

Cutmaster® 60i

The new frontier in plasma



**THERMAL
DYNAMICS**
AN ESAB® BRAND



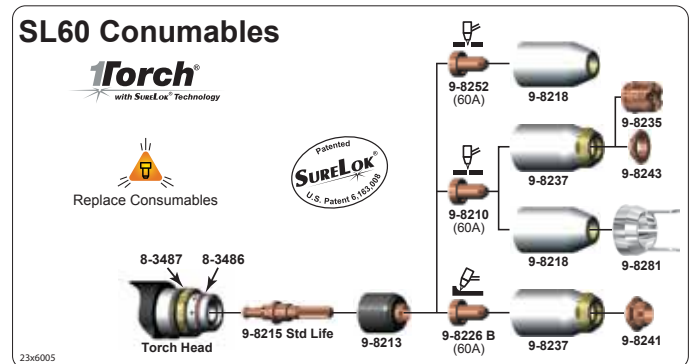
The Cutmaster® 60i with SL60QD™ 1Torch® is the perfect combination of end-user insight, advanced technology, and intelligent design. Packed with power and offering the highest power-to-weight ratio in its class, the Cutmaster 60i with SL60QD 1Torch also has best in class cutting arc length and the most empowering and engaging user experience no matter the application.

- 7.6 kW rated output, 50% Duty Cycle at 60A with automatic multi-voltage detection from 208-480V; built for portability and durability with the integral multi-handle design
- SL60QD 1Torch quick disconnect with ATC® (Advanced Torch Connector) allowing selective replacement of either the torch handle assembly or the torch leads, using the patented SureLok® technology also available as an RPT Torch
- 5/8 in. (16 mm) recommended cut capacity with greater than 1-1/2 in. (38 mm) maximum sever and 5/8 in. (16 mm) pierce
- High-visibility, oversized display with gas optimizer technology and consumables end-of-life indicator
- Industry leading 4-year warranty on power supply and 1-year warranty on torch

Industry

- Agricultural Equipment
- Automotive Bodies
- Construction
- Fabrication
- General Manufacturing
- HVAC
- Repair and Maintenance
- Training Schools

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Cutmaster® 60i

Specifications	
Amperage Output	10 – 60 A, continuously adjustable
Rated Output Power	7.6 kW
Open Circuit Voltage (OCV)	300 V
Input Voltage	208 – 480 VAC +/- 10%
Number of Phases	1 ph or 3 ph
Supply Frequency	50/60 Hz
Rated Duty Cycle	50% @ 60 A 60% @ 50 A 100% @ 40 A
Amperage Draw	43 A @ 208 V 1 ph / 26 A @ 208 V 3 ph 39 A @ 230 V 1 ph / 23 A @ 230 V 3 ph 19 A @ 480 V 1 ph / 11 A @ 480 V 3 ph
Input Power Cable and Plug	9 ft. (2.7 m) 1 ph 8 AWG 3/C with NEMA 6-50P plug 9 ft. (2.7 m) 3 ph 12 AWG 4/C cable without plug
Work Lead with Ground Clamp	20 ft. (6 m) #8 work cable with 50 mm connection
Gas Requirements	Compressed air
Operating Temperature Range	32 – 122° F (0° - 50° C)
Operating Input Air Pressure Range	90 – 125 psi (6.2 – 8.6 bar)
Air Flow Requirements (cutting & gouging)	300 – 500 scfh / 5 – 8.3 cfm (142 – 235 l/m)
Power Supply Gas Filtering Ability	Particulates to 5 Microns
Recommended Cut	5/8 in. (16 mm)
Maximum Sever	1-1/2 in. (38 mm)
Pierce Rating	5/8 in. (16 mm)
SL60QD Torch Duty Cycle	100% at 60 A @ 400 scfh air flow
Torch Air Pressure	75 psi (5.2 bar)
Torch Air Consumption	6.7 cfm (190 l/m)
Torches – for use with the Cutmaster 60i	SL60QD 1Torch (supplied) SL60/SL100 1Torch SL100 Mechanized 1Torch SL100SLV Automated 1Torch
Dimensions L x W x H	21.12 x 7.85 x 14.15 in. (536 x 199 x 593 mm)
Weight	37 lbs. (16.8 kg)

Cutting Specifications		
Plate Thickness	Recommended Cut Speed	Maximum Cut Speed
1/4 in. (6 mm)	80 in./min (2030 mm/min)	110 in./min (2794 mm/min)
1/2 in. (13 mm)	26 in./min (660 mm/min)	36 in./min (914 mm/min)
5/8 in. (16 mm)	19 in./min (480 mm/min)	24 in./min (610 mm/min)
3/4 in. (19 mm)	14 in./min (360 mm/min)	Contact ESAB for specific application
1 in. (25 mm)	6 in./min (150 mm/min)	Contact ESAB for specific application
1-1/4 in. (32 mm)	4 in./min (110 mm/min)	Contact ESAB for specific application
1-1/2 in. (38 mm)	< 4 in./min (110 mm/min)	Maximum Sever

Cutmaster® 60i

Ordering Information

Description	Part Number
Cutmaster 60i, 1 ph with SL60QD 1Torch 20 ft. (6.1 m) 75° Head	1-5630-1
Cutmaster 60i, 1 ph with SL60QD 1Torch 50 ft. (15.2 m) 75° Head	1-5631-1
Cutmaster 60i, 1 ph Power Supply Only	3-5630-1
Cutmaster 60i, 3 ph with SL60QD 1Torch 20 ft. (6.1 m) 75° Head	1-5630-2
Cutmaster 60i, 3 ph with SL60QD 1Torch 50 ft. (15.2 m) 75° Head	1-5631-2
Cutmaster 60i, 3 ph Power Supply Only	3-5630-2
Torches	
SL60QD Torch and Lead 20 ft. (6.1 m) 75° Head	7-5604
SL60QD Torch and Lead 50 ft. (15.2 m) 75° Head	7-5605
SL60QD Torch Handle Assembly 75° Head (no leads)	7-5680
SL60QD Lead 20 ft. (6.1 m)	4-5604
SL60QD Lead 50 ft. (15.2 m)	4-5605
SL60 Torch and Lead 20 ft. (6.1 m) 75° Head	7-5204
SL60 Torch and Lead 50 ft. (15.2 m) 75° Head	7-5205
SL60 Torch and Lead 20 ft. (6.1 m) 90° Head	7-5260
SL100 Mechanized Torch 5 ft. (1.5 m) 180° Body	7-5213
SL100 Mechanized Torch 10 ft. (3.0 m) 180° Body	7-5214
SL100 Mechanized Torch 25 ft. (7.6 m) 180° Body	7-5215
SL100 Mechanized Torch 50 ft. (15.2 m) 180° Body	7-5216

Packages Include: Cutmaster 60i power supply, SL60QD 75° torch with lead, 20 ft. (6.1 m) work lead with ground clamp, spare parts kit, operating manual, and filter wrench.

Wear & Spare Parts 1Torch

Description	Part Number
Electrode	9-8215
Start Cartridge	9-8213
Standoff Guide	9-8281
Shield Cup	9-8218
Shield Cup Max Life	9-8237
Shield Cap Gouging	9-8241
Shield Cap (Drag only)	9-8235
Shield Cap Deflector	9-8243
Tip – Drag (60A)	9-8252
Tip – Standoff (60A)	9-8210
Tip – “A” Gouging, (40 A Max), Profile: Shallow/Narrow	9-8225
Tip – “B” Gouging, (50 – 100 A), Profile: Deep/Narrow	9-8226
Tip – “C” Gouging, (60 – 100 A), Profile: Moderate/Moderate	9-8227
Tip – “D” Gouging, (60 – 120 A), Profile: Shallow/Wide	9-8228

Cutmaster® 60i

Options & Accessories

Description	Part Number
Cutting Guide Kit (Deluxe)	7-8910
Circle Cutting Guide Kit	7-3291
Filter Wrench	9-9675
Hand Pendant Extension 25 ft. (7.6 m)	7-7744
Lead Extension, 15 ft. (4.6 m)	7-7544
Lead Extension, 25 ft. (7.6 m)	7-7545
Lead Extension, 50 ft. (15.2 m)	7-7552
Leather Lead Covers 20 ft. (6.1 m)	9-1260
Multi-Purpose Cart	7-8888
Radius/Roller Cutting Guide Kit	7-7501
Remote Pendant Control 20 ft. (6.1 m)	7-3460
Single Stage Air Filter Kit	7-7507
Straight Line Cutting Guide	7-8911
Two Stage Air Filter Kit	9-9387
Work Cable #8 with Ground Clamp and 50 mm Plug	9-9692

1TORCH CONSUMABLES PARTS APPLICATION GUIDE

For SL60® / SL100® Manual Cutting and Gouging Operations.



DRAG TIP CUTTING The preferred method of cutting light gauge metal up to 1/4" (6 mm) thickness. Produces the best cut quality narrowest kerf width, fastest cutting speeds, and with little to no distortion. Traditional drag cutting was limited to 40 Amps or less; now with Thermal Dynamics TRUE Cut Drag Tip Series™ technology, it is possible to cut up to 60 Amps. For best results, use the Shield Cup with the torch tip in direct contact with the work (up to 60 Amps).



DRAG SHIELD CUTTING This is an operator-friendly method of cutting between 70 to 120 Amps while maintaining a constant standoff distance. For metal thickness greater than 1/4" (6 mm), simply drag the shield cap in contact with the work piece. Use the shield cup body with the appropriate drag shield cap matching the current level being used. This method is not recommended for cutting light-gauge sheet metal.



STANDOFF CUTTING The preferred method of cutting metal thicker than 1/4" (6 mm) and at current levels above 60 Amps. Provides maximum visibility and accessibility. Shield cup for 'standoff' cutting (with the torch tip 1/8" (3 mm) to 1/4" (6 mm) from the work piece). Use the shield cup body together with the deflector for extended parts life and improved resistance to reflect heat. This combination provides cutting results similar to the single piece shield cup, as well as easy changeover to gouging or drag shield cutting.



GOUGING A simple method of metal removal by angling the torch to a lead angle of 35°-45°, and using a gouging tip. While maintaining a constant standoff distance, this allows for only a partial penetration into the work, thus removing metal from the surface. The amount of current, travel speed, standoff distance, lead angle, and tip size will determine the amount of material removed and the profile of the gouge. You can use the shield cup body with either the gouging shield cap or the shield deflector. Also, you can use the single piece shield cup.

Gouging Profiles

	Output Range	Depth	Width
Tip A 	40A (MAX)	Shallow	Narrow
Tip B 	50-100A	Deep	Narrow
Tip C 	60-120A	Moderate	Moderate
Tip D 	60-120A	Shallow	Wide



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