

PRESENTATION METRICA INGENIERIA, S.L.



**We improve the future,
innovating the present**

Who is Métrica ...?

Métrica Ingeniería, S.L. is a company founded in 2004 due to the increasing current Engineering Services market demand.

Its main headquarters are in Zaragoza, SPAIN.

It employs forty people, most of them Mechanical Engineers.

Its turnover is near of 2 million € per year

Its capability production is over 60.000 hours per year

It is specialized in Mechanical design with three-dimensional tools such as Catia.

Nowadays, it operates in most of the main technological industrial sectors, such as railway, automotive, production tools, industrial vehicle, etc, being railways where it is specialized.



More about us..

It has the certification in Quality and Environment, according to the ISO 9001 and ISO 14001 norms.



Métrica Ingeniería is member of the spanish railways Technological Platform, which is a tool for the sector service and its technological development.



Métrica is member of AERA (Aragonese Aeronautical Association), whose purpose is fomenting the participation of Aragon companies in the aeronautical sector.



Resources

STAFF

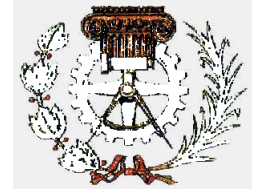
- 4 Industrial Engineers
- 28 Technical Engineers
- 1 Technical Systems
- 2 Administration personnel
- 3 General Manager

Total: 38 Employees

PRODUCTION CAPABILITY

Metrica collaborates with the best providers allowing us to offer a full service.

- Manufacturing
- Prototypes
- Small series



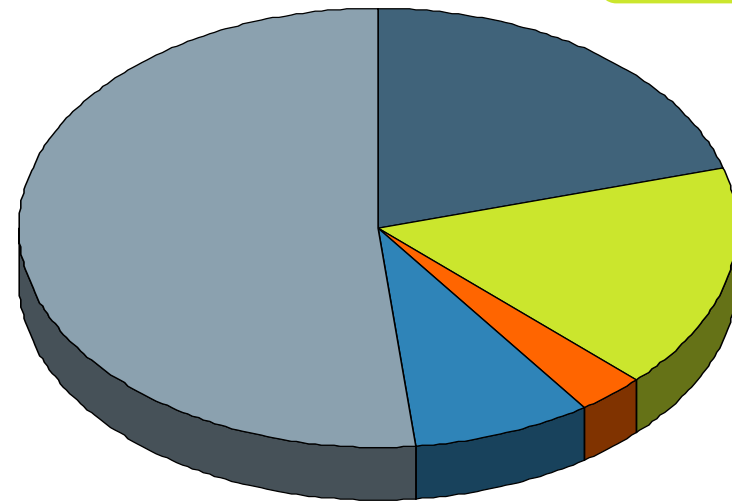
Sectors where we are working...

Railways

More than 200.000 hours have been made for Railways sector since 2004.

Automotion

More than 200 production tools designed and delivered to our customers.



Projects distribution by areas in percentage, 2009.

Railways – 54%

35.000 hours

Automotion – 20%

15.000 hours

Appliances – 8%

4.000 hours

Architecture: 16%

9.000 hours

Other sectors: 2%

4.000 hours

Appliances

30.000 hours designing components for Appliances sector.

Architecture

18.000 hours finding solutions on Architecture Projects.

Others sectors

Plastics, Aeronautical, Industrial vehicle, etc.

Engineering Services:

ENGINEERING PRODUCT

Design and development of mechanical components, plastics, equipments, facilities, structures.

ENGINEERING PRODUCTION

Design, development and manufacturing of production tools, machines and assembly lines.
Implementation of efficient production proceses.

ANALYSIS

Analysis and calculations, structural analysis, dynamic simulation, inverse engineering.

SINGULAR ARCHITECTURE

we collaborate in design and development of emblematic proyects for Singular Architecture where is necessary a aditional knowledge of Industrial proceses and a combination with three-dimensional tools and parametrics.

OTHERS SERVICES

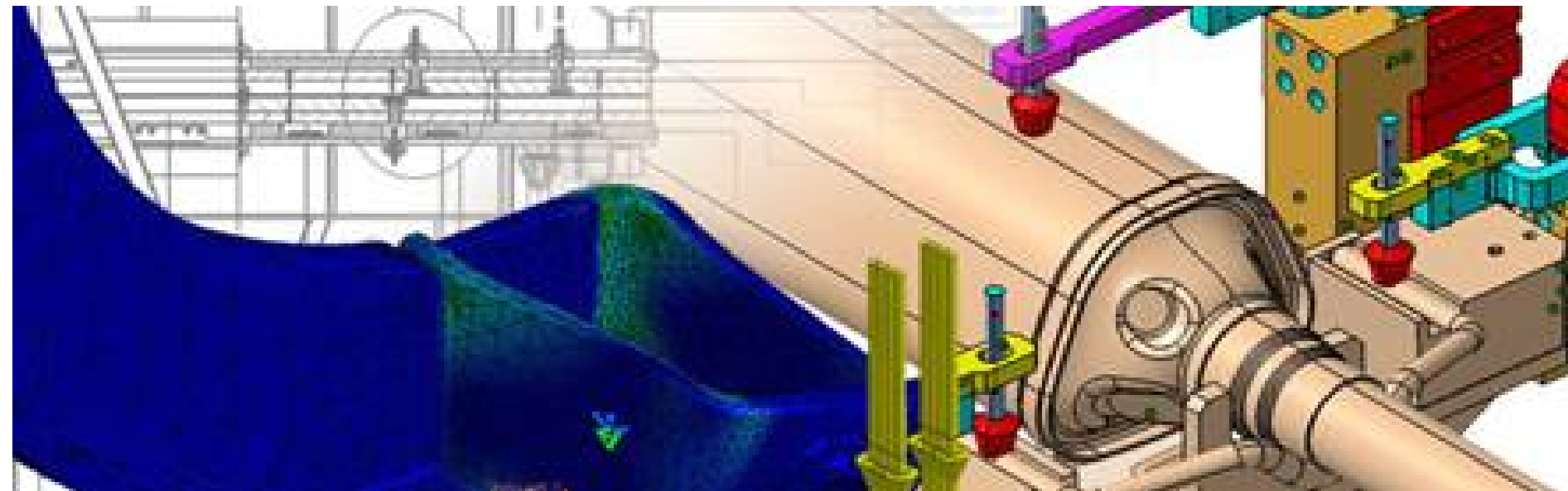
Studies about productivity, optimization and reduce costs.

CAD formation

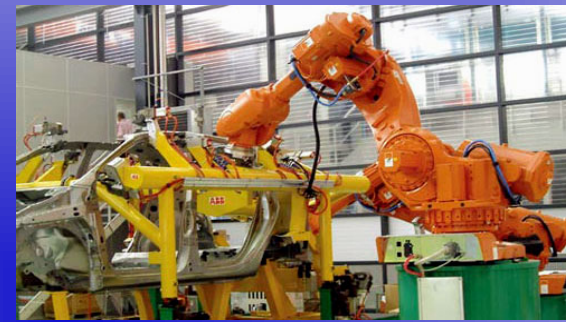
Parametrization

Prototipes and manufacturing

outsourcing



PROJECTS



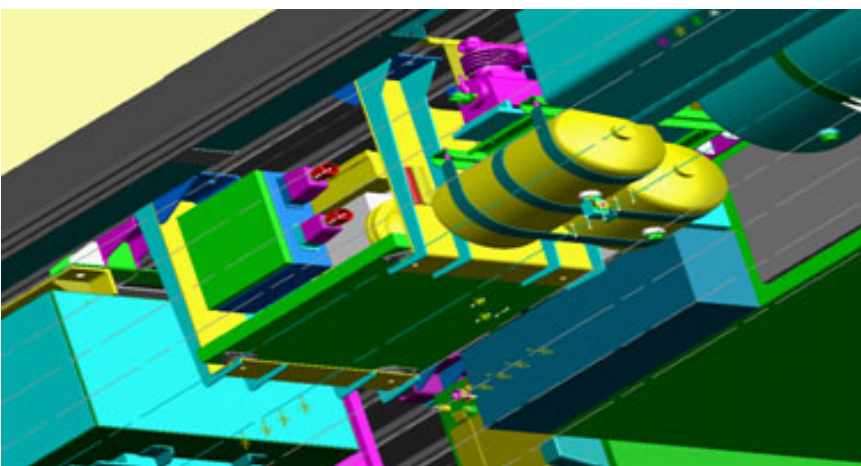


Projects: Railways

- Underground cars
- Trams
- Regional trains
- High speed

Our experience is over sixteen years designing railways projects, since structural design, facilities design and interiorism design.

We participate with thousand of hours every year in a closed collaboration with our customers.



- RAILWAYS**
- BELGRADO TRAM**
 - BARCELONA UNDERGROUND**
 - NORTHERN IRELAND RAILWAYS.**
 - BRUSELAS UNDERGROUND**
 - METROCENTRO TRAM**
 - GENERALITAT UNDERGROUND**
 - IZMIR UNDERGROUND**
 - EDIMBURGO TRAM**
 - EUSKOTREN TRAM**
 - REGIONAL ELECTRIC**
 - ARGEL REGIONALS**
 - TRD REGIONALS**
 - CIVIA REGIONALS**
 - URBOS TRAM**
 - CARACAS**
 - MALLORCA**
 - MEXICO UNDERGROUND**
 - NUEVA DELHI UNDERGROUND**
 - ROMA UNDERGROUND**
 - MADRID UNDERGROUND**
 - BELGRADO TRAM**
 - SUBWAY SAO PAULO**
 - ZARAGOZA TRAM**
 - N.I.R, REGIONALS**



Projects: Production tools, machines and assembly lines.

Protections machine Heatshield, CORSA Y MERIVA

Assembly line, plate, JAGUAR X351

Double-plate presses

Carpet forming line

Hydraulic Presses, several capabilities

Assembly line consoles, JAGUAR X351

Welding tools, exhaust pipe, CORSA Y MERIVA

Welding tools, exhaust pipe, RENAULT

Polimeric Foams Ultralight mixer

Welding tools, Madrid subway and others

Assembly lines, Roma tram and other projects

Welding turners, CIVIA Railways and others

Welding tools for Heliostat

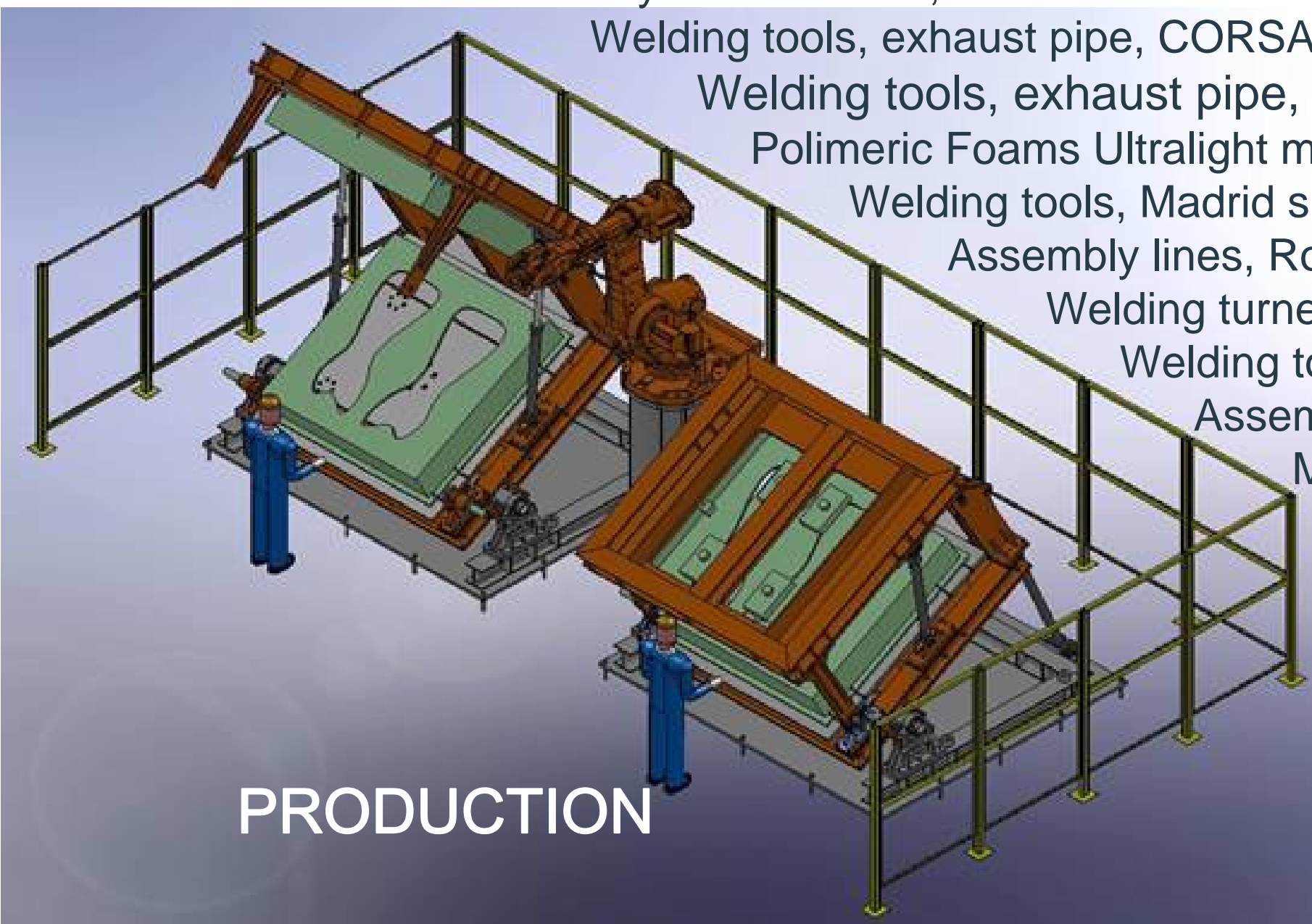
Assembly line, sunshade, VOLVO Y-283

Mold-carriers folding

Tools, Back Up, LAND ROVER L322

Tools Back Up, TOYOTA AVENSIS

Assembly line dishwasher, BSH





Projects: Product design..

Automotive

- External molding, AUDI
- External molding, VOLKSWAGEN
- Water tanks, FORD
- Electrical ducts, NISSAN
- Hubcaps, VOLKSWAGEN
- Electrical Boxes, SAAB
- Ventilation Grilles. VOKSWAGEN

Appliances

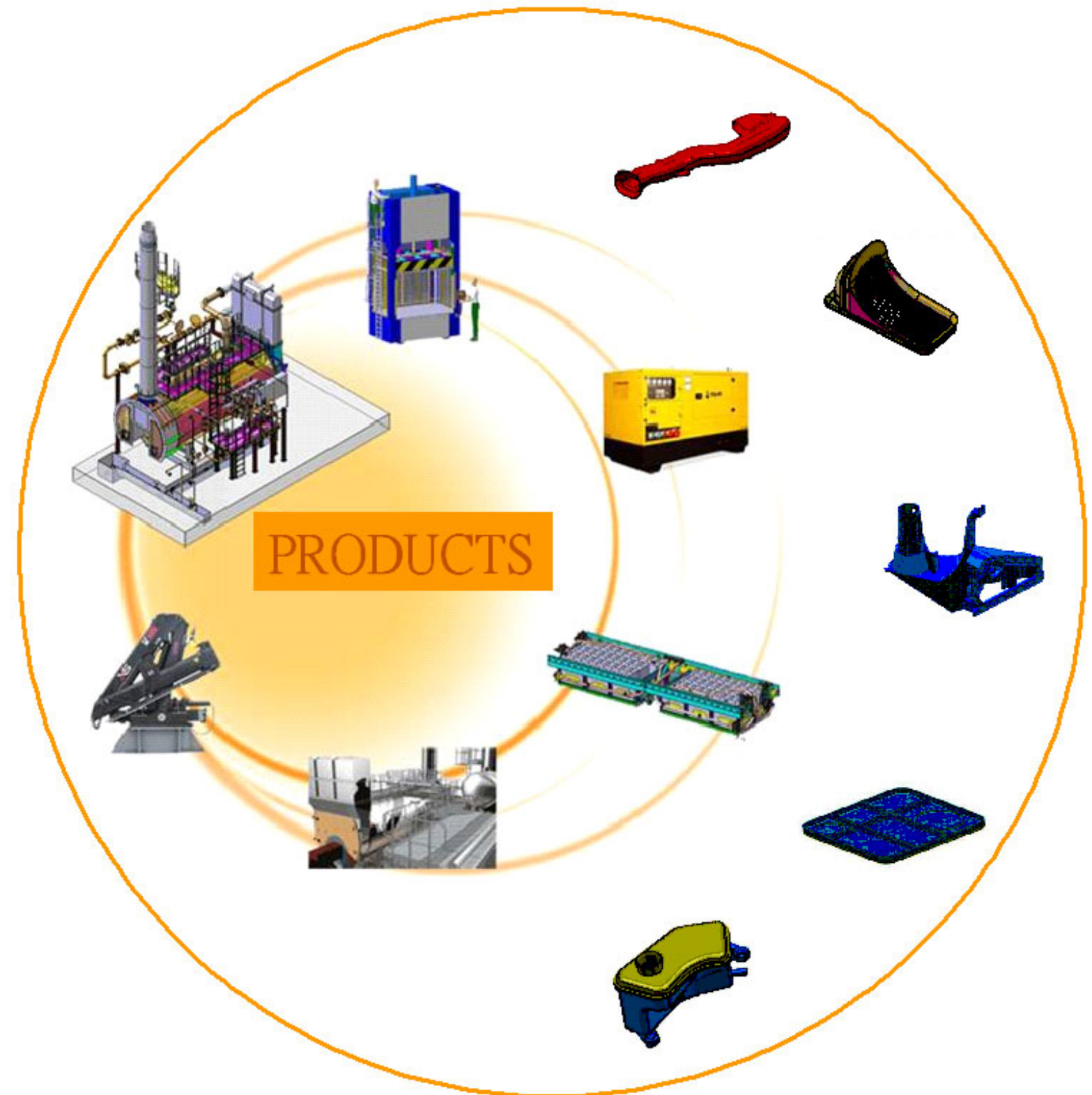
Packaging and desing optimization. BSH
 Handles, doors,. Washers, ovens, BSH
 Aesthetic components, Horns, BSH
 Washing machine drums. F-14, BSH
 Control panels, washers. F14, BSH
 Automatic dispensers

Industrial Equipments

Container genset, GESAN
 Hidraulic Presses
 Industrial Boilers
 Cranes, HIAB
 Plattform

Household

Warming trays
 Faucets
 Containers



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