

Cutmaster® 60i

The new frontier in plasma



**THERMAL
DYNAMICS**
AN ESAB® BRAND



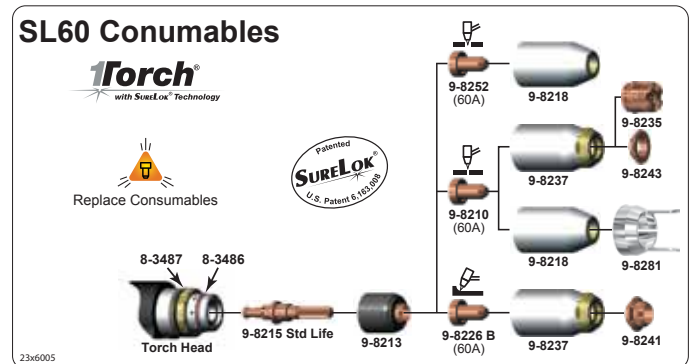
The Cutmaster® 60i with SL60QD™ 1Torch® is the perfect combination of end-user insight, advanced technology, and intelligent design. Packed with power and offering the highest power-to-weight ratio in its class, the Cutmaster 60i with SL60QD 1Torch also has best in class cutting arc length and the most 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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