

iSeries Systems

The next generation of high precision plasma cutting.



ESAB's new iSeries technology provides the next generation of higher productivity, increased flexibility and confidence in high precision plasma cutting. Superior performance on mild steel and non-ferrous metals will meet or exceed other systems in its class. Designed to grow with your business, you can upgrade your system in minutes. The iSeries systems utilize StepUp™ modular power technology, allowing units to be easily upgraded - ensuring you always have the right amount of power for your current and future applications.

- HeavyCut™ provides the best cut quality, precision and parts life with XTremeLife™ Wear Parts
- Unmatched cut quality on non-ferrous metals using unique Water Mist Secondary (WMS®) process
- Highest cut speed in its class on stainless steel – up to 3 times faster than similar cutting systems
- Work pieces can go directly from the cutting table to welding, painting or assembly without expensive secondary operations
- Excellent dross-free cuts using oxygen (O₂) plasma on mild steel

Visit esab.com for more information.

Industry

- Industrial and General Manufacturing
- Heavy Fabrication
- Marine and Offshore
- Railcars
- Steel Cutting Centres (Cutting Only)



iSeries Systems

Specifications	100i	200i	300i	400i
Maximum output	100 A	200 A	300 A	400 A
Output range	5-100 A	5-200 A	5-300 A	5-400 A
Output power	180 V	180 V	180 V	200 V
Output at 100% duty cycle	20 kW	40 kW	60 kW	80 kW
Input voltage	380/400/480 V	380/400/480 V	380/400/480 V	380/400/480 V
Input phases	3 ph	3 ph	3 ph	3 ph
Input frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Input amps	33 A @ 380 V 31 A @ 400 V 26 A @ 480 V	65 A @ 380V 62 A @ 400 V 52 A @ 480 V	97 A @ 380 V 93 A @ 400 V 77 A @ 480 V	144 A @ 380 V 137 A @ 400 V 114 A @ 480 V
Max OCV	425 V	425 V	425 V	425 V
Plasma gas	Air O2 Ar-H2 N2 @ 8.3 bar (120 psi) Arfor marking w/ DFC 3000	Air O2 Ar-H2 N2 @ 8.3 bar (120 psi) Arfor marking w/ DFC 3000	Air O2 Ar-H2 N2 @ 8.3 bar (120 psi) Arfor marking w/ DFC 3000	Air O2 Ar-H2 N2 @ 8.3 bar (120 psi) Arfor marking w/ DFC 3000
Shielding gas	Air N2 O2 @ 8.3 bar (120 psi) H2O @ 0.6 l/min (10 gph) max	Air N2 O2 @ 8.3 bar (120 psi) H2O @ 0.6 l/min (10 gph) max	Air N2 O2 @ 8.3 bar (120 psi) H2O @ 0.6 l/min (10 gph) max	Air N2 O2 @ 8.3 bar (120 psi) H2O @ 0.6 l/min (10 gph) max
Weight	186 kg (410 lbs)	205 kg (451 lbs)	244 kg (537 lbs)	252 kg (555 lbs)
Dimensions L x W x H	1219 x 698 x 1031 mm (48 x 27.5 x 40.6 in.)	1219 x 698 x 1031 mm (48 x 27.5 x 40.6 in.)	1219 x 698 x 1031 mm (48 x 27.5 x 40.6 in.)	1219 x 698 x 1031 mm (48 x 27.5 x 40.6 in.)
Enclosure class	CSA, CE, CCC	CSA, CE, CCC	CSA, CE, CCC	CSA, CE, CCC

Cutting Specifications	100i	200i	300i	400i
Mild Steel				
Recommended cut	12 mm (1/2 in.)	25 mm (1 in.)	40 mm (1 1/2 in.)	50 mm (2 in.)
Maximum cut	15 mm (5/8 in.)	40 mm (1 1/2 in.)	45 mm (1 3/4 in.)	50 mm (2 in.)
Maximum edge start	20 mm (3/4 in.)	65 mm (2 1/2 in.)	75 mm (3 in.)	90 mm (3 1/2 in.)
Stainless Steel				
Recommended cut	12 mm (1/2 in.)	25 mm (1 in.)	25 mm (1 in.)	50 mm (2 in.)
Maximum cut	15 mm (5/8 in.)	25 mm (1 in.)	30 mm (1 1/4 in.)	50 mm (2 in.)
Maximum edge start	20 mm (3/4 in.)	50 mm (2 in.)	50 mm (2 in.)	100 mm (4 in.)
Aluminum				
Recommended cut	12 mm (1/2 in.)	20 mm (3/4 in.)	25 mm (1 in.)	50 mm (2 in.)
Maximum cut	15 mm (5/8 in.)	25 mm (1 in.)	30 mm (1 1/4 in.)	60 mm (2 1/2 in.)
Maximum edge start	20 mm (3/4 in.)	50 mm (2 in.)	50 mm (2 in.)	90 mm (3 1/2 in.)

iSeries Systems

Cutting Speed			
Thickness	Speed	Amps	Plasma/Shield
Mild Steel			
3 mm (10 ga.)	1340 mm/min (50 ipm)	30 A	O ₂ /O ₂
6 mm (1/4 in.)	2710 mm/min (100 ipm)	70 A	O ₂ /Air
6 mm (1/4 in.)	3940 mm/min (145 ipm)	100 A	O ₂ /Air
10 mm (3/8 in.)	2170 mm/min (90 ipm)	100 A	O ₂ /Air
12 mm (1/2 in.)	1690 mm/min (60 ipm)	100 A	O ₂ /Air
20 mm (3/4 in.)	1590 mm/min (65 ipm)	200 A	O ₂ /Air
25 mm (1 in.)	1250 mm/min (48 ipm)	200 A	O ₂ /Air
20 mm (3/4 in.)	2430 mm/min (100 ipm)	300 A	O ₂ /Air
25 mm (1 in.)	1830 mm/min (70 ipm)	300 A	O ₂ /Air
35 mm (1 1/4 in.)	1080 mm/min (50 ipm)	300 A	O ₂ /Air
25 mm (1 in.)	2100 mm/min (80 ipm)	400 A	O ₂ /Air
40 mm (1 1/2 in.)	1110 mm/min (45 ipm)	400 A	O ₂ /Air
50 mm (2 in.)	790 mm/min (30 ipm)	400 A	O ₂ /Air
Stainless Steel			
1.5 mm (16 ga.)	5500 mm/min (205 ipm)	30 A	N ₂ /H ₂ O
2 mm (14 ga.)	4310 mm/min (170 ipm)	50 A	N ₂ /H ₂ O
4 mm (3/16 in.)	2410 mm/min (50 ipm)	50 A	N ₂ /H ₂ O
6 mm (1/4 in.)	1490 mm/min (50 ipm)	70 A	N ₂ /H ₂ O
6 mm (1/4 in.)	2670 mm/min (95 ipm)	100 A	N ₂ /H ₂ O
12 mm (1/2 in.)	1350 mm/min (50 ipm)	100 A	N ₂ /H ₂ O
20 mm (3/4 in.)	1190 mm/min (50 ipm)	200 A	N ₂ /H ₂ O
25 mm (1 in.)	910 mm/min (35 ipm)	200 A	N ₂ /H ₂ O
25 mm (1 in.)	1030 mm/min (40 ipm)	300 A	N ₂ /H ₂ O
35 mm (1 1/4 in.)	720 mm/min (30 ipm)	300 A	N ₂ /H ₂ O
25 mm (1 in.)	920 mm/min (35 ipm)	300 A	H35/N ₂
40 mm (1 1/2 in.)	600 mm/min (25 ipm)	300 A	H35/N ₂
20 mm (3/4 in.)	2286 mm/min (90 ipm)	400 A	H35/N ₂
40 mm (1 1/2 in.)	760 mm/min (30 ipm)	400 A	H35/N ₂
25 mm (1 in.)	1170 mm/min (45 ipm)	400 A	H35/N ₂
50 mm (2 in.)	440 mm/min (17 ipm)	400 A	H35/N ₂
100 mm (4 in.)	90 mm/min (3.5 ipm)	400 A	H35/N ₂

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Cutting Speed			
Thickness	Speed	Amps	Plasma/Shield
Aluminum			
1.5 mm (16 ga.)	3210 mm/min (150 ipm)	30 A	N ₂ /H ₂ O
6 mm (1/4 in.)	2060 mm/min (70 ipm)	70 A	N ₂ /H ₂ O
10 mm (3/8 in.)	1660 mm/min (70 ipm)	100 A	N ₂ /H ₂ O
12 mm (1/2 in.)	1180 mm/min (40 ipm)	100 A	N ₂ /H ₂ O
20 mm (3/4 in.)	2170 mm/min (90 ipm)	200 A	N ₂ /H ₂ O
25 mm (1 in.)	1350 mm/min (50 ipm)	200 A	N ₂ /H ₂ O
25 mm (1 in.)	1560 mm/min (60 ipm)	300 A	N ₂ /H ₂ O
35 mm (1 1/4 in.)	760 mm/min (40 ipm)	300 A	N ₂ /H ₂ O
25 mm (1 in.)	2190 mm/min (85 ipm)	300 A	H35/N ₂
20 mm (3/4 in.)	2170 mm/min (90 ipm)	400 A	N ₂ /H ₂ O
40 mm (1 1/2 in.)	1280 mm/min (55 ipm)	400 A	N ₂ /H ₂ O
25 mm (1 in.)	2330 mm/min (90 ipm)	400 A	H35/N ₂
50 mm (2 in.)	810 mm/min (30 ipm)	400 A	H35/N ₂



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