

Spectrum® 375 X-TREME™

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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

30 A at 92 VDC,
35% Duty Cycle

Cutting Capability

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

Weight

With torch: 19 lb. (8.6 kg)

Required Input Pressure/Flow

5.0 SCFM (142 L/min.) at
90 PSI minimum (621 kPa)
120 PSI maximum (828 kPa)

The Power of Blue.®

X-TREME Versatility — Auto-Line™ provides state-of-the-art flexibility to the end user. The Auto-Line circuitry automatically connects to 120–240 VAC, single-phase power, 50/60 Hz, without removing the covers to relink the power source. No longer is there a concern if you have the correct machine for the shop or jobsite.

X-TREME Protection — X-CASE™ provides ultimate protection during transport and storage. Additional space ideal for MVP plugs, consumable box, as well as gloves, eye protection, etc.

X-TREME Portability — Portable in the shop or at the jobsite — at 19 pounds the shoulder strap allows the end user to easily move from location to location.

Auto-Refire™ 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.

Heavy-duty clamp included.

XT30 torch with ergonomic handle to help prevent operator fatigue while the flexible cable makes maneuvering easier.

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:

- XT30 hand-held torch with 12-ft. (3.7 m) cable
- Heavy-duty work clamp with 12-ft. (3.7 m) cable
- X-CASE™ provides protection in transport and storage
- 10-ft. (3 m) MVP™ power cord
- MVP plugs 5-15P (120 V, 15 A), 6-50P (240 V, 50 A)
- Shoulder strap
- Consumables box with 2 electrodes, 2 tips, deflector, and air fitting

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.

Automatic air regulation automatically compensates for input pressure variation to provide constant recommended torch pressure for optimum cutting performance.



Multi-voltage plug (MVP™) allows connection to 120 or 240 V receptacles without tools — choose the plug that fits the receptacle and connect it to the power cord.



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



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Specifications (Subject to change without notice.)



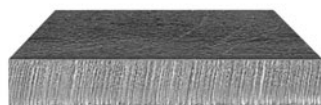
Input Power	Rated Output	Amps Input at Rated Output, 50/60 Hz, 1-Phase	KVA	KW	Plasma Gas	Dimensions	Weight with Torch
240 V	30 A at 92 VDC, 35% duty cycle	13.6	3.3	3.1	Air or Nitrogen only	H: 9 in. (229 mm) W: 5.5 in. (140 mm) D: 13.25 in. (337 mm)	Net: 19 lb. (8.6 kg) Ship: 24 lb. (10.9 kg)
120 V (20 A)	27 A at 92 VDC, 20% duty cycle	25.6	3.1	3.0			
120 V (15 A)	20 A at 88 VDC, 35% duty cycle	18.1	2.2	2.1			

*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.)

Cutting at 30 Amps (120 V, 30 A service with 5-20P MVP or 240 V 6-50P MVP)



1/4 in. (6.4 mm) at 36 IPM



3/8 in. (9.5 mm) at 18 IPM

Note: Recommended maximum piercing capacity for hand-held applications is 3/16 inch (4.8 mm). Maximum sever cut of 5/8 inch (15.9 mm) at 6 IPM.

For aluminum and other metals with high thermal conductivity, cutting capabilities will be derated as much as 30%.

Mild Steel Recommended Cut Speeds at **30 Amps**

Thickness	Approximate Travel Speeds*
1/16 in. (1.6 mm)	240+ IPM (6096+ mm/min.)
1/8 in. (3.2 mm)	100 IPM (2540 mm/min.)
3/16 in. (4.8 mm)	63 IPM (1605 mm/min.)
1/4 in. (6.4 mm)	36 IPM (914 mm/min.)
3/8 in. (9.5 mm)	18 IPM (467 mm/min.)
1/2 in. (12.7 mm)	10 IPM (264 mm/min.)
5/8 in. (15.9 mm)	6 IPM (163 mm/min.)

* Travel speeds are approximately 80% of maximum.

Cutting at 20 Amps (120 V, 15 A service with 5-15P MVP)



1/8 in. (3.2 mm) at 50 IPM



1/4 in. (6.4 mm) at 17 IPM

Note: Recommended maximum piercing capacity for hand-held applications is 1/8 inch (3.2 mm). Maximum sever cut of 3/8 inch (9.5 mm) at 6 IPM.

For aluminum and other metals with high thermal conductivity, cutting capabilities will be derated as much as 30%.

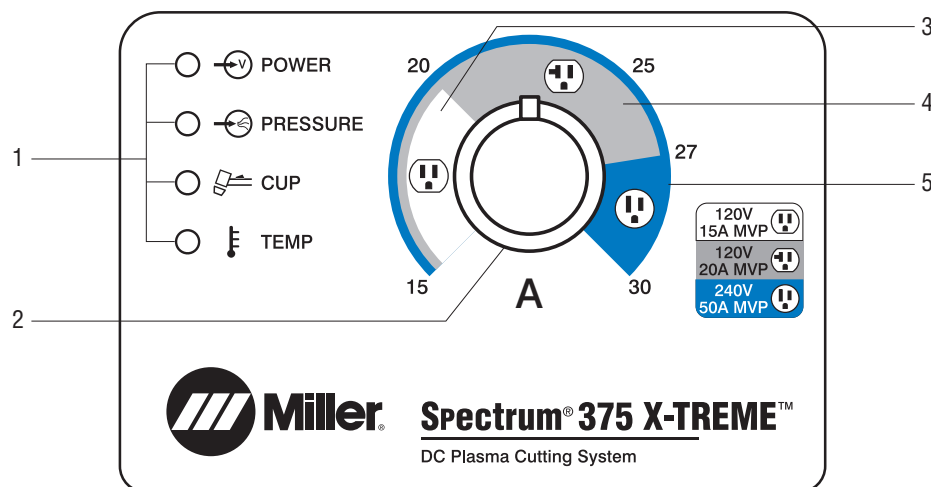
Mild Steel Recommended Cut Speeds at **20 Amps**

Thickness	Approximate Travel Speeds*
1/16 in. (1.6 mm)	158 IPM (4014 mm/min.)
1/8 in. (3.2 mm)	50 IPM (1260 mm/min.)
3/16 in. (4.8 mm)	33 IPM (833 mm/min.)
1/4 in. (6.4 mm)	17 IPM (427 mm/min.)
5/16 in. (7.9 mm)	8 IPM (203 mm/min.)
3/8 in. (9.5 mm)	6 IPM (163 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. Status and Troubleshooting Lights
2. Output Control
3. Range for 120 V, 15 A, 5-15 P, MVP™
4. Range for 120 V, 20 A, 5-20 P, MVP™
5. Range for 240 V, 50 A, 6-50 P, MVP™

Engine Drive Compatibility

Equipment	Generator Power	Steel Quality Cut (Approximate)	Spectrum Output Amp Setting
Wildcat [®] 200	6.5 kW	3/8 in.	30 A, 240 V, full KVA plug
Bobcat [™] , Trailblazer [®]	11 kW	3/8 in.	30 A, 240 V, full KVA plug
Big Blue [®] 300 Pro, Big Blue [®] 350 PipePro [®]	12 kW	3/8 in.	30 A, 240 V, full KVA plug
Big 40 [®] CC/CV	15 kW (optional)	3/8 in.	30 A, 240 V, full KVA plug
Big Blue [®] 500 CC/CV	20 kW (optional)	3/8 in.	30 A, 240 V, full KVA plug

Genuine Miller[®] Accessories



X-CASE[™]
#300 184
 Sturdy case provides ultimate protection for transport and storage. Also

features convenient top carrying handle and side recessed hand grips. Store the Spectrum[®] 375 X-TREME[™], accessories and gear in this generous case to be ready to go at any time. Dimensions (H x W x D): 13 x 10.5 x 30.625 in. (330 x 267 x 778 mm).



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.

Miller Service Parts Accessories

The following accessories must be ordered from Miller Service Parts.



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.



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.



Safety Glasses
#235 662 Blk, shade 3.0
#235 661 Blue, shade 3.0
#235 663 Orng, shade 3.0
#235 658 Blk, shade 5.0
#235 657 Blue, shade 5.0
#235 659 Orng, shade 5.0

Form fitting orbital eye coverage with increased comfort and style. Choice of black, blue or orange frame. Meets ANSI Z87.1 standards.



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.

MVP[™] Plugs

Order from Miller Service Parts.



#219 258
 For power cable 6-50P (240 V/50 A).
 Included with machine.



#219 261
 For power cable 5-15P (120 V/15 A).
 Included with machine.



#219 259
 For power cable 5-20P (120 V/20 A). Optional.

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

XT30 Hand-Held 12-foot (3.7 m) Torch #249 949



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 X-TREME™ with X-CASE™	#907 529	120–240 VAC, 50/60 Hz, with 12-ft. (3.7 m) XT30 hand-held torch and X-CASE™		
Replacement Torch and Consumables				
XT30 Hand-Held Torch	#249 949	12 ft. (3.7 m). <i>Order from Miller Service Parts</i>		
Consumables		See above. <i>Order from Miller Service Parts</i>		
Accessories				
X-CASE™ (only)	#300 184	Carrying case for Spectrum® 375 X-TREME™		
Adapter Cord, Full KVA	#300 517	Adapts engine drive 120/240 V plug to Spectrum® 240 V plug		
XT30 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>		
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>		
Safety Glasses		See page 3. <i>Order from Miller Service Parts</i>		
MIG Gloves		See page 3. <i>Order from Miller Service Parts</i>		
Multipurpose Gloves		See page 3. <i>Order from Miller Service Parts</i>		
MVP™ Adapter Plugs		See page 3. <i>Order from Miller Service Parts</i>		

Date:

Total Quoted Price:

Distributed by:

