

Cutmaster® 60i

Highest power-to-weight ratio in its class



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. Cutmaster MechPak is also available for easy integration into semi-automatic cutting processes.

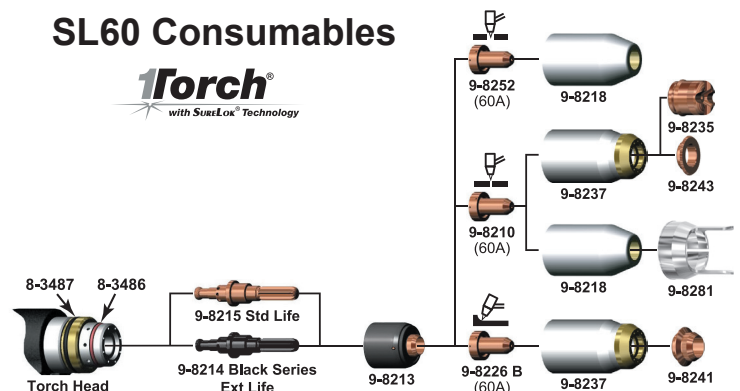
- Built for portability and durability with the integral multi-handle design, available in either a 1 phase or 3 phase unit
- 50% Duty Cycle at 60A with automatic multi-voltage detection from 208-480V
- Industrial SL60QD 1Torch quick disconnect with ATC® (Advanced Torch Connector) allowing selective replacement of either the torch handle assembly or the torch leads, using the patented SureLok® technology
- Up to 3/4 in. (20 mm) recommended cut capacity with maximum sever of 1-1/2 in. (38 mm) and 3/4 in. (20 mm) pierce capability
- High-visibility, oversized display with gas optimizer technology and consumables end-of-life indicator, makes setup and usage simple and productive
- Cutmaster Black Series electrode included for up to 60% longer life of consumable parts
- 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

SL60 Consumables



Cutmaster® 60i

Specifications	
Amperage Output	10 – 60 A, continuously adjustable
Recommended Generator Size	15 kW (full output)
Open Circuit Voltage (OCV)	300 V
Input Voltage	208 – 480 VAC +/- 10%, 50/60 Hz, 1 ph or 3ph
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 cfh (142 – 235 l/m)
Recommended Cut	up to 3/4 in. (20 mm)
Maximum Sever	1-1/2 in. (38 mm)
Pierce Rating	3/4 in. (20 mm)
SL60QD Torch Duty Cycle	100% at 60 A @ 400 cfh air flow
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 359 mm)
Weight	37 lbs. (16.8 kg)

Cutting Specifications	
Plate Thickness	Recommended Cut Speed
1/4 in. (6 mm)	80 in./min (2030 mm/min)
1/2 in. (13 mm)	26 in./min (660 mm/min)
5/8 in. (16 mm)	19 in./min (480 mm/min)
3/4 in. (19 mm)	14 in./min (360 mm/min)
1 in. (25 mm)	6 in./min (150 mm/min)
1-1/4 in. (32 mm)	4 in./min (110 mm/min)
1-1/2 in. (38 mm)	< 4 in./min (110 mm/min)

Cutmaster® 60i

Ordering Information

Description	Part Number
Cutmaster 60i, 1 ph with SL60QD 1Torch 20 ft. (6.1 m) 75° Head	1-5630-1X
Cutmaster 60i, 1 ph with SL60QD 1Torch 50 ft. (15.2 m) 75° Head	1-5631-1X
Cutmaster 60i, 1 ph Power Supply Only	3-5630-1X
Cutmaster 60i, 3 ph with SL60QD 1Torch 20 ft. (6.1 m) 75° Head	1-5630-2X
Cutmaster 60i, 3 ph with SL60QD 1Torch 50 ft. (15.2 m) 75° Head	1-5631-2X
Cutmaster 60i, 3 ph Power Supply Only	3-5630-2X

Torches

SL60QD Torch and Lead 20 ft. (6.1 m) 75° Head	7-5620
SL60QD Torch and Lead 50 ft. (15.2 m) 75° Head	7-5650
SL60QD Torch Handle Assembly 75° Head (no leads)	7-5681
SL60QD Lead 20 ft. (6.1 m)	4-5620
SL60QD Lead 50 ft. (15.2 m)	4-5650
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.

Cutmaster 60i is compatible with all 1Torch® ATC torch connections.

Wear & Spare Parts 1Torch

Description	Part Number
Cutmaster Black Series Extended Life Electrode	9-8214
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
Cutmaster MechPak, 25 ft. (7.6 m) Kit	7-7725
Cutmaster MechPak, 50 ft. (15.2 m) Kit	7-7750
Cutmaster Black Series Consumable Kit	5-0060
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

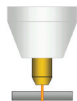
For SL60® / SL100® Manual Cutting and Gouging Operations.



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 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





THE CUTTING BEAST HAS EVOLVED.

A ferocious plasma cutter with an unmatched power-to-weight ratio.

CUTMASTER
60i

THE THERMAL DYNAMICS CUTMASTER 60i IS ON THE LOOSE. IT'S SERIOUSLY CAPABLE, CAN SLASH THROUGH A MULTITUDE OF METALS, AND NEVER BACKS DOWN, FROM FIRST CUT TO CLEANUP. CUTMASTER 60i IS ONLY FROM ESAB, AND IT'S THE ONLY PORTABLE MACHINE THAT GIVES YOU THIS MUCH POWER. **ARE YOU READY TO UNLEASH THE BEAST?**



VICIOUS CUTTING AND PIERCING CAPACITY.

Cutmaster 60i now has 16.6% more cutting and piercing capacity to get jobs done faster and cleaner. And it's more than 20 pounds lighter than the competition, giving you the portability to dominate the most demanding jobs. With a wide range of available cutting and gouging nozzles, you can harness Cutmaster 60i's power like never before.

Increased cut capacity and cut speed –

Cutmaster 60i's recommended cut capacity is 3/4 inch with a maximum sever of 1 1/2 inches and a 3/4-inch pierce.

Superior duty cycle –

Cut more, faster, longer. The machine's duty cycle of 50% at 60 A while cutting half-inch mild steel equates to a 7.6 kW power supply rating – the highest output in its class.

Rugged roll cage – With multiple lift points, the sturdy four-handle roll cage makes it easy to transport your Cutmaster 60i where you need to – including outdoors. The machine's IP23S protection rating proves it's hardy enough to face whatever elements come your way.

Automatic multi-voltage detection – From 200 to 480 V, the system senses what type of power you're hooked up to and adjusts accordingly so you don't waste any time manually tweaking your settings.

Generator reliable – Say goodbye to issues caused by power fluctuations and spikes when connected to a generator. Cutmaster 60i's power factor correction ensures no disruptions in cutting performance.

1ph and 3ph power – Cutmaster 60i is available in both single-phase and three-phase configurations with the ability to run torches up to 75 ft. in length.



INSANE CUTTING ARC.

Cutmaster 60i doesn't play around when it comes to cut capacity or cut speed. It isn't afraid to prove it, slicing through mild steel, aluminum, and stainless steel and plowing a perfect groove when gouging. And the improved SL60QD™ 1Torch® with our innovative Cutmaster Black Series extended life consumables help you achieve your best cuts.



Cutmaster Black Series extended life consumables – Cutmaster Black Series electrodes are designed to operate 60% longer than standard consumables before needing to be replaced. So you get maximum productivity and excellent performance that lasts.

Only three consumable parts – That means fewer parts to keep on hand and quicker changes, so you can keep burning and earning.



Long arc stretch – When you're in an odd position or trying to hit a corner, Cutmaster 60i's extra-long arc will stretch to keep constant contact with the workpiece.

Modes of operation – The machine also has four modes of operation – twice as many as competitors – cut mode, expanded metal cutting mode, gouging mode, and latch mode, which allows you to lock in so you can focus on what's important: cutting.



SL60QD 1Torch – This torch has a lot going for it. First, it's compatible with the entire Cutmaster family and other outfits in the industry. Second, "QD" stands for quick disconnect, meaning the leads can be separated from the torch. It's a feature fabricators asked for, giving you the option of replacing only what you need to replace. The result? More affordable maintenance and repair – and more money in your pocket.

DIAL INTO BEAST MODE.

Prepare to feel unstoppable. From first cut to cleanup, day in and day out, you'll be able to stare down any challenge with Cutmaster 60i on your side.

Durable LED display – The system's large, high-visibility display allows for easy viewing of all machine settings from a distance. The intuitive, easy-to-use display instantly provides the necessary feedback for keeping your settings and cut quality optimized.

Gas optimizer – This unique technology precisely regulates air pressure, ensuring premium cut quality and performance. When you set amperage and select torch type, torch lead length, and mode of operation, you're visually prompted to adjust gas pressure accordingly while still having the flexibility to tweak that setting to your liking.



Consumables end-of-life indicator – Cutmaster 60i's end-of-life indicator monitors the remaining life of the consumable parts and alerts you when it's time to replace, maintaining optimal performance and cut quality.

Consumables configuration guide – Look to the top of the power source for easy-to-follow instructions on how the consumables work together. Need more info? There's a quick-start guide in the box that'll have you up and running in no time.

THE SHOCKING DETAILS.

As if the power, cutting prowess, and usability weren't enough, there's more. Cutmaster 60i has an industry-leading, four-year, handle-to-handle warranty, and a full-year warranty on the torch and leads. That's an extra 365 days of protection you'll get with us that you won't get anywhere else, and it's backed by Thermal Dynamics' 60 years of experience in the field.

INCLUDED ACCESSORIES

- SL60QD 1Torch with lead
- Work lead with ground clamp
- Full set of 60 A consumables for out-of-the-box cutting, including two 60 A cutting tips, three drag tips, and a gouging tip
- Spare parts kit
- Operating manual and quick-start guide



Every Cutmaster 60i includes a full range of consumables with several amperage sizes of cutting and gouging nozzles. Whether you're drag cutting, gouging, shield cap cutting, or working on another application, Cutmaster 60i comes ready to rumble out of the box.



MECHPAK MECHANIZED PACKAGE.

The MechPak mechanized package is now available for Cutmaster 60i, making it easy to hook up to a cutting table for semiautomatic cutting processes. MechPak comes with everything you need to get started, including an SL100 mechanized torch (25 ft. or 50 ft.), remote pendant, lead with ATC connection, and consumables.



GET THE TOTAL FABRICATION PACKAGE.

Sentinel™ A50 is an excellently balanced, supremely equipped auto-darkening hood with a full range of shades, including the perfectly matched plasma cutting shades 6–7. And Rebel™ 205 AC/DC is the only true all-process welding machine of its kind. Combine them with Cutmaster 60i and gain the ability to cut or weld anything, anywhere.

SPECIFICATIONS

Amperage Output	10–60 A, continuously adjustable
Open-Circuit Voltage (OCV)	300 V
Input Voltage	208–480 VAC ± 10% (1ph or 3ph)
Rated Duty Cycle	50% @ 60 A 60% @ 50 A 100% @ 40 A
Amperage Draw	43 A @ 208 V 39 A @ 230 V 19 A @ 480 V
Enclosure Rating	IP23S
Input Power Cable and Plug	9 ft. (2.7 m) 1ph 8 AWG 3/C with NEMA 6-50P plug (prewired) 9 ft. (2.7 m) 3ph 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°F–122°F (0°C–50°C)
Input Pressure	90–125 psi max (8.6 bar)
Air Flow Requirements (cutting and gouging)	300–500 cfh (142–235 l/s)
Recommended Cut	Up to 3/4 in. (20 mm)
Maximum Sever	1 1/2 in. (38 mm)
Pierce Rating	3/4 in. (20 mm)
Torch Duty Cycle	100% at 60 A @ 400 cfh air flow
Recommended Generator Size	15 kW (at full output)
Torches (for use with Cutmaster 60i)	SL60QD 1Torch (supplied) SL60/SL100 1Torch SL100 Mechanized 1Torch SL100SLV Automated 1Torch

ORDERING INFORMATION

Cutmaster 60i SL60QD 1Torch 75 deg. 20 ft. 208–480 V 1ph	1-5630-1X
Cutmaster 60i SL60QD 1Torch 75 deg. 50 ft. 208–480 V 1ph	1-5631-1X
Cutmaster 60i SL60QD 1Torch 75 deg. 20 ft. 208–480 V 3ph	1-5630-2X
Cutmaster 60i SL60QD 1Torch 75 deg. 50 ft. 208–480 V 3ph	1-5631-2X

There's more where Cutmaster 60i came from. If it's not exactly what you need, ask your distributor about Cutmaster 42 (40 A), Cutmaster 58 (60 A), Cutmaster 82 (80 A), Cutmaster 102 (100 A), or Cutmaster 152 (120 A).

UNRIVALED SERVICE AND SUPPORT.

Thermal Dynamics Cutmaster 60i, like every ESAB machine, is backed by our commitment to superior customer service and support. Our skilled customer service department is prepared to quickly answer any questions, address problems, and help with maintenance and upgrading of machines.

4-YEAR WARRANTY.

Thermal Dynamics' 60-year history and industry-leading service and support means that if you do need help, you'll be protected by the most comprehensive warranty in the business.



100% SATISFACTION GUARANTEE.

If there's anything you're not completely satisfied with in your first 100 days with your new Cutmaster, ESAB will make it right, even if it means giving you your money back.

It's all part of our Iron Clad Pledge to our customers.



MORE THAN 60 YEARS OF CUTTING-EDGE EXPERIENCE.

Since plasma pioneers James Browning and Merle Thorpe incorporated Thermal Dynamics in 1957, TD's cutting-edge experience has been evident in every product. Whether you're looking for automated or manual plasma systems, integrated support, or high-quality consumables and accessories, Thermal Dynamics brings innovation and performance to every solution.



[View other welders made by Firepower on our website.](#)