



Company Profile

Smart Solutions for
Innovative Companies

Highlights



1975

FOUNDATION



600⁺

EMPLOYEES



6

COUNTRIES



>120 M€

REVENUES 2023

“MI” history in short

Background: We were born as a small industrial electrical & mechanical company in 1975 and now we are the leader of a group of companies that counts a staff of more than 600 people in 6 countries

Longevity: a record in a sector where innovation is crucial for the very survival of every company

Hi-Tech: We have always been working in the world of microelectronics and our continuous growth has led us to develop solutions for the most important players in this market

Service: We stand by our customers on their production sites to fully support them in their business.

R&D: Our researchers and engineers are a reference in anticipating market trends

Complexity: We have a transversal *know-how* and the ability to manage very complex projects

Awards: Some of our solutions have received important awards from customers appreciating the excellent ROIs with improved plant performances and zero ITP





merimp.com

Meridionale Impianti controls:

- MI SINGAPORE PTE LTD
- Holding MI-Redes SA
- TDYNA Pte Ltd

Production Sites

Italy:

- Gas & chemical distribution systems & equipment
- pedestals
- electrical and control panels
- metallic racks & structures
- electronic equipment
- robotic solutions

Singapore:

- Burn-in ovens

Caponago, Monza Brianza
management & technical offices,
warehouses, mechanical & electrical
workshops, smart cities service hub, gas
abatement systems service center, staff
accommodation



I.Z.
Piano
Tavola

Head
Office



Piano Tavola, Catania

management & technical offices, warehouses, mechanical &
electrical workshops, gas & chemical systems clean rooms,
Robotics & Automation & Electronics labs



Singapore, AMK

management & technical offices, warehouses, mechanical &
electrical workshops, tool parts workshop & service, staff
accommodation

MI Facilities

Crolles (France)

- Offices, warehouses,
mechanical & electrical
workshops

Rousset (France)

- Offices, warehouses,
mechanical & electrical
workshops

Villach (Austria)

- Offices, warehouses,
mechanical & electrical
workshops

Our Company Culture



Vision

Acting as the lifeblood of business, we aim to be the engine of progress for innovative companies



Mission

We manage complex systems with speed and scale, growing everyday in the global fast-pace manufacturing industry



Values

- People Health and Safety
- Excellence and Reliability
- Flexibility + Speed = Agility
- High-end Creativity
- Integrity
- Winning together

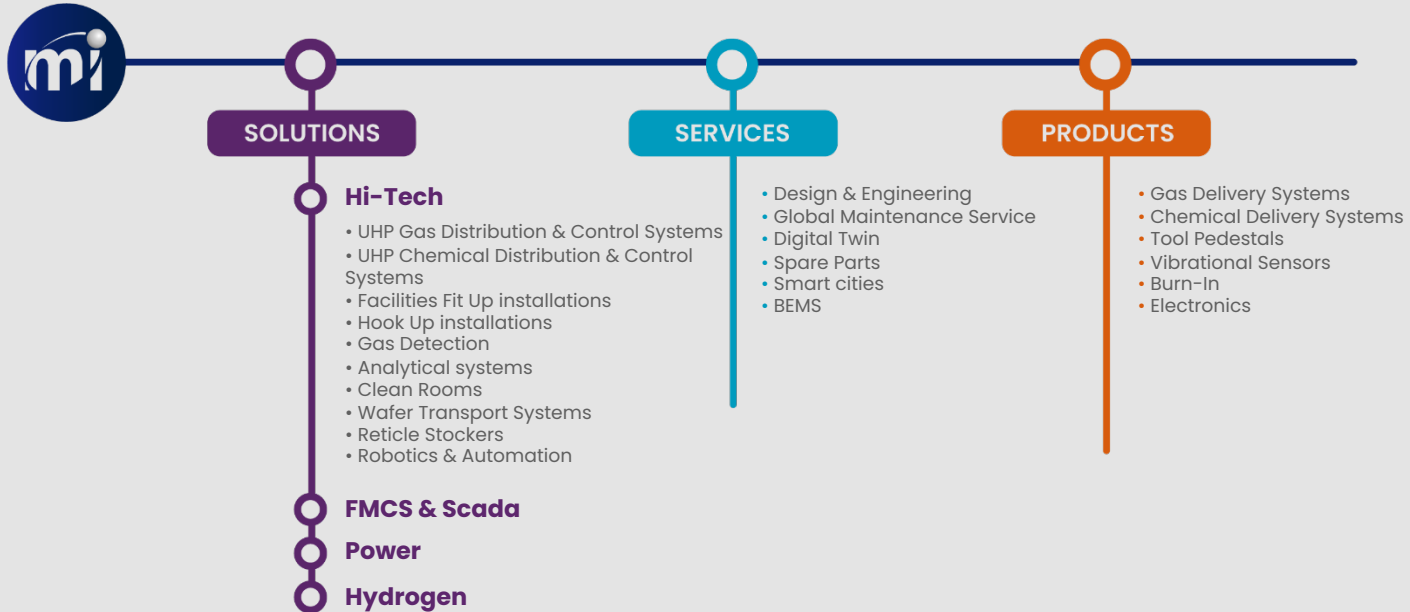


Industry Partners

- STMicroelectronics
- Enel
- Infineon
- Onsemi
- Lfoundry
- Fincimec
- CNR
- Exyte
- Air liquide
- Texas Instrument
- Micron
- Siltronic
- Equans
- Von Ardenne
- A2A
- GlobalFoundries
- Bernardinello
- Applied Materials
- Solvay
- Vishay
- Ponticelli
- GlobalWafers
- SSMC
- ASM/LPE
- Wolfspeed



Our Portfolio and Value Proposition



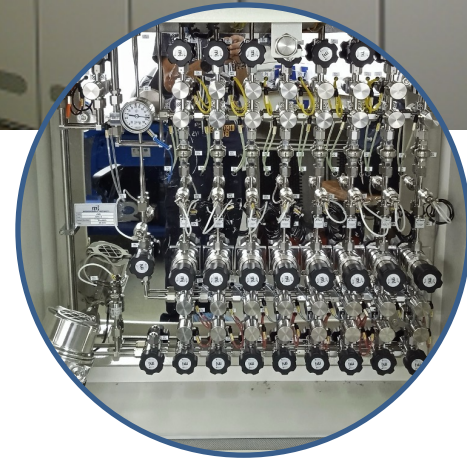
INDUSTRIAL HI-TECH



UHP Gas Distribution & Control Systems

- Gas Cabinets, VMB, GIB, Panels
- Combined Gas Cabinets – VMB
- Bulk Specialty Gas Systems
- Gas Mixers
- Gas detection, purification, scrubbers
- Special Sticks and Manifolds
- High Vacuum Systems
- QA/QC Gas Monitoring

Over 3.000 standard and «tailor-made»
systems installed WW





UHP Chemical Distribution & Control Systems

- CHEMIDEL DUAL
- CHEMIDEL BLEND
- CHEMIDEL PULSENER
- CHEMIDEL NIVES
- CHEMIXDEL

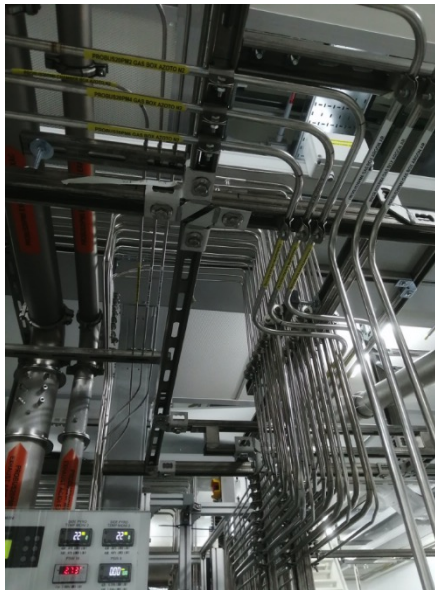
Over 300 «tailor-made» systems installed WW

● Facilities Fit up installations

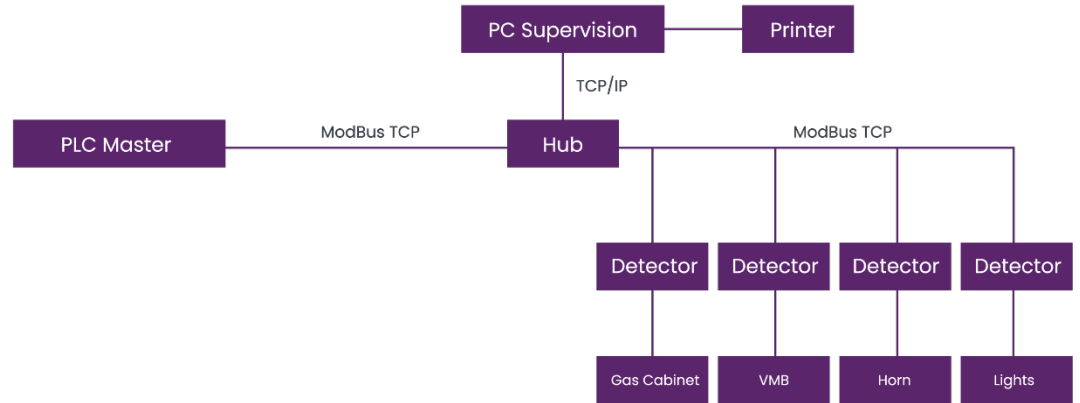
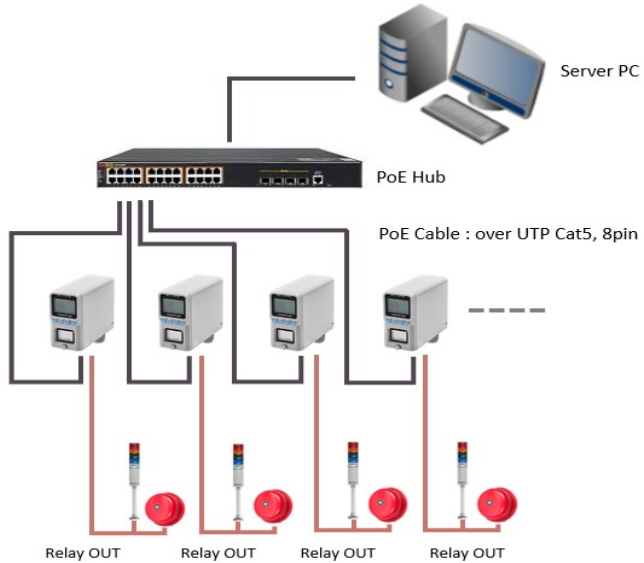


- HVAC
- Chilled Water
- Hot Water
- Process Cooling Water
- Electrical Distribution (HV, MV, LV)
- UHP Gas Distribution
- UHP Chemical Distribution
- UPW
- Exhaust Systems

● Tool Hook up installations



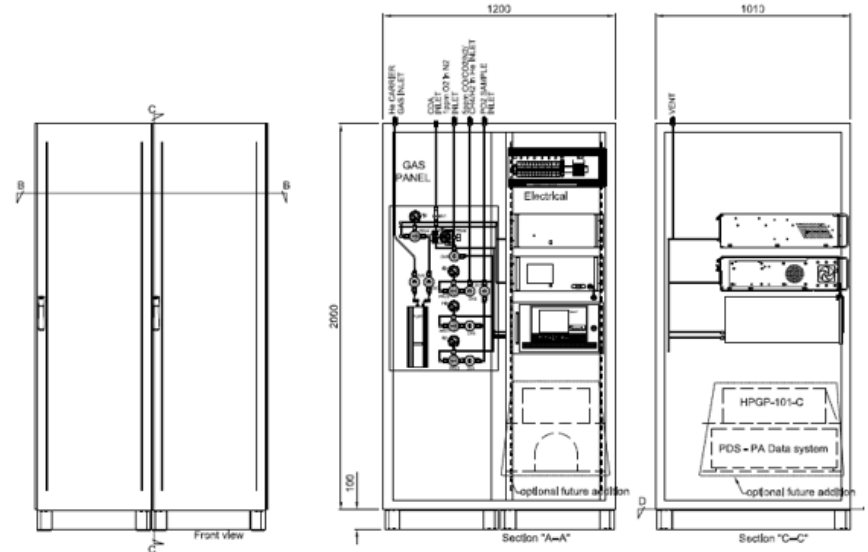
Gas Detection



Analytical systems

Impurity	Background Nitrogen	Analyser	Range	LDL/LOD
H ₂ O	x	Tiger optics Halo KA H ₂ O	Min. 0-2 ppb / Max 0-20ppm	300ppt
O ₂	x	Delta FD550	Min. 0-1 ppb / Max 0-20ppm	200 ppt
H ₂	x	ASDevices K8000 Plus	0 – 250 ppb	100 ppt
CO	x		0 – 250 ppb	100 ppt
CO ₂	x		0 – 250 ppb	100 ppt
CH ₄	x		0 – 250 ppb	100 ppt
NMHC	x		0 – 250 ppb	100 ppt
Particles		Lasair III 110	0.001 µm /ft ³	< 0.1 micrometer

Typical analyzers offering



Example of a N₂ Analytical rack

Clean Rooms



We design & build Clean Rooms and Laminar Flow Systems for production processes of industries requiring clean manufacturing environments.

Each solution is customized according to customer requirements with best-in-class products and components selected from different suppliers.

Industries we serve with our solutions:

Semiconductors | Electronics | Microelectronics | Photovoltaic | Pharmaceuticals | Research Labs | Nanotechnology | Aerospace | Hospital/Medical | Optical | Food | Plastics | Precision Mechanics

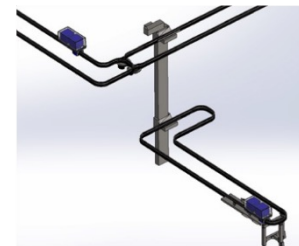
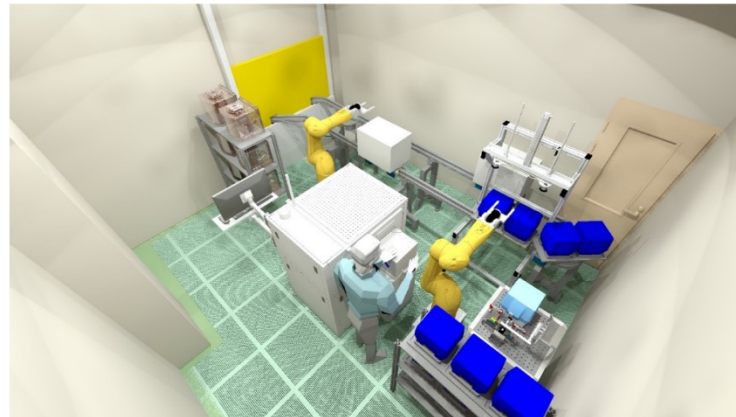
Wafer Transport Systems

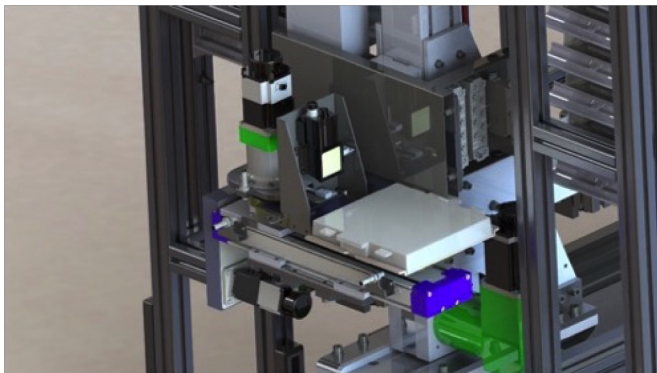
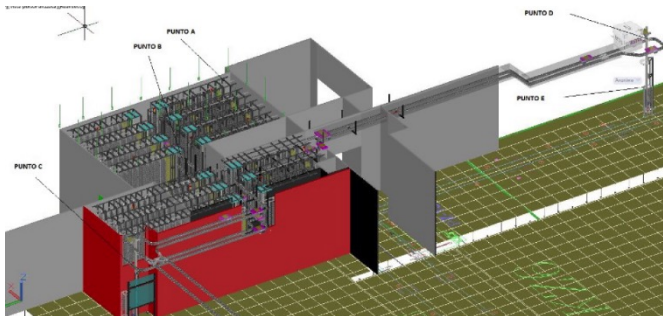
It is a turn-key solution entirely developed from us. The scope is to automatically transfer wafer lots from buildings physically separated, increasing efficiency in transportation other than avoiding risks of damages in wafers

It means a FAST RETURN ON INVESTMENT!!

In a role of system integrator other than EPC contractor, we manage:

- Design
- Automation & control
- MES interfacing
- ISO classified tunnels
- Mechanical carpentry
- Electrical power
- Mobile robotization
- Buffering stations



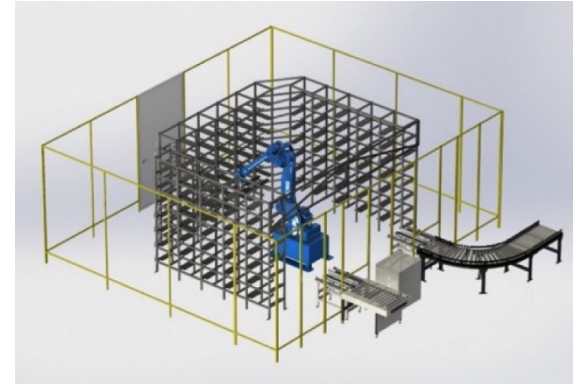


Reticle Stockers

We design and build “taylor-made” reticle stocker solutions within designated areas.

This allows to maximize the efficiency of the whole system, that is capable to receive, storage and deliver boxes depending on production inputs.

● Robotic Islands



● Mobile Robotics

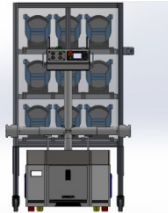
MILogix – Lift Version



Miroller 90



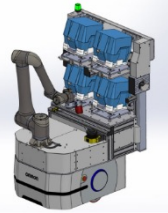
Miroller 250



SARA90



SARA 250



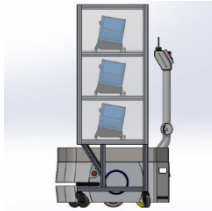
Our fleet of robots are able to solve complex processes and problems in a fully automated way.

The **mobile robots** move safely within the different factory layouts and with the utmost care, such as transporting delicate products or packing bulky items.

MIPallet 1500



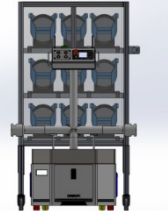
MICart-Trolley 90



AuRus

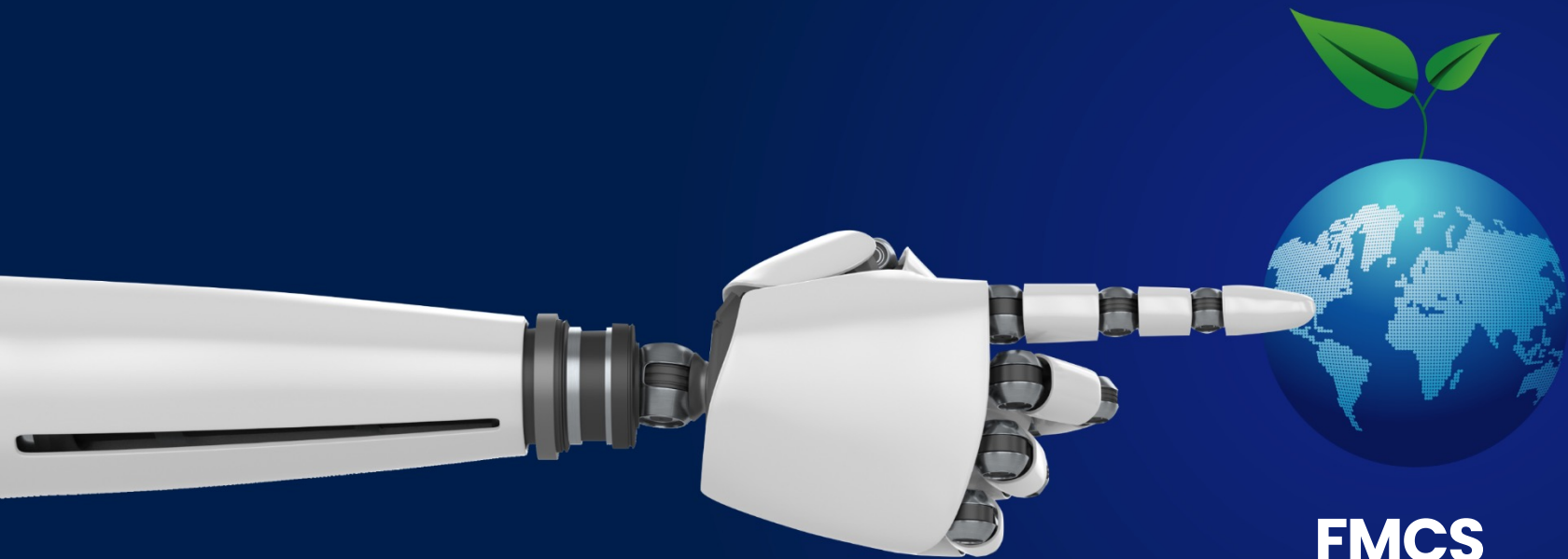


MICart-Trolley 250

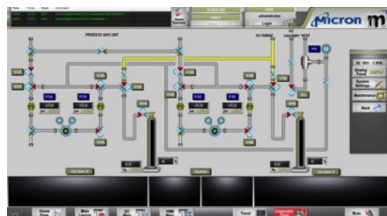
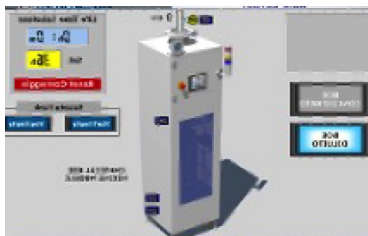


The result is a constant flow, independent from work shifts, and allows employees to devote their time to tasks with higher added value.

Meridionale Impianti has established solid partnerships with the main robotics manufacturers to offer customized and **turnkey solutions**.



FMCS & SCADA



FMCS & Scada

- SCADA Systems (Wonderware, Wincc, PCS7, Cx-supervisor)
- Control Systems PLC BASED (Omron, Siemens, ABB, Schneider, Rockwell, Allen Bradley)
- Gas detection Systems (Senko, Honeywell, DOD, New Cosmos, Riken Keiki, etc.)
- Fire & Smoke Detections
- Gas Systems
- Exhaust Systems
- HVAC
- Scrubber Control
- Chemical Systems
- UPW Plant
- WWT Plant

POWER

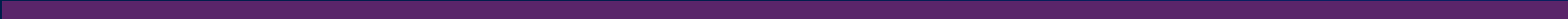
- Transmission and distribution of energy
- Power generation
- Primary cabins 400/20 kV
- Public lighting
- Sub stations HV/MV/LV
- Protection & Control systems
- TVCC and video surveillance
- Aerial and underground lines
- Operation & maintenance





H_2

Hydrogen



**Thanks to the vast experience
in the industrial technical gases sector,
we produce hydrogen distribution,
mixing, purification and analytical systems.**

Green hydrogen generation systems

- Green hydrogen production plants with PEM electrolyzers integrated with fuel cells, purification & analytical systems, compression and storage where required
- Modular and expandable systems complete with renewable energy production plant

Shelters for green hydrogen generation

Hydrogen recovery systems from industrial waste through purification processes (PSA), storage and reuse.

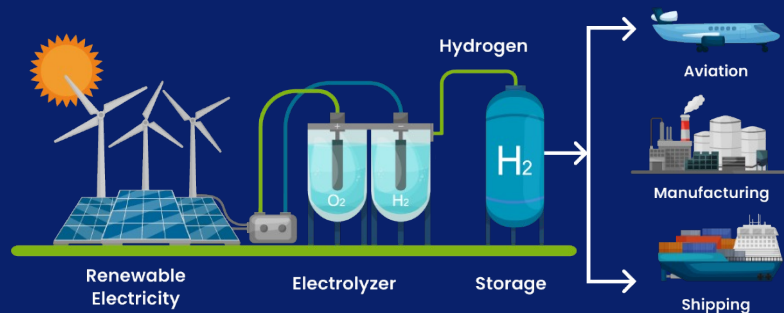
Purification systems

Hydrogen purification systems based on highly selective palladium membranes for hydrogen, allowing to purify hydrogen up to 99.9999%.



Hydrogen

Example of H₂ System Integration





SERVICES

● Design & Engineering

WE LISTEN TO CUSTOMER NEEDS AND DESIGN TAILOR-MADE SOLUTIONS FOR SPECIFIC INDUSTRY



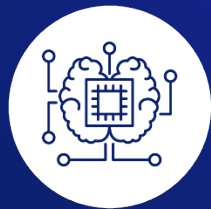
Program &
Project
management



Building
Information
Modelling



Lean
construction



Integration
of processes



Building
Integration
Modelling



Commissioning
from conception
to execution



Gas
Systems



Preventive
Maintenance



Industrial Plant
Failure



Chemical
Systems



Chemical
Systems



Safety
& Automation

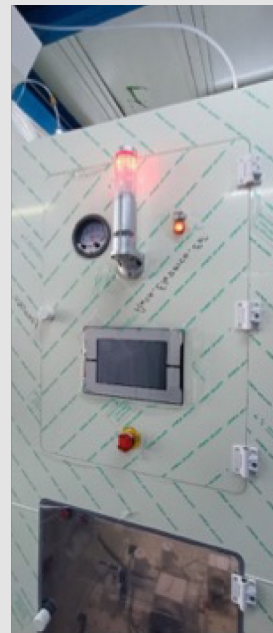
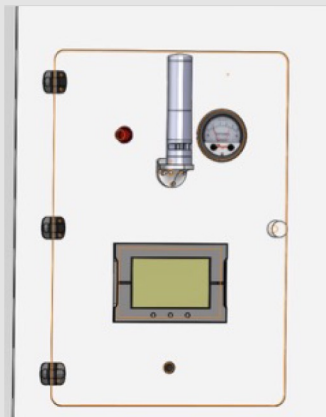
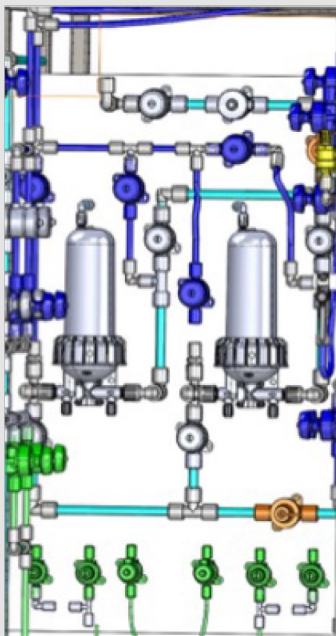
● Global Maintenance Service

The multidisciplinary maintenance is provided by professionals with all skills and specializations necessary for the maintenance of high-tech industrial plants in order to ensure continuous production.

We guarantee:

- timely intervention and ZERO ITP
- Just in time management of spare parts and accurate reporting
- Integrated services to maximize the performance of our solutions

● Digital Twin





● Spare Parts

Brand new parts supply, refurbishment service and inventory management of spare parts

ESC (Electro static chuck)
for etch, CVD, PVD, IMP processes

- Surface re-conditioning
- De-bonding/Re-bonding
- New ceramic plate change
- New heater change

LAM CERAMIC RING

- Bonding defect repair
- Heater failure repair

NOVELLUS HEATER BLOCK

Manufacturing process improvements

METAL HEATER/ALN HEATER REPAIR

AMAT RTP LAMP HOUSING FLATNESS IMPROVEMENT

QUARTZ AND OTHER COMPONENTS SUPPLY

● Smart Cities

Meridionale Impianti makes its expert technicians available to give added value to the Smart City concept by capturing the real needs of the citizen with truly feasible and efficient projects

Meridionale Impianti is a partner of E.S.Co, designers and Public Bodies in providing adequate technologies, innovative solutions and services to support the new challenges of the Smart City



CONTROL OF THE TERRITORY



ACCESS CONTROL



SMART PARKING



PUBLIC LIGHTING



URBAN SECURITY



**ENVIRONMENT MANAGEMENT
AND MONITORING**



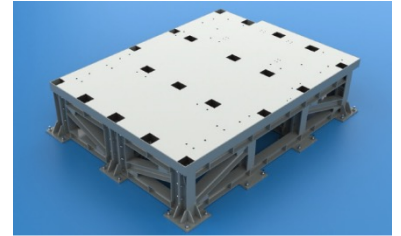
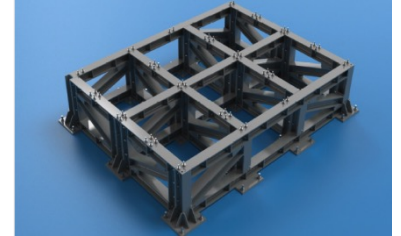
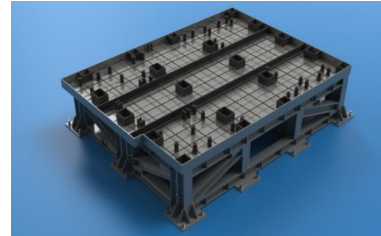
PRODUCTS

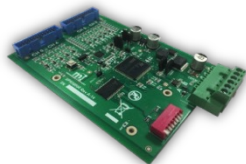
● Tool Pedestals

Starting from Customer specifications our mechanical engineers, by means of a design recursive process, obtain static and dynamic optimal responses

To be used with:

- Ionic Implanters
- Stepper
- Protonic Implanter
- Metrology tools
- Metal/Etching Tools
- Wet Bench
- Pedestals for Production
- Tools PV HJT Cell Lines





● Vibrational Sensors

The sensors for industrial vibration acquisition developed in our laboratories are suitable for permanent installations.

Through the use of these sensors it is possible to carry out complete vibrational analyses, in accordance with the relevant European regulations.

● Burn-in Testing Tools

Our solution consists of two subsystems:

- BURN IN OVEN CHAMBER
- 12X HIGH VOLTAGE DRIVER BOARD

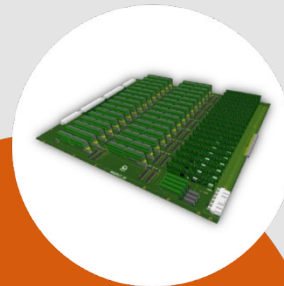
Burn In Oven Chamber
(General Purpose)

Our 12 Slots small footprint stackable oven, designed to match the most advanced semiconductor standard. High grade materials, Eco-friendly, Automation ready, and Low running cost.



High Voltage 152
Channels Driver x12

A single independent Test Driver with high density capacity. Modular and Scalable as needed up to 152 DUTs x Driver. Ready for HTRB, HTGB, and Functional Test.





Electronic Systems

- Develop Systems IOT on radio network (Sigfox, Lorawan, NBIOT, RIIOT)
- Design and develop Electronics boards based on microcontroller (STM32, Microchip, Atmel)
- Smart Systems for Smart Light (Sigfox, Lorawan)
- BEMS Systems for Energy Saving Building Automation
- Vibrational Sensors for Predictive Maintenance
- Photovoltaics Electronics Device (Inverter, String Control, Concentrator, SCADA)
- Earthquake Early Warning System
- Landslide Sensor Early Warning System
- Smart Sensor for Water Meter

Quality and Certifications



ISO 9001:2022



ISO 14001:2021



ISO 45001:2021



UNI CEI 11352:2021



SA 8000:2021





Thank You.

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