



ESP-150

ESP-150

MECHANIZED, MULTI GAS PLASMA SYSTEM
ECONOMICAL HIGH CUTTING CAPACITY



Machines



Processes



Numerical Controls



Programming



Environment



ESP-150

A variety of gas combinations for economical high speed cutting capacity



PT-19XLS plasma torch



Technical specifications

Input current and input voltage at rated load	
	112/56/45 Amps, 230/460/575 VAC, 60 Hz, 3 Ph
	121/70/64 Amps, 220/380/415 VAC, 50 Hz, 3 Ph
Output current	variable 50–150 A
Output voltage	160V
Duty cycle	100% (150 Amps @ 120V)
Open circuit voltage	370 V
Dimensions	552 mm width x 800 mm height x 1016 mm length
Weight	308 kg
Protection class	IP 22

The PT-19XLS mechanized cutting torch uses advanced “dry cutting” technology and precision-machined consumables to provide exceptional cut quality, consumable life, and cutting speed. The precision construction provides the performance needed for accurate straight cutting – while minimizing costs and downtime.

Other features include:

- Superior cutting speed means lower costs due to higher throughput on your cutting system.
- The ability to cut faster on many thicknesses, at lower current, leads to further savings in electricity costs.
- The high precision manufactured consumables and torch means longer consumable life, better cut quality, and higher cutting speeds.
- The PT-19XLS uses dry cutting technology to reduce power and maintenance costs. No expensive water chillers or refrigerators are required.



Heavy-duty applications



Plasma Cutting

The ESP-150 is an easy to setup and simple to operate cutting system for the most economical way to cut mild steel, aluminium,

stainless steel, copper and other alloys. It is a real alternative to oxy-fuel cutting tools with much faster speed and lower operating costs.

The mechanized cutting package

The ESP-150 is a heavy-duty 150 amp plasma cutting system for mechanized cutting.

It uses ESAB's Smart Plasmarc concept to provide a plasma-cutting system that is ideal for a variety of mechanized cutting applications, especially for heavy duty cutting applications.

The self-contained power source design with integral water cooler takes up minimal space and simplifies installation.

The ESP-150 features both ammeter and voltmeter, accurate current settings, thermal overload switches to prevent overheating and line voltage compensation.



*Cutting current adjustment,
easy matching any cutting application*

*Easy way
gas setting*

*Easy readable
status indicators*



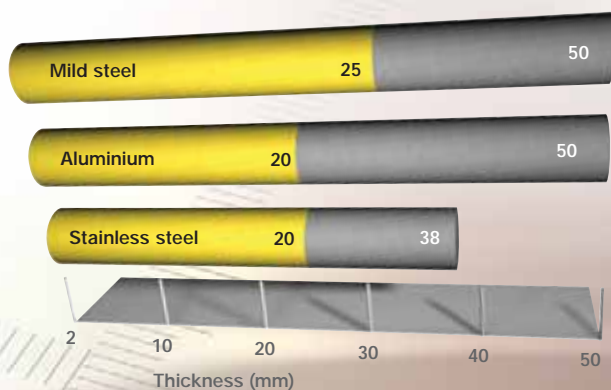
- 50 – 150 Amp operating range gives a wide range of cutting performance for any job.
- Integral water cooler takes up minimal space and simplifies installation.
- Multiple input voltages and frequencies in one console.
- Works with PT-19XLS.
- Can be used with oxygen, nitrogen, air, or argon/hydrogen as the plasma gas.
- Thermal overload switches – prevent damage if unit overheats due to insufficient airflow.
- Patented consumable system gives superior consumable life with air or oxygen cutting.
- LED status lights for easy troubleshooting.

**Easy to setup, easy to operate and easy to maintain.
The economical cutting solution!**

The ESP-150 system ...

- ... cuts mild steel faster compared to oxy-fuel and reduced operating cost.
- ... can be mounted easily on punch presses and any cutting machines of all sizes!
- ... lowers your costs and increases your output.
- ... comes with the PT-19 XLS torch. This torch is liquid-cooled, contributes to long consumable parts life and low operating costs.
- ... is the most reliable system in this segment.
- ... is the most efficient metal-cutting system.

ESP-150 system cutting range



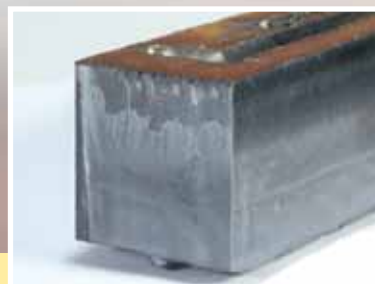
■ Production cutting
■ Quality cutting



12 mm, O₂ plasmagas



6 mm, air plasmagas



25 mm, O₂ plasmagas



Cutting parameters

Mild steel			
Pl/Shield	Thick-ness [mm]	Cutting current [A]	Cutting speed [mm/min]
Air / Air	2	50	4500
	3	50	3200
	3	65	3200
	5	65	2300
	6	65	2200
	10	65	1900
	5	100	3500
	6	100	3200
	10	100	1600
	12	100	1400
	15	100	950
	20	100	480
	5	150	4000
	6	150	3900
	10	150	2200
	12	150	2000
	15	150	1400
	20	150	1050
25	150	650	
50	150	325	
O ₂ / Air	5	100	3700
	6	100	3200
	10	100	2000
	12	100	1500
	15	100	1000
	20	100	480
	5	150	4000
	6	150	4100
	10	150	2200
	12	150	2000
	20	150	1050
	25	150	650
	50	150	325

Stainless steel				
Pl/Shield	Thick-ness [mm]	Cutting current [A]	Cutting speed [mm/min]	
Air / Air	2	50	3700	
	3	65	2150	
	6	65	1600	
	6	100	1500	
	10	100	850	
	12	100	650	
	20	100	250	
	5	150	5000	
	6	150	4500	
	10	150	2400	
	12	150	1600	
	20	150	600	
	25	150	387	
	40	150	242	
	N ₂ / Air	6	100	1500
		10	100	1000
		12	100	950
		20	100	320
5		150	5000	
6		150	3500	
H35 / N ₂	10	150	2100	
	12	150	1600	
	20	150	450	
	25	150	254	
	12	150	1100	
N ₂ / N ₂	2	50	3700	
	3	65	2200	
	6	65	1500	
	6	100	1500	
	10	100	1100	
	12	100	950	
	20	100	313	

Aluminium			
Pl/Shield	Thick-ness [mm]	Cutting current [A]	Cutting speed [mm/min]
Air / Air	2	50	3700
	3	50	3000
	6	65	1700
	6	100	2600
	10	100	1700
	12	100	1400
	20	100	750
	5	150	5000
	6	150	3900
	10	150	2600
	12	150	2100
	20	150	1050
N ₂ / N ₂	2	50	3700
	3	65	3350
	6	65	2000
	5	150	4900
H35 / N ₂	6	150	4050
	10	150	2700
	12	150	2400
	20	150	1250
	25	150	772

Input pressure all gases 8,6 bar

min purity O₂ 99,50%

N₂ 99,95%

dry, clean-, oil free Air

max. Particle size: 0,1 µm, class 1 ref. to ISO 8573,

max. oil: 0,1 mg/m³, class 2 ref. to ISO 8573,

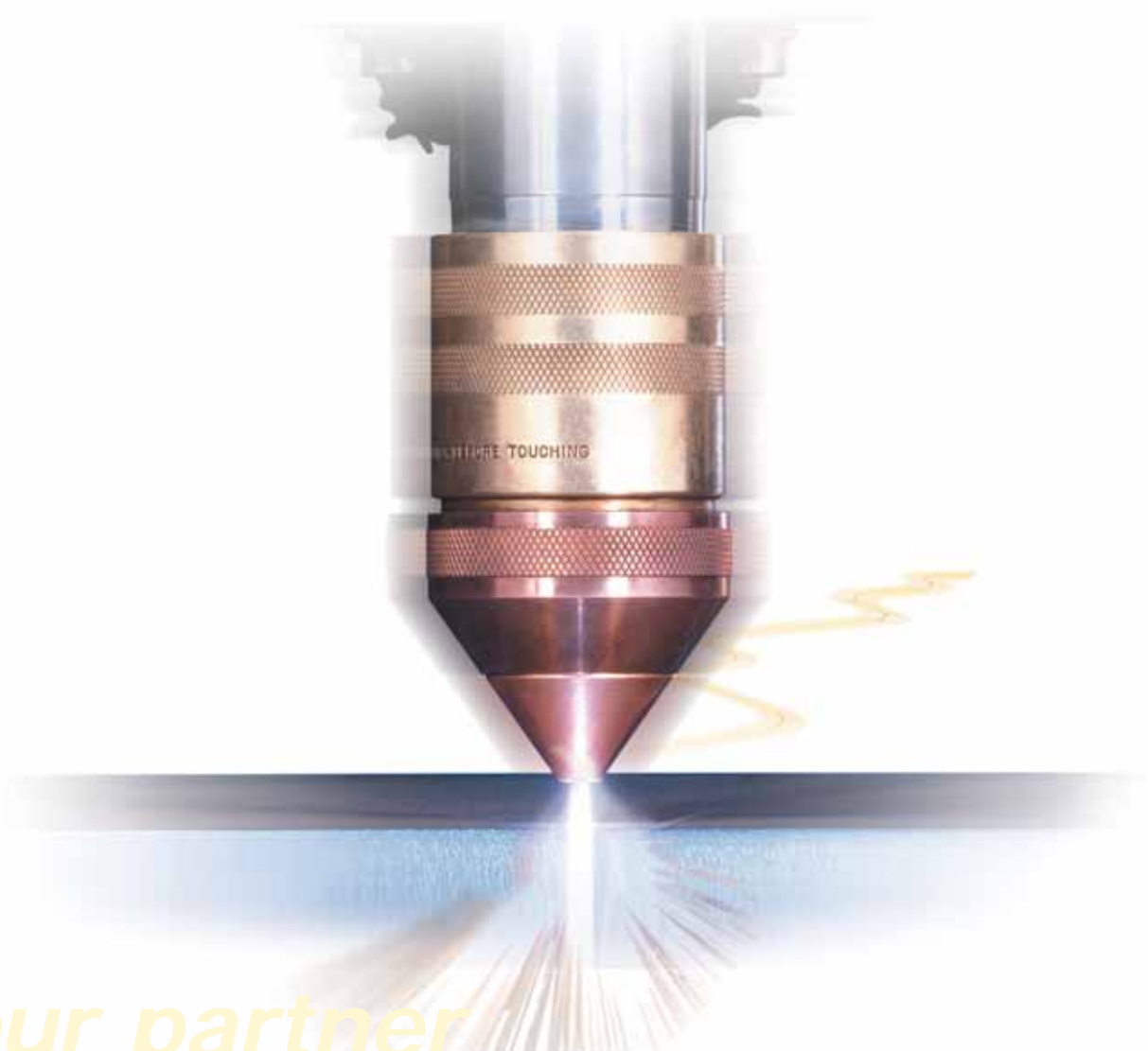
max. dewpoint: + 3° C, class 4 ref. to ISO 8573

H35* premix bottle

*35% H₂ 65% Ar

Gas consumption 95l/min. max

indicated are approximate values



*Your partner
ESAB, your partner
in welding and cutting
and cutting*

About ESAB

Almost seventy years' experience of cutting and responding to customers' needs have resulted in an extensive range of products to meet profile cutting applications. Based around the four methods of laser cutting, oxy-fuel

cutting, plasma cutting and water jet cutting, ESAB has developed a range of machines that deliver better cut quality, higher cutting speeds, lower operating costs and allow sophisticated integration into automated production methods.

The right to make technical modifications and improvements is reserved.



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