

# INDUSTRIAL TECHNOLOGY

**Machines. Components. Automation.**

Number 1, March-2021





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# NAFTTECH

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Starting from process, passing through the project, management, engineering and thanks to the manufacturing capabilities, NafttechTrading is able to provide a complete service focused of customer satisfaction in the range of its activities.

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#### Boilers, Heaters, Fix Equipments and Flue Gas Treatment Systems

- Fire Water Tube Boiler
- Heat Recovery Steam Generator (HRSG)
- Wast Heat Boiler (biomass or RDF)
- Vertical Heater
- Hot Oil Package
- Fix Equipment (Reactors, Columns, ecc.)
- Flue Gas Desulfuration System (FGD)
- Flue Gas DeNOx
- Dust Filtration System
- Revamping
- Boiler Repowering
- Automation

#### Water Treatment Systems

- Reverse Osmosis Desalination (RO)•Heat •Water
- Treatment
- Wast Water treatment
- Polishing
- Ion Exchange
- Biological Plant Refinery
- Filtration and Ultrafiltration Plant
- Mtbe Treatment Plant
- Groundwater Treatment Plant
- Water Engineering
- Turnkey Facilities
- Rental of Emergency and Mobile Systems

#### Sea Water Thermal Desalinations (Distillation)

- Multi Stage Flash Distillation (MSF)
- Multi Effect Distillation (MED)
- Thermal Vapor Compression (MED-TVC)
- Remineralization Water Systems
- Upgrading and Revamping of Existing Plants

#### Control System, Electrical System and Instrumentation

- Gas Turbine Unit Control System UCS
- Burning Management System BMS
- Emergency Shutdown System ESD
- Fire and Gas System Monitoring
- Generatore Control Protection Panel GCPP
- Steam Turbine Retrofit System Control and Woodward)
- Local Panels, Power distribution, MCC and MV panels
- Instrumentation and Instrumentation Panels

# ***INDUSTRIAL TECHNOLOGY***



European  
Edition  
2 0 2 1

# INDUSTRIAL TECHNOLOGY



**Industrial Technology** is an international magazine that deals with machines, components, instrumentation and automation for Oil & Gas industries, petrochemical, chemical and energy. It contains news, information and case histories of products, technologies, suppliers and manufacturers.

The insights are mainly related to complete installations, automation, control, instruments, valves, pumps, compressors, blowers, boilers, heat exchangers, process units, pipes, systems, software, seals, PTFE, bolts and fasteners, tanks, analysis and control, and in general to every product and service that can be used in the industrial process.

## **THE TARGET OF READERS - WHO READS**

Industrial Technology reaches more than 50,000 companies worldwide, with a particularly careful and effective distribution in the Middle East.

Readers belong mainly to the oil and gas industries, chemical, petrochemical, or are distributors, engineering companies, consultants, contractors, OEM and EPC. The magazine also reaches the main fairs and major trade associations of various countries, in order to have the widest possible dissemination among stakeholders.

## **PARTICIPANT COMPANIES - WHO ARE THE ADVERTISERS**

The magazine has a broad and targeted distribution, and is an excellent tool to promote manufacturers, OEMs, suppliers, installers, engineering companies. There are interests, either for the companies that want to be known by the end user, the contractor, the EPC, also the companies that want to promote themselves with OEMs. Thanks to a specialized work distribution and reporting, advertisers are guaranteed to have a commercial return in terms of expendable contacts.

## **THE EDITORIAL TEAM - ABOUT US**

The magazine is produced by industry professionals to meet the technical and commercial needs of companies. In addition to publishing specialists, marketing and communications, they collaborate with the magazine engineers and active trading in the market. The team is international in order to cover the most of the major distribution areas - Europe, Arab countries, Iran and Africa - and takes advantage of a partnership with an import-export company in Tehran.

Write to [marketing@industrialtechmag.com](mailto:marketing@industrialtechmag.com)  
We will send you a proposal tailored to you



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**INDUSTRIAL  
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International magazine

Editor in Chief  
Stefano Petrelli

Executive Editor  
Golkoo Houshmand

Scientific Supervisor  
Mor Ngirane

Editorial Board  
Mor Ngirane  
Benjamin Pollentes  
Luca Coppari

Editorial Manager  
Noemi Morales

Graphic Design  
Ashkan M.Kalantari

Italian Printer  
Pacini Editore Srl  
via Gherardesca 1, 56121 Pisa  
TEL: 050-31.30.11

R.O.C. number 31477  
Free copy in postal distribution

Head Office  
Via Porpora, 150, 20131 Milano (MI)  
244 Madison Avenue - New York  
[www.industrialtechmag.com](http://www.industrialtechmag.com)

Owned by:  
Indiepub srls, Via 8 marzo, 9 62100  
Macerata MC Italy  
P.Iva 01971050438

# Cybersecurity For Manufacturing

Manufacture Industry is experiencing its next revolution and transitioning to so called Industry 4.0. The hyped term and style imply the relevance of information technology for the transformation. The main trends are the ever-sought automation, which is not only mechanical, and the interconnection of tools, machines and systems in and across plants. Both trends are possible thanks to information technologies, computational power and communication between control systems and industrial operational systems. Historically, the means of production were isolated from the external world in specific facilities where security could be enforced by physical barriers, personnel safeguarding access and anti-theft systems and alike. Nowadays, especially with the Internet of Things (IoT), many of the information routes between physical objects and information systems should be recognized as potential entry points for malevolent intruders, and targets of hacking.



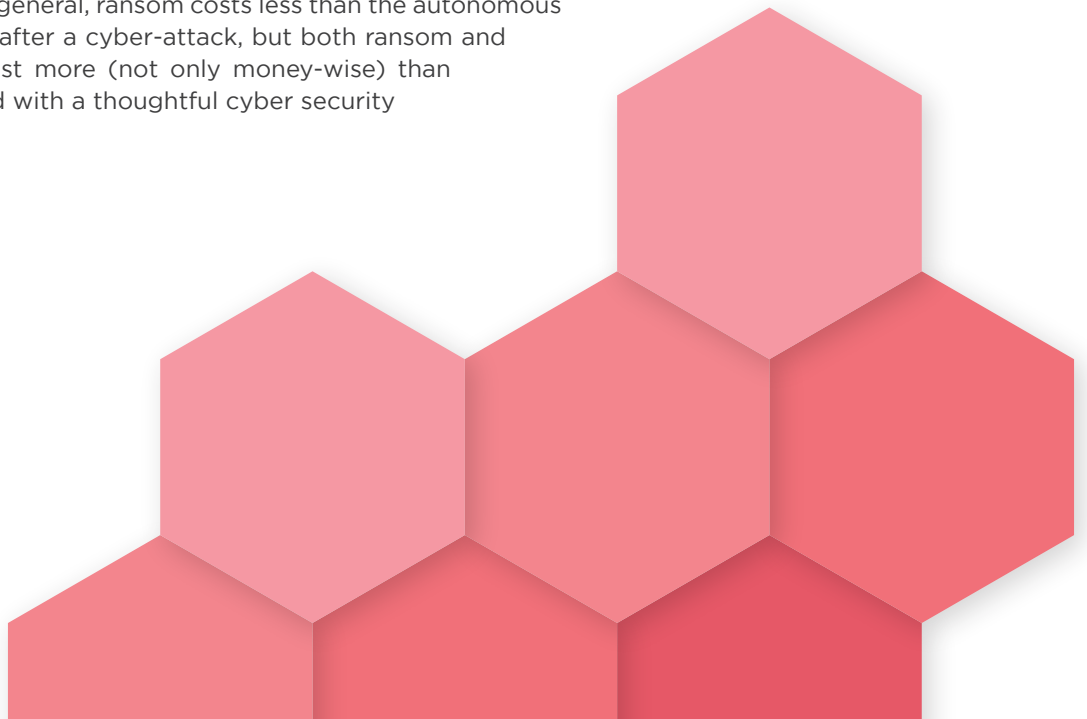
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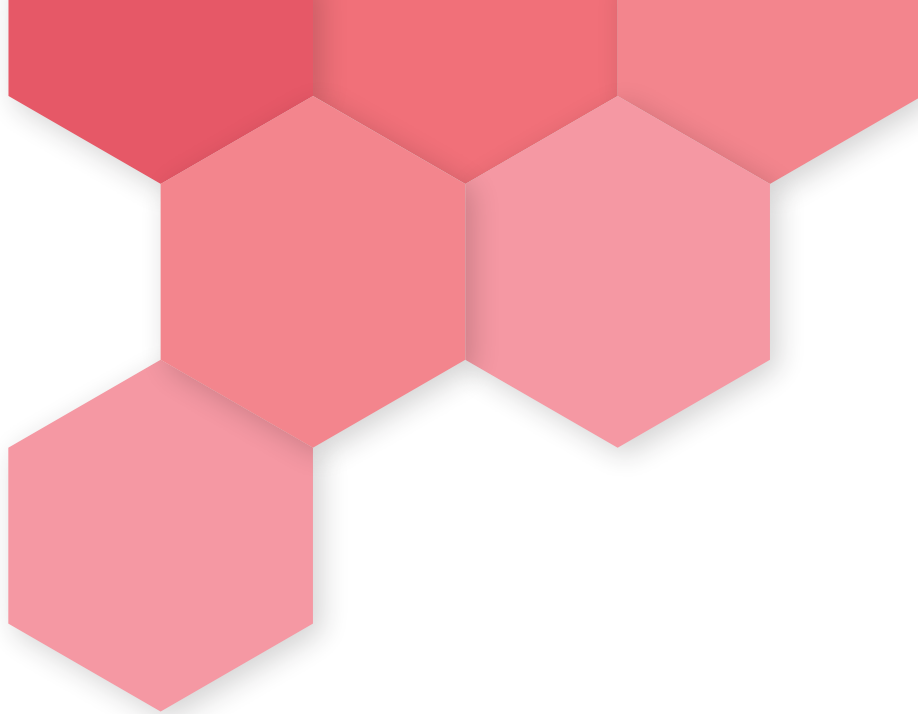
Cyber-attacks are real, common, yet partly ignored by the manufacturing industry workers and leaders. There are several types of data, attacks and consequences that must be considered in order to be protected. First, the structural fragilities should be recognized and understood. The Industry is changing and accelerating, considering that information technologies have their own different pace and rate of change, enhancing the newness and hence the possible mismatch between old processes, ways of thinking, and actual threats. In many cases, decision making relative to Operational Technologies (OT) is still taken by leaders with little or no participation by Information Technologies (IT) teams and expert. At the same time, the rate of productivity and the interconnection of systems increase the number of perturbations that could negatively affect the industry. Little knowledge of own technology, own fragility, and possible solutions are the main problems.





In modern times data have an almost intrinsic value, and the best, cheapest way to access data is actually through human sources. Social engineering is the set of techniques used to trick personnel into releasing sensible information, either without realizing it or thinking the agent interacting and asking for information is a trustable one. This is the case of phishing and spear phishing, the targeted version in which, for example, emails are designed according to standards of specific sections of the industry to reach even a single worker and having her or him smoothly release data or credentials to hackers. Awareness of the problem and identification protocols with encrypted communication can help avoid dangerous mistakes. Alternatively hackers can acquire old credentials through random search of compromised emails from datasets of this sort, finding access by chance but at a very low intellectual effort, or by spying. Among the data hackers can be interested in, there are patents, intellectual property of optimized processes. This information can be directly acquired and used by competitors, or rather sold to them. For this same reason, data are often used for ransom, which most of the times is actually paid by companies, despite official recommendations of avoiding it, and without explicit admission of doing so. In general, ransom costs less than the autonomous effort to regain integrity after a cyber-attack, but both ransom and post hoc restorations cost more (not only money-wise) than securing data beforehand with a thoughtful cyber security policy.





Manufacturers often possess data relative to their customers, financial information, addresses, activities and preferences. These are all exploitable for illegal profit, and a failure in protecting them would also affect deeply the company's reputation, with added economical costs under the form of loss of clients and of compensations. Another interference between customers and companies can happen when a company's website is hacked or attacked. It is possible to corrupt webpages and information, as well as denying services (DoS) through multiple access requests that hosts could not process. Again, reputation can be compromised by these events. In general, downtime is money lost, be it virtual or not. Production is also slowed down when IT teams have to focus on spam emails and similar attacks, apparently low-cost and low damage.

If all cyber-attacks just described have an immaterial feeling, it is best to remember how OT can be activated, deactivated and perturbed through IT systems. Connected objects often store information about disconnected objects too; apart from that, perturbations can cause modified, faulty production, if not complete interruption. The modification of physical processes puts materials and even people in danger. Moreover, information about logistics can expose products to literal theft along supply chain and trade lines.

The best solution starts with spreading a modern data aware culture across the company, educating employers and employees especially against social engineering and realizing where relevant information is created, stored or made accessible, considering hackers would use any possible means, even if seen as “unworthy”, “uncomfortable” and “unlikely”. Those are probably the softest spots, from the hackers’ point of view. A specific figure or team, internal or external, must take responsibility for cyber security, and IT must be integrated with OT. This is harder for small and medium companies, but it must be understood that they are the backbone of healthy economies and the majority of available targets. Organizations (e.g. ISO, NIST) provide families of standards, guidelines and best practices regarding cyber security, that companies should first be informed by and hopefully conform to.

Cyber-attack is a threat, has high costs in terms of money, reputation and even safety. Awareness and proactivity are fundamentals and will give an edge to manufacturers fully entering the Industry 4.0 era.



**INDUSTRIAL  
TECHNOLOGY**  
*editorial office*

# We design with experience, we build with professionalism

We design and manufacture equipment to handle and contain all types of materials, making work faster and safer in various sectors.

We can propose innovative solutions that differentiate us because we have never contented ourselves with merely "producing", but we have always given great importance to the project phase. Our catalogue does not only offer the products that the market requires, but aims above all to offer solutions to needs that do not have an answer yet: our strength is the continuous innovation, the constant research for quality, the great technical and commercial flexibility that makes us a privileged interlocutor for companies looking for effective and immediate solutions.

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The three product lines we offer address different sectors - construction, industry, recycling - but they have in common the need of solid and reliable structures. Our thirty years of experience allow us to set up production lines ensuring constant control, from design to finishing. For this reason, our products are not a cost for the company, but an investment to improve safety and productivity.

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**BUTTI**  
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# *Innovation, Networking and Orientation in the Age of Industrial Transformation*

*Hannover, February 3, 2021:* The corona pandemic has accelerated the digitalization of industry. At the same time, it has exposed the vulnerability of global supply chains. In the midst of unprecedented upheaval, industry faces a crucial question: Which strategies, measures and partnerships ensure competitiveness? HANNOVER MESSE Digital Edition – the central platform for innovation, networking and orientation in the age of industrial transformation – provides the answers. "Industrial companies have to carry out in a few months what would otherwise have taken years," says Dr. Jochen Köckler, CEO of Deutsche Messe AG. "This requires a platform where challenges can be discussed, solutions presented and networks expanded – which is exactly what the HANNOVER MESSE Digital Edition is. Even in times of Corona, the world's leading trade fair for industrial technology remains the central platform for innovations and solutions surrounding industrial transformation."

The HANNOVER MESSE Digital Edition – which features an expo, a conference and networking – focuses on the needs of visitors. "We create the greatest added value for our exhibitors because our platform creates the greatest maximum benefit for their customers," explained Köckler.

## **EXPO: Room for Innovations**

In the EXPO area, visitors have direct access to extensive product overviews from exhibitors. Best-case applications, video tutorials, live streams, and video chats enable them not only to learn about specific solutions for optimizing their processes, but also to enter into direct exchange with exhibiting companies.

## **CONFERENCE: Room for Inspiration**

HANNOVER MESSE Digital Edition's conference program starts on Monday, 12 April, with a focus on economic policy issues: What effect does Corona have on globalization? What role does Europe play in the concert of world powers? How will transatlantic relations change following the Trump era? German Chancellor Angela Merkel will open HANNOVER MESSE Digital Edition.

From Tuesday to Thursday, the focus is on technological innovations and solutions. What role does AI play in industry? How can data generate added value? What potential does hydrogen offer industry? From specific use cases to long-term future strategies, speakers at the CONFERENCE area inspire visitors with ideas and visions and provide concrete methods for their companies. Presenters include AI legend Toby Walsh; Eugene Kaspersky, founder of IT-security company Kaspersky Lab; and Claudia Kempfert from the German Institute for Economic Research.

The WomenPower career congress runs on Friday, 16 April, under the motto "RESET.RETHINK.RESTART". The program includes workshops, panel discussions and new networking solutions.

## **NETWORKING: Room for Interaction**

All visitors at HANNOVER MESSE Digital Edition can directly contact exhibitors, speakers and other visitors. A personalized entry page supports this with a corresponding dashboard that displays the companies, speakers and participants relevant to the respective visitor. From there, the visitor can initiate a direct contact request and then connect via chat or video call.

## **HANNOVER MESSE Digital Edition**

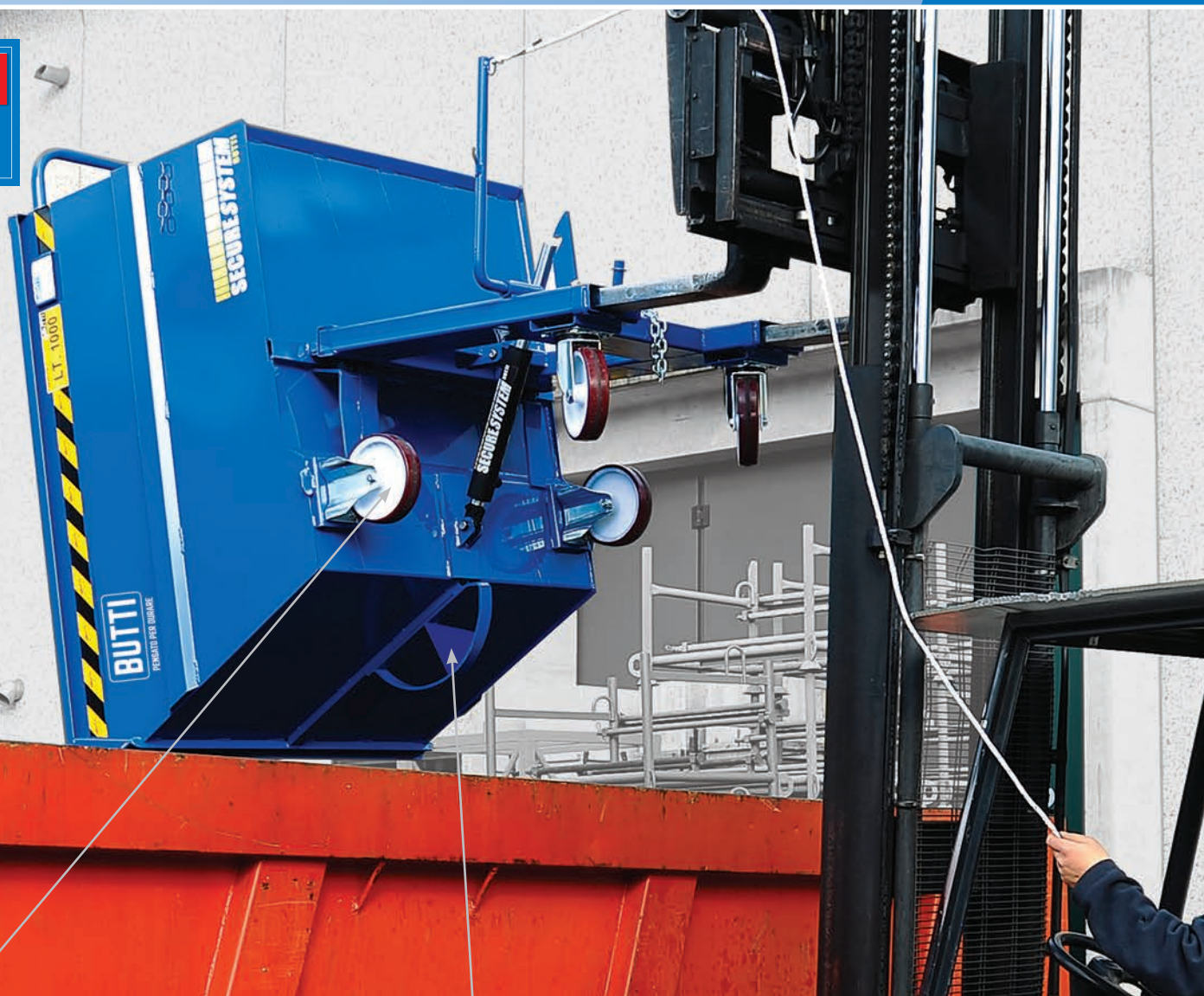
HANNOVER MESSE Digital Edition is the knowledge and networking platform for industry, energy and logistics. The event consists of an expo, a conference and networking. Under the keynote theme "Industrial Transformation", pioneers present their ideas and technologies for the factories, energy systems and supply chains of the future. Leading topics include digital platforms, Industrie 4.0, IT security, CO2-neutral production, AI, lightweight construction, and Logistics 4.0. Conferences and forums complete the program. HANNOVER MESSE Digital Edition runs from 12 to 16 April 2021. Indonesia is the Partner Country in 2021.



# TIPPING CONTAINERS PERTUTTO BUTTI



100%  
MADE IN  
ITALY



## WHEELS

ROTATING NOISELESS WHEELS  
WITH BRAKE



## HALF ROUND STEEL SUPPORT

SUPPORT THAT SAFEGUARDS WHEELS  
DURING THE CLOSURE OF THE BUCKET



The tipping containers "Pertutto" are very useful: they are suitable to be hooked to electronic lift trucks and fork lifts, and they can also be equipped with the attack for the Secure System cylinder, the system that guarantees high standards of safety during tipping operations.

The tipping containers are made with sheet metal filter which separates liquid and solid substances: furthermore are equipped with anti-noise wheels with brake, coated polyurethane and rubber shock absorbers.

AVAILABLE IN VARIOUS DIMENSIONS AND CAPACITIES

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SECURE SYSTEM

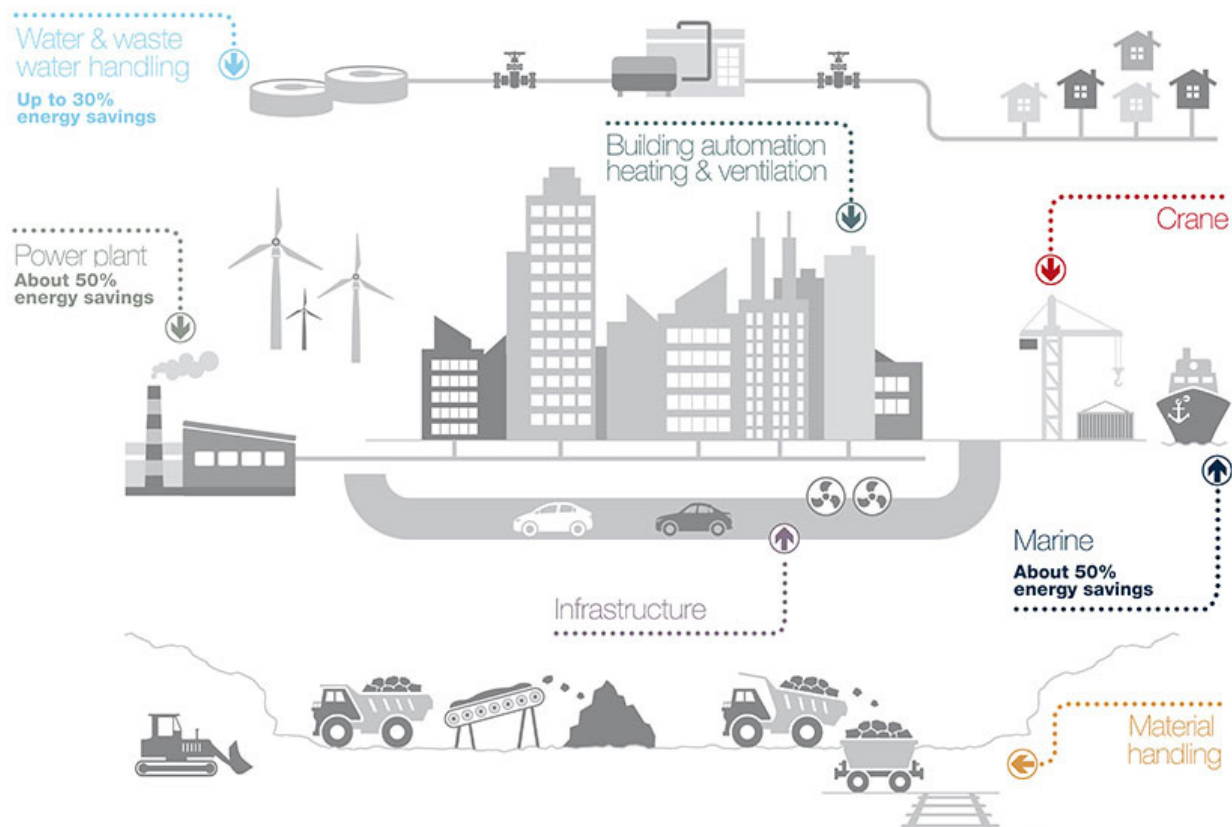
## MAXIMUM SAFETY

HYDRAULIC CYLINDER THAT ALLOWING A GRADUAL AND PROGRESSIVE TIPPING WITHOUT VIOLENT BACKLASHES AND ACCIDENTAL FALLS.

AVAILABLE ON REQUEST  
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# Simplicity in its most advanced form

## Solutions for Industrial Automation



MADS Srl is a company specialized in the supply of equipment for the control of electric motors. Since 2016, MADS Srl is the official Italian partner of the historic Swedish company EMOTRON which, in its production site in Helsingborg, develops and produces efficient and reliable equipment, offering intelligent solutions to end users, system integrators and machine builders.

Thanks to this partnership, MADS offers on the market FDU frequency converters from 0.25 to 3000 kW at 230-690 Vac in IP20-54 execution, Soft Starter TSA from 5.5 to 1800kW at 200-690V, and M20, which is a shaft power monitor.

MADS is composed of a team of people with over 25 years of experience, whose main value is to create customized solutions able to meet the needs of customers, by guaranteeing personalized solutions and providing them, in addition to equipment, the following services:

- Field assistance with specialized technicians and maintenance services for the entire useful life of the products
- Supply of spare parts to ensure optimal efficiency of the installed equipment
- Repair service in its own laboratory or directly on the customer's plant
- Training courses to illustrate the functionality and ease of use of all EMOTRON products





EMOTRON drives are used in the main industrial sectors, such as:

- Compressors
- Manufacturing
- Pumping stations
- Oil & Gas
- Wood
- Marine
- Water treatment

Regarding this last sector, a good example of the use of EMOTRON FDU inverters in a wastewater treatment

plant has shown that, before the installation of the inverters, the start / stop sequences were entrusted to valves which, by creating mechanical stresses, caused the system to be inefficient, and with continuous maintenance problems.

With the inverter modulation, a more reliable operation was obtained by optimizing the performance curve of the pumps that work at a variable speed.

In this way, unexpected downtimes on the plant were eliminated, and operating costs decreased. The money saved during the first year was enough to repay the investment.

# Construction of machines and plants on behalf of third parties



Italprogetti S.r.l. is an Italian company operating in the engineering sector in Trino (VC) settled.

*"Since 1991, we have been manufacturing special machines, prototypes, parts of complex plants, precision metal carpentry in iron and stainless steel on behalf of third parties". Mr. Franco Audisio, one of the two owners of the Company tells: "We support the customer from the project phase, in order to satisfy the strictest demands for quality and reliability";*

Today, with 45 collaborators, the Company is spread over an area of 13,000 sq. m of which 5,000 sq. m are covered. The customer can count on a highly qualified team of 5 technicians and engineers, who work with SolidWorks 3D CAD; then the orders move to the production departments: laser cutting and bending, welding, painting, assembly and plants.

*"All the departments are in the same quarter and thanks to an excellent integrated management system, we are UNI EN ISO 9001: 2015 certified". Dr. Stefania Domenicale, Account&financial Manager says: "We respond to strict environmental sustainability behaviors, which is the reason why we obtained the UNI EN ISO 14001: 2015 certification and finally, the EXC3 UNI EN 1090-1: 2009 + A1: 2011 certification, for welding processes".*

Mr. Gianluca Audisio, Sales&business Manager, tells: *"With the purchase and so, the increase in the number of machineries and production areas over the years, Italprogetti has had the opportunity to offer its services for various sectors. Printing machines for packaging material industry: ventilation groups, drying tunnels, platforms for plants, inking groups, printing trolley, washing plants, extruder structures. We also produce small and big covers for tool machines; we build plants for the waste treatment sector, turbine cover cabinets, filtration plants for the Oil&gas and armored containers and mobile operating stations for the military sector.*

*At the moment we are focused on the NonWoven industry. One of the sectors which had a breakthrough during the last year and where we are in the construction of ovens, cabins and various structures specialized".*

We asked to Mr. Piero Domenicale, the other owner of Italprogetti, why this is a special year: *"This year we will celebrate 30 years of activity, trying to give a strong signal of optimism and stubbornness by inaugurating the opening of a new warehouse".*

Visit Italprogetti's website and call for more information: **[www.italprogetti-trino.it](http://www.italprogetti-trino.it)**





# INDUSTRIAL TECHNOLOGY

INTERNATIONAL MAGAZINE  
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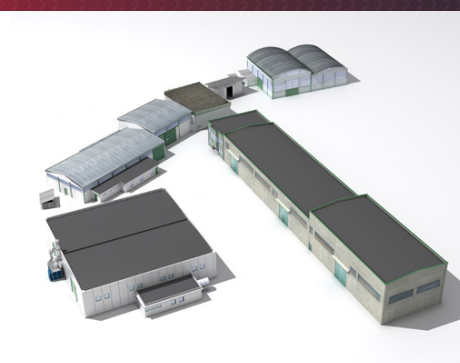
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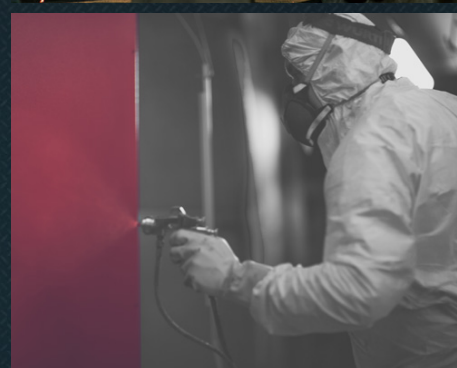


WE DEVELOP, ENGINEER  
AND PRODUCE YOUR MACHINE



SINCE 1991,  
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of Industrial machines  
and plants,  
on behalf  
of third parties,  
as UNIQUE supplier  
able to manage the entire  
PRODUCTION CYCLE,  
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REDUCED  
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Made in **Italy**. Made in **Italprogetti**.



# Linearteck Srl, manufacturer of Litek®

Linearteck is the first Italian Linear Systems Center authorized by Schaeffler® and it is a national distributor, for the industrial sector, of Stabilus, Lift-o-Mat, Bloc-o-Lift gas springs and hydraulic shock absorbers.

Linearteck excels in the market of packaging, picking and placing and automatic machines for the drawing, planning and construction of linear modules under the Litek® brand: an innovative product, customizable, adaptable to any customer need, with both belt (with wheels on shafts or with recirculating ball carriages) and screw handling; fast or slow use, rigid or flexible, double or single guide, with profiled or recirculating ball bearings.

The field of application of our products is wide: versatility at low cost, various uses and multiple combinations, possibility of mechanical interface for gearboxes / motors of famous extra European and European manufacturers, ranging over different functional types, with various degrees of protection. The Litek® linear module is specially designed and made to measure, complete with gear motors or force input only, assembled in a cross, portal, cantilever, pair, orthogonal, corner, with multiple carriages, blocked or idle.

Everything is aimed at reach the best “automation in motion” solutions.

A flexible production choice, which allows Linearteck to operate in certain times, to meet customized needs and requests, and also allows the assembly to be carried out in a functional way, virtual with 3D modeling first, then physically at the bench.

The purpose of this flow is to create redundancy to eliminate any kind of inconsistency between the project and the final product.

The three-dimensional drawing of the linear unit, or of the whole group of established dimensions, can be sent by e-mail and returned once approved, at the request of the customer, who evaluates its compatibility and dimensions. Testing, packaging and shipping close the cycle of Litek® products.

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# We will take you into the future



Tex Computer is a close team of about thirty highly specialized technicians who have been successfully operating in the field of industrial automation for over 30 years; in particular, our focus is on the market of machines equipped with electrically motorized axes for which we have created an interesting range of products ranging from PAC (Programmable Automation Controller) systems to remote I/O via Fieldbus.

Our PAC range, called Power Family, is scalable in performance and cost and expandable via CANopen and EtherCAT fieldbuses.

Their real time multitasking operating system, mainly

motion control oriented, allows the integrated management of PLC, CNC and HMI tasks while ensuring axis sampling times that can even be less than 1 ms.

The new Power A, which is undoubtedly the most powerful controller of the Power Family, has been designed to offer the best possible performance on the EtherCAT fieldbus which can operate with sampling times of 500  $\mu$ s and manage up to 40 axes, both interpolated and non-interpolated.

In this context, the CoE (CANopen over EtherCAT), EoE (Ethernet over EtherCAT) and FoE (File Access over EtherCAT) protocols have been developed to allow maximum





**Tex**  
systems  
& solutions



operational comfort in the commissioning phase.

To allow connection to drives that do not support EtherCAT, 6 axis interfaces in wired logic are also available (AX1 ... AX6) which each allow the connection of 1 bi-directional 5V Line Driver incremental encoder, 2 inputs for travel limit switches, 1 drive enable output and the 5V Line driver outputs that generate the Step / Direction signals to manage the Stepper or Brushless drives at frequencies of up to 2 MHz.

Finally, there are a few analog and digital inputs and outputs, a couple of RS232 serial ports, a RS485 serial port, a CANopen port and two USB sockets.

Communications to the other devices located both at the operational (OT Device) and at the information (IT Device) level are supported by an Ethernet 10/100T port and by a wireless port that manages the Wi-Fi and BLE protocols.

This product family is equipped with free software for developing and debugging applications and a suite of paid software programs, called Tex Smart Gateway 4.0, for their integration within the new I4.0 architecture.

**[www.texcomputer.com](http://www.texcomputer.com)**  
**[commerciale@texcomputer.com](mailto:commerciale@texcomputer.com)**

# Torneria Emmegi - Manufacturing small turned brass bars



Ever since 1977 Emmegi has specialized in manufacturing small, turned brass bars, building a solid reputation based on its commitment and competence.

This reliability was rewarded with the Quality System Certification with the UNI EN ISO 9001:2008 qualification.

It is thanks to the quality control of the materials purchased, the technical support (producing particularly detailed work either from a design or from a sample, co-design using CAD) and the control, in real time, over

all phases of the production cycle that the customer's expectations can be met on a daily basis.

Emmegi is an industrial company that has, year after year, led and consolidated its talent for accuracy, and Made in Italy, in increasingly expanding, demanding and diverse international markets such as automotive, high pressure tech, hydrothermal, sanitary, and gas valves. Located in the Marche region, Emmegi is inspired by its real passion and deep devotion to its work. Strictness and precision are combined to produce a unique machining of turned



metal parts using different kind of brass with a high degree of customization.

In 1995, Emmegi's quality has been rewarded with UNI EN ISO 9001 certification, confirming the expertise of its highly skilled team. Furthermore, a specific software is adopted in order to improve the production's control phase for each specific customer combined with a steady improvement of the technical assistance services, and of the verification of materials and equipment. This vocation - striving for perfection - touches every phase of the industrial cycle on a daily basis, from the initial offer to the technical implementation of the product and the subsequent shipment, to the individual customer's satisfaction.

Organization and work's flexibility are two core values that Emmegi has consolidated and practiced in over 40 years of business. With the development of a complete quality control's system, processes are constantly monitored by advanced IT systems and by dedicated trained staff. The expertise of the technical office, combined with the sophisticated optical and electronic control equipment, ensures product's compliance and full adherence to customer's specifications.

The quality of the turning phase is guaranteed during the washing's phase from the latest machinery, by preserving and respecting the final product's technical specifications, and by selecting the most suitable packaging for each customer.





# Safeguarding your every step with the BKRS walkable cable tray system from OBO Bettermann

Materials have to stand up to all sorts of rigours in the rough world of industry. That applies equally to electrical installations. Powerful protection against footsteps, dust and lots of other impacts is essential in supplying systems reliably with electricity and data.

OBO Bettermann offers its walkable BKRS cable tray system to precisely meet these requirements. Walkable cable trays protect both electrical installations and the people working in industry. Our new system components achieve these aims even better than before.

Covers, cable trays and barrier strips are all 2 mm thick throughout and, connected together, they are physically extremely sturdy. They guarantee a walking load of at least 350 kg pursuant to EN 50085-2-2, depending on where they are installed.

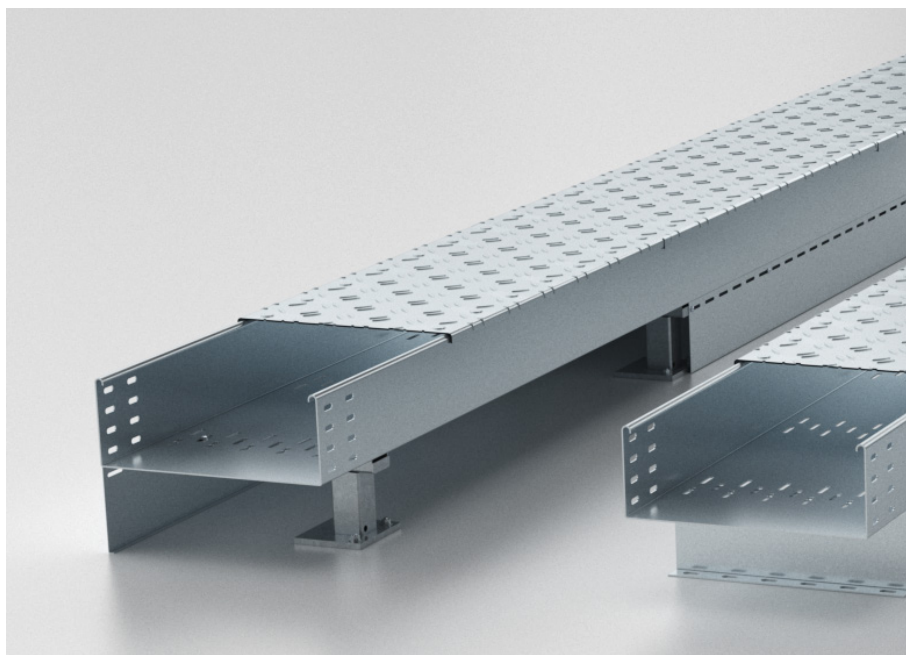
A corrugated cover – with a newly developed corrugation pattern – provides the best possible non-slip properties in category R11 as described in DIN 51130 to make standing on it safe, minimising the risk of accidents in daily work.

Thanks to a displacement space category of V10, it is also safe to walk on even when very dirty, such as when covered with oil or grease.

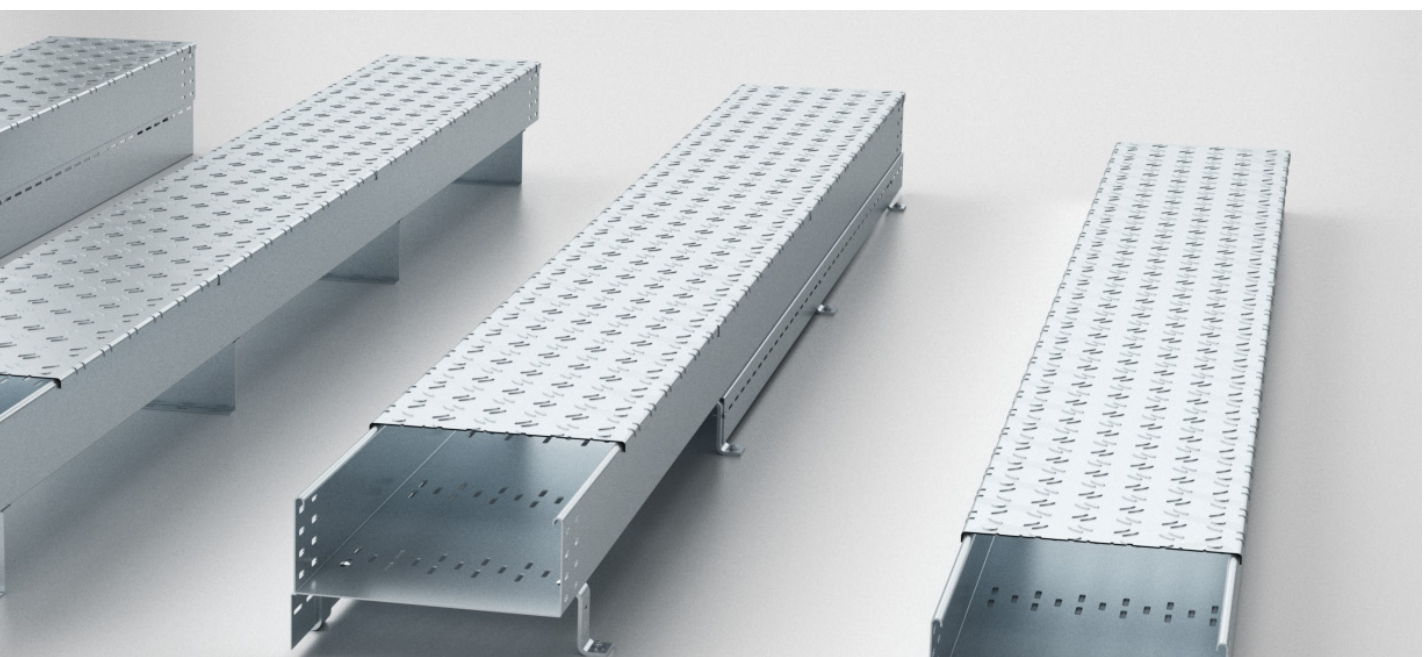
As an alternative to the sash lock, this new corrugated cover can now be assembled using cover clamps. The cover lifter that goes with them makes it easy to disassemble them and can also be used as a drilling template for connector perforations.

A screwless connection to functional equipotential bonding can be established using the KFL clamping spring and AKL connection terminal. The clamping spring is easy to clip onto the cable tray rail, which routes the conductor rope along the cable tray, and any number of junctions and exits can be produced using the connection terminal.

The walkable cable tray system therefore provides all-round protection for cables and wiring, guarding reliably against dirt as well as physical and electromagnetic stresses.







# Meeting the VUCA challenge Taking the right steps now ensures future success, says Ferhat Eryurt



**Ferhat Eryurt, Partner at apsolut Group**

Chemicals | Pharma | Utilities

In the world of VUCA – a term to describe volatility, uncertainty, complexity and ambiguity, the outbreak of Covid-19 has puzzled business assumptions and certain believed paradigms.

The last year has been hard, but the good news is that by adopting effective strategies, every business can emerge stronger and fitter when life returns to normal.

The oil and gas sector has been badly hit, with the large oil majors facing sudden drops in demand, collapsing prices and an unpredictable future.

The size of the oil and gas giants gives them some built-in resilience based on long-term investment plans in exploration and production. But their suppliers face more serious problems. They are typically much smaller com-

panies with perhaps as few as one customer to rely on for their survival. It means sudden shocks create particular challenges for them. They are especially vulnerable, and that in turn can create serious problems for their customers, the big corporations.

This is the time to hold your suppliers close and help them deal with the stress. The challenges created by the pandemic can be mitigated by your adoption of a collaborative approach offered by a supplier management system together with an effective supplier collaboration platform.

Risk can be reduced through the diversification of the supplier base and effective monitoring, creating better



## Is your business positioned sustainably?

transparency and visibility. Adopting such measures will involve a review of business processes including financial processes, cash flow management and contract management, all producing a more efficient and effective operation.

Such approaches also help deal with another increasingly important factor in industry today – rising demands from shareholders, the customer base and governments for companies to reduce their environmental footprint. The pandemic has created unprecedented problems in the oil and gas industry, but also great opportunities. By adopting the tools and techniques we at apsolut Group offer, you can reap the benefits when the good times return.

Ferhat Eryurt is a partner with apsolut Group

apsolut Group specialises in advanced processes and solutions focusing on the design, implementation and roll-out of solutions and programmes for strategic and operational procurement.

We are based in Germany with operations in several European countries, China and India. apsolut is a long-established SAP & SAP Ariba partner.

[www.ap-solut.com](http://www.ap-solut.com)



# We've been processing metal with passion since 1984



## A COMPANY THAT LOOKS TOWARDS THE FUTURE

In **37 years** we've grown a lot, now reaching the third generation; today we occupy a covered surface area of **over 12,000 m2** and we can boast a workforce of 30 highly skilled employees.

For many years we've been supplying leading companies working in the food **processing** and **packaging** industries. We're specialised and equipped to tackle **urgent needs** always guaranteeing the highest possible **quality**.

We've always been on the front line of innovation because we believe in continuous improvement. We've received various accolades for being one of the first companies to achieve INDUSTRY 4.0. We've invested in modern and high performance machinery and software, reorganised our production and increased the production area building new facilities.

## THIS IS HOW WE BRING YOUR IDEAS TO LIFE:

### ENGINEERING:

By importing any **native 3D drawing** we can immediately provide a quote for the job and proceed straight to machining with an **identification barcode**. Thanks to meticulous planning and continuous monitoring we cut down any wasted time and raw materials.

### RAW MATERIALS WAREHOUSE:

We are always well stocked with all thicknesses of: AISI 304 (2B, Satin and Scotch Brite), 316, 430, 444, ALUMINIUM 99.5 and PRE-PAINTED, IRON. For regular customers we can hold stocks of special materials.

### LASER CUTTING:

We have **modern laser cutting plants** equipped with automatic loading/unloading systems that operate with





0.05 mm precision and perform **high quality cuts even on larger thicknesses.**

#### **PRESSING:**

We have lengthy experience in pressing and have 2 **ATC press brakes for up to 4 metres** and 8 traditional press brakes with up to 250 ton capacity.

#### **PUNCHING:**

We have 3 tower punch presses with a 3000 x 1500 mm work area and 58 punches always fitted.

#### **TIG AND MIG WELDING:**

We can boast considerable experience in **precision welding**, including with positioners, especially on Stainless Steel and Aluminium.

#### **OTHER WORKING PROCESSES AND MACHINERY:**

Deburring, tack welding, shearing, calendering, press moulding, thread cutting, countersinking, counterboring, satin finishing and assembly.

#### **FINISHED PRODUCTS WAREHOUSE and MANAGING DELIVERIES:**

**We have never been late with a delivery in 37 years**, this is because we have so much experience in project management. For years now, on behalf of our customers we have fully managed **15,000 product codes** and any necessary sub-contracting work. **The customer has no need to worry, we take care of everything!**

We can offer **daily deliveries** thanks to KANBAN work-flow management.

If you want to know more visit our website:  
**[www.betasiderit.it](http://www.betasiderit.it)**

# Soleco anti-vibration mounts for the Oil&Gas Industry



**Certifications and quality** are fundamental requirements in supplies for Oil&Gas applications: machines such as **transformers and generators** are usually insulated with **ANTI-VIBRATION MOUNTS** which must reflect specific technical characteristics, in order to guarantee safety and performance under all conditions.

Among these, the components must **withstand saline environments and oils**, must have flame retardant properties and the material must **last over time** even in more hostile conditions.

To ensure these high-quality standards, **Soleco** has always invested in research and development also by creating a **range dedicated** to machine manufacturers operating in the **Oil&Gas and Offshore industry**.

Regarding isolation of high frequencies and in the absence of seismic certifications required, Soleco supplies its Customers with the patented **MODULAR BELL MOUNT**: the damper consists of a base and a cover in AISI 316 stainless steel with an internal elastic body made of **THERMOPLASTIC ELASTOMER**, the ideal material for applications in environments with temperatures ranging from -45°C to +135°C.

This particular compound in recyclable thermoplastic highly withstands to time passing, pollutants, hydrocarbons, saline mist, UV rays and detergents.

In addition, the patented **Soleco BELL mount** is equipped with a **tear-proof bush** that prevents overturning, making it suitable for Offshore applications.





If, on the other hand, the frequencies to be isolated are low, or if there is a need of **SEISMIC CERTIFICATIONS**, the best choice for **Soleco** falls on its **SPRING ANTI-SEISMIC** line: its structure is made of AISI 316 STAINLESS STEEL and the springs are supplied in AISI 302 STAINLESS STEEL. And moreover, to comply with basic requirements, the SPRING ANTI-VIBRATION structure can be treated with **special paints** following the NORSOK standard and C5M cycles (UNI EN ISO 12944).

Efficiency and quality of SOLECO ANTI-SEISMIC series has been attested by **tests** carried out at the Polytechnic University of Milan according to the ANSI/ASHRAE 171-2008 standards (*Method of Testing Seismic Restraint devices for HVAC & R Equipment*).

High performance levels and test methodology have been validated and certified by LLOYD'S REGISTER. Due to its experience in this sector and thanks to its continuous research, **Soleco** is an Italian company able to satisfy the increasingly and specific worldwide requests for those operating in the Oil&Gas industry.

For more information or support, visit our website:  
**[www.solecosrl.com](http://www.solecosrl.com)**



# AI for manufacturing: the new Italian lab created by C.SI.CO and RADICALBIT



Sensors, algorithms, real-time analytics, and AI are leading the industrial world into a new data-driven economy. The pragmatic approach to the adoption and large-scale deployment of these technologies is the prime motivation of the new partnership between C.Si.Co and Radicalbit. Through a mutual exchange of know-how, Computer Sight Company will work with Radicalbit to design and implement applications enabled by Data and AI in the industrial sector.

Since Ai-based applications are now extremely important in terms of efficiency and automation of processes, C.Si. Co. and Radicalbit, have created an AI-Lab.

The goal of the Laboratory is to support companies in the transition from industrial to digital production. This transition will be at the heart of industry players' strategies over the next decade.

But it's difficult to implement without a structured approach to data management and analysis across the



entire production chain, and without systems that transform data into actionable information for process efficiency.

For this reason, the collaboration between C.Si.Co. and Radicalbit aims to exploit the AI within the world of Manufacturing to develop solutions that cover in an agile way different and specific needs, such as the ability to obtain greater visibility and control over the operation and performance of the machines; predictive maintenance, simplified assistance, optimization of production and resources used through performance analysis; exploitation of industrial data combined with Machine Learning techniques for monitoring and reduction of energy consumption, etc.

*"The know-how of Radicalbit in AI combined with our thirty-year experience in Industrial Automation will allow us to make significant changes in the management of a production plant by reducing waste (i.e energy) and time, aspiring to an environmentally sustainable industry"* states Emanuele Trinca, Ceo&Founder of C.Si.Co. *"The partnership with C.Si.Co. allows us to acquire new skills in the Manufacturing sector that is now an outpost of research and experimentation for the various declinations of AI. Radicalbit will be a technological enabler offering platforms for streaming data analysis that contributes to the acceleration of the Decision Intelligence within the industrial world"* confirms Leo Pillon, Ceo&Founder of Radicalbit.





## Fast Change, Mini Motor innovation for format changeover



A new line of brushless motors for fast format changeover to guarantee efficaciousness and safety

Mini Motor, Italian company headquartered in Emilia's motor valley, has been designing and producing electric motors for the industrial sector for more than 55 years.

Present all over the world through its own branches in Europe, the USA and the UAE, and a network of authorised dealers, Mini Motor makes innovation and new products development its flagship.

### **Fast Change line**

Mini Motor new line of motors stems from the company's experience and ability to listen to market's requirements. Thought for fast format changeover, these motors feature compactness, remote control, speed, efficaciousness, and safety along with real space and time saving. In fact, despite their small size, speed rotation is higher, the double in comparison with competitors'.

This peculiarity enables format changeover in half standard time, thus increasing machine productivity.





In addition to this, their electronics allows parametrization and diagnosis, also remotely, thanks to a USB cable that can be easily connected with the PC, thus granting both control and monitoring of product functioning. That is predictive maintenance field, crucial to companies since it is just thanks to constant monitoring of motor parameters that timely assistance is possible, avoiding stopover and spare parts.

That is a plus adding to the many advantages already described.

#### **FC3 and FC6, the new frontier of format changeover**

The Fast Change line consists of two motors: FC3 and FC6 that differ on reduction speed, while product features remain outstanding in both motors.

Consisting of a gear and brushless motor, supported by 5 of the most common field buses and provided with a universal jack, the motors emerge as a one-of-a-kind opportunity for companies working with format changeover. Once again, not only does Mini Motor meet a market's requirement, but it also goes above and beyond its own innovation creating a product that can truly improve work in companies and fill the gap with competitors.

For more information:  
[www.minimotor.com](http://www.minimotor.com)  
[sales@minimotor.com](mailto:sales@minimotor.com)



# Industrial 4.0 technologies state of the art: Vection solutions



Vection Technologies addresses project management and software solutions for the digital conversion of companies based on 3D technologies, Virtual Reality (VR), Augmented Reality (AR), industrial IoT and CAD.

**The company has a worldwide** application field, thanks to its headquarters in Australia, Italy, India, United States, that **concerns multiple sectors** such as AEC (Architecture, Engineering, Construction), Automotive, Naval, Industrial Design, Oil & Gas, Healthcare, Training & Education, Fashion & Furniture.

Vection Technologies' products and services are conceived to be applied to four business macro sectors: **Design, Operations, Sales, Marketing and After-sales.**

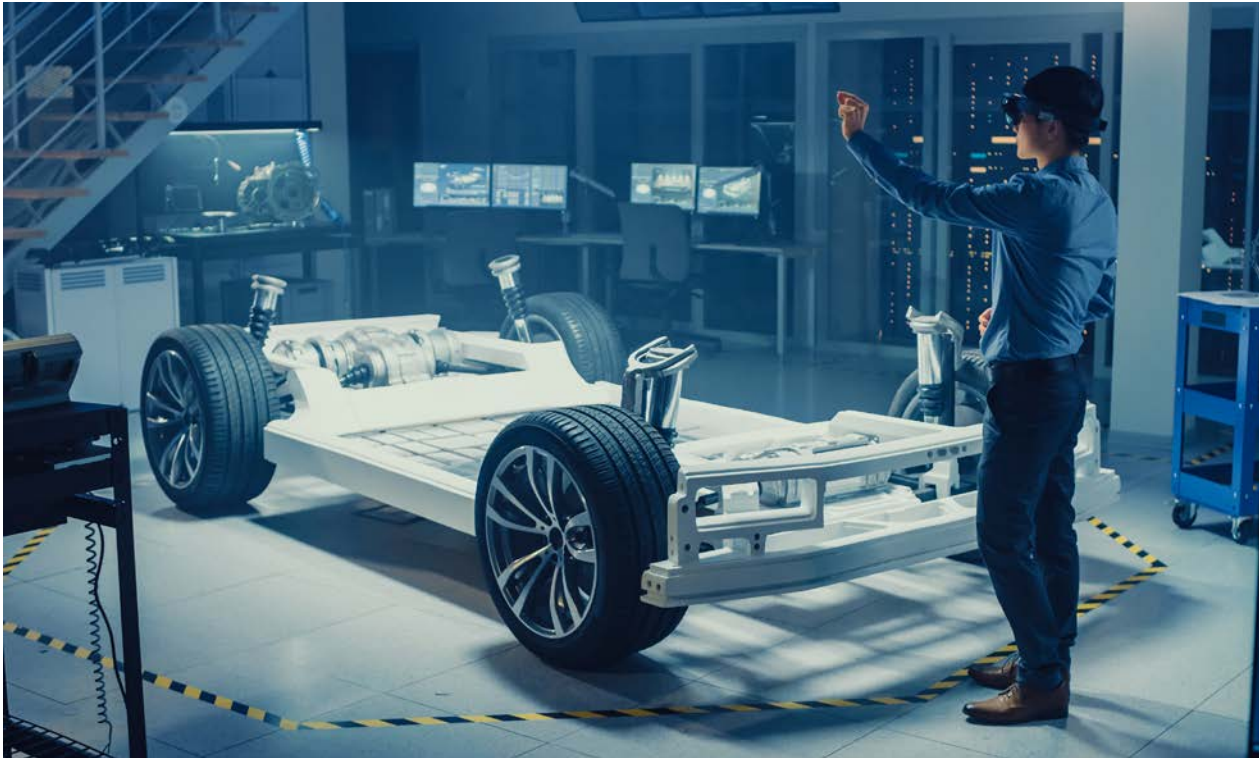
## VECTION SOLUTIONS

Vection specialists know-how gave life to a whole series of solutions, i.e. Mindesk, FrameS, Trainer Creator, 3D Configurators, Trade Platform, AR/VR Custom.

**Mindesk** suite enables to realize CAD projects directly in Virtual Reality or to inspect models interactively with four contemporary users acting.

**FrameS** creates a **cooperative virtual environment** where users (up to six) can interact in real time with 3D models also from remote access.

**Trainer Creator** is a dedicated platform for training that permits the creation of **immersive user manuals** by im-



porting CAD models and choosing layouts and animation sequences.

**3D real-time configurators** is a versatile solution that can be used on screen or in VR/AR to customize any kind of product.

Vection **Trade Platform** enables to plan VR/AR **virtual events and sales experiences** using avatars interacting with other users.

Furthermore, the company can realize AR or VR customized solutions capable of satisfying even the most specific kind of requests.

#### ADVANTAGES

Data released by Vection regarding their customers proven advantages depict an entirely positive picture.

All companies that integrated Vection products or services achieved excellent results that can be summed up in clear percentages:

- 30% time to market
- +20% productivity during the design phase
- 80% prototyping costs
- 70% ergonomic and design mistakes

These undeniable benefits have been reinforced by the great amount of high-level customers that turned to Vection.



# QFP, customized automated solutions for the metrology and process control



Thanks to 20 years of experience in the field of metrology, QFP designs and develops custom-oriented automated solutions for 3D digitizing, designed for production environment, tailored to customer requirements and optimally integrated into the existing processes.

More and more companies meet the decision to automate processes in order to optimize the production process. In dimensional and process control, the automation offers several advantages: more accuracy, repeatability, objectification of the result, productivity.

QFP has developed a range of automated measuring solutions, customizable in terms of size, applicability in

line or in the metrology room, scanning technologies and types of implemented robots.

QBOX is a fully-automated flexible and easily adaptable solution for the quality control in the production and manufacturing processes of plastic, foundry, die casting, sheet metal, composite parts and assemblies. It also can be adapted to different component size and environmental conditions and can be integrated in-line, at-line or off-line for any type of 3D measurement or inspection tasks.

All the elements are integrated in a unique measurement environment, whose purpose is to be fully integrated with the production process.



**The main advantages of the automated inspection cell with T-SCAN**

ZEISS T-SCAN allows the measurement on the most diverse surfaces, without time-consuming object preparation (there is no need to apply references or markers, on the parts to be inspected). Furthermore, the laser sensor is adjustable with the capability to scan dark and shiny surfaces and delivers highly precise measuring results even by scanning of sheet metal, black plastic or carbon fibers. For companies, this advantage represents the optimization of the quality control process, lower tool costs and more productivity.

QBOX fits perfectly with the Industry 4.0 requirements since it automates the inspection process and interfaces directly with SPC and allows the sharing of the complete

measurement results with the multiple parties involved in the part production process.

**Process control: optimize production with automation solutions**

Over the years, QFP has also gained solid experience in the implementation of process control solutions with automatic sensors. These automated solutions support companies in the automation of metrological measurement, as well as in the control and optimization of the production process by integrating automatic corrections in the setting of the machines. Typical applications of this type of solutions are the dimensional control on specific features, the position control, the check on the presence and absence of components, the verification of the orientation of the parts, the control of defects.



# MEP GROUP: The Labour as Masterpiece of the Human Life



M.E.P. Macchine Elettroniche Piegatrici S.p.A., founded on February 8th, 1966 is located in Reana del Rojale, UDINE in the North-Eastern Italy. Its activity consists of the ideation, design, prototyping, engineering, manufacturing and marketing of rebar (reinforcing bar)-processing industrial machinery, plants and equipment. MEP is the main leader brand on the global market for civil construction and large public investment works present in 128 Countries.

The MEP GROUP operates in the following segments: cut and bend – rebar processing equipment, cold rolling, straightening, cutting, precast engineering, welding & handling, and downstream engineered production process in mesh welding plants.

MEP has been an innovation-based company from the very beginning of its activity, in 1967, with the first worldwide patent of the first stirrup bender machine. Since

further MEP improved its strong technological connotation thanks to the essential contribution of the investments in R&D.

The Primary Income Generating Assets, represented by Know-How, Intellectual Property, Technology, Brand and Stakeholder relationships, built over decades of experience in the industry, are now integrated with efficiency, accountability, flexibility, new corporate governance, optimizing the Value for Customers worldwide.

Moreover, Client satisfaction is guaranteed by pre and after-sales assistance, customer experience, services. MEP engages in the Technology Solution Provision, meeting all the customer's needs and requirements as installation, spare parts furniture, in-plant layout, software control and other digital operations in line with the concept of Industry 4.0.

In 2020 MEP GROUP was able to overcome COVID's dise-



# MEP



ases to the overall organisation by the Digital Academy inside the MEP Business School with the digitalisation of many processes, the agile work, the smart working, the Sales Digital Streaming replaced the fairs and the visit to the showrooms in the world.

The Company became a Covid Safety Place where to work with sustainable immunity, digitally and physically, with an accurate Corporate Governance's attitude and ethical positive behaviour. The fourth Industrial Revolution has permeated the already-existing technological substratum.

Instruments such as Virtual Reality, Internet of Things and Cloud Computing are employed in the Group's daily activities.

Although MEP is an innovation and technology-driven company, ultimately the value creation derives from the Human Capital: competence, expertise, passion and

know-how of people makes in the words of the *MEP CEO - Vito Rotondi - the Labour as Masterpiece of the Human Life.*

Technology represents an essential tool to empower the human operator, maximizing unexpressed or undervalued potentials. The avantgarde technological innovation capability represents the primary source of competitive advantage towards global competition, making MEP's machines able to guarantee both the highest production standard and the finest possible output quality at the same time. 80.000 square meter-plant, 128 countries served and 11.000 machines installed worldwide are just some of the numbers testifying MEP's best-in-class position.

[www.mepgroup.com](http://www.mepgroup.com)

# Solid history and continuous improvement



Torneria Nicoletti is a company equipped to work all kind of metal, from brass to aluminium, to copper, bronze, steel and stainless steel; in a wide range of diameters (from 3 to 150 mm).

The company works in many different industrial areas such as: automotive, hydraulic, earthmoving, construction, electrical controls, agriculture, systems for the distribution of water and gas, food, medical and oil industries.

55 years of history certainly are one of the main core strengths that characterize Torneria Nicoletti.

Nowadays, its turnover is made for the 58% from the export to all over Europe, while the remaining part is made by the orders that the company receives from the Italian market.

In the plants based in Trissino it is possible to work both on the single prototype as well as on large volume orders. The approximately 125 employees are able to find solutions at all stages, from the first contact, to production, up to the after-sales. It is therefore not only a matter of production, but also consultation from the first approach and from the first stages of processing. Each piece to be produced is developed based on the drawing provided by





the customer and each time the highest attention is paid to find the production method that is at once the more reliable and economical.

In recent years, Torneria Nicoletti has further differentiated its production activities by increasing the machine park and by installing advanced turning and milling systems. The company is now able to achieve highly precise types of machining thanks to the combination between CAM and the latest generation machines. Moreover, the CAM has allowed Nicoletti to enter the world of 5-axis machining and the ability to work the material by creating any type of required shape and reaching any point in the coordinate system.

Therefore, innovation and the ability to reach all the li-

mits of knowledge in the world of turning, with absolute precision and with the willingness to keep up with the times and improvement.

In addition to such a great avant-garde in the world of turning, the company is also entering the world of milling, thanks to the inclusion of new machining centres aiming at achieving 100% knowledge in the field of chip removal.

However, no matter the sector, the constant ability to be able to answer to every type of customers' need is always there, working both on the single prototype, as well as on large-volume orders, with the same efficiency.

**[www.nicoletti.it](http://www.nicoletti.it)**



# Net.Fluid celebrates 20 years!

## 2021

### Catalogo *Catalog*




VALVOLE E RACCORDI - INOX  
*Valves and fittings - Inox*



High Quality Components

RACCORDI <i>FITTINGS</i>	
VALVOLE A SFERA <i>BALL VALVES</i>	
VALVOLE UNIDIREZIONALI <i>UNIDIRECTIONAL VALVES</i>	
RACCORDI A FUNZIONE <i>FUNCTION FITTINGS</i>	
ELETTROVALVOLE <i>SOLENOID VALVES</i>	
RUBINETTI A SPILLO <i>NEEDLE VALVES</i>	

We would have liked to celebrate our **20th Anniversary** together with our PRECIOUS customers, suppliers and collaborators, but the rules of the social distancing are now more important than our birthday.

Twenty years have passed and many have been the pro-

ducts we conceived, designed and manufactured strictly in stainless steel - **Aisi 316L**.

In 2001 we started making customized products in all shapes and materials; right after we reached a specialization into what was a small market niche: **"stainless steel**

## components for pneumatics and fluidics in general”.

Our specialization in working Aisi 316L only was the consequence of the demand to reproduce a component in brass, steel, or aluminum in stainless steel, one might say a courageous choice in 2003 but correct just in 2004 (**first Net.Fluid catalog**)

It took almost 2 years before we could see the effect of this catalog, 2006 we have to move our headquarters: **warehouse needs more space!**

In 2008 the design activity continued even if a large part of our forces were dedicated to the standard production and our sales began to expand beyond the Italian borders.

The crisis of 2009 did not affect us, but we realized that the choice to focus on **INOX** first and then on our product range had sheltered us from the problems that forced many small metal parts companies to close.

In 2011, the standard components represented 90% of our turnover, customers were mainly small OEMs and dealers, it was from this last category that came the impulse to expand our commercial proposal in support of the established ranges of:

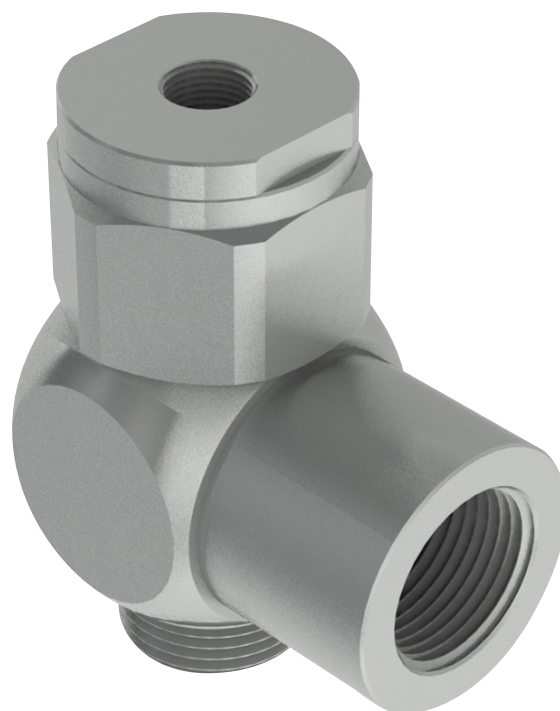
**CHECK VALVES (CVX)**  
**FLOW REGULATORS (FRX)**  
**QUICK EXHAUSTS (SVX)**  
**SOLENOID VALVES (EVX)**

We were asked for the **FITTINGS**, first the **THREADED ACCESSORIES (AXH / BXH)** and then all the other main technologies:

**PUSH-IN (RXH)**  
**PUSH-ON (CXH)**  
**COMPRESSION (DXH)**

From 2012 to 2016 we mainly dealt with promoting the new and more complete commercial program, many customers were more tied to a single product rather than to the entire product range.

It was time to better structure ourselves internally, insert



new collaborators, and outsource some organizational and production processes. We consolidated relationships with strategic suppliers and created new and important partnerships.

Between 2017 and 2018, thanks to the new opportunities arising from the **FITTINGS** range, we were forced to expand again, the current building!

In 2019, the impossibility by a potential customer to find on the market an **INOX UNIDIRECTIONAL PILOTED VALVE** (aggressive environments), saw us ready to take up this opportunity: the **VBX** valve is launched!

And here we are in 2021. We are almost ready to print out the new **Net.Fluid Catalog 2021**, unhappily, it will be still a difficult year from a pandemic point of view and therefore in the year of our 20th Anniversary, we would like to send our best wishes to you all!

[www.net-fluid.com](http://www.net-fluid.com)



# Solution Informatica: complete IT solutions suitable for any company



Solution Informatica Srl is a company specialized in the sale and assistance of management software.

Our aim is to provide integrated software that allows complete control of your business; we are also able to make any changes or implementations requested.

The experience of the founding members in the field of industrial accounting and plant maintenance makes Solution Informatica the ideal partner for large and small businesses.

The close synergy with other companies and professionals specialized in the various sectors of the IT, tax and administrative world, allows us to provide a global service.

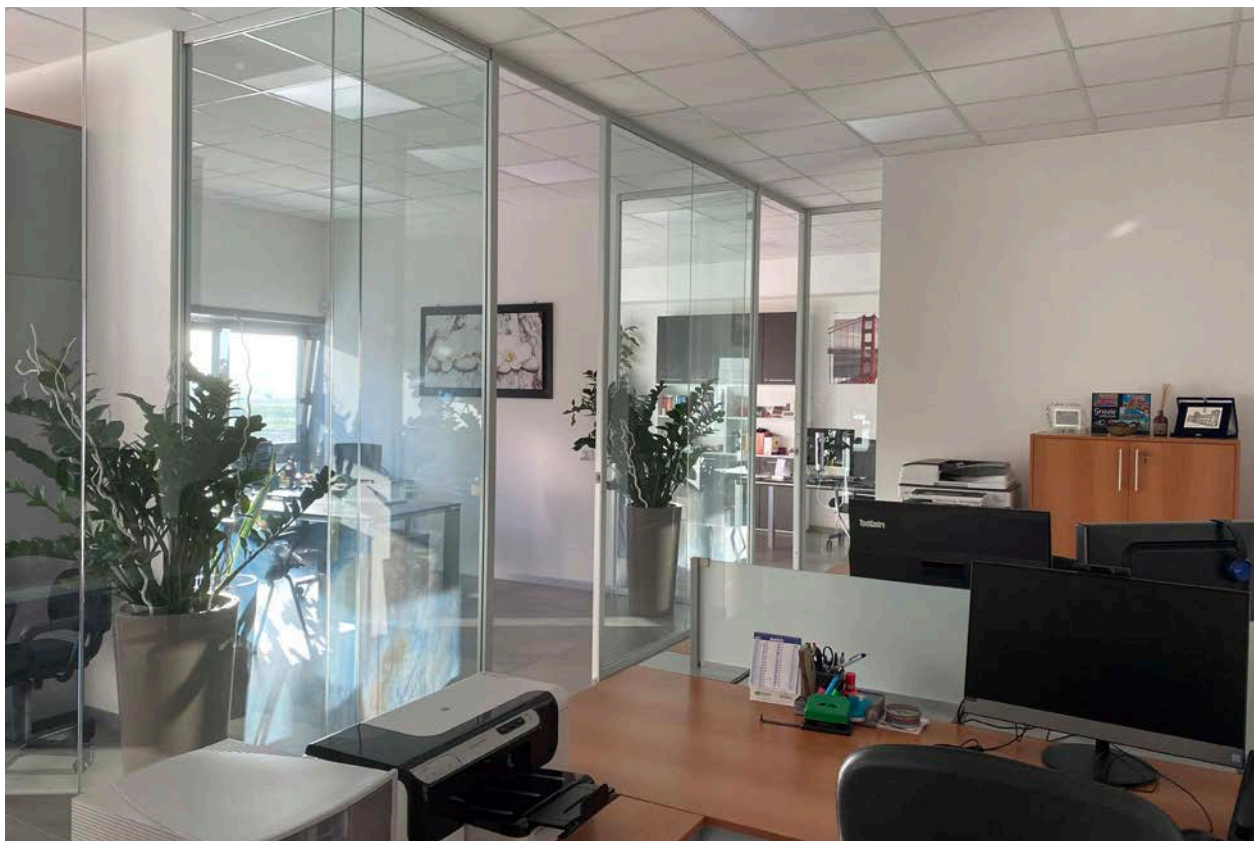
Since 1997 Solution Informatica has been Zucchetti partner.

Zucchetti solutions have always stood out for being absolutely innovative and reliable.

## Best known solutions are:

**Gestionale1 Zucchetti:** the software facilitates the administrative work of any medium-small company allowing to manage in a simple but efficient way: accounting, sales, warehouse, customer and supplier orders.

**Ad Hoc Revolution REVOLUTION:** Ad Hoc Revolution is Zucchetti's modular and scalable company management software that meets the needs of your medium or large company by reducing management times and costs. Thanks to this business software, you can manage with a single, reliable, performing and technologically advanced tool: administration, accounting, management control, sales, purchases, logistics and production. The



numerous possibilities for customization, modularity and integration with other software make it a company management software that is always up to your needs and tailored to your company.

**Adhoc Revolution Web:** is the new generation solution designed and developed for small and medium-sized enterprises: based entirely on Infinity 4.0 technology, it is accessible at any time and from any device. Ad Hoc Revolution Web is enriched, in addition to the typical functions of a management software, with a numerous series of transversal applications such as agenda, e-mail, DMS and CRM that will allow you to have, with a single tool, full control of your company .

**InfoBusiness:** is the Business Intelligence solution to gain competitiveness, reduce waste, improve the efficiency of the company organization, support decisions (Decision

Support System) and control company performance.

**Infinity DMS** For innovative and efficient document management

Solution Informatica also deals with the design, development and management of **websites and e-commerce with additions to management software.**

We also provide Cloud solutions - and we design, develop and manage web applications.

We study and analyze, together with the customer, the business problems that they want to computerize. Our experts take care of drafting an accurate analysis up to the drafting and testing of the customized software.

For more information please visit  
**[www.solutioninformatica.com](http://www.solutioninformatica.com)**



# Hot rolling process for sleeper screws

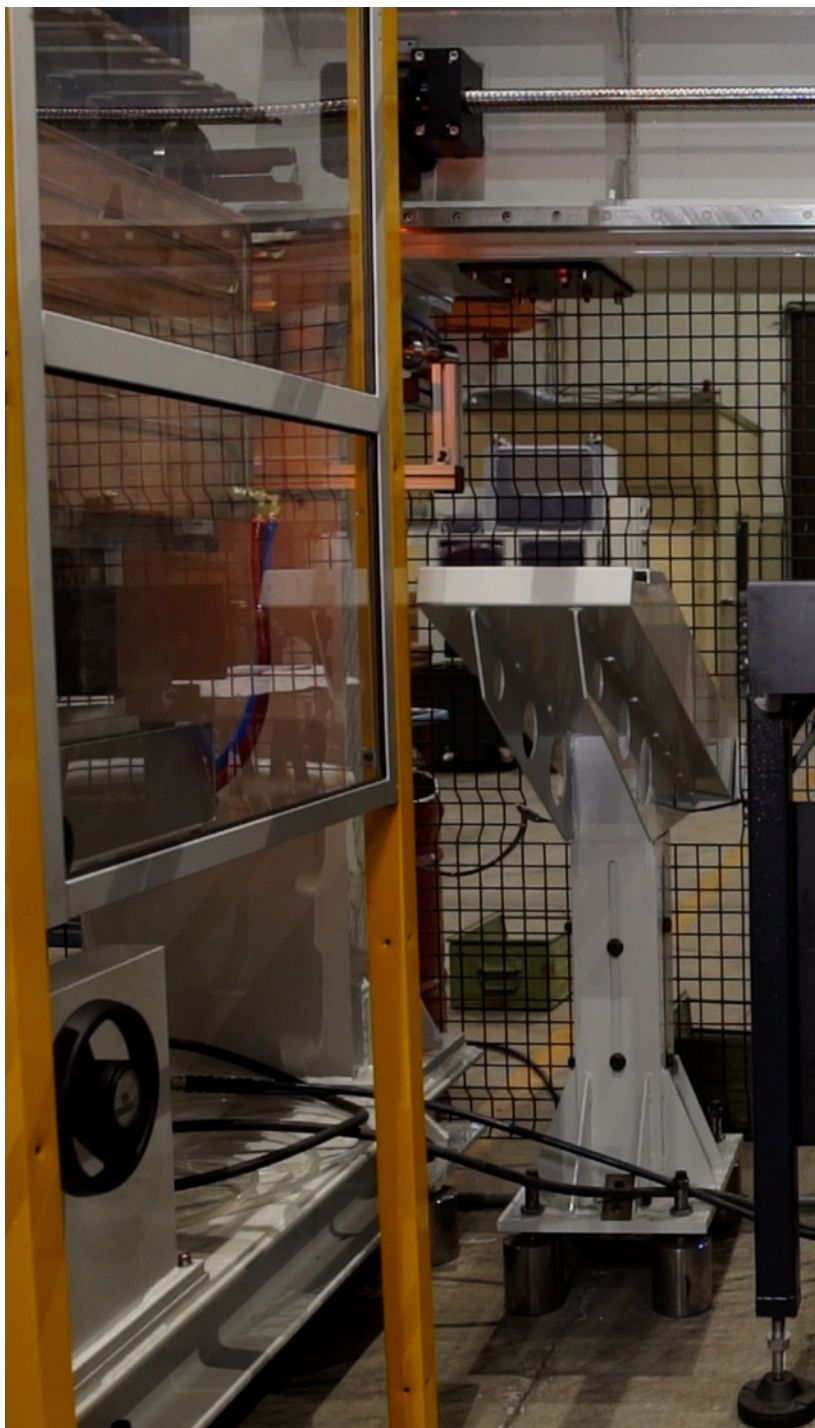


The sleeper screws for railway application, must be realized by hot forming for the preparation of the head profile and by hot rolling process for thread. ORT ITALIA since 1964 has a deep knowledge of the process due the long experience developed in many years: we have supplied many machineries and complete lines of production all around the world.

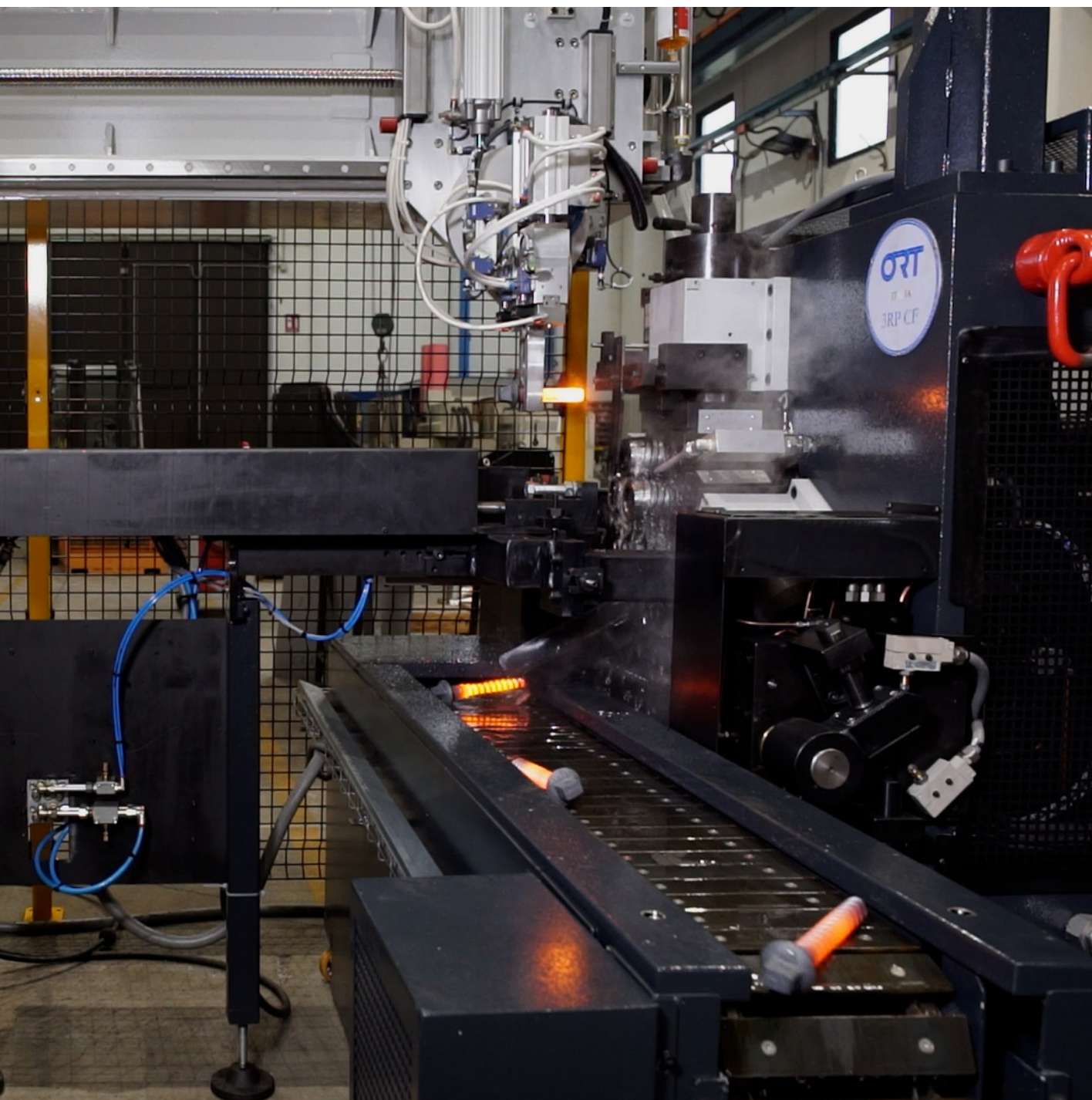
A line of production is mainly composed by an elevator of the blanks, an induction heating system with a conveyor chain, U inductor, main converter, a pick and place system to bring the pre-heated blank and to release it on an introduction device and a 3 rolling dies machine working in thru feed rolling operation. The process must be realized at a temperature between 1.100-1.150 °C and a control of the right temperature is provided by a pyrometer: in case the level of temperature is out of the range, the line provides automatically to reject the parts before the rolling process.

The new production lines realized by ORT are also having an innovative solution to grant the cooling of all the main component of the induction heating system by the use of a Chiller instead of the more traditional water tower: this is a very important solution to avoid the water consumption and to grant a control of the temperature that will be very stable.

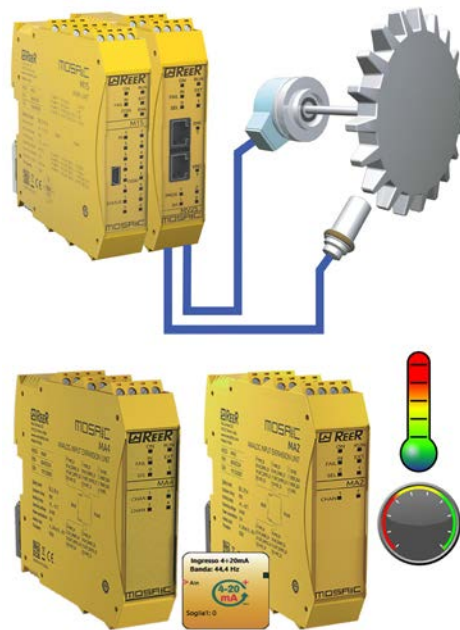
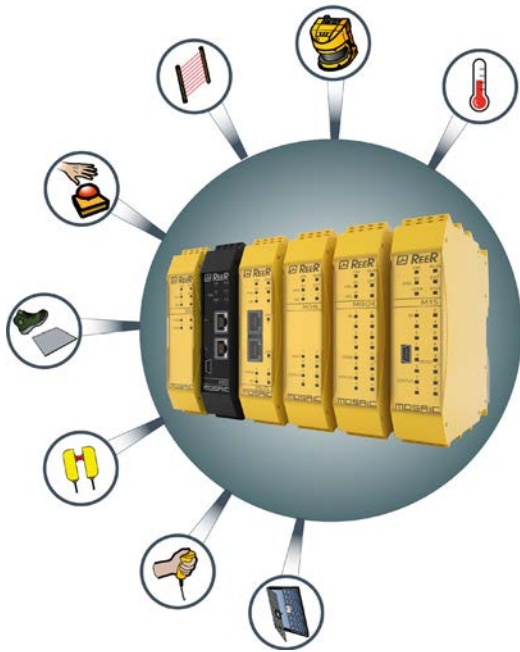
The renewed rolling machine is realized with a very sturdiness frame and a complete control by the PLC in order to manage all the main working parameters.







# Mosaic - The safety controller that makes the difference



Quick setup, total integration of all safety functions and strict compliance with machine regulations: in addition to these traditional strong points, the Mosaic Safety Controller also allows to build and upgrade installations easily.

Today the design and implementation of a safety system for an automated line must also allow for future expansion or adjustment of the project, which may affect single machines as much as entire parts of the system.

The Mosaic solution developed by Reer responds to this request: it is modular, configurable and capable of managing all system's safety functions. Furthermore, it enables designing safety systems with the knowledge that they can be expanded, integrated, or adjusted at a later time.

**Mosaic can manage safety sensors and signals such as** Light curtains, photocells, laser scanners, emergency stops, electromechanical switches, guard-lock safety door switches, magnetic switches, RFID switches, safety mats and edges, two-hands controls, hand grip switches, encoders and proximities for safety speed control, analogue sensors (i.e. loading cells, pressure switches, temperature measurement, flow and level measurement, etc.).

## Advantages

- Reducing the number of devices and wiring and, therefore, the overall size of the project
- Speeding-up the control panel construction
- Allowing a tamper-proof system configuration

- Easy configuration through a graphic interface
- No more laborious wiring needed as with traditional solutions

- A lower number of electromechanical components also means a better Performance Level and, therefore, a higher Safety Level

- The project report provides the actual values of PFH, DCavg and MTTFd according to EN 13849-1 and EN 62061 Depending on the machine complexity, the system can be composed by a single Master Unit in stand-alone configuration (8 digital inputs, inputs for Start/Restart interlock and EDM, 2 pairs OSSD safety outputs, status outputs, 4 test outputs) or, by the Master Unit and up to 14 expansion modules, reaching its maximum capabilities with:

- 128 digital inputs
- 32 Fieldbus inputs
- 32 Safety outputs
- 48 Status outputs
- 128 MSD operators
- 48 Timers
- 8 Muting operators
- 8 Safety guard lock operators
- 32 Probes

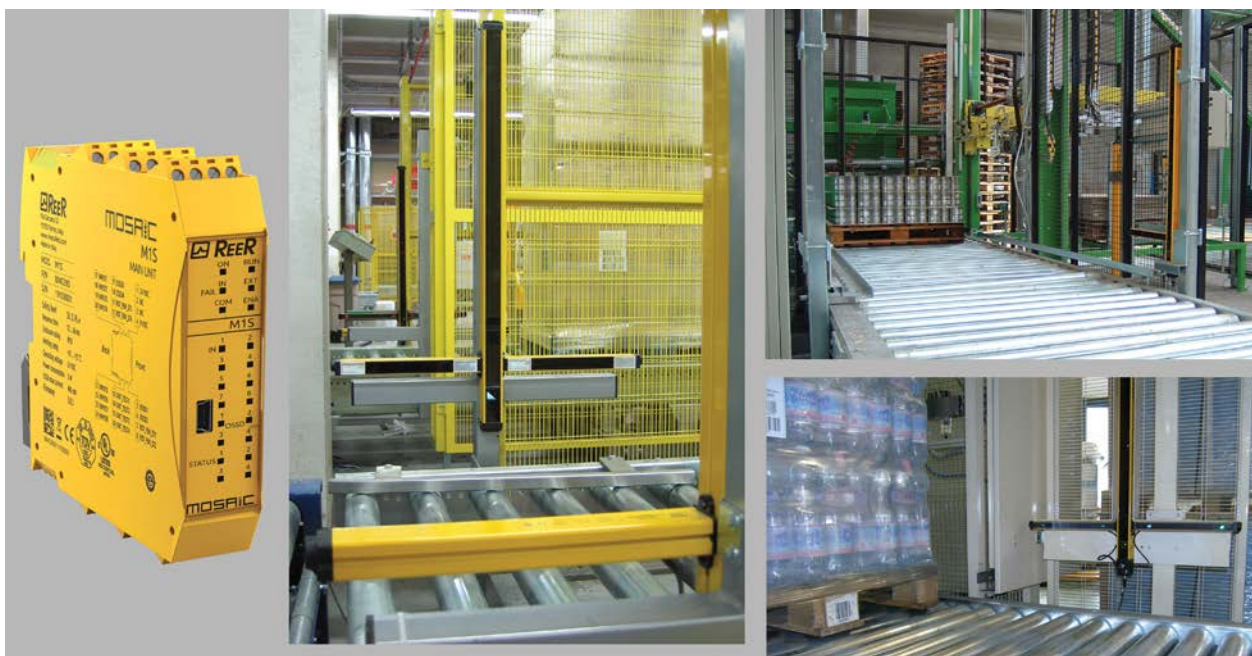
The MB communication expansion units allow Mosaic to interface with the most common industrial fieldbuses. The MCT interfaces allow the use of just one cable for the de-centralization of the expansion modules, making it a suitable solution for linking multiple machines along a production line.

## SPEED AND MOTION EXPANSION UNITS





*Your future's safe!*



The MV expansion modules have been developed for motion control (axis speed), enabling safety speed monitoring (up to PL e) for zero speed control, maximum speed, speed range and direction (rotation/translation). The Mosaic modules integrate incremental encoder inputs (frequency up to 500 KHz) and proximity switches and offer the possibility of configuring up to 8 speed thresholds for each logic output (axis). Each module controls two logic outputs that can be configured through MSD and is thus capable of controlling up to two free axes.

A few applications example.

**Zero Speed Control:** Mosaic verifies that the dangerous device is at a standstill; this enables unlocking gates or movable guards so that operators can safely access the dangerous areas.

**Maximum Speed Control:** the system verifies that the safety speed set (maintenance speed) is not exceeded. This enables to safely perform maintenance operations and system adjustments.

#### ANALOGUE INPUTS EXPANSION UNITS

The new MA modules allows the connection of analogue sensors such as load cells, pressure switches, temperature measurements, etc.

With 2 (MA2) or 4 (MA4) independent isolated analogue channels (500 V). Individual channels can be paired-up to allow sensor reading redundancy.

#### INTUITIVE SETUP

Mosaic Safety Designer is a free-of-charge software for system configuration. Its drag & drop graphic interface is simple and intuitive. Three functions prove to be particularly useful among the designers: 1) **validation**, allowing checking the design phase, 2) **monitor function**, allowing for testing during installation, and 3) **simulation function**, allowing simulating the system functionality during design.

In addition, the **Project Report** provides the actual PFH, DCavg and MTTFd values necessary for calculating safety function performance level.

#### Example of application

Protecting palletizing systems of irregular goods (materials not easily stackable): the presence of seams, labels and protrusions, contributes to the irregular geometric shape of the pallet, causing false signals from the sensors.

To solve the problem and achieve high reliability of operation of the plant while ensuring all safety requirements, the light curtains and muting sensors used are managed by the Mosaic Safety Controller. This solution, in addition to ensuring the functionality preventing undesirable stops due to false signals, allows you to easily adapt the system to the safety features of the system in accordance with the IEC TS 62046 and other existing regulations. All timings of the system and management of muting functions are configurable by the Mosaic Safety Controller, allowing maximum versatility of the plant.



## BP joins the IBM Quantum Network to advance use of quantum computing in energy

*London, February 15, 2021:* IBM today announced bp has joined the IBM Quantum Network to advance the use of quantum computing in the energy industry.

By joining the IBM Quantum Network™ as an Industry Partner, bp will have access to IBM's quantum expertise and software and cloud-based access to the most advanced quantum computers available via the cloud. This includes access to a premium 65-qubit quantum computer, the largest universal quantum system available to industry today, and an important milestone on the IBM Quantum roadmap to a 1,000-plus qubit system, targeted for the end of 2023.

bp will work with IBM to explore using quantum computing to solve business and engineering challenges and explore the potential applications for driving efficiencies and reducing carbon emissions.

"bp's ambition is to become a net zero company by 2050 or sooner and help the world get to net zero. Next-generation computing capabilities such as quantum computing will assist in solving the science and engineering challenges we will face, enabling us to reimagine energy and design new lower carbon products," said Morag Watson, senior vice president, digital science and engineering for bp.

Quantum computing has the potential to be applied in areas such as: modelling the chemistry and build-up of various types of clay in hydrocarbon wells – a crucial factor in efficient hydrocarbon production; analyzing and managing the fluid dynamics of wind farms; optimizing autonomous robotic facility inspection; and helping create opportunities not yet imagined to deliver the clean energy the world wants and needs.

In 2020, bp announced its net zero ambition and its new strategy. By the end of this decade, it aims to have developed around 50 gigawatts of net renewable-generating capacity (a 20-fold increase), increased annual low carbon investment 10-fold to around \$5 billion and cut its oil and gas production by 40%.

Joining the IBM Quantum Network will enhance bp's ability to leverage quantum advances and applications as they emerge and then influence on how those breakthroughs can be applied to its industry and the energy transition.

"bp joins a rapidly growing number of clients working with IBM to explore quantum computing to help accelerate the discovery of solutions to some of today's biggest challenges," added Dario Gil, Senior Vice President and Director of IBM Research. "The energy industry is ripe with opportunities to see value from the use of quantum computing through the discovery of new materials designed to improve the generation, transfer, and storage of energy."

bp joins more than 130 members of the IBM Quantum Network, a global community of Fortune 500 companies, start-ups, academic institutions and research labs working to advance quantum computing and explore practical applications. Together, members of the Network and IBM Quantum teams are researching and exploring how quantum computing will help a variety of industries and disciplines, including finance, energy, chemistry, materials science, optimization and machine learning, among many others.

# MOSAIC

MOdular SAFety Integrate Controller

A unique safety controller: modular, expandable and configurable able to manage all safety functions of a machinery or a plant. Configurable and scalable. Allows cost reductions and minimal wiring.

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# “ENERGY SAVE” Hydraulic Servo Presses



1200Ton Servo Hydraulic Press for automotive

Sigma Presse designs and manufactures custom-made Hydraulic Servo presses, with tonnage up to 50,000 kN (5,000 tons), providing its customers with its own design team staff with thirty years of experience in both standard and special hydraulic presses, as well as in industrial plants with design based on specific customer needs. Production of each hydraulic press is followed by our technical staff through a strict and constant quality control.

Sigma Presse designs and manufactures Hydraulic servo presses for the following sectors:

- **Automotive;**
- **Composite Materials** (SMC Sheet Moulding Compound, SMC Carbon, Forged Carbon);
- **PTFE, LOADED PTFE, PCTFE, PEEK;**
- **Rubber** (gaskets - melamine - brake pads);
- **Aggregates** (counterweights production plant for household appliances, complete with inert loading and automatic piece unloading);
- **Sheet Metal** (coining, shearing, drawing, bending);
- **Pressing and sintering metal powders;**
- **Steel Pipes** (pipe welding systems, calibration, hydraulic test);
- **Industrial Ceramics;**
- **Moulds** (mould testing);
- **Wrapping machines** (automatic, horizontal and vertical coils);
- **Construction Machinery** (building panel production systems, machines for drilling, grooving, marking, stapling,





and arch bending machines);

The Sigma Presse engineering department's engineers have responded to climate change by focusing on pollution reduction and conscious electricity saving. With the awareness that an efficient optimization of processes can allow **up to 40% energy savings**, they have designed a new line of **Energy Save hydraulic presses** characterized by technological choices.

Sigma Presse recommends choosing an **Energy Save Servo Hydraulic Press** for:

- Longer system life by reducing heat and the number of components;

- Elimination or reduction of cooling systems for fluids involved in the process;

- Complete electronic management (integrated Industry 4.0 production process) for constant analysis of its efficiency;

The quality of the selected materials, attention to detail and the use of the latest technologies, satisfy the most demanding clientele thanks to the high standards, safety and reliability of the systems that allow Sigma Presse to reach the highest quality and state of the art.

[www.sigmapresse.com](http://www.sigmapresse.com)

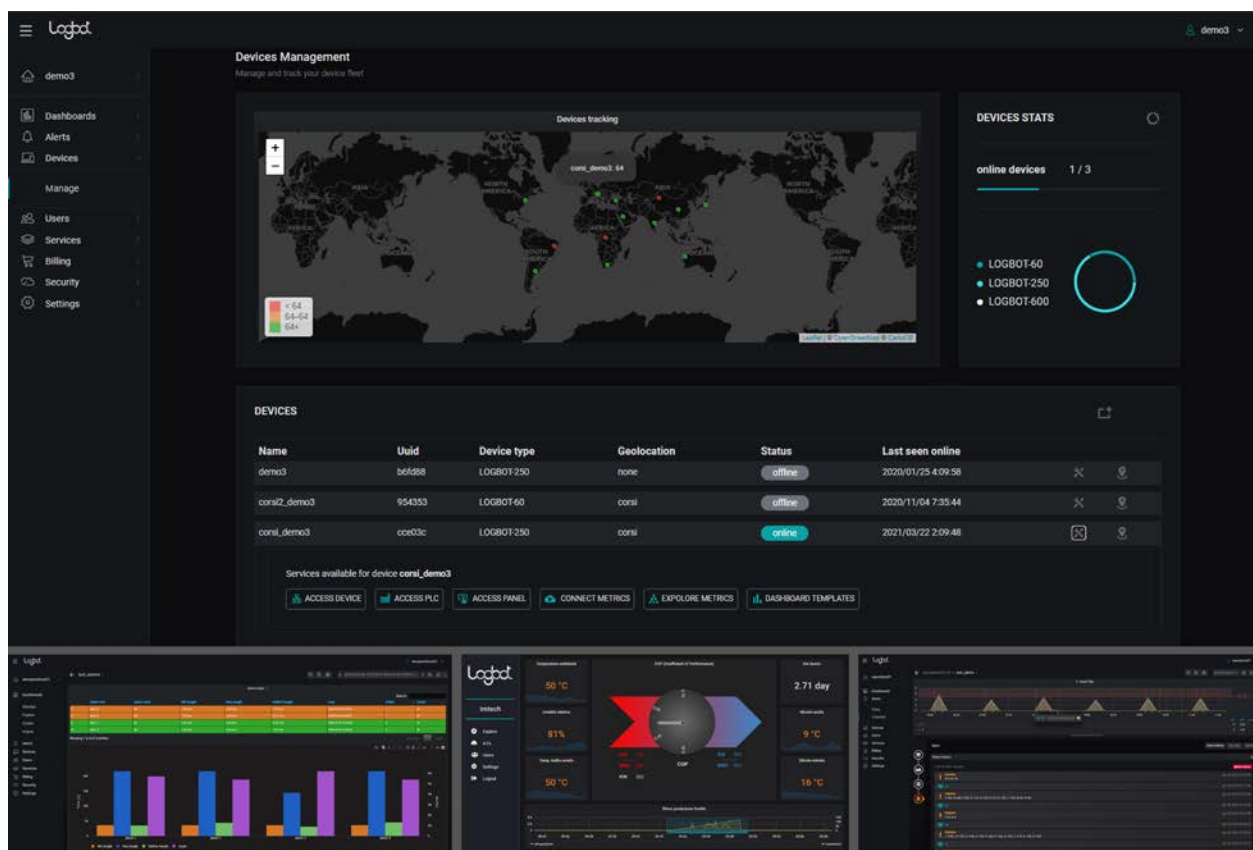
[sales@sigmapresse.com](mailto:sales@sigmapresse.com)



200Ton Servo Hydraulic Press with automatic feeder for sheet metal forming

# LOGBOT

## The Industrial IOT Platform To Empower Your Digital Machine



La piattaforma cloud Logbot ([www.logbot.cloud](http://www.logbot.cloud)) permette la **gestione di flotte** di dispositivi IoT per **raccolta dati** e **teleassistenza** di macchinari industriali e sistemi di automazione industriale e civile in generale, garantendo la **sicurezza** del dispositivo stesso e dei dispositivi connessi.

Tramite un'interfaccia semplice ed intuitiva è possibile effettuare **analisi** complesse (statistiche, anomaly detection e aggregazione di dati) su metriche provenienti da una o più macchine, senza la necessità di conoscere un linguaggio di programmazione. Il costruttore di macchine può creare **report e dashboard dinamiche** su manutenzione, produzione e monitoraggio dei consumi e impostare **alert** tramite i diversi canali (email, Telegram, etc.).

**Logbot** fornisce un dispositivo IoT che ha al proprio interno un firewall/router che garantisce la sicurezza dell'isola di produzione secondo la normativa IEC 62443 e grazie al collegamento con la piattaforma cloud il software viene costantemente aggiornato.

Logbot è acquistabile presso i principali distributori di automazione: SONEPAR, ELETTROVENETA, MARCHIOL, TELMOTOR, GRUPPO GIOVANNINI

**Logbot Srl – [www.logbot.cloud](http://www.logbot.cloud) [info@logbot.cloud](mailto:info@logbot.cloud)**

Logbot cloud platform ([www.logbot.cloud](http://www.logbot.cloud)) allows **fleet management** of IOT devices for **data collection and remote assistance** of industrial machines and industrial and civil automation systems, ensuring the **safety** of the device itself and connected devices.

Through a simple and intuitive interface it is possible to perform complex **data analysis** (statistics, anomaly detection and data aggregation) collecting metrics coming from one or more machines with a no-code approach.

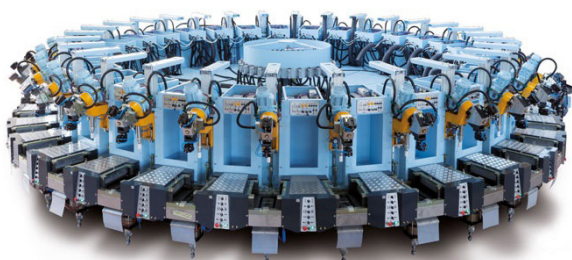
Machine builders can create **reports and dynamic dashboards** to monitor production, consumptions and maintenance and can set **alerts** through different channels (email, Telegram, etc.).

**Logbot** provides an IOT device with a built-in firewall/router that guarantees the safety of the production island according to IEC 62443 and thanks to the connection with the cloud platform, the software is constantly updated.

Logbot can be purchased from the main automation distributors: SONEPAR, MARCHIOL, ELETTROVENETA, TELMOTOR, GRUPPO GIOVANNINI



Made in Italy Technology for tpu-pu direct injection  
Our experience is your added value



### Caso d'uso 1 – Main Group Technologies

Innovazione, passione, ricerca: Main Group è un marchio che porta con sé uno straordinario patrimonio di conoscenze tecniche. Negli anni, Main Group è diventato il marchio di riferimento per i macchinari per stampaggio a iniezione delle principali produzioni calzaturiere. Con Logbot l'azienda ha connesso le proprie macchine al cloud e grazie alla componente edge Logbot ETL oggi effettua analisi complesse sul campo supportare i propri clienti nel settaggio ottimale delle macchine e per fornire al proprio R&D i dati necessari al loro sviluppo.

### Use Case 1 – Main Group Technologies

Innovation, research, passion: Main Group is a longstanding brand bringing with it an extraordinary wealth of technology and innovation. In its many years of activity, Main Group has set the technological benchmark for injection moulding of the main productions in the footwear field.

With Logbot the company has connected the machines to the cloud and thanks to the Logbot ETL edge component today performs complex data analysis to support their customers to optimize the setting up of the machines and to collect the metrics for the R&D department.

### Caso d'uso 2 – Acero Srl

Come integratore certificato Logbot, Acero ha accolto la richiesta del cliente Bertoni di rendere le proprie macchine, irroratrici a tunnel, conformi ai requisiti Industry 4.0, fornendo al cliente una soluzione chiavi in mano integrando il pacchetto di connettività globale 4G/5G LOGBOT-CONNECT che consente:

- All'integratore la possibilità di effettuare teleassistenza su ogni macchina
- Al cliente Bertoni di fornire un'assistenza in tempo reale al cliente
- Al cliente finale di monitorare le performance, scaricare report sui trattamenti effettuati, monitorare l'utilizzo dei consumabili e ricevere alert sul proprio smartphone

### Use case 2 – Acero Srl

Acero, Logbot certified system integrator fulfilled Bertoni client's request to update his machines (tunnel sprayers) to satisfy Industry 4.0 requirements. They integrate LOGBOT-CONNECT kit which enables every machine to get LTE connectivity around the world. The system integrator and the machine manufacturer can give online customer support, while the end user can retrieve reports about performances and receive real time alerts.



# GE Renewable Energy plans to open new offshore wind blade manufacturing plant in Teesside, United Kingdom

- LM Wind Power plans to open and operate a brand-new manufacturing plant for the production of offshore wind turbine blades, due to open and start production in 2023
- The manufacturing facility could create 750 direct renewable energy jobs and close to 1,500 indirect jobs in the area. The facility would address the needs of the strong offshore wind market in the UK
- The Dogger Bank Offshore Wind Farm, which features GE's Haliade-X offshore wind platform, would directly benefit from the blades produced

Paris, March 10, 2021: GE Renewable Energy announced today that it plans to open a new blade manufacturing facility in Teesside in the North East of England. LM Wind Power plans to set up and operate this plant which will be dedicated to the production of its 107-meter-long offshore wind turbine blades, a key component of GE's Haliade-X, the most powerful offshore wind turbine in operation today. Terms of the construction and financing of the new plant are in advanced stages of negotiation between the interested parties.

GE Renewable Energy estimates that this new plant, set to open and start production in 2023, could create up to 750 direct renewable energy jobs and up to 1,500 indirect jobs in the area to support the entire value chain needed to operate this facility. This announcement and commitment support the UK government's plan to develop jobs, infrastructure, and supply chains to reach its goal to commission 40 GW of offshore wind power by 2030 and become a global leader in green energy.


As part of that plan, Teesside has just been designated as one of the UK's newest freeports. GE Renewable Energy's new blade manufacturing plant will be located on Teesworks, an ideal location to serve the vast offshore wind potential of the North Sea.

Jerôme Péresse, President and CEO of GE Renewable Energy said "This new plant will contribute to the development of an industrial cluster dedicated to offshore wind in the North East of England. We are delighted to announce such a commitment for the renewable energy industry, we believe it will help develop a strong talent pool through the hiring and more importantly training of future colleagues. The UK's target to commission 40 GW of offshore wind by 2030 is ambitious and requires that we invest in local production capabilities to accompany this effort."

This announcement is the result of strong partnerships built with key stakeholders such as the UK Government, the Tees Valley Mayor, Teesworks and its municipality.

Commenting on the investments it made for the new port of Teesside, UK Prime Minister Boris Johnson said "Teesside will continue to drive forward our green industrial revolution as we capitalise on new opportunities to produce clean energy through a brand new offshore wind port on the River Tees. It will not only create thousands of jobs and harness the skills and expertise of this great industrial heartland, but also boost investment into the area as we build back greener."

Hugh McNeal, CEO of Renewable UK said "GE Renewable Energy's new blade turbine manufacturing plant will transform a former steelworks site on Teesside into a high-tech clean energy powerhouse, creating thousands of highly-skilled jobs in our UK supply chain. This announcement marks the start of the next generation of offshore wind manufacturing."



The Dogger Bank Offshore Wind Farm, which is located between 125 km and 290 km off the east coast of Yorkshire, would benefit directly from the blades produced at this new plant. The three phases of the Dogger Bank Wind Farm, powered by GE's Haliade-X offshore wind turbine, will have a combined installed generation capacity of 3.6 GW, enough to power six million UK homes. When complete in 2026, it will be the world's largest offshore wind farm.

Dogger Bank Wind Farm Project Director, Steve Wilson, said: "We're incredibly proud to say Dogger Bank Wind Farm is the anchor project for the blade facility announcement by GE today. Dogger Bank Wind Farm is a world-leading development pushing the boundaries of offshore wind development and playing a key role in delivering the ambition to increase UK supply chain capacity and capability. Through our turbine supply order with GE, the Dogger Bank project is the catalyst for this important GE investment in Teesside, harnessing skills and expertise in the local area and delivering long-term benefits in the UK's offshore wind sector."

GE Renewable Energy already employs close to 1,500 people at its UK facilities, with the majority located between Stafford (GE Grid Solutions) and its LM Wind Power engineering center in Southampton. GE Renewable Energy has already announced an investment of \$20 million in R&D and testing activities for its Haliade-X offshore wind platform – mainly in the UK – and continues to partner with ORE Catapult in Blyth on areas such as innovation, R&D and testing major components. With this plant, the company is further expanding its renewable energy industrial footprint in the country and confirms its ambition to become a key actor in the offshore wind industry in the UK. GE is also working closely with its suppliers to develop a local sourcing base in the UK for some critical components of offshore wind turbines.



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# Superior Service in Customer-Specific Demands, Turkey's Industry Leader in Motor Exports

WAT Motor, with its WAT and TEE brands, is a leading motor company that is committed to provide durable and high efficiency motors. To achieve this goal, WAT Motor continues to innovate and expand its products and aims to meet ultimate efficiency classes.

WAT motor differentiates itself by combining industry and customer specific solutions with production at a large scale, delivering competitive advantage.

Having Turkey's largest motor R&D power, WAT Motor offers a wide range of electric motors with more than 15.000 active SKUs.

WAT Motor continuously improves its know-how on discrete applications thanks to the experience obtained through being the strategic motor partner of most of the global OEMs. Relying on an experience of more than 55 years, WAT Motor has been exporting its products to 40+ countries through its strong corporate culture and sustainable business practices.

As a sector leader, WAT Motor was qualified to be on the honors list in terms of exports in the electric industry both in 2018 and 2019.

To convert initial design ideas into serial production faster, cutting edge computer assisted softwares and methodologies are being used. By heavily investing in R&D, WAT Motor both directs the motor industry and adds value with smart innovations.

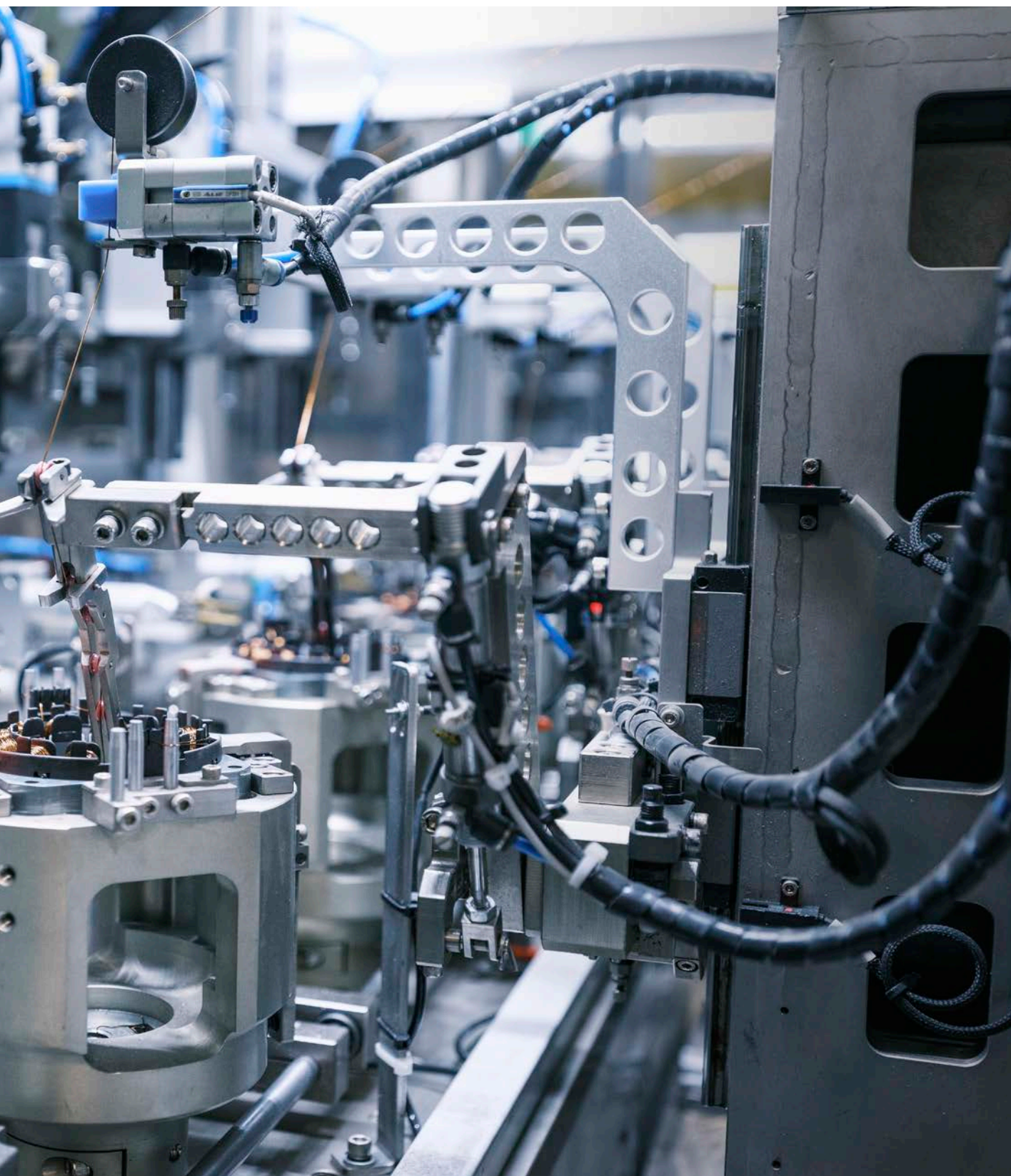
Amid today's challenging business environment, flexibility becomes the major asset. To cope with this, WAT Motor continuously improves its modernization in manufacturing. In line with this commitment, WAT Motor has initiated its agile transformation in 2019. WAT Motor has become the first industrial company in Turkey under agile manifesto.

Agile transformation provides efficiency in finding adaptive solutions to challenges as well as increasing customer satisfaction and employee engagement which enables WAT Motor to create further value.

For more information please visit:  
[www.watmotor.com](http://www.watmotor.com)







# The solution for cutting and finishing linear guides, made in Italy

- Two-pressure inner machine tip to handle the guide with the tip inserted.
- Double coolant pump, one for washing the guide, the second for washing the machine.
- Automatic diagnostics of the main machine components for easy fault detection.
- Possibility of feeding the machine with an automatic guide store and guide picking from the received order. Management of cuts in sequence according to the picked guide type and barcode generation to identify the cut piece in the production order.
- Machine clamps automatically positioned by motor according to the guide to be cut.

**Guide cutting machines**  
**EVO100 - BASIC35**

**consumables**  
**SIELT** trade



**THE BEST CHOICE**



SIELT-trade presents the new production of its machines for cutting linear guides, recirculating screws and hardened shafts, entirely made in Italy,

**EVO100** is a machine characterized by high power and a structural rigidity, designed for large productions with total control of the cutting operations and featuring exclusive innovations.

**BASIC35** is designed to be used in small / medium-sized processes thanks to its versatility and adaptability.

The structure of all models is made up of a 50 mm thick steel bearing system, in which all the housings for the

machine components are obtained: clamp axis, cutting axis and tip axis. These parts, made of electro-welded and heat-stabilized steel, are milled and ground in order to obtain the maximum precision when operating.

Using a touch-screen display, the operator can fully control the machine during its use.

Cutting axis, internal tip, external tip, clamp axis and monitor: the diagnostics is monitored in real time. By accessing a Guide Database, it is possible to preload all the cutting characteristics of the guide being processed.

The standard equipment is composed by roller conveyors with automatic anti-scratch lifting, magnetic dirt separator and paper filter with double washing pump.





The SG100 chamfering machine is able to make chamfers on any type of linear and round guides, ground and hardened, following a route managed by CNC. The standard machine is made of 2 skiving stations with relative spindles operating on 5 interpolated axes. The base is made of heat-sealed steel.

The main unit consists of two clamps for locking the guides and of a central structure for moving the spindles. The 4 actuation and positioning axes allow a total operational independence of the 2 spindles.

Also, thanks to the "depth" axes, it is possible to modulate the height of the chamfer depending on the type of

machined guide. To notice: tools with normal widia inserts on the market are used.

All the models are fully controlled by a CNC made by SIELT and by a safety PLC that guarantee the use of the machines with maximum efficiency and safety both for the operator and the environment. All machine movements take place through interlocking with stepping motors and the reading of the position through incremental encoders with a minimum resolution of 1/100 mm.

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## Cancel smells with GRP coverages



Ongoing research carried out by Delta Cover in the structural and technological field enables it to respond concretely to the increasingly urgent problem of the co-existence of purification plants with the surrounding habitat, respecting the environment.

The constant intention to evolve and improve, through professionalism and valid collaborators, means we can deal with needs expressed by an evolving sector to the best. The most precious added value we can offer those who use our company is our experience and know-how. Experience and know-how acquired year after year, mean we can offer and advise clients with that little bit extra.

Delta Cover's well-trained, capable personnel is at your full disposal for contact and meetings needed to understand the problem and provide the best solution. The high product quality level, a wide model range and 30 years experience has enabled us to operate successfully in contact with the market's most important water treatment firms and satisfy a growing, increasingly de-

manding clientele.

Our company offers GRP coverages solutions in for any type of civil, chemical and industrial cover, self-supporting roofing suited to support snow loads established by laws in force. The wide range of moulds available mean we can guarantee a ready response and fast implementation.

GRP covers compared to other materials have the following advantages: lightweightedness, elasticity, resistance to strain, resistance to atmospheric agents, very long-lasting, no maintenance needed, easy to remove when any intervention is needed, simple to assemble, can be walked on and are designed for the plant in question.

More specifically, we can design and make any type of cover such as: domes for circular basins, covers for co-chleas, covers for circular basins with fixed and rotating bridge, covers for rectangular basins also of big dimensions.

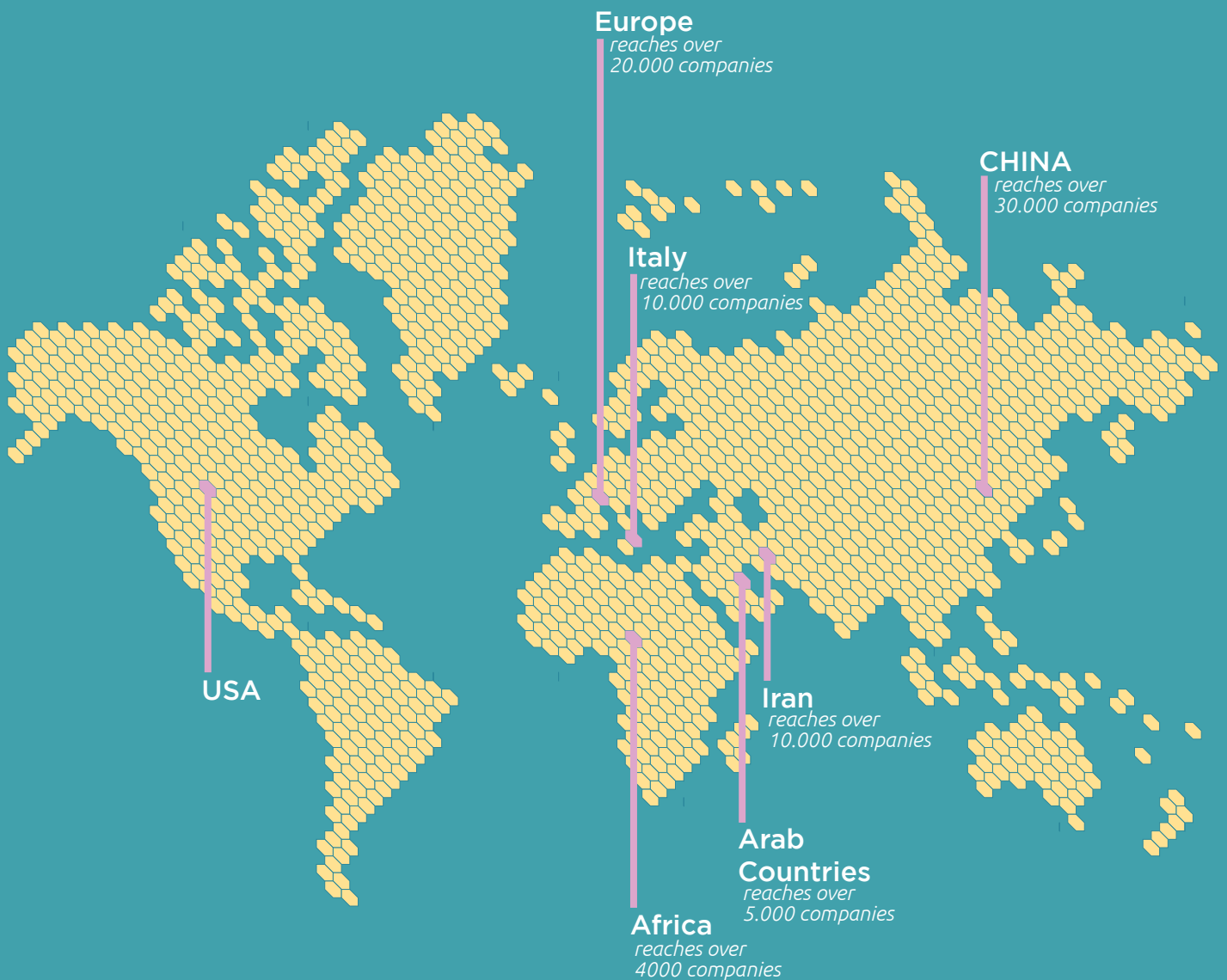


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# IIoT Applications and Market's Growth

The Industrial Internet of Things has been growing in several sector. The manufacturing, energy, Oil & Gas, logistics, food & beverage and transportation are just few of the long list of industrial sectors which are benefiting from the rising of IoT into the business.

The IIoT technology provides huge opportunities to integrate automation, optimization, intelligent manufacturing and smart industry, asset performance management, maintenance and industrial control applications across organizations.

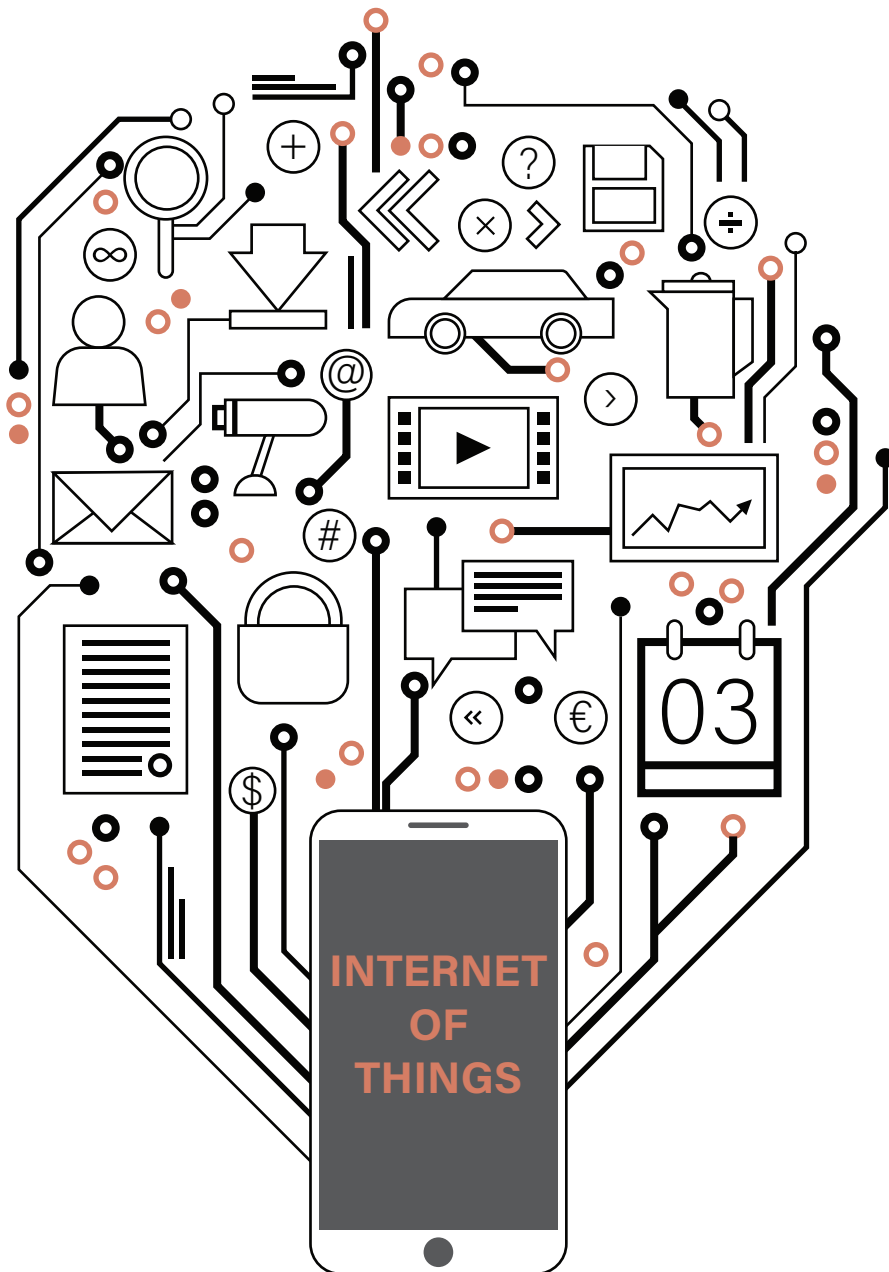
As emphasized by Alasdair Gilchrist in his book "Industry 4.0 The Industrial Internet of Things", the industrial IoT provides a method of transforming business operational processes by using as feedback the results gained from interrogating large data sets through advanced analytics. The business gains are achieved through operational efficiency gains and accelerated productivity, which results in reduced unplanned downtime and optimized efficiency, and thereby profits.

For instance, with the IIoT technologies, the companies are able to implement on-demand service models to innovate customer servicing and create new revenue models. It makes easier for organisations the collecting of data sets about customers' experience, how they view and use a product etc. And therefore, to learn what more a product could do or what services or features could revitalize a product.

The basic behind every IIoT application by companies is to get benefits like increasing profits, increasing revenue flows, and lowering operational expenditures. In this regards most applied IoT technology in the industry are predictive and remote maintenance, plant maintenance, manufacturing equipment monitoring, production flow management, asset performance management, logistic and supply chain monitoring and optimization, energy consumption optimization, cloud computing platforms for big data processing, smart robotics and cybersecurity. These applications are providing a significant growth opportunity for IIoT market.

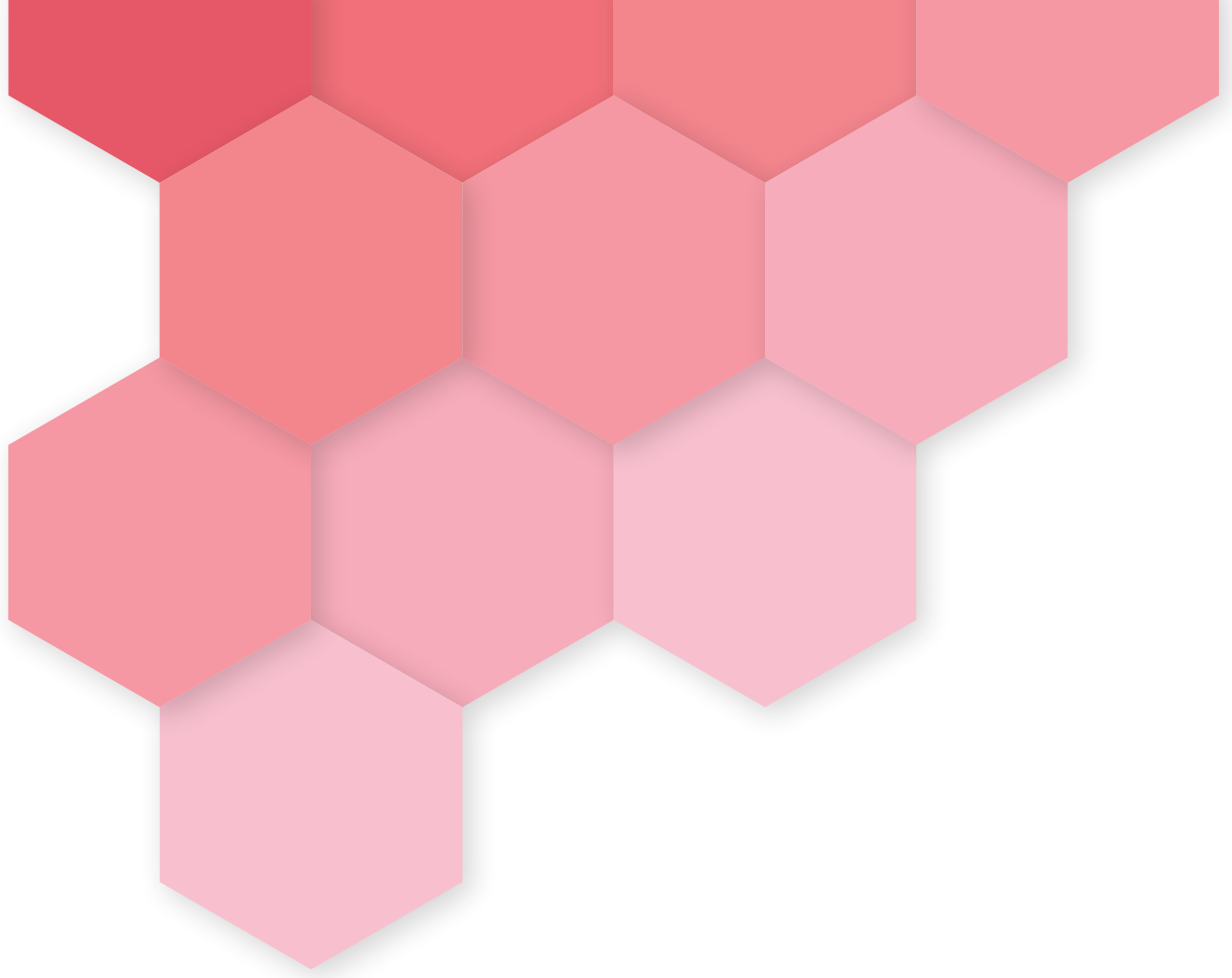


Dr. Eng. Mor Nguirane  
Chemical Engineer



Some of these applications are easier to reach than others. Most industrial companies adopt predictive maintenance since when applied it returns the quickest results and return on investment.

On a very popular YouTube video published by Google, one can easily understand why predictive maintenance is becoming most applied. Google has collaborated with one of the largest breweries in Europe to develop a machine learning system which can analyse a data set from the beer filtering process to decide when it's appropriate to replace the filters, a task usually performed by a well experienced brewer. The machine learning has an accuracy close to 90% while a master brewer has an accuracy close to 60%. By means of the predictive maintenance, the end-user was able to extend the service life of the filters by almost 50%.



IBM has shared a case study of IIoT application in renewable energy. Windfarm owners have typically had limited or no insight into the condition of their machines. To address this gap, Performance for Assets (P4A) teamed with the IBM Garage to develop an advanced monitoring system for wind turbines in the IBM Cloud. Their solution is designed to help windfarm owners gain insights that'll help them maintain wind turbines, thereby increasing energy output and profits.

Thanks to the wide adoption of the IIoT for reducing unplanned downtimes occurring in manufacturing and other production units, the IIoT predictive maintenance application segment is accounted for the largest share of the overall IIoT market. The growing awareness regarding the use of the IIoT for predictive maintenance is expected to drive the market over the next years.

The aforementioned applications can be segmented in three main business of IIoT: solutions, services and connectivity. The solutions segment is playing the bigger part with the largest share in the IIoT market and the forecast is that it will keep its dominance over the next year. The key driving factor of the solution segment dominance is the rising investments of IIoT-enabled projects that have led to the adoption of various components, services and connectivity modules. The solutions segment is also expected to witness a high growth rate thanks to the consistent engagement of the industrial sector in improving efficiency, reducing costs, and increasing the Overall Equipment Effectiveness (OEE) through better access to information from real-time solutions.



The global IIoT market forecast during 2021-2025 from several agencies, although different from each other, show a sustained growth rate. Expected growth by hundreds of billion dollars per year progressing at a CAGR of 25-30% during the forecast period.

IIoT has become an integral part of the business process, where data is a key asset, and analytics is a necessity in the connected sphere of products. Moreover, the IIoT can help gather new information, offer insights into business-critical processes, and act upon issues in real-time while proving to be extremely valuable for the industrial marketplace.

Beside the hype, it's time for the organisation which are not using IIoT in their business and their production processes to start evaluating the first step towards these technologies. The most dominant companies in the IIoT technologies are offering services to support and guide along the process of adopting IIoT technologies.



**INDUSTRIAL  
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# Ambro-Sol, the Made in Italy aerosol



The slogan **Your Factory of Aerosol** identifies its mission: to be flexible towards employees and customers, providing technology, forward-thinking knowledge and reliability with innovations and high-quality solutions **Made in Italy**. Ambro-Sol is a brand specialized in **chemical products and aerosols** and one of the few companies in the sector at the level national and European to manage directly its production and distribution in **over 50 countries**.

Located in Cigole, in the province of Brescia, the 90,000 sq ft (8.000 m2) warehouse is considered one of the most advanced in the **European aerosol industry** in terms of both technology and safety. Founded in the seventies, Ambro-Sol has grown steadily during the years to become a symbol of Made in Italy in the world with **4 owned branches in Poland, France, Spain and USA**.

Its safe and innovative work cover a wide range of categories with **7 different lines** and **over 1200 formulations**: lubricants and protective, adhesives, cleaners, zincs, paints, car care products, welding and maintenance. The company's success is closely linked to its qualitative and technological development, the best **quality-price ratio**, **prompt delivery**, **professional and efficient customer assistance**.

Its research and development programs are focused to achieve the best results with the goal to satisfy the demands of the aerosol industry. Technicians can customize the best combination of product, propellant, type of cylinder and dispensing valve to support the needs of customers. Laboratory is constantly testing and developing new and current solutions, while quality control department can explain all phases of the process and check all factors involved in it.

Among the main product lines there are **lubricants and spray oils**, made for industry, cars and motorcycles, earthmoving, agricultural sectors and domestic applications, and **greases**, which are suitable for industry and all domestic applications.

Ambro-Sol has also converted part of its factory to the realization of an **aerosol disinfectants and sanitizers line** to face the sanitary emergency in domestic and work environments.

The disinfectant products are based on isopropyl alcohol, an active substance with a virucidal and bactericidal action authorized directly by **the Italian Ministry of Health** and recognized by ECHA-European Chemicals Agency. On **www.ambro-sol.com** all the information about the Italian company.





# Practice-oriented introduction to artificial intelligence

Industrial companies have the possibility to access real application scenarios

*The educational module "Machine Learning Vision" addresses the trends in the field of artificial intelligence and machine learning. Optical quality inspection as an application scenario is close to practice in the industrial environment. Through additional learning materials, the contents are structured in a didactic concept in which theoretical knowledge transfer alternates with practical experiments.*

## **Technical education and training in the field of machine learning**

Artificial intelligence and machine learning are currently permeating the industrial sector. This trend is caused by increasingly powerful computers. This means that large quantities of sensor data can be systematically analysed and recommendations for action can be made. With "Machine Learning Vision", Festo Didactic is addressing these trends. The educational module provides a practical introduction to the topic. "Our aim is to provide industrial companies with real-life application scenarios in the form of learning solutions for technical education and training. In this way, skilled workers can be prepared in a targeted manner for tomorrow's practice," says Dr Hans Jörg Stotz, Member of the Management Board, Festo Didactic.

## **Real application scenarios for industrial companies**

The application scenario is optical quality inspection, which, for example, enables the differentiation of good and bad components. On the hardware side, an industrial camera module is used that can be operated "stand-alone" or as part of an entire learning factory and is connected by means of corresponding machine learning-based software. According to all predictions, the share of such intelligent software within modern production systems will continue to increase in the coming years. "In-depth vocational and further training is the key factor for mastering such complex systems in the future and using them profitably," says Dr Tobias Schubert, Industry 4.0 Officer, Festo Didactic.

## **Learning materials ensure didactic support**

The learning materials provide an overview and explain the most common terms. In addition, the learning software offers an introduction to the necessary operations in the field of optical quality inspection, especially with neural networks. Due to prepared data, beginners can carry out the experiments without programming knowledge.

**INDUSTRIAL  
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editorial office



# 10 FUNCTIONS for any application



[www.ambro-sol.com](http://www.ambro-sol.com)

# INDUSTRIAL TECHNOLOGY

A stylized graphic featuring two robotic arms in the foreground, set against a background of a factory floor with various equipment and a complex network of blue pipes and conduits. The background is divided into a yellow upper section and a dark blue lower section by a horizontal line.

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**Gruppo Cadini srl**

Via Masaccio, 105  
50132 Firenze, Italy

tel: (+39) 055 573401 . fax: (+39) 055 579685  
info@cadinigroup.it . [www.cadinigroup.com](http://www.cadinigroup.com)

# Pneumax: Solutions for Automation



*The Italian Headquarters of Pneumax Group located in Lurano (BG)*

Founded in 1976, Pneumax S.p.A. is today one of the leading international manufacturers of components and systems for industrial automation. It is at the forefront of a Group comprised of 24 companies, with over 730 employees worldwide.

Ongoing investment in research and development has allowed Pneumax to continually expand its range of standard products and customized solutions. The use of the most advanced production technologies guarantees maximum flexibility and certified quality according to international standards in different sectors.

The desire to provide the service and application skills

has in turn led to the creation of 3 specific business units, dedicated to Industrial automation, process automation and the automotive sector.

Through a network of subsidiaries and exclusive distributors, Pneumax is present in more than 50 countries around the world, supporting customers in all phases of the supply process, from pre-sales analysis to after-sales service.

## **Pneumatic components, electric actuation and fluid control**

The range of pneumatic solutions includes actuators, valves, solenoid valves, proportional technology, fittings,


**PNEUMAX**


*The Pneumax range includes pneumatic components, electric actuation and fluid control components*

handling, vacuum and air treatment components. All combine the mechanics and electronics required for motion management and control. With optimized consumption, dimensions and functional parameters, each individual component contributes to the overall system.

Electric actuation is an ideal solution for applications where, in addition to reliability, it is necessary to provide high speed performance and flexibility in both the control and configuration, not only of the axes, but also of the electrical cylinders. The Pneumax range includes actuators with recirculating ball screws, in-line or parallel cylinder configurations, all available both with or without Siemens electric motors. Customized flanges are available

for mounting the customer's motors and creating solutions for a number of alternative actuators.

Pneumax also offers a wide range of components for fluid control including brass and stainless steel solenoid valves suitable for use with air, water, steam and any other fluids compatible with the body and seals material. The solenoid valves are 2 or 3 way, normally open, normally closed, and designed for general service as either direct acting or servo assisted. Connections are available in both BSP and NPT 1/8" up to 2" and working pressures from vacuum up to 100 bar. Solenoid valves with coils enclosed in a CESI 03 and ATEX 344 certified housing are available for explosive environments.



# *Artificial Intelligence Syntegon validates first AI-equipped visual inspection system in production line*

Syntegon, a leading global process and packaging technology provider, recently installed the first fully validated visual inspection system utilizing Artificial Intelligence (AI) in an automated inspection machine.

The installation constitutes a major step in the company's sustained effort to introduce AI to pharmaceutical visual inspection, thereby exploring largely uncharted territory in the industry. "We are proud to announce this important move, which is the joint result of long-standing visual inspection expertise, solid software and pharmaceutical validation competence, courage to cross boundaries, and an excellent partnership with our customer," says Dr José Zanardi, responsible for vision inspection development and applications at Syntegon.

## ***The benefits of Deep Learning***

As one of the most challenging stages in the pharmaceutical manufacturing process, inspection requires ever more sophisticated visual systems to process increasingly complex products. "Especially for high-cost pharmaceuticals, every single false reject is one too many," Zanardi says. AI applications have the potential of further increasing detection rates and decreasing the number of false rejects in difficult products like highly viscous parenteral solutions with air bubbles, which are sometimes hard to differentiate from harmful particles.

AI utilizes Deep Learning algorithms which are capable of accurately identifying recurring patterns and deviations.

"A growing number of Deep Learning vision applications are already on the market. Our task was to adapt those applications for pharmaceutical purposes, which essentially also includes validation," Zanardi explains. In fact, thanks to thorough in-house software and visual inspection expertise, Syntegon was able to develop a solution that only requires moderate modifications to the already existing vision systems. The company leads the field with over 40 years of experience in the development and manufacture of visual inspection machines, covering a wide array of manual, semi-automated and fully automated solutions for all liquid pharmaceuticals and container types.

## ***First successful installation***

After starting with the AI development in 2017 and performing a large number of tests, Syntegon recently installed its first AI-equipped visual inspection system in a fully automated and validated machine in a customer's production line. Amgen, one of the world's leading biotechnology companies, uses the system to reliably distinguish air bubbles at the syringe's rubber stopper from foreign particles, where conventional vision technology often mistakenly identifies safe products containing bubbles as defective. "This challenging project required a lot of dedication and expertise. In cooperation with Syntegon, we have implemented the world-first syringe inspection machine with AI and underline our market position, both in biotechnology production and in technology," says Manuel Soto, Principal Process Development Engineer at Amgen.

In this customer project, Syntegon's AI-based vision system was able to increase the particle detection rate by 70 percent, while reducing the false detection rate by 60 percent (average values in a particular inspection station). "We are very happy that our new technology is able to contribute to higher safety and production efficiency of injectable drugs," Zanardi says. Backed by this success, Syntegon is set to implement AI in further inspection machines for different products and container types, thus contributing to the production of safe and reliable pharmaceutical products worldwide.



**PNEUMAX**



# Components and Systems for Automation

## The value of solution

Technological innovation, expertise and application experience for **over 40 years**. In Pneumax, our commitment has been to provide added value solutions to our customers requirements. Our product range includes pneumatic and electrical components, both standard and customized which provide solutions that turn simple automation into “smart automation”.



Italian Excellence



### Industry sectors:

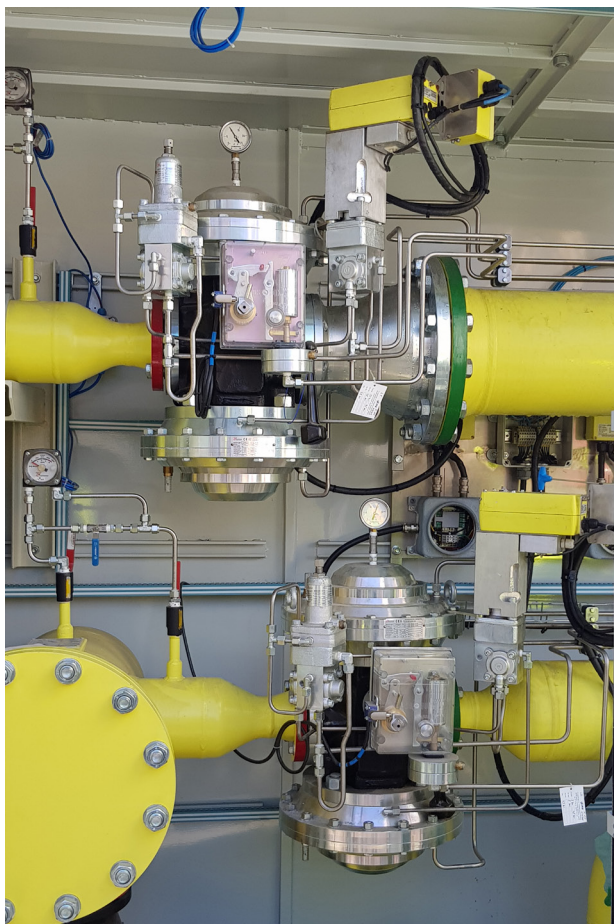
- Woodworking machinery
- Packaging
- Food and Beverage
- Assembly and Robotics
- Machine Tools
- Transport
- Energy



[pneumaxspa.com](http://pneumaxspa.com)



# SMART GRID by AUTOMA: together towards Industry 4.0



For some years now, we have been witnessing a change in industry that will lead to the development of fully automated and interconnected factories. We are talking about the **fourth industrial revolution, Industry 4.0**, which for some years now has been at the heart of the **economic transformation** worldwide and which especially in recent times, during the Covid19 pandemic, has proved to be fundamental in fighting the crisis.

From the very beginning, **Industry 4.0** has been a goal for industrialised nations all over the world and that is why every country is implementing ad hoc policies on digitalisation. We at **AUTOMA** are part of this transformation and that is why we have embraced the **SMART GRID by**



**AUTOMA** project, a **technological innovation project**, in line with the requirements of **Industry 4.0**, which aims at the development of an efficient, totally smart and automated distribution network through the intelligent remote monitoring of networks.

**SMART GRID by AUTOMA** is based on the **GOLIAH®** solution that integrates the management of pressures, odorant and cathodic protection in a single platform consisting of intelligent and interconnected devices, and a data collection software, which are then analyzed, combined and correlated generating added value for the customer **(from Data to Value)**.

Thanks to this project, **AUTOMA** provides remote mon-





itoring and remote control of cathodic protection and pressures through high-precision data loggers, automated management of pressure regulation through the patented **GOLEM system**, remote monitoring of odorant and automatic regulation of injection through the patented **SPECTRA system**.

The main benefits relate to three areas:

- DIGITALISATION**, in terms of acceleration of the **Digital and Technological Transformation** process both on the **Asset Management** side (Analytics, Big Data, Centralized remote maintenance, Predictive maintenance) and with regard to **Operational Efficiency**, understood as an increase in network efficiency and as a reduction in costs;

- SECURITY**, as the possibility of remote intervention in the event of alarms allows **immediate action in absolute and total safety** without the need to move operational personnel;

- REDUCTION OF GREENHOUSE GAS EMISSIONS**, as the dynamic and automatic regulation of the networks reduces gas losses into the atmosphere, odorant consumption and electricity consumption.

Therefore, the **SMART GRID by AUTOMA** project generates sustainable returns in the short and long term, in line with the **ESG (Environmental, Social, Governance)** issues that are a key component of **AUTOMA's** customers' investment processes.

# GE Renewable Energy plans to open new offshore wind blade manufacturing plant in Teesside, United Kingdom

- LM Wind Power plans to open and operate a brand-new manufacturing plant for the production of offshore wind turbine blades, due to open and start production in 2023
- The manufacturing facility could create 750 direct renewable energy jobs and close to 1,500 indirect jobs in the area. The facility would address the needs of the strong offshore wind market in the UK
- The Dogger Bank Offshore Wind Farm, which features GE's Haliade-X offshore wind platform, would directly benefit from the blades produced

Paris, March 10, 2021: GE Renewable Energy announced today that it plans to open a new blade manufacturing facility in Teesside in the North East of England. LM Wind Power plans to set up and operate this plant which will be dedicated to the production of its 107-meter-long offshore wind turbine blades, a key component of GE's Haliade-X, the most powerful offshore wind turbine in operation today. Terms of the construction and financing of the new plant are in advanced stages of negotiation between the interested parties.

GE Renewable Energy estimates that this new plant, set to open and start production in 2023, could create up to 750 direct renewable energy jobs and up to 1,500 indirect jobs in the area to support the entire value chain needed to operate this facility. This announcement and commitment support the UK government's plan to develop jobs, infrastructure, and supply chains to reach its goal to commission 40 GW of offshore wind power by 2030 and become a global leader in green energy.

As part of that plan, Teesside has just been designated as one of the UK's newest freeports. GE Renewable Energy's new blade manufacturing plant will be located on Teesworks, an ideal location to serve the vast offshore wind potential of the North Sea.

Jerôme Péresse, President and CEO of GE Renewable Energy said "This new plant will contribute to the development of an industrial cluster dedicated to offshore wind in the North East of England. We are delighted to announce such a commitment for the renewable energy industry, we believe it will help develop a strong talent pool through the hiring and more importantly training of future colleagues. The UK's target to commission 40 GW of offshore wind by 2030 is ambitious and requires that we invest in local production capabilities to accompany this effort."

This announcement is the result of strong partnerships built with key stakeholders such as the UK Government, the Tees Valley Mayor, Teesworks and its municipality.

Commenting on the investments it made for the new port of Teesside, UK Prime Minister Boris Johnson said "Teesside will continue to drive forward our green industrial revolution as we capitalise on new opportunities to produce clean energy through a brand new offshore wind port on the River Tees. It will not only create thousands of jobs and harness the skills and expertise of this great industrial heartland, but also boost investment into the area as we build back greener."

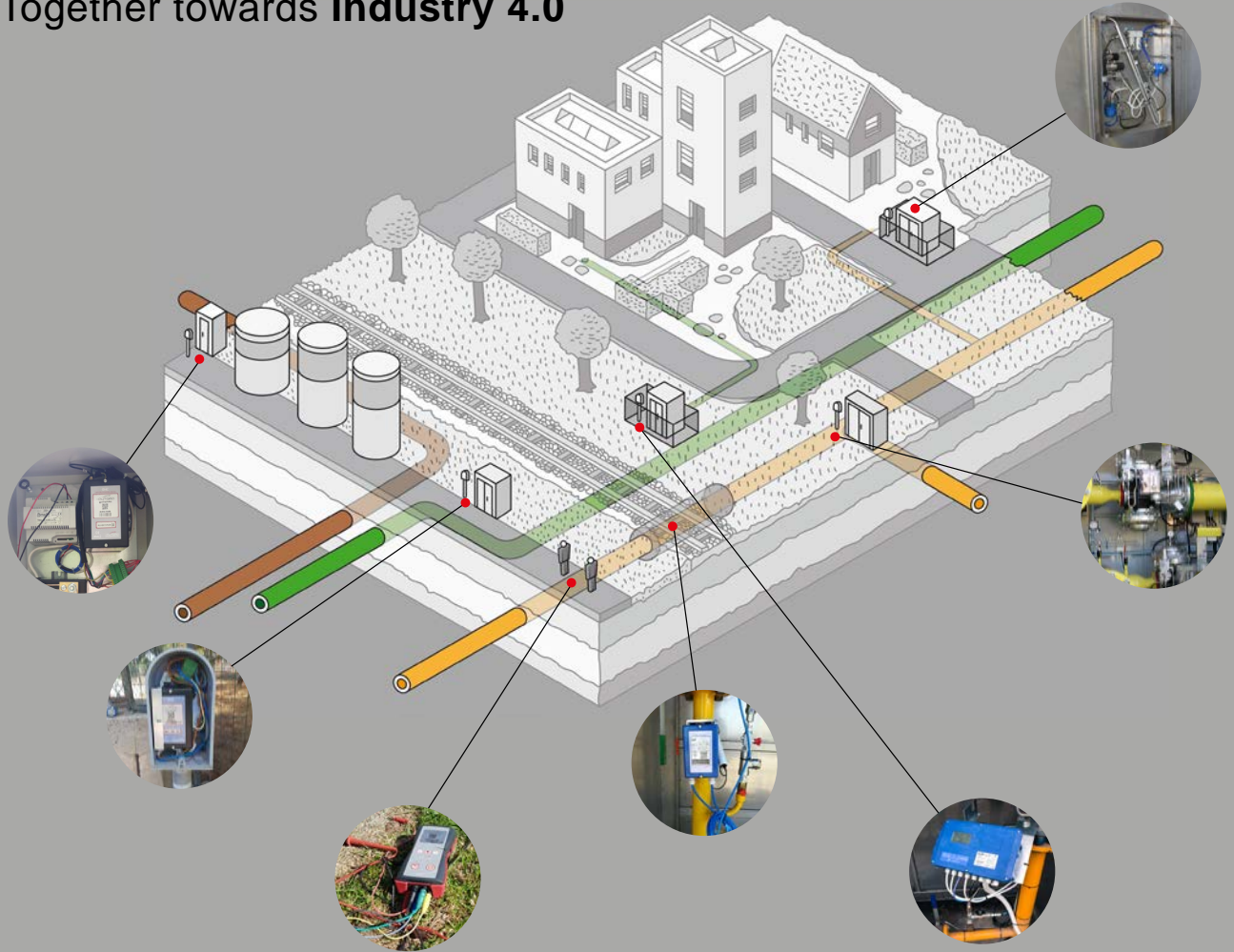
Hugh McNeal, CEO of Renewable UK said "GE Renewable Energy's new blade turbine manufacturing plant will transform a former steelworks site on Teesside into a high-tech clean energy powerhouse, creating thousands of highly-skilled jobs in our UK supply chain. This announcement marks the start of the next generation of offshore wind manufacturing."

CONTINUE  
TO PAGE 90



# Smart Grid by Automa

Together towards **Industry 4.0**



## GAS PIPELINE MANAGEMENT

- PRESSURE  
REMOTE MONITORING,  
CONTROL AND REGULATION
- CATHODIC PROTECTION  
REMOTE MONITORING  
AND CONTROL
- CONCENTRATION OF ODORANTS  
REMOTE MONITORING



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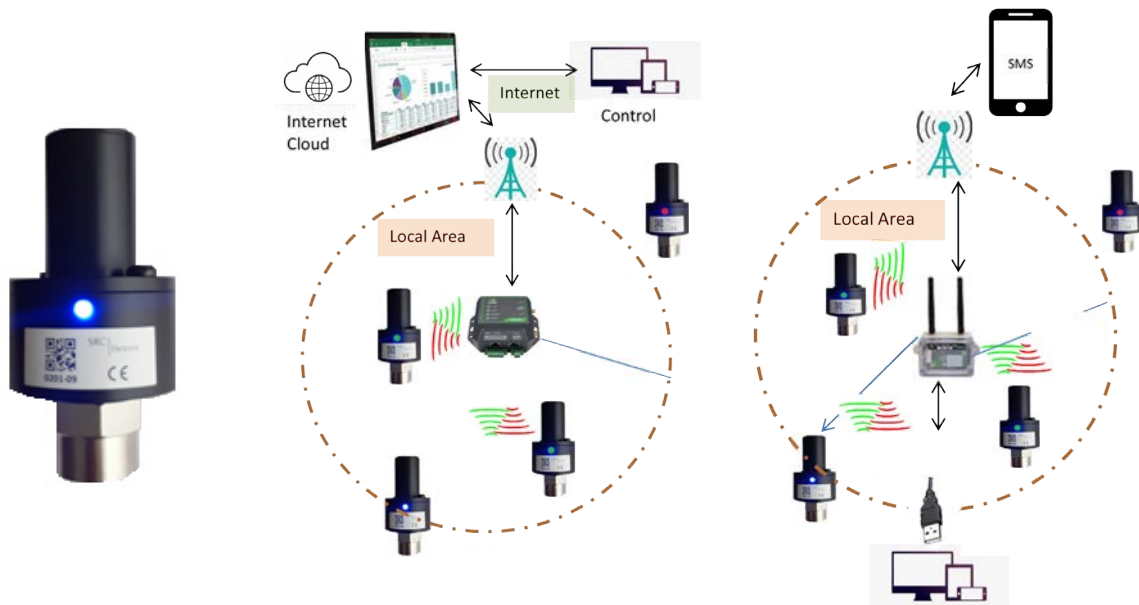
The Dogger Bank Offshore Wind Farm, which is located between 125 km and 290 km off the east coast of Yorkshire, would benefit directly from the blades produced at this new plant. The three phases of the Dogger Bank Wind Farm, powered by GE's Haliade-X offshore wind turbine, will have a combined installed generation capacity of 3.6 GW, enough to power six million UK homes. When complete in 2026, it will be the world's largest offshore wind farm.

Dogger Bank Wind Farm Project Director, Steve Wilson, said: "We're incredibly proud to say Dogger Bank Wind Farm is the anchor project for the blade facility announcement by GE today. Dogger Bank Wind Farm is a world-leading development pushing the boundaries of offshore wind development and playing a key role in delivering the ambition to increase UK supply chain capacity and capability. Through our turbine supply order with GE, the Dogger Bank project is the catalyst for this important GE investment in Teesside, harnessing skills and expertise in the local area and delivering long-term benefits in the UK's offshore wind sector."

GE Renewable Energy already employs close to 1,500 people at its UK facilities, with the majority located between Stafford (GE Grid Solutions) and its LM Wind Power engineering center in Southampton. GE Renewable Energy has already announced an investment of \$20 million in R&D and testing activities for its Haliade-X offshore wind platform – mainly in the UK – and continues to partner with ORE Catapult in Blyth on areas such as innovation, R&D and testing major components. With this plant, the company is further expanding its renewable energy industrial footprint in the country and confirms its ambition to become a key actor in the offshore wind industry in the UK. GE is also working closely with its suppliers to develop a local sourcing base in the UK for some critical components of offshore wind turbines.

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# Wireless pressure sensor with integrated transponder – model TRP-05



In the modern industrial processes wireless sensors are increasingly required. For many companies it is a necessity, for others it represents an element of efficiency and modernization.

We mainly work with applications that require the following kind of sensors:

- Level
- Temperature
- Pressure
- ON / OFF

Our radio-transponder can be applied also on other type of sensors in compliance with the required application. The sensor data are collected in a concentrator connected with the PC / central server and/or a PLC. The TRP-XX series wireless pressure sensors are designed to replace sensors in currently wired applications or for use in new applications where wired devices are not cheap and reliable.

The benefits of use wireless sensors are :

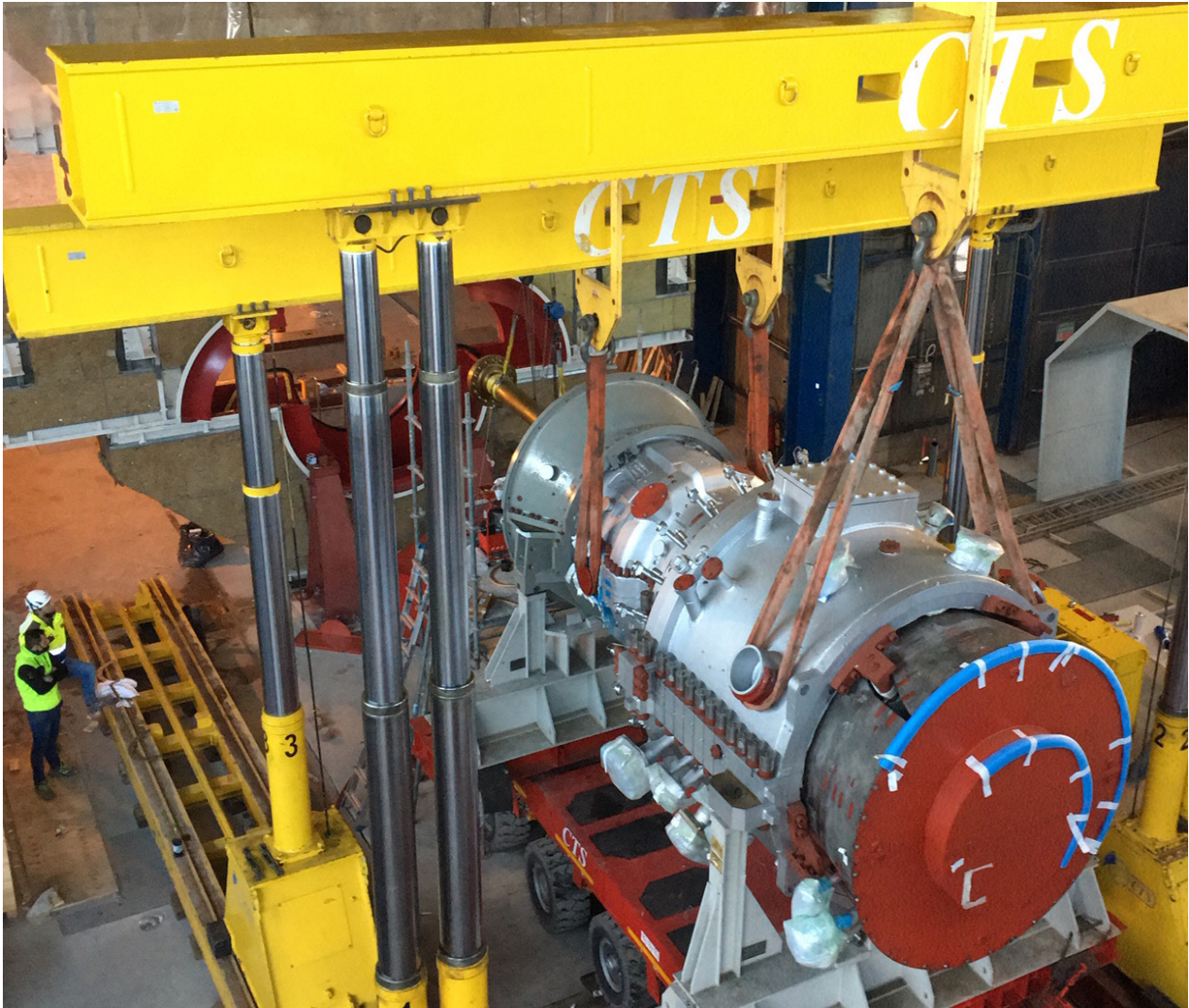
- Lower cost of installation and maintenance
- Increase system updating through easy reconfiguration

In particular, the TRP05 is a pressure sensor greatly improves the functionality and flexibility of the system. The sensors are controlled remotely in a local area or directly from the central server (cloud). This is done via the CRA-02 concentrator or CRA-03 gateway. The wireless network of the TRP-05 sensors is a high-speed two-way synchronous network. In 1 second, up to 10 sensors can be read directly from the server. The number of TRP-05 in a WSN

can be varied without the need for any reconfiguration of the network or the sensor itself. At any time, each sensor of the WSN can be removed, added or replaced with another without the need for a new configuration. This makes it easier to purchase and maintain the system and also increase the flexibility. The new sensor inserted in the WSN self-synchronizes within a time of 30-40 seconds and begins to transmit data to the server. In case CRA-02 / CRA-03 would be turned off, all sensors would be in SLEEP (dormant state). There is no data transmission to the concentrator. Battery consumption for each sensor will only be 30 micro amps. Turning on the CRA-03 will generate the system synchronization package which is transmitted every second. All sensors within the expected local air (<300m) are automatically synchronized and transmit data to the CRA-02 / CRA-03 concentrator. In this case the CRA-03 carries the data over the internet to the server. The received data can also be downloaded to a local PC via the CRA-02 serial port. Each sensor can remain in sleep mode, when it is positioned outside the maximum communication distance, making synchronization attempts every 40 seconds (blue led on).



# CTS expands service through the acquisition of RBM



In order to be able to offer an increasingly wide-ranging and articulated service, CTS has recently finalized the acquisition of RBM.

The purpose of CTS is always the same: to be able to provide the customer with the most complete and articulated service possible, guaranteeing the tranquillity of having a single interlocutor with the ability to coordinate the various operations on site with experience and reliability.

This expansion of the services offered is in particular at the service of companies operating in the ceramic sector, which has always been the core business for both CTS and RBM.

RBM is a company with thirty years of experience in the dismantling and assembly of industrial plants in various sectors and in the construction of metal structures for every industrial need, specialized in the construction and maintenance of atomizers, piping and structures in general.

These skills, combined with CTS's high specialization in operations at the service of the ceramic industry regarding the transport and positioning of mills, presses, dryers and other ceramic machines, make it possible to offer an all-round service to customers. .

Another area in which this partnership can bring excellent results is the energy sector.





CTS has been investing for years to offer companies in the energy sector an increasingly efficient and punctual service, achieving important results.

In fact, today CTS works for all the main manufacturers of engines, turbines, generators and transformers, and is ready to put the know-how acquired over the years at the service of RBM.

Recently, for example, CTS collaborated with Proeco on the renovation of the SEA ENERGIA S.p.A. cogeneration plant, at Malpensa Airport. CTS took care of the extraction of the old Turbomach turbine and the subsequent positioning of the new SIEMENS SGT-700 turbine, weighing 180 tons and arrived on board the large cargo

aircraft Antonov 124.

At the same time, RBM oversaw the construction of the foundation plates and air ducts.

But for the two companies this was only a first test, which gave excellent results and which allows us to hypothesize the enormous potential of this collaboration, primarily to the advantage of the costumers, who will find a common direction ready to find optimal solutions to their needs.

This collaboration, therefore, promises to be very fruitful for both companies, ready to work in synergy to offer a service that will exceed customer expectations.

# Siemens commits to making Smart Infrastructure HQ carbon neutral by 2023

- *Global campus in Zug to reduce carbon footprint*
- *Target in line with company-wide sustainability program*

*Zug, March 8, 2021:* Siemens Smart Infrastructure plans to transform its global headquarters in Zug, Switzerland, into a carbon neutral location by 2023. To achieve this, a comprehensive renovation of an existing building on Theilerstrasse 1c will commence in May 2021 for a period of two years. Siemens has earmarked around EUR 63 million (CHF 70 million) for the refurbishment works.

Globally, Siemens committed to turn its operations carbon neutral by 2030, highlighting companies' responsibility towards driving decarbonization. The goal: all Siemens production facilities and buildings worldwide are to achieve a net zero-carbon footprint by 2030. So far, Siemens has already reduced 54 percent of its CO2 footprint.

"Sustainability is top of our agenda – when it comes to the technology we supply to customers but also in our own operations. Our experience has shown that with our solutions, considerable energy savings of up to 30 percent can be achieved in most buildings," said Matthias Rebellius, managing board member of Siemens AG and CEO of Smart Infrastructure. "Companies play a significant role in the fight against climate change and we intend to lead by example."

The campus in Zug is Siemens' largest Swiss location. It is a showcase for smart buildings that combine innovative building technology and renewable energy to achieve energy efficiency and decarbonization. It is also a reference project for digitalization in buildings and future-oriented working. The main office building and the factory, which both opened in 2019, saved 600 tons of CO2 in the first operating year, compared to the average heat consumption of recent years, which corresponds to a reduction of 60 percent.

Siemens supports customers worldwide to reduce their carbon footprint and contribute to fighting climate change with its environmental portfolio. The company's overall environmental portfolio elements, including systems, products and services, installed in fiscal 2020 helped customers reduce CO2 emissions by 7 million metric tons.

In Switzerland, Siemens is the largest industrial employer, providing jobs to around 5,300 people. To further support decarbonization, all company locations will be equipped with Siemens charging infrastructure for electric vehicles. The existing charging infrastructure in Zug will soon be supplemented with around 40 additional charging stations. Employees can recharge their batteries free of charge at all Siemens locations in Switzerland. Worldwide, the company has committed to converting its entire fleet to fully-electric by 2030.

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**Industrial handling operations**

**Exceptional transportation**

**Lifting activities**



### **Head Office**

Via dello Stagnino, 6/8  
48125 - Roncalceci (RA)  
Phone: +39 0544 569611



### **Branch of Marghera**

Via dell'Elettricità, 39  
30175 - Marghera (VE)  
Phone: +39 041 931703 / +39 041 926956





# Equipping enclosure covers inside control boxes and cabinets to make better use of space

Waldenburg – With the new cover installation concept from R. STAHL for Ex control boxes and cabinets a well arranged layout of enclosures is realized. Cover installation refers to installing components directly onto the backside of the enclosure cover, rather than on mounting rails deep in the control stations as usual.

Enclosures that are equipped in this way are extremely easy to maintain. Actuators and control elements positioned underneath them, which are fitted directly to the captive hinge cover so that they are accessible, can also be replaced extremely easily.

In just a few steps, the contact blocks and LED pilot lights can be positioned safely and precisely underneath the actuator and can be wired and controlled conveniently from below.

There is then far more free space for transparent structures inside the enclosure, compared to the conventional method of installation.

The level with the R. STAHL panel mount components inside the enclosure cover is separated from the wiring level with terminal blocks in the enclosure base – each level can be accessed independently.

The cover for the 8150 enclosure series from R. STAHL can be equipped with 2- and 4-pole control switches, contact blocks and LED pilot lights.

Cover installation allows up to three switching elements to be fitted underneath an actuator.

Alternatively, conventional mounting rail installation enables up to four switching elements to be installed under an actuator. R. STAHL offers a wide range of built-in components and actuators and supplies custom-fit finished configurations in enclosures that are sized optimally to meet their users' needs.

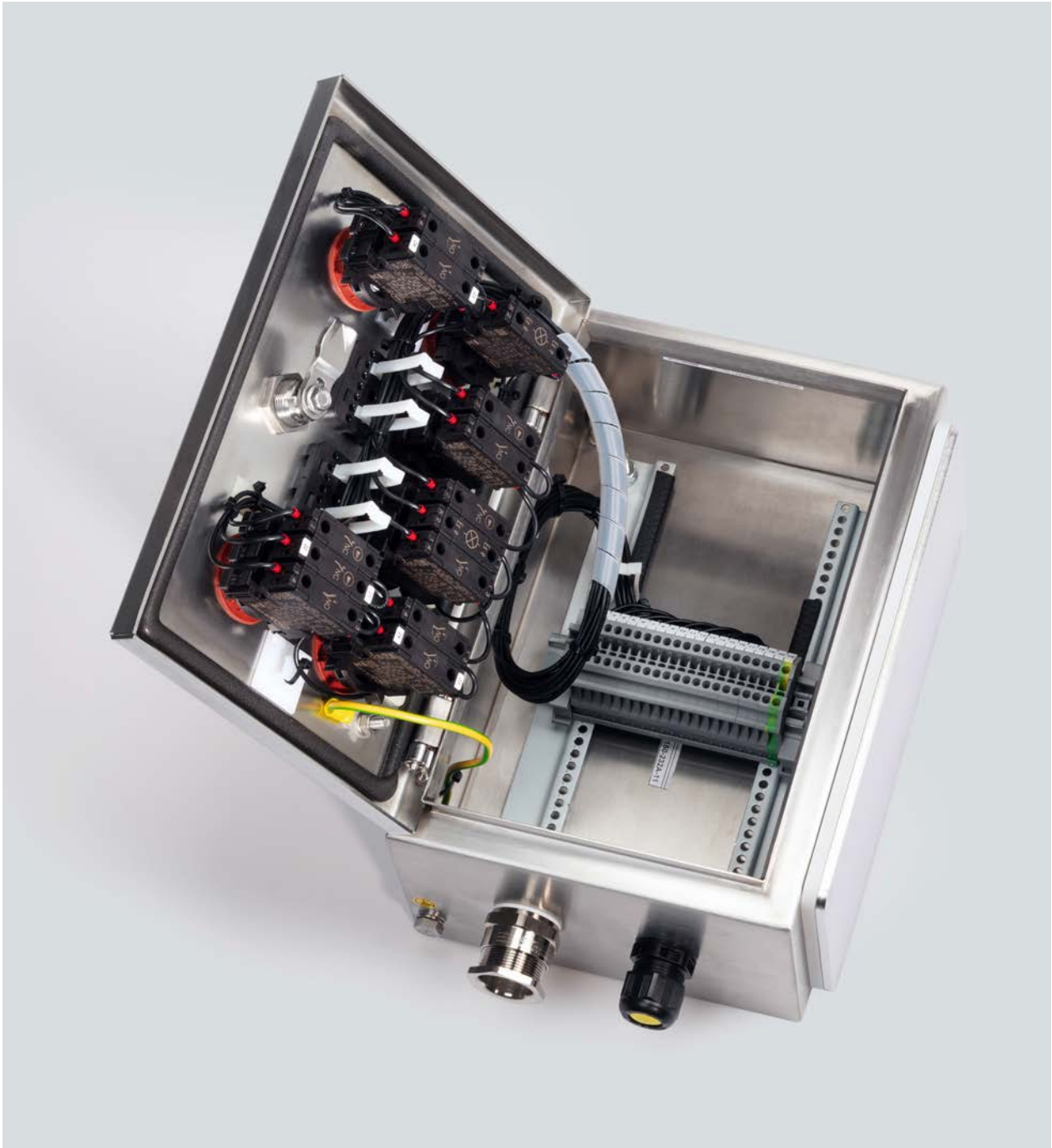
A choice of control stations made of stainless steel or glass fibre reinforced polyester resin are available.

They have obtained international and regional certification for all key economic areas, allowing these products to be used worldwide.



E-mail: [sales.IT@r-stahl.com](mailto:sales.IT@r-stahl.com)

Website: [www.r-stahl.com](http://www.r-stahl.com)



*Front installation – equipping components internally on the cover of the enclosure – enables the design of Ex control stations that are especially easy to maintain*

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START POWER srl is an Italian company specialized in the design and production of electrical and electronic equipment for industrial applications founded in 2009 by a group of professionals with over 40 years of experience in the sectors of industrial machinery, energy conversion and power control.

With the aim of entering the research field, Start Power has recently invested in the development of new product lines for laboratories, research institutes, and R&D facilities.

The new range of products includes Linear AC-DC Power

Supplies, AC-DC Power Supplies with Thyristor Regulation, and Switching Mode Power Supplies; each product line is designed up to 40kW.

In this article we would like to introduce our D2 Power Supply series. These Power Supplies are built to meet particular testing needs in many sectors, for example to obtain charging and discharging profiles of batteries in a cyclic way without having to disconnect the battery from the power supply to connect it to a load, or for automotive tests or in all those applications that require a voltage generator and an electronic absorber in a single instrument.



The D2 series Power Supplies are suitable for testing and “life” tests of electrolytic capacitors or batteries to evaluate their service temperature and their life cycle also in exasperated charge/discharge. Another application is the testing of direct current motors which, when braking, deliver eddy currents.

D2C series Power Supplies have 2 opposing quadrants in order deliver current with inverted poles. They are indispensable in certain galvanic or chemical processes that require cyclical inversion of the power supply polarity of the process electrodes so they eliminate the problem of maintenance of contactors that carry out polar exchange

in a mechanical way.

They are also suitable for testing direct current motors to reverse their direction of rotation in the absence of sparking created by an electromechanical switch or for dealing with direct current electric motors that must be controlled in both directions.

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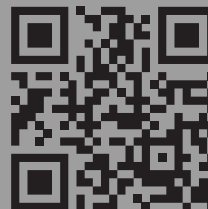
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# Is your Crisis Management Plan up-to-date and available to everyone?



Oil and gas facilities are among the most complex industrial operations in the world: spanning oil and gas refineries, offshore production platforms, pipeline networks, and chemical plants of all kinds. Wherever they operate, they play the role in maintaining the operational buzz of work-as-usual. But what happens when catastrophe strikes? Are they able to quickly recover the situation? What happens with employees? Are they able to assign tasks, mitigate the situation, distribute critical information to emergency personnel? How and where capture the right information at the right time? How define if the information stored could be the starting point of a crisis event?

Whenever the operations break down unexpectedly, crisis can arise. If the initial breakdown is not managed effectively, crises can spread over space and time to threaten not only the effective function but also the existence of the activity itself. In this sense, “crisis management” involves planning for, coping with, and recovering from the impacts of unexpected events.

A Crisis Management Plan (CMP) outlines how to respond to a similar critical situation that would negatively affect an organization’s profitability, reputation or ability to operate. These plans are used by business continuity,

emergency, crisis management teams to avoid or mitigate the damage and to provide direction on staffing, resources and communications. The most important thing for the right CMP is to be up-to-date, ready to be used and applied everywhere.

Emergency Response Director (ERD) by Omninecs Ltd, with its flexibility and interoperability, is inserted within the logic of the Crisis Management Program, representing the crisis Application Framework where it is possible to dynamically apply, rectify, see how hypothetical crisis situations evolve.

“Abnormal” events or situations may be different according to the industry and company and/ or the phenomenon to be observed. Beyond the approaches and best practices, each organization faces and manages crisis event in a different way based on its own objectives, principles and regulatory rules. In case of a natural disaster in a specific point of the globe, an Oil and Gas company will act differently from a Financial or Transport company. So the same event will be characterized by different approaches, severity levels and solutions.

ERD with its flexibility, is the pivot of the evaluation and solution processes by integrating information sources (internal and external) concerning the phenomenon to





be observed. Therefore, on the basis of information captured, rules (internal and / or external), scenarios and objectives, it is able to:

- identify potentially critical situations
- trace and coordinate the execution of intervention plans (emergency plans)
- support the organization in the process of continuous improvement of what is defined
- classify and / or reclassify events traceable to the right level of severity
- support the company and staff during the resumption and restoration of activities
- provide important and consistent support in the areas of Quality, Audit and Control

***Then is your Crisis Management Plan up-to-date and available to everyone?***

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**ABSTRACT**

Oil and gas facilities are among the most complex industrial operations in the world: spanning oil and gas refineries, offshore production platforms, pipeline networks, and chemical plants of all kinds. Whenever the operations break down unexpectedly, crisis can arise. If the initial breakdown is not managed effectively, crises can spread over space and time to threaten not only the effective function but also the existence of the activity itself. Emergency Response Director (ERD) by **Omninecs Ltd**, with its flexibility and interoperability, is inserted within the logic of the Crisis Management Program, representing the crisis Application Framework where it is possible to dynamically apply, rectify, see how hypothetical crisis situations evolve.

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# Honeywell Expands Supply Chain Software Suite To Help Enterprises Better Track And Monitor Operations

*Real-time supply chain visibility, data analytics and unified communications tools allow mobile workers to make key decisions to increase workplace productivity and business profitability*

CHARLOTTE, March 15, 2021: With supply chains becoming more dependent on mobile workers to meet productivity goals, Honeywell today announced a suite of enhanced supply chain software, featuring digital disruptors, to provide a powerful solution to increase efficiencies and deliver better customer experiences.

The supply chain suite, which can be installed on Honeywell mobile computers, is designed to help mobile workers throughout the retail, manufacturing, pharmaceutical and transportation and logistics industries become more productive and make actionable decisions.

The company has partnered with FarEye, a low-code SaaS platform, to provide its intelligent delivery management software as a service platform to Honeywell mobile computer users. FarEye allows mobile workers with devices to manage, visually track and monitor delivery logistics operations.

“With the exponential increase in customer demands, technological advancements and fierce competition, workers throughout the supply chain are now under heightened pressure to speed up order fulfillment and optimize operations,” said Kevin Dehoff, president of Honeywell’s Productivity Solutions and Services business. “Mobile workers are being tasked to work smarter and faster, and we’re partnering with innovative solution providers like FarEye and transforming our productivity software to a connected suite to help enterprises achieve their goals.”

FarEye works with major retailers, carriers and consumers around the world to provide higher control on their delivery operations and provide superior experience to end customers.

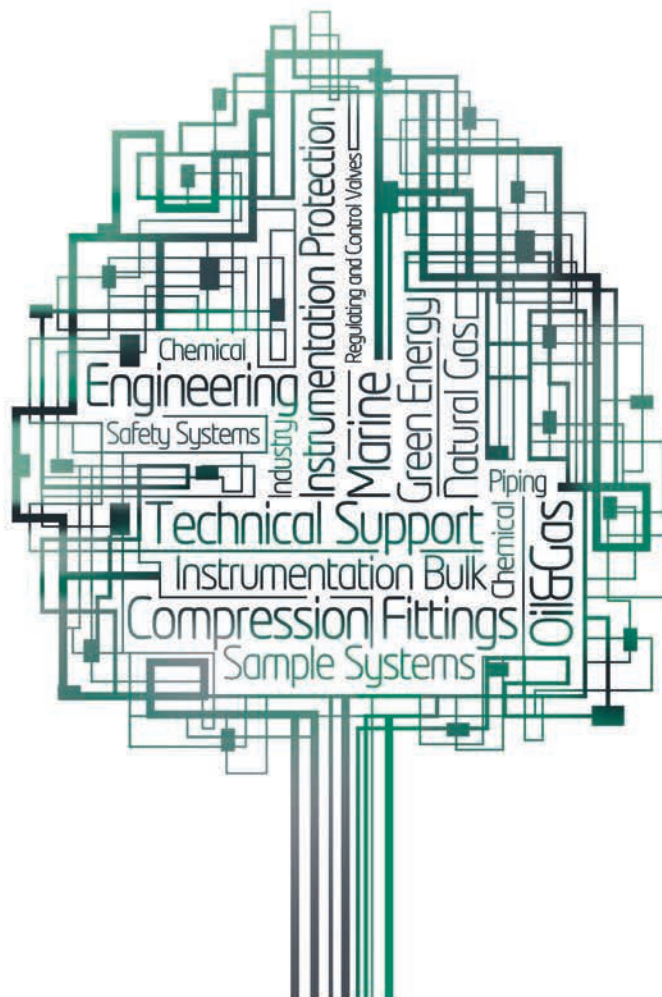
“As customers transform their businesses to keep pace with today’s ever-changing business climate, FarEye enables the customers to scale their delivery operations and create value,” said Kushal Nahata, CEO of FarEye. “Together we have been able to make a positive impact on businesses with the disruptive power of Honeywell technologies and FarEye’s intelligent delivery management platform which is built to solve the complex challenges that cost the supply chain and logistics industry trillions of dollars.”

The software suite also includes Honeywell’s Operational Intelligence software platform, which enables workers and enterprises to predict upcoming problems before they happen and gain key business insights. The software now has a Smart Actions feature, alerting workers on how to resolve and address business issues – be it hardware issues or ensuring social distancing guidelines are being met – when they happen. Combined with the Honeywell Smart Talk unified workforce communications application, mobile workers have the tools to give them actionable insights and the ability to act upon them.

The three solutions have an open API architecture, allowing businesses to integrate these applications with other work-essential software. Greater visibility can be achieved through centralizing data that usually scattered throughout the organization giving customers greater transparency enabling them to move from reactive problem addressing to real time problem solving with end-to-end operational visibility.

These applications can be found in the Honeywell Marketplace, an enterprise app store that enables customers to discover, evaluate and download business-critical software for a wide range of industries.

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# Mobile lift assistance: material handling wherever you need it with the new Liftronic® Mobile



When operating busy production lines or warehousing, lifting and handling tasks often take place at various points within your facility, which means that you require an industrial manipulator which not only helps you with repetitive lifting and handling tasks, but is also flexible enough to move around the site to help complete various jobs throughout the day.

Scaglia INDEVA are proud to launch the new Liftronic® Mobile, the latest of our innovations which provide improved lifting and handling solutions designed to meet the evolving needs of industrial production.

**Material lifting and handling in a flexible manufacturing**

**or logistics environment**

The Liftronic® Mobile which, like all other Liftronic® Series Intelligent lift assistors, is safe and ergonomic, but is also moveable to different workstations within the **production and logistics area**.

In addition to all the benefits that customers have come to expect from a Liftronic® manipulator, such as improved employee wellbeing, increased productivity and better workflow, the Liftronic® Mobile offers **additional benefits** such as the ability to move components, bags, bins, boxes or other containers weighing up to 60kg each from one location within your facility and place them easily in another, making it ideal for either manufacturing,





logistics or warehousing operations.

**Designed to be easily mounted on an electric pallet truck**, the Liftronic® Mobile can switch between tasks and types of load with a simple and quick change of gripper, which include pantograph, magnet and vacuum grippers. It also has a counter balancing design and failsafe systems to ensure stability during lifting and moving.

**One person lifting to meet social distancing guidelines**  
**COVID 19** has required the reorganisation of work processes and spaces. Government health directives require the **distance between operators** to be maintained, so an **intelligent INDEVA® industrial**

**manipulator is the right solution** to address situations where two or more operators would otherwise need to work in close proximity to each other to carry out load handling or assembly operations.

Just one operator together with an INDEVA lift assist device such as the Liftronic® Mobile can safely move, tilt, rotate, lift and precisely position a heavy load effortlessly, with precise and smooth movements, meaning the job is completed effectively and **social distancing guidelines are adhered to.**

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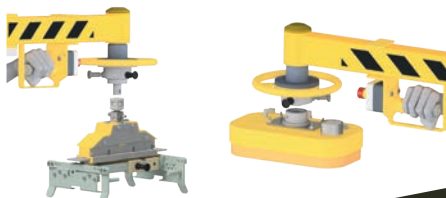
### **Easily installed**

Liftronic<sup>®</sup> Mobile can be easily installed on most transpallets available on the market.

**02**

### **Available with different gripping tools**

You can choose from several options of gripping tools including magnet, suction cup, hook and pantograph.



**03**

### **Guaranteed security**

Equipped with sophisticated devices that ensure maximum safety to prevent accidental load fall and uncontrolled arm movement.

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## SteelMaster: a deep dive into our range



The needs of our customers have been at the centre of our new and improved SteelMaster range of protective coatings.

At Jotun, we have spent the past two years researching and developing the range to ensure our extensive fire protection offerings were ready to lead in the current market, retaining our reputation for safety and aesthetic specifications for our customers.

The result? One of the most competitive product ranges on the market, backed up with being environmentally friendly, as well as being cost and time efficient too.

During this period of growth and development for the SteelMaster range, the focus has been firmly on ensuring the product excels from the perspective of our clients. As such, a crucial aspect has been the formulation and application testing processes.

We needed to make sure our products were economically and ergonomically effective for our customers. Testing our SteelMaster range in 1.5-m<sup>2</sup> furnaces on site in Norway, in temperatures of up to 1,000 degrees, guaranteed the new formulation was both consistent and competi-

tive with the exacting protection requirements that have come to be expected with the SteelMaster brand.

Our one-component waterborne acrylic thin-film intumescent coating is a testament to this process of research and development. One of the key areas we improved is the cutting-edge technology in drying water-based paint, in all environments: come rain or shine. Several challenges present themselves with this. Crucially, the application and maintenance of water-based coatings and the sensitivity to moisture and weather conditions were considered to ensure the most competitive option on the market.

In addition, the reduction in environmental impact is a real benefit, with significantly less carbon emissions and Volatile Organic Compounds (VOCs) involved with the development, production and application of this type of fire protection.

The viscosity of the products and ease of application are some of the main distinguishing features for the new SteelMaster offerings, with fewer coats required, all easily applied. This leads to both cost and time savings during



application. Our experience in technical innovation gave us the confidence and assuredness that we could improve and excel with our fire protection range in this way. Looking to the future of Jotun and the SteelMaster range, we are continuously improving our ranges and development processes in order to keep delivering the most competitive and environmentally friendly intumescent fire protection on the market. SteelMaster is globally approved to national country standards and delivers to

countries across the world. With 64 companies and 40 production facilities on all continents, Jotun is represented in over 100 countries.

For further information:

Vaira Vesnaver

Marketing Executive

**[Vaira.vesnaver@jotun.it](mailto:Vaira.vesnaver@jotun.it)**

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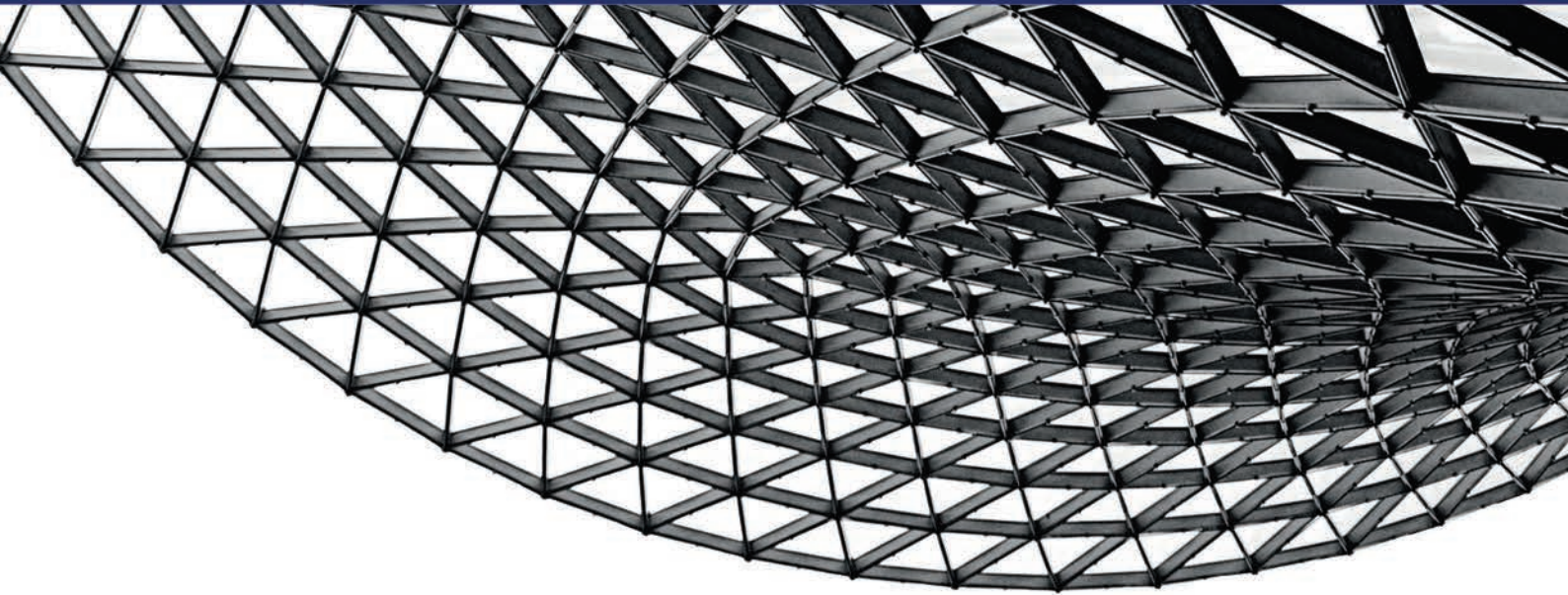
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# AI For Crisis Teams - Dfki Develops Pandemic Cockpit For Municipalities

*Kaiserslautern/Trier, March 2, 2021:* How do measures affect pandemic response at the municipal level? - In the AScore project, an expert system is being developed that presents crisis teams and decision-makers with needed simulations and information on pandemic progression for the municipal level.

The project, which is funded by the German Federal Ministry of Education and Research (BMBF), is being carried out by scientists at the DFKI (German Research Center for Artificial Intelligence) Kaiserslautern branch office at the University of Trier.

Despite now numerous experts, new research projects and a lot of available information on the Internet, it is difficult to assess where we are in the COVID-19 pandemic. Are the measures appropriate, excessive or insufficient? When can measures be relaxed? How do we get the schools back on track?

"Especially at the municipal level, at the health departments and the local crisis teams, there is a need for simulation options to better assess possible courses of events and decide on measures," says Prof. Ingo Timm, head of the Cognitive Social Simulation topic area at the DFKI branch office in Trier. "We have already been working since March of last year on computer models for analyzing and evaluating measures to contain the pandemic while taking human behavior into account."

DFKI is cooperating closely with the Fraunhofer Institute for Industrial Mathematics ITWM and the city administrations in Kaiserslautern and Trier. "The COVID-19 simulation systems from ITWM and DFKI complement each other perfectly to assess measures to contain the pandemic." Prof. Dr. Karl-Heinz Küfer, division manager "Optimization" at Fraunhofer ITWM in Kaiserslautern, emphasizes. The innovative approach in the AScore project is based on the preliminary work of the two institutes.

## A cockpit for crisis teams

The goal of AScore is the clear presentation of information relevant for crisis management in a dashboard. Using previously defined models, the further course of the pandemic can be simulated for one's own municipality using current data. "We are now using Artificial Intelligence to bring together data, analyses and information in a kind of cockpit. The aim is to provide those responsible for crisis management with decision-relevant information as needed," says Dr. Jan Ole Berndt, technical project manager at DFKI in Trier.

Dr. Clemens Gause, Managing Director of the Verband für Sicherheitstechnik (VfS), an association for safety technology involved in the project: "Municipalities are playing an increasingly important role in pandemic crisis management. For them in particular, the AScore project has great potential, because concrete tools for managing the crisis are being developed here."

## Sustainable research - learning from the crisis

"In addition to helping manage the current pandemic, we want to understand in the long term what information needs the crisis staffs have," adds Prof. Ingo Timm. "Later, using Machine Learning techniques, for example, we would like to use the data to explore which measures were effective and how, and thus learn for future crises."

In addition to the DFKI, with the Smart City Living Lab (SCLL) in Kaiserslautern and the Cognitive Social Simulation topic area of the branch office at the University of Trier, the Fraunhofer ITWM, the city administrations of Kaiserslautern and Trier, the Association for Safety Technology e.V. (VfS) as well as the companies CID GmbH and mata:solutions GmbH are involved.

The AScore project is funded by the German Federal Ministry of Education and Research as part of the German government's "Research for Civil Security" program.

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# The two principles at the basis of the success of Carlo Salvi as a reply to the pandemic



## MADE IN ITALY AND INNOVATION

The company Carlo Salvi, is not frightened off the Covid-19 pandemic. On the contrary after the government shutdown in the first half of 2020, the company equipped at best to avoid other possible repercussions. Today the company solidity remains the same, Covid-19 didn't damage the business profile.

For more than 80 years it has its manufacturing and operating headquarter in Garlate (LC) with about a hundred of employees. In the year of the pandemic the company reacted demonstrating to be a trustworthy partner, in assuring that the conditions of the undertaking of its customers around the world are respected, the company

strengthened the service and invest in digitalisation of all processes: to the shipment of each header machine follows its remote testing to check all its functions. The foreign turnover has a great importance to Carlo Salvi and guarantee about 90% of the outcome.

Due to the plurality of the world's markets it was possible to maintain always active the business company during 2020. **According to the diligence Carlo Salvi's team demonstrated and the attention paid to the procedures to contain the contagion, we can say that nowadays Carlo Salvi is a safe reality.**

*"It was an immediate decision to adopt all the possible measures to face Covid-19.*

*Thanks to all the protective structures used, from the*





*physical ones, through the continuous sanitization of the workplaces to the strict procedures we can carry on in a more or less normal way our business activities and define ourselves a safe reality”* **comments Germano Pandiani**, Chief operating officer of Carlo Salvi.

This is the spirit with which the historical company of Garlate carry on the active involvement of the whole structure to promote the diffusion of a real working safety, showing once again to be perfectly aware of the essential role played by the human resources on an organisation's success.

*“According to our company philosophy we are trying to carry on a focused and proactive recruiting campaign. We*

*strongly believe that the entrance of new resources could boost our company, we are investing in the recruitment of highly specialised profiles to be integrated at different levels (organisation, management and engineering).*

*The need and the consequently demand are always more detailed/specific for this reason one of our prerogatives is having the answers before the question is asked.*

*This is the reason why we constantly need new investments in R&D and in the human resources of the company”* **says Marco Pizzi**, Chief Commercial Officer.

For more information please visit:  
**[www.carlosalvi.com](http://www.carlosalvi.com)**

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# Can ESG adoption drive a sustainable coronavirus recovery in the Gulf?

- ESG standards are becoming increasingly prominent around the world
- ESG risk evaluation is now central to investment and corporate decisions
- Major ESG developments are under way in Qatar, Saudi Arabia and the UAE
- Adoption of ESG principles could aid a sustainable recovery from Covid-19 in the Gulf

The coronavirus pandemic has raised awareness among GCC countries of the importance of environmental, social and corporate governance (ESG) standards. If current trends continue, then ESG could become a valuable element of the region's recovery from Covid-19.

ESG standards are used by investors to evaluate potential investments, as well as enabling business leaders to formulate responsible and sustainable corporate strategies.

Environmental criteria take into account a company's environmental footprint, as well as the actions it takes to offset it. Social criteria evaluate how it manages relationships with its various internal and external stakeholders. Lastly, governance criteria evaluate the inner mechanisms of a company's management and operations.



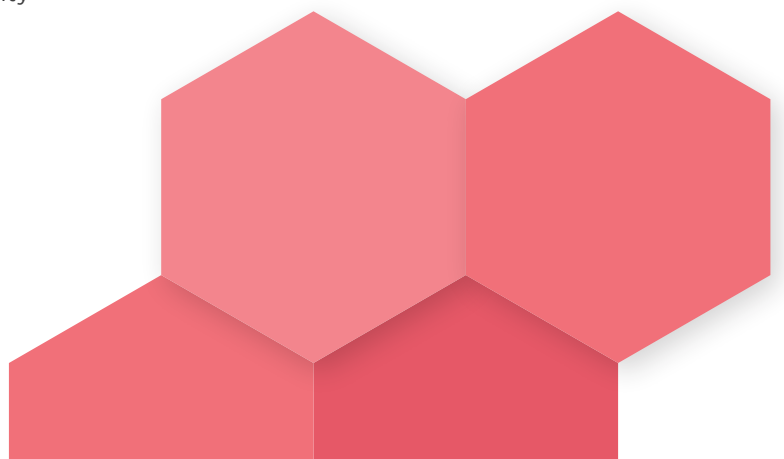
Demand for investments that are ethical and sustainable has been increasing in recent years. Globally, more and more investors are turning to businesses that embrace ESG, and this tendency has been boosted by Covid-19.

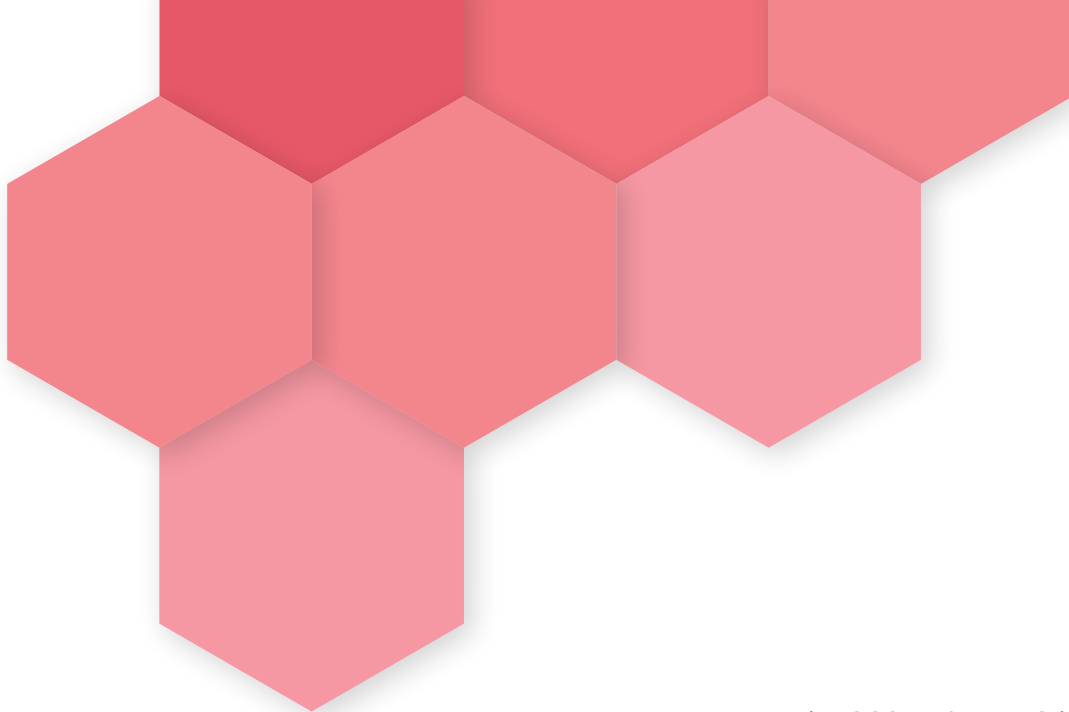
As phrased in a report published by S&P Global in April last year, “strong ESG performers with stakeholder-focused and adaptive-governance structures are likely to remain resilient amid these rapidly changing dynamics”.

ESG standards have become a central focus of the world’s major financial bodies. In January this year, at the World Economic Forum (WEF) in Davos, it was announced that a coalition of multinationals and business leaders had signed up to the “Stakeholder Capitalism Metrics”, a set of ESG standards released by the WEF and the International Business Council in September 2020.

“Stakeholder capitalism [has become] mainstream,” Klaus Schwab, founder and executive chairman of the WEF, told international media at the time. “The public commitments from companies to report not only on financial matters but also their ESG impacts are an important step towards a global economy that works for progress, people and the planet.”

Meanwhile, the International Financial Reporting Standards Foundation is moving forward with its plan to develop a single set of internationally recognised sustainability standards. In early February the foundation announced the goal of producing a definitive proposal by September this year.





In the GCC region, ESG has likewise become a hot topic in recent months.

For example, at the end of last year the CFA Institute – a global investment association – announced the results of a study which found that 94% of retail investors in the UAE were interested in or applied ESG principles in 2020, up from 90% in 2018.

Meanwhile, 74% of investors in the UAE with values-based objectives said they would be willing to give up some profit in exchange for meeting their values objective.

#### **Green shoots in the GCC**

Significant steps have been taken by major regional players towards a more ESG-oriented future.

Qatar National Bank (QNB) set up its Green, Social and Sustainability Bond Framework in February last year.

Then, in September last year, QNB launched its \$600m green bond, for which it received subscriptions of more than \$1.8bn. These proceeds will be used to “finance and/or refinance assets in verified Eligible Green Projects”, the bank said.

This was only the second such issuance from a commercial bank in the GCC, following the green bond of the National Bank of Abu Dhabi, as it was then known, in 2017.

In a further sign of the growing interest in such instruments in the region, in April last year the Dubai Financial Market launched the UAE ESG index, while in August Tadawul – Saudi Arabia’s stock exchange – announced that it planned to launch its own ESG index in 2021. This was followed in September by Saudi Electricity’s \$1.3bn green sukuk (Islamic bond) issuance, which was five times oversubscribed, a result that was driven by growing regional demand for ESG-compliant investments.



Saudi Arabia recently reinforced its commitment to ESG and sustainability during the Saudi Future Investment Initiative in January, at which Tadawul and the Future Investment Initiative Institute signed a memorandum of understanding to advance ESG awareness in the Kingdom.

At the same conference Prince Abdulaziz bin Salman Al Saud, the minister of energy, told media that Saudi Arabia was set to become “another Germany when it comes to renewables”.

Despite these promising indications, however, the Saudi ESG index has yet to be launched. Elsewhere in the region, in early February the Abu Dhabi Investment Office launched an ESG policy, which it will deploy in relation to different operations, among them public-private partnerships.

#### **ESG key to GCC recovery?**

The growing focus on ESG standards dovetails with development priorities shared by countries in the GCC region.

On the one hand, it ties into different diversification strategies. Last year’s slump in oil prices served to underline the importance of a more broad-based economy. Investments guided by ESG – for example, in renewable energy – offer a way to augment diversification.

On a related note, the Gulf is on the front line of climate change, and ESG can boost resilience as well as reducing emissions.

Lastly, globally speaking, ESG-guided companies have proven remarkably resilient in the face of Covid-19. An increased focus on ESG may thus constitute a way to drive a sustainable recovery from the pandemic.

*Publisher Oxford Business Group on Mars  
10, 2021*



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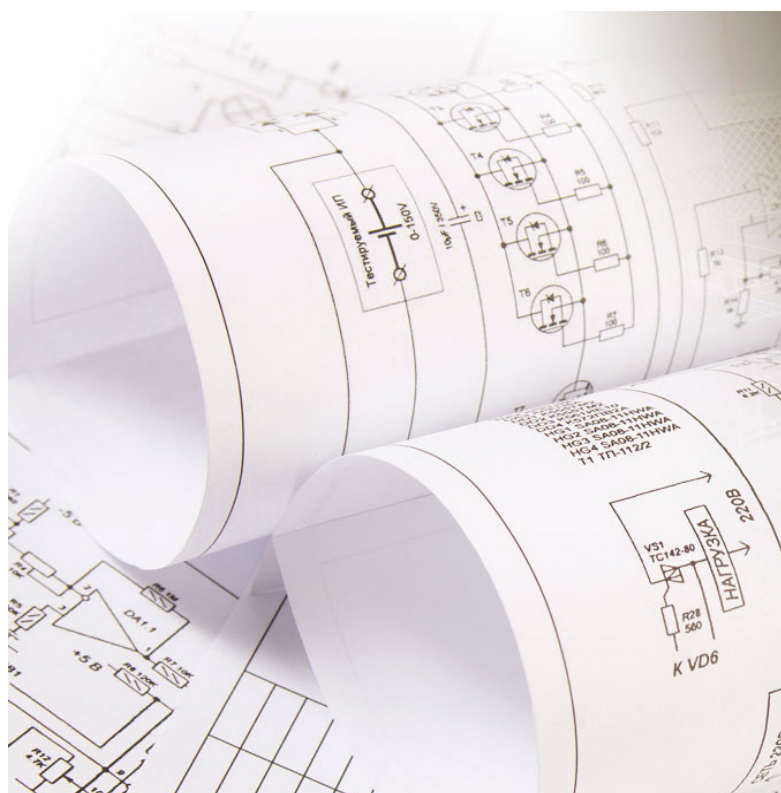
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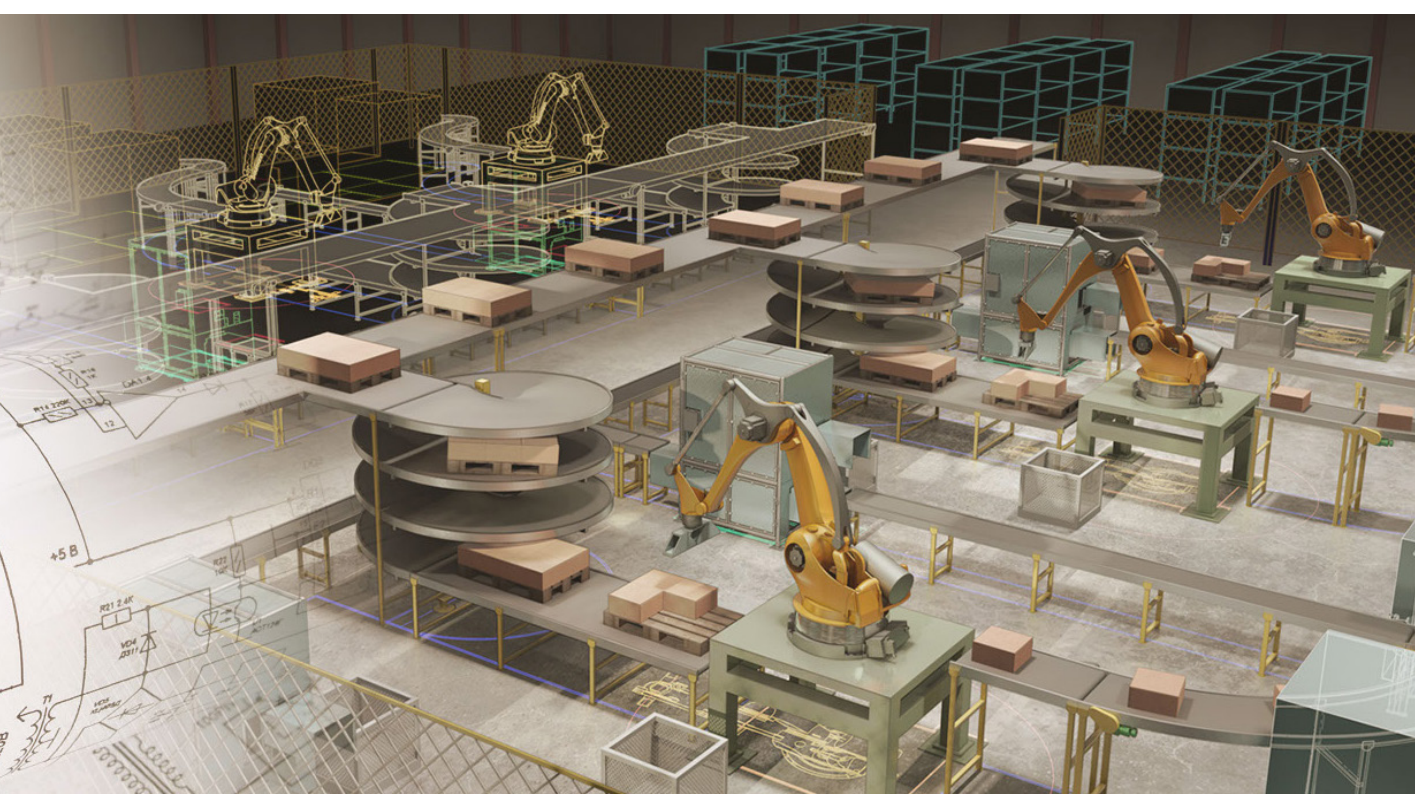
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# Comau Supports Europe's Top Battery Consortia Taking An Executive Board Position In Bepa

*Global automation leader has joined the European Battery Alliance, Batteries European Partnership Association (BEPA) and ETIP*

*Turin, February 12, 2021:* Comau has joined three important market consortiums to promote the development and expansion of Europe's battery industry, highlighting the company's ongoing investments in the electrification sector. Together with its membership in the European Battery Alliance (EBA), and the Batteries European Partnership Association (BEPA), for which Comau representative Carlo Novarese, Global Competence Center Batteries Manager, has been elected to the executive Board, the company is an active contributor to the European Technology & Innovation Platform (ETIP) on batteries.

Comau's participation in these organizations is part of the company's growing role in the electrification sector. This includes advancing innovation, as the battery technology industry takes off, toward the development of flexible, digital production systems with best-in-class quality and operational yield. More specifically, as a member of EBA, whose network includes organizations from both the public and private sectors, Comau interfaces with key stakeholders in the battery value chain. The company's executive role in BEPA sees Comau spearheading strategic funding recommendations together with the association's 137 members, of which 54 are industrial players and 56 research organizations. Comau has a leadership position in ETIP as well, co-chairing and actively collaborating within its Working Group 4: Battery Cell Design and Manufacturing.

The battery demand from Electric Vehicles produced in Europe alone is estimated at close to 1,200 gigawatt-hours per year by 2040 (Source: McKinsey, June 2019). As the demand for rechargeable batteries increases, so does the need for international cooperation to identify and invest in new technologies, such as lithium-ion accumulators, which can further the reality of safe and sustainable battery production. Comau's involvement in multiple panEuropean industry consortiums allows the company to leverage its expertise to advance the manufacturing process chain at both a national (Italian) and international level.

"We are proud to be at the forefront of the effort to speed technology advances in the production, deployment, use, recycling, and disposal of next-generation batteries," confirms Carlo Novarese, Global Competence Center Batteries Manager. "By actively participating in these important industry organizations, Comau is in a better position to identify and develop advanced solutions, opportunities for cross-industry collaboration and create value for OEMs and suppliers alike."

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# LEMO Marks its 75th Anniversary in 2021

## The journey of a global leader in connector & cable solutions.

Founded in Switzerland in 1946 in Morges along the Geneva lake shore, LEMO® took its name from the company's founder, the current CEO's grandfather, engineer Léon Mouttet. Originally a manufacturer of contacts in noble and rare metals, the company took a major step forward in 1957 with the invention of the Push-Pull self-latching connector. Today, the company offers a rich portfolio of interconnection solutions: cables, connectors and cable assembly services. LEMO's high quality Push-Pull connectors are found in a variety of challenging applications including medical, industrial control, test and measurement, audio-video and telecommunications. The third-generation family-owned company, with a staff of 1800 employees, is represented worldwide through 20 sales offices and multiple production sites in Europe, USA and Asia.

To this good news is added the victory of a very important prize. LEMO Receives 2020 Technology and Engineering Emmy® Award LEMO, a global leader in the design and manufacture of precision custom interconnect solutions is has been awarded a 2020 Technology and Engineering Emmy® Award for Standardization and Commercialization of Television – Broadcast, **Hybrid Electrical and Fiber-Optic Camera Cable and Connectors**.

"We are very honoured and proud to be awarded this Technology & Engineering Emmy® Award", says Billy Barbey, LEMO's R&D Manager. "It recognises the work of all LEMO engineers who have driven this technology over the years, and which has a lasting impact on the industry."

In the 80s, the signal transmission over fiber optic was introduced to the television industry and LEMO was deeply involved in the creation of the SMPTE Standard for fiber optic connectors. Today, fibers are used in all aspects of production and distribution of video and audio signals and the LEMO **3K.93C series** (SMPTE connector) is recognized as the connector of choice for broadcast and AV systems. LEMO works with select authorized cable assembly houses to ensure that our SMPTE products meet the highest standards for quality, reliability, and durability in the most challenging environments.

LEMO shares this 2020 Technology and Engineering Emmy® Award with the following partners: SMPTE, The Association of Radio Industries and Businesses (ARIB), European Broadcasting Union (EBU), Belden, NEMAL and all LEMO certified cable assembly houses.

The National Academy of Television Arts & Sciences (NATAS) plans to hold the 72nd Annual Technology & Engineering Emmy® Awards ceremony in partnership with the National Association of Broadcasters (NAB) during the fall NAB Show on October 10, 2021. The Emmy® Award is one of the four major American entertainment awards along with the Oscar (film), Grammy (music) and Tony (theater).







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# High speed connector for Automotive Ethernet



Based on transmission standards (IEEE 802.3), single-pair Ethernet (also called SPE or 1000Base-T1) is integrated into new generations of automobiles.

LEMO provides two types of insulators 0B.511(2 contacts) and 1B.512 (4 contacts + screen) compatible with Unshielded Twisted Pair (UTP) and Shielded Twisted Pair (STP), the new product is also available in a watertight version in the T series connector.

The connectors are for the automotive and industrial data transfer. The role of SPE is also to gain space and weight (with a more simple cable) also in other markets such as machine, robots and rail technology.

- Push-Pull self-latching
- Compatible with unshielded twisted pair (UTP) and shielded twisted pair (STP)
- 1000BASE-T1 (IEEE 802.3bp)
- 1000 MBit/s full duplex
- Open Alliance standard
- IP 50
- Temp. range -55 °C to 250 °C
- Solder or print contacts

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# Bosch reaches milestone on the way to opening new wafer fab in Dresden

## First wafers pass through fully automated fabrication process

- Harald Kroeger: "Chips for tomorrow's mobility solutions will soon be produced in Dresden"
- Pioneer in Industry 4.0: Bosch to use connected and highly automated processes in chip production from the outset.
- Highly sophisticated process: fabrication of a chip from a wafer involves several hundred steps.


*Dresden, March 8, 2021:* It is a milestone on the path to the chip factory of the future: at the new Bosch semiconductor fab in Dresden, silicon wafers are passing through the fully automated fabrication process for the first time. This is a key step toward the start of production operations, which is scheduled for late 2021. Manufacturing of automotive microchips will be a primary focus when the fully digital and highly connected semiconductor plant is up and running. "Chips for tomorrow's mobility solutions and greater safety on our roads will soon be produced in Dresden. We plan to open our chip factory of the future before the year is out," says Harald Kroeger, member of the board of management of Robert Bosch GmbH. The company already operates a semiconductor fab in Reutlingen near Stuttgart. The new wafer fab in Dresden is Bosch's response to the surging number of areas of application for semiconductors, as well as a renewed demonstration of its commitment to Germany as a high-tech location. Bosch is investing around one billion euros in the high-tech manufacturing facility, which will be one of the most advanced wafer fabs in the world. Funding for the new building is being provided by the federal German government, and more specifically the Federal Ministry for Economic Affairs and Energy. Bosch plans to officially open its wafer fab in June 2021.

### Prototype manufacturing already underway

In January 2021, Bosch began putting its first wafers through the fabrication process in Dresden. From these, the company will make power semiconductors for use in applications such as DC-DC converters in electric and hybrid vehicles. In the six weeks it takes to produce the wafers, they undergo some 250 individual fabrication steps – all of which are fully automated. In the process, minute structures with dimensions measuring fractions of a Qm are deposited on the wafers. These microchip prototypes can now be installed and tested in electronic components for the first time. In March, Bosch will start the first production runs of highly complex integrated circuits. To make the wafers into the finished semiconductor chips, they undergo some 700 processing steps, which take more than ten weeks to complete.

### 300-millimeter fab

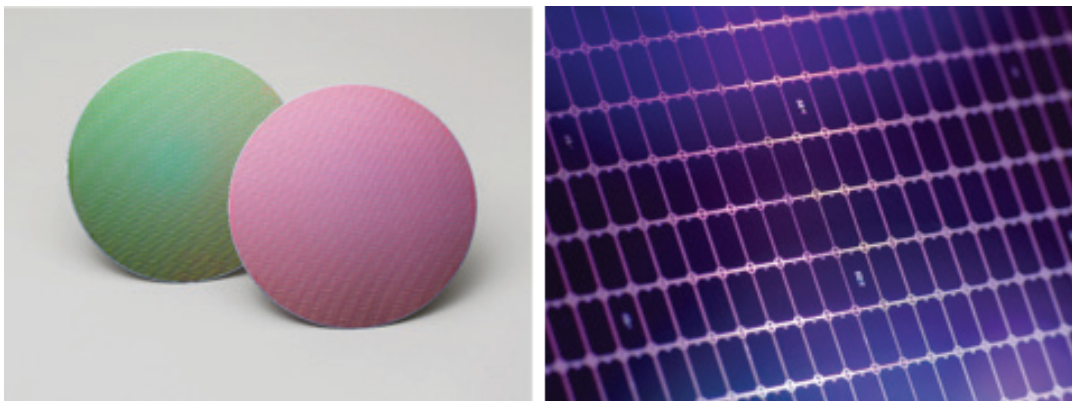
The technology in focus at Bosch's new Dresden facility is 300-millimeter fabrication, in which a single wafer can accommodate 31,000 individual chips. Compared with conventional 150- and 200-millimeter wafers, this technology offers the company greater economies of scale and boosts its competitiveness in semiconductor production. Moreover, fully automated production and real-time data exchange between the machines will make chip manufacturing in Dresden exceptionally efficient. "Our new wafer fab sets standards in automation, digitalization, and connectivity," Kroeger says.



Construction of the facility began in June 2018 on a plot of land measuring some 100,000 square meters, or roughly 14 soccer fields. It is located in Silicon Saxony, Dresden's answer to Silicon Valley. In late 2019, the outer shell of the high-tech factory was completed, providing 72,000 square meters of floor space. Work then began on the interior and the first production machinery was installed in the clean room. In November 2020, initial parts of this highly sophisticated fabrication technology completed a brief automated manufacturing cycle for the first time. The final construction phase will see up to 700 people working in the Dresden fab to control and monitor production and maintain the machinery.

#### **From wafer to chip**

Semiconductors are finding their way into more and more applications, including in the internet of things and for mobility of the future. The semiconductor fabrication process begins with round discs of silicon known as wafers. At the Bosch fab in Dresden, these wafers have a diameter of 300 mm and, at just 60 Qm thick, will be thinner than a human hair. To produce the coveted semiconductor chips, the untreated – or “bare” – wafers are then processed for several weeks. As the application-specific integrated circuits (ASICs) in vehicles, for instance, these semiconductors act as the vehicle's brains. They process the information from sensors and trigger further actions, such as sending a lightning-fast message to the airbag to tell it to deploy. Although the silicon chips measure just a few square millimeters, they contain complex circuits, sometimes featuring several millions of individual electronic functions.



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# Welcome to the cool side of technology



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Coolshop is UX centered digital solution provider focused on creating effective Extended Sales Processes.

Technology is Cool. It shapes the world and improves our way of living. Our aim is to bring a wave of positive tech change into the enterprise - the Cool Side of technology! Born in 2010, we leverage our country's world renowned talents in creativity and design, writing cutting edge code. In 2015 we founded a new branch in Rotterdam, in 2018 Coolshop Inc. in Chicago and in 2019 in Dubai.

We are focused on the two critical ingredients of an awesome User eXperience: fun & effective front-end design (also for B2B) and solid Backend Integrations.

## Extended Sales Applications

We believe manufacturers put a lot of effort in defining their products features and selling points, and our mission is to make sure 100% of this value is made apparent to the buyer.

Solution based selling is hard, it requires integration with multiple data sources and deep product knowledge. Our Extended Sales Applications integrate those data with salesmen insights and best practices to maximize efficiency.

We have helped global enterprises with complex configurable goods sold through a sales network to implement assisted selling solutions with custom UX & UI.

Deliver a Consistent, Exceptional Customer Experience. Cross brands. Online and offline. That's our goal.

That's why we have developed CoolSales and CoolPim. We have created a frontend for multiple systems, with a backend acting as an integration layer with the major ERPs, CRMs and Configuration Engines.

## CoolSales

CoolSales is a one place solution tool, simple to use for your sales network. It manages Leads, Configuration,



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It can be used online and offline and it ensures:

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- Cstom quote creation

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CoolPim is the application designed to manage product

data, media and content to generate Pricebooks and marketing-rich quotes. The tool works cross brands and regions, allowing different approaches, high flexibility and a perfect fit with CoolSales.

A WYSIWYG CMS allows marketing people to add text, images and structured description to the main features. Pricebooks can be either exported in PDF version or pushed to the salesman application.

It grants role-based visibility and read/write permissions to product information. It's the backbone of the mission based selling approach we foster with CoolSales.



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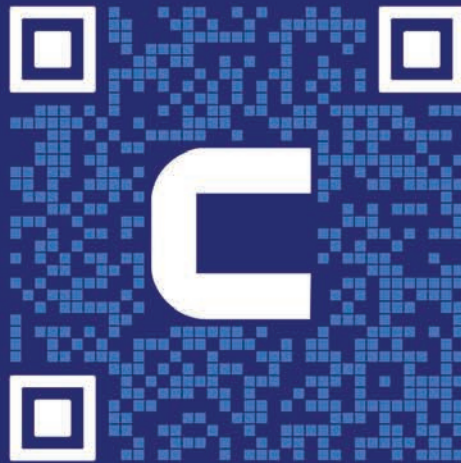
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# The Future of Learning



Since the company was founded in 1999, time4you has spent years researching and developing their own software-based solutions for the challenges of e-learning, personnel development and training. Time has proven that medium-sized and large companies across all industries as well as public institutions and educational institutes benefit from what time4you has to offer. The team provides a sophisticated learning platform, an individual e-learning and authoring tool, training administration and resource management as well as personnel development and talent management. To ensure that clients get the learning platform they need most, time4you has championed a modular, interoperable approach that embraces the benefits of standardization. The learning platform is extensively equipped with features and tools, but the diversity of the platform allows it to deliver both as a digital resource and one where teaching is done in person.

Everything from live sessions, tests and videos through to virtual workspaces can be created with equal ease and success. At the heart of each solution is IBT® SERVER software, which is highly regarded in the industry. One of the ways in which time4you is a pioneering firm is in how it utilizes AI as a digital assistant for learners. Its proprietary AI solution Jix has been a key part of time4you since 2018 and acts as a conversational chatbot.

By embracing a multilingual and responsive platform, the team reaches clients all around the world. This has been a major factor in the firm's ongoing success as many companies and people in different countries require the solutions that time4you has been developing. The ability to provide these solutions through purchasing, rental and SaaS has allowed many to use products just-in-time instead of investing a great deal of expenditure

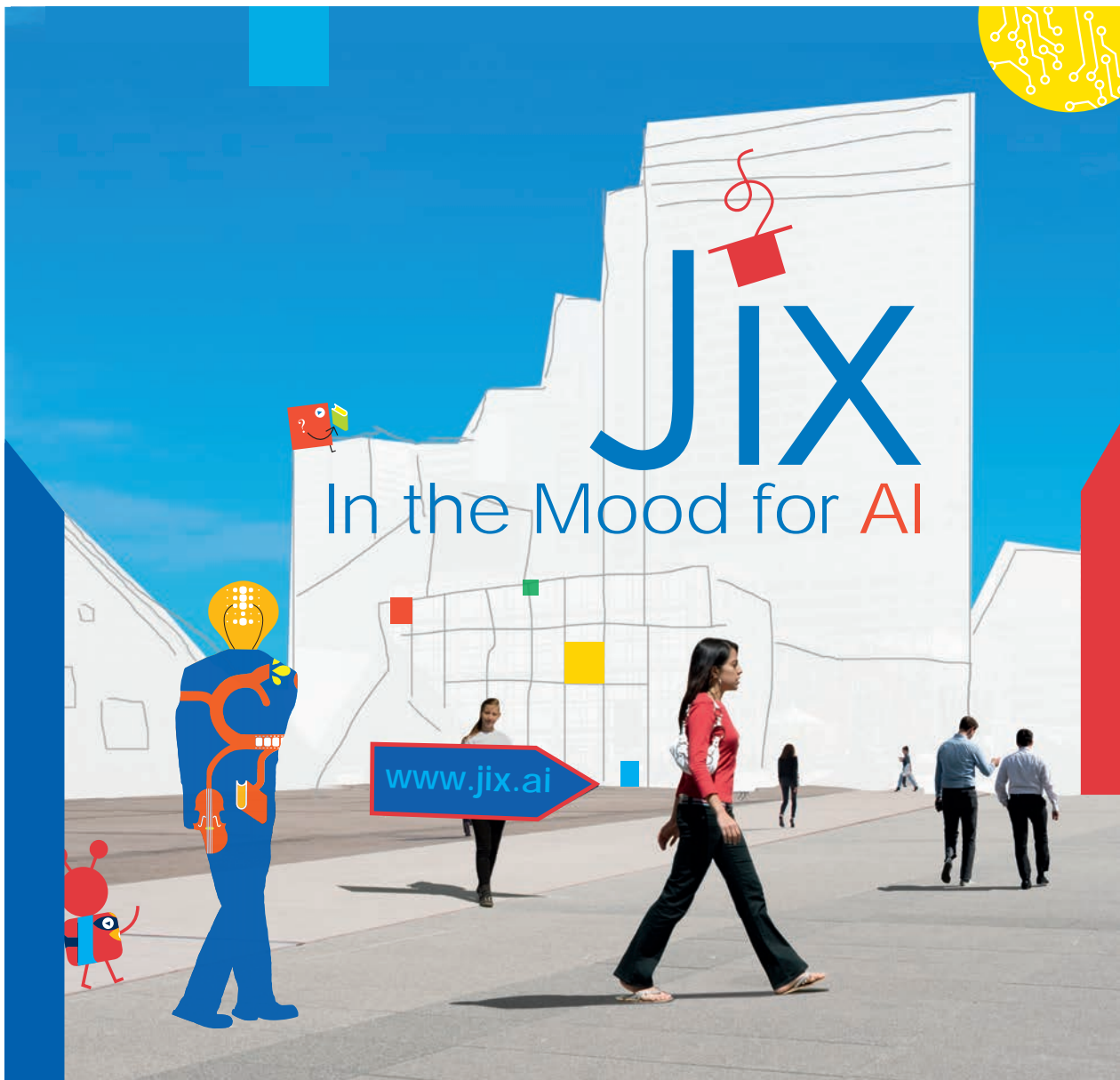
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at a point. The software has been designed to be highly scalable, allowing educators and development trainers to reach a broad cross-section of people as quickly as possible.

All learning formats are contained on a single platform for simplicity, which has been an enormous help in these challenging times.

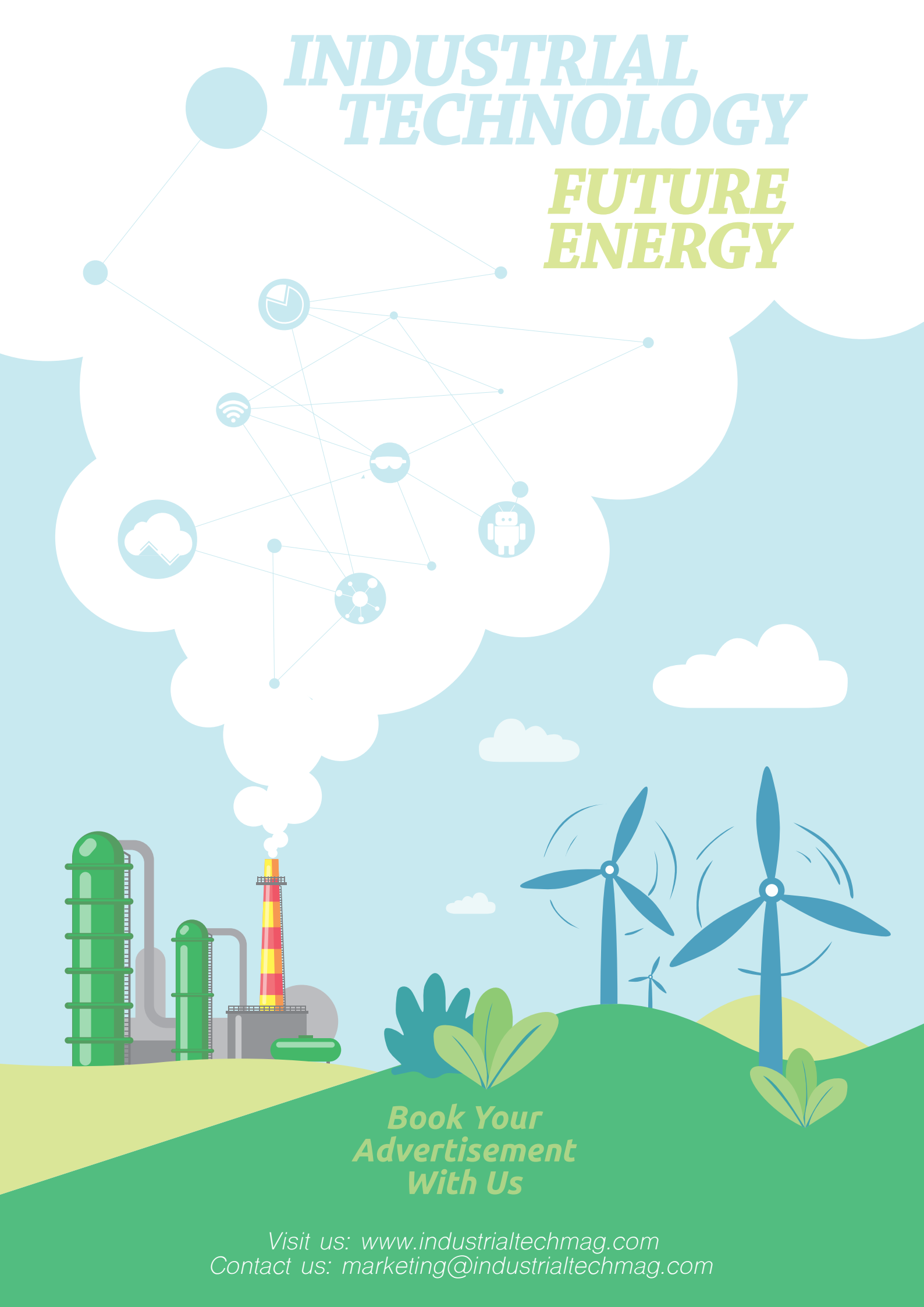
The development of a sophisticated, easily scalable product has been key to the team thriving in a challenging situation. Their approach embraces the true potential of technological development, allowing people to learn effectively for the foreseeable future.

Web Address: [www.time4you.de](http://www.time4you.de) / [www.jix.ai](http://www.jix.ai)



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- Rectangular Screener **VR, VRU-RE, VRU, VRU HYBRID**;
- Elevator Spiral Track **EVS**.

In this article we will show you the **Elevator Spiral Track EVS**.

The spiral cooling system is ideal for humidity-sensitive materials, such as PA - PA6 - PA66 - PA12, as residual moisture could result from an o-ring or a water pellettizer.





The matching of this machine with a Circular Vibrating Sieve can guarantee a residual moisture of 0.01 %. The Vibrowest Vibrating Spiral Track is manufactured with a new double edging circular bottom system that guarantees durability even with the most abrasive materials, such as glass fiber.

The machine can be equipped with an air blowing system. If necessary, it is possible to add a cold or hot air flow which allows the insufflation on the whole airdrilled column at room temperature.

**The advantages of this solution are:**

- very small layout space;

- thermal treatments (heating or colling) while the product is on the conveyor;
- speed on the conveyor path can be optimized to guarantee the desired residence time by changing the oscillating mode of the machine;
- low maintenance;
- possibility of completely isolating the product from the surrounding environment (noise, pollution, energy recovery, etc.) with a dedicated containment structure.

**The applications of Spiral Elevator are countless:**

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# *ABB and ETH extend partnership to advance research into the future of robotics*

*Zurich, March 22, 2021:* New collaboration and CHF 2.5 million donation will help position Switzerland as one of the world's leading robotics research hubs.

Building on their long-term relationship across several disciplines, ABB and ETH Zurich, a leading research university in Switzerland, have expanded their partnership into robotics research as part of ETH's RobotX strategic initiative. Launched in 2019, RobotX aims to position ETH among the top robotics research institutions worldwide.

As part of RobotX's industry affiliation program, ABB's Robotics & Discrete Automation business will support ETH's ambitious initiative with its leading in-house robotics expertise to combine competence into a platform aimed at training new talent and attracting worldwide experts to advance a range of future technologies, including mobile robotics.

"We are delighted to partner with ETH as it is consistently rated among the top universities for engineering and technology in the world. Our partnership expands our global innovation ecosystem, supporting our engagement with the brightest minds to advance the future of robotics and unlock the potential of automation for our customers," said Sami Atiya, President ABB Robotics & Discrete Automation.

"A close collaboration between ETH and industry partners including ABB Robotics is essential in establishing Switzerland as a leading robotics research hub. With RobotX we are enabling both interdisciplinary research across ETH while establishing new ways of collaboration with an industry affiliation program, open lab space and sabbatical programs for researchers from our industry partners", said Prof. Dr. Joël Mesot, President of ETH Zurich. The partnership between ABB Robotics and ETH builds on an existing collaboration with ABB launched in 2014. To enhance the initial 10-year commitment with ETH, ABB has now directed a donation of CHF 2.5 million to support the RobotX initiative.

ABB is already working with ETH around the university's research in the field of robotic fabrication in architecture and construction and helped establish the world's first laboratory for collaborative robotic digital fabrication in architecture hosted at ETH's Institute of Technology in Architecture. Together with ETH, ABB is also part of a project launched by Schindler, one of the world's leading providers of elevators and escalators, for an automated, independently operating robotic installation system for elevators aimed at improving the quality and ease working conditions for elevator installers.

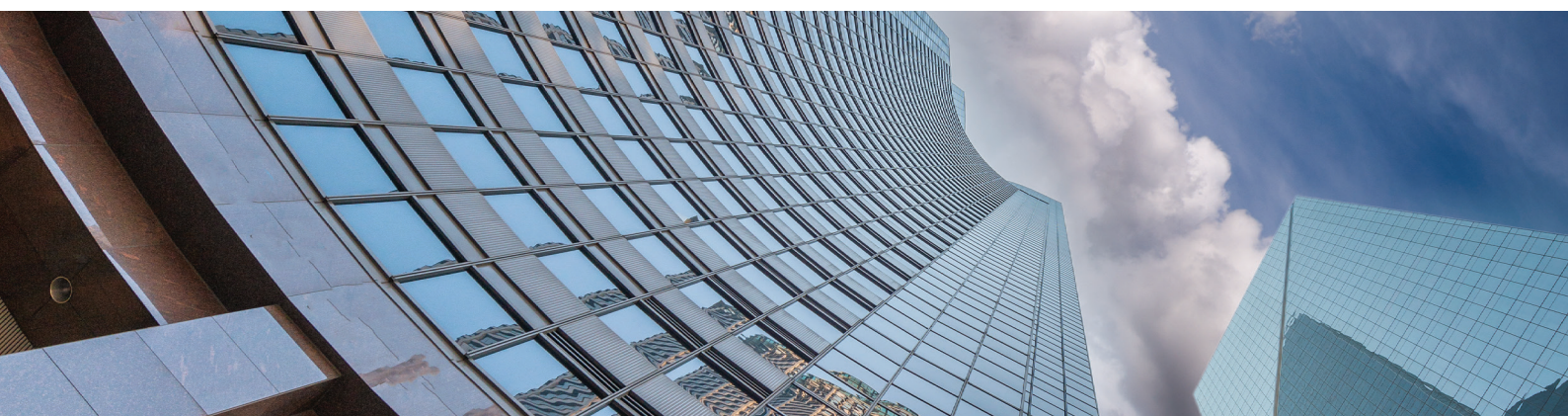
ABB is committed to supporting and working with more than 100 universities such as ETH as part of the company's technology ecosystem. These collaborations are exceedingly valuable in strengthening ties between academia and industry, which is essential for the future of innovation and employment for students. ABB's longstanding relationship with ETH encompasses the contribution of technology, collaboration on university spin-offs and partnering with the university to bring education to developing nations.



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# *ABB urges greater adoption of high-efficiency motors and drives to combat climate change – global electricity consumption to be reduced by 10%*

*Zurich, March 2, 2021:* According to the International Energy Agency (IEA), industry accounts for 37 percent of global energy use and some 30 percent of global energy is consumed in buildings.

While mostly hidden from public view, electric motors – and the variable speed drives which optimize their operation – are embedded in almost every built environment. They power a vast range of applications fundamental to our modern way of life, from industrial pumps, fans and conveyors for manufacturing and propulsion systems for transportation to compressors for electrical appliances and heating, ventilation and air conditioning systems in buildings.

Motor and drive technologies have seen exceptionally rapid advancement in the past decade, with today's innovative designs delivering remarkable energy efficiencies. However, a significant number of industrial electric motor-driven systems in operation today – in the region of 300 million globally – are inefficient or consume much more power than required, resulting in monumental energy wastage.

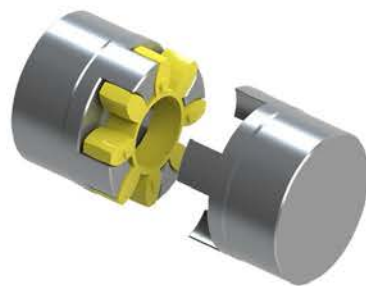
Independent research estimates that if these systems were replaced with optimized, high-efficiency equipment, the gains to be realized could reduce global electricity consumption by up to 10 percent. In turn, this would account for more than 40 percent of the reduction in greenhouse gas emissions needed to meet the 2040 climate goals established by the Paris Agreement.

"Industrial energy efficiency, more than any other challenge, has the single greatest capacity for combatting the climate emergency. It is essentially the world's invisible climate solution," said Morten Wierod, President ABB Motion. "For ABB, sustainability is a key part of our company Purpose and of the value that we create for all of our stakeholders. By far the biggest impact we can have in reducing greenhouse gas emissions is through our leading technologies, which reduce energy use in industry, buildings and transport."

Considerable steps have already been taken to support the uptake of electric vehicles and renewable energy sources. ABB believes it is time to do the same for an industrial technology that will deliver even *greater benefits for the environment and the global economy.*

*"The importance of transitioning industries and infrastructure to these highly energy efficient drives and motors to play their part in a more sustainable society cannot be overstated," continued Morten Wierod. "With 45 percent of the world's electricity used to power electric motors in buildings and industrial applications, investment in upgrading them will yield outsized rewards in terms of efficiency."*

CONTINUE  
TO PAGE 158



# **NORTHON<sup>®</sup>**

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ABB frequently assesses the net impact of its own installed high efficiency motors and drives on global energy efficiency. In 2020, it enabled 198 terawatt-hours of electricity savings – more than half of the UK's annual consumption. By 2023, it is estimated that ABB motors and drives will enable customers globally to save an additional 78 terawatt-hours of electricity per year, almost as much as the annual consumption of Belgium, Finland or the Philippines and more than the total annual consumption of Chile.

Regulatory policies are among the main drivers of industrial investment in energy efficiency around the globe. While the European Union will be implementing its Ecodesign Regulation (EU 2019/1781) this year, which sets out stringent new requirements for an expanding range of energy efficient motors, many countries have yet to take action.

To take advantage of the tremendous opportunities afforded by energy efficient drives and motors to reduce greenhouse gas emissions, ABB says all stakeholders have a critical role to play:

- Public decision makers and government regulators need to incentivize their rapid adoption,
- Businesses, cities, and countries need to be aware of both the cost savings and environmental advantages and be willing to make the investment, and
- Investors need to reallocate capital towards companies better prepared to address the climate risk.

“While our role at ABB is to always provide the most efficient technologies, products and services to our customers, and continue to innovate for ever greater efficiency, that in itself is not enough. All stakeholders need to work together to bring about a holistic transformation in how we use energy. By acting and innovating together, we can keep critical services up and running while saving energy and combatting climate change”, concludes Morten Wierod.





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# SPECIAL ASSEMBLY MACHINES

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and winner in I4.0 solutions**



Cosberg's mission is the designing and the building of special assembly systems, tailor-made machines capable of responding to the production and quality needs of our company's customers.

For almost forty years Cosberg has been alongside European manufacturing companies and in various countries around the world for the industrialization of their products and the creation of solutions to optimize their assembly processes, where efficiency and flexibility are essential prerogatives, also suitable for assembling very small and critical pieces.

The experience gained and the propensity for continuous technological innovation allow us to have customers in sectors ranging from Automotive to Electromechanical, from furniture hardware to mechanisms and accessories for Household Appliances, up to jewelry and watchmaking.

In the development of its solutions, Cosberg wanted to strengthen those technical advantages that it has always

guaranteed on its machines to reduce machine downtime, necessary, for example, for production changes or ordinary maintenance, ensuring high production levels and constant machine performance.

During the study and construction phase of our machines we use the most cutting-edge technologies, making them accessible to everyone and taking into account the suggestions collected over the years thanks to a fruitful collaboration with our customers, obtaining:

**- Low-Maintenance.** The parts subject to wear are positioned in a way to facilitate maintenance or replacement interventions. Furthermore, we work since longtime ago for a standardization of components and modules to simplify and make spare parts management less expensive.

**- Objective and Productive Acceptance Test:** The acceptance test is also feasible remotely with the support of





specific devices and software. With this proven testing system, all the critical parameters of the machine (electrical, mechanical, etc.) are monitored in real time by sensors and software capable of providing objective data. This allowing to overcome the travel limits and, at the same time, training of the staff and production of good parts.

**- Installation and Ramp-Up:** our machines are made up of a monobloc chassis and are not disassembled for the transport so, the installation and start-up phase is contained in a time of 3 days, with the possibility of remote assistance. The ramp-up is reachable in few hours.

To complete its offer, Cosberg has developed a “Cosberg-4Machine” monitoring software capable of providing real-time data relating to production, alarms, performance, quality and availability of the single work unit or of the entire machine or extended to the entire assembly de-

partment or factory. A web-based Technology system, easy to use, with customizable dashboards and accessible from any device.

All this allows us to be able to satisfy the demands of the markets by providing concrete and effective solutions with intelligent and interconnected machines, able to communicate with factory systems (MES) allowing the exchange of data and information in order to control and produce according to the demand of the moment. In other words, we can say that our machines have already taken the evolutionary roads towards the Intelligent Factory model.

For more information:  
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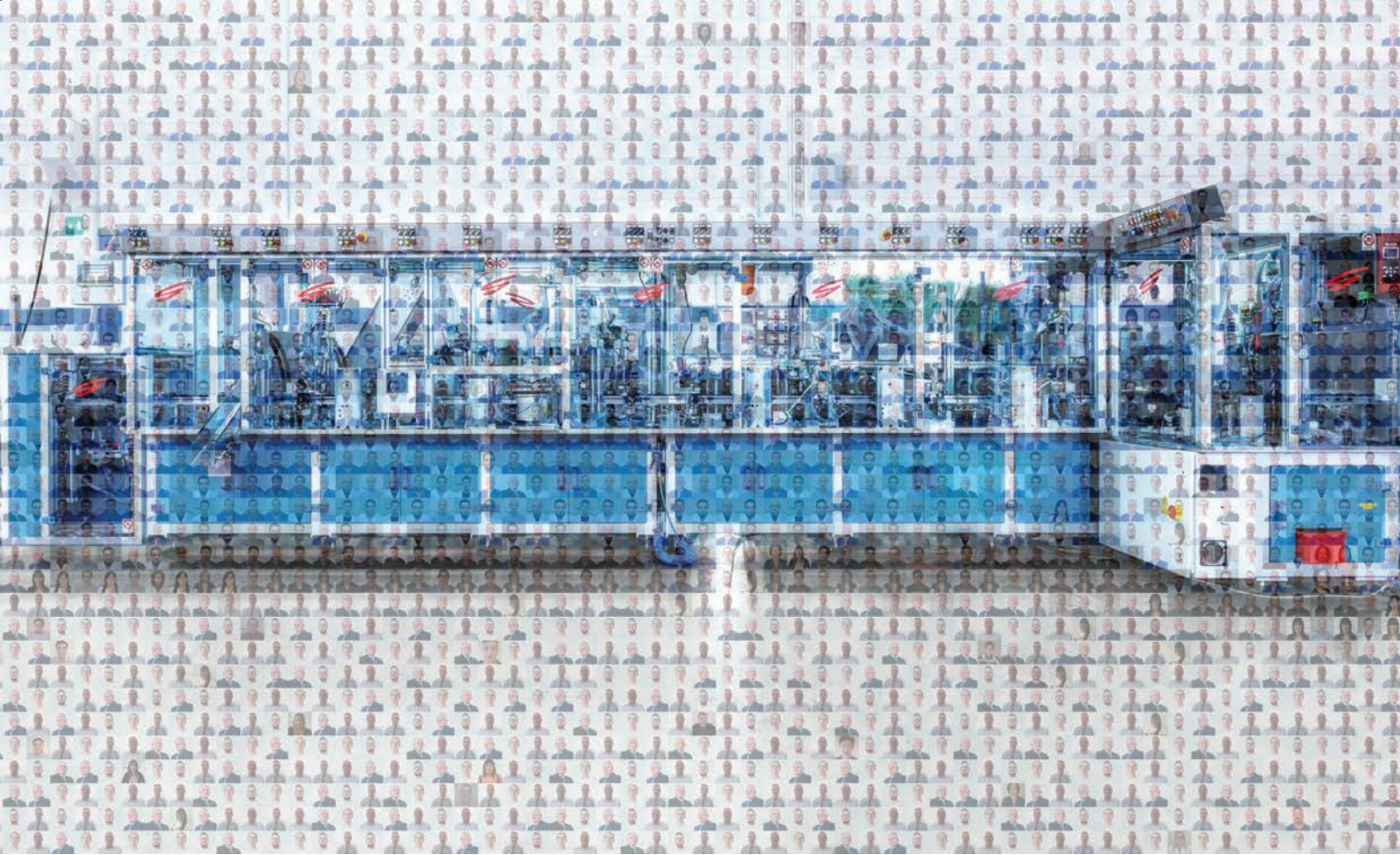


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# Global Knowledge.

## People behind Innovation.



We believe in **Talent** and **Know-How** which, combined with teamwork, always push us further, towards new applications and technologies. We develop new cutting-edge techniques in automatic assembly machines, offering **customized solutions to sectors and markets around the world.**

Cosberg is a reference reality in mechatronics, robotics and automation of assembly processes. Its real heritage is the **Intellectual Value generated by the People**, which drives the continuous innovative action of both products and processes.





## Stefano Doglietto, technical director, presents UFS



UFS has nowadays about one hundred units, including employees, collaborators and agents. It is a family that proudly expanded in 75 years of business, widening its range of action in Italy and abroad, with an export share now equal to 50% of total production. The company designs, tests, builds, hardens and internally covers every tool in 3 operating units.

In the Site 1, in addition to the offices, is located the center of production of standard tools. A well-equipped research and development laboratory is located in Site 2, where UFS works on the control of metallographic processes and coatings for the entire product development cycle, and also on the aspects of technological advancement and on the maintenance of technical and project





parameters. And lastly, the Site 3 is intended for the construction of special products, which require different times and customized production processes, and for hardening and coating furnaces.

Some features differentiate our company: the qualitative growth of the product and its stabilization, the flexibility in the management of the internal processes of construction of the standard and of the growing special product at the customer's request, are with no doubt an important part of our operating philosophy.

The positive feedback that we receive from the market, confirms the correctness of the path we have taken, pushing us even further to continue this way.

Our goals in the short to medium term are to strengthen our presence on the markets already occupied and to enter new spaces created by the socio-economic dynamics of the emerging countries. In the long term, on the other hand, the goal is mostly being able to be present in a widespread way where the quality of the Italian product is recognized and appreciated as among the best.

With some added value, knowing how to respond to the daily request, with fast shipping and performing products.

Our company has a remarkable stock, with around 500,000 pieces, divided into the families of tools well illustrated in our technical catalog 31; it also has an on-line B2B where customers can access to see the product and its complete features, and, in case, they can order it: the delivery can be made also in the same day.

UFS offer is divided into two distinct production processes: standard and special.

For the standard, the current customer response performance is 94% (i.e. in the catalog it is processed from stock, at 94% of the demand, with almost immediate delivery).

For special tools, the technical office interfaces with the customer and draws up a technical project that is sent for acceptance; and then there is the offer phase, the customer's order and, in the end, the execution and the delivery within the agreed time.



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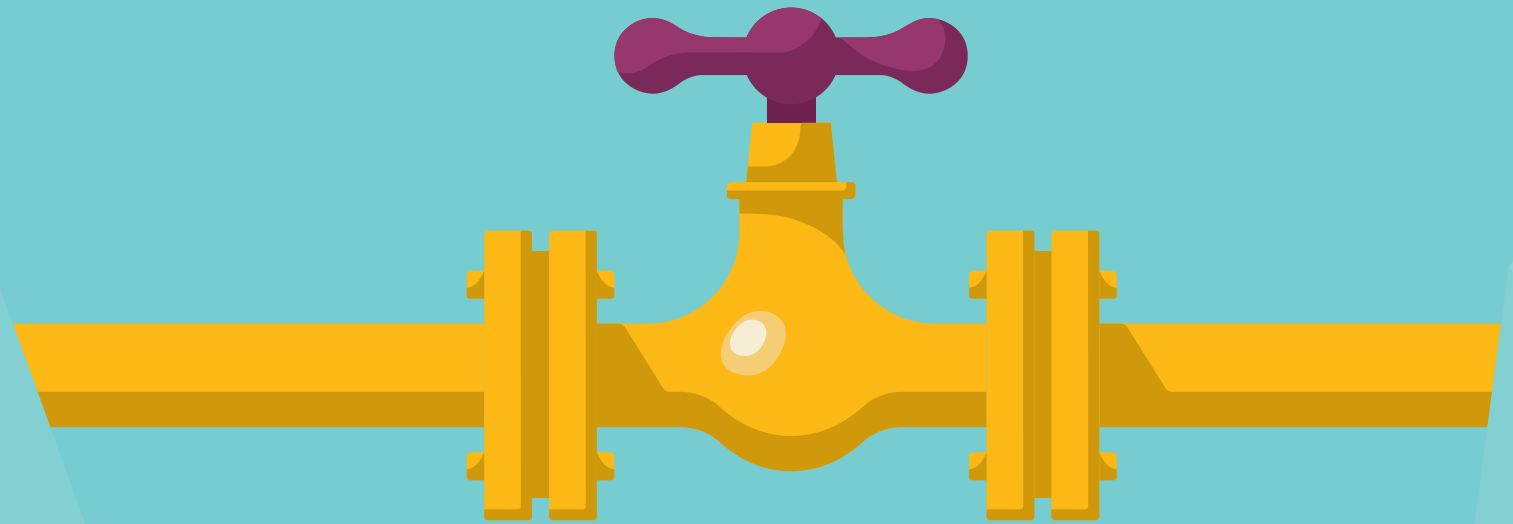
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## LINAP

### CABLE REWINDING EQUIPMENT

Our **LINAP** cable equipment is able to rewind cables onto reels and make coils.

It handles reels with **o/d up to 3000mm** and a **capacity up to 10 tons**.

## CABLE REEL LIVE RACKING

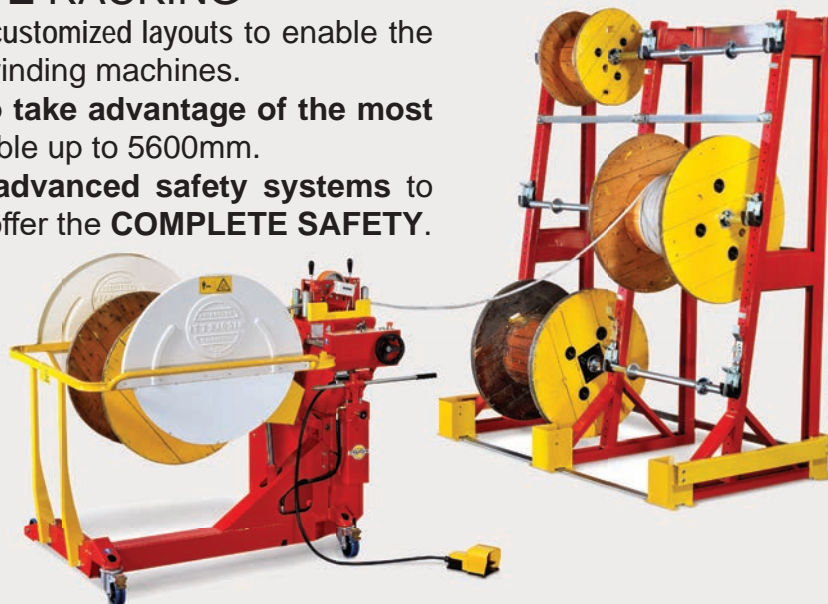
Thanks to our racking we can offer customized layouts to enable the **live dereeling** by our winding machines.

Our racking have different heights **to take advantage of the most warehouse room** available up to 5600mm.

They are equipped with the **most advanced safety systems** to prevent the reel falling-down and to offer the **COMPLETE SAFETY**.

## CABLE REELING AND COILING MACHINES

- **Coilers** up to 250 kg
- **BOB-MAT series** for reels with o/d up to 1250mm and 1.3 tons
- **CD series** for reels with o/d up to 1250mm and 1.3 tons



To learn more please visit our website:  
**[www.meccanicnicoletti.com](http://www.meccanicnicoletti.com)**

Since 44 years Meccanica Nicoletti has been producing exclusively equipment for the handling of cable reels, on yards and in every warehouse where there is the need to handle cables.

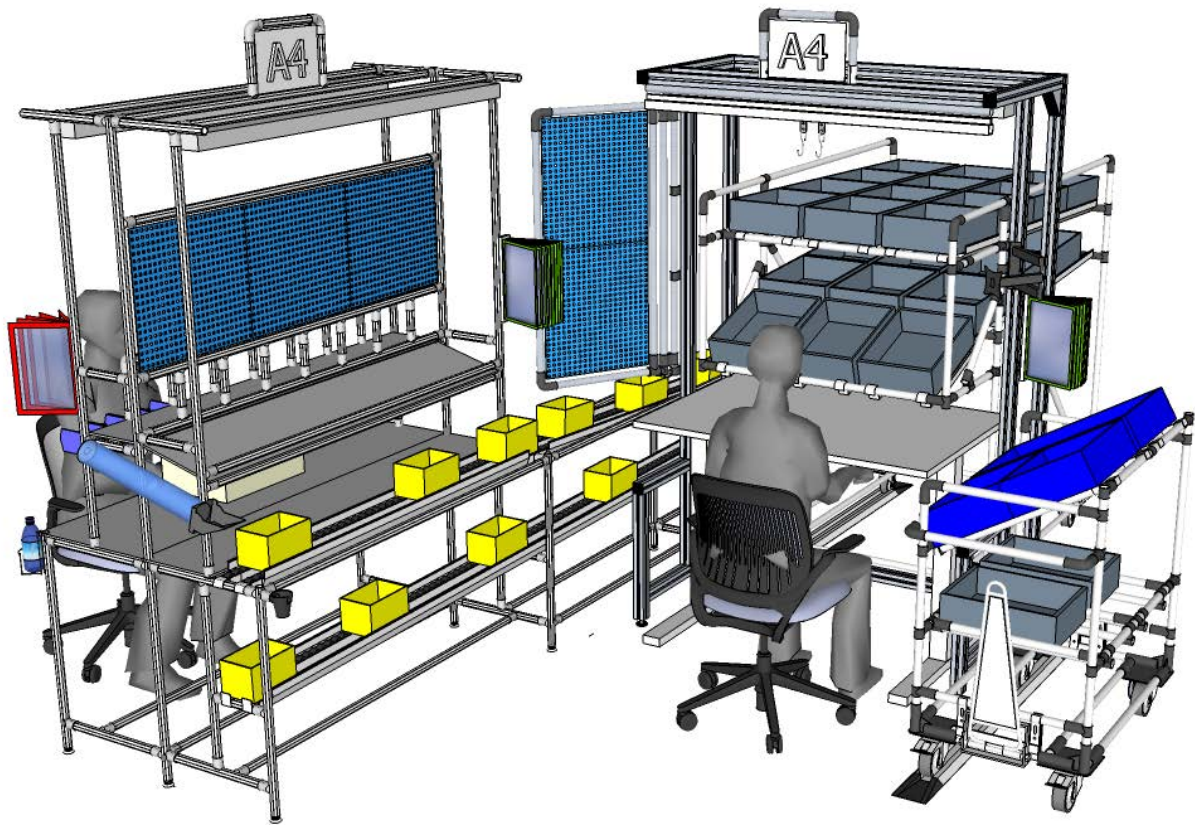
Over the years Meccanica Nicoletti has always innovated by meeting the requirements of its customers, constantly updating its products and managing to offer performing solutions to solve common problems to anyone who needs to work with any type of cable and on any cable holder.

To handle the reels, Meccanica Nicoletti offers a range of products able to unwinding any reel from the smallest to the largest up to a maximum of 3 meters in diameter and 10 tons in weight.

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# A complete system of solutions for the management of MATERIAL HANDLING and PRODUCTION LOGISTICS



We design and test solutions that adapt to the companies' evolution.

A path of constant development: going from being an industrial supply company to a company specialized in Lean Manufacturing, today Allmag supports its customers in using the principles of the Lean Production.

Lean Logistics combines logics and methods that consent to plan and manage the entire flow of materials, from the components to the finished product, to meet the de-

mand of the end customer.

Lean Manufacturing solutions have long been the backbone of the Allmag proposal to obtain more efficient processes and a greater productivity.

We have developed a complete system of MATERIAL HANDLING and PRODUCTION LOGISTICS management solutions to speedily implement low-cost improvements by reorganizing the production lines and the material





flow. Efficiency and ergonomics define our layout in the industrial working environment.

We design and build structures with Lean Manufacturing material: joint-tube system, flexibility and modularity.

Lean Workstations: dynamic islands for different operations ensure space optimization, allowing the continuous flow of material into and out of the workstation.

The strategic positioning of the equipment and the respect of ergonomic criteria, guarantee the workers' health, together with a high productivity and a constant work rate.

Lean gravity systems: structures that adapt to the needs of load units, tailored for a total integration in storage areas and material processing stations.

In particular, the picking solutions make picking operations very efficient and safe and make it possible to re-organize the spaces to meet the storage density and the accessibility to the materials.

Custom Lean trolleys consent to move any object inside

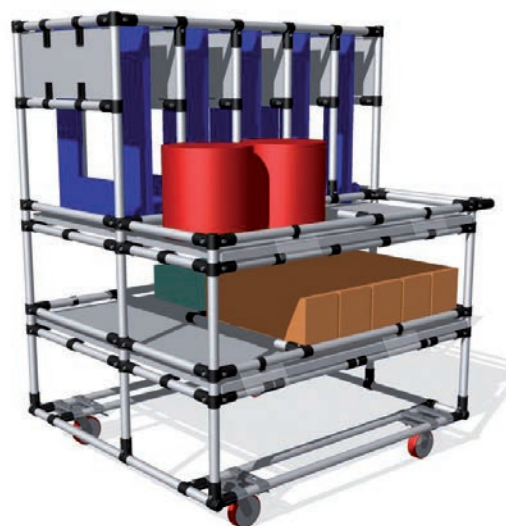
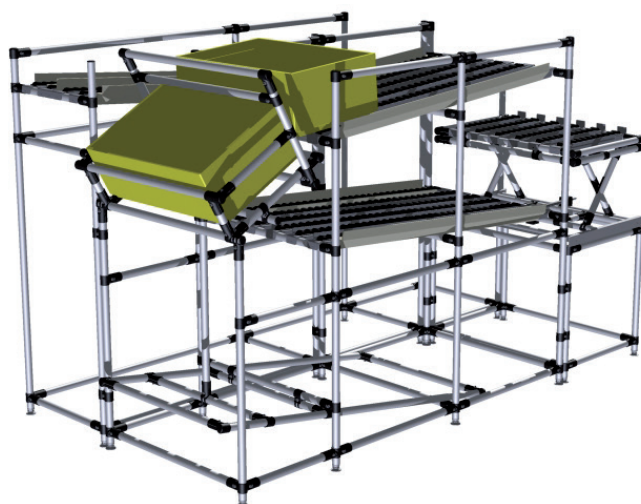
and outside the company, without interruptions, optimizing time and limiting unnecessary movements of vehicles, people and materials.

Furthermore, the use of electric machines for the assisted handling of loads - forklifts, haulers and lifters - improve logistics processes, reduce the costs and simplify all of the various processes.

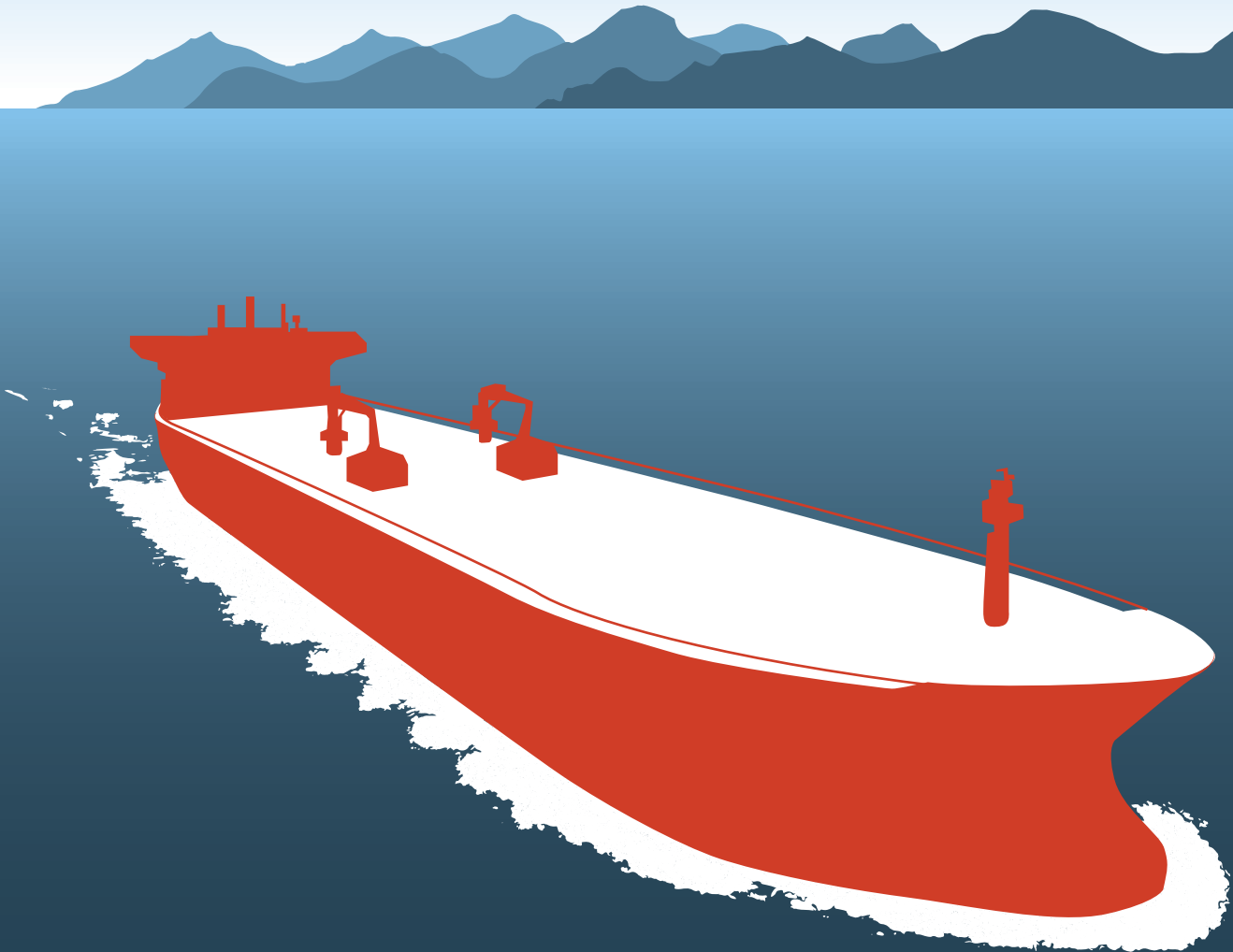
Our technical staff's consolidated skills allow us to create any kind of Lean structure necessary for a static or dynamic work island and for the evolution of any traditional storage system in every sector.

We live and we take part in the evolution of the market, which is why we are so close to our customers and so effective in giving concrete answers in dynamic contexts.

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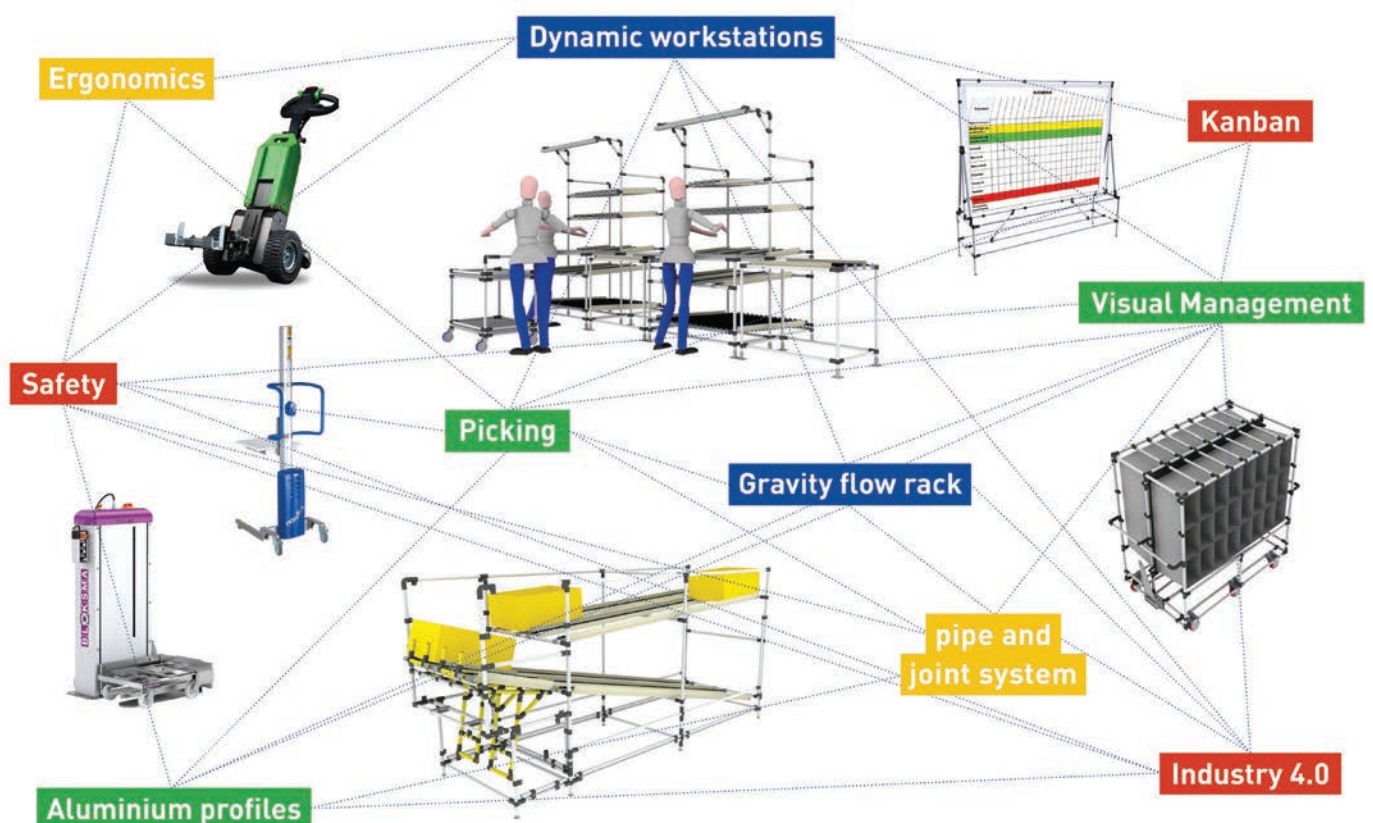
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# Your fastener source

"INOXDADI S.R.L." founded in 1973 is one of the most important European producers and distributors of nuts, screws, hex bolts, studs, washers, threaded rods and fasteners in Stainless Steel, Brass, Titanium, Aluminium and Exotic Alloys certified ISO 9001:2015. Our company located in the north of Italy at about 50 Km from Milan covers a total area of 20.000mq. For over 40 years "INOXDADI S.R.L." is dealing with a wide range of fasteners in various sizes and grades, including AISI 304, 304L, 316, 316L, 316Ti, 321, 309, 310, 314, 904L, DUPLEX, SUPERDUPLEX, W. 1.4529, W. 1.4980, 2.4952, HASTELLOY, INCONEL, TITANIUM, ASTM GRADES, MONEL 400, ALUMINIUM, BRASS, COPPER, etc. Our huge stock of countless items in stainless and special alloys, includes metric & imperial (UNC, UNF) sizes as well as left and/or fine pitches thread that are therefore immediately available for shipment. The manufacture versatility of "INOXDADI S.R.L." allows the production of standard and non-standard fasteners in accordance to international standards or customer drawing.

Special and technically advanced materials like Duplex, Superduplex, refractory Stainless Steels, Alloys with a high Nickel content (Inconel, Incoloy, Hastelloy, Nimonic, Monel,), Titanium, ASTM GRADES are currently manufactured and distributed worldwide. The applications range is wide and stretch from petrochemical to marine industry, from aerospace industry to nuclear reactors, from chemical processing to pollution control, from industrial furnaces to gas turbine components, from hydro-carbon processing equipment to heat exchangers, from waste treatment to desalination equipment, and so on all around the world.

The raw materials are of European origin and the full traceability from the mill to finished product can be certified. Declaration of origin as well as certificates 2.2, 3.1, PPAP, VDA are available on demand.

Our Quality Dept is equipped with x-ray and gas spectrometer in order to attest the good quality of material in terms of chemical composition, while severe mechanical tests are arranged for every batch of products to ensure conformity to mechanical requirements.

Our automatic video sorting & inspection machine can guarantee a deep and attentive distinction of bad parts so to guarantee PPM quality level in accordance to customer demand.

Significant and continuous investments are constantly made with purchase of new nut formers machines, new bolt formers, new tapping and threading machines and new technologies for the industry 4.0. Frequent training courses have allowed and encouraged all workers to achieve important and continuous aims.

"INOXDADI S.R.L." ...here quality matter!





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DADEX

# GE Digital Remote Operations for Oil & Gas and Chemical Industries Ensures Operations Continuity, Worker Safety, and Secure Remote Equipment Control

- Scalable solution provides secure remote / mobile plant controls enabling operators to employ flexible staffing arrangements in a highly secure environment
- Optimized staffing, effective emergency response, reliable operations address trends and tipping points in the Oil & Gas and Chemical Industries in today's environment
- GE Digital's remote capabilities help critical industries manage assets, systems, and data from anywhere in the world

*San Ramon, February 8, 2021:* GE Digital today introduced Remote Operations for Oil & Gas and Chemical Industries, a software and appliance solution that provides remote/mobile employee access to essential equipment monitoring and control functions. GE Digital began offering Remote Operations earlier in 2020 in the Power Generation industry and already has many leading worldwide industrial customers using the solution.


With distant upstream facilities and harsh operating conditions, the Oil & Gas industry faces challenges in providing safe and cost-effective equipment monitoring, maintenance, and emergency response. At the refinery or plant, the global pandemic and economic pressures are triggering both Oil & Gas and Chemical companies to re-think their strategies regarding contingency operations, worker location flexibility, and on-site staffing. GE Digital Remote Operations solution, proven in power generation, addresses these, and other challenges faced by industrials.

"Traditional on-site plant workforce strategies are evolving, as economic and competitive forces are compelling industrial companies to adopt centralized monitoring, flexible resourcing, and remote staffing, trends that were all greatly accelerated by the pandemic and will become part of the new normal," according to Craig Resnick, Vice President, ARC Advisory Group. "GE Digital's Remote Operations for Oil & Gas and Chemical Industries meets the criteria for enabling remote and mobile access for a connected workforce regardless of location. That helps to facilitate collaboration and provides secure access to monitoring and control functionality to appropriate individuals from anywhere and supports interactions with remote experts."

Remote Operations provides remote and mobile workers with secure and managed access to equipment controls regardless of type. NERC-CIP and ISA 99/62443 compliant security, multi-factor authentication, and operational safeguards enable failsafe control flexibility and cooperation across all staff, on site and off site.

Typical use cases for Remote Operations in the Oil & Gas and Chemical industries include:

- Centralized monitoring of distant and dispersed equipment
- Lights-out operation of distant facilities
- Remote monitoring and controls over refinery or plant equipment
- Mobile controls and HQ collaboration for maintenance crew activities
- Anytime/anywhere access to experts to aid in equipment maintenance
- Remote/mobile monitoring and controls for in-house power generation facilities



"Our success in the Power Generation industry leads naturally to offering Remote Operations to Oil & Gas and Chemicals companies," said Linda Rae, General Manager for GE Digital's Power Generation and Oil & Gas business. "These and other industries are seeking the benefits of remote and centralized monitoring centers, worker location flexibility, and increased safety and productivity for mobile workers. We are here to serve that need with a proven product already road tested in the stringent environment of power generators."

Remote Operations is available in three upwardly compatible packages, accommodating needs from urgent continuity to fault tolerant operations centers. All include the core end-to-end security and compliance features. Remote Operations Response is a special packaged offer to rapidly enable remote monitoring and assistance. It is compatible with existing systems and requires only the addition of a preconfigured secure network appliance and firewall. Upon equipment arrival, installation can be done in a single working day with remote support from GE Digital. No operations shutdown is required.

Remote Operations Standard (limited availability) delivers enhanced remote/mobile functions guarded by permitting and policy controls. Central operators can control remote/mobile worker access by time, equipment type and more. An interactive interface ensures that remote, mobile, and on-site staff can work independently or together in a secure and compliant environment.

Remote Operations Advanced (limited availability) provides full remote/mobile controls and additional optional operating capabilities in a high availability configuration with failover. Remote Operations Advanced is the best choice for industrials adopting remote and distributed controls as a standard, failsafe operating model across a fleet of plants or equipment.



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# Gami and Imtech, the two realities do not only have in common the company, but also our “made in Italy”

Gami and Imtech, one single company but two different realities.

**Gami** manufactures and commercializes tempering machines and chocolate enrobing systems. Our customers range from the small confectionery to medium industries.

We are specialized in the manufacturing of machines for processing chocolate, chocolate compound and confectionery products for big, medium and small confectionery industries. We collaborate with international renowned Chocolatiers and Pastry Chefs, who trust us and use our machines every day in their precious laboratories.

A long experience and a deep knowledge of the market distinguish us. Customer is our most important resource. Thanks to a competent and highly qualified staff, we are able to satisfy every request and to create exclusive and custom-made projects.

**Imtech** manufactures and sells packaging machines. We build customized solutions around our stand-alone machines.

Im Tech Srl is the result of almost 40 years of experience in automatic packaging solutions. We pay specific attention to new technologies and to the selection of high quality materials, such as stainless steel and anodized aluminum. The attention to detail and a prompt assistance are our strengths.

Our range of product goes from Vertical form, fill and seal machine, flow-pack, stand-up pouch, cartoning machine, counting, weighing and loading systems.

The two realities do not only have in common the company, but also our “made in Italy”, a long experience and a deep knowledge of the market distinguish us. The customer is our most important resource. Thanks to a competent and highly qualified staff, we are able to satisfy every request and to create exclusive and custom-made projects.



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Vffs vertical form, fill & seal machine,  
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THUNDER

Flow-pack machine



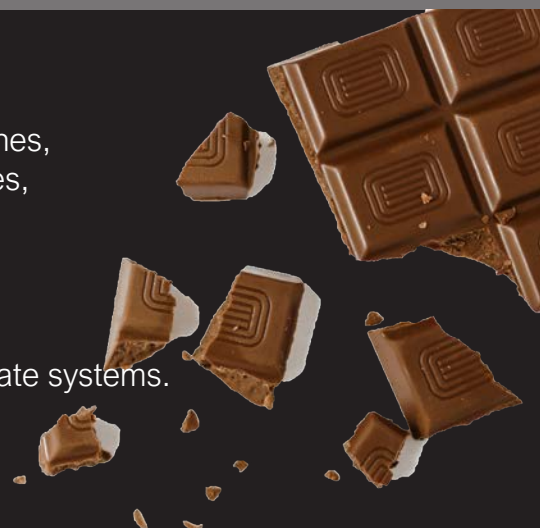
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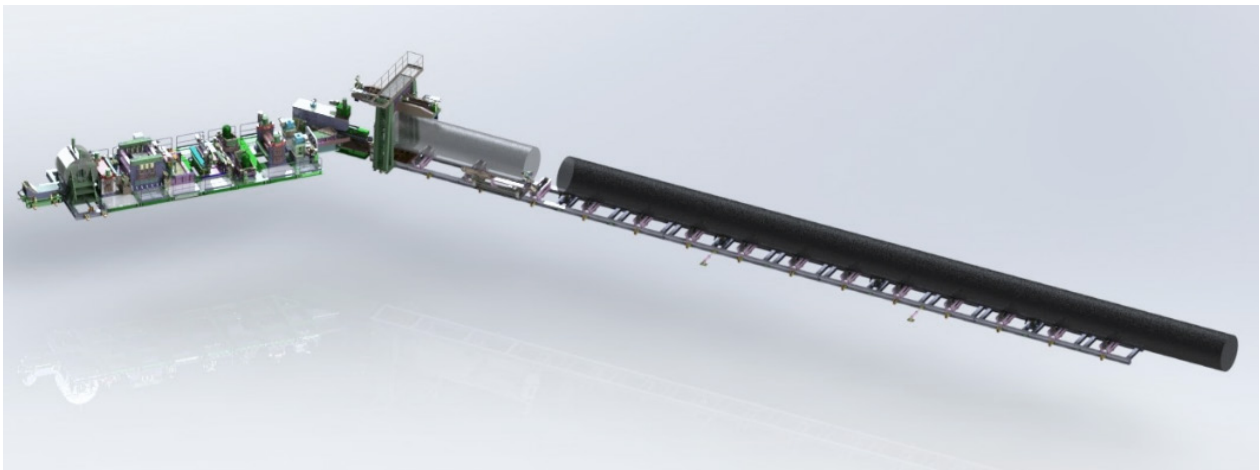
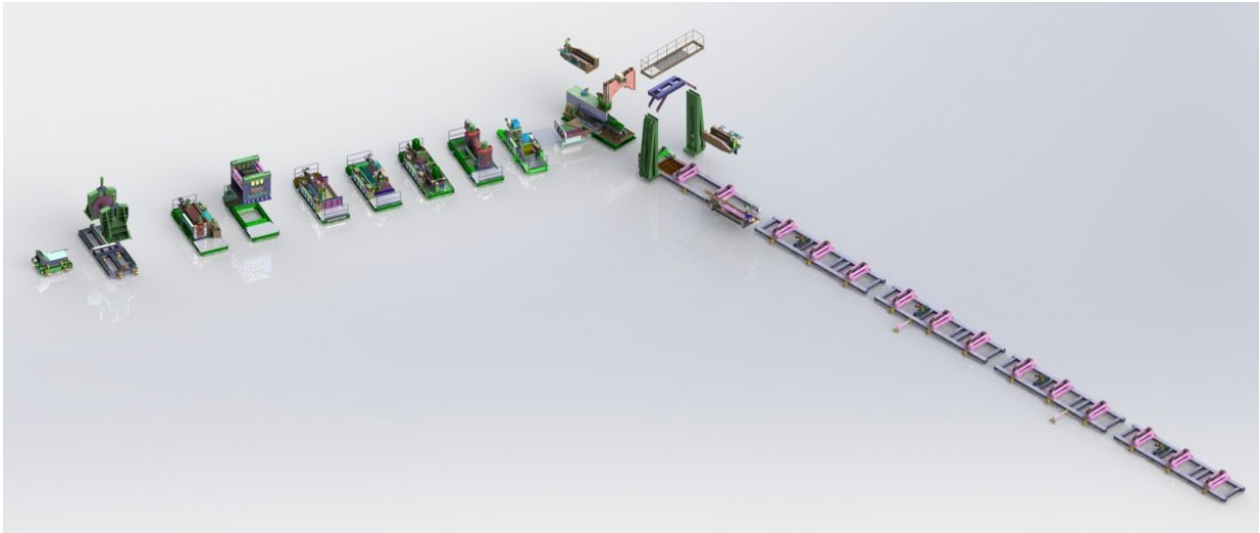
Automatic, continuous tempering machine  
with bowl capacity of 25kg.

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OneShot,  
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Melting tanks,  
Automatic chocolate systems.



**GAMI**

# Innovative Tube Production Processes



## Large diameter steel pipes - new proposal for on-site production

Big constructions often need very long large diameter steel pipes, having high wall thickness, maximum 3 m outside diameter, 50-60 m length and 30 mm thickness. Typical applications are big buildings foundations and piling, dams and port constructions, piers and jetties.

The transportation of such very long large diameter pipes is very expensive and sometimes impossible.

Vavit srl has developed a new concept design of a mobile pipe mill that can be easily dismantled and relocated on the job site in a few days, by the mill's operators themselves, without special skilled technicians' intervention. The complete mill is a complex machinery having a total weight of about 400 tons.

The proposed mill is made of independent modules that can fit into 25 standard containers, each module having

already on board all the electrical and hydraulic facilities needed for automation & control.

The mill does not need special foundations and can be easily assemble on a regular concrete floor, just putting the modules in line and connecting the flanges.

The minimum production lot needed to justify the relocation of the mill is about 10-15.000 tons.

This means that with about 5-6 weeks dedicated to dismantling, shipping and re-erection, the mill can re-start into a different site to work for a new project for minimum six-eight months.

## Off-line tube squaring system – a reversible rolling concept

Vavit srl has patented a new rolling concept to transform round tubes into square and rectangular tubes.

The round tube is gradually squeezed into the new shape

with a reversible rolling, moving the tube back and forward between the forming rolls.

The reversible rolling is a very old concept, applied for rolling steel plates. Vavit srl has extended the idea in 2D – X-Y, moving the forming rolls up-down and right-left to gradually squeeze and form the tube.

The reversible rolling is processing one tube at a time, with a universal squaring stand that can be easily adapted for different dimensions. The production can be done just in time, starting from a stock of mother tubes (round) that are transformed into square and rectangular shape on demand.

The complete process can be developed in a workshop of

about 5000 sqm, with a capacity of 50-80.000 t/y.

The process is very interesting for medium-big carbon steel hollow sections, up to 500 x 500 mm.

It is less interesting for medium-small carbon steel hollow sections, where on-line forming is preferred.

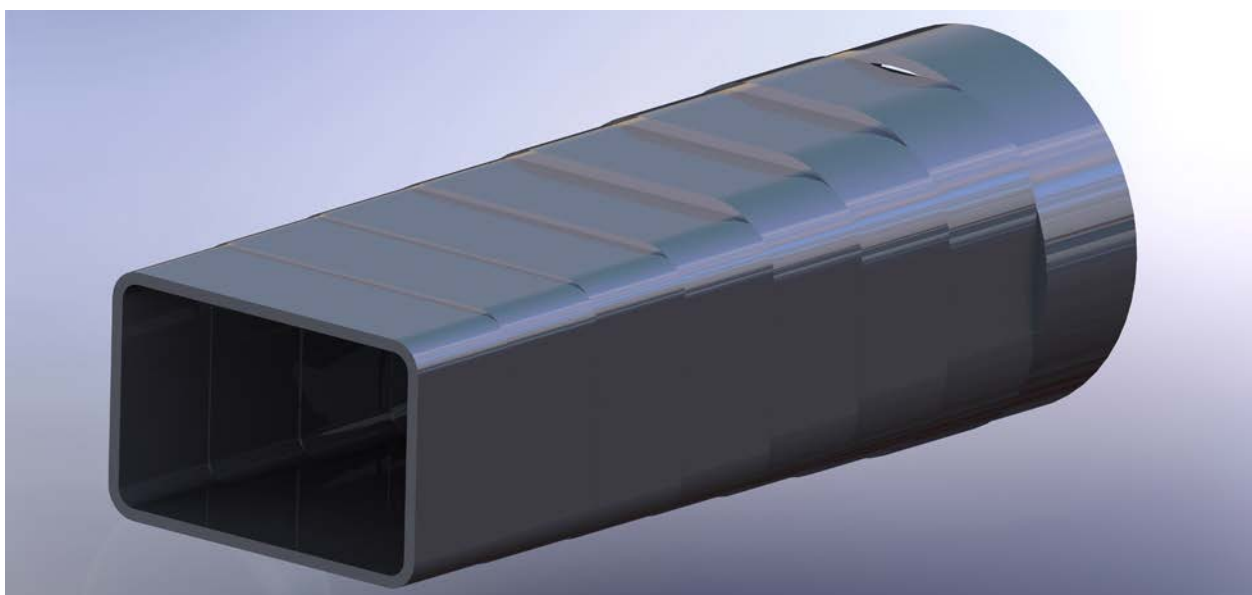
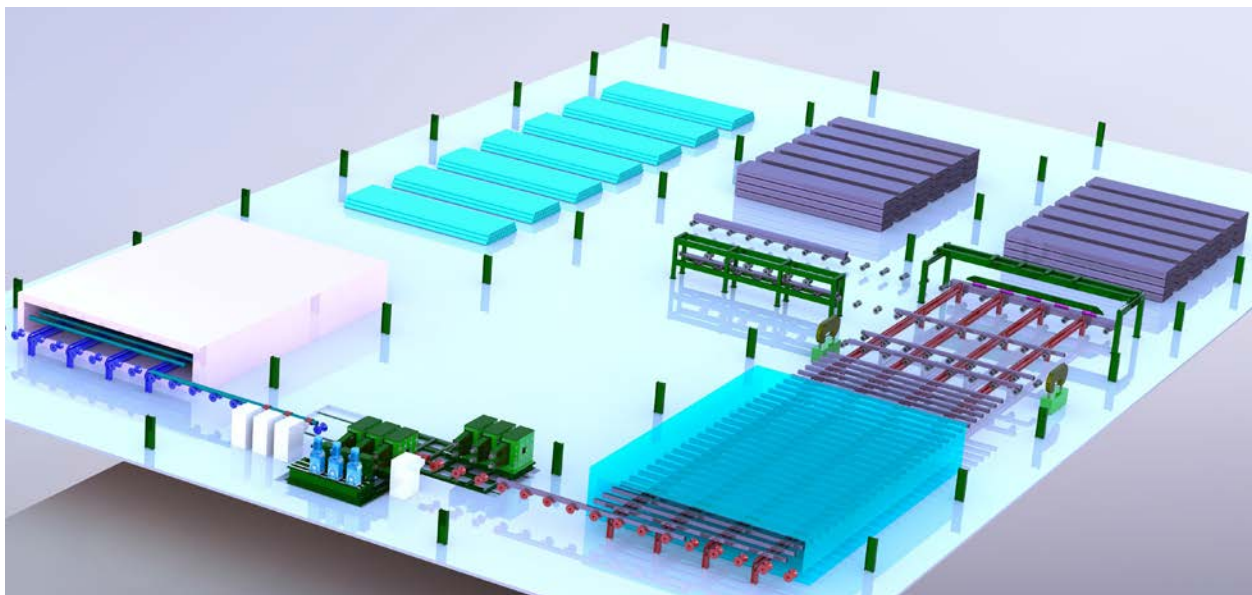
It is interesting for medium-small hollow sections made in special steel, nickel alloys, titanium, copper, etc.

The typical application of big carbon steel hollow sections is for the construction of big buildings.

For more information:

**info@vavit.it**

**www.vavit.it**





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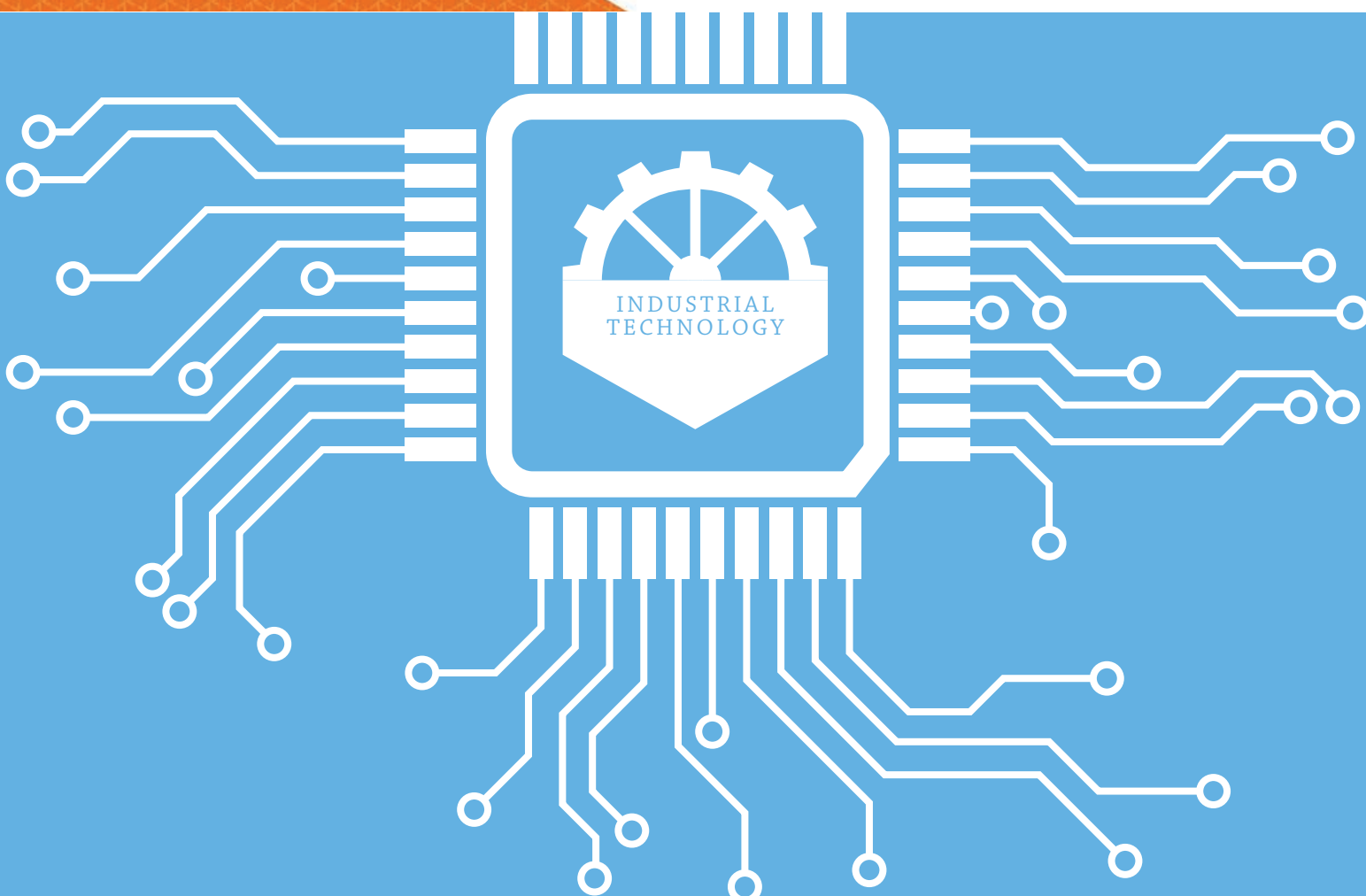
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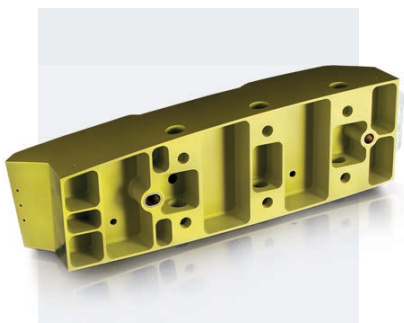
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