Cutmaster® 50+

The total portable plasma cutting package

THERMAL DYNAMICS®
AN **ESAB** BRAND

SL60 | 50 AMPS | 3 YR WARRANTY | 5/8" 16mm | 120-240 VOLTS | 480 VOLTS (CETL) | 1 PHASE | 3 PHASE

Cutmaster 50+ is the perfect combination of power and portability for hand-held plasma cutting machines. Plus means more, so we've added a user-friendly 10.9 cm (4.3 in.) TFT LCD screen and upgraded features that give you even more control and flexibility to master any cut up to 25 mm (1 in.). Together with the SL60 1Torch, it all adds up to the total plasma cutting package.

Pierce Capacity : 16 mm (5/8 in.)

Cutting Capacity: 25 mm (1 in.)

Maximum Severance: 32 mm (1 1/4 in.)

Results may vary based on material used.

- Portable and durable with three handles and lightweight, industrial all-weather housing
- Bright 10.9 cm (4.3 in.) TFT LCD display with glove-friendly adjustment knob simplifies use and provides greater control and flexibility
- Includes industrial SL60 1Torch featuring 2T/4T function, safety trigger lock, and double-tap trigger to conserve bottled air
- Switch between normal and grate cutting modes
- Compatible with all ATC torch connections
- Includes a complete package of general cutting and gouging consumables for most applications
- Post-cut air purge to expand consumable life
- Industry leading 3-year warranty on power supply and 1-year warranty on torch and leads
- CNC functionality with pre-installed 14 pin CPC receptacle and voltage divider which allows:
  1. Start/Stop
  2. OK to Move
  3. Divided arc voltage
     (ratio 20:1, 30:1, 40:1, 50:1, 80:1)

Visit **esab.com** for more information.

Industry

- Industrial and General Fabrication
- Light Fabrication
- Industrial Production & Manufacturing
- Automotive Bodies
- Hobbyist
- Agricultural Equipment
- HVAC
- Repair and Maintenance
- Pipeline
- Training Schools

Simple and intuitive TFT LCD panel

Cutmaster® 50+

Specifications

Input Voltage	120 – 240 VAC +/-15% 50/60Hz, 1 Φ		480 VAC +/- 15%, 50/60 Hz, 3 Φ
	cETLus (NA)		
Amperage Output	10 – 50 A, continuously adjustable		
Recommended Generator Size	12+ kW		
Pierce Capacity*	Up to 16 mm (5/8 in.)		
Cutting Capacity*	25 mm (1 in.) @ 205 mm/min (8 ipm)		
Maximum Severance*	32 mm (1 1/4 in.) @ 100 mm/min (4 ipm)		
Open Circuit Voltage (OCV)	298 V		
Rated Duty Cycle	120 VAC 40% @ 25 A / 120 V 100% @ 16 A / 120 V	240 VAC 50% @ 50 A / 150 V 100% @ 30 A / 150 V	60% @ 50 A / 150 V 100% @ 40 A / 150 V
Circuit Breaker	20 A (120 VAC)	70 A (240 VAC)	20 A
Amperage Draw	31 A (120 VAC)	36 A (240 VAC)	13 A
Input Power Cable and Plug	3 m (10 ft), 10 AWG, with NEMA 6-50P Plug		3 m (10 ft),10 AWG without plug
Weight	17.5 kg (38.6 lbs)		16.5 kg (36.4 lbs)
Gas Requirements	Compressed air Clean, dry, oil-free per ISO 8573-1 Class 1.2.2 Compressed Nitrogen : 99.95% pure		
Operating Temperature Range	-10° to + 50° C (14° F to 122° F)		
Inlet Air Pressure Requirement	6.2 – 8.6 bar (90 – 125 psi)		
Recommended Outlet Air Pressure	5.2 bar (75 psi)		
Inlet Air Flow Requirement	142 – 235 l/min (300 – 500 cfh)		
Torch Duty Cycle	100% at 60 A @ 189 l/min (400 cfh) air flow and 5.2 bar (75 psi) pressure		
Enclosure Class	IP23S		
Dimensions L x W x H	465 x 200 x 315 mm (18.3 x 7.9 x 12.4 in.)		

* Depending on material

Ordering Information

Description	Part Number
TD Cutmaster 50+ Package, 1 Φ 120-240V cETLus (NA) * incl 120V adapter	1-5000-1
TD Cutmaster 50+ Package, 3 Φ 480V (without plug) cETLus (NA) *	1-5000-2

*Cutmaster 50+ power supply, 5 m (16 ft) SL60 75° torch with lead, 3 m (10 ft) work lead with 10 mm² (4 AWG) ground clamp 9 mm (3/8 in.) OKC/dinse 10-25 connector, consumables kit, regional 1/4" air fitting.

Options & Accessories

Description	Part Number
SL60 1Torch and Lead 6.1 m (20 ft) 75° Head	7-5204
SL60 1Torch and Lead 15.2 m (50 ft) 75° Head	7-5205
SL100 Mechanized ATC 180° 7.6 m (25 ft)	7-5215
SL100 Mechanized ATC 180° 15.2 m (50 ft)	7-5216
Ground Clamp Dinse 25 mm lead (10 mm² OKC) - 3 m	0700400909

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Wear & Spare Parts Torch	
Description	**Part Number**
Electrode, SL60	9-8215
Cutmaster Black Series Extended Life Electrode	9-8214
Start Cartridge, SL60	9-8213
Shield Cup, SL60	9-8218
Shield Cup, SL60, Max Life	9-8237
Shield Cap, Gouging, Max Life (A – D)	9-8241
Shield Cap Deflector, Max Life (All)	9-8243
A size gouging tip	9-8225
B size gouging tip	9-8226
Cutting tip 20A	9-8205
Cutting tip 30A	9-8206
Cutting tip 40A	9-8207
Cutting tip 50A	9-8209
Cutting shield cap (40A)	9-8244
Cutting shield cap (50A)	9-8235
Torch "O" Ring 1	8-3487
Torch "O" Ring 2	8-3486
Stand Off Cutting Guide	9-8251

1TORCH Consumables Parts Application Guide

For SL60 and SL100 manual cutting and gouging operations.

DRAG SHIELD CUTTING This is an operator-friendly method of cutting while maintaining a constant standoff distance. For metal thickness greater than 1/4 in. (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. Provides maximum visibility and accessibility. Shield cup for standoff cutting (with the torch tip 1/8 in. (3 mm) to 1/4 in. (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 cap.
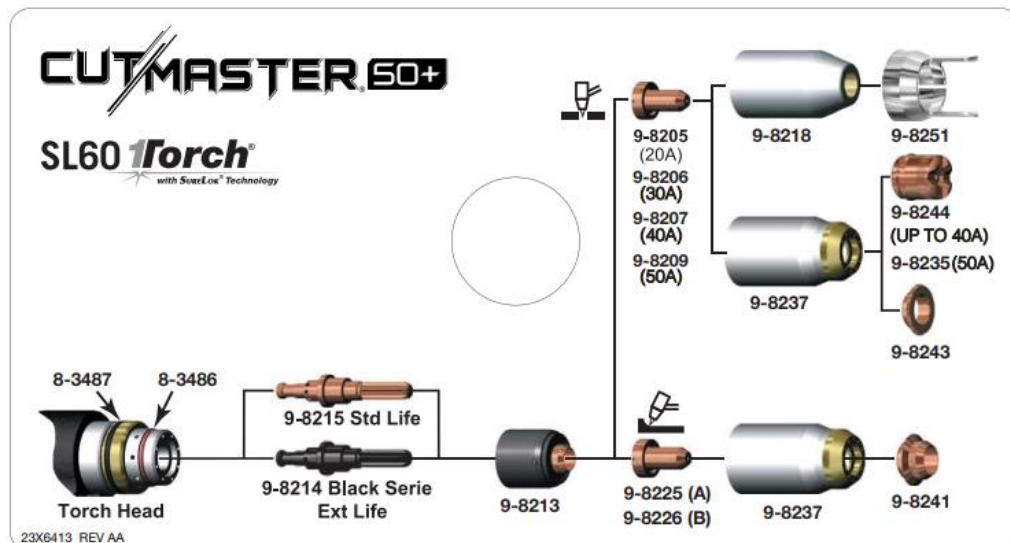
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Semi-Mechanized Systems

For straight line cutting and gouging applications controlled with a simple start stop switch, MechPak from ESAB provides everything you need to allow precision setup and control for many semi-automated applications. The MechPak is compatible with all Cutmaster plasmas that contain the convenient ATC torch style quick connection.

Step #1: MechPaks	
Description	Part Number
MechPak, 7.6 m (25 ft) Kit	7-7725
MechPak, 15.2 m (50 ft) Kit	7-7750

Step #2: Optional Accessories	
Description	Part Number
VCM 201HS Cutting Machine	0200-0225
1.8 m (6 ft) Track	0212-0005
2.7 m (9 ft) Track	0212-0019
3.7 m (12 ft) Track	0212-0018
Pinion Assembly 35 mm (1.375 in) Torch Barrel Diameter	7-2827

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MANAGEMENT SYSTEMS