



aurrenak



**Tooling
technology
worldwide**

2024 Aurrenak Profile

Loramendi,
Total performance in foundry

With three business units: Core Making, Vertical Moulding and Service, Loramendi offers state of the art foundry solutions with complete sand core production lines, vertical moulding machines, spare parts, technical assistance and upgrade of existing equipment.

Aurrenak,
Tooling technology Worldwide

Aurrenak's business focuses on the design and manufacture of moulds and tooling for the mass production casting industry, both in iron and aluminium, specializing in high pressure and low pressure die casting, gravity and green sand casting technologies.

Both companies with more than 50 years experience are cooperative business in Mondragon Group.

**fifty years
of natural
growth**

Mondragon



10.236	163	68.743	12
IN TOTAL REVENUE (MILLION €)	COOPERATIVES AND SUBSIDIARIES	EMPLOYEES	TECHNOLOGY CENTRE

MONDRAGON STRUCTURE



FINANCIAL GROUP

INDUSTRIAL GROUP

RETAIL GROUP

- **Tooling and Systems**
- Automotive
- Components
- Construction
- Lifts
- Equipment
- Household Goods
- Engineering and Services
- Machine Tools
- Industrial Systems
- Industrial Automation

Research, Training and Education centers

Global premium solutions:
From casting design to serial production



Leaders in inorganic process

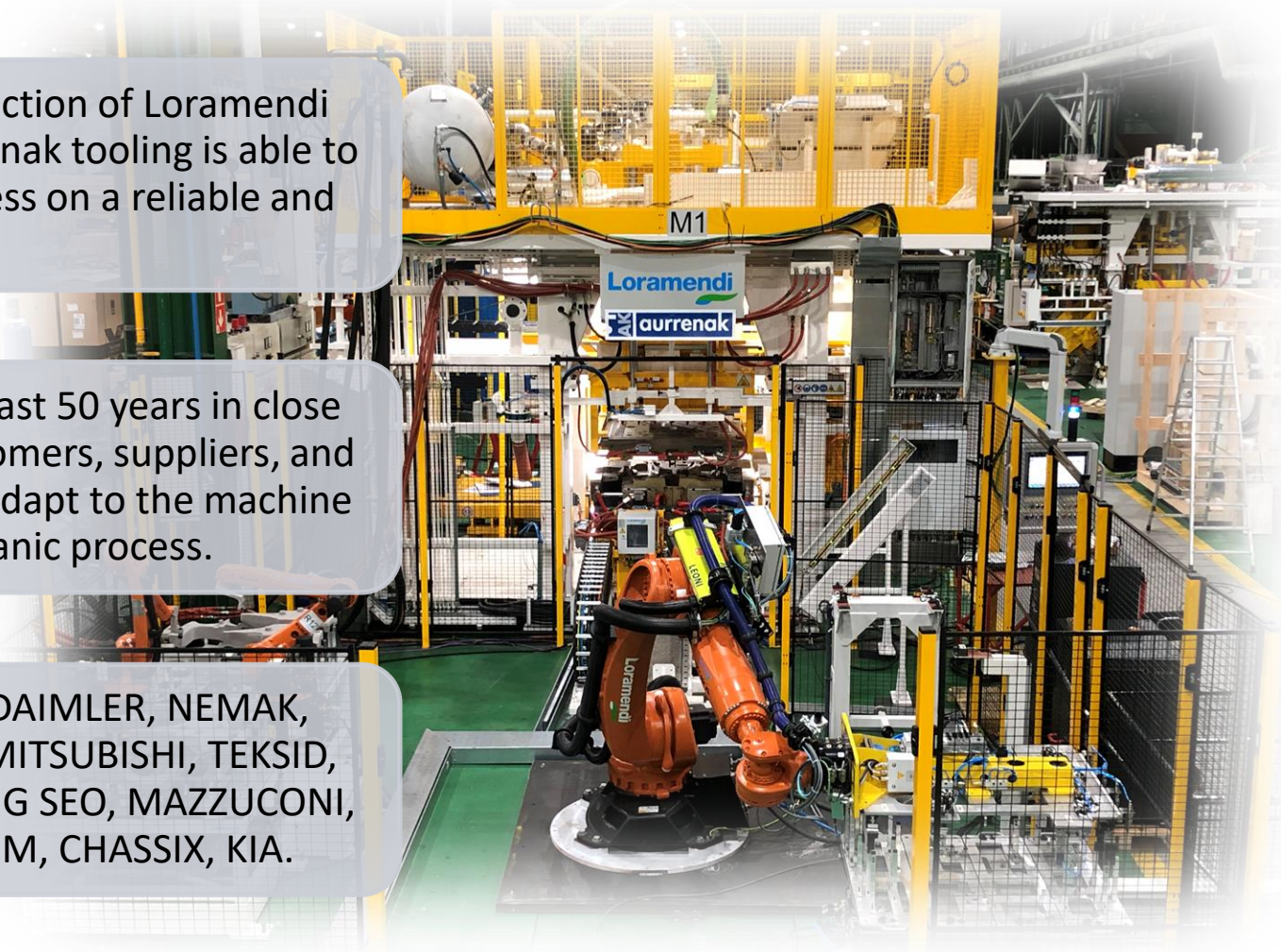
- The design and construction of Loramendi SLC machine and Aurrenak tooling is able to run the inorganic process on a reliable and high productivity level.

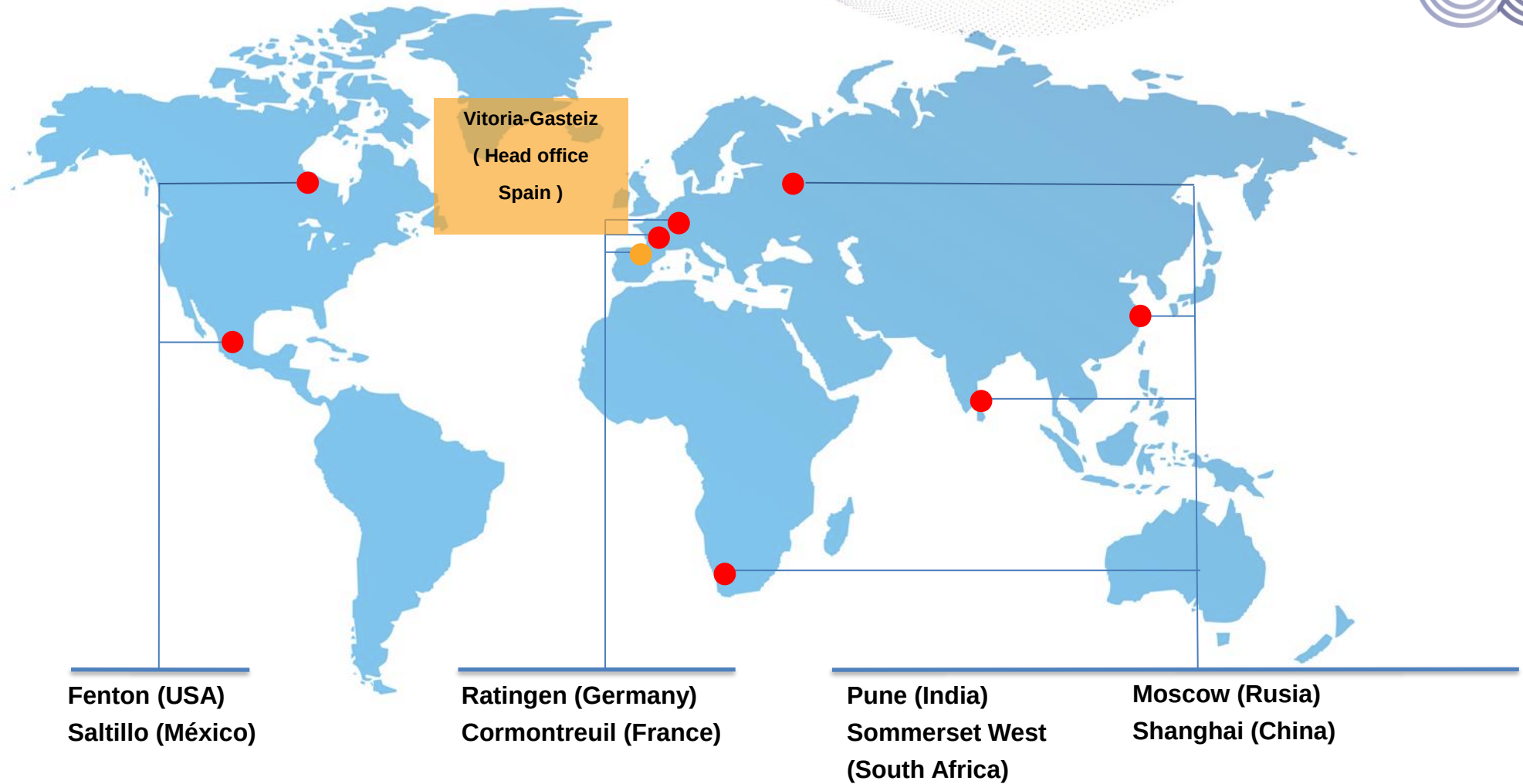
Experience

- The experience of the last 50 years in close collaboration with customers, suppliers, and Aurrenak, has helped to adapt to the machine + core box to the inorganic process.

Customers

- KS, KPSNC, BMW, VW, DAIMLER, NEMAK, MARTINREA HONSEL, MITSUBISHI, TEKSID, RENAULT-NISSAN, DONG SEO, MAZZUCONI, MONTUPET, TOYOTA, GM, CHASSIX, KIA.



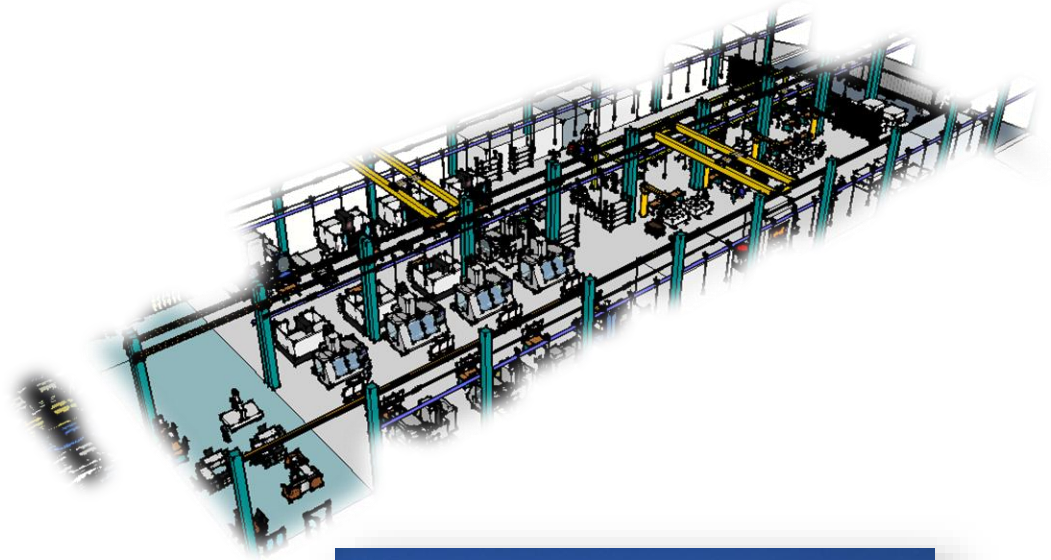


Aurrenak Service (Mexico)

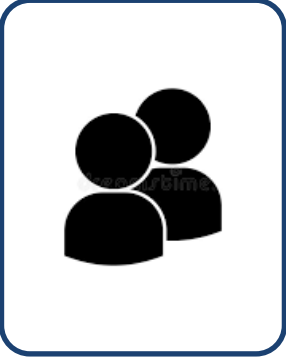
It was founded in Saltillo MEXICO in November 2011 to provide assistance to major customers in the NAFTA area.

Staff of 40 employees

Dedicated to the maintenance, engineering and assembly of moulds in coordination with its headquarters, Aurrenak Spain



Aurrenak Service (Mexico)

			 CRANE	
2011	40	3600	40	HPDC
Year of foundation	Staff	sqm Plant	tons capacity of cranes	New machines

Aurrenak Service (Mexico)



MAINTENANCE

ASSEMBLY
MACHINING
ENGINEERING

ALUMINIUM
HPDC AND
LPDC
FOUNDRIES

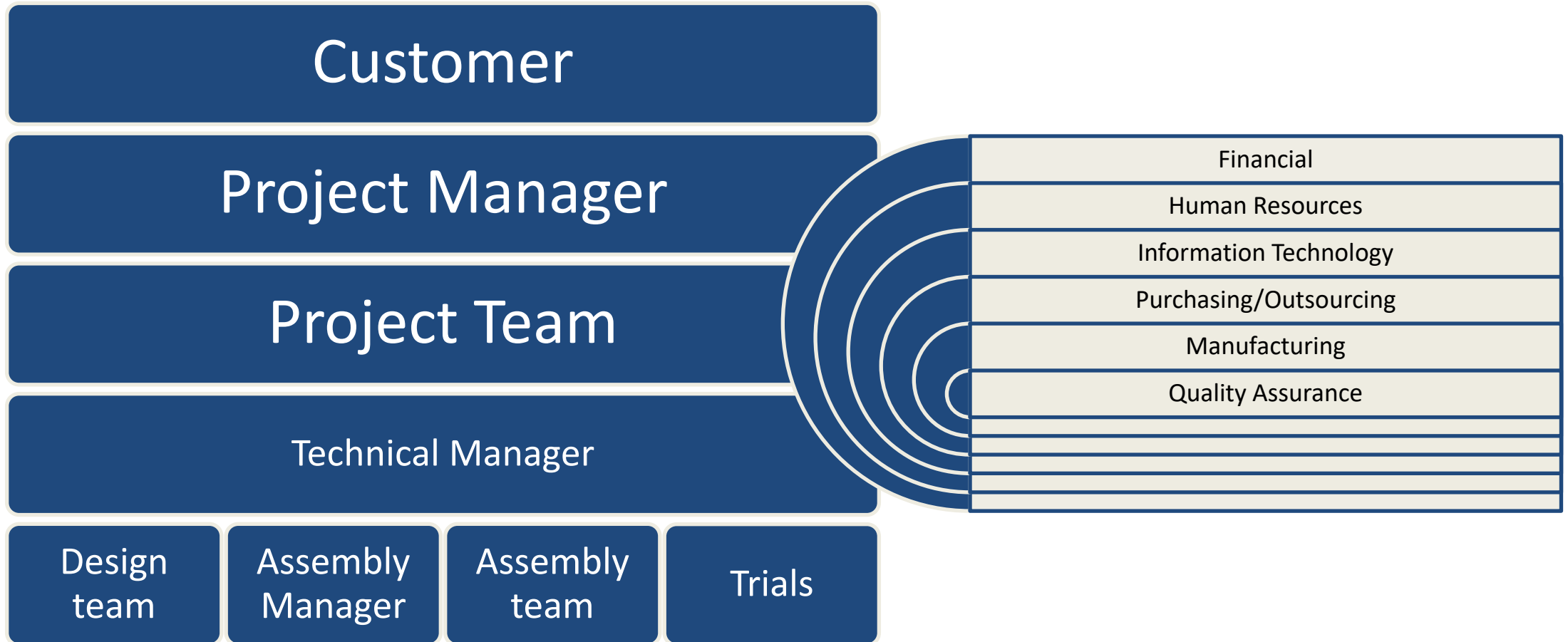
40
EMPLOYEES



IRON
FOUNDRIES

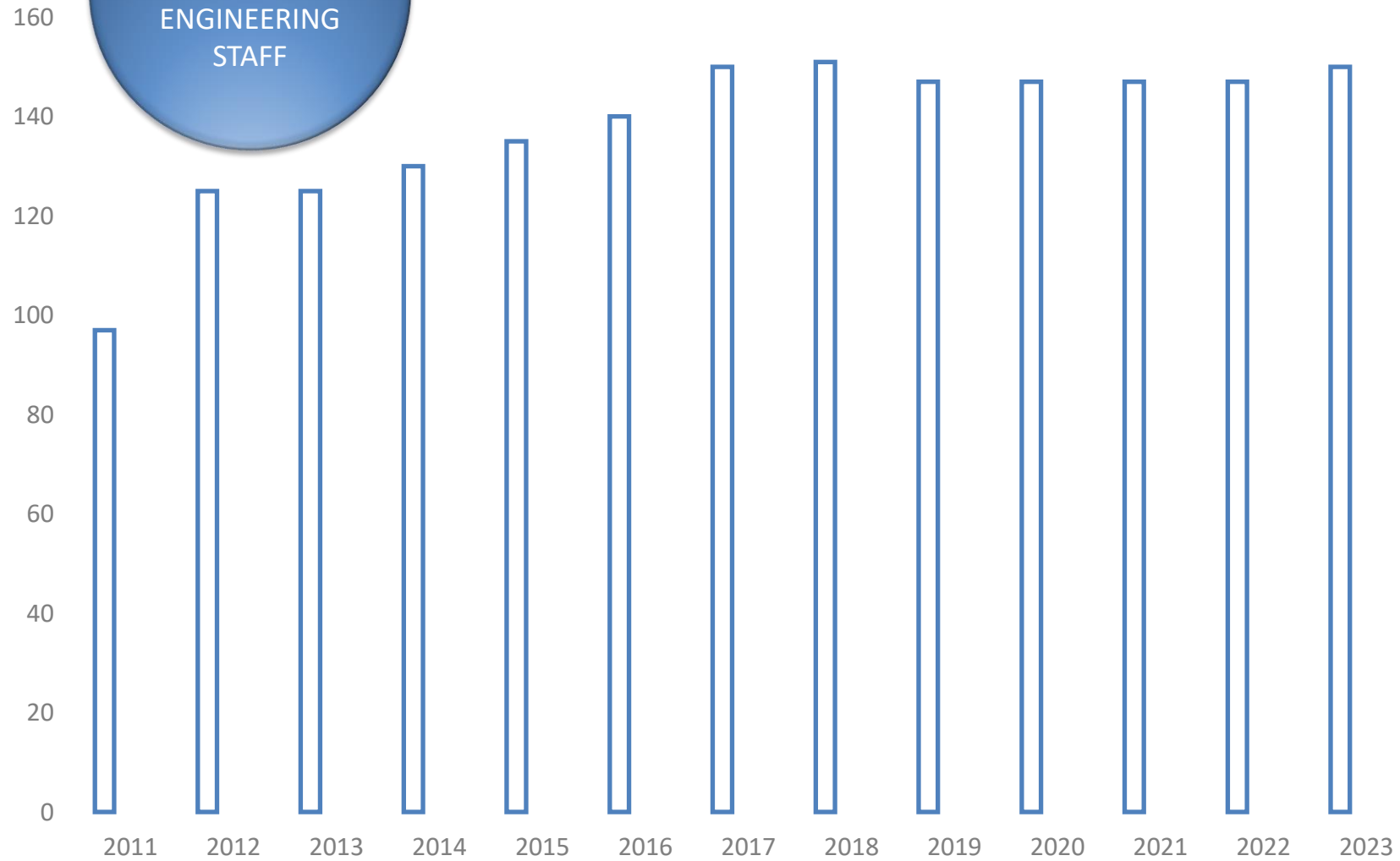
MEXICAN
MARKET

Project Management



+30
ENGINEERING
STAFF

Employees evolution



SALES IN MILLIONS €

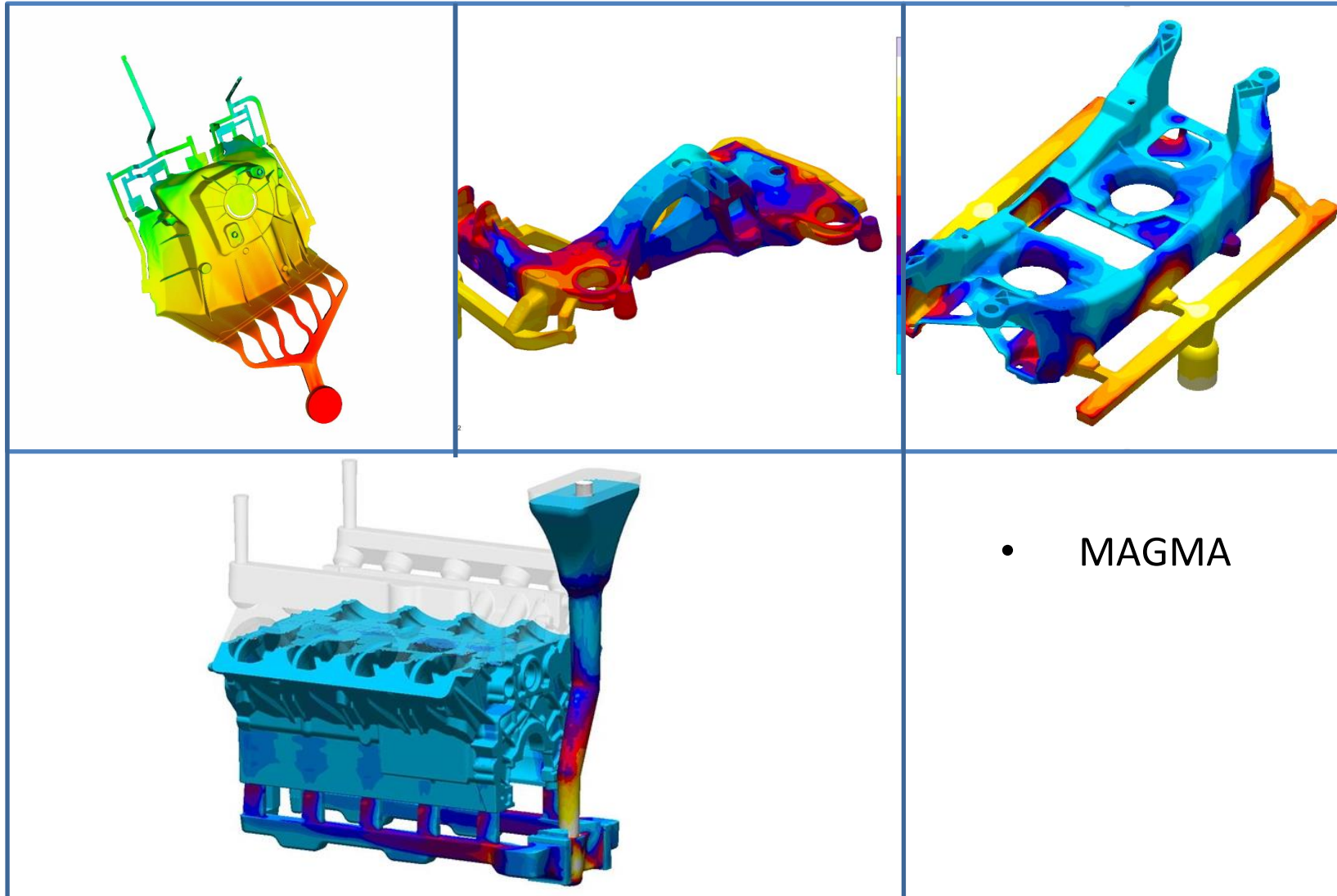




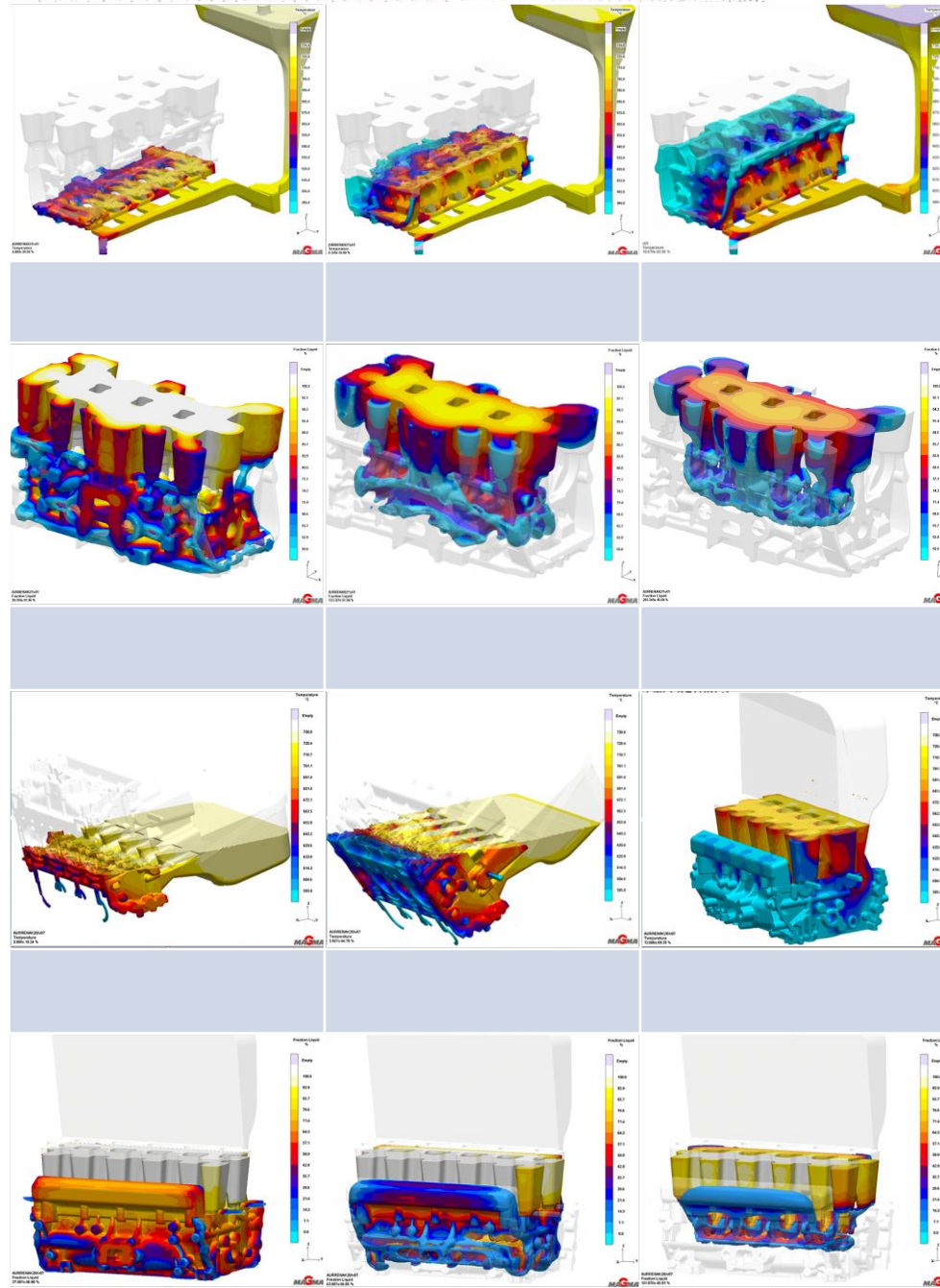


Engineering

Filling and solidification simulation

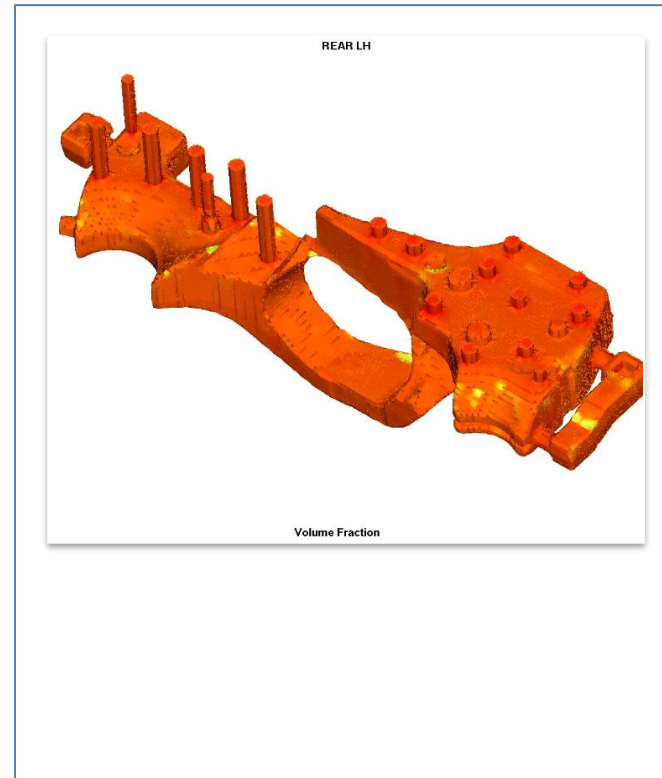
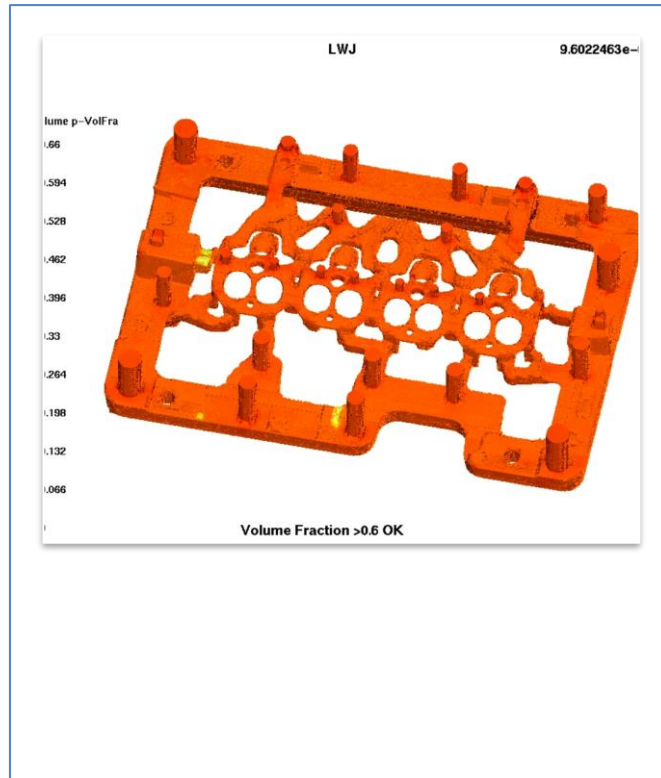


- MAGMA

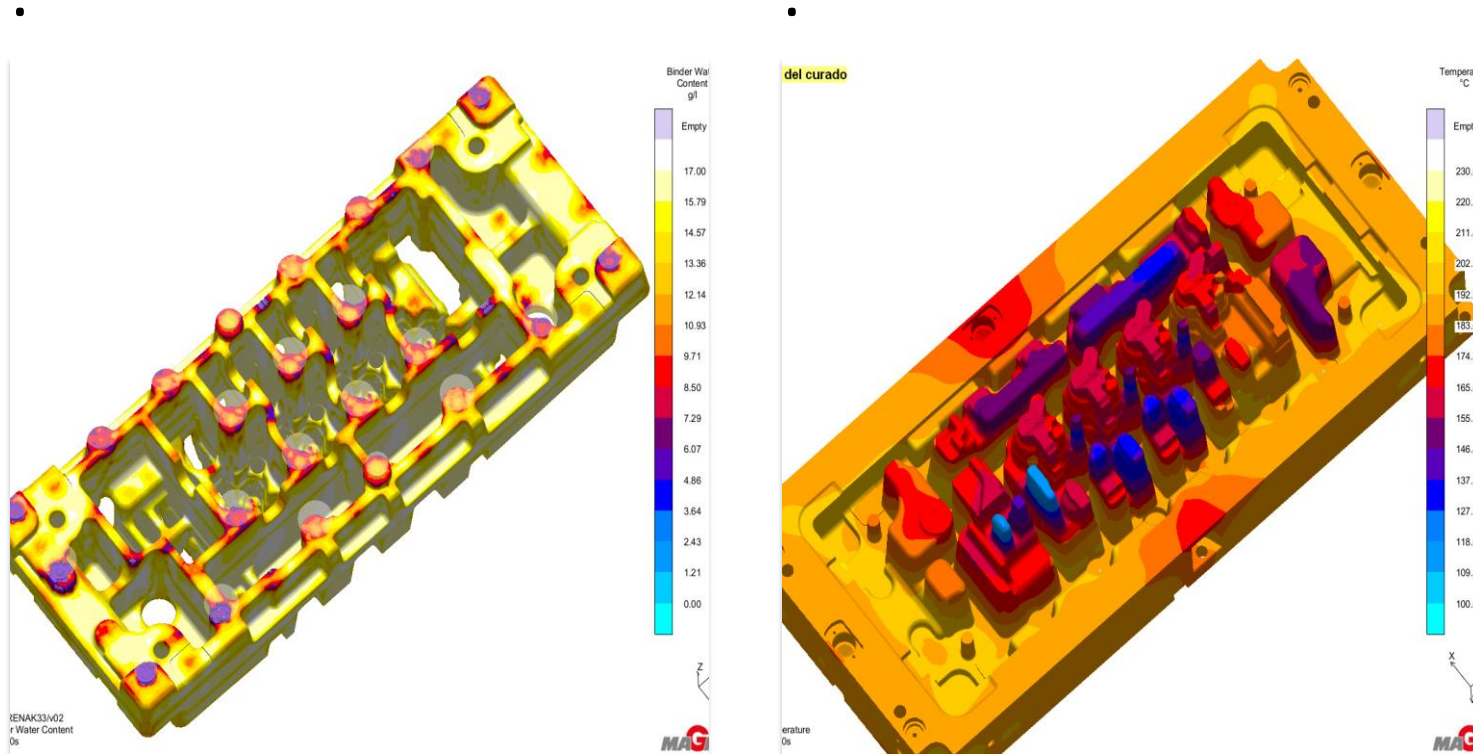


Filling and
solidification
simulation

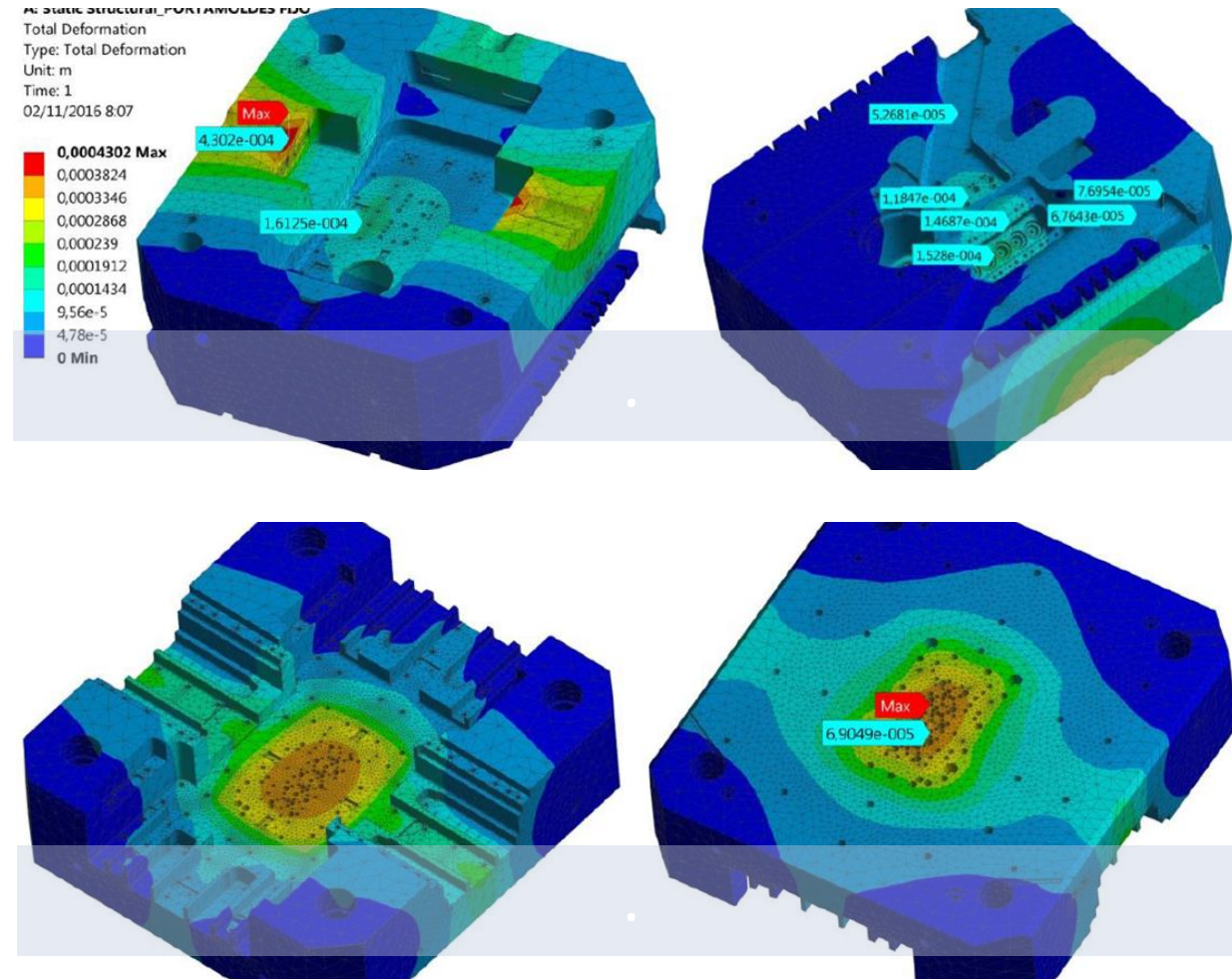
Arena flow simulation



Inorganic curing and insert heating simulation



Stress analysis





Manufacturing

- 5 axe machining.
- 7000 m² workshop.
- Well known steel suppliers.

Quality
Dimensional
checking

Assembly

New trials
center

Technical
assistance /
after-sales
service

Machinery Pool upgrade

5-axe- Milling machine



Deep hole machine



5-axe- Milling machine



Spotting press 300t
(3000 x 2500)



5-axe XXL-Machining table



40t - Crane



Control

PHOTOGRAMMETRY

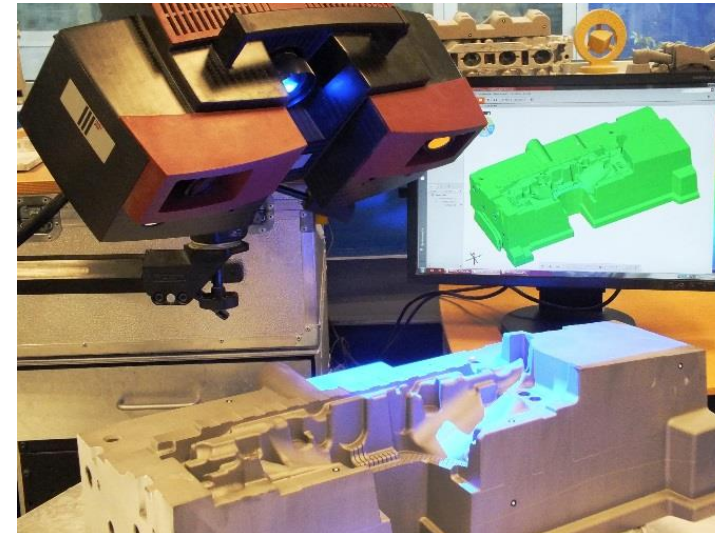
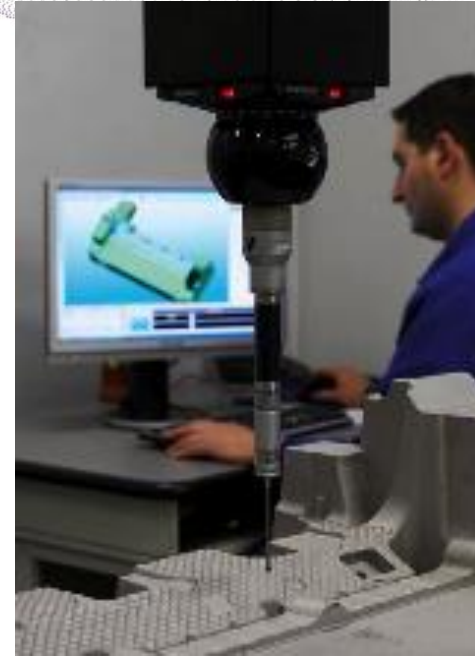
- ATOS III (GOM)

CMM MACHINES

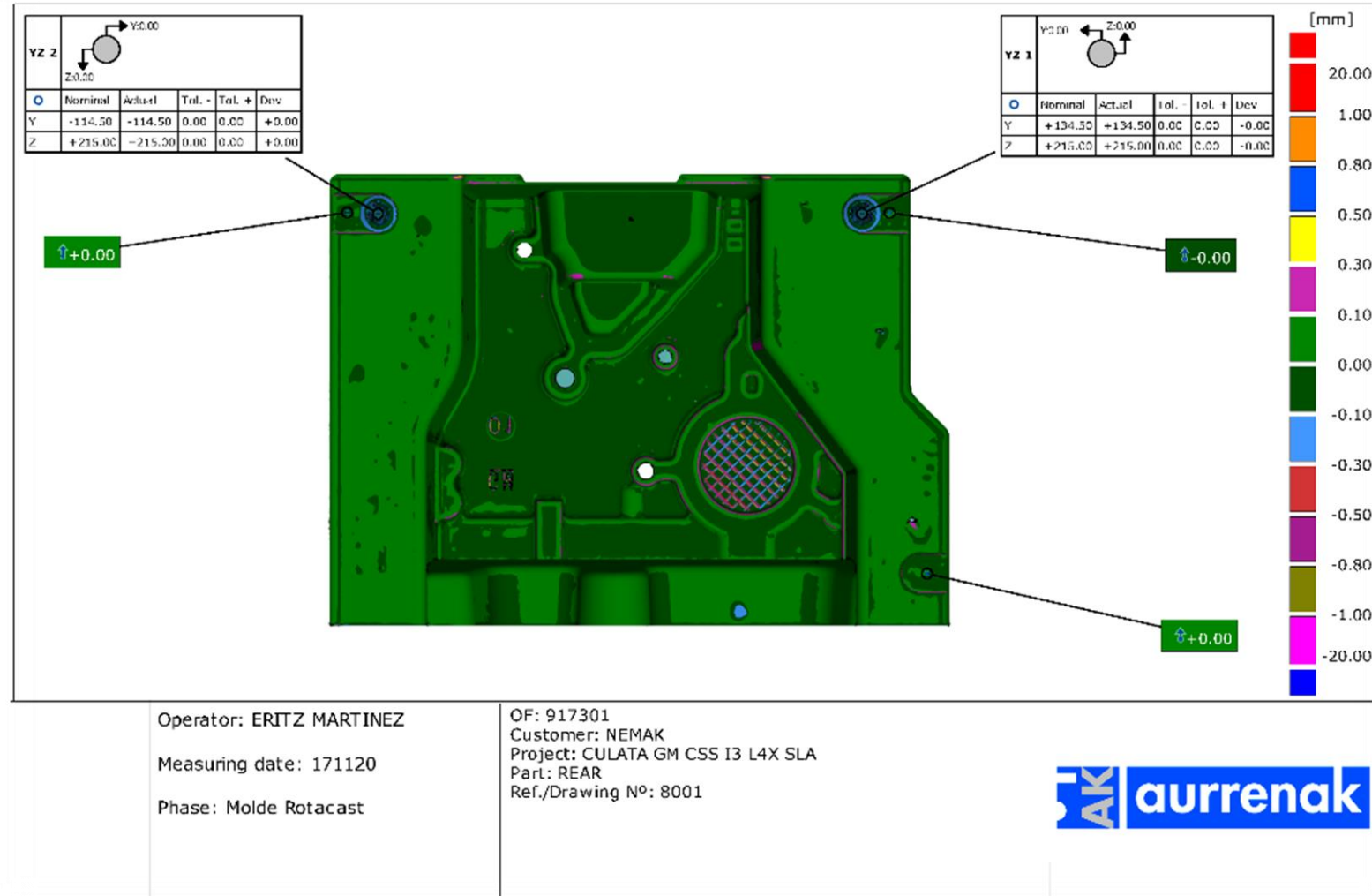
- DEA GAMMA 1203
- DEA GLOBAL
(Advantage 12.15.10)
- FARO Platinum portable measuring arm

SOFTWARE

- Metrolog
- PC-DMIS



Dimensional checking report







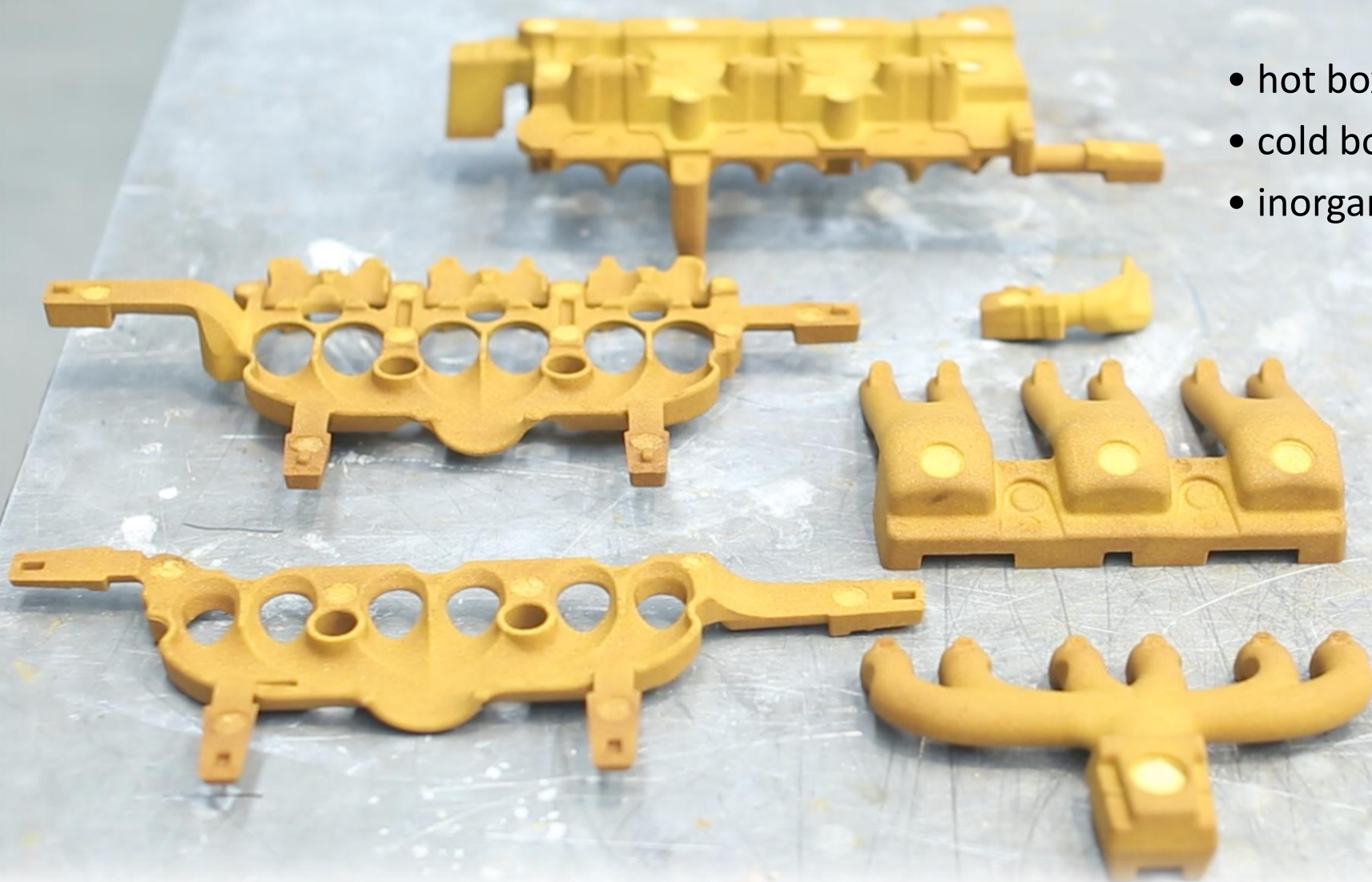
High pressure die casting

- Machine: Frech 2700 t



Loramendi SLCA-40L/CF

- hot box
- cold box
- inorganic process



Low pressure die casting

GIMATEC 800 W





Loramendi gravity die casting machine



Products

HPDC – High pressure : dies & trimming tools

Low pressure aluminium & gravity: dies, core-boxes & fixtures

Iron: Pattern plates, core boxes, fixtures

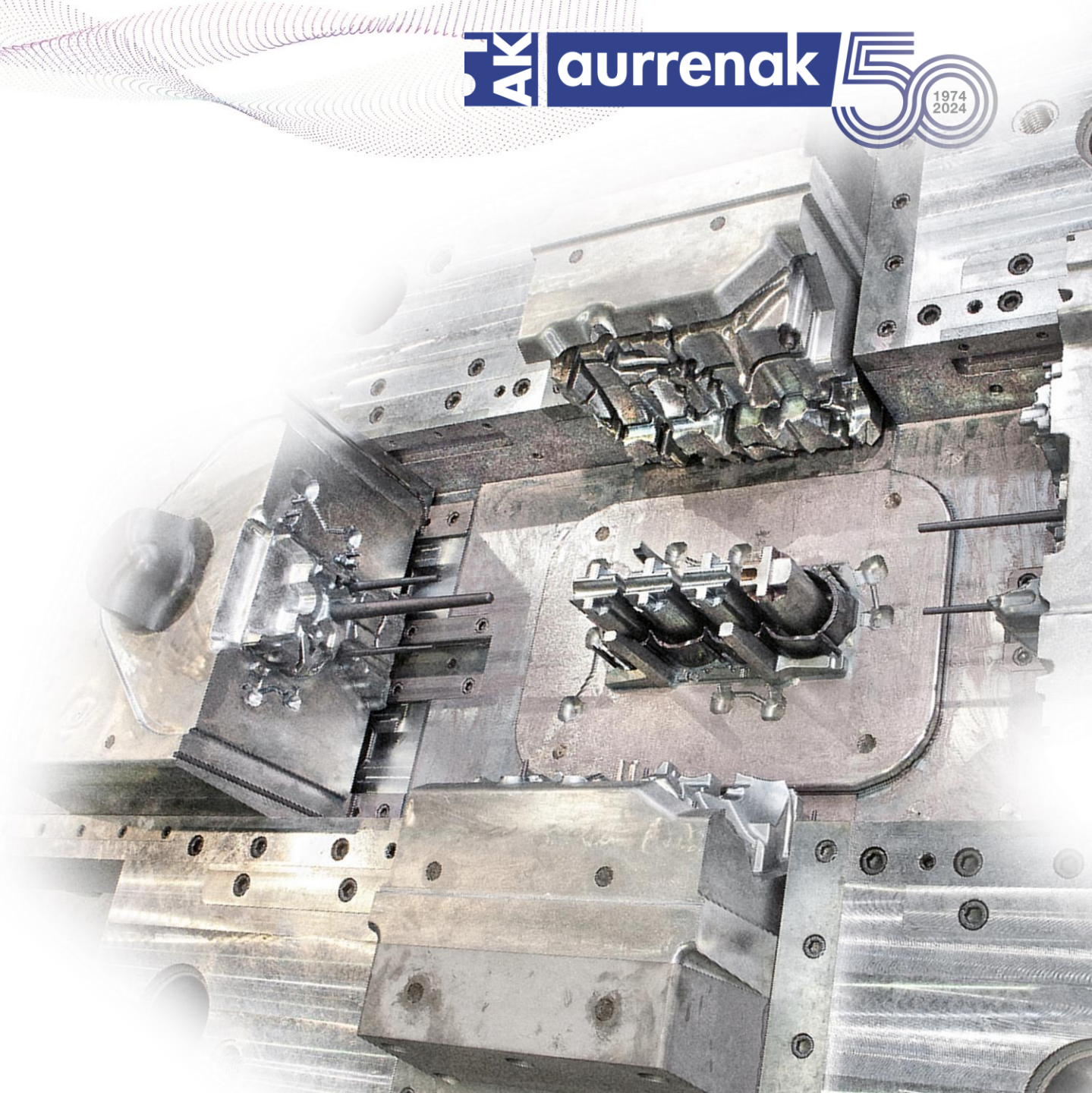


High pressure die casting

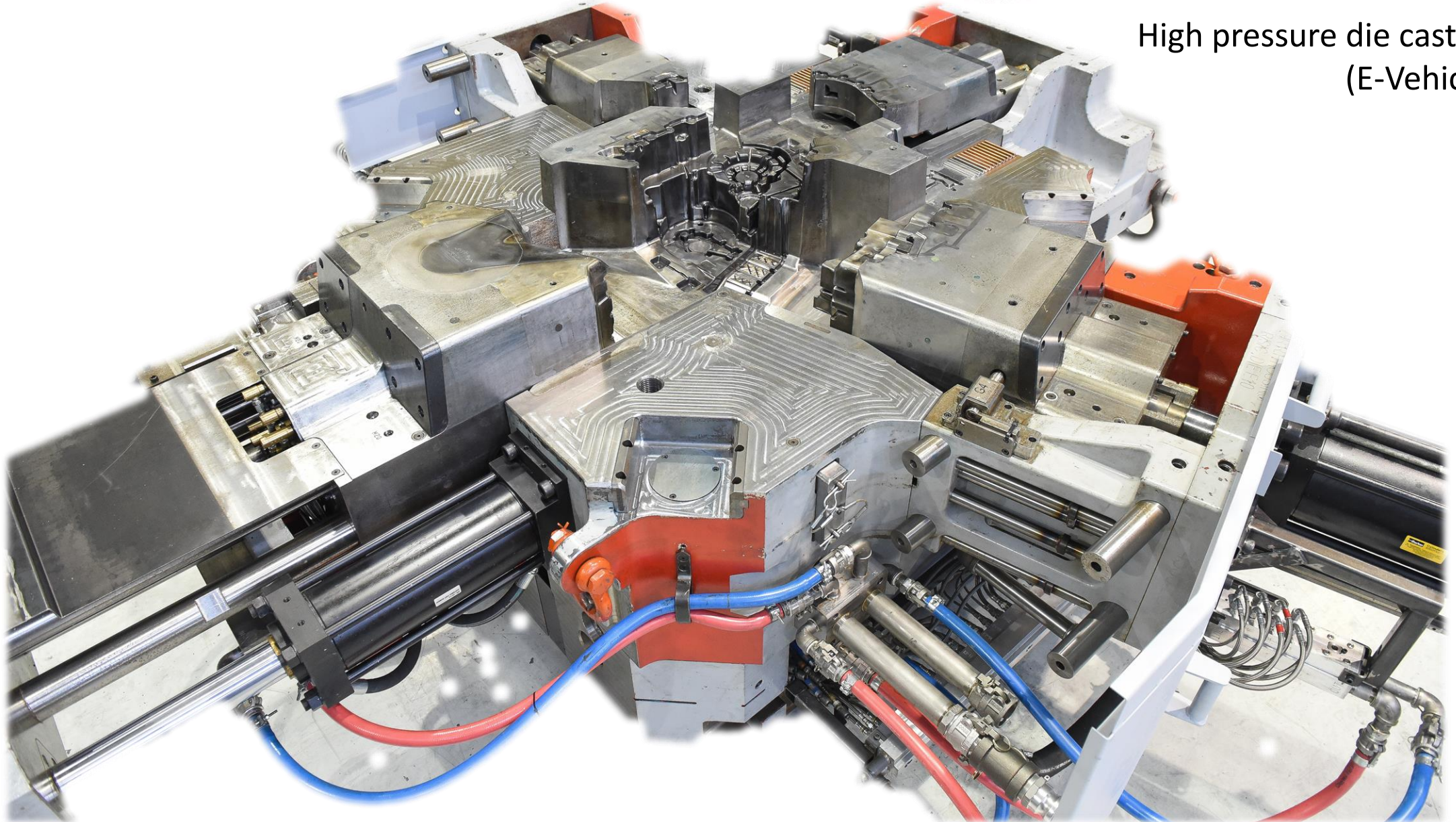
- Dies
- Trimming tools

HPDC dies:

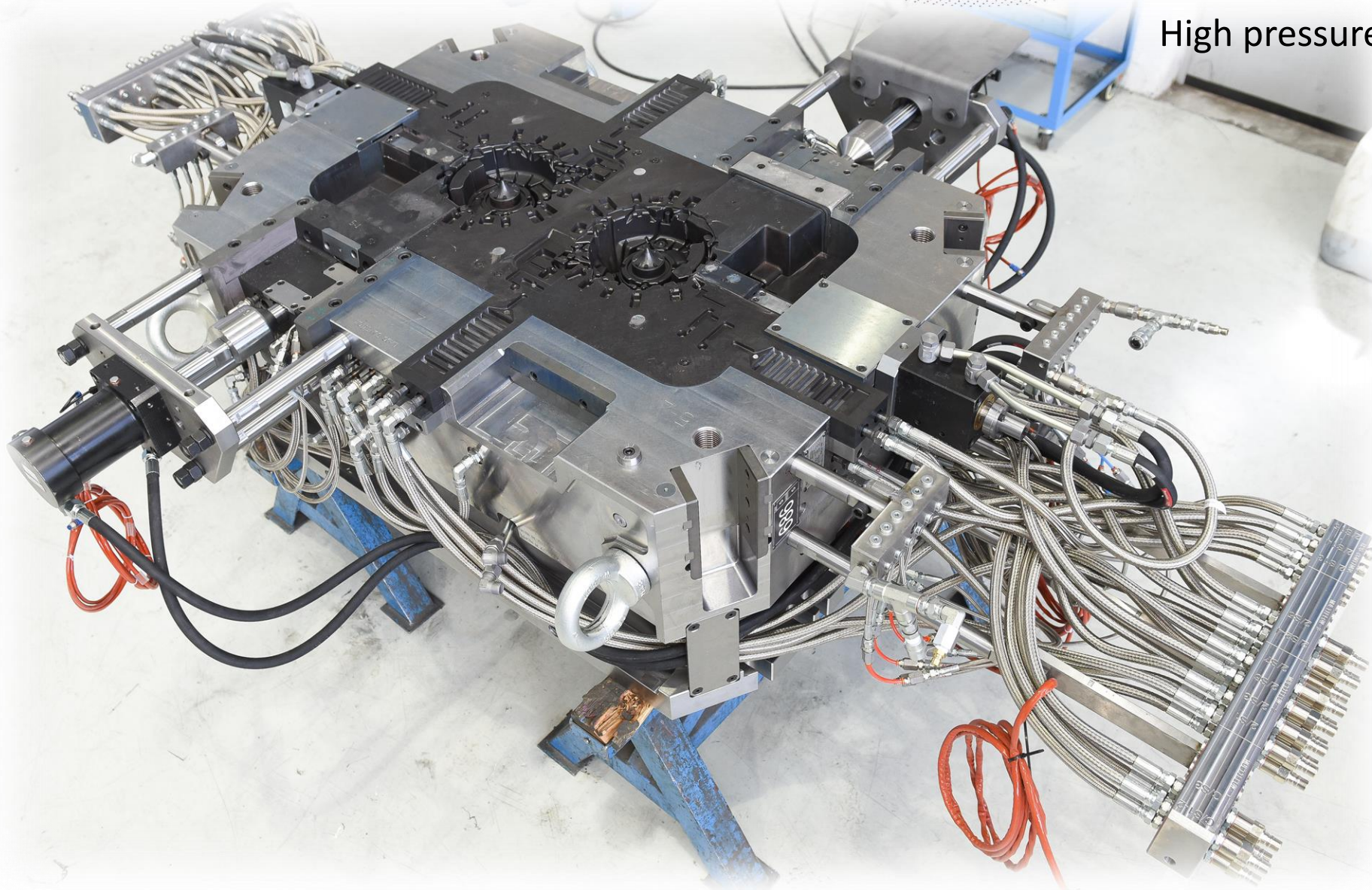
more than 300 dies since 1995



High pressure die casting (E-Vehicle)



High pressure die casting (E-Vehicle)



Manufacturing HPDC dies

- HPDC-Dies from 10 t to 60 t
- HPDC-Machines locking force 1200 t – 4500 t
- Trimming tools (all size ranges)

Cylinder Block



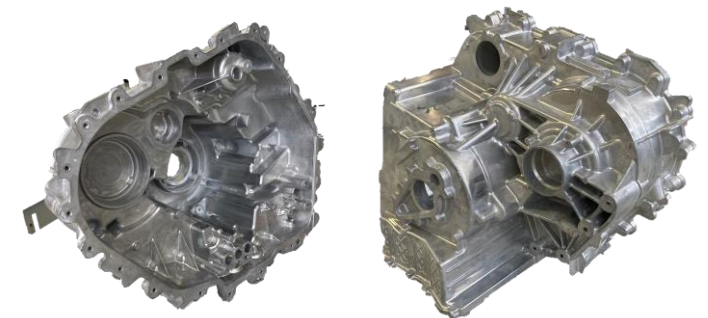
Structural
parts



Transmission

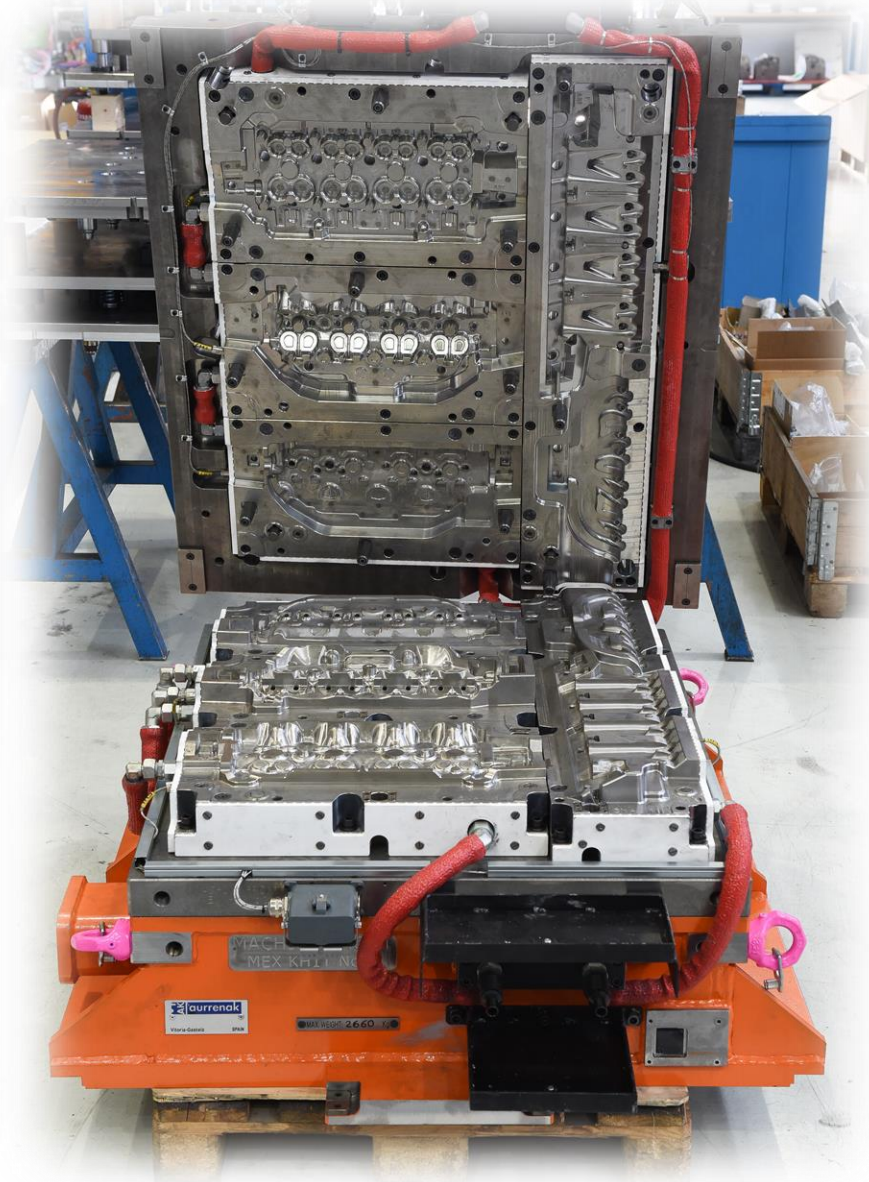
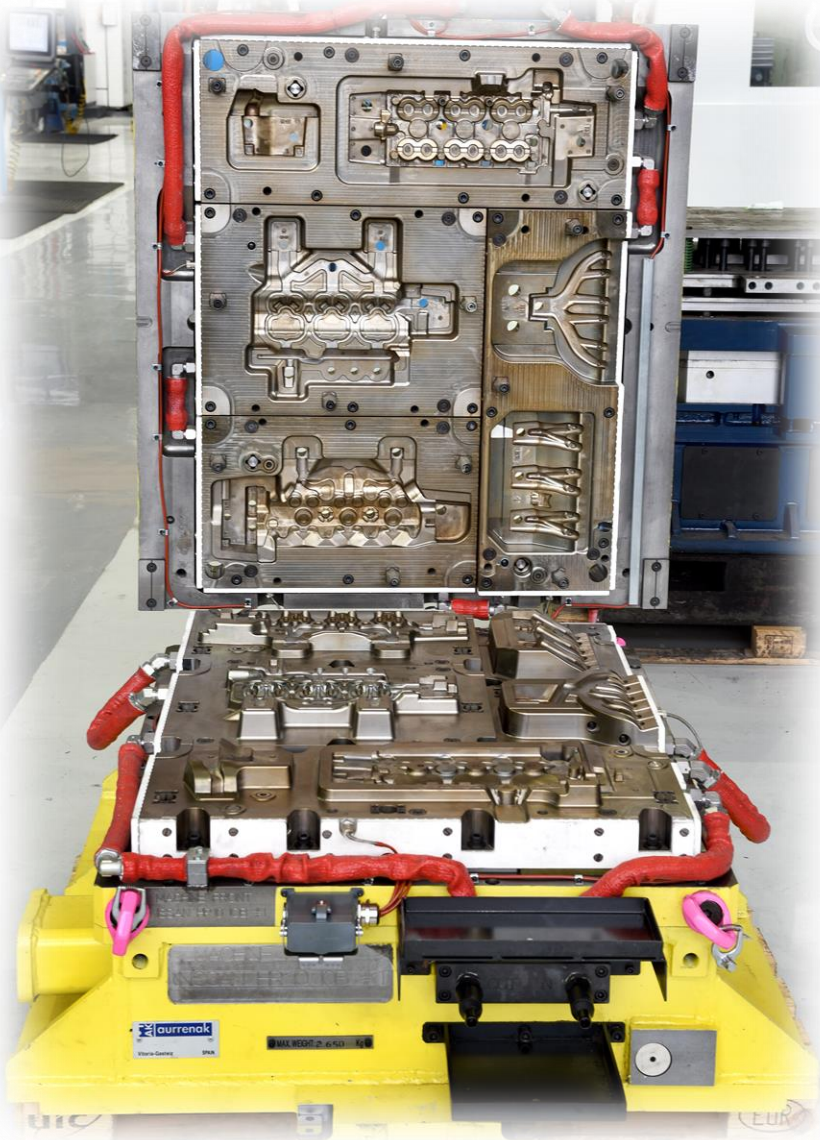


E-vehicle

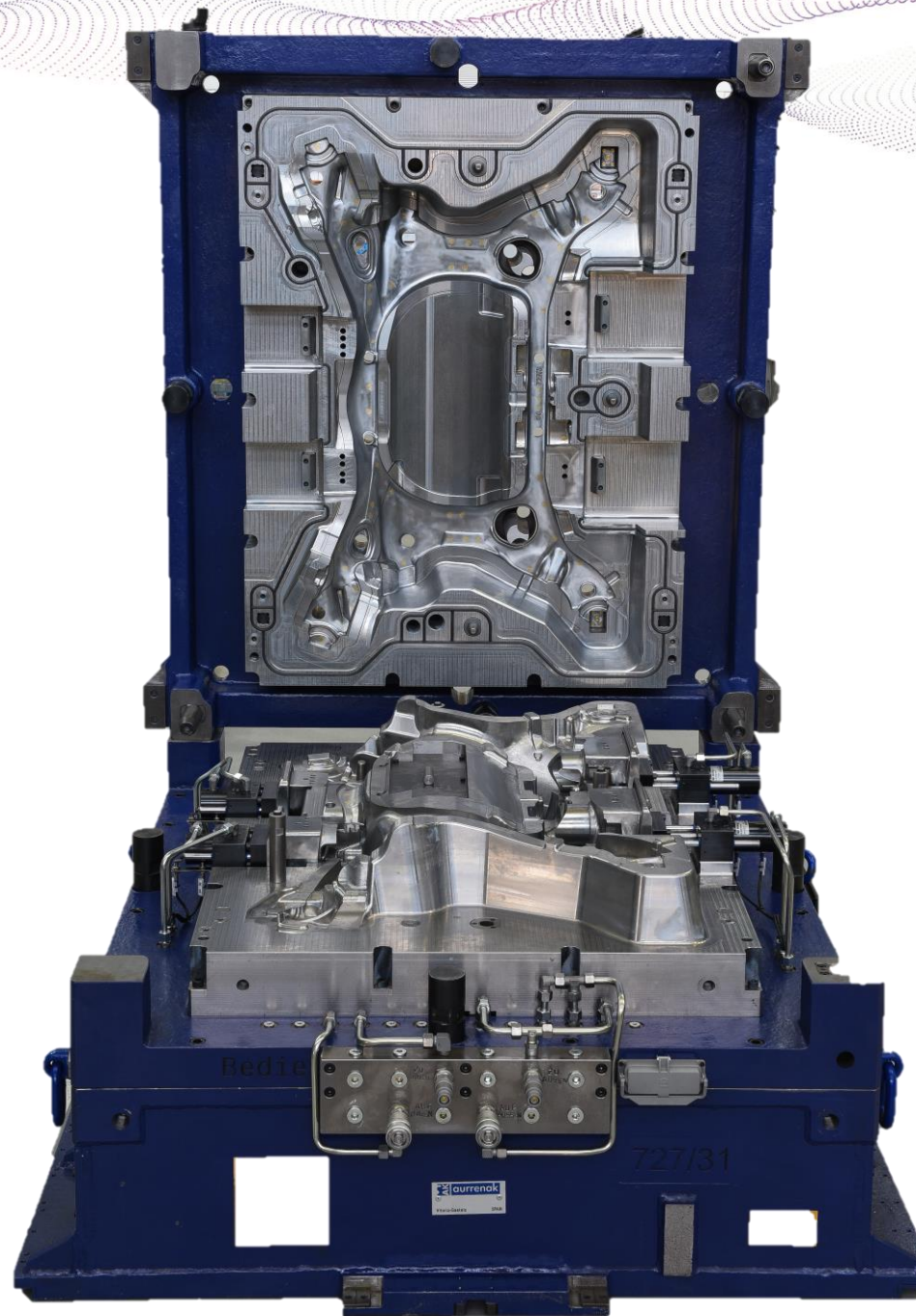


Low pressure die casting

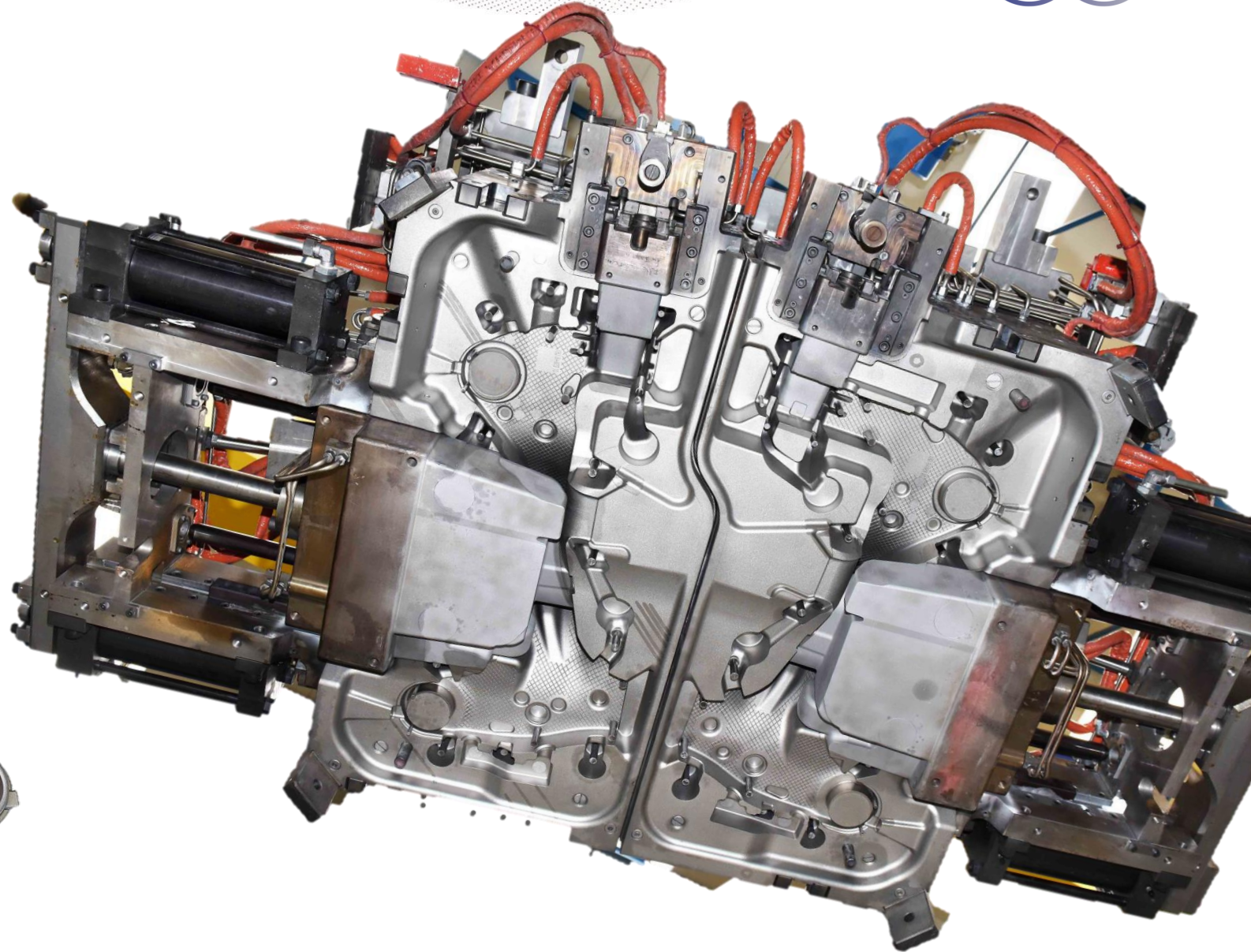
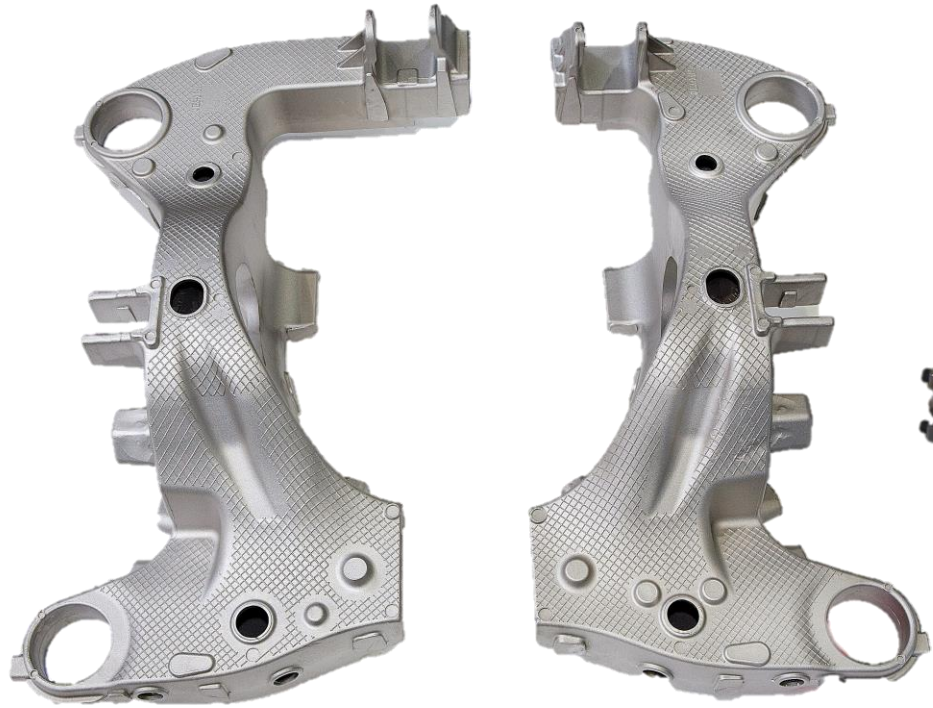
- Core Boxes



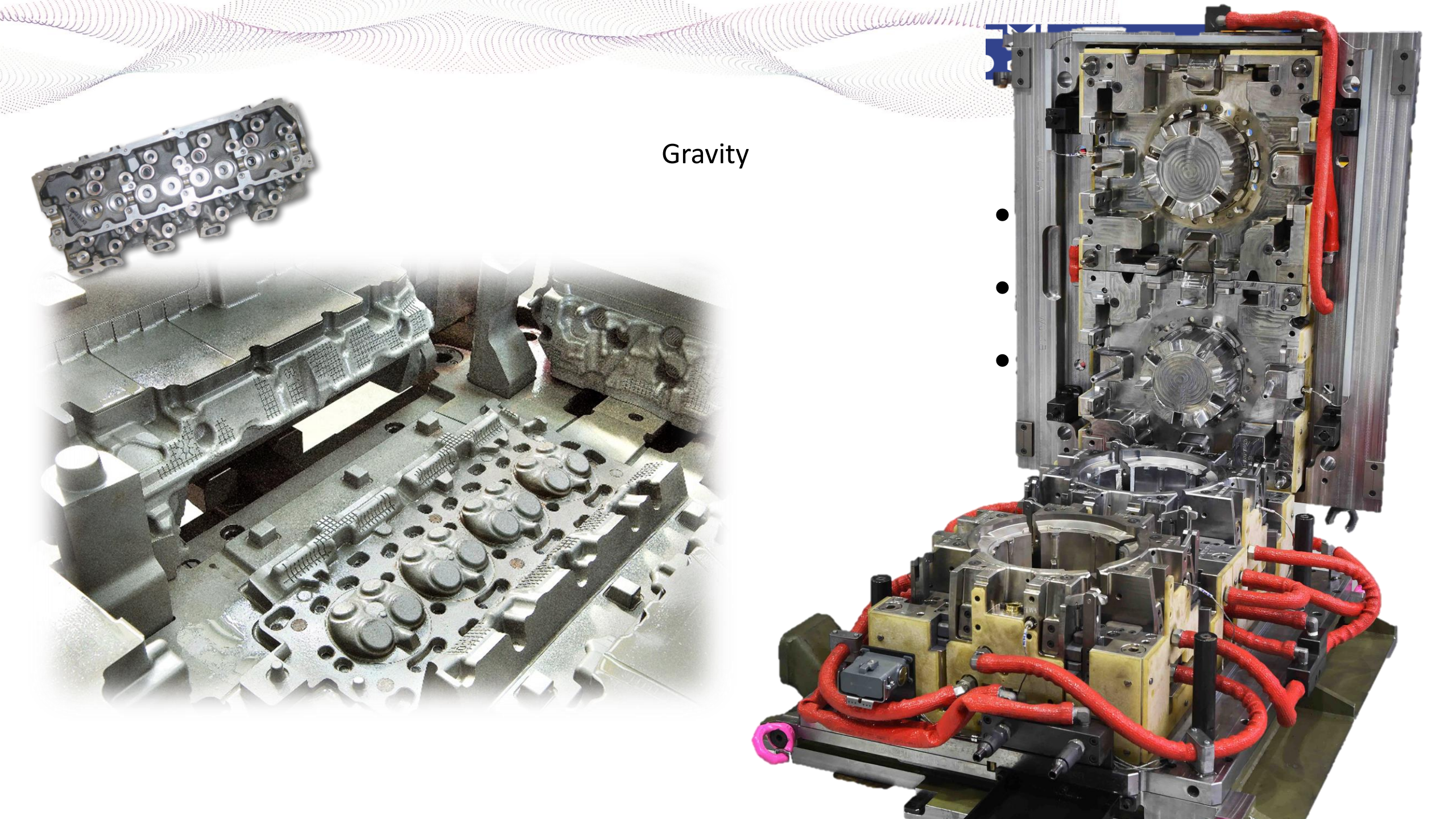
Low pressure die casting
Structural parts



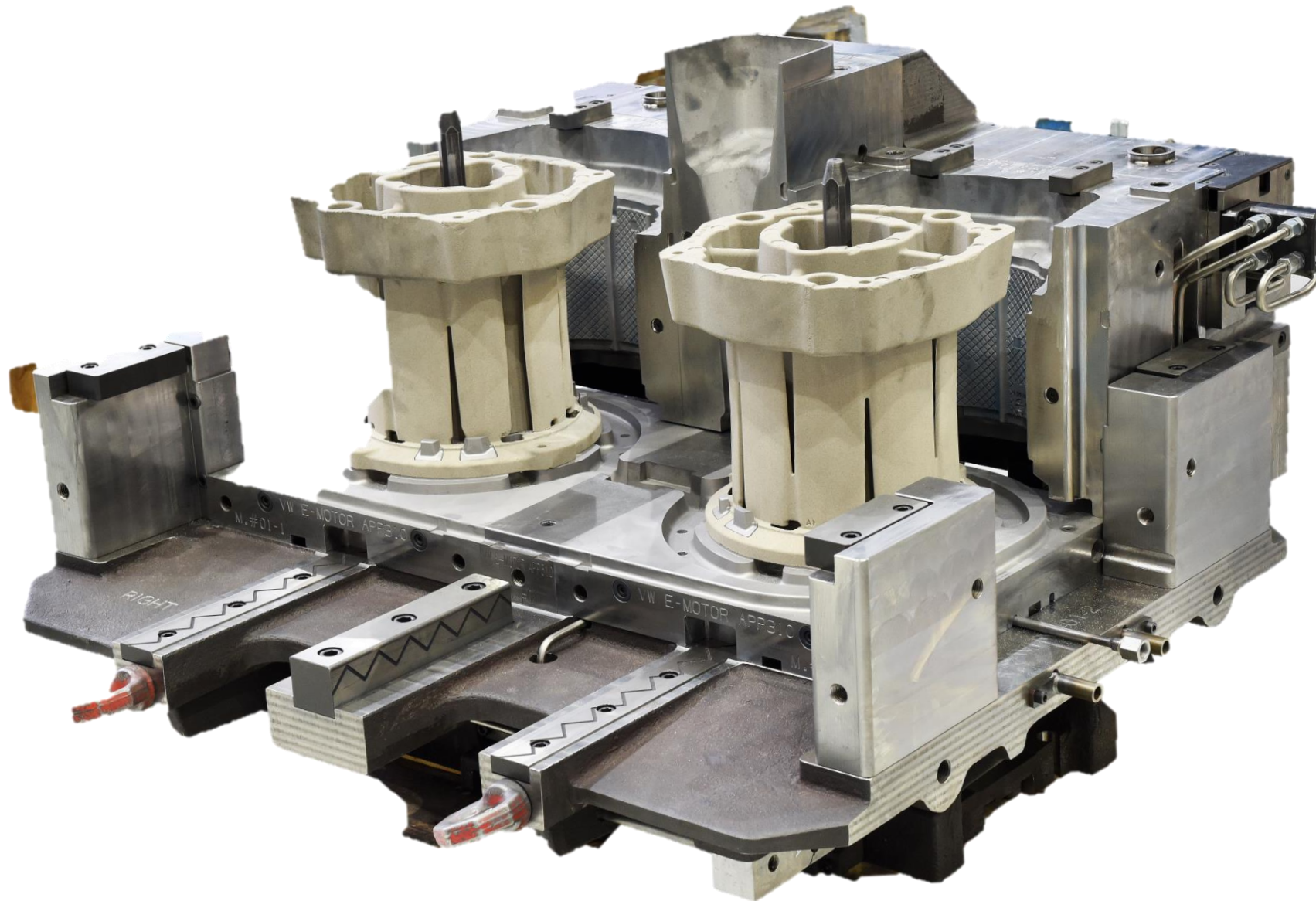
Low pressure die casting Structural parts



Gravity



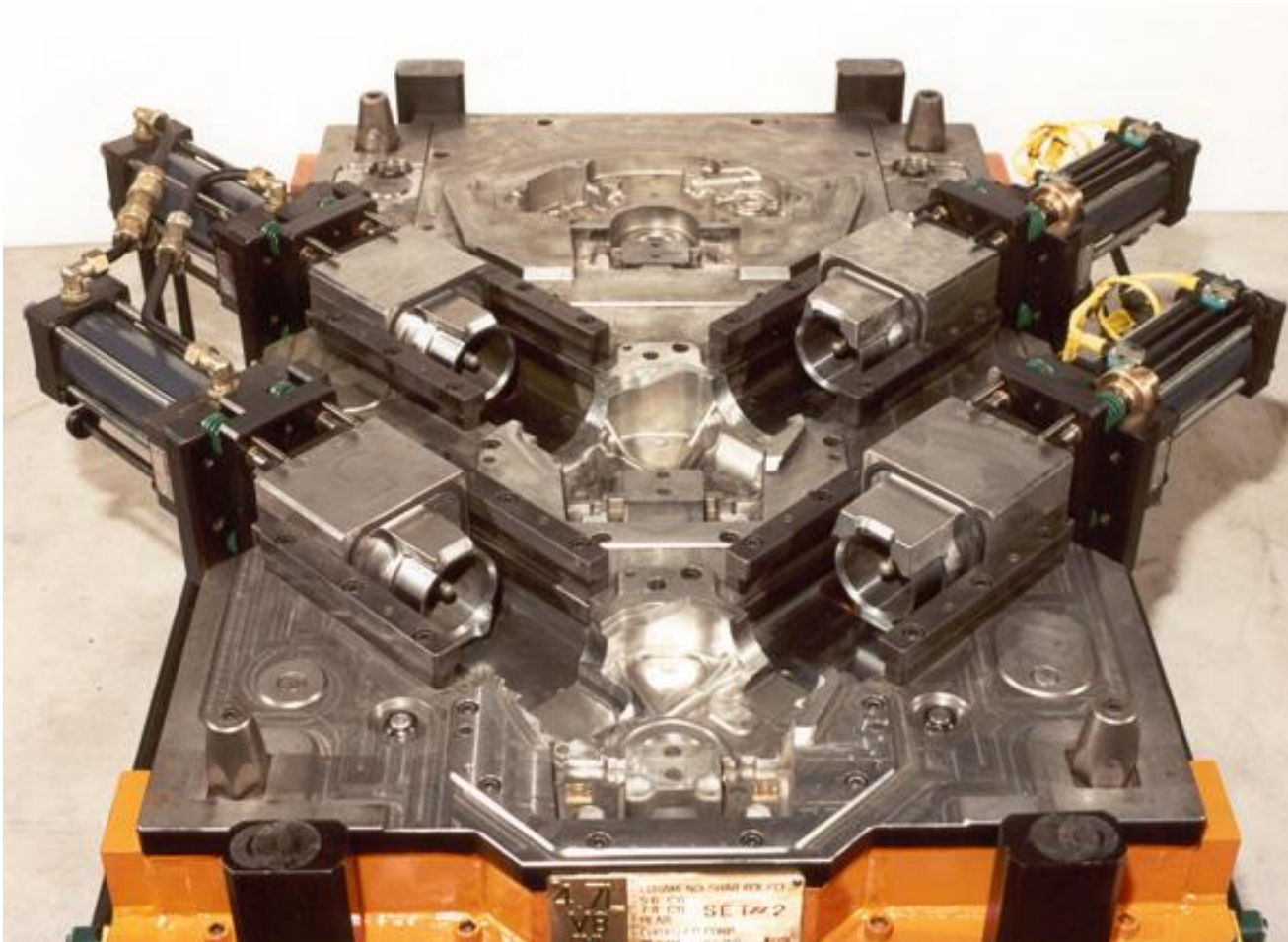
Gravity
(E-Vehicle)

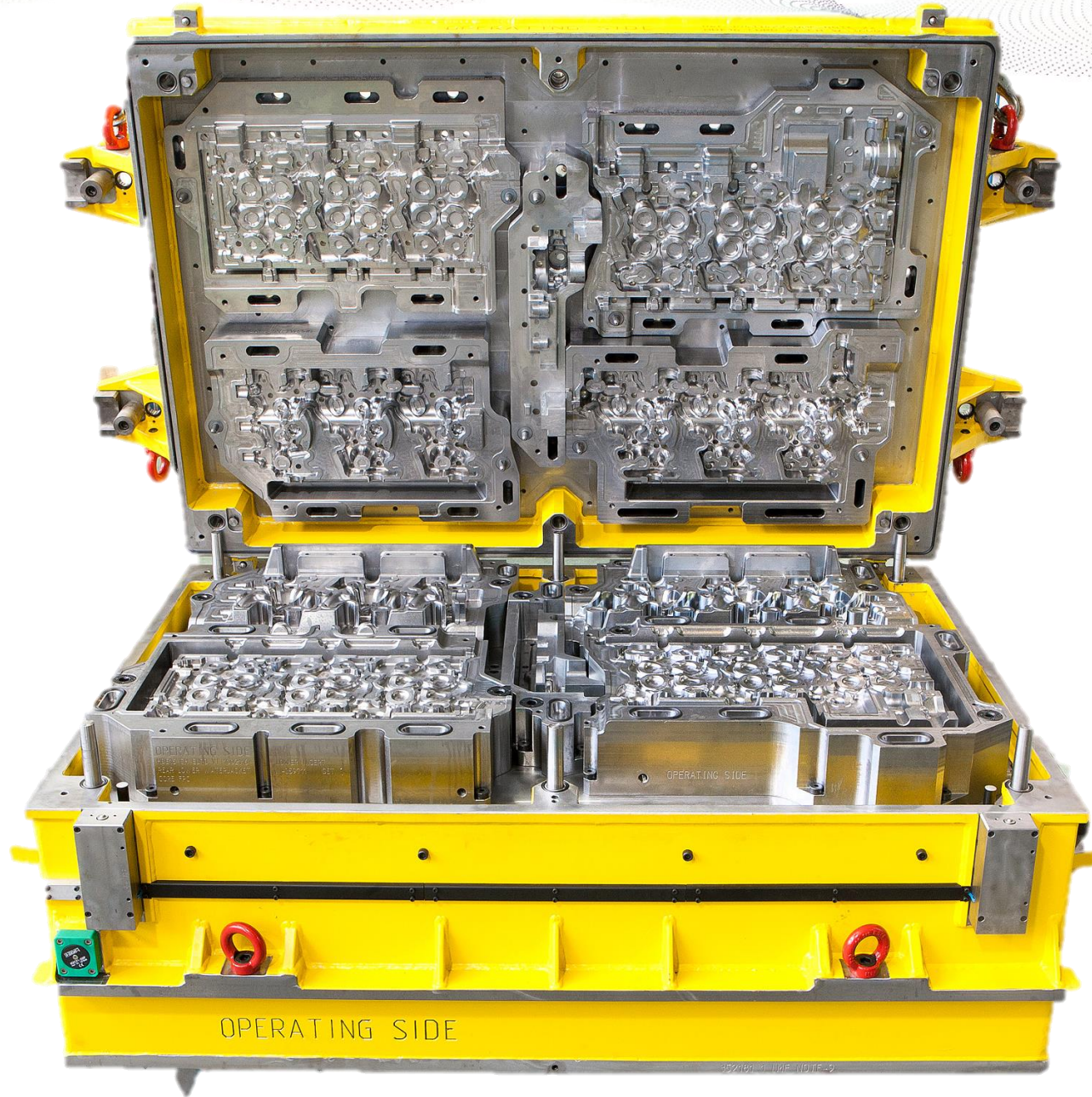


Iron Casting



- Pattern plates
- Core boxes
- Fixtures





Iron Casting

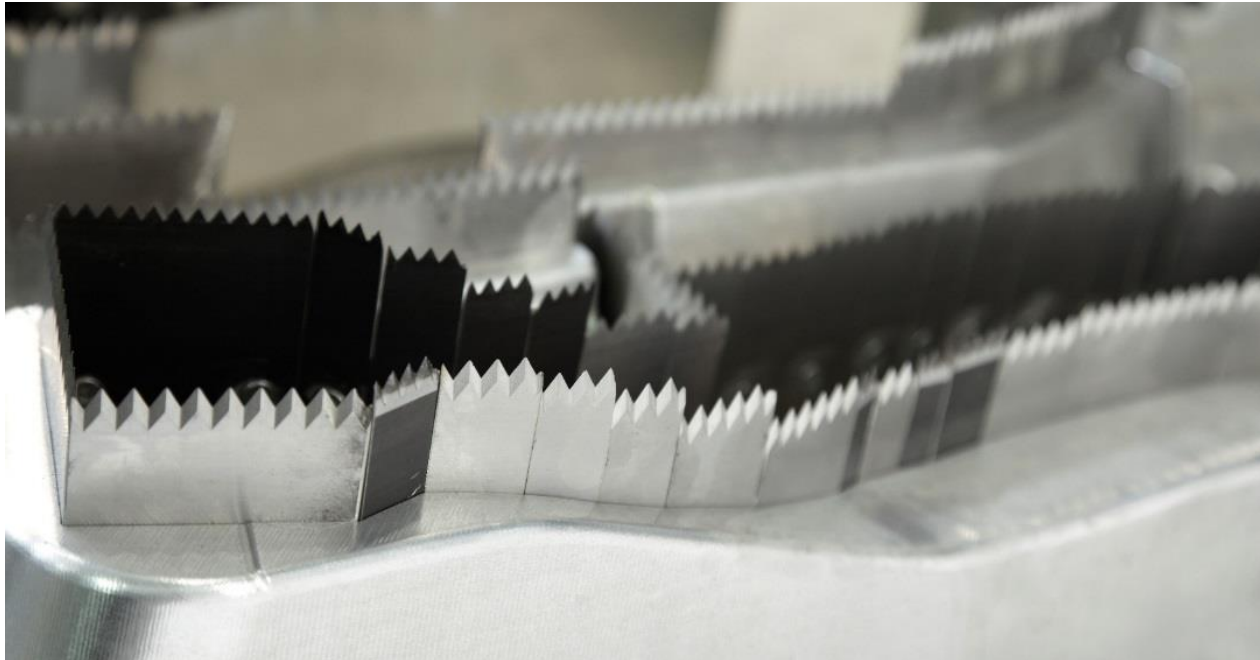
- Pattern plates
- Core boxes
- Fixtures

Iron Casting

- Pattern plates
- Core boxes
- Fixtures



Twin sheet technology dies



5 reasons to choose Aurrenak:

- 1 50 years experience with OEMs worldwide
- 2 Innovative engineering solutions
- 3 Dies for structural parts, motorblocks, electrical vehicles
- 4 Big dies manufacturing (up to 60 t)
- 5 Qualified prototype castings made in Aurrenak

Thank you for your attention!

