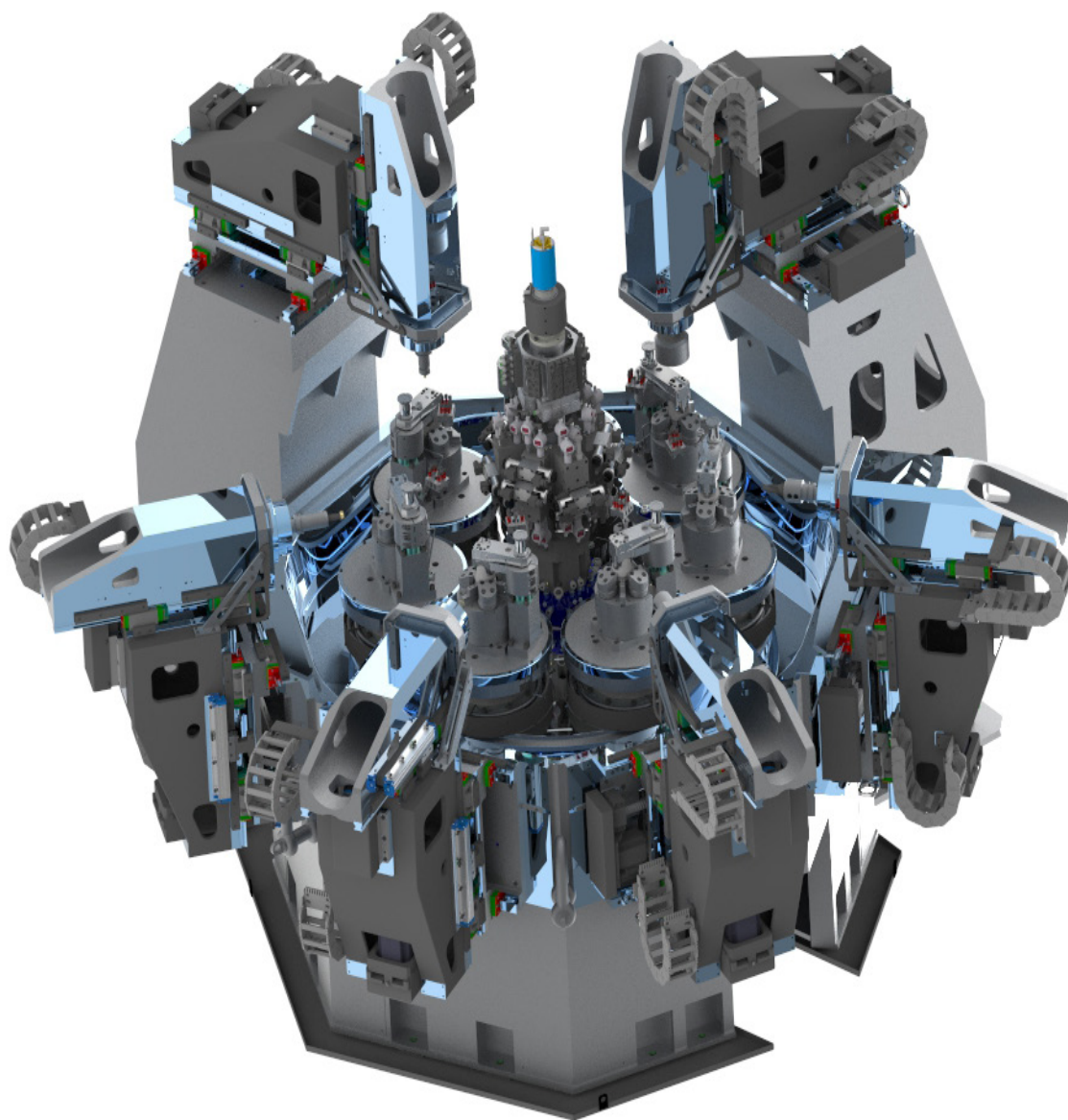


# IBERMACH

— *Special Machinery / Presses* —





# INDEX

---

## CORPORATIVE INFORMATION

PRESENTATION	PAG.	04-05
PRESENCE, SECTORS, APPLICATIONS Y MATERIALS	PAG.	06-07

---

## SOLUTION PORTFOLIO

MACHINING	PAG.	08-09
CONTROL AND MEASUREMENT SYSTEMS	PAG.	10-11
AUTOMATIZATION AND ROBOTIZATION	PAG.	12
HYDRAULIC PRESSES AND BROACHING MACHINES	PAG.	13

---

## SUCCESS CASES

ROTARY, DIAL, TRUNIÓN TRANSFERS	PAG.	14-15
DRILLING AND TAPPING	PAG.	16-19
MACHINING CENTERS	PAG.	20-21
QUALITY CHECKING SYSTEM, INTERCEPTOR	PAG.	22-22
AUTOMATIZATION AND ROBOTIZATION	PAG.	23-24
BROACHING MACHINES	PAG.	25
HYDRAULIC PRESSES	PAG.	26

---

CONTACT INFORMATION	PAG.	29
---------------------	------	----

---

# IBERMACH

**You explain the problem,  
we provide the solution.**



## **IBERMACH SPECIAL MACHINERY, S.L.**

comapany inside **ERLO GROUP**, was founded in 2009 by the society **IBARMIA UNIVERSAL, S.L. and ERLO, S.A.**, who have combined their knowledge in the world of drilling and tapping focusing their know-how to design and manufacture Special Machinery.

In 2013, **after acquiring Lizuan, IBERMACH** becomes in **hydraulic presses and broaching machine manufacturer**, what makes it one of the few **machining and deforming manufacturers**. IBERMACH offers everything you need in an **unique supplier**, from the **design** through our highly qualified and experienced team and own design and manufacturing facilities, including **after sales service**.

# Because experience in an added value

## Mision:

Satisfy all our clients needs as a hollistic / unique supplier.

## Vision:

Become the second to known in the machining and deforming market.

## Philosophy:

Grow improving along with our clients.

## Experience:

Our more than 60 year in the drilling and tapping market, positions us as a reference in the sector.

## Global:

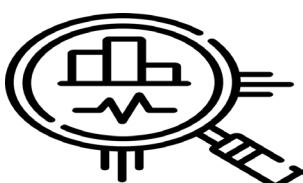
Open borders and offer our solutions to the world

## CSR:

Contribute with processes to improve the working conditions of the company and workers



# Our method



# IBERMACH in the world



## Sectors



Automotive



Electric and hydraulic components



Construction



Energy



Foundry



White Goods

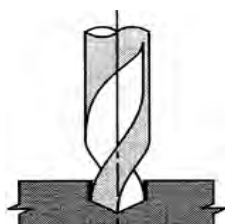


Ironmongery and screws

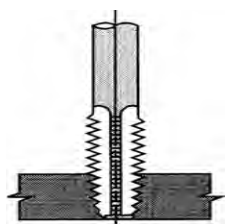


Others

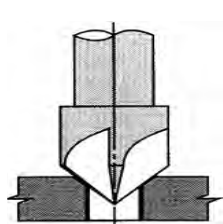
# Procesos



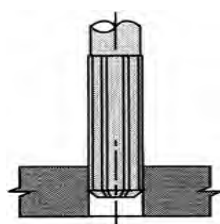
Drilling



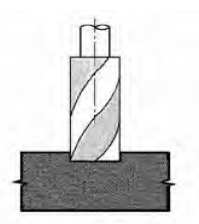
Tapping



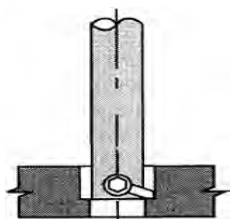
Chamfer



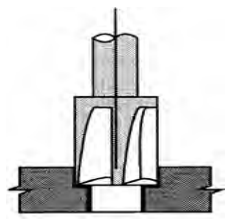
Reaming



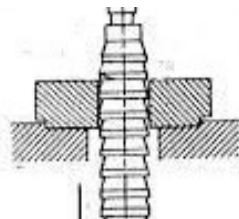
Milling



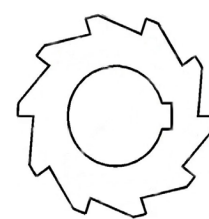
Boring



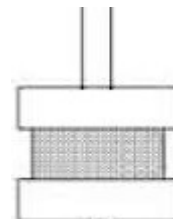
Countersink



Broaching



Cutting and  
sawing



Pressing

\*This catalogue does not include the details of the presses and broaches.  
Request information or catalogue.

# Materials



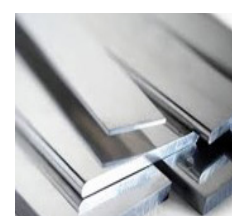
Steel and Iron



Stainless Steel



MIM



Aluminium



Foundry



Plastic



Wood

# IBERMACH

## SOLUTION PORTFOLIO

IBERMACH product range includes the **design and manufacturing** of **taylor made solutions** flexible and adjustable to our client needs, requirements and specifications. In IBERMACH we provide an **integral project management**, backing our clients from the design of their needs to the commissioning and after sales service.

Our **portfolio** includes automatization of the production lines , robotized machining and deforming cells, high production machining centers, taylor made machines, dial / trunion / rotary transfer machines, thread quality checking systems, hydraulic presses, servo presses and hydraulic broaching machines.

### Machining

MULTI PROCESS  
TRANSFER MACHINES

DIFFERENT MACHINING  
CENTERS

QUALITY CHECKING  
SYSTEMS

PRESSES

BROACHING  
MACHINES



## CHARACTERISTICS

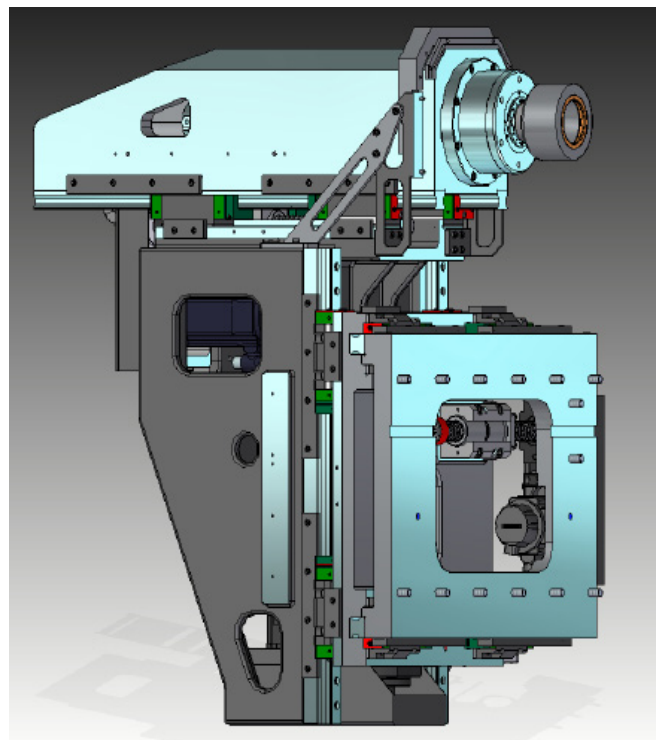
**IBERMACH** machining solutions imply four (4) product families; from multi-process transfer machines, machining centers for long benches, thread quality checking systems and; broaching machines and presses.

**Multi process transfer machines** reflect the strong effort and investment ERLO Group is making for the I+D. This product family has the capacity to cope from the simplest drill to the **most complex processes** such as boring, reaming, milling, threading or CSK.

With our XYZ modular assemblies, high-speed electro spindles, milesimal precision rotary plate, optical rulers chariots, rotating Hirth tooling and many other specifications, this type of machine offers the perfect solution for the most complex and demanding processes, in addition to achieving very high productivity.

Our **machining centers**, offer **versatility** to design and manufacture adaptable solutions for each project, being our 5 decades in the sector our best argument.

This family is **ideal** for those companies that require a production automatization for simple machining processes, including more than 4m long pieces.



\*This catalogue does not include the details of the presses and broaches.  
Request information or catalogue.

# Thread quality checking system, INTERCEPTOR

**The first thread quality checking system  
that IS infallible.**



## CHARACTERISTICS

The different problems that our customers have suffered in the **thread quality testing**, have led us to develop this solution, being the only one that we know is really **infallible**. With the Interceptor a before and after has arrived in the thread quality checking process.

**INTERCEPTOR** combines linear and rotating movements in a single integral solution that allows working with a higher level of control, comparing the values of linear position, rotational position and actual effort performed at each moment.

Similarly, we offer an **Intelligent Data Management Service** (Licensed Contracting Service) supported on a SAM 4.0 cloud platform, for continuous **traceability** that **prevents information loss, reduces maintenance costs and increases process knowledge** among many other benefits.

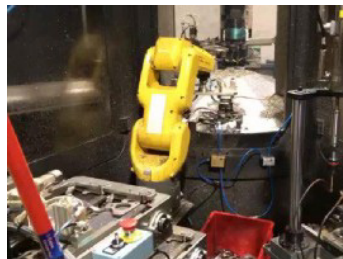
## INTERCEPTOR vs COMMERCIAL SOLUTIONS

TESTIN METHOD	Functionality	Quality	Presence	Tool Wear	Pass control	Previous hole measurement
MANUAL TAMPON	●	●	●	●	●	
ARTIFICIAL VISION			●			
SENSORS			●			
PNEUMATIC SCREWDRIVER	●		●		●	
SERVO PASS CONTROL	●		●		●	
<b>INTERCEPTOR</b> IBERMACH	●	●	●	●	●	●

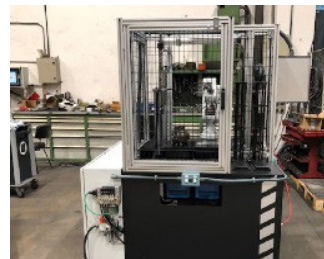
## POSSIBLE APPLICATIONS



Independent thread testing machine, to be integrated into working cell.



Thread testing system integrated into a transfer machine manufactured by IBERMACH.



Thread testing system as a production machine (we can thread and then check the quality).



Thread check system next to the productive machine (transfer) taking advantage of the robot feeding part.

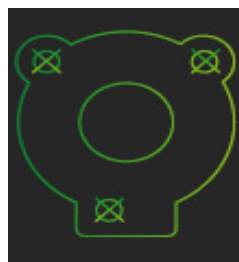
## AN EXAMPLE WORTH MORE THAN A THOUSAND WORDS

Our **thread checking system** has been **tested and on-site proved**. We know that it is reliable not only by the tests carried out by us, but by the testimonies and field applications, which are our best guarantee.

**Testimonials and success cases** are shown on [pages 22-23](#). You can view the tests performed by accessing our YouTube account.



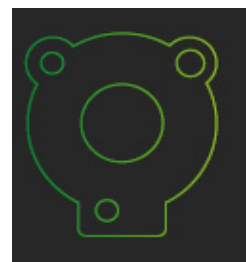
SAMPLE 1  
Thread entrance hit



SAMPLE 2  
Holes with no thread



SAMPLE 3  
No hole

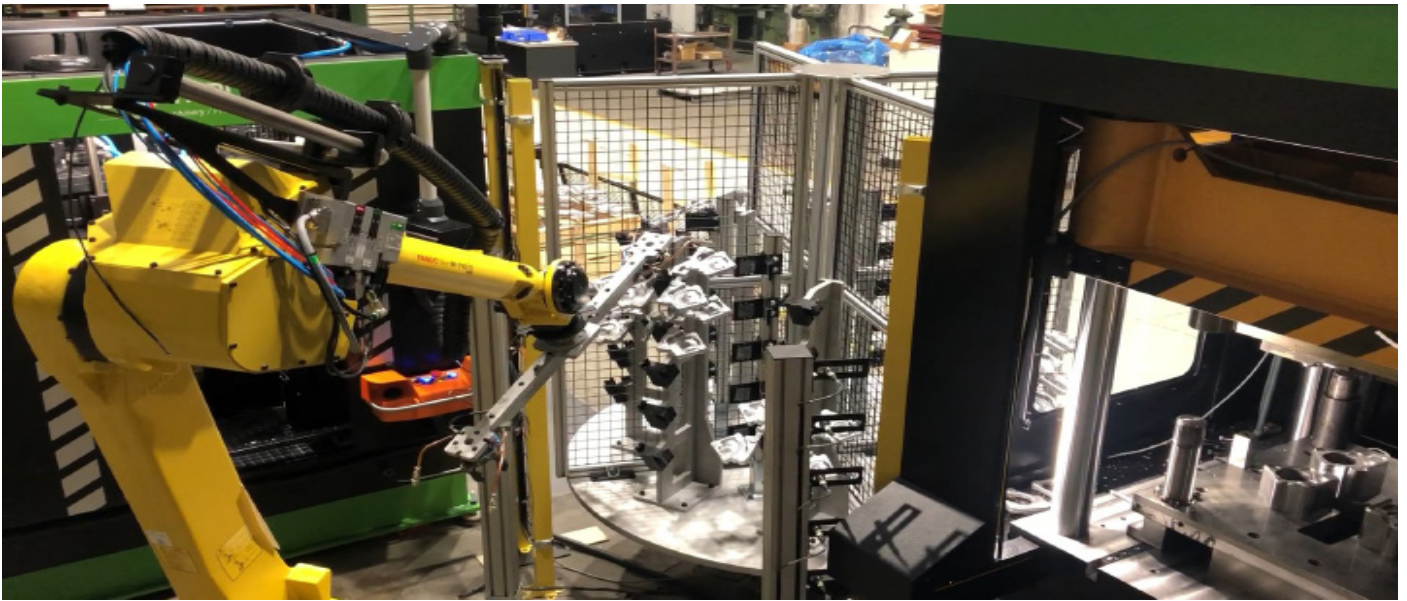


SAMPLE 4  
Hole with nominal diameter bigger than supposed

# Automation and robotization systems

## CHARACTERISTICS

**IBERMACH robotic cells** are the perfect complement for our machines, not only covering the needs of the design and the process, but **increasing the added value** of the whole by automating the solution.



**ROBOTIC CELLS**



**AUTOMATIC FEEDING SYSTEMS**

# Hydraulic presses

## CHARACTERISTICS

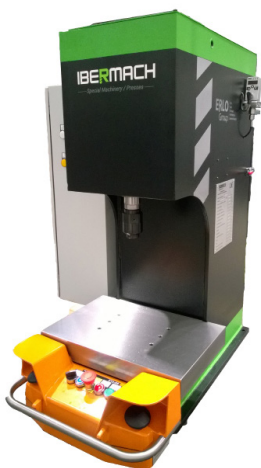
After **acquiring and integrating** the knowledge, technology and equipment of one of the most renowned companies of hydraulic presses in **2013, LIZUAN**, IBERMACH Special Machinery, S.L. takes over and adds to its portfolio this new range of products.

Providing greater added value, we have applied our own experience in machine tool design and manufacturing to various sectors and processes.

The **range of IBERMACH presses** ranges from standard to special presses, highlighting our flexibility in modifying and adjusting our standard presses to the needs of the customer.

## PRODUCT RANGE

**DESKTOP**



**SWAN NECK**



**4 COLUMNS**



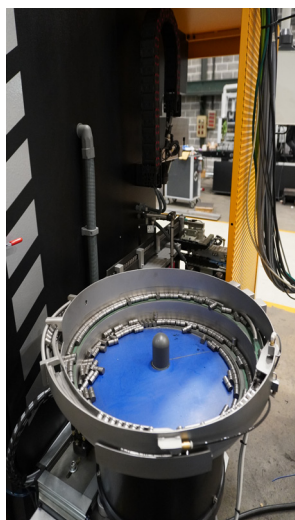
**DOUBLE GATE**



**ROTARY TABLE**



**WITH AUTOMATIC FEEDING**



**BROACHING MACHINES**



**HORIZONTAL AND BIG SIZE**



\*This catalogue does not include the details of the presses and broaches.  
Request information or catalogue.



## HIGH PERFORMANCE MODULAR TRANSFER MACHINES

### SECTOR

Automotive

### APPLICATION

Direction Yokes multi machining

### PROJECT AIM

Reduce the high investment cost needed in machining centres, while obtaining high production capacities.

### SOLUTION

IBERMACH designed and developed a 7-station transfer machine with units in horizontal and vertical position to execute 5 machining processes (drilling, boring, reaming, chamfering and milling), resulting in a 6x faster solution and 50% cheaper than the machining center alternative.

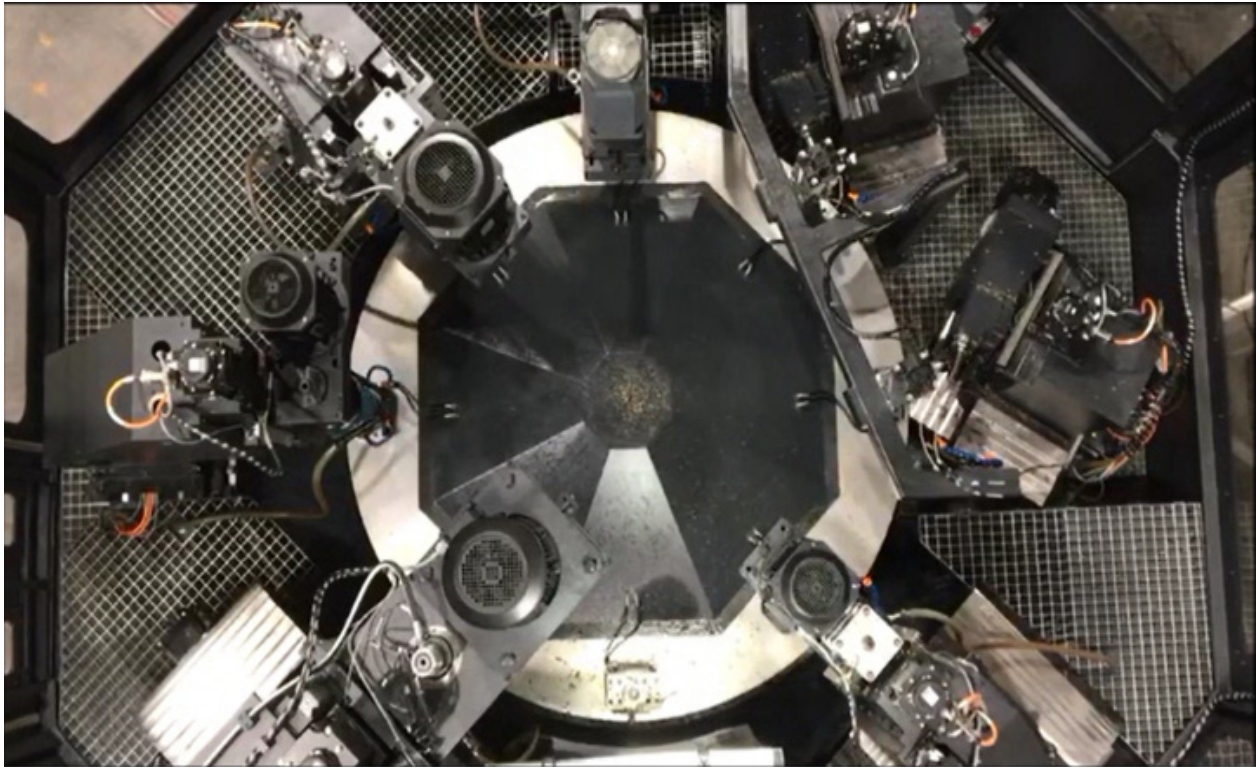
In addition, we increased the added value of the solution with a design that allows greater flexibility in adjustment.

*"For us ERLO Group has proposed the ideal solution to maximize the space getting the production we needed"*

ÁLVARO BARBERO

Production Manager in CIE Automotive





## HIGH PRODUCTIVITY ROTATIVE TRANSFER

### SECTOR

Automotive

### APPLICATION

Stainless steel flange machining

### PROJECT AIM

Design and manufacture of a rotary transfer machine composed of 8 stations with 7 independent machining units oriented in the required angles.

### SOLUTION

IBERMACH implemented a fully parameterized system that allows the customer to deliver more than 1M units per year with zero thread defects, maintaining a processing time of 11 seconds.

In the IBERMACH rotary transfer, Elay S.L performs 7 simultaneous operations, reducing the cost of initial subcontracting by more than 1M€ and integrating the machining in its production facilities.

*“The solution represented an incredible challenge in both technological and technical aspects. The experience has been positive and we have been collaborating with ERLO on more than one occasion since then”*

FERNANDO NOGALES  
Ex-Project Manager in ELAY S.L





## MULTI DRILLING AND TAPPING FOR BIG DIMENSION PARTS

### SECTOR

CSP Solar Energy

### APPLICATION

Drilling CSP solar power plants tubes.

### PROJECT AIM

Achieve optimum accuracy and quality level in the drilling process within a very limited workspace.

At the same time, achieve a reduction in production cycle time per part from 210 seconds to 97 seconds.

### SOLUTION

IBERMACH designed and manufactured a fully automatic machine capable of loading, referencing and machining 25 holes simultaneously and unloading the part.

With this solution, the customer achieved a production of 250 tubes / day, increasing by 200% its original production and reducing cycle time by 50%.

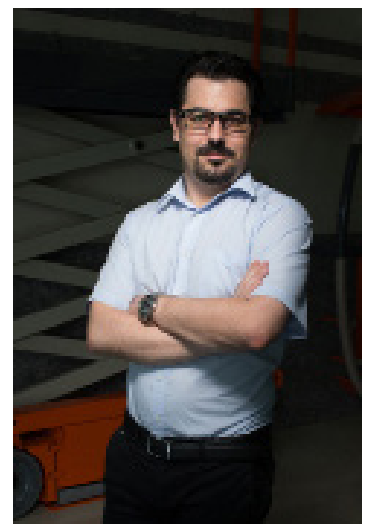


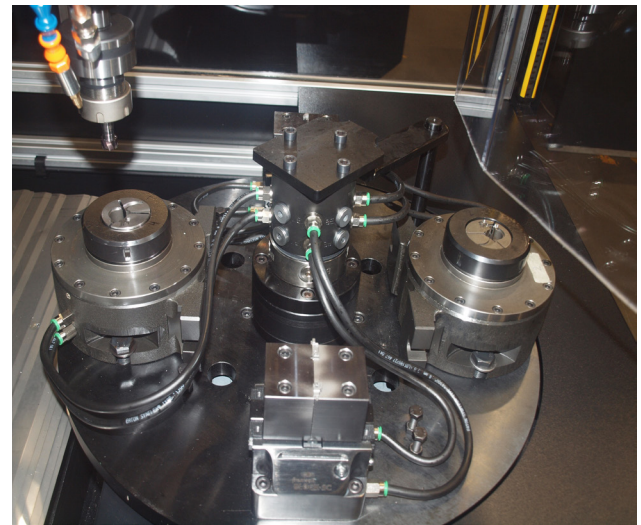
*"This machine has enable us to gain an order and become the supplier of a large project in Dubai, which is a great milestone for our company. In addition, it has allowed us to open our potential client scope."*

*"We are very pleased with the relationship with ERLO Group for its great professionalism, efficiency and close treatment"*

RONAN ALLIBERT

CEO in Alliance Metal Changzhou Co. LTD - ArcelorMittal





## SMALL DIMENSION MECAHINING CELL

### SECTOR

MIM Components

### APPLICATION

Drilling, tapping and reaming of MIM components

### PROJECT AIM

Due to the lack of repeatability of its two subcontractors, ALFA needed to standardize the drilling, threading and reaming processes of its MIM parts.

### SOLUTION

Design and manufacture of a custom machining center with rotating table controlled by the Mitsubishi Motion system. Each part reference has its own program to repeat the same cutting conditions, regardless of the subcontractor using the machine.

With this solution, in addition to ensuring repeatability, ALFA reduced the cost per tool breakage by 50% and increased its billing by 20%.

*"These two machines have allowed us to guarantee the same quality in the product received from our subcontractors.*

*These guarantees remove the uncertainty we had before.*

*We are very happy with the investment and any need we will talk with ERLO without hesitation"*

ASIER AGUIRREBEÑA  
CEO in ALFA Mim-Tech

**ALFA** | mim-tech  
metal injection moulding technologies



## PORTABLE DRILLING AND THREADING MODULE

### SECTOR

Solar Energy

### APPLICATION

Drilling of tubes of photovoltaic panels.

### PROJECT AIM

The challenge was to make the most of the customer's productive capacity by installing an appendix to their line. This will no longer depend on the reduced drilling capacity of your subcontract.

### SOLUTION

IBERMACH designed and manufactured a fully automatic machine that collects parts directly from the manufacturing line. Then, simultaneously perform the necessary drilling processes before returning the part to the line.

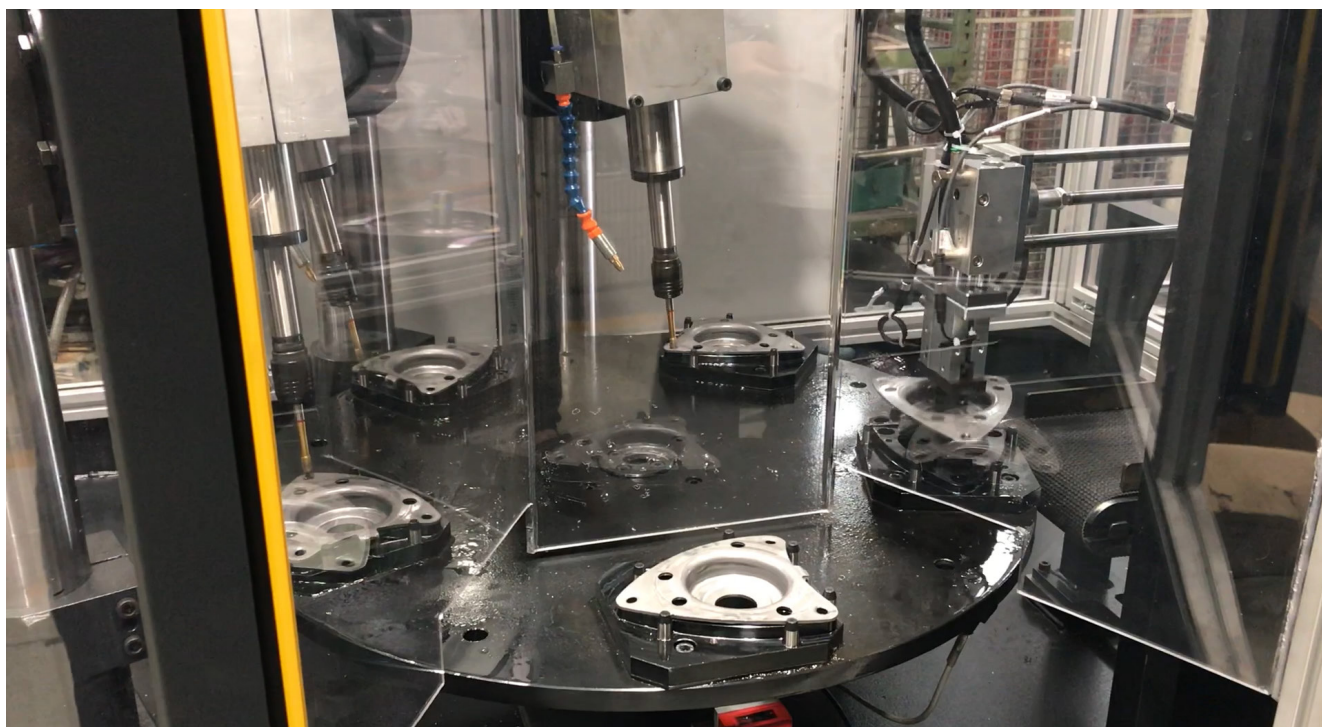
In addition, reduction of transport and subcontracting costs to €0, the customer has increased its production capacity by 150% and the margin/part by 20%.

*"ERLO Group offered us an alternative to the high investment involved in a new production line.*

*This machine is our biggest secret today. We are studying new investments with the ERLO group"*

Production manager of the company

**CONFIDENTIAL**



## HIGH PRODUCTION IN MULTI-ANGULAR OPERATIONS

### SECTOR

Automotive

### APPLICATION

Multi-threaded in different angles of stainless steel components.

### PROJECT AIM

The challenge was to develop a machine that would simultaneously perform three threading processes at three different angles.

### SOLUTION

IBERMACH designed and manufactured a rotary transfer machine composed of 4 stations with 3 independent machining units and oriented in the required angles.

Together with the increase of the portfolio of possible parts, CortuGroup increased its threading capacity by 200% in addition to the profit per piece.

*"Without this machine we would never have won the customer's order."*

AITOR BARRIOLA  
CEO in Cortugroup





## LONG BENCH MACHINING CENTER (12M)

### SECTOR

Automotive

### APPLICATION

Truck chassis manufacturing

### PROJECT AIM

Get an alternative to a high performance milling machine to be able to machine your chassis of long dimensions, investment that was not justified in terms of need / price

### SOLUTION

IBERMACH provided JELCZ with a machining center capable of covering all references in a versatile, fast and more economical solution.

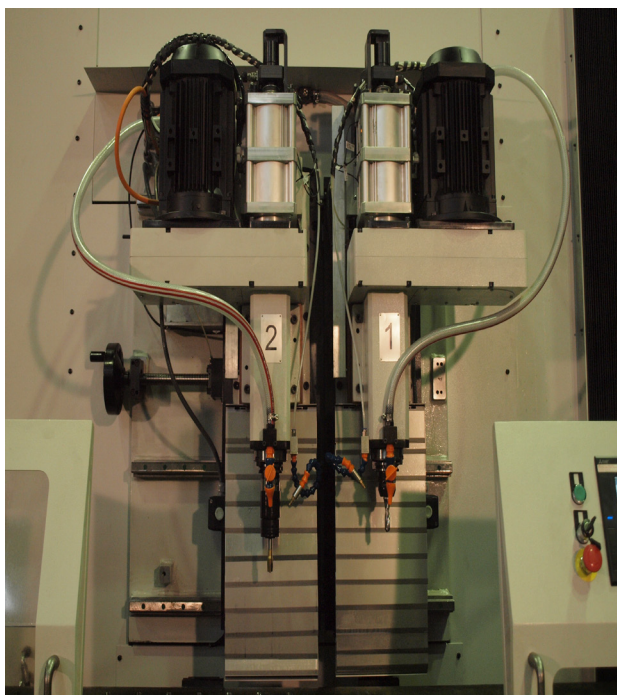
Including an ATC of 30 tools, IBERMACH increased the added value of the solution allowing JELCZ to mechanize other references, initially not contemplated, in the same center.

*"With this machine we have been able to access more customers and expand our product portfolio.*

*An investment that is justified on its own in addition to an alternative to conventional machining centres"*

VLADIMIR SLIZEWSKI  
Commercial Director in Jelcz





## HIGH-PRODUCTION MACHINING CENTRES

### SECTOR

Oil & Gas

### APPLICATION

Drilling and tapping of drilling tubes 12 meters long.

### PROJECT AIM

Reduce manufacturing times from 7 hours to 1 hour per tube

### SOLUTION

IBERMACH designed and manufactured a fully automated drilling and threading system that allows each piece to be completed within the specified time.

In addition, by design and analysis, the 1-hour target time was further reduced to just 37 minutes (+90%), providing TMC with a competitive advantage over its competitors.

*"This custom solution was what we were looking for and we couldn't find it in other manufacturers around the world.*

*We found stronger machines that were too expensive; or cheaper machines that were too weak.*

*IBERMACH Special Machinery provided us with the perfect solution for our needs."*

MIKHAIL PETRAYTIS  
Commercial department in TMC





## QUALITY CHECKING INSIDE A COMPLETE CELL

### SECTOR

Automotive

### APPLICATION

Thread quality checking

### PROJECT AIM

The challenge was to create a system that would be able to verify the quality and core of each thread by detecting any type of error without going over the thread as other conventional methods do.

### SOLUTION

IBERMACH designed, manufactured and integrated the first fully automated thread testing machine, INTERCEPTOR, which guarantees complete quality with impeccable results without overhauling or damaging the thread.

Bringing added value, we contemplate an Intelligent Data Management service supported on a SAM 4.0 cloud platform, for continuous traceability and its many benefits.

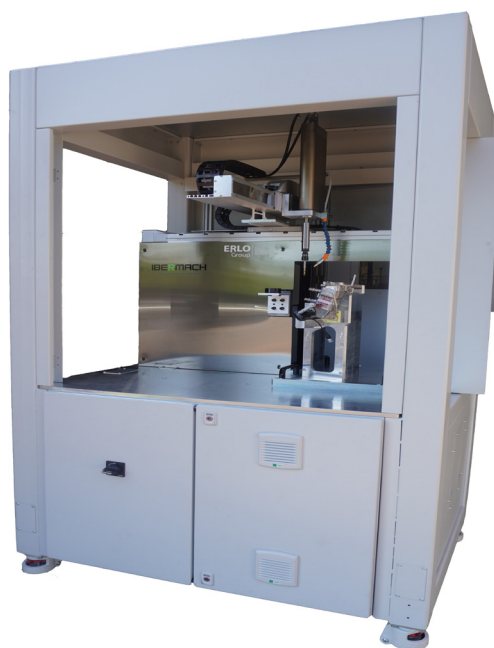
*"The INTERCEPTOR has given us a measure of tranquillity and our customers and suppliers congratulate us. I would mention three concepts for this solution:*

*Future, because our customers are demanding it and we have it.  
Guarantee, because whatever we send out, we send in top form.  
And economy, given that of the 6M parts checked to date so far we have 0 PPMs, so naturally we save money"*

MIKEL MUÑOZ  
CEO in Mekar S.L



MECANIZADOS  
MECAR



## INTERCEPTOR AS AN AUXILIARY MODULE

### SECTOR

Automotive

### APPLICATION

Thread quality checking

### PROJECT AIM

The aim was to avoid rejection on the OEM assembly line.

### SOLUTION

With a system installed in a Cartesian robot with three (3) controlled axes, IBERMACH responded to the need of BorgWarner.

Considering the lack of space within the assembly line, the XYZ assembly of the Cartesian robot allows to integrate the INTERCEPTOR into its line without having to modify it.

*"It has been a pleasure to work with ERLO and the smooth relationship they have maintained with the other providers for the same line.*

*The reliability of the solution is amazing.*

RUBEN LOPEZ  
Production department in BorgWarner





## CELL WITH AUTOMATIC FEED AND LOAD

### SECTOR

Ironmongery and screws

### APPLICATION

Cutting and threading of safety nuts.

### PROJECT AIM

In addition to integrating the two processes into a single machine for all references, the customer was looking for a complete and versatile solution that did not require more investment in the future.

### SOLUTION

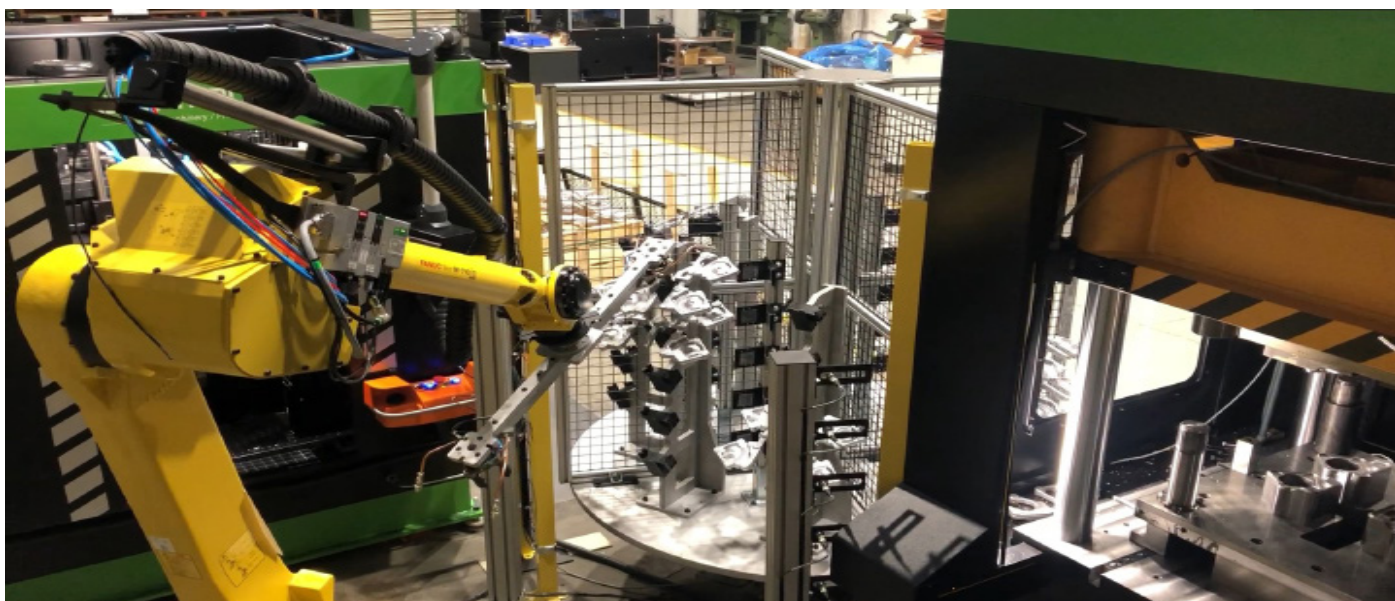
The solution was conceptualized in a vibratory feeder, robot with interchangeable claws and adaptive tooling with automatic ejection.

Surpassing the customer's expectations, the IBERMACH cell increased the final productivity with a cycle time lower than estimated.

*"The main advantage of this solution is its autonomy and versatility"*

JOSEBA ETXEBERRIA IMAZ  
CEO in Mendizabal S.A





## ROBOTIZATION OF A DRILLING AND PRESSING CELL

### SECTOR

Automotive

### APPLICATION

Drilling and die cutting of brake calipers.

### PROJECT AIM

The solution aimed to improve productivity by integrating three different processes in the same cell: trepanado, pressing and marking.

### SOLUTION

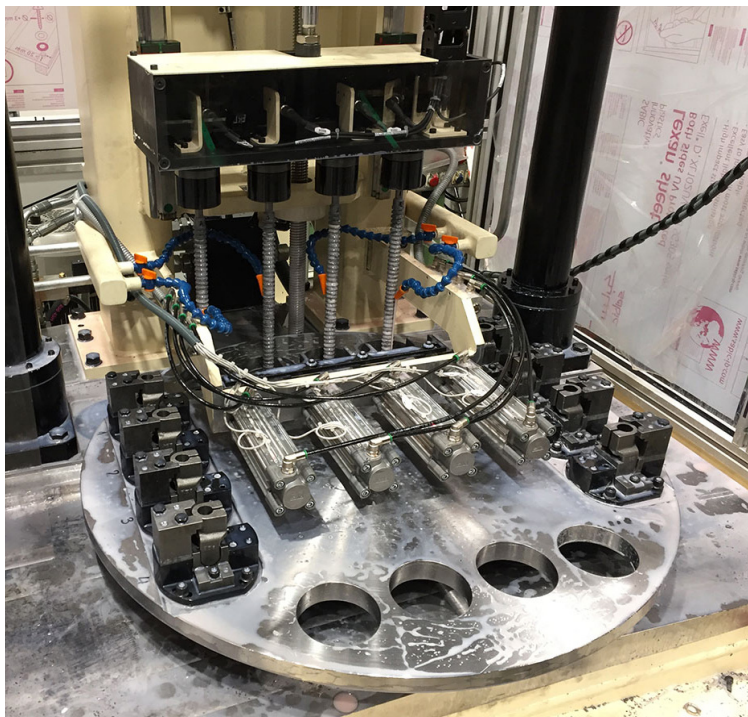
IBERMACH designed and manufactured a fully automated robotic cell that brings together all processes in a single compact cell.

In addition to reducing plant space, CIE reduced the costs of breakage and machine shut-down times by more than 60%.

*"IBERMACH's solution, relationship and response has led us to consider purchasing the third transfer machine."*

SANTIAGO GESTIDO  
CEO in CIE DENAT





## HYDRAULIC BROACHING MACHINE

### SECTOR

Automotive

### APPLICATION

Brushing of steering forks.

### PROJECT AIM

Increase productivity in fork brushing to achieve a cycle time of 10 seconds per piece.

### SOLUTION

IBERMACH designed an automatic broach machine capable of broaching 4 pieces at the same time, thus multiplying productivity by obtaining one piece every 4 seconds.

*"It's our fifth broader despite the fact that they cost twice as much as those made in China."*

*"We prefer quality and reliability to risk and things go wrong"*

FELIX LI

Production Manager in CSA YUBEI





## HYDRAULIC PRESS WITH AUTOMATIC FEEDING

### SECTOR

Wind Power

### APPLICATION

Straightening of wind tower flanges.

### PROJECT AIM

Gestamp was seeking to reduce tool costs and cycle times during flange turning.

### SOLUTION

With two IBERMACH hydraulic presses, one in a vertical and one in a horizontal position, we can improve the circularity and flatness of the flanges before the turning process.

With this previous process, Gestamp reduced the cost per final part, thus increasing its profit.

*“Esta solución nos ha permitido ahorrar en horas de proceso de torneado y gasto de herramienta.”*

JOSU AGUIRRE ZUBIZARRETA  
Technical department in Gestamp Renewable Industries



**GRI** Renewable  
Industries

## This image shows a full page of blank handwriting practice paper. It features approximately 28 horizontal green lines spaced evenly across the page. The lines are thin and light green, providing a guide for letter height and placement. There are no margins, text, or other markings on the page.

## WHERE ARE WE

Txerloie auzoa n<sup>o</sup>3  
20720, Azkoitia Gipuzkoa, Spain  
Tlf: +34943851858



## FOLLOW OUR NEWS IN OUR RRSS

**Web nad online shop:** <https://www.erlogroup.com/en/er-lo-group/>

**LinkedIn:** <https://www.linkedin.com/company/18974893>

**Twitter:** [https://twitter.com/erlo\\_group](https://twitter.com/erlo_group)

**Facebook:** <https://www.facebook.com/erlogroup>

**YouTube:** <https://www.youtube.com/channel/UCN9u4XEG->





**IBERMACH**  
— Special Machinery / Presses —

**ERLO**  
Group  
*Erlo  
Iberdrill  
Ibermach  
Erlo Service*

<https://www.erlogroup.com/en/erlo-group/>

Txerloie auzoa nº3  
20720, Azkoitia Gipuzkoa, Spain  
Tlf: +34943851858  
Email: [ibermach@erlogroup.es](mailto:ibermach@erlogroup.es)