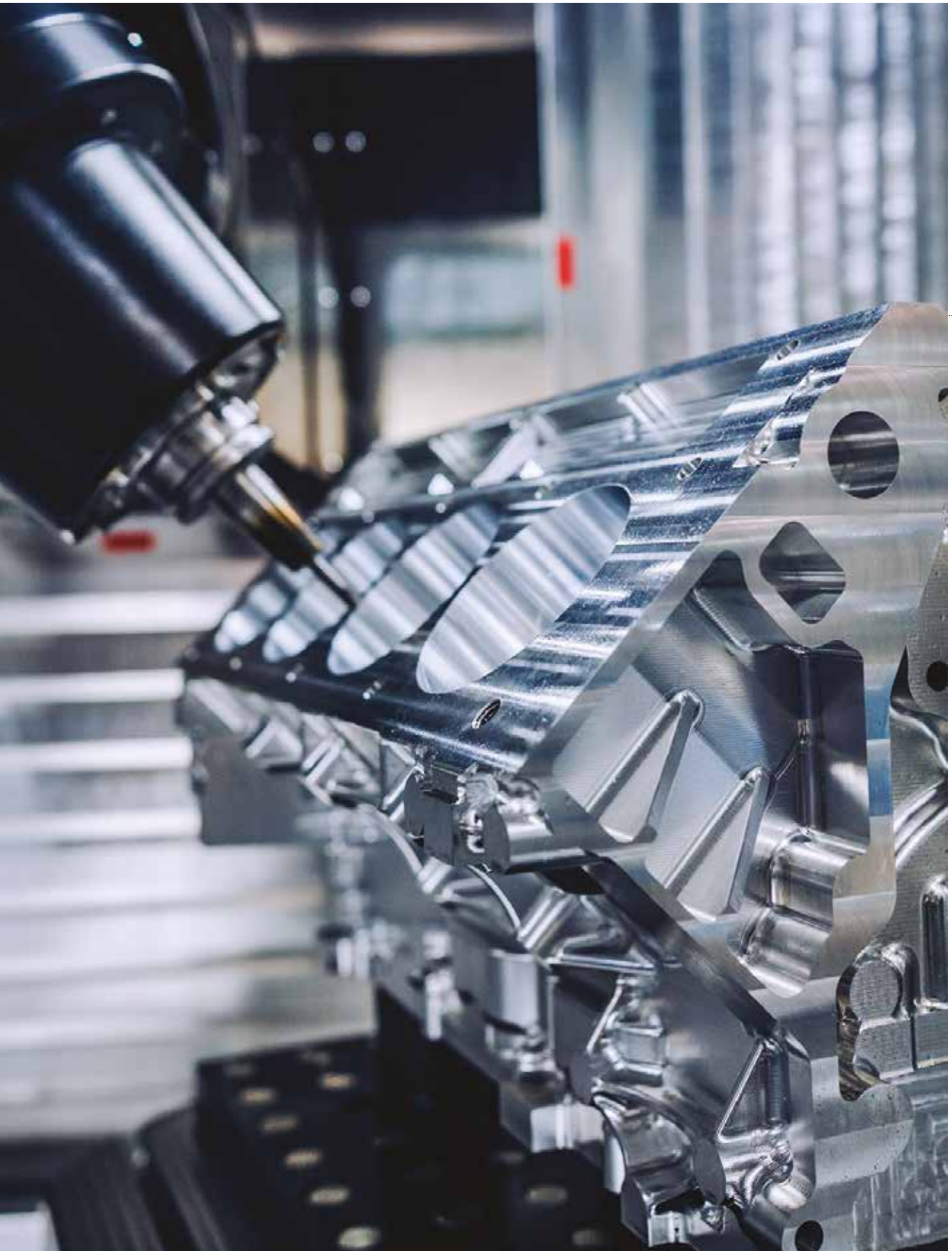
ISSN 1970-7290

tubetoday

INTERNATIONAL MAGAZINE FOR TUBE, PIPE AND BARS



year XIX
number 82
september 2021

Poste Italiane Spedizione in a.p. - 45%
art. 2 comma 20/b legge 662/96 - D.R.T. - D.C.B. Torino
nr. 82/2021
www.tubetoday.com

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Headed to / Intestato a: **R.T.S. s.r.l. - Via Caselette Km 16,200 - 10091 Alpignano - Torino - Italia**

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Pubblicato da:

Riviste Tecniche Specializzate s.r.l.
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Inspire Communication

Printed by:
Tipografia FB s.n.c.
Via Val della Torre, 273
Borgo Industriale
Alpignano (TO)

Magazine signed up at n°5708
10-06-2003 at Register of
the Turin Court Stationery.
Shipment by postal subscription.
Year 19th Settembre 2021.

EDITORIAL

Incredible, but true. After many postponements and numerous cancellations, the fairs restart. Always a fundamental driver of marketing and sales in the machine tool and tube sector, trade fairs, although they are experiencing a moment of serious identity crisis following the improvement of remote multimedia tools, always represent a fundamental appointment: they, constitute an irreplaceable moment for the encounter between people, to see and touch the news first-hand, to build relationships.

It is incredible how the health emergency, while contributing in a decisive way to the launch of remote communication tools, their implementation and their improvement, has made it clear to us that personal communication needs to be present, otherwise, to when fed at a distance, it ends up by extinguishing itself and being supplanted by new habits, more linked to the physical universe and decidedly less to the virtual one.

Similarly, a further effect of the pandemic is that travel is now much more complex and difficult: tampons, quarantines, different practices from country to country that closely resemble the rules for expatriation and customs of the past. If thirty years ago to travel you needed a visa, document control, passport, with all the resulting difficulties and hitches, today it is necessary to have a green pass and, in many cases, even a tampon in the last 48 hours. Not to mention the increase in costs over the past two years.

Ergo: it is easier and more convenient to travel once and go to a fair than to travel more frequently for shorter periods to visit suppliers or see the machines in showrooms rather than in companies that have already purchased them.

Hence, fairs resume their central role, or will resume it shortly, if the conditions listed above will remain stable for some time.

We confess, we are quite curious to see what will happen to EMO and Made in Steel which will be held in Milan at the beginning of October: of course, the companies that have joined and will be present are not really many, but it is natural after the trauma of last 18 months. The curiosity concerns the visitors: how many and, above all, from which countries.

The restart of the exhibition sector is one of the great challenges of the machine tool sector and the steel supply chain: the game is still to be played but in recent months many matches have already been won. This is demonstrated by the numbers of a recovery that appears increasingly solid and that has already almost reached pre-pandemic levels. Of course, the recovery of all that was lost in 18 months, in terms of jobs, market positioning, revenue, will still be a long affair, but the encouraging signs are all there.

As for our magazine, if you want we can meet in Milan. We will be present with a stand in hall 5, lane A n. 23. We are waiting for you!

N° 82 - 2021

EMO MILANO

Written by: Press Office EMO Milano

Appointment with "the magic world of metalworking"

It will be again Milan to host the next edition of EMO, the world machine tool exhibition considered as the most important trade show for the operators of the world manufacturing industry. Promoted by **CECIMO, the European Association of Machine Tool Industries, EMO MILANO 2021 will take place at fieramilano Rho from 4 to 9 October**.

Undisputed leading event in the trade fair panorama of the sector, EMO is a travelling exhibition alternately held in Italy and in Germany. This feature makes it unique in the world among the events dedicated to the machine tool, robot and automation manufacturing industry.

Appearing in fourth place in the international rankings for production and exports, the Italian machine tool, robot and automation system manufacturing industry has always played a major role in the worldwide scenario. Its product offering is characterised by a very high technological level – also thanks to the digital transformation supported by the provisions of Transition 4.0 – and by a strong customisation of solutions according to the demand requirements.

Machine tools, robots, production systems, enabling technologies, solutions for interconnected and digital factories and additive manufacturing will be the real key players at EMO MILANO 2021, which will transform fieramilano Rho into the biggest digital factory ever set up within an exhibition centre.

Organised by UCIMU-SISTEMI PER PRODURRE, the Italian machine tools, robots and automation systems manufacturers' association, EMO will be held again in Italy after six years and after the success of the 2015 edition, actually being the first international exhibition event focused on the sector after one year of forced stop due to the pandemic.

A total exhibition area of 110,000 sq. m will show the production of the industry, expression of the product offering of the over 700 exhibiting enterprises, among which 60% are foreign companies.

After all, the halls of fieramilano Rho will host the best international products proposed by the sector, more and more closely linked to the issue of interconnection that enables all those

high value-added functions, which the manufacturing industry can no longer do without. Therefore, once again, EMO MILANO 2021 will be a meeting place for the most qualified operators of the industry, who are interested in planning new investments in production technology.

Besides the wide and varied product ranges on show, EMO MILANO 2021 will feature numerous side initiatives, such as EMO Digital, the exhibition space focused on digital technologies; EMO Additive Manufacturing, dedicated to one of the most promising fields of the manufacturing production; EMO Start-Up, offering a view to the new enterprises working on the development of products and projects related to the world of production systems and metalworking; Speakers Corner, the arena that will propose speeches and in-depth analyses by exhibitors and organisers.

"This proposal - affirmed Alfredo Mariotti, General Manager of UCIMU-SISTEMI PER PRODURRE –will surely be able to attract operators from all main user sectors, among which automotive, aerospace, energy, various mechanical engineering, machinery, metal products, pharmaceuticals, furniture/home furnishings and electrical household appliances".

The protocol on the safety measures for the containment of the Covid-19 pandemic spread, (already available on the exhibition website) implemented by the organisers and by the structures of fieramilano Rho exhibition centre, is a further incentive for the participation of the operators belonging to the sector, awaited from Italy, as well as from abroad, in line with the tradition of EMO MILANO 2021.

The event will open with the Inaugural Ceremony, scheduled to take place at the Auditorium of fieramilano Rho Service Centre, on Monday 4 October, starting from 10.30 am.

Constantly updated information and details regarding the exhibition are available on emo-milan.com

EMO Hannover repositioning

Written by: Press Office EMO Hannover

Focus at the world's leading trade fair for production technologies on the future of industrial production

"Hello, new EMO Hannover!" is the greeting that was shared at the EMO Hannover Relaunch Conference in the hybrid event hub "H'UP" on the Hannover Messe trade fair grounds. As organizers of EMO Hannover, the German Machine Tool Builders' Association (VDW) had invited international media representatives and EMO Hannover exhibitors to a digital presentation of the new exhibition concept on September 14 of this year. Fascinating keynotes and stimulating discussions gave an introduction to the concept and the topics. Experts from the worlds of business and politics debated on the future of production technology. "The sector is in a constant process of transformation and is facing huge challenges. As the leading global trade fair, EMO Hannover must reflect these, make them transparent, and propose solutions, if it is to continue to be of relevance for the future," explains VDW Executive Director Dr. Wilfried Schäfer. And so, the association has been working full-out over the past months, partly in cooperation with international exhibitors, to present this claim with clarity and to lend substance to it.

"Innovate manufacturing" as incentive and claim in one

"Innovate manufacturing" is the new claim of EMO Hannover 2023. "It addresses the challenges that will face the industry in the months and years ahead," Carl Martin Welcker, General Commissioner of EMO Hannover 2023, explains. It is an invitation to everyone involved in EMO, exhibitors as well as visitors, to be constantly reinventing themselves, improving and expanding their offers, streamlining their processes, and tapping new markets so as to position themselves as best possible amidst international competition. At the same time, the claim describes EMO Hannover as an innovation platform for production technologies that has evolved into an internationally relevant business platform – for more than just the exhibition period. To which Welcker added that the fair demonstrates the full breadth and depth of the technologies for renewing and optimizing industrial production.

"But 'Innovate manufacturing' addresses more than just technologies. In fact, EMO Hannover will in future also be taking on board topics that are of relevance for production technology and for its customer industries throughout the world," said Welcker in his keynote on "Challenges for production 2023". The future insights of EMO Hannover 2023 – "The future of connectivity", "The future of sustainability in production", and "The future of business with focus on Work 4.0" – are already the subject of intensive discussions in the business world and in society at large. Welcker feels strongly: "As we see it, without laying any claim to exhaustiveness, these are the key topics that industry and society as a whole will have to tackle in the years to come in order to make themselves fit for the future and the urgent tasks in hand such as the energy revolution, climate change, sustainability in production, new competitors, the transformation of key customer industries, digitization, changes in the employment world, new data-driven business models, and many more besides." And none of

these is a stand-alone. Far more, they are interlinked, mutually enriching, and they have to be dealt with and solved together in order to be fully effective. Over and above these, of course, the classics – quality, efficiency, flexibility, and reliability – will also be addressed, since they still continue to set the tone for developments in production technology.

"We have initiated a dialog by means of the EMO Hannover Relaunch Conference," said Welcker. "The diverse challenges will not have been resolved by the time of the next EMO Hannover in 2023, but exhibitors and their customers will have hit the road together on this journey, and in Hannover they will present what they have achieved by then," the General Commissioner announced.

EMO Hannover as key real and digital meeting point for the industry 365 days a year

"Dialog and encounter are two of the most crucial elements for the new EMO Hannover. Already apparent in the mode of address, this is evident at many points in the new EMO presence, and is also carried forward in a clearly structured communication concept," said VDW Executive Director Schäfer, picking up the thread once again. The communication concept rests on the four pillars EMO Communication, EMO Connect, EMO Digital and EMO Conference. These include new formats such as "speakers' corner", master classes, or EMO

Academy, as well as familiar offers such as matchmaking or guided highlight tours – including digitally. The future insights of EMO Hannover are to be found there once more, along with many other topics drawing on exhibitors' activities as well as on research and development.

Besides that, however, the aspiration of the new EMO Hannover is to become established as the key meeting point for the industry, obviously during the exhibition itself, but also between events, with an accompanying digital program, 365 days a year. "The point is to develop and shape these formats with our partners by the time of the exhibition," Schäfer announced. There will be a large number of events around the globe in the run-up to EMO Hannover 2023, such as the EMO World Tour in the early months of 2023, picking up the topics mentioned, outlining the particular challenges they present in the respective regions of the world, and presenting the solutions production technology has to offer for them.

Then, in summing up, he added, "Since 1975, EMO has been the world's leading trade fair for metalworking. It is now more than that. It encompasses the entire value chain, primarily integrating the IT that is so essential for continuing to drive forward intelligent factory networking. These digital twins will always be a feature of EMO Hannover in future. And it is more than a sales platform. We engage in dialog with our customers, exhibitors, and visitor target groups, drawing them together in networks, mediating knowledge, and offering sound information for investors."

UCIMU

Written by: Press Office UCIMU

Ucimu: a 2021 in recovery for the Italian machine tool industry

Ucimu assembly: in 2021 the italian machine tool manufacturing industry registers strong recovery of all economic indicators

In 2020, the Italian machine tool, robot and automation manufacturing industry recorded a sharp decline in all the main economic indicators. Despite this, it managed to maintain the positions acquired in the international rankings of the sector where it was confirmed as fourth among producers and exporters, and fifth in the ranking of consumer countries, confirming the importance of the Italian market in the international scenario.

The year 2021 is decidedly the opposite: right from the very first months, it has confirmed the recovery of activity both in Italy and abroad, as shown by the data relating to the order index for the first half of 2021 and as highlighted by the forecasts for the end of the year.

This, in brief, is the picture illustrated by the president of UCIMU-SISTEMI PER PRODURRE Barbara Colombo, this afternoon, at the annual meeting of members, attended by Gregorio De Felice, Chief Economist of Intesa Sanpaolo, and Mauro Alfonso, CEO of SIMEST.

THE 2020 RESULTS

Badly tried by the health crisis that exploded in the early months of the year, the Italian industry in 2020 saw a heavy setback for all the main economic indicators.

According to the final data processed by UCIMU's Center for Studies & Business Culture, in 2020, the production of machine tools, robots and automation, stood at 5,182 million euros, recording a 20.4% drop compared to 2019. The result was determined both by the reduction of manufacturers' deliveries on the domestic market, down, by 20.3%, to 2,321 million, and by the drop in exports, which stood at 2,861 million euros, 20.5% less than the previous year.

In 2020, the main outlet markets for Italian supply were: United States (374 million -11.3%), Germany (289 million, -23.1%), China (224 million, -26.1%), France (158 million, -32.2%), Poland (143 million, -17.2%), Turkey

(100 million, +29%), Russia (100 million, -16%), Spain (95 million, -34.1%).

In 2020, Italian consumption of machine tools plummeted, by 26.6%, to 3,561 million euros, continuing the negative trend started in 2019.

2021 FORECASTS AND ORDERS IN THE FIRST HALF OF 2021

Of a completely different tenor is 2021, which since the first months has shown signs of sustained recovery.

As emerges from the forecasts elaborated by the UCIMU Center for Studies & Business Culture, the production of machine tools, robots and automation should grow, by 10.9%, to 5.7 billion euros. Exports are expected to stand at 3.1 billion euros, 9.4% more than the previous year.

Consumption will also grow by close to 4 billion euros, or 10.9% more than in 2020. The liveliness of Italian demand will be the driving force for manufacturers' deliveries, expected to grow to 2.6 billion (+12.7%), and for imports, which should settle at 1.3 billion (+7.6%).

Orders for the first half of 2021

To understand the climate of confidence that has unfolded in these early months of the year, we can look at the orders index for the first half of 2021, prepared by UCIMU's Center for Studies & Business Culture. The index surveys the collection of orders on

the domestic and foreign markets by Italian manufacturers. Given the production time of machinery, the acquisition of these orders will be reasonably "calculated" in the production/turnover of 2022.

In the first half of 2021, the order index increased by 88.2%. This was driven by the good feedback gathered from manufacturers in both domestic and foreign markets. In particular, domestic orders grew by 238% compared to the period January-June 2020; foreign orders increased by 57.5% compared to the first half of 2020.

These decidedly positive findings underscore the climate of newfound confidence that Italian

companies in the sector are increasingly noticing as the months go by. That said, the increases appear so decisive also because they compare with the period January-June 2020, which, in addition to the general reduction in activity due to the pandemic, includes a whole month (April) of complete blockage of activity due to the lockdown.

Barbara Colombo, President of UCIMU, said: "The final figures for 2020 tell the story of the effects of this very serious and unexpected health crisis, but it is clear that the year closed with results above our initial expectations. The drop in production, which we managed to contain (so much so that it stopped at 20% less than the previous year) allowed us to do better than our competitors, such as Germany and Japan".

"The year 2021 appears to have a completely different tenor: there is a climate of confidence that is growing and consolidating month by month, as can be seen from the order collection data, and we expect it to culminate in October on the occasion of EMO MILANO 2021, the sector's world exhibition that will be the first international exhibition after a year of forced stop".

"Unfortunately, however," said Barbara Colombo, "there are two phenomena that risk undermining the recovery underway: the rising cost of raw materials on the one hand, and the low availability of electronic components on the other. The risk - which we absolutely cannot afford to run - is that these two phenomena will cool the positive investment cycle, especially on the domestic market where 4.0 incentives are bearing fruit".

"The process of modernization and digitization of plants, which began five years ago, cannot be halted because there is still much to do. The results of the survey conducted by UCIMU-SISTEMI PER PRODURRE on "The machine tool park installed in Italian industry" and presented in June demonstrate this."

Specifically, in the 2015-2019 period, 60,000 new machine tools were purchased, compared to

39,000 new machines purchased in the previous five-year period, or 50% more.
In addition to the quantitative increase, there has been an improvement in the quality of the fleet. In fact, more than 60% of these 60,000 new machines are equipped with numerical control. In the previous five-year period, the share of newly purchased machines equipped with CNC did not exceed 37%. The level of plant automation and integration has also grown, and it is in particular IT integration, attributable to 4.0 policies, that has recorded the sharpest increase.

Digital transformation and technology upgrades have affected medium to large companies the most. Smaller companies have made investments in new technology, but to a decidedly limited extent. It is clear, however, that these companies need more time than large ones. This is for at least two reasons: the first is linked to liquidity. Investments in new production technologies, especially if they are of the latest generation, are costly and weigh on the budgets of smaller companies that must therefore spread their purchases over longer periods. The second, no less important, is linked to culture: it takes time to understand all the dynamics linked to this transition and to overcome the fear of having to think about a reorganization of the way of working.

"These data and these considerations - added the president of UCIMU-SISTEMI PER PRODURRE - demonstrate the validity, of the measures contained in the industrial policy plans and confirm the need for incentive measures, such as tax credit for the modernization of plants and that for investments in 4.0 technologies, not only continue beyond 2022, but are made structural".

With regard to training, we ask that the operation of the tax credit measure for training be lengthened and simplified, which today, in the calculation, also includes the cost of the trainer, so as to ensure that companies (of all sizes) receive proper support for updating their staff.

Only in this way can investments in new-generation technologies truly ensure that companies improve productivity and the efficiency necessary to win the international challenge.
On the other hand, the insertion of trained young people into companies in the sector, both among the ranks of white collars and blue collars, is fundamental. Young people, by natural training, were born with digital technologies at their fingertips, so their approach is already geared towards a new working model. They are more flexible and have transversal skills that are now essential for those who work in sectors characterized by high technological content and high business complexity, such as ours

In 2020-2021, there were 831,000 students enrolled in a technical institute, representing 30% of total secondary school students.
On the other hand, there were 18,000 students enrolled in the 110 ITS, post-diploma technical training schools. Still too few compared to the real need of the country's engineering industry.

"An important response to the need for companies to have qualified personnel will certainly come from the funds provided by the PNRR for investments destined for ITS so that they are equipped with technologically advanced laboratories and infrastructures and 4.0 classrooms. If properly supported, ITS will become real outposts where the new resources essential to ensuring the future of our companies will be trained".

Finally, with reference to the theme of internationalization, strategic for the activity on the international market is the participation in trade fairs, first and foremost marketing and promotion tool for companies in the sector.

"In this regard - concluded Barbara Colombo - we hope that there will be, also in the future, the availability of SIMEST funds granted as subsidized loans and grants for the participation of companies in international trade fairs. In addition, we ask that, also in the future, funds be made available to ICE-Agenzia for projects of incoming of foreign operators to international events taking place in Italy".

NEWS

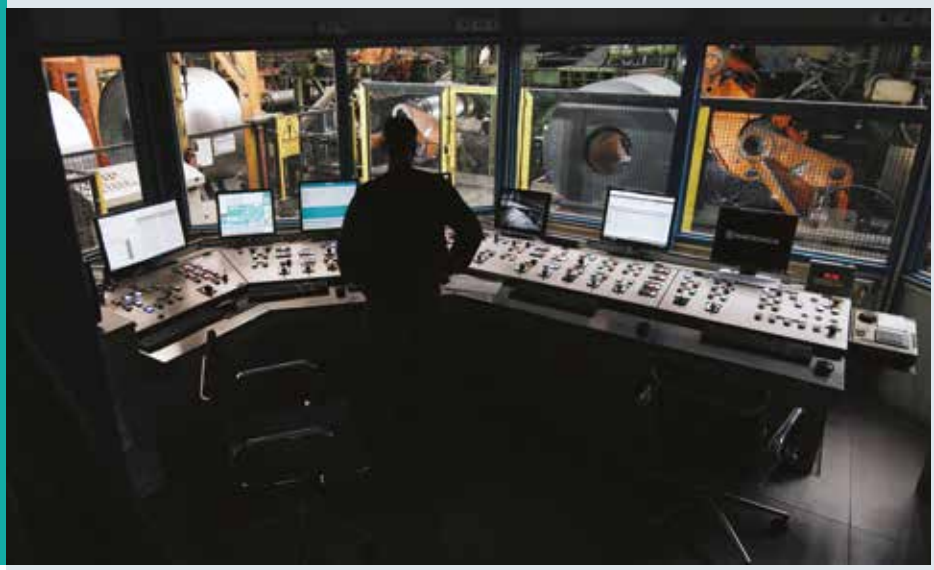
FROM THE BUSINESS WORLD

Stunning numbers for Marcegaglia in all fields of steel production

5.7 million tons processed every year; over 5.2 billion euros in turnover; 6,600 employees and 28 plants: these are the figures of the Marcegaglia Group which, in more than sixty years of history, is today the leading independent global player in steel processing. In the carbon steel sector, Marcegaglia is the leading producer of welded tubes in Europe and one of the main players in the processing of flat products, also thanks to Marcegaglia Ravenna, the main metal-steel plant of the Group and the one with the largest service center in Italy for the automated finishing, cutting and packaging of strips and sheets. The know-how acquired over the years and the particular attention paid to research and development of new stainless steel welding qualities and technologies have enabled Marcegaglia to gain another leadership position, as the world's leading producer of welded stainless steel tubes, together with an important production of stainless steel flat products (coils, strips and sheets).

With the acquisition of Palini&Bertoli, Marcegaglia has also strengthened its presence in the market of railway plates, a sector in which, with a total production of 1 million tons per year, it aims at becoming one of the main European players.

The strategic focus of R&D activities is the development of high-performance products with low environmental impact and the optimization of metallurgical processes. In the Ravenna plant, Marcegaglia has implemented the MasterModel project, a worldwide innovation, to digitize/integrate in view of Industry 4.0 all transformation processes from pickling to galvanizing.



The key factor that enabled the digitization and integration of the processes is the Tensil-Pro system, a patent developed by Marcegaglia and winner of the 2020 Global Awards for Steel Excellence, which enables real-time measurement of the mechanical properties and microstructural characteristics of steels and other metallic materials.

The sustainability of the value chain is characterized in a correct and responsible management, from a social and environmental as well as economic point of view, of all procurement, production and distribution processes. In 2021, to underline its contribution to sustainability and innovation in terms of green economy, the Group became a strategic partner of the first "green steel plant" in the world, built by the Swedish steel company H2GS.

Independence, resilience, competence and reactivity are the hallmarks of an industrial Group that has never lost its family roots and has made people and shared values a sign of belonging and a key element of Marcegaglia business model.

NEWS

Cadenas and Perspectix enter into technology partnership

Combination of intelligent 3D CAD & BIM product data and the CPQ solution P´X Industry Solution enables configuration of complex plants

Within the framework of a technology partnership, Cadenas GmbH based in Augsburg, Germany and Perspectix AG in Zurich, Switzerland are combining their strengths with immediate effect. With its solution for digital product catalogs, Cadenas is now extending Perspectix' P´X Industry Solution, a powerful CPQ solution (Configure, Price, Quote) for modular product systems and the associated web configurator for users worldwide. Cadenas additionally enriches the solution with the high-quality content of its intelligent 3D CAD & BIM product catalogs. The partnership between Cadenas and Perspectix expands both companies' product portfolio and enhances existing functionalities. Existing and prospective customers will benefit equally from this added value.

Many manufacturers of technical components from the architectural, mechanical and electrical engineering sectors have already digitized their entire product portfolio with Cadenas. Companies

looking for a solution which enables their costumers to carry out more complex configurations or complete plant designs on premise or online benefit from Cadenas' synergy effect. The entire existing digital product catalog can be seamlessly integrated into the P´X Industry Solution. The included digital twins are then generated on-the-fly in numerous native CAD formats from NX, Solid Edge, Revit, Allplan, Archicad, Inventor, Creo, Soldiworks and many others. "The P´X Industry Solution expands our product portfolio as an end-to-end CPQ solution that can be used to create complex plant configurations offline and online," says Jürgen Heimbach, CEO of Cadenas GmbH. "This creates a unique digitization solution for technical sales with high-quality data that can be used directly in product development and purchasing."

The P´X Industry Solution enables users to configure, plan and fit out buildings with technical equipment or furniture. Entire control cabinets can be technically calculated and set up. In mechanical and plant engineering, the software creates machine configurations or entire production lines. "The partnership with Cadenas gives companies the opportunity to use their existing, high-quality 3D CAD and BIM catalogs in our powerful technical product configurator," says André Kälin, Managing Director of Perspectix AG. "The combination of our CPQ solution with high-quality catalogs opens up synergy effects in many industries." As a complete CPQ software, the P´X Industry Solution includes the mapping of product logic, including technical calculations, 3D configuration and installation planning, as well as customer relationship management (CRM) for quoting. CRM ranges from customer data to price information in various currencies and discount levels to the mapping of current and completed projects. The web configurator helps to generate qualified inquiries and configure complex products for efficient processing. A web-based assembly viewer provides support during subsequent implementation. In this way, B2B providers digitize the entire customer interaction, reduce their sales effort, open up new customer groups on the Internet and create more accurate quotations in less time.

NEWS

SPAC EasySol Mobile: an application for photovoltaics

SDProget offers SPAC EasySol Mobile, the application designed to process quotes and design photovoltaic systems quickly and easily directly at the customer's site.
Through the SPAC EasySol Mobile App, the professional CAD SPAC EasySol is also available on iPhone and iPad.
Thanks to this App, the designer can make the estimate of producibility and the preliminary design of the photovoltaic system, in a fast and intuitive way, directly at the customer's site.
Through the GPS of the device, SPAC EasySol Mobile is able to automatically determine the location, orientation and inclination of the site, while through the climate database calculates the annual producibility of the plant, the available area and the necessary modules.
Once collected, the process data can be sent directly to the computer of the office where the operator will continue the development of the final project through the use of SPAC EasySol software, automatically drafting all the design documentation and analysis of manufacturability, the drawings of the single and multi-wire schemes in DWG format and

elaborating, in word format, the technical report, the economic estimate and the business plan.
Efficiency and simplicity are the qualities that characterize SPAC EasySol, the professional software dedicated to the estimation and design of photovoltaic systems, with a strong process automation, extremely reliable and easy to use.
The SPAC EasySol 21 release allows to automatically configure the module strings according to the power, currents or voltages of the selected inverter. The CAD, in fact, allows to create inverters with non-homogeneous strings or to use different Multi Mppt inputs, in a very flexible way and with multi-brand archives and returns the calculations of the Modules/Inverter coordination.
It is equipped with powerful commands: within the drawing of single- and multi-wire diagrams you can insert terminals, automatic terminal blocks, wires and the function legend. In addition to using these commands, the software allows you to make Cross References, i.e. to create page references between wires, power supplies and relay-contacts.
This CAD provides access to SPAC Data Web, the largest library of electrical components that can be synchronized online and allows access to a constantly updated database and multi-brand archives of inverters and photovoltaic modules.
The technical report including drawing and datasheet can be used to upload it on the portals of energy suppliers as a technical project in order to request the electrical connection of the supply.
SPAC EasySol 21 allows, moreover, to hypothesize the self-consumption by evaluating the consumption of the bills and of the air conditioner.
Finally, the software contains the catalog of irradiation data of locations around the world and is able to estimate and work with all countries, offering the possibility of adding locations by taking data from both websites and other sources.

NEWS

Lasers present no threat to the grinding sector GrindingHub providing expertise at ISF Grinding Seminar

The early bird gets the worm. This certainly applies to Prof. Dirk Biermann, Head of the Institute of Machining Technology (ISF) at the Technical University of Dortmund. Although the new GrindingHub trade fair – organised by Messe Stuttgart, Swissmem and VDW – is not scheduled to take place until May 2022, the well-known grinding expert and SSPT (German Academic Association for Production Technology) scientist was quick to support the event. The leading ISF figure agreed to give an in-depth interview.

Professor Biermann, when the GrindingHub finally opens its doors in Stuttgart, the ISF will be celebrating its 50th anniversary in Dortmund. From your point of view as a former engine developer and current head of the Institute, how has grinding changed during this time?
Dirk Biermann: Everything used to be quite rudimentary. In terms of precision and surface quality, however, we've now advanced into the sub-µm realm which was unthinkable back then This has not been at the expense of productivity, though, which has increased at the same time.

New processes such as laser polishing are on the rise. What are their strong points? Where is grinding still in demand?
Dirk Biermann: I see laser polishing primarily as a supplementary process. This relatively young technology has already conquered certain niches such as plastics and medical technology. Some interesting solutions now exist, but laser polishing is not appropriate for all grinding and finishing applications by any means. What's more, it's still relatively expensive in terms of initial investment.

What challenges do new drive forms such as electromobility pose for grinding?
Dirk Biermann: This trend is increasing the demands on grinding. Until now, the combustion engine masked the noises of bearings, gears or gearboxes, for example. What is particularly challenging, however, is the machining of housings. Their structure means that they vibrate easily in integrated drive systems and in combination with the lightweight solutions used in electric vehicles. Special solutions are therefore needed to make sure the specified tight tolerances are not exceeded.

You mention audible or perceptible vibration in motor vehicles which is attributable above all to the new, lightweight materials. How is grinding technology reacting to new composite materials, for example?
Dirk Biermann: I see great opportunities in the grinding of carbon fibre plastics, or CFRPs for short. Many users still machine CFRPs using tools with geometrically defined cutting edges. But this results in high wear levels during drilling and milling. The Institute of Machining Technology

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has developed an alternative diamond grinding process which is significantly more economical. I'm expecting to see interest in this grow as the number of CFRP processing operations rises.

3D printing. Do we need new grinding technologies for the machining of additively manufactured components?
Dirk Biermann: Customised and adapted solutions are what are needed here. These new processes are ideal for achieving superior final quality levels. An international network is researching new processes for additively manufactured parts in the EU 'Ad-Proc-Add' (Advanced Processing of Additively Manufactured Parts) project. One of the main issues in the production chain of additively manufactured steel materials is the interaction with metal-cutting finishing. The ISF is looking here at grinding, wet-blasting and microfinishing.

What is the current state of the art in abrasive wet blasting? You have joined forces with the Swiss company Nicolis Technology AG to advance this in the area of precision cutting edge preparation.
Dirk Biermann: We use an articulated-arm robot to hold the grinding tools. This permits the reliable and reproducible processing of sophisticated tools such as drills and end mills. This technique is now so successful that it can even be used to produce asymmetrical cutting edges on drilling and milling tools.

Cutting edge machining is generally considered one of the strengths of grinding. Is ISF working on any similar developments?
Dirk Biermann: A team led by Dr. Timo Bathe and Alexander Ott has developed the [Tool]Prep process. This is used to adapt tool cutting edges to the respective operating conditions. The two ISF scientists have started up their own business to develop, refine and market this cutting-edge preparation method. What is special about [Tool]Prep is that it offers tool grinders simple and reproducible cutting-edge preparation on their own machines. This is achieved with the aid of an exchangeable element within the arbor of a modified grinding wheel holder.

Why has the ISF set up a special unit to conduct a basic research project on the grinding of inhomogeneous mineral substrates such as reinforced concrete?
Dirk Biermann: Fluctuating process conditions are a major challenge. The natural mineral components come from different parts of Germany such as the Rhine region or the Black Forest. As for many metal-based materials, we use diamond-coated tools here, adapting the shape and arrangement of the diamond particles to the particular type of reinforced concrete.

What do you make of the trend towards additively coated grinding tools?
Dirk Biermann: This is a very interesting solution that some grinding tool manufacturers are already exploring. 3D printing offers exciting possibilities such as the printing of supply channels for the cooling lubricant.

What do you think about the new GrindingHub trade fair?
Dirk Biermann: Healthy competition is good among trade fairs. And so grinding sector researchers like me will visit both the GrindTec and the GrindingHub.

Where can visitors go to find out about the science behind the latest grinding technologies beforehand?
Dirk Biermann: We'll once again be building a bridge between practice-oriented developments and scientific approaches in the Dortmund Grinding Seminar 2021, to be held on 29 and 30 September. We'll be presenting the latest research results and relevant developments to GrindingHub visitors in Stuttgart in May based on the knowledge we pick up at this event and our own expertise.

Professor Biermann, thank you for these insights.

NEWS

All storage areas at a glance with a single click

Manage and operate automatic and manual storage areas with a single system – at SchwarzwaldEisen, located in Lahr, Baden, this is reality. Two Kasto solutions make this possible: The warehouse management system, Kastologic, and the intelligent app, Kastologic mobile. These two solutions allow the steel distributor to simplify and accelerate its processes, minimise the error rate and track all batches seamlessly.

"We love steel": With this motto, Schwarzwald-Eisenhandel GmbH & Co.KG – abbreviated as SchwarzwaldEisen – has evolved into the leading steel distributor in Baden, Germany. The roots of the fourth-generation family-operated company date back to 1870. Since 1966, the headquarters is located in Lahr; SchwarzwaldEisen has other facilities in Freiburg in Breisgau, Bad Säckingen and Karlsruhe. With subsidiaries in Baden-Württemberg, Rhineland-Palatinate and Switzerland, the specialist is active at a cross-regional level and continues to expand with new locations. The group turns over approx. 120,000 tonnes of material per year.

"We focus firmly on organic growth and a decentralised organisation," explains Dr Steffen Marco Auer, who manages the activities of SchwarzwaldEisen together with his brother Ingo Auer and Alexander Hatt as the Managing Directors. "Instead of operating one major facility, we have several regionally active sites that are close to the customer, enabling fast and flexible deliveries." Efficient communication between the individual regional locations and well-organised logistics are essential requirements for the operation of such a network. "That is why we try to structure all subsidiaries according to a similar principle to utilise proven processes, to use technologies across all sites, and to standardise interfaces while keeping them at a minimum," continues Auer.

Preferred partner for storage technology

This approach is also evident in the storage technology. SchwarzwaldEisen puts its trust in Kasto Maschinenbau GmbH & Co. KG as the preferred partner in this area. For about eight years at the headquarters in Lahr, an automatic bar stock storage system from the Unicompact 3.0 series provides quick and efficient storage and removal of sections, tubes and solid materials, which are up to six metres in length. SchwarzwaldEisen offers its customers a range of goods consisting of around 10,000 products, mainly construction steel, stainless steel, and aluminium. "Approx. 70 to 80 per cent of the orders for sectional steel are semi-processed" reported Managing Director, Auer. It is prepared according to the customer specifications using in-house machinery in Freiburg and then dispatched. For bar stock with a length of up to 6 metres, the Kasto system supplies the product needed using an operating gantry crane (OGC) with short access times based on the principle "materials to operator" at one of two removal stations. However, the company stores metal sheets in a separate, manually operated storage area.

Steffen Auer outlines the challenges by stating, "Our customers expect us to provide fast, error-free and trackable deliveries". "To ensure this, we depend on a simple, clear and reliable control system for our entire material flow." SchwarzwaldEisen relies on the goods management system (GMS), eNVenta used across all of its sites. The storage system in Lahr is linked to it via an interface created specifically for this purpose – the same as two other automatic Kasto storage systems in the sites at Karlsruhe and Westerwald. "This ensures a standardised order management and a high level of inventory transparency," explains Auer.

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The GMS transfers the respective order data electronically to the warehouse management system, Kastologic, which then triggers the removal of the required products at the respective site. All processes can be tracked seamlessly, operational and assignment errors can be virtually eliminated.

Manual storage was prone to errors

In the past, the manually and paper-managed metal sheet warehouses looked quite different recalls Auer: "Due to the broad product range, mix-ups occurred, for example, employees removed the wrong sheets or incorrect quantities – and in the end, the customer did not always receive what was ordered." It was not always easy to locate the required goods in the long rows of shelves. Therefore, those responsible at SchwarzwaldEisen searched for a possibility to integrate these storage areas into the intelligent electronic control system. "To achieve this goal, we compared two competitors, and quickly selected Kasto," stated Auer. This decision was not based solely on the proximity to the specialists for sawing and storage technology with headquarters located just a few kilometres away from Achern. "Of course, it is an advantage to collaborate with partners in the region, who can be onsite quickly if needed," the Managing Director emphasised. "However, Kasto's extensive technical competence and willingness to provide a solution tailored to our particular situation was equally important to us."

Together with the steel distributor, the Kasto experts thoroughly assessed the conditions onsite and in the entire company and developed a solution to display all storage areas in a standardised and consistent control system. One of the tools used was Kastologic mobile, a platform-independent and mobile version of Kastologic. The software makes it possible to use the essential functions of the warehouse management system on mobile devices such as tablets and smartphones – independent from permanently installed operator panels which are available in the automatic storage system, UNICOMPACT. "For instance, with this system, we can flexibly manage the bar stock storage system regardless of the location," Steffen Auer explains. "But more importantly: We are now able to manage our manually operated metal sheet storage with Kastologic."

Order and product data always within reach

Thanks to Kastologic mobile, the warehouse employees have access to the order and product data at any time. When removing the sheets, the system directs the user to the respective storage location and specifies the required quantity. The shelves are equipped with QR and barcodes. For instance, when the users scan them with the mobile device, they can confirm the removal or trigger a follow-up order if the inventory is getting low. All information is available both in the warehouse

management and the goods management system – customised interfaces make this possible. Auer summarises by saying, "The result is a standardised, controllable, and seamless, transparent material flow." "We have fewer errors when picking the orders, we can work faster and more efficiently, and individual batches can be followed up and tracked seamlessly."

With the new warehouse management concept, Kasto proved itself to be both a machine supplier and a solutions provider. "Kasto provided us a customised, software-based system that works completely independently from the existing storage systems and can be scaled for other sites as needed – a remarkable achievement," Auer stated. The concept

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is impressive in every aspect – so impressive that SchwarzwaldEisen wants to implement it at its other sites as well. "As stated, we try wherever possible, to simplify and standardise processes and avoid unnecessary interfaces," Auer says. "It helps us to become even more efficient and transparent across all sites." If an ordered product is not in stock at a specific facility, it is found in the system quickly and can be delivered to another site when necessary. "Ultimately, we are not the only ones who benefit from this organisation; above all, our customers profit from it – that is the main thing for us," exclaims the Managing Director.

The service is also impressive

Another benefit of the Kasto system for those responsible at SchwarzwaldEisen is the high degree of availability. "Both the storage system and the control system can be serviced remotely. If needed, Kasto can access the software and clear malfunctions quickly and easily at any time." Thanks to the proximity, the service experts can be onsite at short notice – "an additional bonus that not every manufacturer can provide," Auer finds. In addition to the impressive technology and the attractive price-performance ratio, the excellent partnership with Kasto was a pivotal factor to continue along the path embarked on together. "We are extremely satisfied with the collaboration and certain that both companies will reap long-lasting benefits."

All sides of performance Prima Power at the Blechexpo 2021

Prima Power is showcasing its latest solutions for the multiple needs of the sheet metal world at Blechexpo from 26 to 29 October 2021 under the motto "all sides of performance". Visitors can discover Prima Power's comprehensive and versatile technologies for the entire production chain, and its customer-oriented approach allowing to adapt its array of solutions to the many facets of the current production world, made even more complex and differentiated by the exceptional times we are experiencing. The diversification of the technologies presented in the Prima Power stand (laser cutting, punching, bending, automation, software), is further amplified by the presence of a "special guest". In fact, for the first time, a corner entirely dedicated to the additive manufacturing technology of Prima Additive – business unit of the Prima Industrie group dedicated to metal 3D printing solutions – is present in the same booth.

For 2D laser cutting, Prima Power displays for the first time at a German fair Laser Genius+, the innovative 2D machine totally Made in Italy with unique high-tech solutions, allowing high levels of performance, efficiency, quality, ease of use, automation and intelligence. Thanks to the high dynamics (180 m/min trajectory speed, 2.8 g acceleration) and precision of the machine, cycle times are considerably reduced and productivity and cutting quality are strongly increased. With the wide range of laser powers available and the machine features designed to have total control over the laser process and to obtain maximum reliability and quality from the power at hand, customers can get the best return on investment, based on their real needs.

Laser Genius+ is a "plug & play" compact machine where all services, already tested, are integrated into one dedicated module separated from

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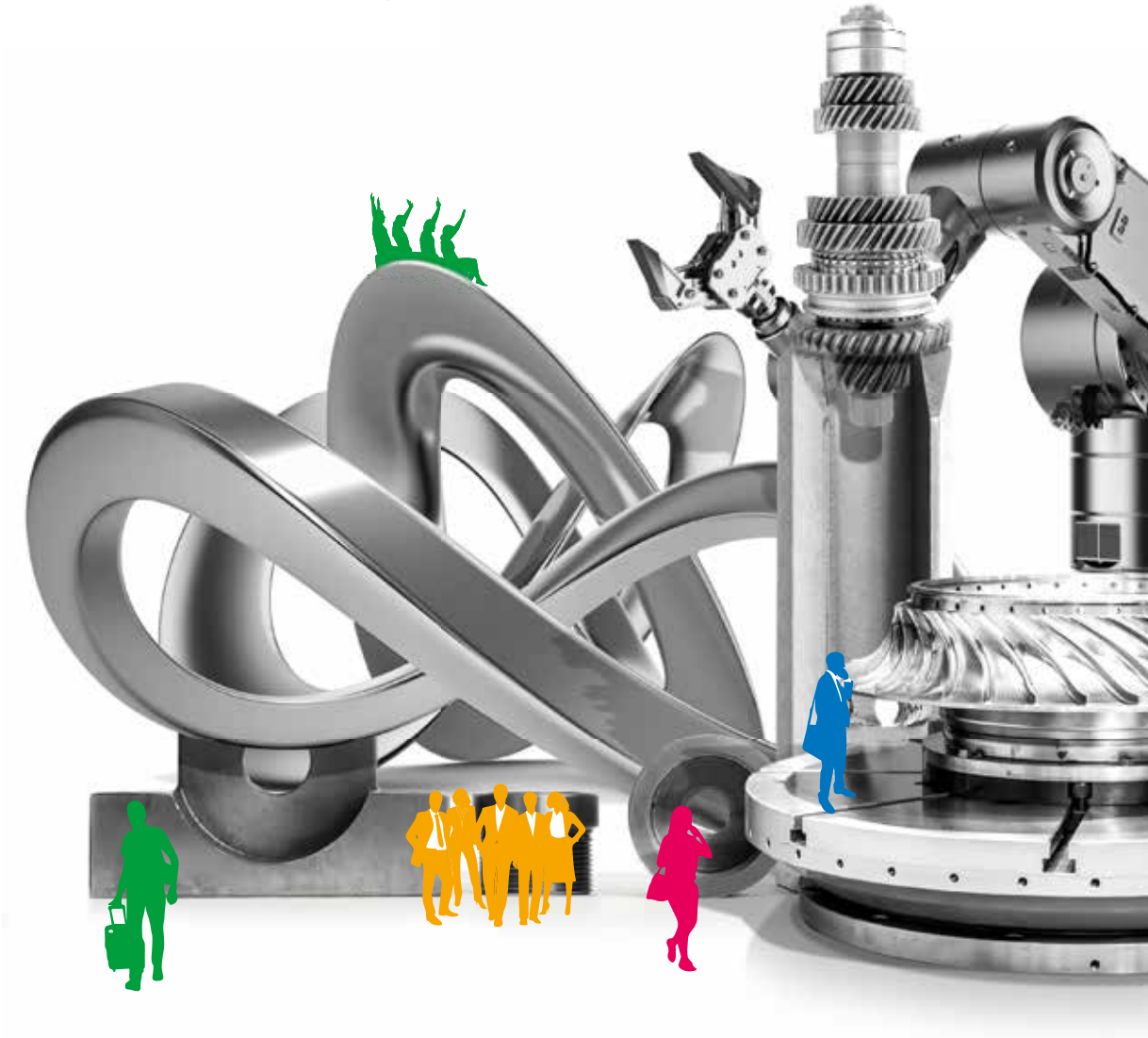

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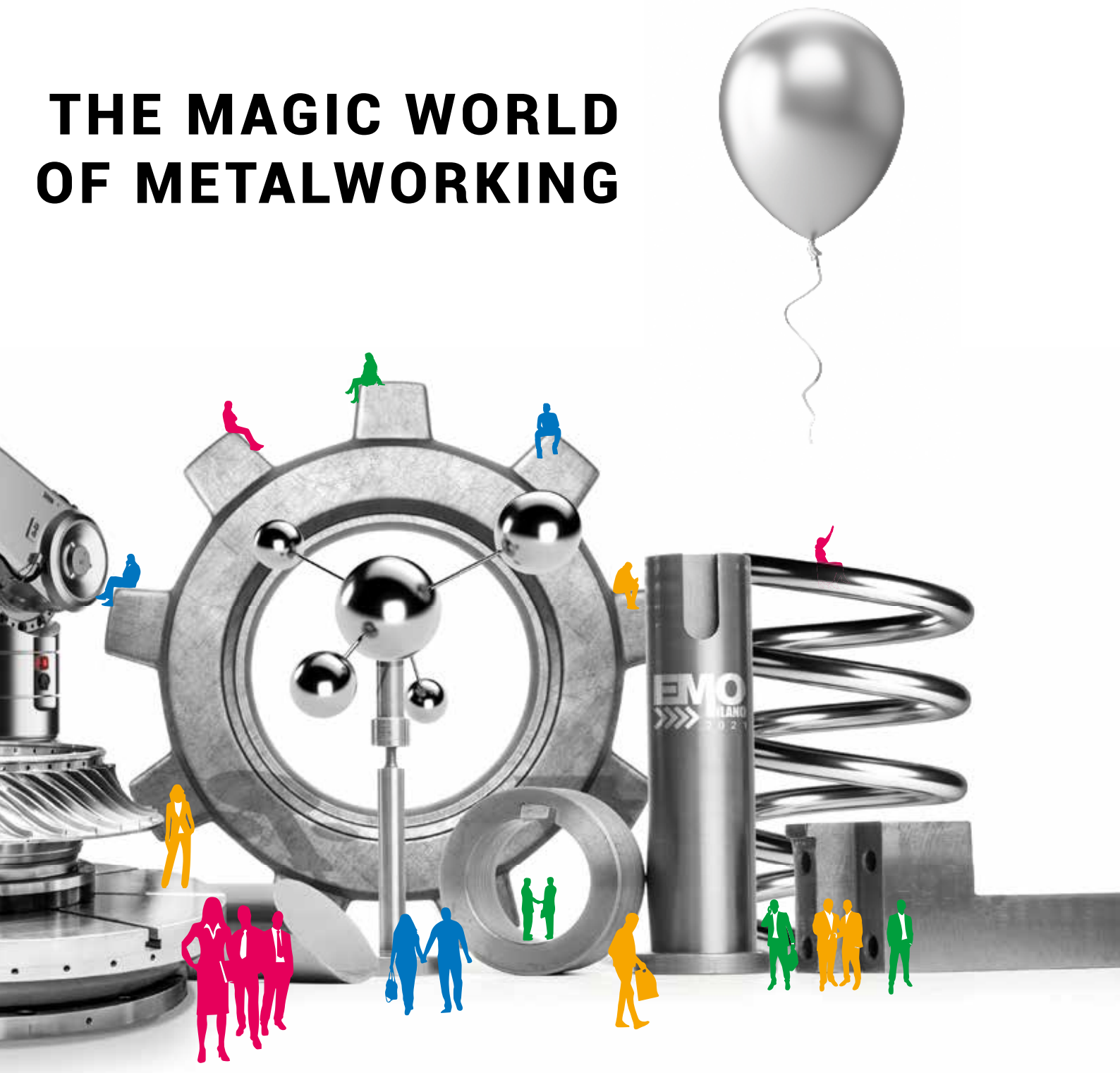

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the machine work area, with very fast installation times (ready to cut in 2 days) and thanks to a symmetrical and reversible layout, it can be inserted in any production context. In addition, with its small footprint Laser Genius+ allows highly efficient use of space. Despite its compact layout, the Laser Genius+ has the largest working area compared to other 2D machines available on the market (X, Y axis strokes: 3150 x 1600, for the 1530 model, 4320 x 2200, for the 2040, and 6320 x 2200 for the 2060).

Ease of use is another advantage of Laser Genius+ that is priceless. The machine is incredibly user-friendly and smart with two 24" full HD monitors a 4K video camera, on-board software modules simplifying nesting and technology, sensors and artificial intelligence algorithms for advanced process monitoring and control features. It ensures the highest levels of ergonomics and accessibility also due to the sliding doors which can be placed on the right or left side, or even on both sides.

Laser Genius+ can be easily connected to the whole range of Prima Power automation systems. At Blechexpo it is exhibited with Combo Tower Laser and the new, clever and flexible picking and stacking robot PSR 2D by Prima Power, an efficient solution for managing the material flow which automates part picking and stacking in a fast and flexible way. PSR stacking accuracy is high and intervals between stacks minimal, allowing optimal usage of stacking area, automatically. Thanks to the modular structure of the system and Prima Power wide product portfolio, PSR 2D can be connected directly to the Night Train FMS storage solution. Automatic panel bender can also be connected to PSR 2D creating an automated production line from raw sheet metal to cut and bent finished products.

Prima Power BCe Smart bending cell is also showcased at Blechexpo. It is a servo-electric machine, designed for customers looking for a flexible and semi-automatic panel bender with a "safety integrated" concept that allows the operator to focus only on value-added operations, aided by visual devices and sound signals. Maximum comfort for the operator is achieved thanks to two laser scanners, instead of physical barriers, and worktable tops that can be lowered to facilitate the loading of small or medium-sized parts. The machine's compact layout and combined loading and unloading sequence guarantee high productivity.

BCe Smart comes equipped with two innovative technologies for the bending quality control like DABA and API, allowing getting the most precise bent components. DABA (Dynamic Adjustment of the Bending Angle) is a proprietary technology that considerably reduces the time required to create a new panel, thanks to corrective parameters suggested in relation to several material variables. API (Advanced Profile Inspection) is a complementary patented option that consists of a camera device used to apply corrections to a bend in order to reach the target angle within the required tolerance.

Flexible by definition, the Prima Power line of combined punch+laser systems is also present at the Blechexpo. In particular, visitors can see the Combi Sharp in action, the compact servo-electric model which provides outstanding energy efficiency, low maintenance requirement and a high speed of operation. The smart integration of different technologies allow to have punching, forming, marking, bending, laser cutting - all in one machine. The cornerstones of the machine's productivity include large tool capacity (up to 384 standard or 128 index tools), a wide range of special tools available and easy and fast setup change.
The Combi Sharp is equipped with a range of highly efficient fiber laser, a perfect match for the system's intrinsic flexibility and sustainability. The machine reduces the manufacturing cost per component, is suitable for any batch size and, thanks to its versatility, there's virtually no limit to part design and complexity.

Due to its compact construction the automated Combi Sharp does not require much more floor space than the machine itself, but it dramatically increases productivity. At Blechexpo the machine is equipped with the Compact

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Express, the fully automated material handling device featuring several combinations of automatic and manual loading and unloading cycles.

A proprietary, common software is fundamental to grant that "all sides of performance" are perfectly and simply managed, connected, and controlled in a fully integrated digital factory. Live demonstrations of Prima Power software for smart manufacturing are available for visitors to experience how a single module can schedule and monitor the whole manufacturing process, all technologies involved, and all levels of automation. Prima Power, as one-stop-supplier owning and controlling all elements involved in the manufacturing process, can help customers manage its production in a fully integrated and interconnected mode. This allows a considerable increase of efficiency and productivity and a drastic reduction of working times.

At Blechexpo Prima Power is showing all its software packages to support different levels of production automation. From the single automation of information flow to the fully automated lights out operation, from the static nest-driven production to the constantly varying mass production – all possible manufacturing requirements are efficiently covered with Prima Power software.

Sandvik celebrates first full reference order for Sanicro® 35 super-austenitic grade

Breakthrough alloy will bridge gaps to new opportunities for major Gulf Coast refinery

SANDVIKEN, SWEDEN, September 7, 2021 Sandvik Materials Technology a developer and producer of advanced stainless steels, special alloys, and other high-performance materials, has received the first full order for its unique Sanicro® 35 grade that bridges the performance gap between stainless steels and higher-cost nickel alloys.
The order encompasses supplying tubes for two heat exchangers used in a crude unit fractionator at a major refining company in the U.S. Gulf Coast.

Previously, the bundles were constructed with hyper duplex stainless steel tubes, however the refinery's challenging process conditions called for an even higher corrosion resistant alloy. After an extensive evaluation of the corrosion and mechanical properties of Sanicro® 35, as compared to other high cost nickel alloys under consideration, the customer selected this alloy for its high performance and cost alternative offering.
Sanicro® 35 offers exceptionally high strength and corrosion resistance at a wide range of temperatures. It is an alternative to existing duplex and austenitic stainless steel grades and more expensive nickel alloys.

"Sanicro® 35 opens up a wider range of opportunities for Sandvik and our customers. It is an economical alternative to other materials while offering very high corrosion resistance, comparable to traditional metallurgies," said Karen Picker, Technical Marketing Engineer, Sandvik Materials Technology.

Johan Israelsson, President Business Unit Tube Americas, Sandvik Materials Technology, added: "Our strong, long-standing client relationship meant that when we suggested a new solution to their heat exchanger corrosion challenges, they were prepared to consider it. A short delivery time was also a consideration. Sanicro® 35 is gaining a reputation as a cost alternative option to other steel grades and high nickel alloys."

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Stauff group signs global strategic partnership with Unison ltd

STAUFF, the global manufacturer and supplier of precision fluid power products for mechanical, industrial and plant engineering, has signed a five-year strategic partnership with UK-based Unison Ltd, the leading name in all-electric tube bending machinery.
Unison Ltd has supplied STAUFF's global facilities with Unison Breeze all-electric tube manipulation machines for more than ten years. The strategic partnership takes the relationship between the two businesses to a new level and reflects the high degree of service and support that Unison has provided to STAUFF over that period.

Based around a specially created global machine tool strategy, the strategic partnership will enable all STAUFF group companies worldwide to benefit from dedicated in-country support, assistance with product development and technical capability. It will also provide STAUFF with enhanced machine tool warranties, an outstanding global service with guaranteed response times, planned preventive maintenance (PPM) and on-site training for users of Unison machines.

"We were delighted to be invited to put together a strategic partnership agreement for consideration by STAUFF, and for our proposals to be accepted," comments Unison Ltd's Global Account Manager for STAUFF, Steve Chambers. "STAUFF is a major customer of ours and it has been a pleasure to support their tube manipulation requirements with tailored solutions over the years."

Ken Cleal, Head of Production at STAUFF UK and STAUFF Global Production Manager for tube and tube manipulation added: "We are pleased to have signed this significant agreement with Unison Ltd. Not only does it provide us with ongoing certainty regarding tube bending machine tool supply, service and support, but it also helps fulfil our ambitious green agenda. With dedicated Unison support and spares in each country in which we operate, our global carbon footprint will significantly reduce.

Additionally, by using Unison's all-electric, energy efficient tube bending machines, we also remain committed to embracing clean manufacturing technologies. We have always received the highest standards of service and support from Unison Ltd and look forward to further strengthening our relationship with them as we move forward."

STAUFF currently has no fewer than thirteen Unison machines in daily use across its UK-based and overseas operations. These include 50 mm and 100 mm (maximum tube diameter) multi-stack Breeze machines, 16 mm and 35 mm left- and right-hand pipe bending machines, 50 mm 'pinball style' pipe bending machines and Unison EV Bend 1000 16 mm OD manual CNC benders. Applications include components and systems for construction, agriculture, arboriculture, oil and gas extraction and processing, food and chemical processing, mining, marine and the rail industry.

All Unison Breeze tube bending machines offer rapid setup, fast tooling changes, exceptional power, rigid mechanical design, and all-electric control for right-first-time repeat sub-contract work, or immediately after producing a single trial part. These are attributes that Unison Ltd believes make its Breeze models the ultimate tube manipulation machines for businesses specialising in small batch production runs. Unison's recently upgraded Unibend software has equipped

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its Breeze machines with cycle time speed improvements in the region of 25% compared to earlier versions. Available as a retrofit option for Unison Breeze machines that are equipped with the company's latest Unibend control system, the software also incorporates new teach routine and simulation features.

Unison Ltd: intelligent tube technology
Established in 1973, Unison Ltd is the UK's leading manufacturer of tube and pipe bending machines, offering the largest range of all-electric benders for diameters from 4 mm (5/32") to 275 mm (10" schedule pipe). With a reputation for building highly powerful, highly robust machines that deliver uncompromising levels of accuracy and repeatability, Unison Ltd continually innovates the tube and pipe bending marketplace. The company manufactured the world's first all-electric tube bender in 1994, followed by the world's first all-electric multi-stack tube bender, then the world's largest all-electric tube bender for the shipbuilding industry. Available in single-stack, multi-stack and right/left varieties, Unison machines are delivered to more than 20 countries globally. Unison's tube bending software is recognised as the most user-friendly control system for tube bending machines. The software is written and supported by Unison, ensuring complete control of its evolution, with no need for third party support.

Xiris hires new Vice President of sales

– Xiris Automation is pleased to announce that it has hired Mr. Lyle Moroz as our new Vice President of Sales. With a technical background in mechanical engineering and business, Lyle has a rich history of leading sales teams to provide leading edge technology solutions to customers across various industries. Based out of our Canadian office in Burlington, Ontario, Lyle will be responsible for all sales of Xiris weld cameras and inspection systems globally.

Cameron Serles, President of Xiris Automation, commented "As our business grows in size and complexity, we are very pleased to have Lyle join our management team to be able to direct and coordinate our sales efforts, globally. He combines many years of experience leading technical teams in sales of engineered products with energy, enthusiasm, technical knowledge and focus on the needs of the customer. This will be of great interest as the metal fabrication industry increases its adoption of automation technology with the use of weld cameras and inspection systems. Welcome to Lyle!"

Xiris Automation Inc. specializes in developing optical equipment used for process and quality control across a number of specialty industries. With an extensive product line, Xiris provides some of the world's most dynamic manufacturers with the ability to detect, recognize, and interpret quality defects in their manufactured goods.

For more information on Xiris, please visit our website: www.xiris.com
Please note that Xiris products have been used for:

- Post-weld box welded pipe weld seam geometry measurement
- Post-scuffing weld seam geometry after weld seam scarfing/sanding
- Welded pipe forming measurement/analysis
- Monitoring the weld gap width of a tube
- Aligning the welding flashlight to the weld seam
- Monitoring flashlight tip conditi

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Made in Steel 2021: the spaces sold already tell of a success

The results were above expectations: despite the difficulties encountered due to the Covid-19 pandemic, which led to an inevitable decrease in international exhibitors, the ninth edition of Made in Steel is still to be considered a success in terms of exhibition space sold.

A trend in line with the previous edition, that of 2019, and expression of the high expectations that the national and southern European steel supply chain has towards the event. Made in Steel will be, in fact, in Europe, the first exhibition in attendance since the outbreak of the pandemic dedicated to steel operators.

All the major national players have confirmed their massive presence and there is a fair representation of international operators, with some "big" names and Turkey confirming itself as the first foreign country for number of exhibitors.

Made in Steel will be held at the same time as two important international trade fairs: Emo Milano 2021 (4-9 October), the world machine tool fair alternately hosted by Italy and Germany, and Vitrum (5-8 October), the specialized international exhibition of machinery, equipment and systems for processing flat and hollow glass, glass and processed products.

The partial contemporaneity of the three events, which represent three strategic industrial sectors, will increase business and networking opportunities for visitors and exhibitors. The permeability of the three international events will also be promoted, in order to facilitate the circulation of visitors.

How to optimize material usage in tube laser-cutting

One of the crucial aspects of batch preparation for tube laser-cutting is the choice of bars for nesting. Material is the main cost factor in a work order and so its optimal management is essential to achieve a positive profit and yield.

With this crucial factor in mind, Blm Group has developed ProTube, for nesting, preparing production batches and monitoring them. The software implements advanced functions to make the best use of raw material at all stages of processing (supply, nesting and processing).

The best nesting for all situations
According to the availability of tubes or section bars, ProTube suggests different nesting configurations to optimize material usage and identify the most effective production strategies.

Nesting on tubes or section bars of the same length: using tubes or section bars of a single defined length is particularly advantageous for large batches or large available stocks. In this case, ProTube allows you to select the specific length of the bar bundle and automatically launch the nesting of the parts to be made. The technological options can be used, if necessary, to choose the unloading side in advance according to the type of item or to maximize production efficiency and simplify the machine operator's task by setting the processing parameters of the Lasertube system that will be used for cutting.

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Nesting on tubes or section bars of different lengths according to availability

Subcontractors and anyone accustomed to handling small, diverse orders will know that procurement is critical, and the variability of available material can be extensive. In this context, modulating nesting with different bar lengths is essential to exploit the residues of previous jobs or to make optimal use of stocks resulting from acquisitions made overtime or a direct consequence of the supplier's availability at the time of purchase. In these cases, ProTube provides a simple and effective solution for handling complex situations, like the production of numerous small batches or using varied and limited stocks of bars of different lengths. The software can be used to set up the nesting to take into account different quantities of tubes or section bars of different lengths (including pieces from previous jobs) and the priority to be assigned to the sets of bars defining which assemblies to process first.

Choosing the optimum material length for a production batch

To help choosing the optimum bar length in terms of the best part distribution, maximum reduction of waste and associated costs, ProTube has a simulator that can be used to identify the material occupancy of a production batch on bars of different lengths. A specific nesting operation is determined by varying the bar length parameter, in particular by identifying the number of tubes required, the overall waste (differentiated between scrap between parts and end-of-bar scrap) and the cost associated with the material required. In this way, you can check which configuration is best to identify the optimum material you need and to reduce waste.

The importance of traceability in material management

In production, the traceability of incoming tubes is crucial to select the tubes to be processed for a specific job and supply the Lasertube system. Not all bundles are the same. The choice of which bars to use can be determined, for instance, by quality, origin, type of alloy, casting code, type of supplier, or on the direct recommendation of the end customer. With ProTube, you can identify the bar bundles involved in nesting and track the material feeding the Lasertube cutting systems, assigning codes to the bars that can be used by the machine operator either directly on the CNC or, alternatively, in printable reports.

Specific ProTube functions to optimize material usage in tube nesting

ProTube has a wide range of technological options for setting up the optimal nesting configuration according to specific production requirements, exploiting the synergy with the Lasertube Blm Group machines. The waste reduction and waste advance options allow specific machine cycles to be selected from the office which, by exploiting particular movements of the steady rest and spindle of the Blm Group laser cutting systems, enables the material waste to be further reduced. Lastly, the common cut option makes it possible to eliminate intra-piece waste by cutting the two faces of adjacent workpieces, e.g., workpieces with straight or complementary ends, using a single cutting path.

The convenience of exploiting stock from end-of-bar scrap

Nesting may not always be able to distribute the pieces evenly and, in particular, the last bar may not be fully utilized. Reuse of production scrap involves a certain logistical effort (handling the scrap, putting it on the shelves, updating the warehouse software, etc.) and takes up storage space waiting to be re-used in a future compatible order. In some cases, it may be more profitable to eliminate the end-of-bar scrap by making extra pieces for inventory. ProTube meets this requirement with the surplus option that can be used to define a maximum number of extra pieces per item type that can be obtained from surplus end-of-bar material.

Machine intelligence

Once the job is ready, it can be transferred to the machine immediately with a simple click of the mouse. However, the material on the machine may differ from that planned (slightly different lengths, material not of high quality) and consequently, the cutting layouts and the total number of pieces made may change. ProTube collects these variations from the machine and displays the layouts actually produced by the Lasertube in graphic form (precise lengths of bars used, cutting layout actually used, total good parts and rejected parts). This means being able to keep track of the order and to monitor the process by comparing the performed nesting to the designed one.

With its multiple functions, ProTube is an extremely powerful tool that can optimize production by reducing waste and maximizing profit, but its functions do not stop there. From integration with the company's ERP system to real-time monitoring and management of other Blm Group tube processing plants, ProTube is the key enabler of industry 4.0 production.

CURIOUS NEWS

FROM THE WORLD

Sleeping in sewer pipes? There is a hotel on the banks of the Danube

Sleeping in sewer pipes? You can. We are not talking about the terrible conditions in which so many people live in the most degraded metropolises, but the Das Park Hotel, designed by the Austrian architect Andreas Strauss: these are huge pipes, scattered in the woods, which with a great recovery work have become rooms of hotels, or rather camping bungalows. Essential spaces, with a bed and a table, without a kitchen and with an external toilet, which can accommodate a maximum of two people. Reservations are made via email, for a maximum of three nights: a code arrives that allows you to open the door of the tube. The cost? A free offer. The first Das Park Hotel was born in 2004 in Austria, on the banks of the Danube, in Otthensheim, then others were opened in Germany and Mexico.

"Russian Quintessential", the house in the shape of a tube

Called "Russian Quintessential", it is the latest project signed by Russian architect Sergey Kuznetsov for the Archstoyanie festival in Nikola Lenivets park. This festival brings together architects, artists and designers who create site-specific installations following a common theme: this year it is "Personal" and for this reason Sergey Kuznetsov has thought of a studio apartment, where to live alone, rediscover the relationship with themselves and with nature.

The peculiarity of the structure is that the house was built inside a huge metal pipe 12 meters long and with a diameter of 3.5 meters. Furthermore, this pipe was positioned above a small elevation in the ground: only half of the structure rests on the ground, while the other part is literally suspended in the air. Despite the uniqueness of the house, inside you can find all the comforts and services of a normal home, so much so that the architect agreed to rent the "Russian Quintessential" to allow anyone to spend a few days there.

Plastic tubes to protect the trees? Damage to the environment

You know those plastic tubes that wrap young trees until they grow enough to support themselves, and protect them from the assault of predators such as squirrels and small rodents? A recent study - reported on the website greenme.it - which analyzed the life cycle of plastic and the tree it protects, reveals that it is better to lose a certain percentage of saplings than to use large quantities of plastic to protect their survival. This is because the plastic around trees ends up degrading in the natural environment and creating microplastics, polluting the environment and endangering the lives of animals. The study estimates that there would be a 35% loss of saplings if protective supports are not used (85% survival of supported trees versus 50% of unsupported trees), but from an environmental point of view it would not cause damage to long term.
Planting new trees is essential, in the face of the climate crisis, as they absorb CO2 and release clean oxygen in the area, contributing to the welfare of the animals. There are already alternative solutions to the use of plastic but equally efficient in supporting young trees, such as biodegradable cardboard supports obtained by recycling waste from the paper industries.

CURIOUS NEWS

Heatworks Tetra, dishwasher without water hose

A dishwasher that does not need to be connected to the water pipe: it is Heatworks Tetra, perhaps not the ideal solution for a large family, but perfect for couples who are attentive to the environmental impact. It is in fact a countertop dishwasher that does not require connection to the water system, it only needs a electric current. The water is inserted into the tank and drained once the washing is done: three liters are needed, much less than what is used for a hand wash or - even worse - in a traditional dishwasher. It also requires less energy and less detergent, concentrated in recyclable capsules. The price is $ 499, about 420 euros.

A tube to recharge electric cars "from home"

It looks like a normal downspout, the pipe used to drain the water from the gutters. In reality, an arm can be controlled remotely with app, capable of extending for three meters, which hides the cable to recharge an electric car. It is the brilliant invention of Danny Vaes (told on the website vaielettrico.it), an electric car enthusiast who could not recharge his Peugeot e-208 at home, because he lives in an apartment in Hasselt, in Flanders. Soon done, the brilliant Danny built his tube and developed the app that manages it, a solution that aroused the enthusiasm of the Belgian government also for its possible applications, that is to recharge electric vehicles - even bikes and scooters - when not has a special column. To understand the costs and reliability, but the fact remains that the inability to recharge at home, for those who live in a palace, is one of the factors that hinder the spread of electric cars the most.

The second tube of the San Gottardo is multimedia

Multimedia. This is the key word that distinguishes the Airolo and Göschenen information centers, dedicated to the "Second Gotthard tube" project and recently inaugurated. The two information centers, located at the respective SBB stations, allow visitors to experience first-hand - through images and videos, information in electronic format and even quizzes - what is being done for the second barrel of the gallery.
The centres for information and other new structures that will be created in Göschenen and Airolo will enhance the tourist offer of the Alpine region and have the ambition to contribute to the local economic induced, both by creating new jobs and by stimulating young people to become passionate about difficult but fascinating profession of engineering. Visiting hours and other information on galleriasangottardo.ch.

EMO MILANO 2021
fieramilano 4-9 October

Written by: Mr. Giovanni Teolis

Emo's keyword is innovation

From 4 to 9 October Milan will be the capital of the manufacturing industry (again), thanks to Emo Milan, the most important trade fairs in the sector in Europe. The event is promoted by Cecimo, the European association of machine industries and will highlight all the news concerning the manufacturing industry of machine tools, robots, automation, digital transition. Six years have passed since the last time the fair was held in Milan. The wait is long, even for the resumption of live events after Covid. Over 700 companies will be present, 60% of which are foreign.
In this special we have tried to focus on the main news concerning some of the companies present, trying to take a look at the new companies engaged in the development of products and projects related to the world of production systems and metal processing, but not alone.
The comparison with the news will have a double objective: on the one hand to tell the present, on the other to imagine the future. In fact, this fair is an important attraction for all operators in all major sectors, from automotive to aerospace, from energy to various mechanics, from machinery to metal products, from pharmaceuticals to furniture and household appliances. A set of skills and sectors that in their common denominator respond to a keyword: innovation.

EBERLE - PAD. 5 B30 C35

Eberle duoflex® PT Plus sets a new standard cutting profiles, tubes and solid materials

The new duoflex® PT Plus bimetal band saw blade, developed by J.N. EBERLE & CIE. GMBH offers multi-purpose versatility to cut profiles and bundle cutting of tubes. Additionally, it can also be used to cut solid materials.

The duoflex® PT Plus features an aggressive stable cutting edge and cutting depth limiter to protect the blade against premature tooth breakage. The result is longer tool life, less down time and lower production costs. Another advantage is the integrated chip former of duoflex® PT Plus. This additional benefit is a smoother chip flow and thus a "free" cutting channel. Ultimately, this can reduce the risk of blade deviation.

It easily cuts structural steels, low-alloy steels and stainless steel profiles and is offered in band saw widths ranging from 20 – 67 mm or 3/4" – 2 5/8" widths. Tooth pitches available include 2/3, 3/4 and 4/6. Up to 34 mm / 1-1/4" width, the new duoflex® PT Plus is extremely versatile. However, in the wider dimensional range, the application focus is mainly on the high-performance cutting of beams and profiles.

The nanoflex® PT Plus version is additionally coated with a high-quality TiAlN coating – for enhanced performance and wear resistance. Wide set versions of duoflex PT Plus and nanoflex PT Plus may be considered upon request.

All carbide and bimetal saw blades are manufactured exclusively at the Eberle production site in Augsburg, Germany, so that "Made in Germany" has been lived since 1836 - day after day. Thanks to our many years of know-how in the field of strip steel production and bimetal welding, we also produce all the primary material for our band saw blades in-house. This enables us to achieve excellent saw blade quality, which is ultimately the prerequisite for our customers' satisfaction.

J.N. EBERLE & CIE. GMBH is a globally recognized partner and quality leader for precision strip steel and sophisticated industrial machining with high-performance band saws. The company, with international subsidiaries in Italy, France and the United States, employs approximately 300 employees and has a worldwide distribution network that provides excellent technical support on demand.

EMAG - PAD. 4 B19

EMAG shows highly flexible production solutions for electromobility

Highly flexible and at the same time productive grinding and turning processes for electromobility and co. - this is the claim EMAG is making at this year's EMO in Milan from October 4 to 9. Among other things, the focus will be on the G 250 machine from EMAG SU
(formerly: Samputensili), based near Bologna. With this solution, axle drive gears, gear wheels and shafts with a maximum length of 550 millimeters can be produced cost-effectively by generating or profile grinding. If required, very small profile grinding wheels or generating grinding worms can also be used, which ensures maximum flexibility and productivity in production.

What other solutions will be the focus of the EMO presentation, where EMAG SU's machines will be on

display on an EMAG stand for the first time since the acquisition of Samputensili?

Whether electric drive, hybrid motor or conventional drive - grinding machining is currently moving into the focus of production planners. On the one hand, they need new solutions for perfect component surfaces that guarantee the required smooth running at very high torques and speeds. On the other hand, the flexibility of the machines is important. They should be able to efficiently handle very different production tasks with short set-up times, which is not easy to implement, especially in the grinding sector. This makes the concept of the G 250 machine from EMAG SU for generating and profile grinding of gear components with a diameter of up to 250 millimeters and a length of 550 millimeters all the more impressive. This technology scores on various levels: For example, the machine has two table spindles to minimize chip-to-chip times during the manufacturing process. Here, generating grinding and profile grinding each take place on the main grinding spindle, so that there is no undesired thermal run, as is the case with attachment spindles. In addition, the machine can be converted to the other process in just a few minutes. “Input is via user-friendly dialog software, which makes setting up the machine simple and clear. Set-up times are minimal,” emphasizes Francesco Zambon, Managing Director of EMAG SU Milan.

High speed gear machining

Another interesting feature of the G 250, which EMAG will be demonstrating live at the EMO: Grinding of workpieces with interfering contours is also possible thanks to the use of small-diameter (160 millimeter) roller screws on the main spindle. Centering takes place in the loading position during machining. The integrated dressing unit provides additional process reliability. In the G 250 HS variant, the machine also has a high-speed grinding head that makes 20,000 revolutions per minute possible when using a small grinding wheel. “This machine is both highly flexible and highly productive, which is normally difficult to combine in the grinding sector,” says Zambon. “With this in mind, it is, among other things, an ideal solution for gear cutting tasks in electromobility and gear motors, where very small parts are often used. “

Modular turning machines ensure high performance

Overall, the messages of “flexibility” and “productivity” characterize EMAG’s entire presence at EMO. The machine builders will also exhibit their VL 2 and VL 8 lathes and the high-performance WPG 7 cylindrical grinding machine. With their integrated automation, the modular VL lathes stand for maximum performance and low unit costs in the smallest of spaces. The basis for this is high-quality components: The VL machine base body is made of the damping polymer concrete MINERALIT®, the automation by means of a pick-up work spindle moves very quickly in the X and Z axes and the tool turret also guarantees short swivel times. Here, the VL 2 is suitable for machining small workpieces with a maximum diameter of 100 millimetres and

the VL 8 accommodates workpieces up to a diameter of 400 millimeters. Both lathes are ideally prepared for use in line production. They can be interlinked with simple automation components such as conveyors, turners and transfer units - for example with downstream grinding processes based on EMAG SU technology.

Focus on integrated production solutions

"With our presentation of grinding and turning technology at EMO, we are making it clear that we are one of the few manufacturers whose production systems cover the entire process chain from soft to hard machining. The principle of 'One Face to the Customer' always applies: an experienced contact person at EMAG discusses the requirements with the customer. EMAG takes care of the complete manufacturing solution and defines its specifications. The customer's planning effort is massively reduced," emphasizes Zambon. "Of course, we also bring this know-how to bear when establishing new production solutions for electromobility." It is important to note that with the EDNA system, EMAG has a modular software ecosystem consisting of interconnected software and machine components, with which the establishment of Industry 4.0. applications succeed particularly quickly. Whether customers want to visualize their production figures, optimize shifts or avoid machine failures through predictive maintenance, EDNA provides a suitable solution for these problems. "In the end, the customer has a perfect production system that sets new benchmarks regarding cycle times, but at the same time has a high level of stability and process reliability. All machining processes from turning to grinding run in perfect sequence. We want to increasingly introduce these enormous advantages to the market. EMO is an ideal platform for this," concludes Zambon.

FMB - PAD. 5 B13

F.M.B. s.r.l. confirms his presence as historical exhibitor to the event EMO 2021, which will take place in Milan from the 04th to the 09th October 2021, you will find F.M.B. in the Hall No. 5 stand No. B13. FMB was set up in 1982 and was one of the very first companies to propose band sawing machines at a time when the market was dominated by circular saws. Since then, thanks to its great ability to evolve, to research innovative products and to modify the machine to suit the customer's actual needs, FMB has become a leading company in this sector.

Its buildings represent the best in modern design, concentrating on maximum practicality and with sufficient space for all departments necessary to the creation of a new product: engineering, production and testing. Not to mention the commercial and administration office block, warehouse and dispatch area. Our present range is made of 35 models whose cutting capacity goes from Ø 200 mm up to Ø 540 mm together with a complete set of solutions for material handling. n

all these years the basic concepts of our machines have always been the same: quality, solidity and reliability.

The FMB products are the result of long studies supported by the use of the most modern technological sources and also a result given by exact test and statistics. Once the prototype has been produced, FMB starts a long phase of cutting, mechanical and electrical tests before starting the production of the machine.

At our stand No. B13 we will show different of our products, between all, our new F.M.B. machine will be present: the automatic Hercules+CN bandsaw machine.

Hercules+CN is an automatic bandsaw with a 34mm high blade with max cutting capacity of di 330mm x 510mm for the execution of 0° cuts, It will be available in two versions: with double column head descent or with pivot head descent.

In addition to this new product, you will also see our automatic Athena 41A automatic double column machine, which mounts a blade 41mm high for 0° cuts with a max capacity of 460mm x 460mm.

Athena 41A is equipped with an innovative software which allows to the operator, using the 10' touch screen, to only insert the dimensions, shape and type of material of the piece to be cut, and the machine will automatically choose and follow the correct cutting parameters. The operator will be able to modify all the parameters also during the started cycle, the software is able to constantly check the cuts and the parameters.

Athena 41A has a not inclined blade at 0° referring to the working surface, but in phase of order It is also possible to order the version with a blade 1,5° inclined, this is specifically projected for the cut of square material.

Other models of F.M.B. which you will find at the next EMO 2021 are: the semiautomatic Saturn, with a blade h27mm for cuts to the left and to the right, the semiautomatic Pegasus, with blade h34mm for a max capacity of Ø=330mm and the manual/gravitational bandsaw model Titan+G which reaches the capacity of Ø=260mm.

F.M.B. offers also different types of options and customized solutions to be mounted on the standard machines, in order to face all the possible needs of the customers.

The F.M.B. team will be glad to meet you at the stand B13 pav. 5 at the next EMO 2021 in Milan.

FRAMAG - PAD. 7 G27

Framag at EMO Milano

High performance circular sawing machines for tubes, pipes, bars and rails for carbon and stainless steel from framag are the first choice for leading steel manufacturers. Short cutting times, outstanding quality of the cut and a very high reliability are just a few of the advantages that customers value highly.

One of the latest success stories of stainless steel and nickel alloy material sawing was achieved by two sawing machines by framag delivered to a leading Indian manufacturer of high-grade seamless tubes. The superb cutting performance and quality, even when dealing with some of the toughest material grades, have set a new benchmark in the industry.

To learn more about our products, services and latest developments, for example our cost-efficient sawblade with exchangeable cutting tips, sawing process monitoring for predictive maintenance and our automatic sawblade measuring device visit our booth (Hall 7, G27) at EMO Milano. We are looking forward to introducing you to the future of cutting.

IMET - PAD. 5 B25

Imet, among main italian companies focused on the production of bansaws and cirucalrs saws, will be at this year EMO MILANO (one of the most important worldwide exhibition dedicated to the world of metalworking) from 4th to 9th October. Imet's sawing technologies and solutions will be on display inside the company booth in Hall 5 – B25 and will offer to the visitors and customers an overview on the best professional tool today on the market. EMO will be also the debut for Imet latest product: automatic bandsaw XSMART4

XSMART4

The new XSMART4 is an automatic, double column, straight cut bandsaw dedicated to professionals, workshops and every production plant where accuracy, precision, high cutting performances and efficiency are required. The machine is suitable to cut up to 350mm even with solids but it's also indicated to cut bars, profiles and tubes; equipped with a 500mm integrated feeder and 7" touch screen display, XSMART4 uses a 4 KW motoreducer with 41mm height blade to gives the

best stability on every kind of cutting process.

Other products you'll find at EMO

XT5 - the automatic bandsaw for industry application and high productivity that includes the best sawing technology available today in combination with over 50 years of Imet know-how and expertise. XT5 (and all the XT Series machines) is an easy to use professional tool ready to cut with just few clicks and in few minutes thanks to the 10" touch screen display and intuitive interface, making them the best tool for valve manufacturers, machine tool manufacturers, medium-sized molds and steel warehouses.

KTECH 502 F2000 - our integrated solution for automatic mitre cutting (up to 60° left and right) with 5 axis controlled by CNC, easy to use 10" touch screen display that gives the possibility to set up symmetrical-asymmetrical cuts, edge-cuts and full automatic cycles. KTECH has an integrated feeder (2000-3000-6000 mm), sawframe movement by ballscrew and automatic cutting parameters. The ideal solution for steel fabrication, steel producers and companies who cut bars, tubes and profiles.

VELOX 350 AF-NC - our automatic circular saw dedicated to cut aluminium and light materials (tubes, profiles and also solids) with integrated feeder (available both F500 and F1200) with cycle management by 7" touch screen. VELOX machines provides high cutting quality, efficiency and perfomances thanks to the high blade speed and cuttiing accuracy and could be suitable also for bronze, copper and brass by adding the dedicated optional.

INDUSTRY 4.0 READY – SAWFACTORY – Imet's solution for Industry 4.0, developed by company engineers to transform every prodution area in a connected working place where the user (both machine operator and technical personnel) can have full control on their workflow by every PC and device. INDUSTRY 4.0 READY – SAWFACTORY is composed by the software SAWprogram that allows the user to create, modfity and send directly to the machine (via the company network) a cutting program and the web app SAWfactory, which allows to manage the process from every device and gives access to reports and statistics about machine efficiency.

LAZZATI - PAD. 1 B17

NEW LAZZATI HB 160MM Linea Floor-Type Ram Boring Evo 4.0 for Industry 4.0: Finally a Floor Type Boring-Mill machine High Speed, Rigid and Powerful thanks to LAZZATI Hydrostatic system.

LAZZATI High Performance Boring-Mills is pleased to present during EMO MILANO 2021 International Exhibition (HALL 1 – BOOTH C 14) the new CNC heavy floor type horizontal boring mill HB 160MM Linea Floor-Type Ram Boring Evo 4.0, Industry 4.

Ready. Thanks to the system LAZZATI LHS hydrostatic lubrication on all axes, the HB 160MM Evo 4.0 mix the rigidity of the box guideways to the absolute precision and high dynamic of the most recent machines.
The LAZZATI DCS system Hydro-Mechanical Dynamic Compensation for Ram (15µ on all the travel), guarantee the HB 160MM Evo 4.0 the absolute maintenance of precision in full machine travels. The system LAZZATI TCS Evo Boring constant thermal control of the boring spindle and structures, permits HB 160MM Evo 4.0 to guarantee the complete accuracy in every ambient condition. Thanks to the system LAZZATI DPS-X double pinion with backlash recovery and the system LAZZATI LAS active stabilization of machine axes, the HB 160MM Evo 4.0 obtain rigidity value never gained, this leads to a great increment of tool life and an incredible finishing surface. The main technical specification of the HB 160MM EVO 4.0 are Live Boring Spindle diameter 160mm or 180mm ISO 50 Big Plus, Maximum Spindle Speed 4.000RPM, Maximum Spindle Power 80kW, Maximum Spindle Torque 4.000Nm, Travel Axis X(Moving Column)= 6.000+N°x1.000mm., Travel Axis Y(Headstock)=3.000 ÷ 5.000mm, Travel Axis Z(Ram)=1.600mm, Travel Axis W(Spindle)=1.100mm, Ram Section=560 x 515mm, High Pressure Coolant Internal/External 50Bar CNC managed. The machine is equipped with the most modern INDUSTRY 4.0 technology and as standard with Heidenhain CNC. On request CNC Siemens, Fanuc and Fagor. It's possible to equipped the machine with Hydrostatic Rotary-Travelling Tables with max admitted load 15 ÷ 120Ton, Automatic Universal Head index 1°x1° o 0,001°x0,001°, Pick-up Station for Automatic Head Change and with Automatic Tool Changer up to 240tools. A complete range of options and accessories for a complete custom configuration.
HB 160MM Evo 4.0, an INNOVATIVE and COMPLETE product able to adapt to any kind of processing for the chip removal.

ORT ITALIA - PAD. 2 F14

A technology which is quickly expanding in many fields thanks to features absolutely competitive: time and production costs optimizing, product quality surely higher than other production processes. We are talking about the rolling process, more and more used thanks also to the technical innovations proposed by ORT ITALIA company leader in this field, that has its main strength in the R & D department. Founded in 1964 by Cavagnoli brothers, ORT ITALIA has been acquired in 2013 by company JAM JOVIS, property of Mr. Franco Mizzotti, realizing a winning strategy: this allows to ORT to have all the production process, from the design to the finished product. A great advantage for managing and control of time and quality. Our research activity is constantly moving to develop new rolling machines for many different application fields. We supply in fact the more traditional ones, such as construction, aeronautics, railway, automotive and recently new innovative application as eolic, nuclear and many others, since the advantages of the rolling process are more and more catching on. The rolling process gain in fact better results under many points of view, for quality, costs and production time.

Today ORT ITALIA , which brand is well known and

appreciated all over the world, realizes the 60% of its sales on the foreign market, but it strongly present also in Italy.
In the main fields that represent the core business of ORT, located in Lomdardy, North of Italy, there is a strong request from construction and territorial security. For this aim, our company can assemble and supply machines for the production of very specific parts for land and cement grabbing, to work on foundations, to solidify the soil in order to avoid landslides. This is particular the case of galleries and infrastructures.
ORT is taking a constant technological innovation and we will have the possibility to show it by EMO, international show of machines tools that this year will be in Milan. We forward to show the biggest 3 dies machine of our production, which is also the biggest rolling machines in the world, having the possibility to roll parts until 350 mm diameter.
In ORT production go hand in hand both the traditional standard machines already known from decades all over the world, and the stronger and stronger innovations where the company invests every year, having recently exported very important production lines combining machines and automation (such as loading system also for very big products sizes) addressed to strategic production fields (as for example railway bolts).

PRIMA ADDITIVE - PAD. 5 B10

Additive is good for growth - Ready for the future with Prima Additive at EMO 2021 in Milan
"Good to Grow," the slogan with which Prima Additive, the Prima Industrie Group's business unit dedicated to additive solutions for metal, presents itself at EMO from October 4 to 9 (Hall 5, Stand B10/C11), could not be more appropriate for the Milan exhibition event.

In fact, the context in which the fair is being held seems to be extremely promising, thanks to forecasts of growth in demand for machine tools in the main areas of the world, the important incentives arranged by the Italian government with Transition 4.0, and the renewed enthusiasm for the return of trade fairs in attendance - in total safety, thanks also to the strict health protocols drawn up by the national government, the trade fair body and the exhibitors themselves.

Adding to this encouraging picture in the Prima Additive booth was the great confidence in the potential of additive solutions for the growth and renewal of manufacturing companies and the opportunity to discover two "future-proof" metal 3D printing products: innovative, sustainable, interconnected and fully compatible with Industry 4.0.

Previewed at EMO, the Print Genius 150 Double Wavelength belongs to the 150 series with Powder Bed Fusion technology by Prima Additive. What makes this machine unique is the innovative configuration of the laser sources. The machine has in fact two lasers, as all the machines called "Genius" of the brand from Turin, but in its Double Wavelength version it is equipped with a 300 W infrared laser and a 200 W green laser, which can work alternately on the same working area. In this way it is possible to process both alloys that can be conventionally processed with infrared lasers (steel alloys, aluminum,

titanium, nickel, cobalt chrome), and pure copper or other highly reflective materials thanks to the green laser.

Like the other machines in the 150 Series for metal additive manufacturing, the Print Genius 150 Double Wavelength features a 150 mm diameter and 160 mm high build volume and features all the innovations of Prima Additive's Powder Bed Fusion solutions. It is equipped with a system that allows to vary the position of the laser beam focus as needed, to always have the parameters optimized according to the application and with a double pre-heating system that allows to heat the powder bed surface both from above and from below through the heated plate, thus allowing the powder bed to reach a temperature up to 300° C. The high-speed coaxial pyrometer monitors the temperature in real time and 2 cameras monitor the process and powder bed. The system has open parameters, suitable for process and material research and development.
Prima Additive's 150 series is Industry 4.0 Ready and allows integration of monitoring sensors and connection through different standards for IoT functions. Always with a smart manufacturing perspective, as a partner of MindSphere World, Prima Additive participates in the interconnection project of the fair, to allow all visitors to better understand the infinite potential of the MindSphere platform in the context of IoT systems for industrial use.
Another solution on display at the Prima Additive booth is the Print Genius 250, the ideal solution for high-productivity metal printing applications, being able to reduce production times thanks to its dual 500 W single-mode laser, combined with intelligent software for rapid part orientation and machine parameter definition.

The 258x258x350 mm build volume makes the machine suitable for the production of medium-sized components. Optimized gas flow, resulting in minimized consumption, and the ability to completely change material in less than 2 hours are other strengths of this innovative machine. Print Genius 250 is equipped with a dual-line filter unit for gas recirculation within the work area, which maintains a high degree of machine cleanliness and minimizes the replacement of wear parts. The new HMI allows real-time monitoring of the build environment and report generation with all major printing parameters.

The Print Genius 250 is suitable for a wide range of materials: stainless steel, maraging steel, high temperature nickel alloys (Inconel), titanium, cobalt chrome, aluminum, copper and high hardness steels for the mold industry.
Prima Additive is exhibiting with 3D New Technologies S.r.l. (3D-NT), the start-up with which the Prima Industrie group collaborates for the realization of innovative machines for Additive Manufacturing completely designed and built in Italy. The collaboration with 3D-NT is the result of the Open Innovation strategy of Prima Industrie group and combines the experience and solidity of an Innovation Leader with a young and dynamic entrepreneurship, characterized by high flexibility and quick response to new technological trends.
EMO 2021 will not be the only occasion in the next months to discover how the solutions for metal additive manufacturing of Prima group can help companies to grow their business: from October 26 to 28, Prima Additive will be present at the AddIT 3D trade show in Bilbao, from October 26 to 29 it will exhibit at Blechexpo in Stuttgart, for the first time together with Prima Power, the brand specializing in laser and sheet metal processing machinery of the Prima Industrie group, and from November 16 to 19 at Formnext in Frankfurt the complete range of Prima Additive technologies will be presented, which includes both Powder Bed Fusion and Direct Energy Deposition systems.

VIOLI - PAD. 5 D27

VIOLI SRL: TECHNOLOGIES FOR METALS SHREDDING AND BRIQUETTING

Violi S.r.l. is an Italian company specialized in the design and production of machinery typically used in the goldsmith, industrial and precious metal recovery areas.

For 30 years, Violi S. r. l. offers a series of machinery developed thanks to a continuous research activity. The company has always tried with its product to provide solutions aimed at the quality that customers want to achieve. Violi is always looking for innovations and technological improvements aimed at getting to the quality that customer is looking for.

Today, briquetting of metal chips and scrap is gaining renewed attention. A briquetting machine, with the current technologies, is simple, easy to use, and brings many advantages to metalworking companies.

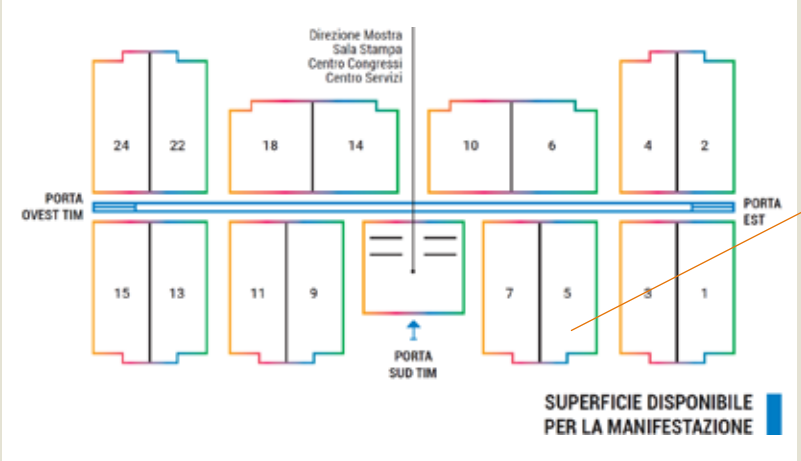
VM/CTA0 briquetting machines allow to compact chips deriving from turning or milling processes and are suitable for the direct positioning under a machine tool.

VM / CTAR0-01 is a plant that allows to reduce the length of the chips with a shredder and through a conveyor system brings the shredded product gradually and continuously into the briquetting machine hopper, inside which there are two augers that push the material into the compaction chamber. The cycle is managed via PLC and chip presence sensors.

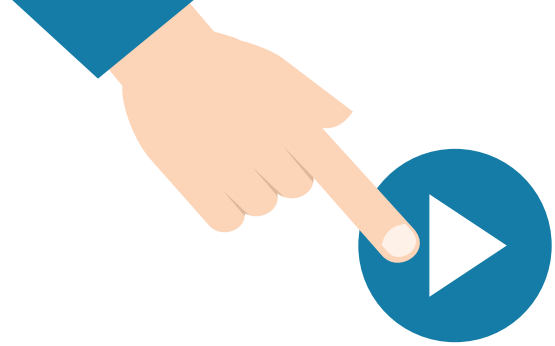
All Violi compacting and briquetting machines are fully customizable on customer request.

The company produces a wide range of machinery:

- Series of linear hydraulic drawing machines for tubes and bars with various lengths and powers up to 30,000 Kg;
- Series of multi-steps wire drawing machines;
- Series of machines for straightening tubes, bars and wires also with flying cutting system;
- Series of machinery for the recovery of precious metals;
- High performance ultrasonic cleaners.

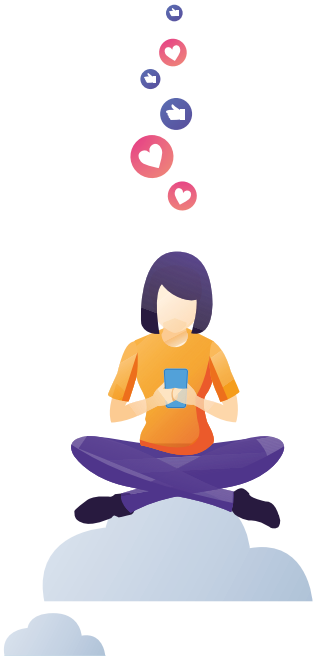


We will be present with a stand in **hall 5, lane A n. 23.**
We are waiting for you!



YOUR EVENTS ARE NOW ONLINE

The pandemic and consequent lockdown pushed many remarkable changes in the world of communication: it is possible to see these changes as **opportunities**. One of them is that **events, presentations, lectures** and even **press conferences** are **played on-line**, directly via **web-streaming**. The keystone is managing them in a professional way: interruptions, unstable connection and other problems can push away your audience; otherwise, if your event goes smoothly, it can be the right way to reach your public. Do you want to know how you can achieve this goal? **Download the free quick guide written by the Inspire Communication's experts** that will help you in leading your online event to success.



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