject to change without notice.)



Rated Output	Max. Open-Circuit Voltage	Amps Input at Rated Output, 60 Hz, 1-Phase				Plasma Gas	Dimensions	Weight with Torch
		115 V	230 V	KVA	KW			
27 A at 92 VDC, 35% duty cycle	288 VDC	28*	14	3.3	3.2	Air or Nitrogen only	H: 13-1/2 in (343 mm) W: 8-1/2 in (216 mm) D: 16 in (406 mm)	Net: 55 lb (25 kg) Ship: 61.5 lb (27.9 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.)



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.

Note: Recommended maximum piercing capacity for hand-held applications is 3/16 in (4.8 mm). For aluminum and other metals with high thermal conductivity, cutting capacities will be derated as much as 30%.

Mild Steel Cutting Performance

Maximum Cutting Speeds at 27 Amps Output

Thickness	Approximate Travel Speeds*
16 ga (1.5 mm)	188 IPM (4775 mm/min)
3/16 in (4.8 mm)	40 IPM (1016 mm/min)
1/4 in (6.4 mm)	24 IPM (610 mm/min)
3/8 in (9.5 mm)	14 IPM (256 mm/min)
1/2 in (12.7 mm)	6 IPM (152 mm/min)

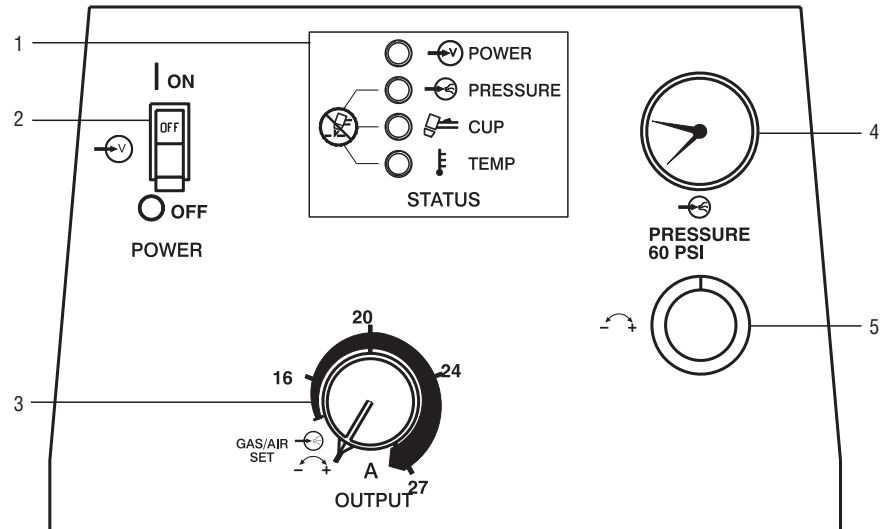
Maximum Cutting Speeds at 20 Amps Output

Thickness	Approximate Travel Speeds*
16 ga (1.5 mm)	162 IPM (4115 mm/min)
3/16 in (4.8 mm)	26 IPM (660 mm/min)
1/4 in (6.4 mm)	18 IPM (457 mm/min)
3/8 in (9.5 mm)	7 IPM (178 mm/min)

*Travel speeds are approximately 80% of maximum.

Control Panel

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



Engine Drive Compatibility

Equipment	Generator Power Watts (Continuous)	Steel Cut (Approximate)	Spectrum Output Amp Setting
Bobcat™ 225	9500	3/8 in	27 A, 240 V, full KVA plug
Bobcat™ 250	9500	3/8 in	27 A, 240 V, full KVA plug
Trailblazer® 302	9500	3/8 in	27 A, 240 V, full KVA plug
Trailblazer® Pro 350	12,000	3/8 in	27 A, 240 V, full KVA plug
PRO 300	12,000	3/8 in	27 A, 240 V, full KVA plug
Blue Star® 185	5500	3/8 in	27 A, 240 V, full KVA plug

Genuine Miller Accessories



ICE-27C Consumable Kit #222 939
Consumable kit includes 5 electrodes, 5 tips, 1 swirl ring, 1 retaining cup, 1 o-ring and silicone grease. *Order from Miller Service Parts.*



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
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.



Female Receptacle 

Adapter Cord, Full KVA #300 158
NEMA 14-50P to NEMA 6-50R. Adapts engine drive 120/240 V plug to Spectrum® 240 V plug.

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 (#903 891/903 871).

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



In-Line Air Filter Kit #228 926

Mounts to the back of the Spectrum® 375 X-TREME™, 375, 625, 2050, 1000, 1251. Includes male and female 1/4 in NPT quick disconnect fittings and hose for easy on/off connection. The replaceable filter element filters to .85 microns. *Order from Miller Service Parts.*

In-Line Air Filter Replacement Element #228 928

Includes 1 replacement filter for in-line filter #228 926. *Order from Miller Service Parts.*



RTI Filter and Bracket #195 425

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

RTI Replacement Filter Element #212 771
Order from Miller Service Parts.



No. 50HD Cart #300 026
This heavy-duty cart accommodates the Spectrum 125C, 375, 625, 2050, 1000 and 1251.



No. 30A Economy Running Gear and Cord Wrap #195 093

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



Protective Cover #195 144

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



MIG Gloves

#227 821 Small
#227 822 Medium
#227 823 Large
#227 824 X-Large
For medium-duty MIG welding and metalworking

tasks. Combination of durable top grain cowhide palm and abrasion-resistant pig split back sewn with Kevlar® thread.

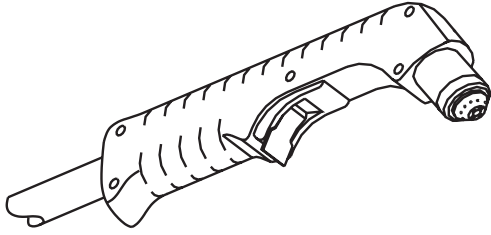


Metalworker Gloves

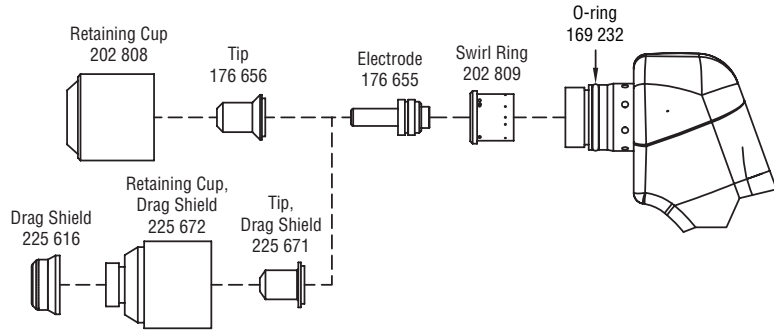
#227 817 Small
#227 818 Medium
#227 819 Large
#227 820 X-Large
Designed for the daily

demands of the metalworker and material handler. Padded, goatskin palm with textured G-Grip™ patch for excellent grip. Neoprene wrist with Velcro® closure for improved fit. NOT intended for use while welding.

Replacement Torch and Consumables



ICE-27C Hand-Held 20 ft (6.1 m) Torch #195 014



Ordering Information

Power Source	Stock No.	Description	Qty.	Price
Spectrum® 375	#903 891*	115/230 VAC, 60 Hz, with ICE-27C 20 ft (6.1 m) hand-held torch		
Replacement Torch and Consumables				
ICE-27C Hand-Held Torch	#195 014	20 ft (6.1 m). <i>Order from Miller Service Parts</i>		
Consumables		See page 3		
Accessories				
ICE-27C Consumable Kit	#222 939	Includes 5 electrodes, 5 tips, 1 swirl ring, 1 retaining cup, 1 o-ring, and silicone grease. <i>Order from Miller Service Parts</i>		
Silicone Grease	#169 231			
Plasma Standoff Roller Guide	#194 883			
Plasma Circle-Cutting Guide	#195 981			
Suction/Magnetic Pivot Base	#195 979			
Adapter Cord, Full KVA	#300 158	Adapts engine drive 120/240 V plug to Spectrum® 240 V plug		
Full KVA Plug Kit	#119 172	Field		
115 VAC, 20 A Receptacle	#141 432	Field		
115 VAC, 15 A Plug Kit	#073 690	Field		
In-Line Air Filter Kit	#228 926	<i>Order from Miller Service Parts</i>		
In-Line Air Filter Replacement Element	#228 928	<i>Order from Miller Service Parts</i>		
RTI Filter and Bracket	#195 425			
RTI Filter Replacement Element	#212 771	<i>Order from Miller Service Parts</i>		
No. 50HD Cart	#300 026			
No. 30A Economy Running Gear and Cord Wrap	#195 093			
Protective Cover	#195 144			
MIG Gloves		See page 3		
Metalworker Gloves		See page 3		

Date: Total Quoted Price:

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



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