

AIINTELLIGENTROBOTS

Innovation and technology,
the drivers of our solutions



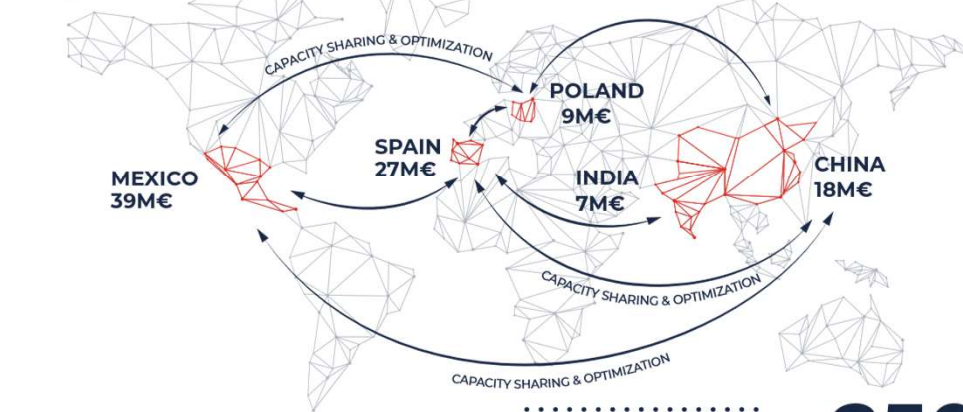
2026

AIRTIFICIAL

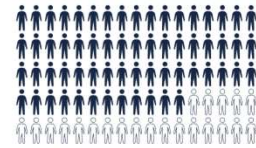
+27
years of
EXPERIENCE

+1000
SUCCESSFUL
PROJECTS
DElivered worldwide

AIRTIFICIAL WORLDWIDE



GLOBAL
CAPACITY **100M€**



+250
HUMAN TEAM
80% Technical Team

COMPETITIVE ADVANTAGES



Continuous
innovation



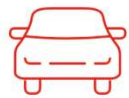
Engineering
Partnership



Project
Management

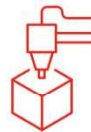
BUSINESS VOLUME

60M€



Our main
**CUSTOMERS
TOP 20**
Tier 1 Automotive

PRODUCTS / APPLICATIONS



Advanced Test
Technologies



Robotics,
Vision &
Assembly
Technologies



AiTRACE
Data Traceability
Acquisition Analysis
& Reporting



Smart Factory
(Automation
and digital
transformation)

OPERATIONAL EXCELLENCE

AS a driver to optimize efficiency
& customer experience applying
Lean 6sigma methodologies.



What are we best at?

Technological
& Process Innovation

Engineering
Partnership

Project
Management

Global Strategy
and
Management



Products & Applications



Robotics, Vision & Assembly Technologies



Data Traceability Acquisition Analysis & Reporting



Advanced Test Technologies



Lines & Process Optimization (Automation)



Steering Systems



Electric drives & Electronics



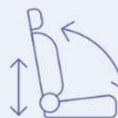
Safety Systems



Brakes



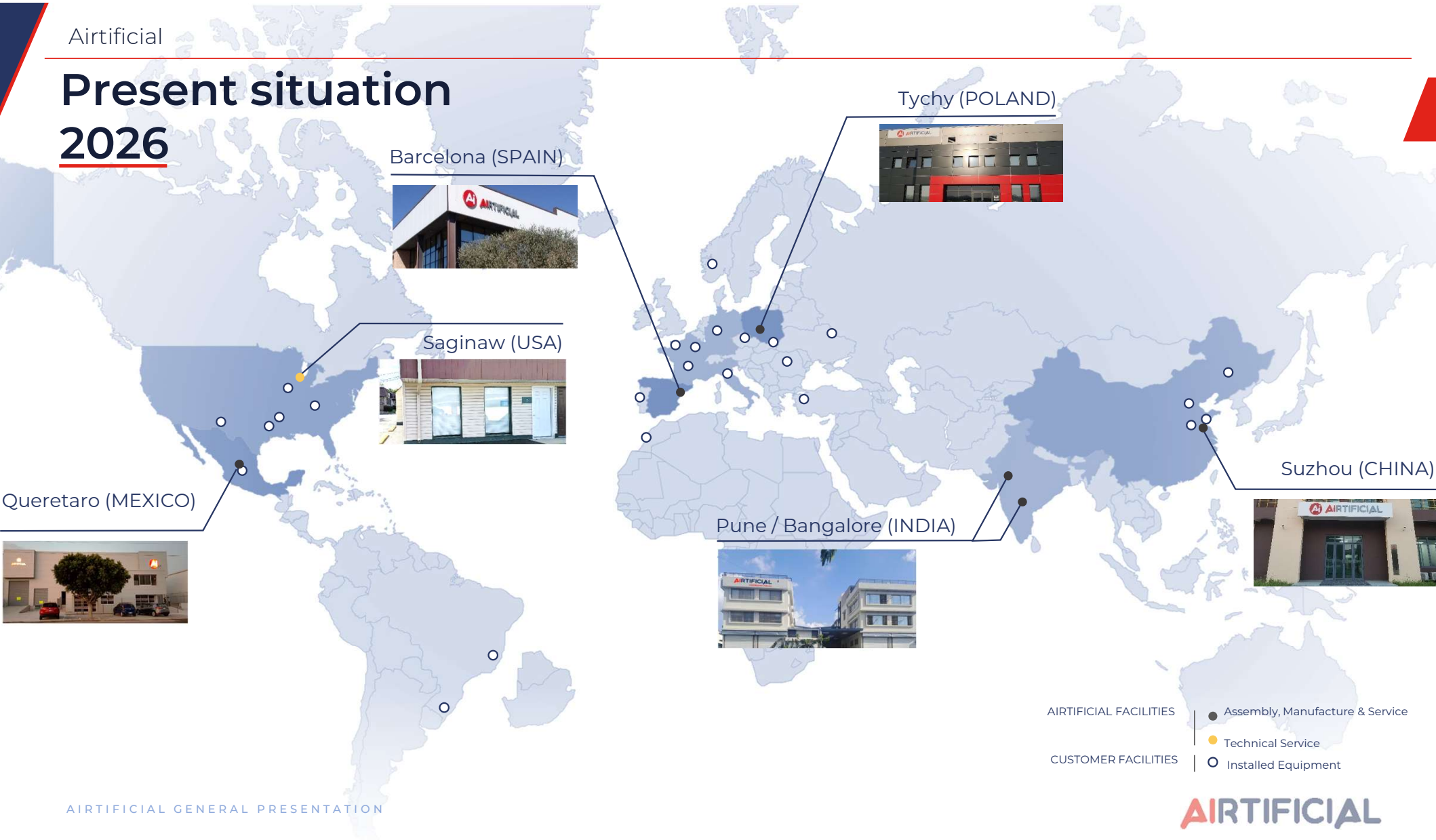
Powertrain & Thermal



Seats & Mechanisms

Present situation

2026



Barcelona
SPAIN

Design, Manufacture
Assembly and After-Sales
service of Assembly & Test
equipment

ENGINEERING AND ASSEMBLY

4 Assembly and
Engineering Buildings

MANUFACTURING

CNC's for Assembly Support

4.447 m²

95 Employees



Saginaw
USA

Design and After-Sales service
of Assembly & Test
equipment

ENGINEERING

Engineering Building

60 m²

2 Employees



Tychy
POLAND

Design, Manufacture,
Assembly and After-Sales
service of Assembly & Test
equipment

ENGINEERING AND ASSEMBLY

1 Assembly and
Engineering Building

MANUFACTURING

CNC's for Assembly Support

600 m²

12 Employees



Querétaro
MEXICO

Design, Manufacture,
Assembly and After-Sales
service of Assembly & Test
equipment

ENGINEERING AND ASSEMBLY

3 Assembly and
Engineering Buildings

MANUFACTURING

Tooling Machines for
Assembly Support

6.000 m²

55 Employees



Suzhou
CHINA

Design, Manufacture,
Assembly and After-Sales
service of Assembly & Test
equipment

ENGINEERING AND ASSEMBLY

1 Assembly and
Engineering Building

4.000 m²

43 Employees



Pune
INDIA

Design, Manufacture,
Assembly and After-Sales
service of Assembly & Test
equipment

ENGINEERING AND ASSEMBLY

1 Assembly and
Engineering Building

1.400 m²

27 Employees



Our organization in figures

100M€



Our team worldwide

Airtificial Intelligent Robots
Global Team

+250 
employees

+75% 
>150 people

Outsourced Global Capacity
Constantly selected & trained
from our best experts since
more than 20 years



75% 
Technical Team

Teams in 6 countries

Technical Service
around the globe

Global Certifications

Spain	Mexico	Poland	China	India
<p>HQ-Barcelona SPAIN</p> <p>CERTIFICATIONS:</p>  <p>LEAN SIX SIGMA CERTIFICATIONS:</p>  <p>88 21 1 1</p>	<p>Querétaro MEXICO</p> <p>CERTIFICATIONS:</p>  <p>LEAN SIX SIGMA CERTIFICATIONS:</p>  <p>35 13 1</p>	<p>Tychy POLAND</p> <p>CERTIFICATIONS:</p>  <p>LEAN SIX SIGMA CERTIFICATIONS:</p>  <p>25 7 2</p>	<p>Suzhou CHINA</p> <p>CERTIFICATIONS:</p>  <p>LEAN SIX SIGMA CERTIFICATIONS:</p>  <p>8 2</p>	<p>Pune INDIA</p> <p>CERTIFICATIONS:</p>  <p>Ongoing</p> <p>LEAN SIX SIGMA CERTIFICATIONS:</p> 



Scope: Design, manufacture & after sales service of assembly line equipment & Test systems

Certified by: Tüv Rheiland Ibérica Inspection, Certification & Testing S.A.



Scope: Development of R+D+I projects for assembly line equipment and test systems

Certified by: Tüv Rheiland Ibérica Inspection, Certification & Testing S.A.



Scope: High-Tech Enterprise Certificate by the Chinese government, accrediting it as a high-tech company. Validity of 2 years.

6σ

Scope: Six Sigma is a disciplined, statistical-based, data-driven approach and continuous improvement methodology for eliminating defects in a product, process or service.
Max Level: Master Black Belt

Why are we the best partner?

Who trust us



DENSO



MAHLE



nexteer
AUTOMOTIVE



JTEKT



HITACHI

flex



Why are we the best partner?

Expertise & Leadership



AiTRACE

by ARTIFICIAL

GAME-CHANGER PLATFORM

Data driven decisions in real time.

HOW WE DO IT

Share and act

Monitoring and analysis

Acquisition

Whatever you want Whenever you want Wherever you want

FUNCTIONALITIES



Scorecards



Traceability



Quality indicators



Management of production and process variables



Predictive maintenance



Problem solving analysis



Advanced statistics



Customised reports



Alert system

USERS

Plant & Production Managers

Advance Manufacturing Engineers

Quality Control

Maintenance & Inventory Manager

Project Manager and Team

Test Engineer



BENEFITS

- ✓ *Agility & Flexibility*
- ✓ *Profitability*
- ✓ *Quality improvement*
- ✓ *Problem solving*
- ✓ *Fast & trustworthy*
- ✓ *Maximum reliability*



EVOLUTION



MONITORING

Report and monitoring



ANALYSIS

Advanced production analysis: OEE, Cp/Cpk, FTQ, CT, predictive maintenance

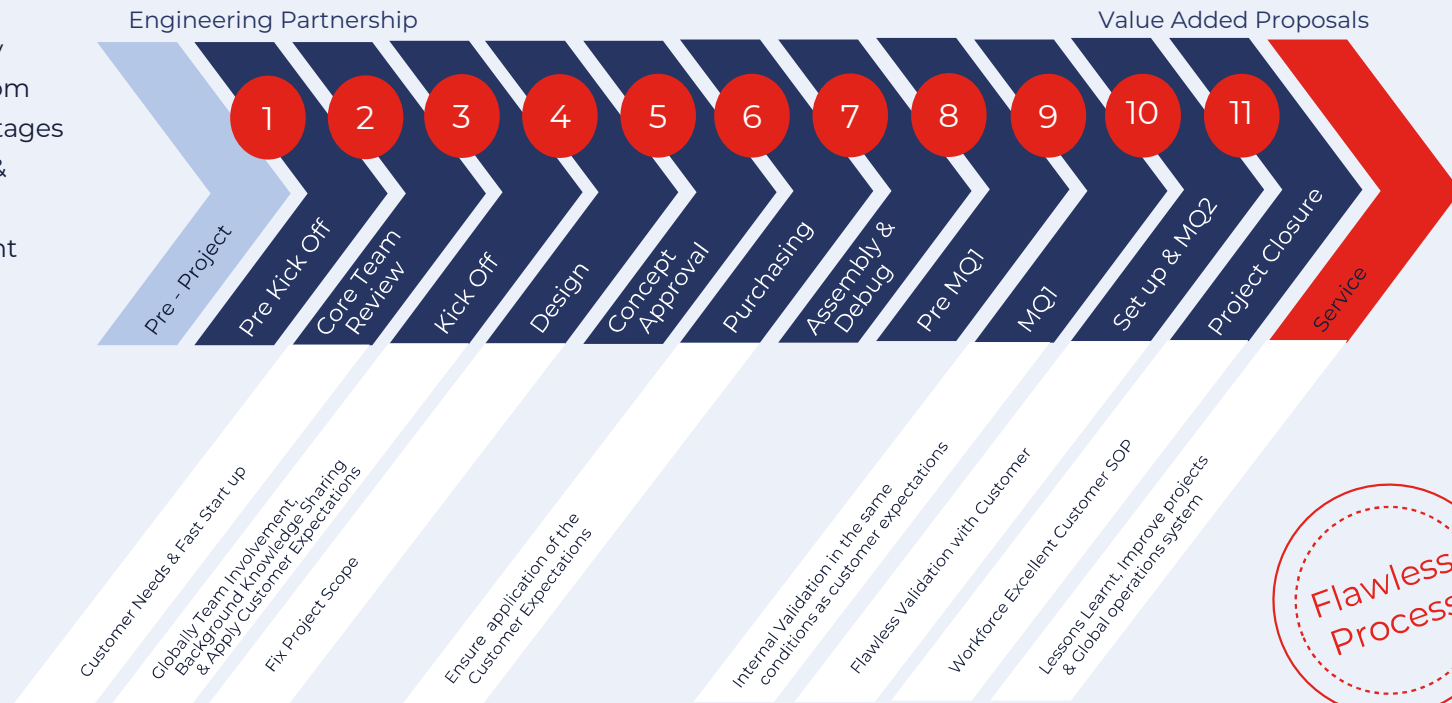


PROBLEM SOLVING

plant KPI's improvement

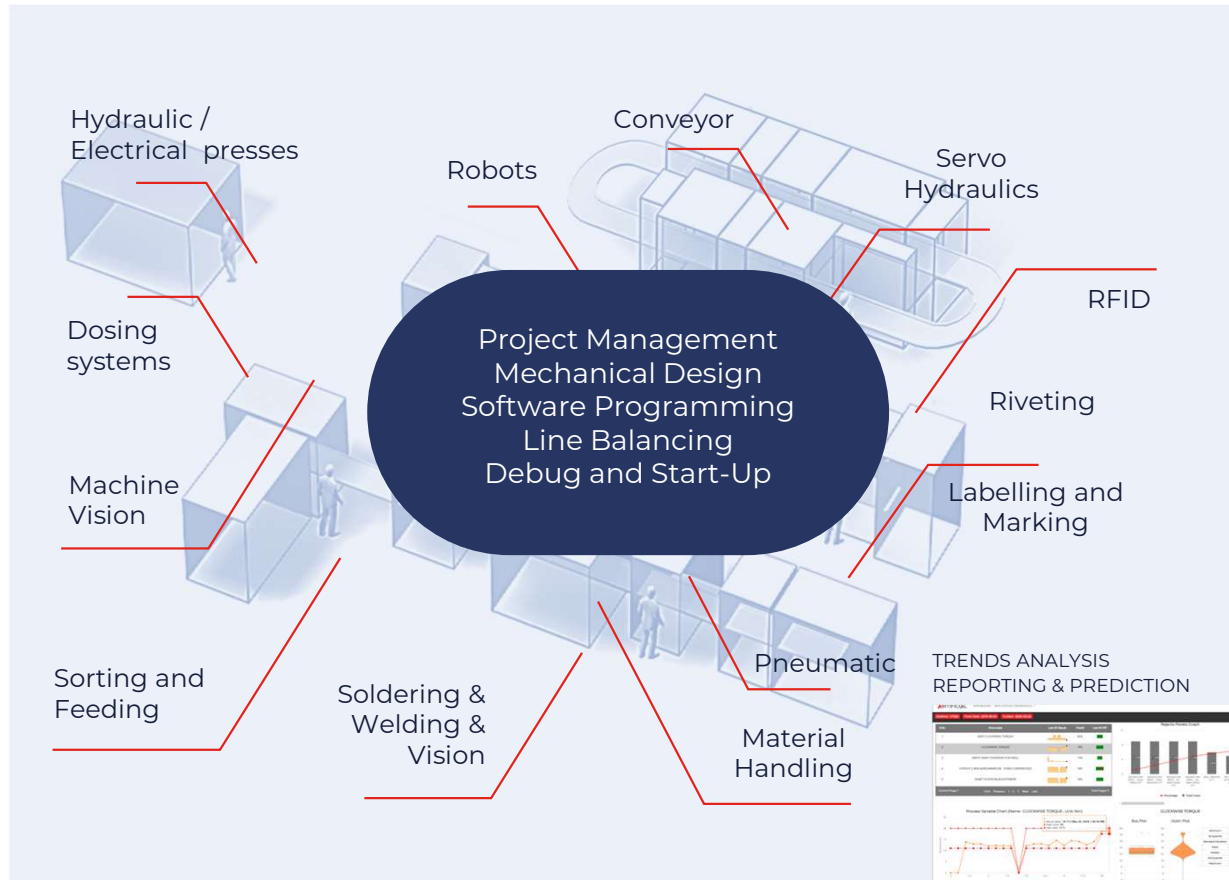
Project Management

We use our Own Methodology based on **LEAN SIX SIGMA**, from Customer Thinking on Early Stages to Final Turn Key Equipment & Services and throughout the complete project management activities.



Expertise & Leadership

Depending on customer's needs Airtificial can go deeper into some technologies to combine or integrate several techniques to solve a particular challenge.



DISPENSING ROBOTS



ROBOT & VISION COMBINATION
BIN PICKING



COLLABORATIVE ROBOTS

DATA AND PROCESS ANALYSIS



VIBRATION AND NOISE TEST

VISION



SCREWING



M503 - GDI SOLENOID ASSEMBLY LINE & TEST

PRODUCT

GDI Solenoid

DESCRIPTION & TECHNOLOGIES

- Flexibility up to 2 geometrically different models.
- Scara & Spider Robots
- Precision Link Conveyor
- LCR Meters & HIPot test
- Vision Inspection System
- Winding Machine Integration
- Resistance Welding and Laser Marking

CYCLE TIME

4 sec assembly cycle time
4,5 sec test cycle time

CASE OF SUCCESS

Solution for a fully automated high cadence line with a high speed linear indexer, including flexible buffers between cells to increase the OEE.



M400 - TRACK MAIN ASSEMBLY EQUIPMENT PSA+GM

PRODUCT

Seats

DESCRIPTION & TECHNOLOGIES

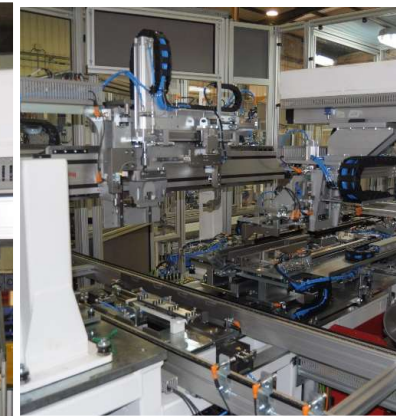
- 10 Stand alone presses with PLC cabinet and PC acquisition system synchronized with multi-position pallet conveyor line controls + 2 Stand alone Check stations.
- Full traceability with local database, local graph results and export to customer server.
- Dynamic sliding effort test + latch test + memory module test.

CYCLE TIME

4,5 sec. / unit

CASE OF SUCCESS

- Flexibility for different outer lengths, inner lengths, and brackets heights, and management ball cages color.
- Low cycle time challenge for this type of product.



M494-1 DUAL PINION EPS FINAL ASSY & TEST LINE

PRODUCT

Dual Pinion Electric Power Steering

DESCRIPTION & TECHNOLOGIES

- Press processes and analysis
- Functional Performance test
- Leak test
- Anti rattle noise adjustment and test processes
- Dual yoke adjustments
- Vehicle simulations
- Friction tests
- Noise tests
- Assistance dynamic tests

CYCLE TIME

40 sec assembly cycle time
80 sec test cycle time

CASE OF SUCCESS

- Complete production and test line turn key project.
- High flexibility for several models through standardization of individual processes in semiautomatic stations concepts.
- Universal test equipment that can be used for R-EPS, P-EPS and DP-EPS giving the possibility to enlarge lifetime of the testers over the product live cycle.



M362 -BRUSHLESS AND BRUSH FUEL PUMPS ASSEMBLY LINE

PRODUCT

Fuel pump

DESCRIPTION & TECHNOLOGIES

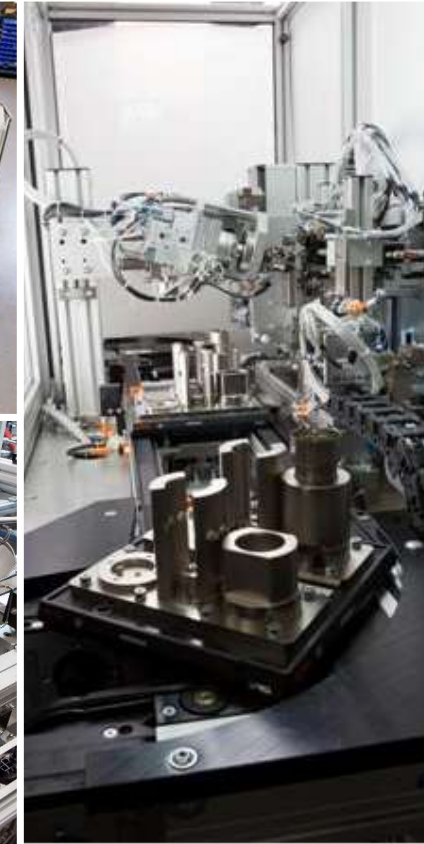
- Fully automated EOLT and robotized station integrated into a palletized assembly line.
- Robots & automatic manipulation including robotized measuring head.
- Eight force transducers
- Various seats models
- Performance functional tests and effort measurements

CYCLE TIME

6,7 sec./unit

CASE OF SUCCESS

- New concept to use a single line for benzin and diesel products.
- Increasing automation, reducing floor space and removing direct operators.



M259 - END OF LINE SEAT TEST STATION

PRODUCT

Seats

DESCRIPTION & TECHNOLOGIES

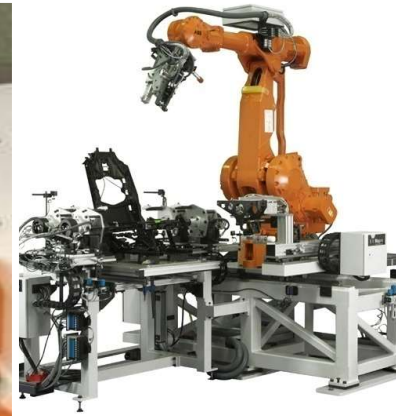
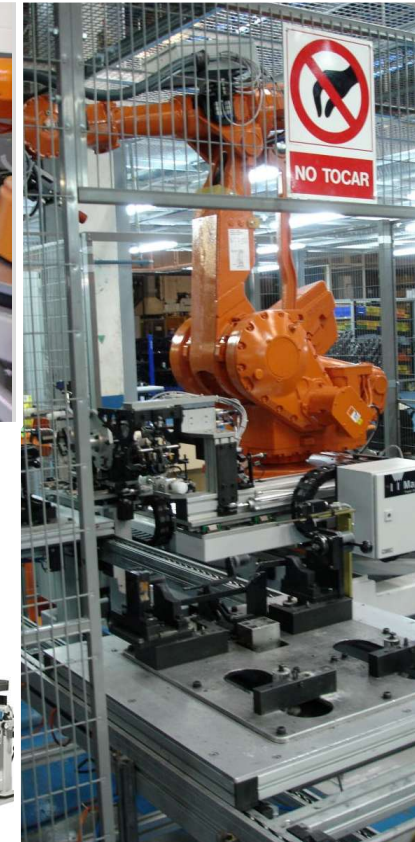
- Full automatic line
- Laser marker
- Visión
- Magnetization
- Trays and bowl feeding
- 4 robots for manipulation
- Conveyor system
- Small components insertion
- Press

CYCLE TIME

30 sec.

CASE OF SUCCESS

Integration of the test acquisition devices into the robot head allowing accessibility and variability of tests



M409/M465 - REAR CALIPER ASSY LINE

PRODUCT

Rear caliper

DESCRIPTION & TECHNOLOGIES

- Vision system, high (160bar) and low (16bar) air pressure test
- Lean concept line with standard and flexible stations up to a certain calipers volume (only tooling changeover required)

CYCLE TIME

25 sec./unit

CASE OF SUCCESS

Engineering partnership cooperation with the customer to define a standard solution to reach a total caliper production of 9M units in the plant through a high level of standardization and flexibility between lines and models.



M481 - PUMPS ASSY LINE

PRODUCT

Trucks hydraulic steering pumps

DESCRIPTION & TECHNOLOGIES

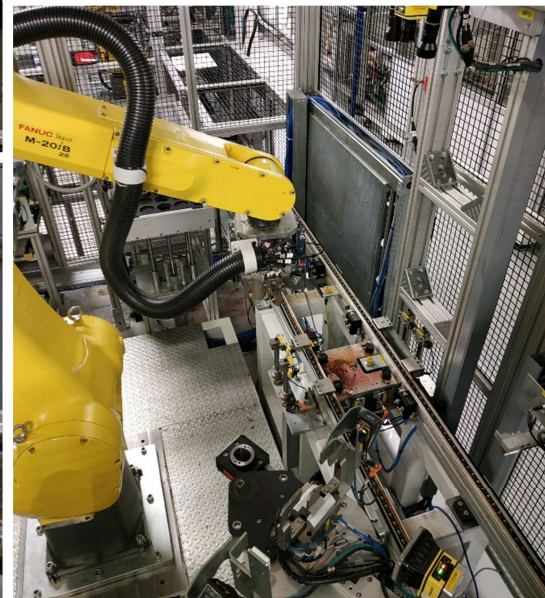
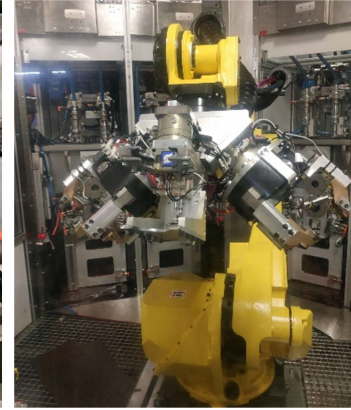
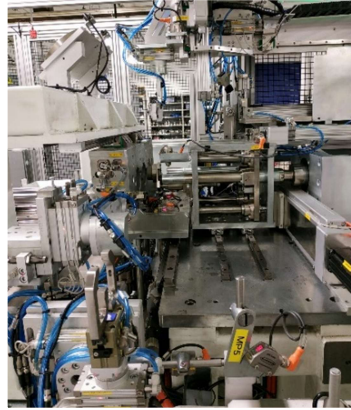
- Full auto line in conveyor with 15 stations, 4 operators and 9 robots (4 EOLTesters included)
- Design of all stations was protected & prepared with automatic changeover for future families of variants
- Full line Traceability with MES with production work orders reception from plant ERP planning
- Extended use of robots with external sensors to control the sequence by vision and/or force
- These technologies allow full automatic components insertion process, flexible to adapt to product variation like in a manual line
- EOLTesters automatic load/unload with one robot capable to do the hydraulic connections to the tested parts

CYCLE TIME

30 sec.

CASE OF SUCCESS

- Definition of a new concept production line with very high flexibility, prepared for more than 100 models, and reduced batch size to 4 parts
- Full automatic changeover in 30"
- The objective was to avoid produce in batches of parts



M-287-16 - SENSOR AND FINAL ASSEMBLY & TEST LINE (M-374 & M-458)

PRODUCT

Electric Power Steering (EPS)

DESCRIPTION & TECHNOLOGIES

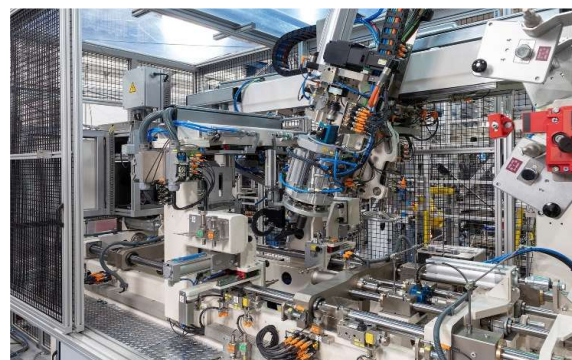
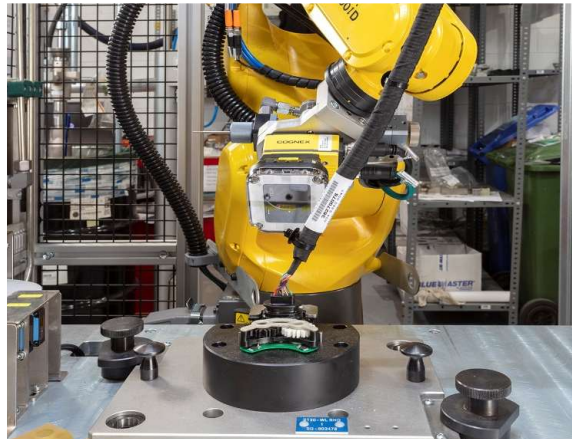
- Automatic palletized flexible line with 20 stations (including 5 test stations) to assemble and test the Sensor and the Final Assembly of the EPS.
- The operation of the line is done with 7 operators. The line is prepared to run 4 models and is capable of easily adding new models.
- The line incorporates high technology robotics and vision system applications.
- Auto greasing application with the robot gripper having the nozzle and the camera to grease an area of the sensor
- Auto inspection of the correct installation of the wire harness brackets and connectors
- Auto greasing and inspection of the cover of the EPS. Greasing dispenser and camera fixed

CYCLE TIME

60 sec.

CASE OF SUCCESS

Unify in the same line the two processes of Sensor and Final Assembly. Pallet is used only for transport, not for clamping or positioning of the EPS. This simplifies a lot the pallet and saves cost for maintenance and for adding future models.



M442 - ELECTRIC TURBOCHARGER FINAL ASSEMBLY AND TEST LINE

PRODUCT

Electric Supercharger

DESCRIPTION & TECHNOLOGIES

- Semiautomatic assy line with 12 stand alone station with processes with servopress
- Screwdriving with autofeeder screws
- Leak test
- Laser marking and functional
- NVH and acoustic noise test (anechoic chamber)
- Critical automatic processes for silicone and thermal paste dispensing
- Phase leads resistance welding and magnetization

CYCLE TIME

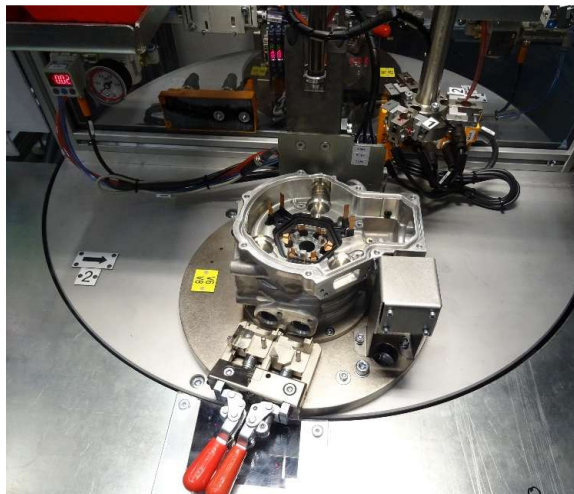
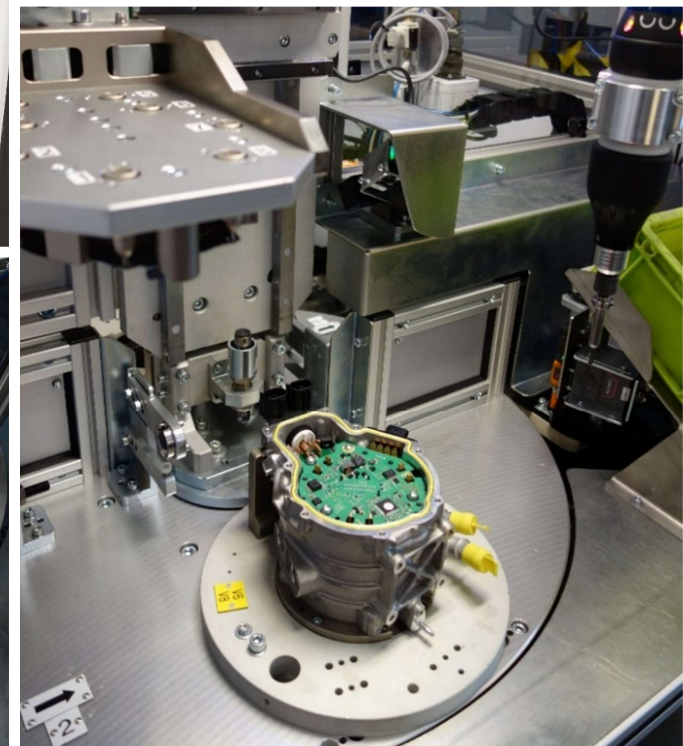
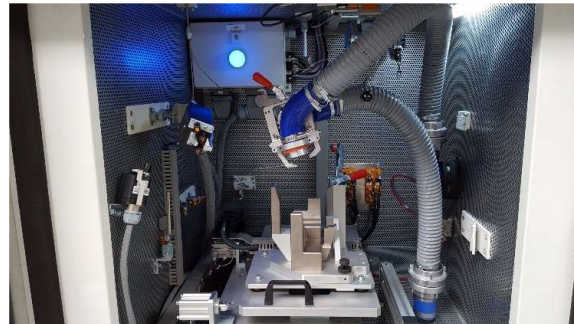
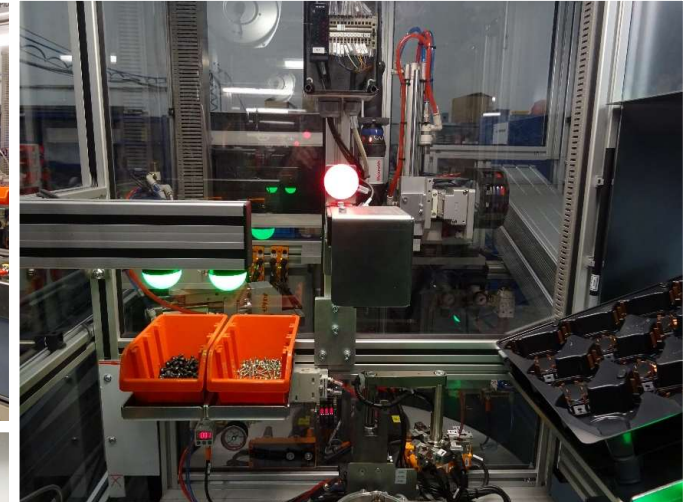
100 sec. cycle time

CASE OF SUCCESS

New development of functional/performance EOL Tester with anechoic chamber, NVH analysis and air flow/pressure and temperature high dynamic measurements. High power supply with 48VDC bus and 500A peak current. Artificial traceability, rework and Andon applications.

Engineering partnership process needed to develop a line for a complete new product from customer requiring high flexibility for future models or process adaptations as well as for low or high volumes needs.

Application of tools such as mock-up, cycle time studies, simulations,...



M499 - BODY 3 ASSEMBLY LINE ENG 12

PRODUCT

Compact ECU Assembly Cell

DESCRIPTION & TECHNOLOGIES

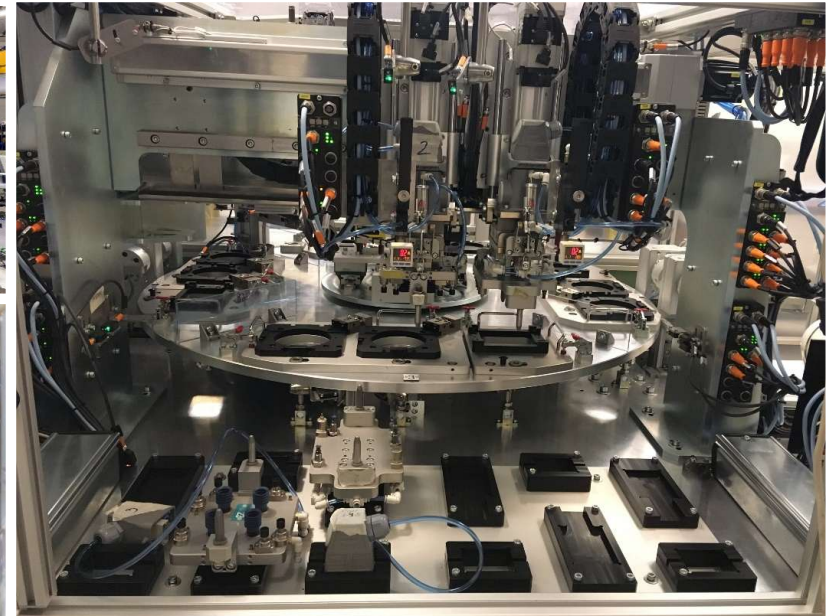
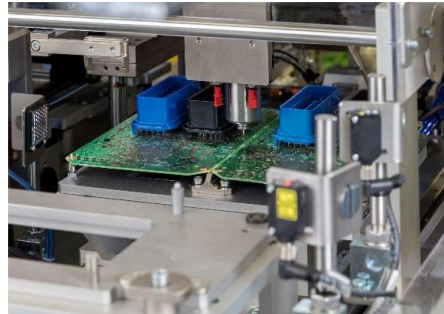
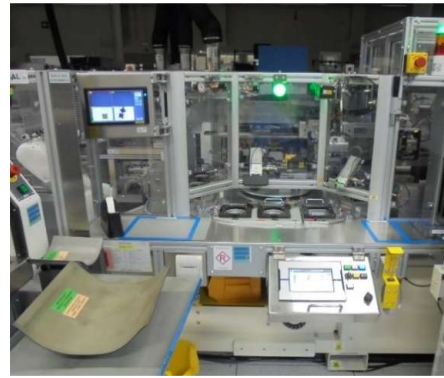
- Automatic dial table (only one operator)
- Automatic screwdriver tightening
- Cover & Base automatic bulk feeding with Robot guided by camera system
- Automatic labeling
- Laser marking
- Direct connection of PLC to the customer server
- Eye-feeder

CYCLE TIME

22 sec./unit

CASE OF SUCCESS

- Robot guided by artificial vision
- Utilization of IO-link sensorics for easy replacement and auto-diagnostic system for maintenance
- Laser 3D to check the perimeter and correct assembly verification (clips)



M396 - ECU ASSEMBLY CELL – ENG10

PRODUCT

ECU Assembly

DESCRIPTION & TECHNOLOGIES

- Conveyor, vision system
- Modular ECU Assembly Cell
- Automatic palletized line (only one operator)
- Maximum flexibility (each cell fully independent)
- Gel & Silicon dispensing
- Automatic screwdriver tightening

CYCLE TIME

22'7 sec./unit

CASE OF SUCCESS

- Modular line giving full flexibility to introduce new processes/operations
- New references
- Cycle time reduction as well as the possibility to work as stand alone stations



M518 - BX8 TRANSFORMER ASSY CELL

PRODUCT

Transformer

DESCRIPTION & TECHNOLOGIES

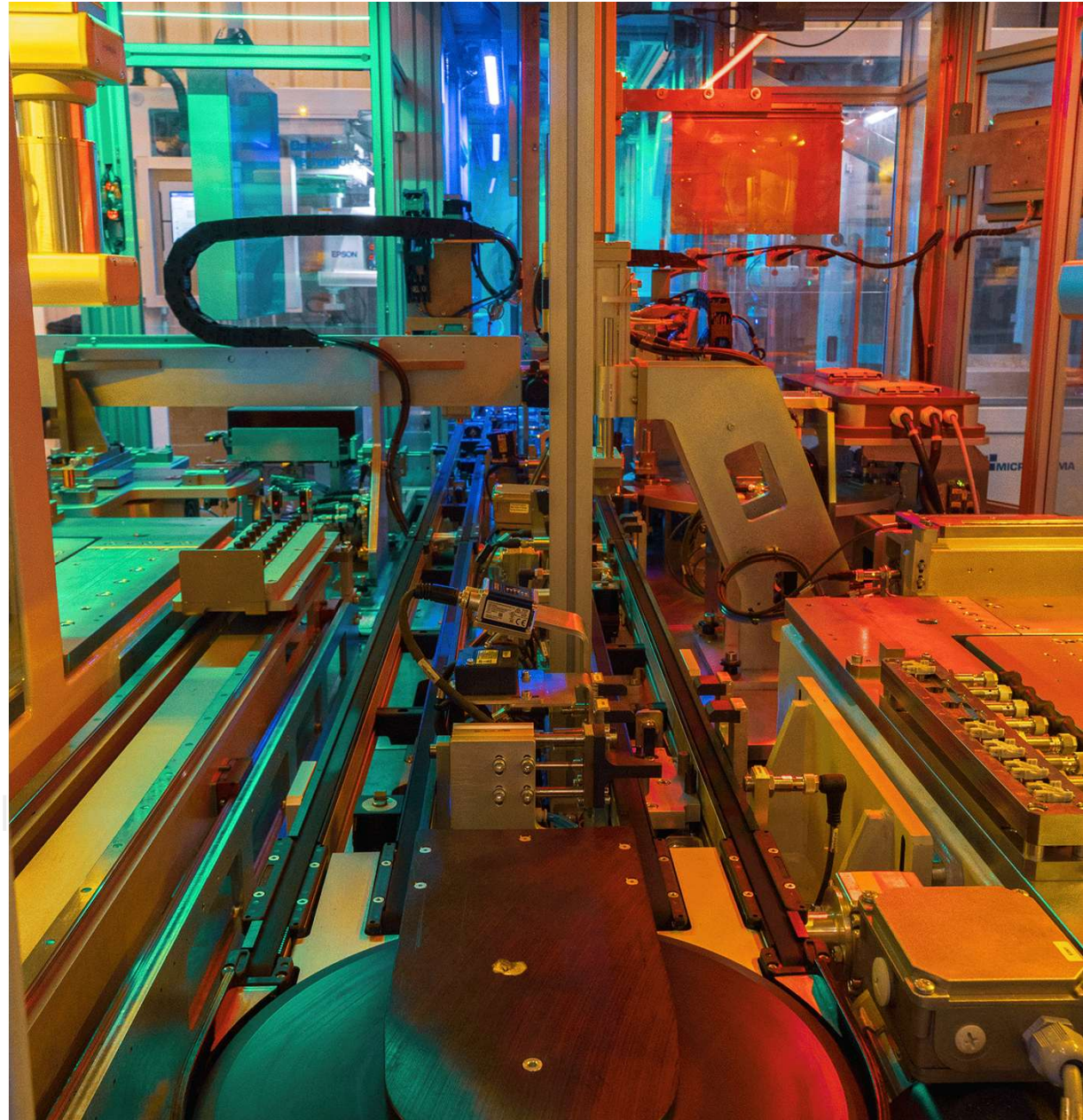
- Electrical Transformer Assembly Line.
- Automated Assembly Line with 4 palletizer: component feeder system, including Scara robot.
- Laser strip process.
- Magnetization process, magnetic field measurement, manipulation and pick and place.
- Vision check.
- Tight tolerances and high repeatability for tooling.
- Accurate Length measurement (LVDT sensor)

CYCLE TIME

3,5 sec. cycle time

CASE OF SUCCESS

- Line of high productivity.
- Short cycle time (detailed study and simulations before proceeding to mechanical design phase)



M528 - AUDI INVERTER ASSY LINE

PRODUCT

Inverter

DESCRIPTION & TECHNOLOGIES

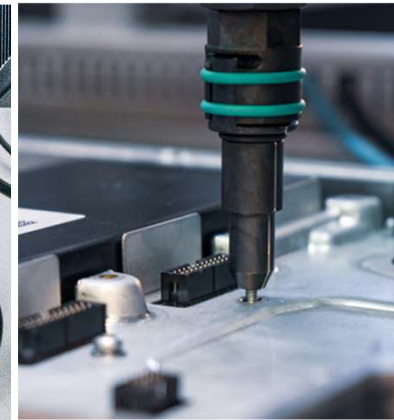
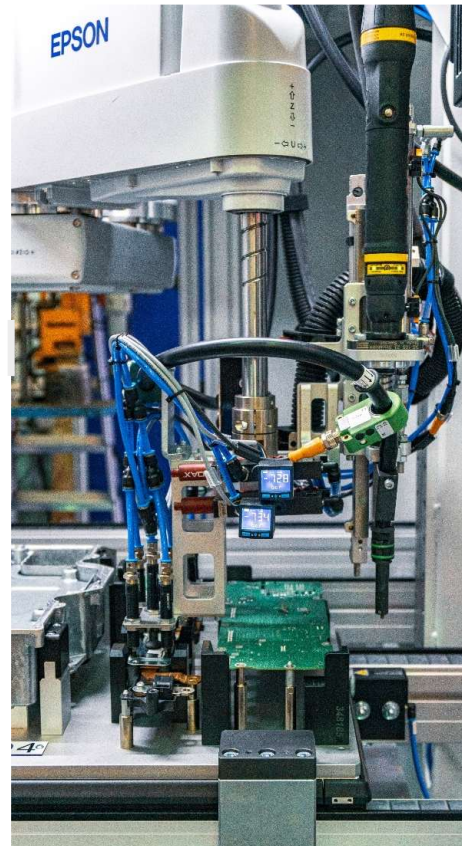
- Automatic Screwdriver System
- Scada Robots
- Leak Test
- Vision System for Quality Inspection
- Airtificial Traceability System

CYCLE TIME

45 sec. cycle time

CASE OF SUCCESS

- Component for electrical car
- Short Lead Time Building (25 automatic stations delivered in less than 6 months)
- Remote validation of Line due to Covid Pandemic (no travels)
- Applied a new station standard to reduce the Delivery Time and cost.



M527 – MPP ASSY LINE

PRODUCT

Inverter

DESCRIPTION & TECHNOLOGIES

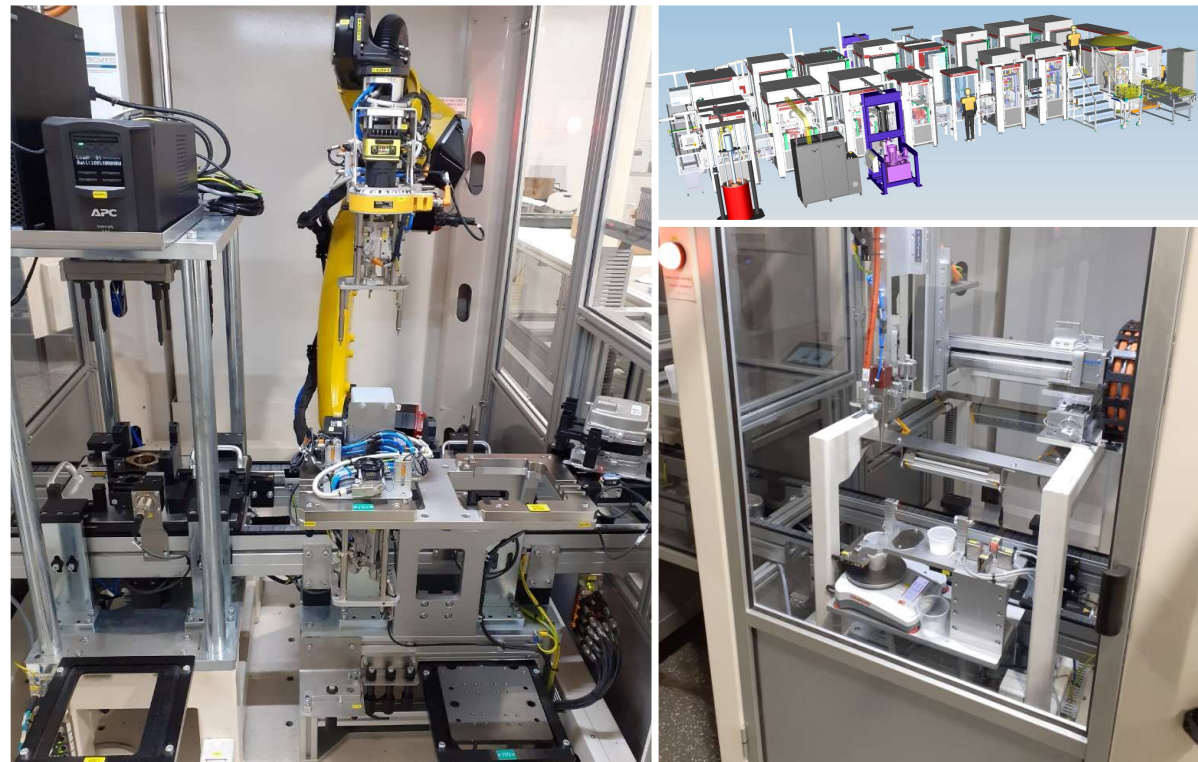
- Automatic Screwdriver System
- FANUC Robots
- LASER Welding for electrical Terminals
- Vision System for Quality Inspection
- Automatic dispensing systems

CYCLE TIME

27 sec. Cycle time

CASE OF SUCCESS

- Motor Power Pack for EPS products
- Short Lead Time Building (20 automatic stations delivered in less than 5 months)
- Remote validation of Line due to Covid Pandemic (no travels)
- Applied a new station standard to reduce the Delivery Time and cost.



Case Studies

M583 – Automated Battery Cooling Plate Assy line (MEB21)

PRODUCT

Battery cooling Plate

DESCRIPTION & TECHNOLOGIES

Assembly line and testers to build and validate battery cooling radiators which will be on the electrical car batteries.

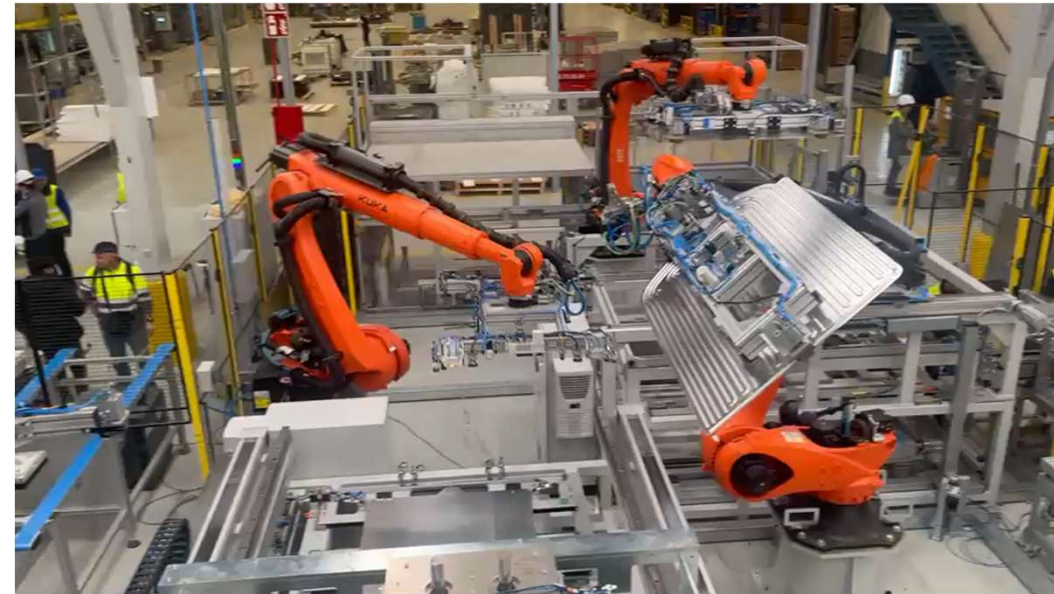
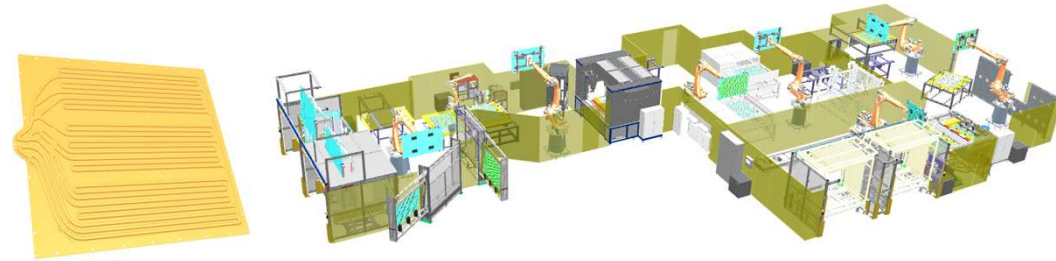
- Pressing, caulking, crimping and stacking
- Laser cleaning
- Robot handlings (15x 6 axis + 3x 7 axis robots)
- EOLT Inspection system.
- Active pick & place
- Ready for 2.000 Kg AGV
- 100m long conveyor
- Aluminum or steel plates robotic manipulation.
- Flushing process
- Load/unload of painting containers/pallets

CYCLE TIME

22 sec.

CASE OF SUCCESS

- 180 Kg robots with camera on board for active pick & place
- Fully automatic (0 operators)
- Industrial inverter utilization instead of than vehicle inverter.
- Electronic relays matrix (very low maintenance in comparison with electro-mechanic relays).



M548 – Power Electronics Integration line

PRODUCT

Motor & Inverter

DESCRIPTION & TECHNOLOGIES

- Palletized Conveyor line + pallets.
- Laser Welding and Deep Learning Inspection.
- Magnet Press and Gauss Verification.
- RTV Dispensing.
- Cover installation and screwing.
- Leak Test.
- Electrical Test.
- EOL Test.

CYCLE TIME

100 sec/unit

CASE OF SUCCESS



M569 – Final Assembly line

PRODUCT

Motor – Inverter & Housing

DESCRIPTION & TECHNOLOGIES

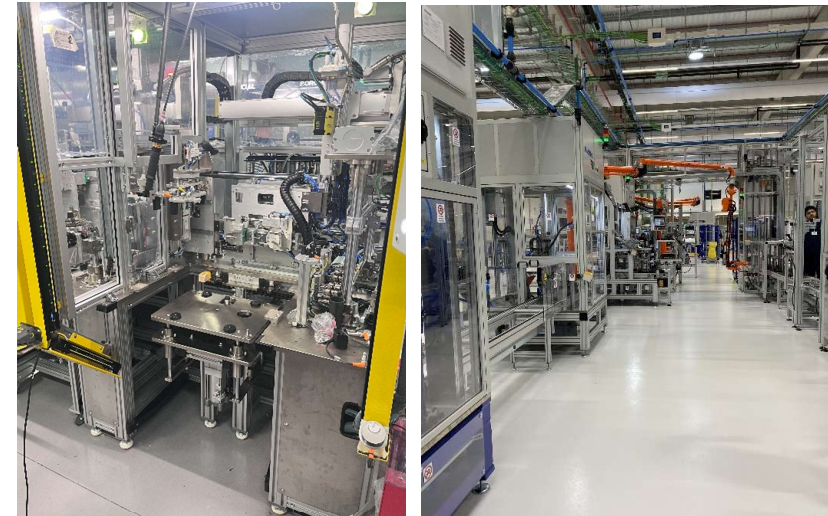
- Trolley-based part-handling concept
- Segment #1 – 1 Semi-auto stations
- Segment #2 – 2 Semi-auto stations
- Segment #3 – 2 Semi-auto stations
- Segment #4 - 9 Semi-auto stations (including Station OP210)
- eMotor insertion & Main nut screwing
- HiPot test
- RTV Application

CYCLE TIME

245 sec/unit

CASE OF SUCCESS

The initial solution consisted of a palletized conveyor line with separate processes per station. Given the customer's budget constraints, a more cost-effective solution was proposed, based on a trolley-based part-handling concept, where several processes were successfully combined within the same stations.



M570 – Power Electronics Assembly line

PRODUCT

Inverter

DESCRIPTION & TECHNOLOGIES

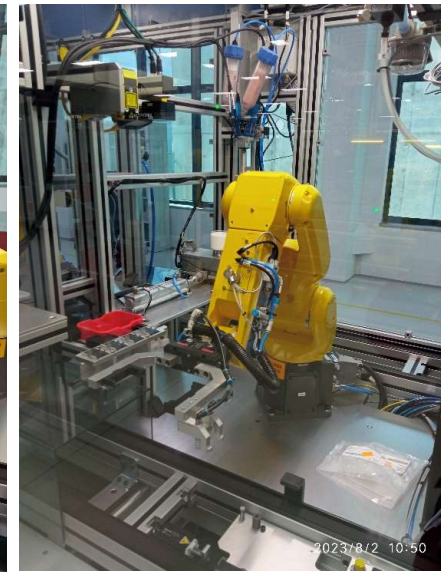
- Palletized conveyor for 11 fully automatic stations
- Auxiliary standalone station for subassemblies header and heatsink
- Laser welding and Deep Learning inspections
- Leak Test
- Automatic Screwing and feeding
- Robots for part handling and assembly processes

CYCLE TIME

100 sec / unit

CASE OF SUCCESS

The core assembly with 11 stations is done fully automatic, there's only an operator for material feeding.



M598 – Spark plugs decoration line

PRODUCT

Spark plugs

DESCRIPTION & TECHNOLOGIES

- Magnetic conveyor
- Inking Module
- Inking Vision inspection
- Laser Module with sintering technology
- Decoration Vision Inspection
- DMC & Gap Measurement
- Loading & Unloading with Scara robots

CYCLE TIME

2 sec/unit

CASE OF SUCCESS

Successful implementation of a production line with a 2-second cycle time.



M584-01 - CCP inverter Assy & test line

PRODUCT

Inverter - Circuit Card Assembly - CCA

DESCRIPTION & TECHNOLOGIES

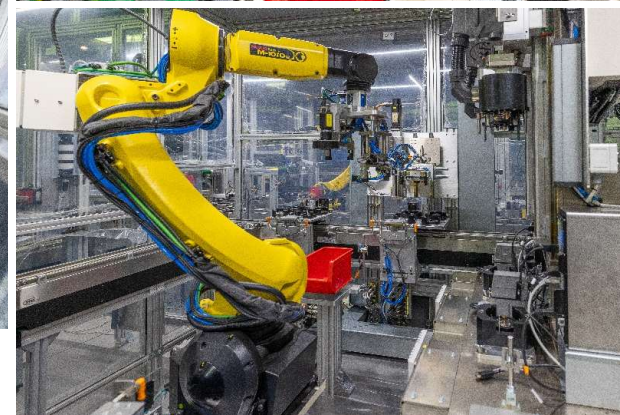
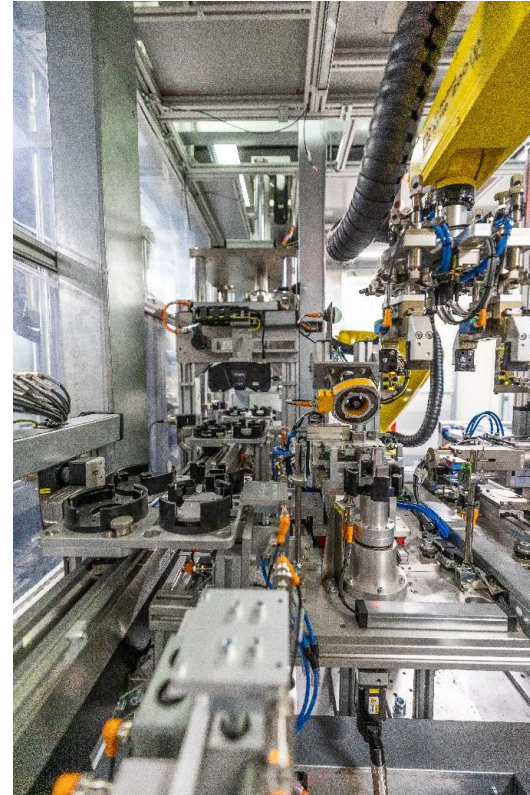
- Fully automated production line with no operator intervention during the assembly and testing stages. Operators are only required to load components into the material feeders and collect the finished parts at the output.
- Implemented technologies include advanced machine-vision-guided robotic handling, automated thermal paste dispensing, fully autonomous component loading, as well as integrated crimping and soldering processes.

CYCLE TIME

28 Seconds

CASE OF SUCCESS

- New production line concept for circuit card assembly. First time the customer will perform this type of assembly within their own facilities.



INTRALOGISTICS AGV & AMR

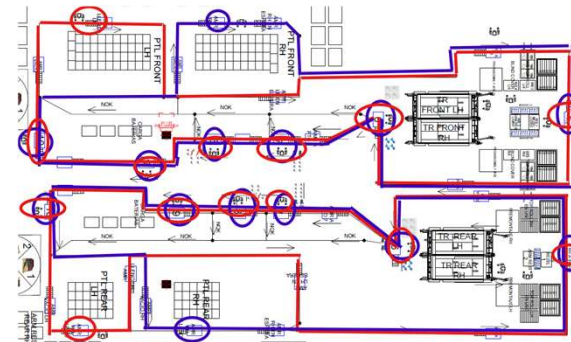
AIRTFICIAL GENERAL PRESENTATION

AIRTFICIAL

AGV & AMR - Characteristics

MOBILE ROBOTICS - INTRALOGISTICS

PRODUCT	AGV & AMR
DESCRIPTION	<ul style="list-style-type: none">• From warehouse to assembly lines, END-TO-END SOLUTIONS.• Cost reduction by intralogistics automation• Improve flexibility of production lines.• Customized solutions to adapt to each specific need.
TECHNOLOGIES	<ul style="list-style-type: none">• Autonomous or guided mobile vehicles• Load up to 2000 Kg• Combined navigation systems: grid codes, Lidar, odometry, RFID, magnetic track• Speed up to 4 m/s
CASE OF SUCCESS	<ul style="list-style-type: none">• Turnkey program executed assembling battery cooling with NO operators & 23 robots, designed to feed the 2000 Kg trolleys with AGVs (6 in total).



Power & Energy Test Systems

AIRTFICIAL GENERAL PRESENTATION

AIRTFICIAL

Automotive Powertrain Test Benches

From Development to End-of-Line Production

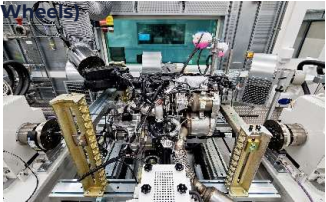
Products under test (automotive): E-motors · Inverters · E-axles · Transmissions · ICE / Hybrid / H₂ powertrains

(**Same products** across the full development and industrial lifecycle - **Different test depth**, automation level and industrial constraints).

Laboratory Power Test Benches

- Designed to **push automotive powertrains to their limits** (speed, torque, power, temperature, duty cycles).
- **Durability and endurance** testing aligned with automotive profiles.
- Flexible and reconfigurable test sequences.
- High-accuracy measurement for performance and efficiency analysis.
- Support for **development, validation and pre-homologation**.
- Adaptable to evolving designs and early prototypes.

5 x Axes Gearbox (Engine + Gearbox + 4 x



1 x Wind Turbine Gearbox Test Bench

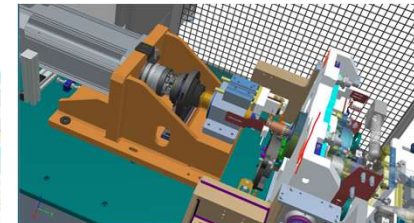
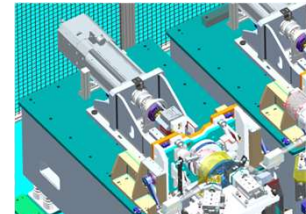


1 x Axe Gearbox (Just Engine)



End of Line (EOL) Power Test Benches

- **Fully automated** test execution for series production.
- Optimized **cycle time, repeatability and robustness**.
- **Full traceability per unit**. (serial number, results, software & parameter versions).
- Integration with MES / quality and production systems.
- Designed for **24/7 automotive plant operation**.
- Compliance with automotive production and quality standards.



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