

# TD Cutmaster® 40

Highest power-to-weight ratio in its class



# THERMAL DYNAMICS®

AN ESAB® BRAND



The Cutmaster® 40 with SL60™ 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 40 with SL60 1Torch also has best in class cutting arc length and the most empowering and engaging user experience no matter the application.

- Built for portability and durability with the integral multi-handle design
- 40% Duty Cycle depending on application. Automatic voltage input detection from 110-240 V and will automatically set the max output. 27 amps for 110 and 40 amps for 200-240 V
- Industrial SL60 1Torch with ATC® (Advanced Torch Connector)
- Up to 1/2 in. (12 mm) recommended pierce and cut capacity with maximum sever of 1 in. (25 mm)
- 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

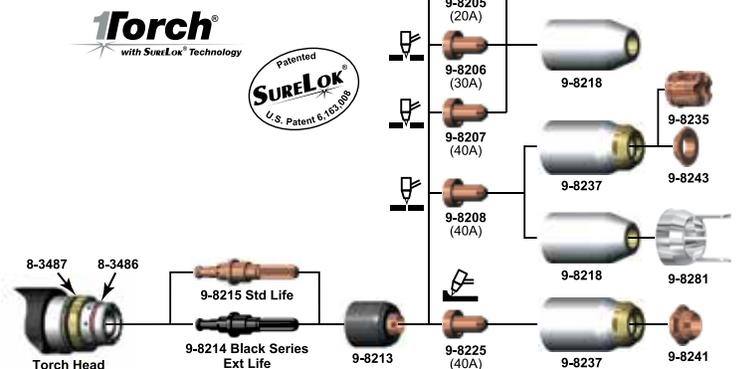


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## Industry

- Automotive Bodies
- Industrial and General Fabrication
- General Manufacturing
- HVAC
- Repair and Maintenance
- Training Schools

## SL60 Consumables



# TD Cutmaster® 40

Specifications	
Amperage Output	15 – 40 A, continuously adjustable
Recommended Generator Size	8.0 kW
Open Circuit Voltage (OCV)	300 V
Input Voltage	110 – 240 VAC +/- 10%, 50/60 Hz, 1ph
Rated Duty Cycle	40% @ 40 A, 60% @ 30 A, 100% @ 20 A
Amperage Draw *	29 A @ 208 V, 26 A @ 230 V, 25.3A @115 V
Input Power Cable and Plug	9 ft (2.7 m) 1 ph 12 AWG 3/C with NEMA 6-50P plug
Work Lead with Ground Clamp	13 ft (4 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)
Min Air Flow Requirements (cutting & gouging)	170 cfh (80 l/min)
Recommended Cut	up to 1/2 in (12 mm)
Maximum Sever	1 in (25 mm)
Pierce Rating	1/2 in (12 mm)
SL60 Torch Duty Cycle	100% at 40 A @ 400 cfh (189 l/min)air flow
Torches – for use with the Cutmaster 40	SL60 1Torch (supplied) SL60QD 1Torch
Dimensions L x W x H	18.1 x 7.9 x 12.6 in (460 x 200 x 320 mm)
Weight	22 lbs (10 kg)

\* at Maximum Cut Capacity

Cutting Specifications	
Plate Thickness	Recommended Cut Speed
3/8 in (1 mm)	300 ipm (7670 mm/min)
1/16 in (2 mm)	275 ipm (6985 mm/min)
9/64 in (4 mm)	105 ipm (2667 mm/min)
3/16 in (5 mm)	70 ipm (1778 mm/min)
1/4 in (6 mm)	30 ipm (762 mm/min)
3/8 in (9 mm)	20 ipm (508 mm/min)
1/2 in (13 mm)	10 ipm (254 mm/min)

Ordering Information	
Description	Part Number
TD Cutmaster 40, 1 ph with SL60 1Torch 16 ft (5 m) 90° Head	1-4000-1
<b>Torches</b>	
SL60 1Torch and Lead 20 ft (6.1 m) 75° Head	7-5200
SL60 1Torch and Lead 50 ft (15.2 m) 75° Head	7-5201
SL60QD 1Torch and Lead 20 ft (6.1 m) 75° Head	7-5620
SL60QD 1Torch and Lead 50 ft (15.2 m) 75° Head	7-5650
SL60QD 1Torch 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

Cutmaster 40 power supply, SL60 90° torch with lead, work lead with ground clamp, spare parts kit, input power adapters: 50A to 20A and 20A to 15A, 1/4" NPT air fitting with quick connect, and operating manual. Cutmaster 40 is compatible with all 1Torch ATC torch connections.

# TD Cutmaster® 40

## Wear & Spare Parts 1Torch

Description	Part Number
Cutmaster Black Series Extended Life Electrode	9-8214
Electrode	9-8215
Start Cartridge	9-8213
Stand off cutting guide	9-8281
Shield Cup	9-8218
Shield Cup Max Life	9-8237
Shield Cap Gouging	9-8241
Shield Cap (Drag only)	9-8235
Deflector	9-8243
Tip – Drag (20 A)	9-8205
Tip – Drag (30 A)	9-8206
Tip – Drag (40 A)	9-8207
Tip – Standoff (40 A)	9-8208
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

## Options & Accessories

Description	Part Number
Cutting Guide Kit (Deluxe)	7-8910
Circle Cutting Guide Kit	7-3291
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
Single Stage Air Filter Kit	7-7507
Straight Line Cutting Guide	7-8911
Two Stage Air Filter Kit	9-9387

# TD Cutmaster® 40

## 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
<b>Tip A</b> 	40A (MAX)	Shallow	Narrow
<b>Tip B</b> 	50-100A	Deep	Narrow
<b>Tip C</b> 	60-120A	Moderate	Moderate
<b>Tip D</b> 	60-120A	Shallow	Wide

### Semi-Mechanized Systems

For straight line cutting and gouging applications controlled with a simple start stop switch, ESAB's MechPak 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, 25 ft. (7.6 m) Kit	7-7725
MechPak, 50 ft. (15.2 m) Kit	7-7750

#### Step#2: Optional Accessories

Description	Part Number
VCM 201 Cutting Machine	0252-0125
6 ft (1.8 m) Track	0212-0005
9 ft (2.7 m) Track	0212-0019
12 ft (3.7 m) Track	0212-0018
Pinion Assembly 1.375 in. (35 mm) Diameter	7-2827



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