



Spectrum® 1250

Heavy Industrial Air Plasma Cutting and Gouging Systems



TRUE BLUE®
3YR. WARRANTY



With a rated cutting capacity of 1-1/4 in (31.8 mm) on mild or stainless steel, and 1 in (25.4 mm) on aluminum, the

Spectrum® 1250 has the power to handle the heaviest plasma applications. Here's a three-phase system that delivers day-in, day-out performance for production work in fabrication and manufacturing shops. It's also a great worker in scrap and recycling.

The Spectrum 1250 is engineered and built to take the most demanding industrial work, while delivering uncompromising reliability. This unit also provides superior piercing abilities and high-quality gouging.

Comes complete with:

- ICE-100 hand-held torch with 30 ft (9 m) or 50 ft (15.2 m) torch cable; or, ICE-100M machine-held torch with 50 ft (15.2 m) torch cable
- 30 ft (9 m) work cable with clamp
- ICE-100 Torch consumable kit (see page 3 for description)

ICE-100 or ICE-100M Torch

- Improved design for longer consumable life
- Drag shield practically eliminates double arcing and improves consumable life in piercing and cutting
- High duty cycle for full-time productivity

Processes



Air Plasma Cutting

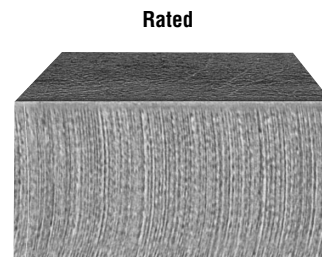
Air Plasma Gouging

Description



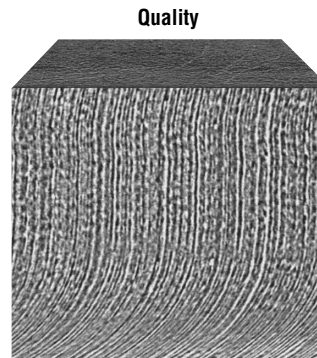
Cutting Capability (Thickness to scale.)

MILD STEEL



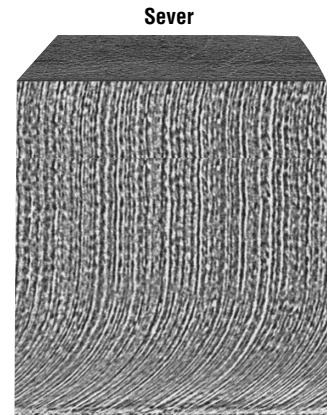
1-1/4 in (32 mm)*

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



1-1/2 in (38 mm)*

Maximum Quality Cutting Capacity
Good-quality cut achieved at lower speeds.



1-3/4 in (44 mm)*

Sever Cut Capacity
Maximum cut achieved in ideal conditions.

**Using shielded consumables.*

Features

Benefits

Gouging and piercing

The 1250 offers a long powerful gouging arc for those heavy duty metal displacement jobs plus piercing capabilities up to 1 in steel.

ICE-100 Torch

Miller's rugged ICE torches include an epoxy cup that outlives typical ceramic parts and is virtually unbreakable. Hand-held and machine-held torch models available.

Postflow cooling circuit

A postflow circuit cools the consumables and torch with postflow air after you release the trigger. This feature extends life of torch and consumables.

Miller's True Blue® Warranty

No other manufacturer offers a better warranty than Miller. Power source is warranted for three years, parts and labor. Original rectifier parts have a five-year warranty and the ICE torches have a one-year parts and labor warranty.

Ordering Information

Spectrum® 1250 with 100 Amp Torch	Voltage	With 30 ft (9 m) Hand-Held Torch	With 50 ft (15 m) Hand-Held Torch	With 50 ft (15 m) Machine Torch
	200/230/460	#903 450*	#903 450-01-1*	#903 450-01-2*
	230/460/575	#903 451*	#903 451-01-1*	#903 451-01-2*
	220/380/415	#903 452	#903 452-01-1**	#903 452-01-2



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

**CE 50/60 Hz models with CE Specifications are manufactured according to the Standards IEC-974-1 and EN-60974-1.

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Miller
The Power of Blue.

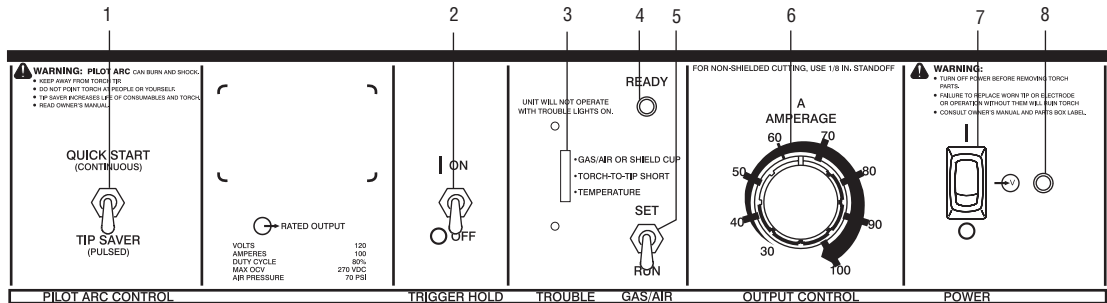
Specifications (Subject to change without notice.)

Heavy Industrial **DC** **3** Phase

Input Power	Rated Output	Max. Open-Circuit Voltage	Amps Input at Rated Output, 50/60 Hz							KVA/KW	Plasma Gas Flow/Pressure	Dimensions	Net Weight	Ship Weight
			200 V	220 V	230 V	380 V	415 V	460 V	575 V					
3-Phase, 200/230/460 V, 50/60 Hz	100 A at 120 VDC, 80% Duty Cycle	270 VDC	85	-	74	-	-	37	-	30/16	7.0 CFM (170 L/min) at 70 PSI (442 kPa)	H: 38 in (965 mm) W: 22-1/2 in (571 mm) D: 20 in (508 mm)	410 lb (185 kg)	470 lb (212 kg)
3-Phase, 230/460/575 V, 50/60 Hz			-	-	74	-	-	37	30					
3-Phase, 220/380/415 V, 50/60 Hz			-	77	-	45	41	-	-					

Control Panel

- Pilot Arc Control Switch
- Trigger Hold Switch
- Trouble Lights
- Ready Light
- Set/Run Switch
- Output Control
- Power Switch
- Pilot Light



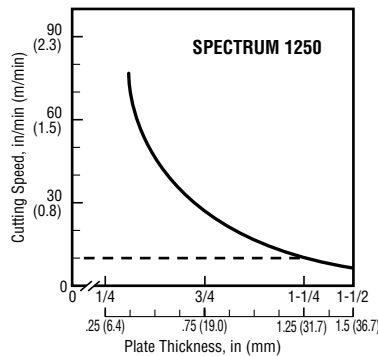
Miller Spectrum® 1250
DC Plasma Cutting System

MADE IN USA

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.

CUTOFF SPEED VS. MATERIAL THICKNESS
MATERIAL: MILD STEEL



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.

Additional Features

Drag shield

Benefits

The ICE torch includes a drag shield that attaches to the cup and holds the tip 1/8 in (3.2 mm) off of the workpiece. This permits the operator to drag the torch on the workpiece while cutting at full output, which increases operator comfort and makes template cutting easier.

User-friendly control panel

Spectrum units are easy to use because the control panels are easy to understand. Spectrums also include diagnostic lights to help troubleshoot for quick setup.

Built-in gas/air filter/regulator

The Spectrum Series has its regulator housed inside the power source to protect it from transportation damage. A standard air connection is also provided on the back panel for easy gas or air hookup.

Portability

Order the optional running gear for in-shop portability.

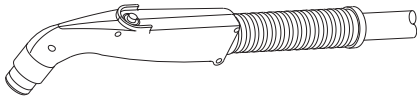
Trigger hold switch

Allows operator to control cutting arc without triggering. Provides convenience and comfort by enabling operator to keep clear of extremely hot areas while gouging or cutting for long periods of time.

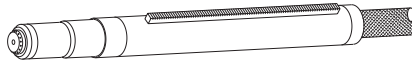
Pilot arc switch

The expanded metal mode allows operator to cut grates, chain link fence, and other perforated metals without retriggering the gun.

Replacement Torches



ICE-100 Hand-held Torch
#169 207 30 ft (9 m)
#169 246 50 ft (15.2 m)

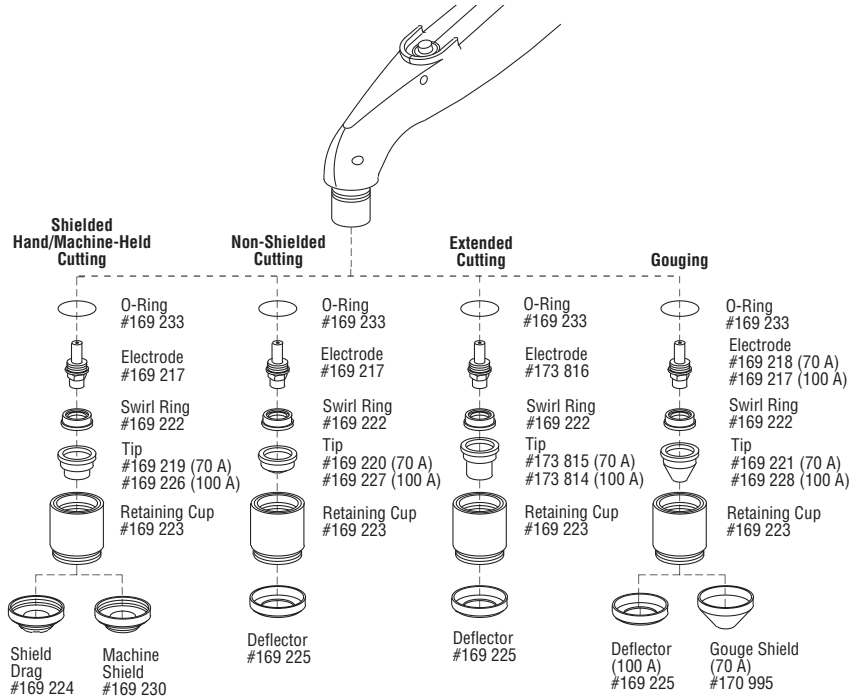


ICE-100M Machine-held Torch*
#169 247 50 ft (15.2 m)

ICE-70/100 Machine-held Torch*
#174 572 75 ft (22.5 m)

*If hand-held torch is being replaced by machine-held, optional remote pendant control (#042 585) must be ordered.

Torch Consumables



Torch Consumable Kits

#169 235 For ICE-70
 Includes four electrodes, four tips for shielded, two tips for non-shielded, one swirl ring, one retaining cup, one drag shield, one deflector, one gouging electrode, one gouging tip, one gouging shield, one O-ring, one wrench and silicone grease.

#169 236 For ICE-100
 Includes four electrodes, four tips for shielded, two tips for non-shielded, one swirl ring, one retaining cup, one drag shield, one deflector, one gouging tip, one O-ring, one wrench and silicone grease.

#170 559 For ICE-70M
#170 560 For ICE-100M
 Kits include five electrodes (70 and 100 amp), five tips for shielded, two swirl rings (70 and 100 amp), one retaining cup, two machine shields, one O-ring, one wrench and silicone grease.

Options and Accessories

Silicone Grease #169 231

Cable Covers

#118 677 15 ft (4.5 m) torch

#118 678 30 ft (9 m) torch

Protect hose and cables. Feature nonconductive zipper and are easily removed if necessary.

Circle Cutting Guide #173 404

Attaches to torch to cut even circles. Adjusts to over 18 in (457 mm) diameter.

Standoff Guide #132 657

Attaches to torch cup while using non-shielded or extended electrode to create 1/8 in (3 mm) standoff.



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.

Running Gear #042 989

Includes two rubber tires, and two swivel casters.

Pendant Control #042 585

For ICE-70M or ICE-100M torch. Provides remote start and stop control of the arc and remote amperage control.

Extractor Dryer #171 517

Two-stage filter/dryer drains excess water out of air supply to extend consumable and torch life.

System Checklist and Quotation Sheet

Cutting System	Stock No.	Description	Qty.	Price
Spectrum 1250	See page 2	Cuts up to 1-1/2 in		
Torch Accessories				
Consumables	See page 3			
Consumable Kits	#169 235 #169 236 #170 559 #170 560	For ICE-70 For ICE-100 For ICE-70M For ICE-100M		
Silicone Grease	#169 231			
Cable Covers	#118 677 #118 678 #042 389	15 ft (4.5 m) 30 ft (9 m) 50 ft (15 m)		
Circle Cutting Guide	#173 404			
Accessories				
Motor Guard Air Filter	#042 306			
Replacement Filters	#042 312			
Compressed Air/Nitrogen				
Gas Hose with Fittings				
Primary Cable and Plug				
Safety Face Shield				
Hearing Protective Device				
Gloves and Protective Clothing				
Running Gear	#042 989			
Pendant Control	#042 585			
Date:			Total Quoted Price:	



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