

# 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

15–27 A at 90 VDC,  
35% Duty Cycle

### Cutting Capability

Rated: 3/8 in. (9.5 mm)  
Sever: 5/8 in. (15.9 mm)

### Weight

With torch: 55 lb. (25 kg)

### Required Input Pressure/Flow

5.0 SCFM (146 L/min.) at  
90 PSI minimum (621 kPa)  
120 PSI maximum (828 kPa)

## The Power of Blue.®

**NEW! XT30C torch** with ergonomic handle to help prevent operator fatigue while the flexible cable makes maneuvering easier.

**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.

**Electronic pilot arc controller** automatically controls the pilot circuit to provide expanded metal cutting capability without having to re-trigger the torch, increasing productivity and extending tip life.

**Heavy-duty clamp included.**

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

**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.

**Improved!**

**New XT Torch with Ergonomic Design and Flexible Cable!**



### Comes Complete With:

- XT30C hand-held torch with 20-ft. (6.1 m) cable
- Heavy-duty work clamp with 20-ft. (6.1 m) cable
- 10-ft. (3 m) power cord with 115 VAC, 20 A plug
- Built-in gas/air filter and regulator
- Extra consumables (2 electrodes, 2 tips and 1 air fitting)

**Consumables storage compartment** provides convenient access to consumables and parts.

**Pressure gauge and pressure knob** for manual adjustment of pressure to the torch.

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

**LVC™ line voltage compensation** provides peak performance power under variable conditions (power fluctuations up to ±15 percent) 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.

**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.  
XT torch is warranted for 1 year, parts and labor.

**MADE IN USA**  
APPLETON, WI



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

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**Website**  
MillerWelds.com



# Specifications (Subject to change without notice.)

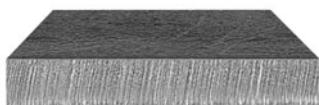


Rated Output	Max. Open-Circuit Voltage	Amps Input at Rated Output, 60 Hz, 1-Phase				Plasma Gas	Dimensions	Weight with Torch
		115 V	230 V	KVA	KW			
15–27 A at 90 VDC, 35% duty cycle	288 VDC	28*	14	3.3	3.2	Air or Nitrogen only	H: 13.5 in. (343 mm) W: 8.5 in. (216 mm) D: 16 in. (406 mm)	Net: 55 lb. (25 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.

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

## Mild Steel Cutting Capability (Thickness to scale.)



1/4 in. (6.4 mm) at 27 IPM



3/8 in. (9.5 mm) at 14 IPM

Note: Recommended maximum piercing capacity for hand-held applications is 1/8 inches (3.2 mm).

Maximum sever cut of 5/8 inches (15.9 mm) at 6 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.**

### Maximum Cutting Speeds at 27 Amps Output

Thickness	Approximate Travel Speeds*
3/16 in. (4.8 mm)	47 IPM (1194 mm/min)
1/4 in. (6.4 mm)	25 IPM (635 mm/min)
3/8 in. (9.5 mm)	15 IPM (381 mm/min)
1/2 in. (12.7 mm)	6 IPM (152 mm/min)

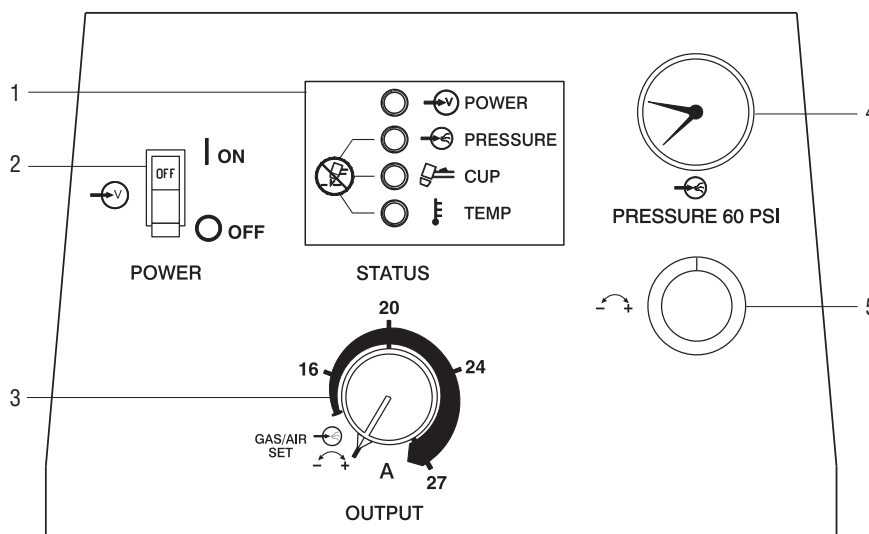
### Maximum Cutting Speeds at 20 Amps Output

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	Steel Quality Cut (Approximate)	Spectrum Output Amp Setting
Wildcat® 200	6.5 kW	3/8 in.	27 A, 240 V, full KVA plug
Bobcat™, Trailblazer®	11 kW	3/8 in.	27 A, 240 V, full KVA plug
Big Blue® 300 Pro, Big Blue® 350 PipePro®	12 kW	3/8 in.	27 A, 240 V, full KVA plug
Big Blue® 500 CC/CV	20 kW (optional)	3/8 in.	27 A, 240 V, full KVA plug

## Genuine Miller® Accessories



### No. 30B Economy Cart with Cord Wrap #300 511

This economical running gear provides mobility, includes a cord wrap and extra storage space, and is angled for easy front panel access.



### Protective Cover #195 144

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



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 #300 491

Filter/dryer with automatic drain removes 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**  
Replacement filter for #300 491.



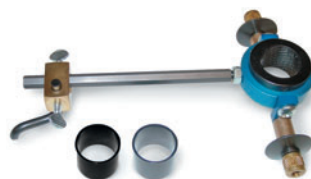
### XT30 Consumable Kit #253 520

Consumable kit includes 5 electrodes, 5 tips, 1 swirl ring, 1 retaining cup, 1 o-ring 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.

**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 #237 722** Field Receptacle matches 20-amp plug supplied with Spectrum 375 (#907 532/903 891).

**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 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**

Replacement filter for #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.



### Multi-Purpose Gloves

#249 184 Medium

#249 185 Large

#249 186 X-Large

Breathable pigsplit back with top grain cowhide palm for excellent heat protection. Moisture-wicking mesh lining and padded palm.

# XT Torch and Consumables

O-ring  
#249 969

Swirl Ring  
#249 931

Electrode  
#249 926

Tip  
#249 927

Retaining Cup  
#249 932

Drag Shield  
#249 930

Deflector  
#249 933



**New!**

XT30C Hand-Held 20-foot (6.1 m) Torch  
#255 685

Strain relief is durable and corrosion resistant and **exclusive flexible cable** has improved bend radius.

**Large laser-etched 30 A tip** for easy reading.

**Robust tip front end design** optimizes arc performance and tip life.

**New retaining cup design** provides increased cutting visibility and quick turn for easy consumable change.

**Industry's only true drag shield** protects tip for long life and easy template cutting.

**Trigger guard** protects against inadvertent arc initiation.

**80-degree handle** provides natural arm and elbow positioning while cutting.

**No-slip grip** for easy control and torch dexterity.

**Ergonomic design** with unique thumb guide and finger grip contours.

## Ordering Information

Power Source	Stock No.	Description	Qty.	Price
Spectrum® 375	#907 532	115/230 VAC, 60 Hz, with 20-ft. (6.1 m) XT30C hand-held torch		
<b>Replacement Torch and Consumables</b>				
XT30C Hand-Held Torch	#255 685	20 ft. (6.1 m). <i>Order from Miller Service Parts</i>		
Consumables		See above. <i>Order from Miller Service Parts</i>		
<b>Accessories</b>				
No. 30B Economy Cart with Cord Wrap	#300 511			
Protective Cover	#195 144			
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. <i>Order from Miller Service Parts</i>		
XT30C Consumable Kit	#253 520	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	#252 951	<i>Order from Miller Service Parts</i>		
Plasma Standoff Roller Guide	#253 054	<i>Order from Miller Service Parts</i>		
Plasma Circle-Cutting Guide	#253 055	<i>Order from Miller Service Parts</i>		
Suction/Magnetic Pivot Base	#195 979	<i>Order from Miller Service Parts</i>		
Full KVA Plug Kit	#119 172	Field. <i>Order from Miller Service Parts</i>		
115 VAC, 20 A Receptacle	#237 722	Field. <i>Order from Miller Service Parts</i>		
115 VAC, 15 A Plug Kit	#073 690	Field. <i>Order from Miller Service Parts</i>		
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>		
MIG/Multipurpose Gloves		See page 3. <i>Order from Miller Service Parts</i>		

Date:

Total Quoted Price:

Distributed by:

