

PT-37 Mechanized Torch



- 100% duty cycle for enhanced productivity allowing for continuous operation even at maximum thickness
- Utilizes a “drawn arc” to initiate the cut, which eliminates high frequency interference from the starting circuits
- An optional remote starting system allows the torch to be located up to 150 ft. (45 m) away from the power supply
- Machined torch body with 1-3/8 in. (35 mm) metal handle, available with and without 32-pitch rack to fit industry standard torch holders
- Robust machined torch components provide for reliability, durability, and ease of maintenance
- Metal nozzle and shield stand up to the toughest cutting conditions
- Wear parts are available individually, in sets, and in value packs, which eases ordering and saves money



Consoles

The PT-37 can be used with the following ESAB consoles:

- PowerCut 900
- PowerCut 1300
- PowerCut 1600
- ESP-101

The patented PT-37 torch cuts up to 1-1/4 in. (32 mm) material using air as the plasma and shielding gas. Utilizing a blowback start, and an electronically controlled pilot arc, the PT-37 sets a new standard for starting reliability, cutting characteristics, and consumable life.

Ordering Information

PT-37 Torches with Rack

4.5 ft. (1.3 m)	0558004860
17 ft. (5.2 m)	0558004861
25 ft. (7.6 m)	0558004862
50 ft. (15.2 m)	0558004863

PT-37 Torches without Rack

4.5 ft. (1.3 m)	0558004894
17 ft. (5.2 m)	0558004895
25 ft. (7.6 m)	0558004896
50 ft. (15.2 m)	0558004897

Options & Accessories

Remote Hand Switches

25 ft. (7.6 m)	0558005548
50 ft. (15.2 m)	0558005549

Remote Junction Box, Extension Hoses & Cables

Remote junction box (RJB)	0558004887
Hose/cable bundle RJB 50 ft. (15.2 m).....	0558004888
Hose/cable bundle RJB 100 ft. (30 m).....	0558004889
Torch holder, manually adjustable, 32 pitch rack..	0558005926
Plate rider assembly	2238229

Specifications

PT-37	
Cuts, in. (mm)	3/4 (19)
Severs, in. (mm)	1-1/4 (32) max.
Current capacity	100A @ 100% duty cycle
Nominal flow rate, with 100A consumables, cfm @ psig (L/min @ bar)	490 @ 80 (231 @ 5.5)
Length of service leads, ft. (m)	4.5 (1.4)
	17 (5.2)
	25 (7.6)
	50 (15.2)
Dimensions, in. (mm)	18.1 (460) length

PT-37 Mechanized Torch



Carbon Steel

50 Amps

Plasma Gas: Air @ 70 psi (4.8 bar)

Thickness in. (mm)	Initial Height in. (mm)	Pierce Height in. (mm)	Cutting Height (standoff) in. (mm)	Arc Voltage	Pierce Time (milliseconds)	Kerf Width in. (mm)	Optimum ipm (mm/min)	Maximum ipm (mm/min)
0.062 (1.6 ga)	0.200 (5.1)	0.200 (5.1)	0.062 (1.6)	118	0	0.040 (1.0)	375 (9,525)	350 (10,160)
0.125 (3.2)	0.200 (5.1)	0.200 (5.1)	0.090 (2.3)	127	100	0.058 (1.5)	150 (3,810)	194 (4,928)
0.188 (4.8)	0.200 (5.1)	0.200 (5.1)	0.094 (2.4)	129	100	0.062 (1.6)	90 (2,286)	130 (3,302)
0.250 (6.4)	0.200 (5.1)	0.200 (5.1)	0.125 (3.2)	133	150	0.068 (1.7)	65 (1,651)	85 (2,159)
0.375 (9.5)	0.200 (5.1)	0.250 (6.4)	0.120 (3.0)	139	200	0.068 (1.7)	35 (889)	45 (1,143)
0.500 (12.7)	0.200 (5.1)	0.250 (6.4)	0.077 (1.8)	145	400	0.072 (1.8)	20 (508)	27 (686)
0.625 (15.9)	0.200 (5.1)	0.275 (7.0)	0.075 (1.9)	151	950	0.075 (1.9)	10 (254)	12 (305)

70 Amps

Plasma Gas: Air @ 80 psi (5.5 bar)

Thickness in. (mm)	Initial Height in. (mm)	Pierce Height in. (mm)	Cutting Height (standoff) in. (mm)	Arc Voltage	Pierce Time (milliseconds)	Kerf Width in. (mm)	Optimum ipm (mm/min)	Maximum ipm (mm/min)
0.125 (3.2)	0.200 (5.1)	0.200 (5.1)	0.093 (2.4)	125	0	0.051 (1.3)	225 (5,715)	275 (6,985)
0.250 (6.4)	0.200 (5.1)	0.240 (6.1)	0.156 (4.0)	139	250	0.066 (1.7)	93 (2,362)	128 (3,251)
0.375 (9.5)	0.200 (5.1)	0.240 (6.1)	0.215 (5.5)	146	350	0.076 (1.9)	50 (1,270)	65 (1,651)
0.500 (12.7)	0.200 (5.1)	0.280 (7.1)	0.200 (5.1)	152	450	0.088 (2.2)	32 (813)	45 (1,143)
0.625 (15.9)	0.200 (5.1)	0.280 (7.1)	0.188 (4.8)	160	900	0.093 (2.4)	22 (559)	27 (686)
0.750 (19.1)	0.200 (5.1)	-	0.156 (4.0)	160	-	0.107 (2.7)	12 (305)	16 (406)

100 Amps

Plasma Gas: Air @ 80 psi (5.5 bar)

Thickness in. (mm)	Initial Height in. (mm)	Pierce Height in. (mm)	Cutting Height (standoff) in. (mm)	Arc Voltage	Pierce Time (milliseconds)	Kerf Width in. (mm)	Optimum ipm (mm/min)	Maximum ipm (mm/min)
0.250 (6.4)	0.188 (4.8)	0.188 (4.8)	0.092 (2.3)	138	100	0.075 (1.9)	77 (1,956)	100 (2,540)
0.375 (9.5)	0.188 (4.8)	0.188 (4.8)	0.156 (4.0)	149	300	0.090 (2.3)	44 (1,118)	56 (1,422)
0.500 (12.7)	0.188 (4.8)	0.240 (6.1)	0.156 (4.0)	153	300	0.100 (2.5)	57 (1,448)	70 (1,778)
0.625 (15.9)	0.188 (4.8)	0.240 (6.1)	0.156 (4.0)	156	400	0.110 (2.8)	40 (1,016)	45 (1,143)
0.750 (19.1)	0.200 (5.1)	0.300 (7.6)	0.125 (3.2)	155	1200	0.105 (2.7)	26 (660)	35 (889)
1.000 (25.4)	0.250 (6.4)	-	0.080 (2.0)	155	-	0.120 (3.0)	16 (406)	20 (508)
1.250 (31.8)	0.250 (6.4)	-	0.062 (1.6)	159	-	0.120 (3.0)	10 (254)	13 (330)



PT-37 Mechanized Torch

PT-37 Consumables, Kits & Sets

Start Up Consumable Kits

100A	0558004883
70A	0558008247
60A	0558008248

Consumable Sets

50A (1 nozzle, 1 electrode)	0558004884
100A (1 nozzle, 1 electrode)	0558004885
Value Pack 100A (15 nozzles, 10 electrodes) ..	0558004886

Electrodes

Silver	0558004875
Standard	0558005220

Both electrodes can be used for the full range of cutting.
 Silver electrode provides longer consumable life for higher duty cycle, automated applications. It is recommended for mechanized cutting above 50 amps.

Swirl Baffles

30-70A	0558005217
100A	0558004870

Nozzles

30A	0558005218
50A	0558004878
70A	0558005219
100A	0558004879

Nozzle retainer	0558006600
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Shields

100A	0558006601
50-70A	0558006602
30-40A	0558006603

Plasma Equipment

Cutting Nozzle	Part Number
30A	0558005218
50A	0558004878
70A	0558005219
100A	0558004879

Nozzle Retainer
0558006600



Swirl Baffle	Part Number
30 - 70A	0558005217
100A	0558004870

Electrode	Part Number
50A, Standard	0558005220
100A, Long Life	0558004875

Shield	Part Number
30 - 40A	0558006603
50 - 70A	0558006602
100A	0558006601

