



A40i/A60i SERIES AUTOMATED PLASMA CUTTING SYSTEMS.



**AUTOMATED NEW A-SERIES DELIVERS THE BEST
IN PRODUCTIVITY, PRECISION AND PERFORMANCE.**

A-SERIES AUTOMATED PLASMA CUTTING SYSTEMS.

With all the advantages of 1Torch® and proven ESAB reliability, the automated new A-Series delivers the best in productivity, precision and performance.

Powerful Duty Cycle

Powerful 80% duty cycle to handle all-day production cutting in the toughest environments.

Proven 1Torch Technology

The A-Series systems include the SL100 SV 1Torch start technology eliminating the electronic interference that can occur with other designs. The 1Torch provides quick, reliable starts and a strong pilot arc to pierce heavy plate. With auto-pilot restart, it can also cut expanded metal quickly and easily.

Power Factor Correction (PFC)

Lower your overall current draw and power consumption with the built-in PFC technology, which results in lower cutting cost.

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 Optimiser

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

A40i'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.

Smallest Foot Print and Weight in its Class.

Easy to install on a gantry without losing the dynamics of the cutting machine. No long torch lead packages required.

Easy Installation

No need to open the machine for access to input power cord, work cable or raw arc voltage. All connections to your CNC are right at your fingertips.

Marking Capabilities

Ideal for marking plates with part identification numbers or welding lines. Argon or air can be used depending on the application.



Ohmic Sensing Through the Tip

No need for ohmic clips and wires. Especially on thinner material, exposed tips can be used for better cut quality.

Full Featured CNC Interface

No need for separate voltage divider board for ohmic sensing. Thermal Dynamics® iCNC Performance or similar OEM CNC can be connected directly.

Dedicated Valve-in-Torch Design

Valve-in-torch design reduces cycle time between parts and increases productivity.

Automated Torch Status Detection

Software automatically detects the torch that is attached and switches between automation and manual modes.

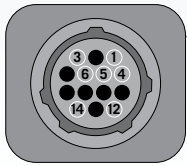
Dedicated Automation Software for Better Performance

Dedicated automation software improves cycle time and performance in many applications.

Work Cable Options for Various Demand

The SL100 SV Torch comes with standard ATC® Quick Disconnect in lengths of 7.6 m, 10.7 m and 15.2 m. Longer torch leads up to 30.5 m are available.

FEATURES.



CNC Interface Connector on Rear of Power Supply

- 3, 4 Plasma Start/Stop Signal
- 5, 6 Divided Arc voltage
- 10, 11, 13 Plate contact for Ohmic sensing
- 12, 14 Ok-to-Move



Front Panel Controls

- Large numeric display for cutting current and status messages
- Mode selection
- Current control
- Consumables end of life indicator
- Gas pressure indicator
- Torch type and lead length indicator

ATC Quick Disconnect

- Torch detection allows fast change from an automation torch to a hand torch



- Standard keyhole mounting feet



- Dinse style Quick Disconnect work cable

SUPERIOR CUTTING PERFORMANCE.

SureLok® Electrode Technology

The innovative, patented, self-locking electrode mechanism eliminates the need for an installation tool and ensures precise electrode and tip alignment.

Both the electrode and tip are stationary, which results in a highly defined arc and precise cuts. SureLok alignment also means longer tip and electrode life and reduced operating costs.



Total Gas Management™

The SL100 SV 1Torch eliminates the need for a separate plasma gas distributor. Each tip includes plasma gas ports uniquely tuned to optimize cutting performance at its rated current.

Select from 20, 30, 40, 60 Amp tips to optimize your cutting. The result is Total Gas Management: precision gas control, longer consumable parts life and better cut performance.



Start Cartridge

High Frequency has been completely eliminated from the plasma system.

A patented component called the "Start Cartridge" sits between the tip and electrode. The Start Cartridge is in contact with the tip while the torch is inactive. When a start signal is given, air forces the cartridge to break contact with the tip and the pilot arc is started. This unique design allows the pilot arc to start without moving either the tip or electrode, resulting in better parts life, cut performance and reliability. The start cartridge is the only moving part in the SL100 SV torch.



Choice of Tip Shielding

Choose from two consumable styles:

- Exposed Tip for cutting thin sheet at low power & narrow kerf
- Shielded Tip for heavier plate piercing and cutting



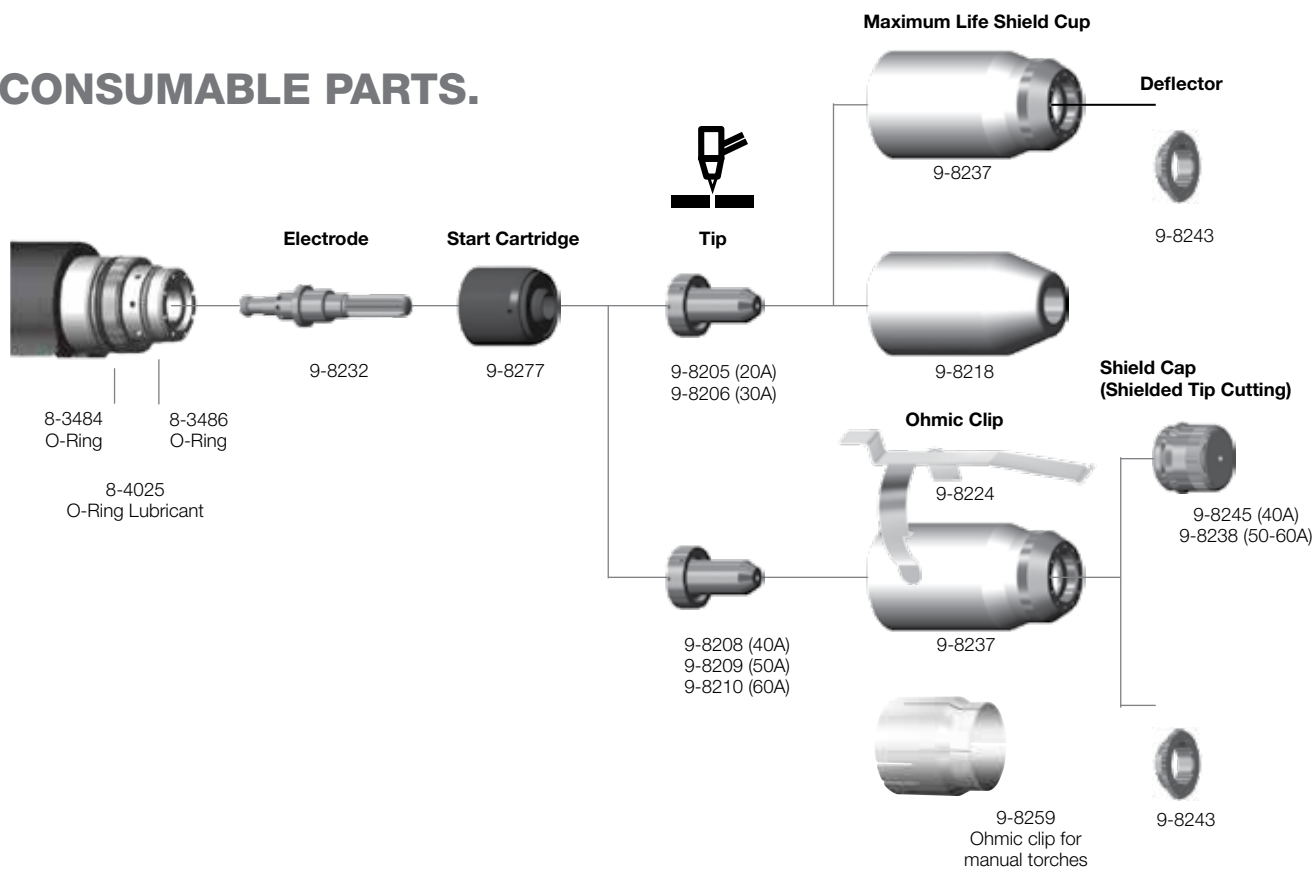
Exposed Tip

Shielded Tip

PRODUCT SELECTION.

	Specifications	A40i	A60i
Production Piercing & Cutting Capacity	Gauge (0.5 mm – 2 mm)	•	•
	6 mm	•	•
	10 mm		•
	12 mm		
	15 mm		
Applications	Sheet Metal – Ductwork, Artwork, Trailer Panels	•	•
	Light Fabrication – Kitchenware, Autobody Panels, Pipe		•
	Medium Fabrication – Industrial Components, Truck Frame & Body		•
Duty	High Production – 80% Duty Cycle	•	•
	Single Phase - 230 V, 50% Duty Cycle		•

CONSUMABLE PARTS.



A-SERIES UNIT SPECIFICATIONS*



Specifications	A40i		A60i	
Output Range	10 – 40 Amps		10 – 60 Amps	
Production Piercing and Cutting Capacity	6 mm		10 mm	
Maximum Piercing and Cutting Capacity	12 mm		15 mm	
Maximum Edge Start	25 mm			
Input Voltage	380/400V, 3 ph, 50/60 Hz			
Input Amps @ Max Output	Volts	3 Phase	Volts	3 Phase
	380 V	7.7 A	380 V	12.9 A
	400 V	7.4 A	400 V	12.3 A
Kilowatt Output	4.8 kW		7.9 kW	
Duty Cycle	80% @ 40 A 100% @ 30 A		80% @ 60 A 100% @ 50 A	
Max OCV	300 VDC			
Gas Type	Air/Argon (Marking) @ 5.2 bar @ 189 lpm			
Weight	15.9 kg			
Dimensions H x W x L	359 x 199 x 536 mm			
Work Cable	6.1 m			
Control	CNC rear panel connector: Start/Stop, OK to Move, Divided Arc Voltage, Plate Contact. Raw Arc Voltage on separate terminal.			
Input Power Cable	3 m with plug (208/230 V) 2 m without plug (400 V), no cable for CCC version			
Warranty	3 Year Power Supply, 1 Year Torch			
Certifications	IP-23C, CSA, NTRL/C, CE, CCC			
Torch Configuration				
Torch	SL100 SV w/ ATC, 180° Automation			
Ordering Information	Please see your ESAB Account Manager for specific system configurations.			
SL100 SV - 7.6 m lead	055815634-4		055816634-4	
SL100 SV - 10.7 m lead	055815636-4		055816636-4	
SL100 SV - 15.2 m lead	055815635-4		055816635-4	

For use with ESAB Crossbow. Systems include: power supply, automation torch with 35 mm diameter non-metallic mounting tube/32 pitch rack (detached), pinch block assembly, spare parts kit, input power cable (selected systems), work cable, and clamp.

*Subject to change without notice.

ACCESSORIES.

CNC Cables

7.6 m	9-1125
10.6 m	9-1126
15.2 m	9-1127

1Torch Automation Leads Packages

SL100 SV 180° - (Torch/Leads)

7.6 m	7-4001	23 m	7-4004
10.6 m	7-4002	30.5 m	7-4005
15.2 m	7-4003		

Hand Torches

SL60® - (Torch/Leads)

6.1 m	7-5204
15.2 m	7-5205

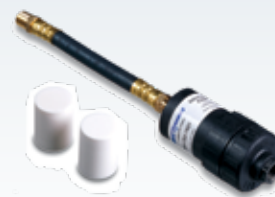
SL100 - (Torch/Leads)

6.1 m	7-5206
15.2 m	7-5208



Single Stage Air Filter Kit

Cat. No. 7-7507 (Filter Body 9-7740)
Hose 9-7742 (Filter Element 9-7741)



Pinion Assembly

Cat. No. 7-2827 (35 mm) Diameter

Remote Pendant Control

Cat. No. 7-3460
6.1 m Remote Pendant Control
for your mechanised application.



Hand Pendant Extension

Cat. No. 7-7744 7.6 m



Cutting Speed Chart

Material	Amps	Plasma /Shield	Thickness (mm)	Speed mm/min.
Mild Steel	40	Air/Air	1	3990
			2	2920
			3	1810
			5	1345
	60	Air/Air	4	3650
			6	2145
			10	1180
Stainless Steel	40	Air/Air	2	1140
			3	980
			5	715
	60	Air/Air	4	2865
			6	1790
			10	725
			12	580
Aluminium	40	Air/Air	2	3500
			3	2350
			5	1740
	60	Air/Air	4	5230
			6	2640
			10	1085
			12	845

NOTE: This cutting speed chart includes preliminary data and is subject to change without notice.

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