



m³ plasma.TM The third-generation plasma system.

VERSATILE. ECONOMICAL. EASY TO OPERATE.



m³
plasmaTM

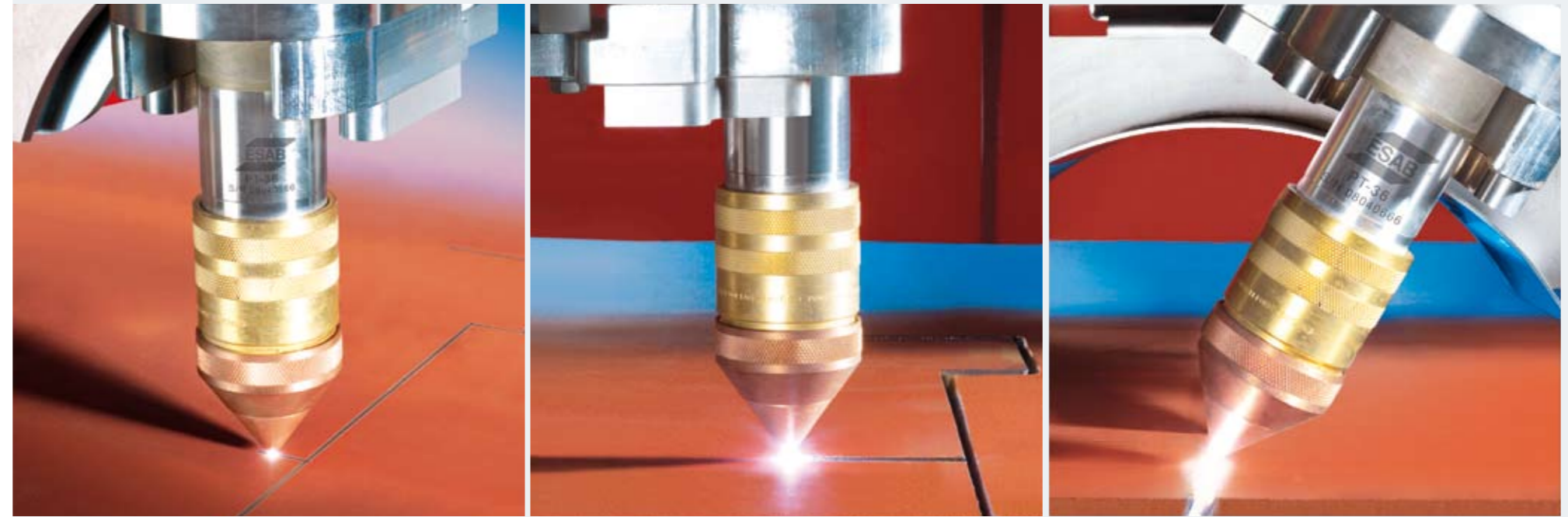
m³ plasma™

Your new formula for precision and productivity.

ESAB now makes cutting and marking metal easier for you than ever before.

m³ plasma™. The innovative high-performance system for the efficient use of modern plasma technology.

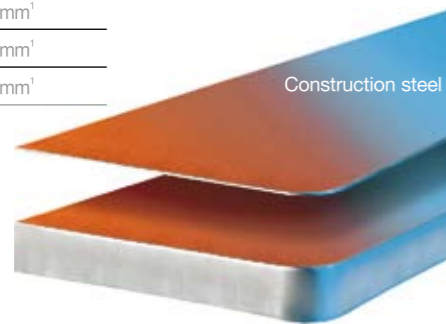
m³ plasma™ raises your productivity with little effort, while its expanded functionality makes you more flexible. What is more, m³ plasma™ offers ideal conditions for the automation of your cutting and marking processes.



MATERIALS AND THICKNESSES

CONSTRUCTION STEEL

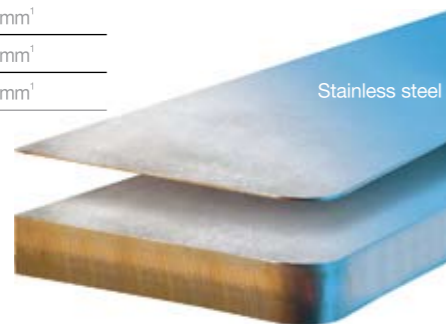
Current source	Cutting current	Material thickness
m ³ plasma™ 201	35 - 200 Ampere	2 - 32 mm ¹
m ³ plasma™ 401	35 - 400 Ampere	2 - 40 mm ¹
m ³ plasma™ 601	35 - 600 Ampere	2 - 50 mm ¹



Construction steel

STAINLESS STEEL

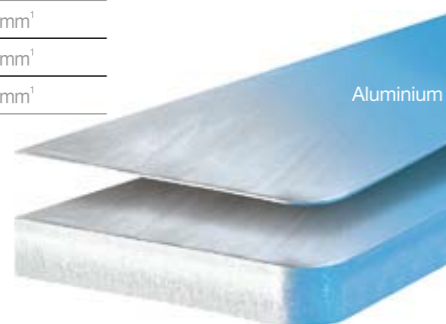
Current source	Cutting current	Material thickness
m ³ plasma™ 201	35 - 200 Ampere	2 - 25 mm ¹
m ³ plasma™ 401	35 - 400 Ampere	2 - 35 mm ¹
m ³ plasma™ 601	35 - 600 Ampere	2 - 60 mm ¹



Stainless steel

ALUMINIUM

Current source	Cutting current	Material thickness
m ³ plasma™ 201	35 - 200 Ampere	2 - 25 mm ¹
m ³ plasma™ 401	35 - 400 Ampere	2 - 35 mm ¹
m ³ plasma™ 601	35 - 600 Ampere	2 - 60 mm ¹



Aluminium

Easy marking and labelling:

- Label without changing tools.
- Variable line thickness and depth.
- Speed up to 20 m/min.

Highly accurate precision cutting:

- Flat cut surfaces.
- Sharp edges.
- Virtually no burr formation.

Perfect bevel cutting:

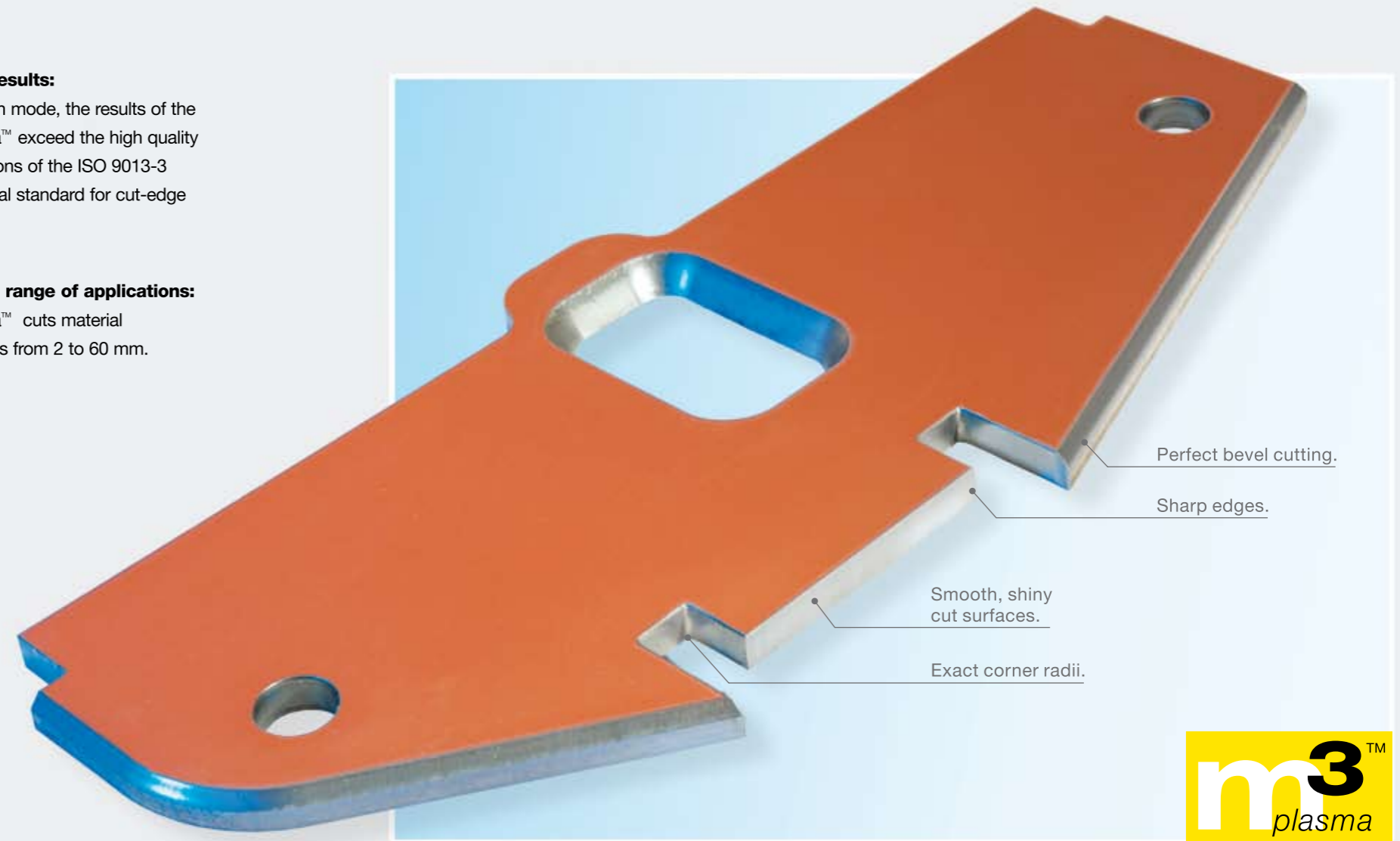
- Weld bevel angle from 0 degrees to +/- 45 degrees.
- Particularly precise due to innovative torch geometry.

Brilliant results:

In precision mode, the results of the m³ plasma™ exceed the high quality specifications of the ISO 9013-3 international standard for cut-edge quality.

i Wide range of applications:

m³ plasma™ cuts material thicknesses from 2 to 60 mm.



The PT-36 torch.

The all-rounder for m³ plasma™.

The innovative PT-36 plasma torch combines all the advantages of m³ plasma™ with specific power development.

Full performance, little effort: the PT-36 masters everything perfectly. With this plasma torch you can handle workpiece marking and labelling, all perpendicular cuts and even bevel cutting without time-consuming tool changes. That means uninterrupted productivity.

But now with the PT-36 you can also optimise your logistics. It needs far fewer wear parts than similar plasma torches, so your torch parts inventory becomes clearer and handling becomes easier, saving you time and expense. Another plus for your balance sheet!



01 Torch body

Cutting current: 10 A - 600 A



02 Gas annulus

Cutting current: 10 A - 600 A



03 Electrode holder

Cutting current: 10 A - 600 A



04 Electrode

Cutting current: 50 A / 450 A / 600 A



05 Nozzle

Cutting current: 30 A - 600 A



06 Gas distributor ring

Cutting current: 10 A - 600 A



07 Nozzle cap

Cutting current: 10 A - 600 A



08 Protective nozzle cap

Cutting current: 30 A - 600 A



09 Protective cap attachment

Cutting current: 10 A - 600 A

CUTTING AREA
2 mm - 60 mm

CONSTRUCTION STEEL,
STAINLESS STEEL, ALUMINIUM



New simplicity:

ESAB has revolutionised both the range of uses and the wear and spare parts concept of the plasma torch. The result: in normal operation, the PT-36 can manage with just 18 wear parts and 9 spares.

Which means:

Reduced storage expense and significantly quicker configuration of the unit for the next large task.

PICTURE	WEAR PART	QUANTITY
04	Electrode	3
05	Nozzle	10
08	Protective nozzle cap	5
Total		18

PICTURE	WEAR PART	QUANTITY
01	Torch body	1
02	Gas annulus	3
03	Electrode holder	1
06	Gas distributor ring	2
07	Nozzle cap	1
09	Protective cap attachment	1
Total		9



01 Torch body

CUTTING AREA
40 mm - 150 mm

STAINLESS STEEL, ALUMINIUM



A specialist in thick blanks:

ESAB has developed special wear and spare parts for working with particularly thick blanks. So m³ plasma™ even cuts material thicknesses of up to 150 mm precisely and quickly.

PICTURE	WEAR PART	QUANTITY
06	Electrode	1
07	Nozzle with O-ring	1
09	Protective nozzle cap	1
Total		3

PICTURE	WEAR PART	QUANTITY
01	Torch body	1
02	Gas annulus	1
03	Electrode holder with O-ring	1
04	Clamping piece	1
05	Clamping nut	1
08	Nozzle cap	1
Total		6

02 Gas annulus

03 Electrode holder with O-ring

04 Clamping piece

05 Clamping nut

06 Electrode

07 Nozzle with O-ring

08 Nozzle cap

09 Protective nozzle cap

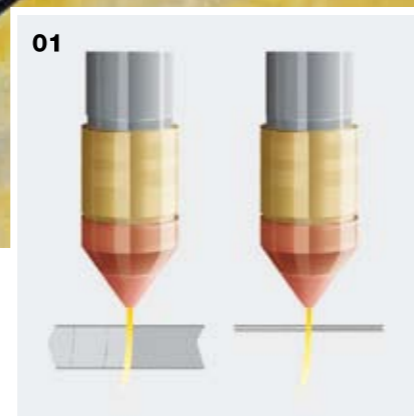


Form and function combined.

The innovative torch design.

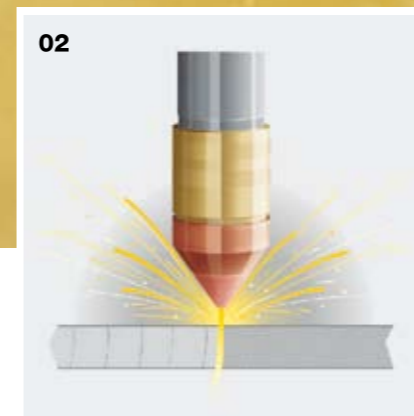
Smooth and slender, with no corners or edges. The PT-36 plasma torch cuts a fine figure.

Nothing disturbs the movement, everything sits perfectly. With the PT-36, new geometry makes for faultless machine characteristics, outstanding precision in bevel cutting and a substantially longer life span.



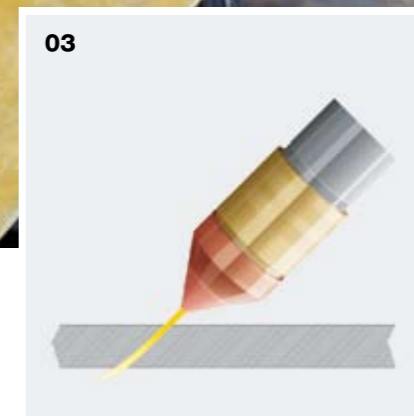
01 » Wide range of applications

Thanks to the controlled power input, the PT-36 cuts with ease in the material thickness range from 2 to 60 mm.



02 » Longer life span

The optimised geometry offers flying sparks less contact surface. Another advantage: less wear part consumption.



03 » Perfect bevel cutting

With its slim nozzle head the PT-36 always stays close to the workpiece, even at large angles of inclination, producing faultless welding bevels from 0 degrees to +/- 45 degrees.





Focused plasma energy.

Shield gas technology brings more power and precision.

ESAB uses a ground-breaking process as a driving force for high performance.

arc, thickness is substantially higher in comparison to conventional plasma processes, while angular deviations are visibly reduced.

The principle:

A secondary gas is used alongside the plasma gas, circulating around the arc and providing it with a protective, stabilising shell.

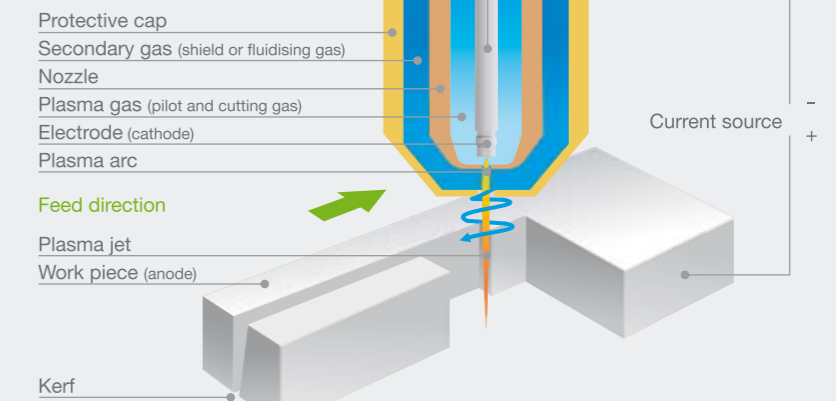
The advantages:

- Higher cutting speeds
- More precise cut edges
- Brilliant cut surfaces
- Underwater cutting possible
- Marking and labelling

The result:

With the exceptionally fine, accurate

Plasma torch



i The right mixture.

With these gases, m³ plasma™ can handle any cutting task.

Gas type	Construction steel	Stainless steel / Aluminium
Plasma gas / pilot gas:	nitrogen (N ₂) compressed air (Air)	nitrogen (N ₂) or compressed air (Air)
Plasma gas / cutting gas:	oxygen (O ₂)	nitrogen (N ₂) argon / hydrogen (Ar/H ₂)
Secondary gas / shield gas / fluidising gas:	oxygen (O ₂) nitrogen (N ₂) compressed air (Air)	nitrogen (N ₂) methane (CH ₄)
Marking gas:	argon (Ar)	argon (Ar)

Note:

The combinations indicated here for plasma and secondary gases are guidelines. According to the cutting task, different gas combinations may be required.



The components of your success.

m³ plasma™ for an integrated cutting process.

ESAB offers a seamless range of services for plasma cutting.

As a system partner to industry, ESAB is familiar with your specific requirements. What you want are

complete solutions from one source, suitable for integration into your existing processes. So, all the components from ESAB work seamlessly with m³ plasma™ to aid the realisation of an automated, rational production process.

01 » VISION control

For convenient automation.

- Controls all machine processes.
- Easy programming.
- Ergonomic operation.

02 » Plasma control

For highest process quality.

- Innovative gas flow control.
- High precision through mass flow control.
- Fast change of operating mode.

03 » Current source with water cooling unit

For superior power supply.

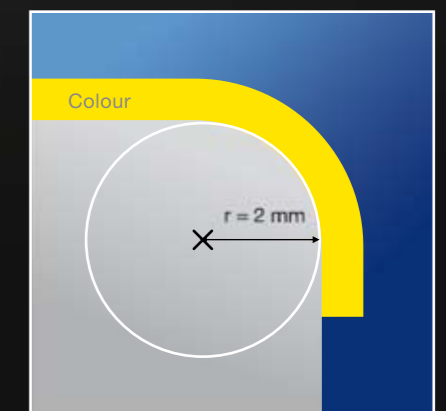
- Accurately controllable current delivery.
- Wide range of applications.
- High efficiency (> 90 %).





- i Quality mode R2:**
- Round top edges for even colour application.
 - Virtually no burr formation.

- Top edge radiusing:**
- Accurate radius of 2 mm.



Clean operating conditions.

Underwater cutting with the m³ plasma™.

A water cutting table from ESAB is also a sound basis for high-performance plasma cutting.

Even marking and labelling underwater is no problem with m³ plasma™.

The PT-36 plasma torch and shield gas technology make it possible. And in many cases, underwater cutting is worthwhile as a sensible alternative or complement to dry cutting.

The advantages: less noise, reduced

emission of dust, aerosols and UV, lower heat impact around the cut edge. ESAB will be happy to develop an individual concept for underwater cutting with m³ plasma™ for you.

Standardised curvature. NEW!

The special mode R2.

With R2, the m³ plasma™ offers a new quality mode for varnished components.

R2 stands for Radius 2 and meets the specifications of the International Maritime Organization for the standardised curvature of top edges. This curvature guarantees colour adhesion in the edge area. Technical modifications excepted.



ESAB CUTTING SYSTEMS

Your partner in cutting.

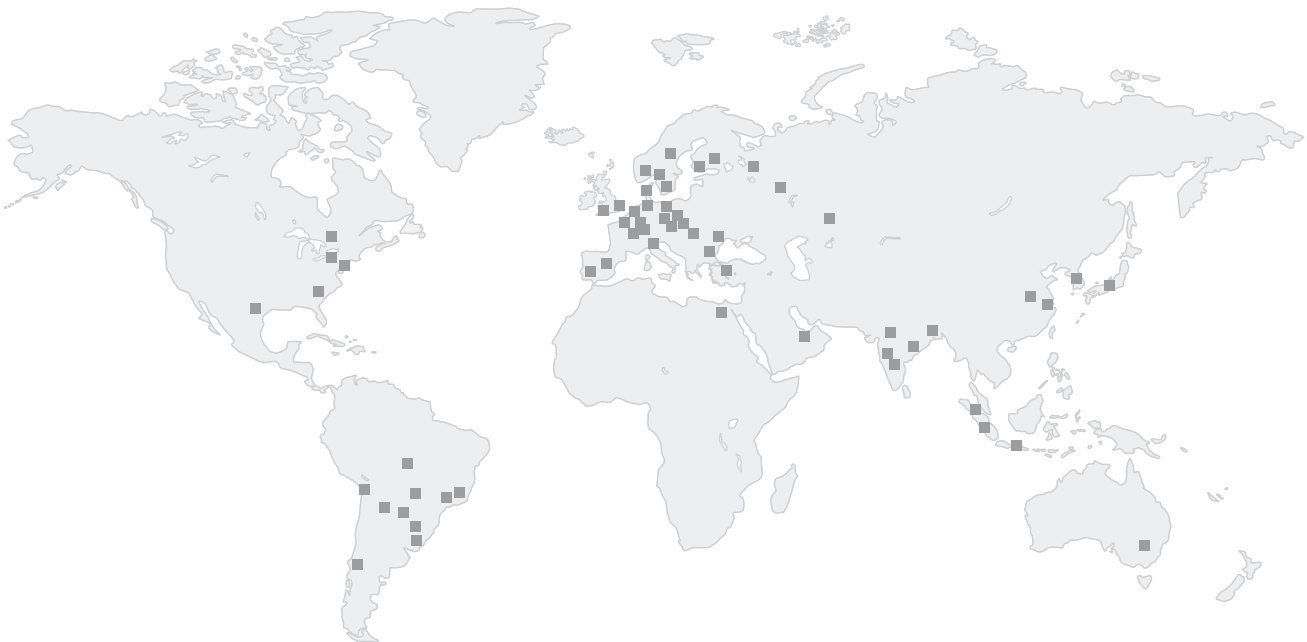


Seven decades of experience

and the consistent focus on the needs of our customers 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 m³ plasma™ cutting system also helps to optimise production and increase the operating efficiency of our customers.

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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