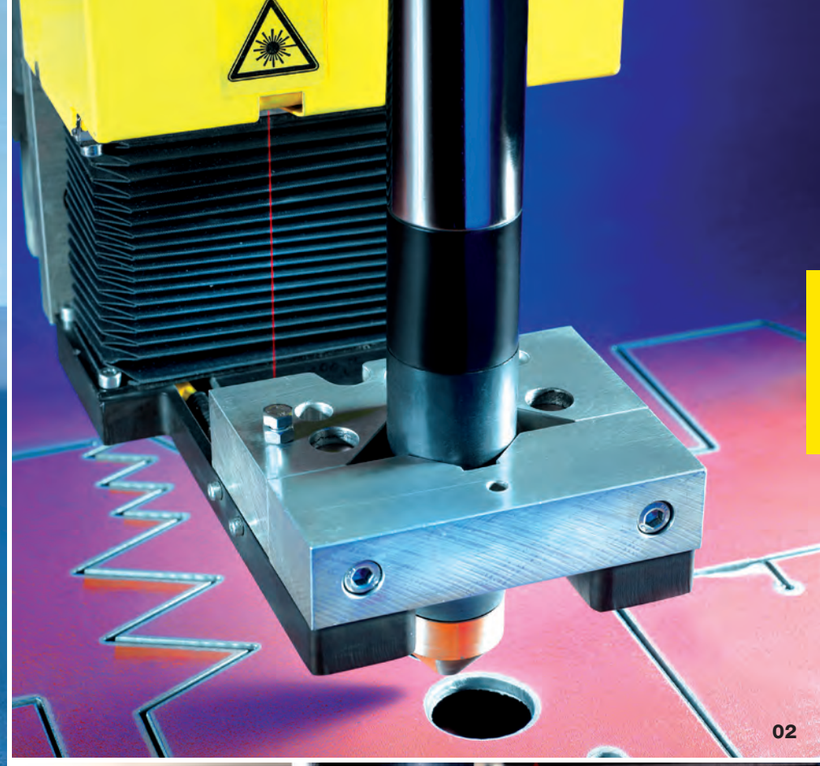
E-VENT.™
The turnkey plasma cutting machine.

TECHNICAL PROGRESS IN THE DESIGN
OF A COMPACT UNIT.

01



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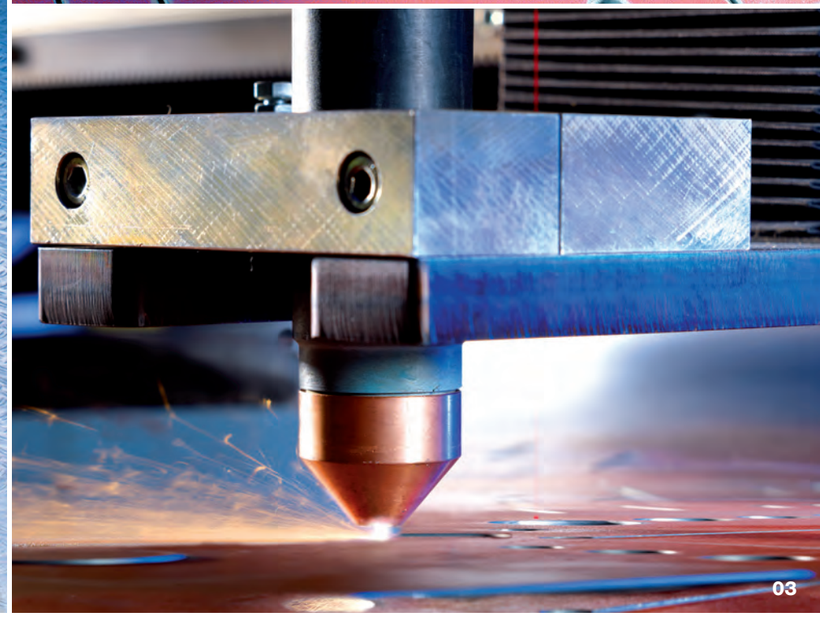


03

E-VENT™ DX - The all-rounder.

Handles the toughest cutting conditions with ease.

Be inspired by the impressive positioning speed of up to 30 m/min when processing sheet steel.

The E-VENT™ DX can be used for blanks from 0.75 to 20 mm thick and features high performance and wear resistance. Thanks to its flexible configuration and compact dimensions, it fits perfectly into any production environment. The dedicated ESP-101 Plasmarc® current source is a multi-purpose plasma cutting system and achieves the highest productivity with 100% efficiency and continuous operation.

ESAB CUTTING SYSTEMS offers you an innovation – initial height detection for hole piercing with laser sensors. During the cutting process, intelligent distance measurement ensures a constant distance between the torch and blank through arc voltage height control. Thanks to this development, you can also be sure of the best possible cutting precision for your production in the future.

Progress in pictures

01 The powerhouse for your tasks.
02 Future-proof laser sensors for initial height detection.
03 Integrated distance measurement for precise cutting results.

01

02

03

E-VENT™ VX - The specialist.

Maximum precision is its strength.

This low-maintenance cutting machine for thin blanks offers great reliability and high production performance.

The E-VENT™ VX comes into its own when processing blanks with a thickness of 0.75 – 3 mm, which are used for example in ventilation, heating and pipeline construction. In combination with the air-cooled PowerCut® 1300 plasma current source, ESAB CUTTING SYSTEMS offers a powerful and economical system for continuous 24-hour operation in plasma cutting.

The blank hold-down – our new development – is the perfect basis for clean contours. The innovation is hidden in the collar around the PT-37 torch, offering protection against dirt and collision damage. During the cutting process, the blank is pressed down by the dead weight of the integrated ball bearing, which compensates for the distortion of the material. The constant distance between the torch and blank creates precise cuts.

Performance in pictures

01 Compact plasma cutting machine.
02 Low-burr cut edges when cutting thin blanks.
03 Blank hold-down ensures a stable cutting surface.


E-VENT DX
ESAB CUTTING SYSTEMS
ESAB
POWERCUT 1300

E-VENT™ - The amazing innovation.

Flexibility has a new name.

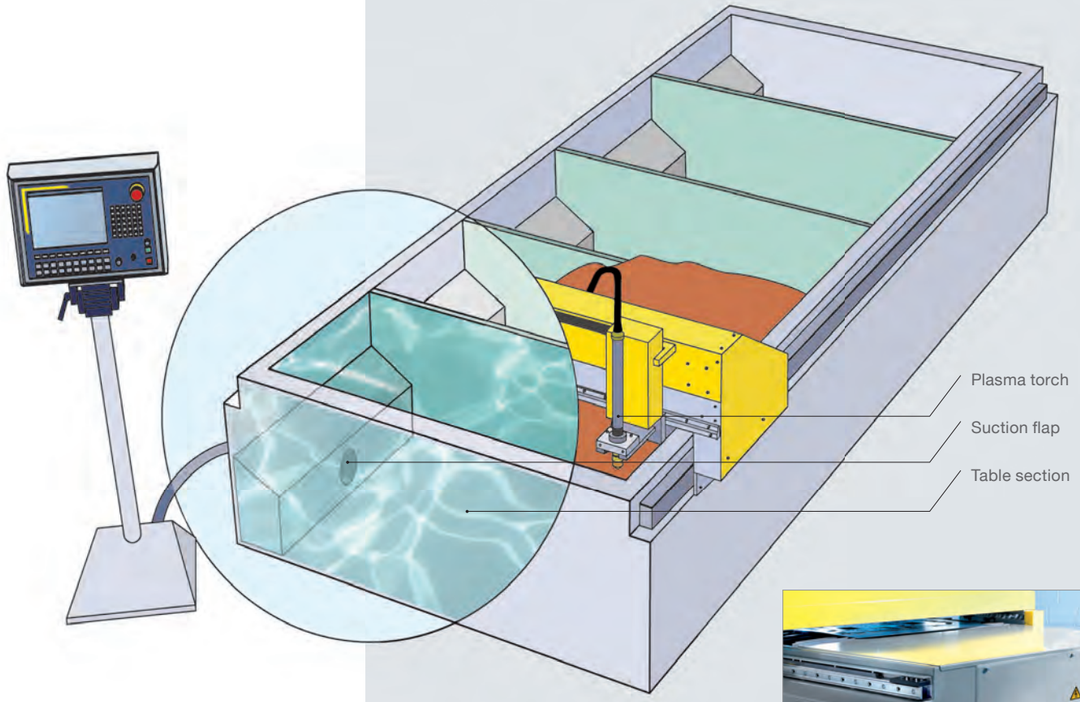
Four technological firsts for your production.

The pre-assembled machines can be quickly integrated into the continuous production cycle and easily relocated if necessary. This creates added value for the economical use of your machines, keeping costs transparent and planning secure.

Be inspired by the innovative partial suction system and variable cutting grid alignment on the table.

1 Individually configurable cutting grid in a lateral or longitudinal direction.

2 The interchangeable grid makes the machine usable in a coil unit.



3 The suction system optimised for air handling always delivers full performance in the table section beneath the plasma torch. The opening and closure of the suction flaps is CNC-controlled in parallel to the cutting position. This principle saves energy and 50% suction volume.

4 All electrical and electronic components are protected by the cabinet built into the suction table.

Plasma current sources – your new star players.

More performance in every cutting process.

More efficiency in every single ampere.

Both of the high-performance plasma current sources work according to this principle. They combine peak performance in continuous operation with low power consumption, allowing you to make a fresh start in terms of economy.

ESP-101 Plasmarc® plasma current source

The reliable ESP-101 Plasmarc® current source handles the full range of cutting tasks up to material thicknesses of 20 mm, proving how well performance and technology can work together.

PowerCut® 1300 plasma current source

The efficient power development of the PowerCut PowerCut® 1300 plasma current source makes it possible to meet even tight deadlines reliably. This means that you can achieve any assigned objective up to a cutting thickness of 3 mm.

TECHNICAL DATA

Plasma current source	E-VENT™ DX ESP-101 Plasmarc®	E-VENT™ VX PowerCut® 1300
Cutting current	infinitely variable 25 - 100 A, option adjustable via VISION™ 51 control	infinitely adjustable 20 - 70 A, option adjustable via VISION™ 51 control
Mains supply	400 V, 50 / 60 Hz	400 V, 50 / 60 Hz
Mains fuse	3 x 35 A	3 x 18 A
Power input	18 kVA	10 kVA
Open-circuit voltage	360 V, DC	360 V, DC
Protection class	IP 22	IP 22
Dimensions W x H x D	667 x 394 x 493 mm	323 x 378 x 706 mm
Duty cycle (DC)	100%, 100 A at 160 V	100%, 70 A at 115 V
Plasma torch	**PT 37**	**PT 37**
Cutting current	25 - 100 A	20 - 70 A
Operating pressure	6 bar	5 bar
Air consumption	236 l / min., 13.4 m³ / h	165 l / min., 9.3 m³ / h
Plasma-gas compressed air[1]	Dry, clean, oil-free	Dry, clean, oil-free
Torch cooling	Air cooling technology	Air cooling technology

MATERIALS AND THICKNESSES

Plasma current source	Cutting current	Material thickness	
Construction steel			
ESP-101 Plasmarc®	25 - 100 amperes	E-VENT™ DX	20 mm [2]
PowerCut® 1300	20 - 70 amperes	E-VENT™ VX	3 mm [2]
Stainless steel			
ESP-101 Plasmarc®	25 - 100 amperes	E-VENT™ DX	15 mm [2]
PowerCut® 1300	20 - 70 amperes	E-VENT™ VX	3 mm [2]
Aluminium			
ESP-101 Plasmarc®	25 - 100 amperes	E-VENT™ DX	20 mm [2]
PowerCut® 1300	20 - 70 amperes	E-VENT™ VX	3 mm [2]

[1] Compressed air max. particle size 0.1 µm, Class 1 ref. ISO 8573
max. dew point +3 degrees, Class 4 ref. ISO 8573
[2] Recommended cutting area in production – including hole piercing

Data and facts.

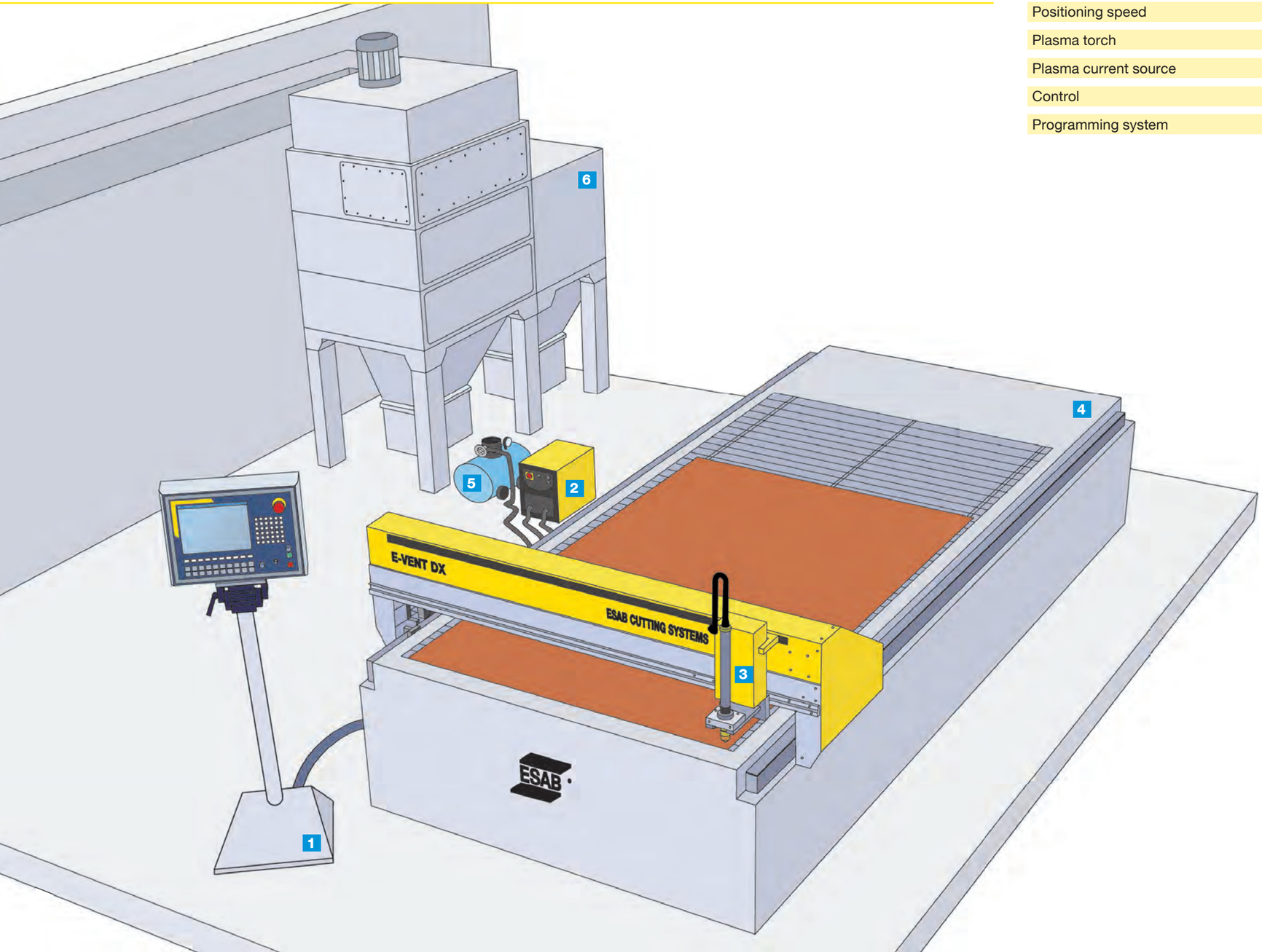
The components of your success.

Cutting gas

Air Compressed air

Your customer benefits

- A turnkey machine, installed and ready for use in just one day.
- Programming software especially for heating and air conditioning technology with many industry-specific functions.
- Work more efficiently with optional connection to a coil unit.
- Plasma torch makes for low-burr cut edges on the workpiece.
- Height control guides the cutting jet at the correct distance during the cutting process and compensates for inaccuracies in the material.



Technical data summary	E-VENT™ DX	E-VENT™ VX
Cutting width	1,500 mm	1,500 mm
Cutting length	3,000 mm / optional 6,000 mm	3,000 mm / optional 6,000* mm
Cutting thickness (depends on plasma current source output)	up to 20 mm	up to 3 mm
Workpiece height, table	700 mm	700 mm
Supply voltage	220 V, 50/60 Hz	220 V, 50/60 Hz
Power input	2,000 VA	2,000 VA
Positioning speed	30 m/min	30 m/min
Plasma torch	PT 37	PT 37
Plasma current source	ESP-101 Plasmarc®	PowerCut® 1300
Control	VISION™ 51	VISION™ 51
Programming system	COLUMBUS™ III	COLUMBUS™ III

* 6,000 mm cutting length on request.

NEW! **More flexible than ever**

The grid of the suction table can be rotated by 90° - according to your individual requirements and adapted to every cutting challenge.

Your E-VENT™ compact range

1. VISION™ 51 control, self-contained
2. Current source
3. Plasma torch for cutting
4. CNC-controlled suction table with integrated suction channel

Other options

5. Air compressor
6. Filter system with energy-saving fan power control to save power and heating costs.
   Accessories: heat exchanger for heat recovery

green technology

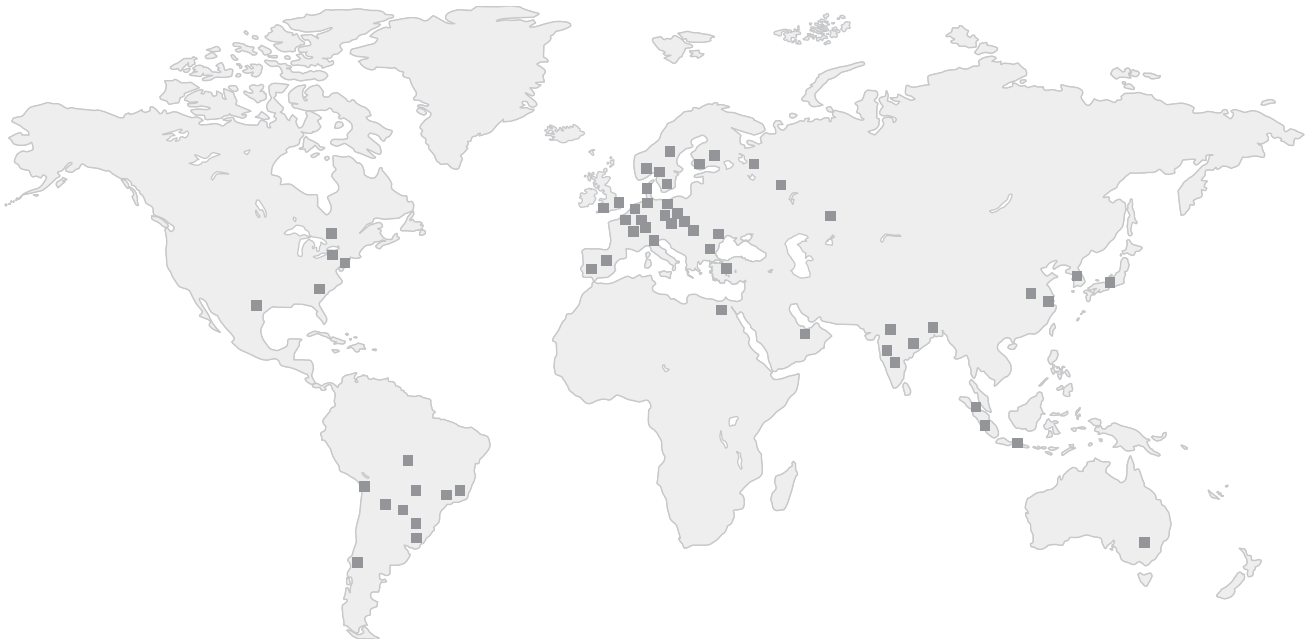
We reserve the right to make technical changes and improvements.
Illustrations may differ from actual models.

ESAB CUTTING SYSTEMS

Your partner in cutting.

Seven decades of experience and the consistent focus on customers' needs are the foundations for the successful and comprehensive product range of our cutting machines. In keeping with the thermal cutting processes – plasma cutting, oxy-fuel cutting and laser cutting – ESAB has developed a range of machines that efficiently combine the highest cut quality with high cutting speeds, allowing intelligent integration into automated production processes. So in many sectors, the E-VENT™ plasma cutting machine also helps to optimise production and enhance our customers' operating efficiency.

ESAB sales and service offices worldwide



Includes manufacturing facilities of ESAB North America.
A wholly owned subsidiary of Anderson Group Inc.

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