



AUTOMOTIVE EXPERTISE

OUR EB SOLUTIONS MEET ALL YOUR CHALLENGES

ELECTRON BEAM WELDING

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**AUTOMOTIVE
EXPERTISE**

**THE PARTNER OF
YOUR PROJECTS**

**OUTSOURCING
DEVELOPMENTS**

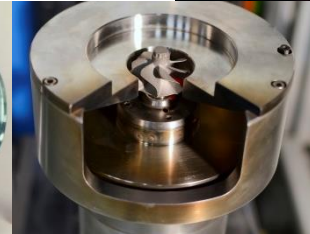
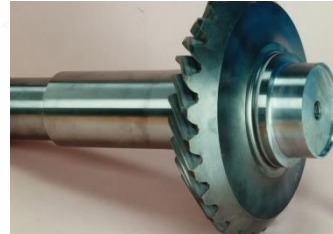
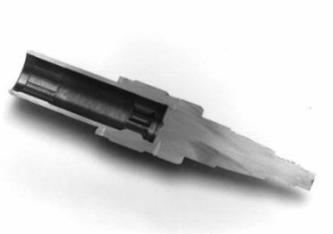
**SPECIFIC
MACHINES**

AUTOMOTIVE EXPERTISE

TECHMETA
GROUPE **bodycote**



SINCE 1968 →
47 YEARS
OF EXPERTISE



AUTOMOTIVE
EXPERTISE

WE HAVE THEIR TRUST...

SEVERAL AUTOMOTIVE CLIENTS

TECHMETA
GROUPE Bodycote

TIER-1 SUPPLIER
FOR MOST OF
OUR CLIENTS


ISABELLENHÜTTE
Innovation aus Tradition

 **LINAMAR**

Garrett®
by Honeywell


GUICHON
VALVES

 **CATTINI®**
SMALL DETAILS FOR BIG DIFFERENCES

Gay
DECOLLETAGE INDUSTRIES

CCN

**AUTOMOTIVE
EXPERTISE**

THE PARTNER OF YOUR PROJECTS

OUR WILLING IS TO GO FURTHER BY YOUR SIDE

TECHMETA
GROUPE **Bodycote**



**AUTOMOTIVE
EXPERTISE**

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PARTS WELDED BY TECHMETA

ON CARS – ELECTRICAL SENSORS FOR POWER SUPPLY MONITORING

TECHMETA
GRUPE Bodycote



GENERAL INFORMATION

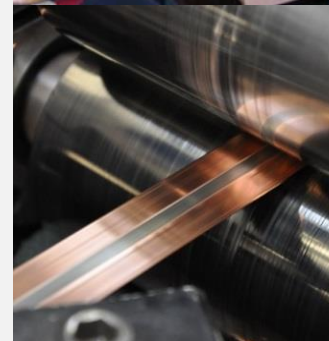
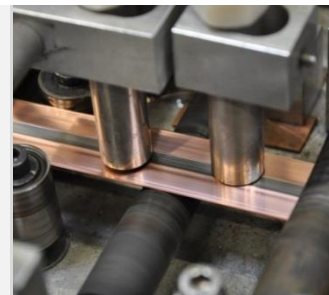
- Shunt
- Bi-metallical strips welded at high-speed

MAIN FEATURES

- 2 guns,
- Welds continuously up to 15 m/min

WELDS

- Machining, cleaning, inspections included
- Strips of different width and thickness



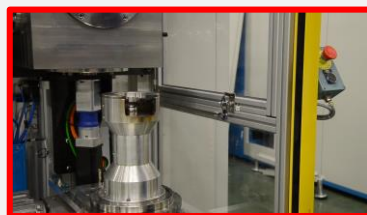
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PARTS WELDED BY TECHMETA

ON CARS – ELECTRICAL SENSORS FOR POWER SUPPLY MONITORING

TECHMETA
GROUPE Bodycote



VIDEO ►



PARTS

- Wheels in refractory alloy nickel-based,
- Parts hardly weldable by other processes,
- The wheels welding can be done on finished steels
- Almost no deformation after welding

MAIN FEATURES

- Horizontal gun position on the chamber wall
- Rotary table with 2 stations fitted with 2 tool-holders trays
- Vertical rotary axis
- Post heating after welding for metallurgical features

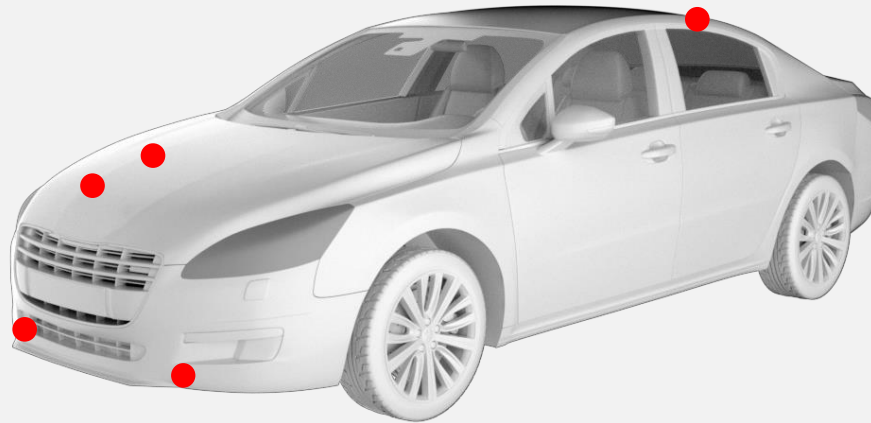
**AUTOMOTIVE
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PARTS WELDED BY TECHMETA

ON CARS

TECHMETA
GRUPE **bodycote**



OVER 5 PARTS WELDED FOR CARS

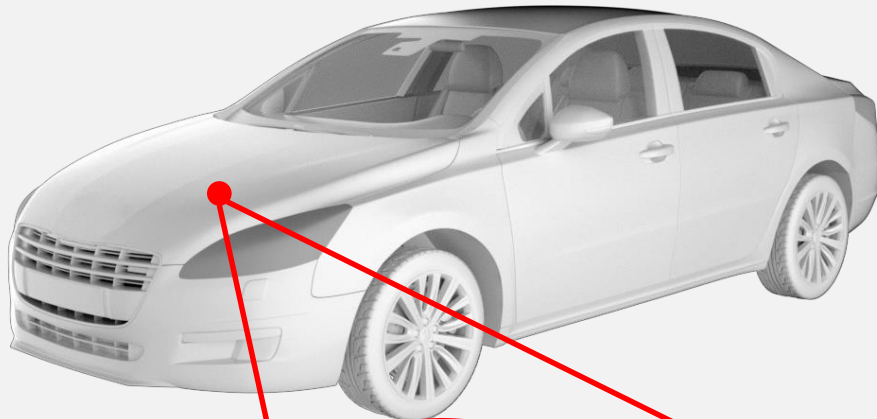
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PARTS WELDED BY TECHMETA

ON CARS – VALVES FOR TURBOCHARGER AND ENGINE

TECHMETA
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MAIN FEATURES

- Volume per year : 600 000
- Refractory alloy and lowly ductile – therefore complex to weld
- Automatical joint detection by backscattered electrons
- Parts position and welding entirely automated



**AUTOMOTIVE
EXPERTISE**

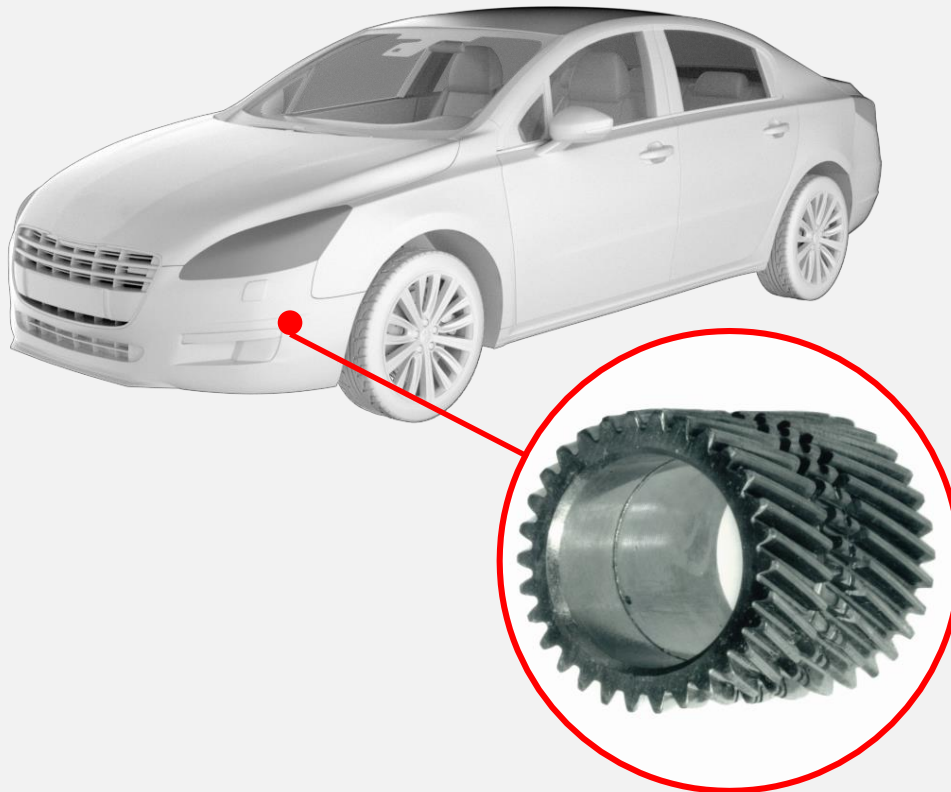
**THE PARTNER OF
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**OUTSOURCING
DEVELOPMENTS**

PARTS WELDED BY TECHMETA

ON CARS – GEARBOX PINIONS

TECHMETA
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MAIN FEATURES

- Carburized steel
- Optimised welding cycle for perfect coaxiality and alignment

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**OUTSOURCING
DEVELOPMENTS**

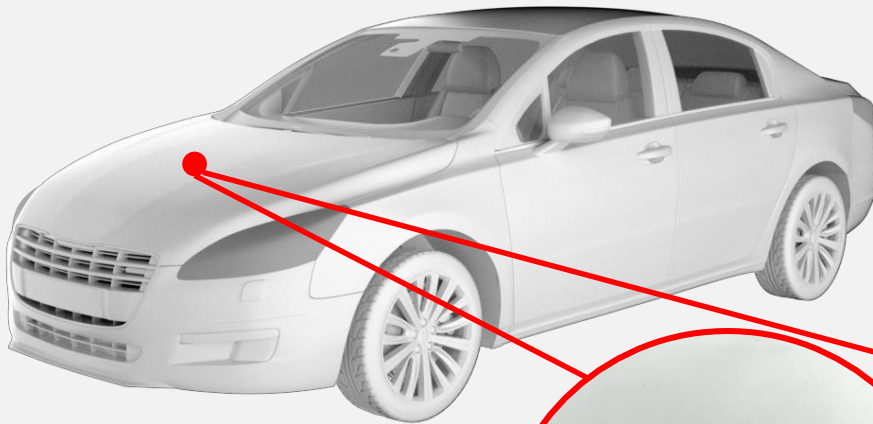
PARTS WELDED BY TECHMETA

ON CARS – FUEL INJECTION PUMP SHAFT

TECHMETA
GROUPE Bodycote

MAIN FEATURES

- Double radial welding
- Radial welding realised by localized magnetical deflection
- Carburized steel



**AUTOMOTIVE
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**OUTSOURCING
DEVELOPMENTS**

PARTS WELDED BY TECHMETA

OTHER PROJECTS

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**AUTOMOTIVE
EXPERTISE**

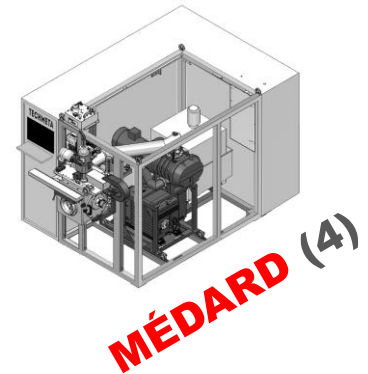
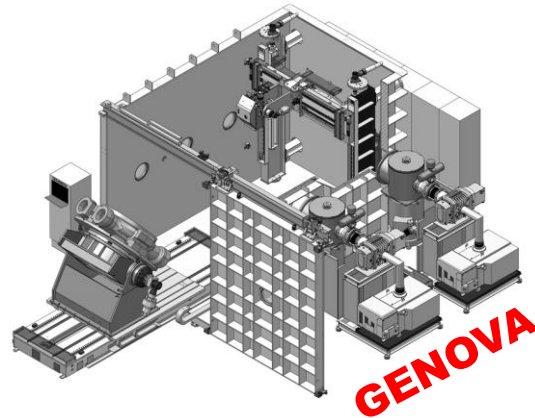
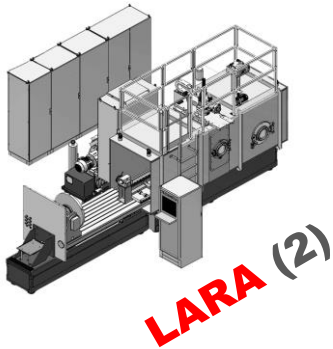
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**OUTSOURCING
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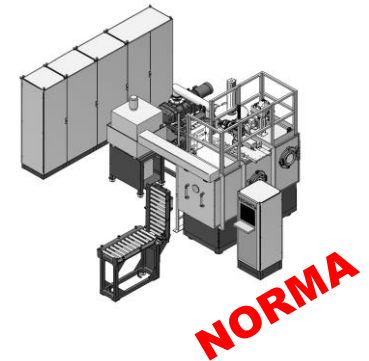
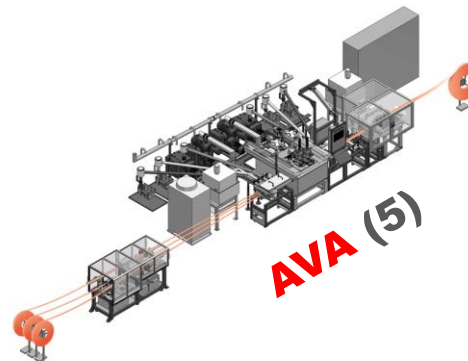
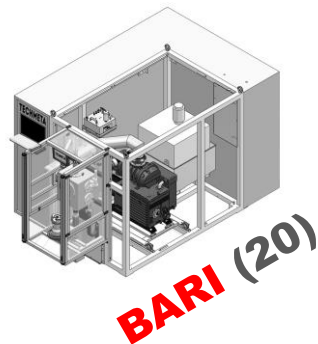
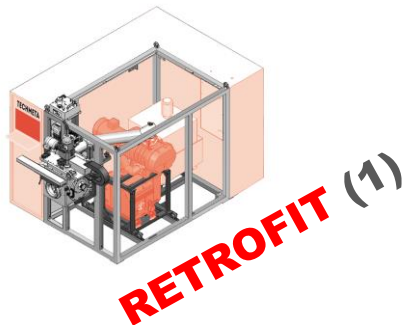
MACHINES

WE DESIGN AND MANUFACTURE THE MACHINE
THAT BEST FITS WITH YOUR WELDING NEEDS

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OVER 30 MACHINES AROUND THE WORLD



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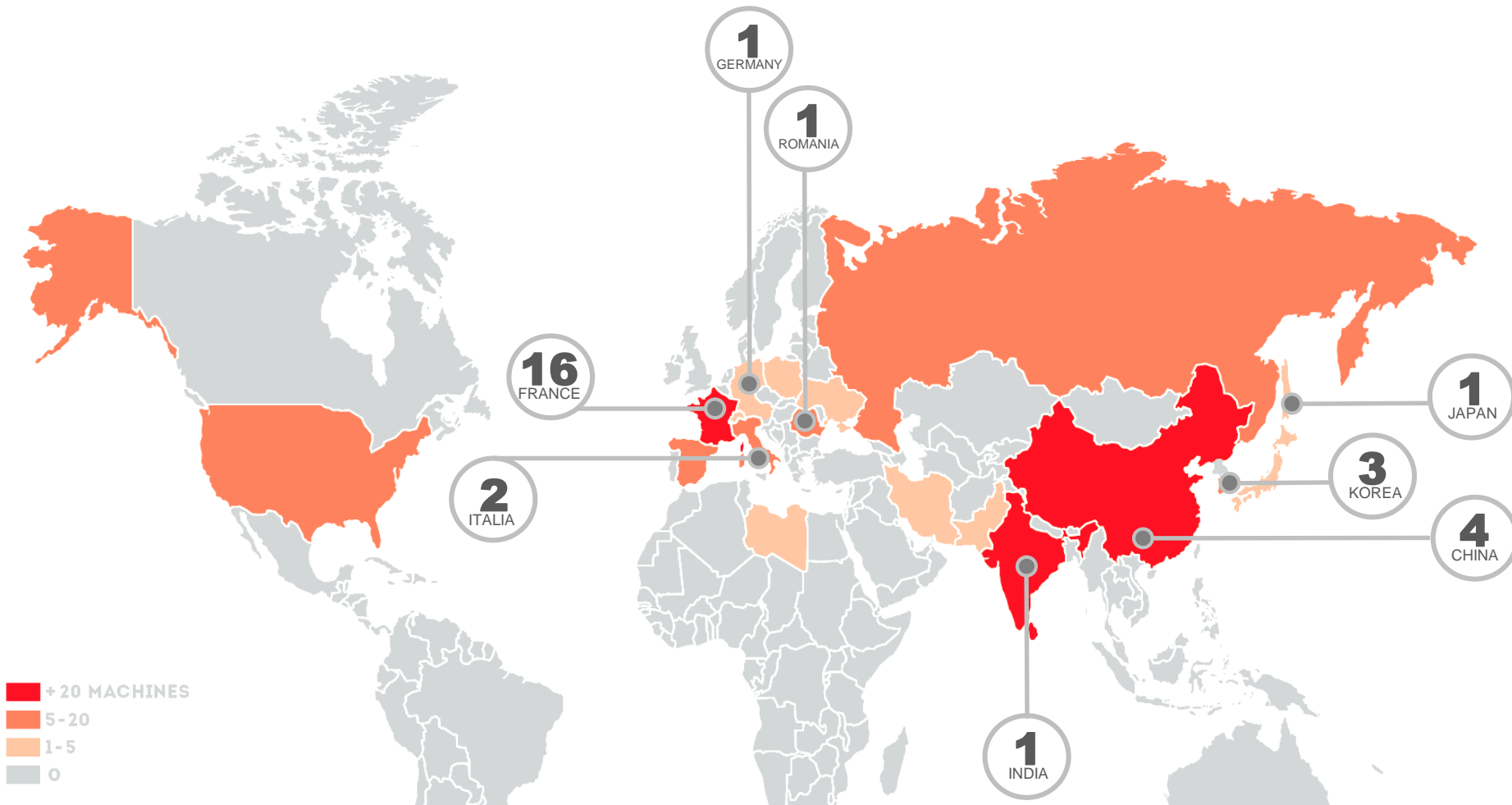
OUTSOURCING
DEVELOPMENTS

SPECIFIC
MACHINES

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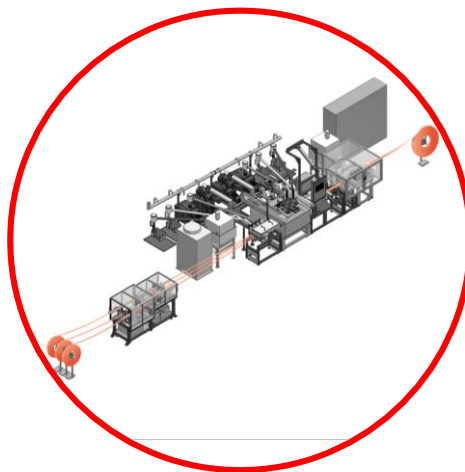
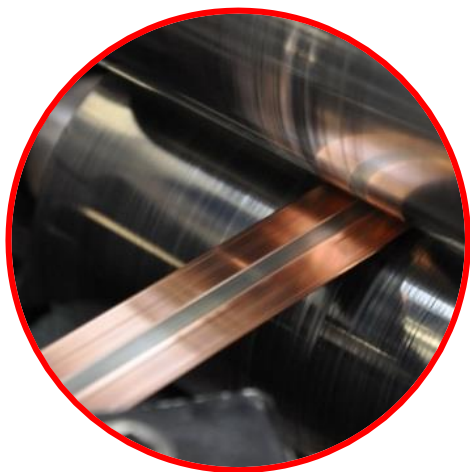
**OUTSOURCING
DEVELOPMENTS**

**SPECIFIC
MACHINES**

MANUFACTURED MACHINES

AVA MACHINE – STOP-START SYSTEM

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MAIN FEATURES

- 2 guns,
- Welds continuously up to 15 m/min,
- Machining, cleaning, inspections included
- Strips of different width and thickness

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**OUTSOURCING
DEVELOPMENTS**

**SPECIFIC
MACHINES**

MANUFACTURED MACHINES

BARI MACHINE – DRIVE SHAFT FOR MILITARY VEHICLES

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MAIN FEATURES

- 2 mechanical movements,
- Chamber : 0,215 m³
- Vacuum : 1 10⁻² mbar
- Refurbished machine from another supplier

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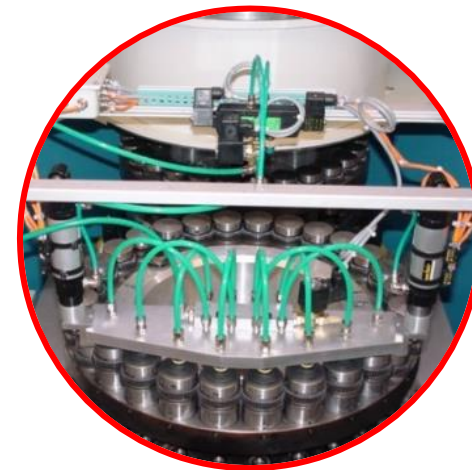
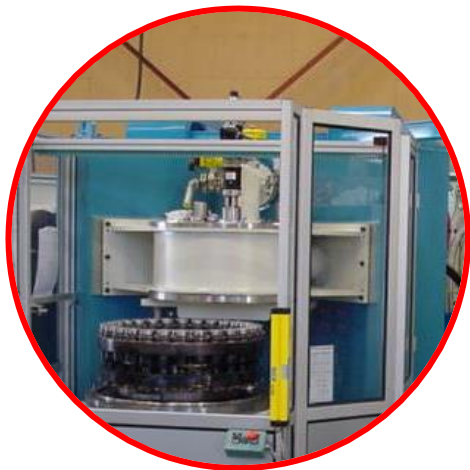
**OUTSOURCING
DEVELOPMENTS**

**SPECIFIC
MACHINES**

MANUFACTURED MACHINES

BARI MACHINE – DISTRIBUTOR'S CYLINDER FOR BRAKES

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MAIN FEATURES

- Steel alloy,
- 1 loading / unloading station,
- 1 welding station,
- 28 parts / station,
- Automatic seam location,
- Primary vacuum : $4 \cdot 10^{-2}$ mbar
- Weld penetration : 3 mm,
- Part dimension:
 - Diameter : 20 mm,
 - Height : 65 mm

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**OUTSOURCING
DEVELOPMENTS**

**SPECIFIC
MACHINES**

OUR EB SOLUTIONS MEET ALL YOUR CHALLENGES

WHAT WILL BE YOURS?

47

**47 YEARS OF
EXPERTISE**

5

**ABILITY TO
WELD OVER 5
PARTS FOR THE
SECTOR**

30

**OVER 30
MACHINES
AROUND THE
WORLD**



**THANK YOU FOR
YOUR ATTENTION**

ANY QUESTIONS?

OUR EB SOLUTIONS MEET ALL YOUR CHALLENGES

ELECTRON BEAM WELDING
