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Sumitomo (SHI) Demag roadshow puts productivity on the map - **page 38**

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TECHNOLOGIES

FB Balzanelli: "Pipes are in our DNA"

The Italian company offers a large range of automatic and automatic palletizing systems

In the 1980s, the founder of FB Balzanelli Mr. Vincenzo Balzanelli was a leader in the production of electrical conduits. Dissatisfied with the lack of automatic coilers available in the market at that time, he felt the urge to design and build his own automatic coilers. They had to

be really fast, reliable, and guarantee high-quality packing. Since 1994 when he built his first automatic coiler, a process of development and growth has been underway at the company's production facility in Fano (Italy), which has made FB Balzanelli a leader in the automatic and se-

mi-automatic coilers market. Today, the company is able to offer the largest range of automatic coilers in the market, automatic palletizing systems, and is able to follow its customers during the entire production project with the best and most appropriate solution.



REPORT

IPF Japan

Photos and interviews with the exhibitors conducted during the event.



TECHNOLOGIES

Evorec Rubber Plus: a two-steps devulcanization process

Maris has designed and patented a new two-step devulcanization process to produce devulcanized rubber with very high-quality standards



STRATEGIES

W. MÜLLER: improving productivity with service

The company produces technology in extrusion blow molding and introduces a new service initiative





Marco Mastrosanti

Optimism

According to estimates from the Amaplast-MECS Study Center, the Italian production of machinery for plastics and rubber would have closed 2023 with a new historical record for the sector, namely over 4.8 billion euros, marking an increase of at least three points compared to 2022.

This is thanks mainly to the good performance of exports, to which over 70% of the national production in the sector is destined.

Made in Italy remains a guarantee, appreciated all over the world and in Europe more than ever. 2024, therefore, cannot but start under the sign of optimism, for the magazine Tecnoplast and for all of Tecnoedizioni Group. It couldn't be otherwise because it is precisely the companies in the sector, during interviews and trade fairs, who instill in us their optimism and passion for this industry, always and in any case.

We will continue to tell their commitment and innovations in the coming months, which promise to be intense and full of events.

Trade fairs will not be missing, which are a precious opportunity for us: in the upcoming pages, you will see photos and read interviews that we conducted at IPF Japan, in what was our first time at the Tokyo fair. And in the coming months, we will fly across the ocean to NPE, but there will also be Italian events, such as Mecspe, and European ones like JEC.

And then there will be space for networking, talk shows, video clips, and updates from all our communication channels.

A prosperous 2024 and good plastics to everyone!

tecno Plast

MENSILE DELLE MATERIE PLASTICHE E DEGLI ELASTOMERI
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IPF Japan

Tecnoplast participated for the first time in the Japanese fair IPF Japan, which took place in Tokyo last November. Here are the photos and interviews with the exhibitors conducted during the event.

A talk with Minoru Shibata, Secretary General of IPF Japan and Japan Plastics Machinery Association

At the IPF event in Tokyo we had the luck to interview with Minoru Shibata, the Secretary General of the show. A great businessman and even nicer person, he told us about many topics from the event to the economic situation in Japan.

Six years without show, finally we got it, how's your feeling?

We are happy of course, these are busy days and normally we never experienced such active mode on the events, but that is happening, and we are so glad.

I feel that after covid we had this habit to do business online, from interviews to meetings, and I think after a while this started to have a bad influence among people. We are human and we need human contact and meeting face to face, even in the business area and that was a great opportunity.

How many companies took part of the event? where are they from?

We are talking big numbers, 853 companies, a great improvement for us, since last time it was 774. New companies arrive from China, You know, the thing is that in Japan has never been common to buy Chinese machine, unlike Europe. We had always a special relationship with Taiwan since our first time in 1994, but now things are starting to change, there is a chance.



On one hand, China never really tried to sell machine abroad, however now Chinese are trying to expand their business in our country, and from the other hand Japanese companies, starting with the ones that have business all around the world, are buying the first Chinese machines, mainly because their favorable price.

What about Europe?

Japan 40/50 years ago bought a lot of European machines because the quality was impeccable comparing with the Japanese one. However, today Japan's machinery makers caught up and now Japan has a machinery market for Japanese manufactures. Some companies still buy European machines, mainly highly specialized machines, so the business environment for Europeans is more challenging nowadays.

And if we are comparing with last time six years ago, the number of European companies that participated is roughly the same.

Is sustainability theme important nowadays in Japan?

The trend is that plastic is bad, and some people really hate plastic, also in Japan. But as a plastic industry we still believe that plastic is a good material and in the event there are a lot of people, so I deduct that there is still a lot of people that still believe that plastic is the best option.

What about the automotive industry in Japan?

We still sell more fuel cars, one of the reasons is maybe that we are still a little skeptical about electric cars. The thing is that Europe has many regu-

lations that force European companies to shift to electric in few years, Japan does not have it.

Have you already planned a future exhibit?

We are waiting, we are still planning, let's just wait the end of this show at least. As this time, don't expect huge spaces as European or in general western countries conventions. In fact, these conventions are usually located in wide spaces where they must show the entire machinery, in Japan this thing just does not work.

Of course, we are going to promote the show, we are having a good result but there is always space to improvement, we are dedicated to make the event grow.

Zambello Group: from Italy to all over the world

Interview with Alessandro Feller, Export Sales Manager of Zambello Group at the IPF in Tokyo.

Zambello Group is a world leader in the field of reduction gearboxes dedicated to the extrusion. Although the company's policy is "Made in Italy", meaning that all productive process happens in Italy, Zambello's international projection covers the world without losing any quality standard and having no distributor is the proof that quality and service are the key words for the company.

We are in the company of Zambello's crew at IPF show in Japan with Mr. Alessandro Feller and Masayuki Ebihara, who's representing Zambello in Japan.

What can you tell us about the Japanese market?

Exchange rates are very high, that's the main reason why the national market is particularly weak now. So, it is kind of evident how companies that work in our area, import & export, are in a difficult situation. But Japanese technology companies once they found the technical solutions, they just stick with it, no matter the price and they're likely not go-



ing to bargain. Quality is capital, everybody knows.

Is "Made in Italy" something with a good reputation in Japan?

Of course, it's very well-known and especially Zambello's reputation is very good.

Italian companies feel the rivalry with Germany in this special field, in Japan for example there are a couple of huge companies that they also competing with us. That makes the situation certainly challenging, but it's a matter of mentality, Zambello remains one of the most relatable products you can find in the international market.

So, how's the situation for you?

We at Zambello are open and in the last couple of years we are trying to be more present, and we had several business opportunities. The Japanese market is florid, they must build huge equipment for both local and international markets and that's complementary with our offer.

It's going to be another good year.

zambello.it

UTPVision, quality and technological excellence for artificial vision systems

Interview with Luca Palleschi, CEO USA, and Yumiko Yoshii, International Sales of UTPVision Srl.

UTPVision produces inspection systems for rubber and plastic. With extensive experience across

various sectors, UTPVision can develop solutions to meet customer needs, thanks to its technological excellence and focus on innovation. Founded in 2008, UTP is based in Bergamo, Italy, with branches in the United States and China. TecnoEdizioni interviewed Luca Palleschi, CEO USA, and Yumiko Yoshii, International Sales of UTPVision.

UTPVision participated in IPF Japan, how was the fair and what did you present?

We are very pleased with the fair, which was very positive, and we noticed a greater interest in our technology from the visitors. Unfortunately, we could not bring more than one machine to Japan, and we chose the MiniMatliX, a visual inspection machine for dimensional and surface control





inspected thanks to saving all configuration parameters and rapid cleaning of the machine and loader.

What are the strengths of UTPVision's technology?

First of all, color vision, Color Vision, our patented multicolor lighting system for detecting critical defects. This system allows highlighting extremely difficult superficial defects to identify with traditional white or monochromatic lighting. Furthermore, our software boasts several layers of control, allowing for sophisticated analyses. Another strength of our technology is undoubtedly the inspection speed, which gives us a considerable technological advantage.

In the future, there will be an increasing prevalence of AI, which will allow companies to use machines more easily. Right now, the operator needs to acquire a minimum of in-depth skills to build an inspection program. In the future, however, the machine will increasingly learn through practical examples and develop the inspection recipe autonomously.

Do you offer standardized machines?

Our machines are highly modular; the range of products we offer includes a series of standard models that can be reconfigured internally. In other words, we always try to find a compromise, starting from a standardized base, defined with small modifications based on customer needs. So, there is a fair amount of standardization in the models we offer.

UTPVision is a company with a global presence, how does Italy fit into this international context compared to other markets?

Italy is undoubtedly one of the most significant



the operator through a simple and intuitive window interface. After image capture and subsequent processing, the parts are sorted into three different accumulation zones depending on whether they are conforming, non-conforming, or rework. The times are greatly reduced for changing parts to be

of toroidal and small generic parts. It is capable of inspecting the surface of plastic, rubber, and other materials to identify major defects.

It is a very compact machine, particularly appreciated by our Japanese customers. We offer three versions of the machine with different fields of vision, and in each one, the loading group provides the parts to be inspected on a conveyor belt where a motorized diverter transfers them to the turntable. From here, the parts pass through a series of stations dedicated to defect inspection using digital industrial cameras.

The acquired images are transferred to a PC managed by a Real-Time operating system that performs both image processing and interaction with



markets, along with Germany and China. Italy has a long tradition in the rubber industry. Both Japan and the United States still represent expanding markets today, which, aggregating the data, represent 15% of the global turnover, while Germany, Italy, and China represent approximately 70/80%. In the United States, we have a subsidiary that was built before Covid; we are currently in a development phase and completing the basic infrastructure. In the coming months, we plan to further develop the market. In Japan, we rely on a trading company, but we also make direct sales.

How is the market doing?

We have seen in recent years an alternation of markets, with some in difficulty, such as automotive, and others growing, like the rubber sector. The pandemic has brought a steep increase in the production of rubber components for the medical sector. In general, we see a greater focus on the quantity of checks; therefore, there are many niches to grow into, and we have the advantage of being highly diversified, which is a winning quality.

utpvision.com

Break Machinery: the vision for 2024

At IPF Tokyo we had a brief chat with Luca Zausa from Break Machinery, who gave us a quick update of his impression of the event and Japanese market.

How is the impression of the fair?

The market here is very interesting and rich of business opportunities if you know how to exploit them. Japan is the third largest car company in the world,



and we all know that the automotive sector is paramount for the plastic and renewable sector. That's why it is a great opportunity being here.

We talked to other European companies, and they found quite challenging the Japanese market, are you feeling the same?

I must admit that Japanese market tends to remain "domestic", Japanese companies buy products from each other and there is a strong linguistic barrier, since the most part of Japanese don't speak English, so it's quite difficult at the beginning. Thus, I think a good solution is to find a local partner, it worked for us and for other European companies, to overcome this obstacle.

What is Break Machinery's vision for 2024?

Break Machinery has shared its vision for 2024. The company was founded in 2019, and over these years, the ONE and DUO products have seen tremendous success, capturing the market with their design, productivity, and ease of maintenance.

For the future, the company aims to become a partner for the entire regeneration process. So far, it has mainly focused on the filtration part of the plastic recycling process. In 2024, research, design, and production efforts will be expanded to establish Break Machinery as a partner for the entire plastic regeneration process, from the separation of plastic waste to polymer production.

In the coming months, existing products will be enhanced, and new ones will be added. The DUO 1750 will be upgraded to the DUO 3500, which will feature an even larger filtration area. Also in preparation is the DUO Twin, a new configuration consisting of 2 DUO units. Both products will allow for increased production with the same material quantities, contamination, and energy consumption, offering economic and sustainability benefits. Other objectives include: expanding the network of partners and clients, as well as increasing the team members, thereby ensuring better and faster services.

breakmachinery.com





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Covestro publishes climate neutrality targets for scope 3 emissions

Reduction of 10 million metric tons of greenhouse gases produced in upstream and downstream supply chains (scope 3) by 2035, climate neutrality for scope 3 by 2050: a concrete plan for implementation to reduce emissions, transformation along the entire supply chain required

Dr. Markus Steilemann



Covestro has published its climate neutrality targets for scope 3 emissions, completing its climate strategy for reducing greenhouse gas emissions. As a short-term goal, the company plans to reduce greenhouse gases by 10 million metric tons by 2035. This corresponds to a drop in emissions of 30 percent compared to the base year 2021, with some growth-related emissions through 2035 included in the calculation. In the long-term, Covestro plans to be climate-neutral in terms of scope 3 emissions by 2050.

Covestro previously published ambitious targets for scope 1 and scope 2 emissions in 2022, which included achieving operational climate neutrality by 2035. Scope 1 emissions come from Covestro's own production processes, while scope 2 emissions result from purchased energy sources. Scope 3 emissions include all other greenhouse gases produced in the upstream and downstream supply chains. These make up around 80 percent of the company's total greenhouse gas emissions. Raw materials purchased by Covestro are responsible for the greatest share of scope 3 emissions.

Reducing scope 3 emissions will require a transformation of the entire supply chain. A variety of factors influence one another – including the availability of alternative raw materials, renewable energies, technological advancements and new processes,

as well as market transformations – and play a key role in this process. To achieve net zero emissions, Covestro expects to make targeted investments amounting to several hundred million euros over the next 10 years.

"Our Scope 3 targets are both ambitious and realis-



tic supported with a concrete implementation plan. This is an essential building block of our climate strategy. Completing our climate neutrality targets is another major milestone in aligning all of our activities with our vision of becoming fully circular. In this way, we are demonstrating once again that we take a leading role in transforming the chemical industry" says Dr. Markus Steilemann, CEO of Covestro.



Thorsten Dreier



Four levers for achieving our target and reducing scope 3 greenhouse gases

In its climate strategy, Covestro is concentrating on four scope 3 categories in the short to medium term. By managing these four categories, which together make up 21.3 million tons of greenhouse gases per year (as of 2021), Covestro will be able to reduce scope 3 emissions by 10 million metric tons by 2035. To do so, Covestro has identified four key levers. Projects related to these are already ongoing, with additional concrete implementation measures to follow.

“Calculating scope 3 emissions is challenging for us as a chemical company. This is because such emissions are generated both upstream, when we purchase raw materials and downstream, after we sell our products. Because of this, measures to reduce scope 3 emissions impact our suppliers as well as our customers and will require a transformation of the entire supply chain,” explains Dr. Torsten Heinemann, Head of Innovation and Sustainability at Covestro. “Through innovation, cooperation with our partners along the supply chain, and a detailed plan of action involving all four levers, we will achieve our scope 3 targets”, Heinemann continues.

- The first lever requires suppliers to reduce their scope 1 and scope 2 emissions. Many of Covestro’s raw material suppliers have already defined their

own scope 1 and scope 2 targets, which in turn can count towards Covestro’s scope 3 targets. Covestro is continuing its discussions with its suppliers on this issue, for example during a scope 3 supplier event the company will hold on March 4, 2024. Additionally, the company recently executed a long-term supplier agreement for chemically recycled raw materials with Encina. The January 2024 agreement covers the supply of raw materials produced from end-of-life plastics, which reduce Covestro’s scope 3 emissions. Other important short-term changes include, for instance, electrification, improving efficiency, and carbon capture and storage (CCS) in supplier production processes.

- The second lever is the profitable sale of products made from alternative raw materials. Covestro already has circular solutions in its product portfolio under the CQ (circular intelligence) label. CQ products are made of at least 25 percent alternative, non fossil-based raw materials.

- Covestro’s third lever to reduce scope 3 emissions are its MAKE projects. These are investment projects in which Covestro manufactures alternative raw materials with a smaller carbon footprint. These projects include, for instance, manufacturing bio-based aniline or using proprietary recycling technologies to make it possible to use recycled raw materials. Another example of a MAKE project is Covestro’s Evocycle CQ technology, which is used to recycle mattresses.

- The fourth lever encompasses a large number of different factors that help to reduce scope 3 emissions. These include, for instance, increasing recycling rates to reduce emissions from waste incineration, and changes to logistics and primary energy extraction. In addition, Covestro will accelerate innovation processes through digital research and development and artificial intelligence.

Climate neutrality can only succeed through close cooperation along the entire supply chain. Covestro’s scope 3 climate neutrality targets are an impor-



tant part of this and will be implemented alongside customers and suppliers.

Transformation consistently advanced in challenging fiscal year

Covestro's business performance in fiscal year 2023 was significantly affected by what was once again a challenging economic environment. While geopolitical crises had a lasting negative impact on global demand and selling prices, energy and raw material costs, especially in Europe, remained well above the historical average.

The lower than average selling prices and decreased sales volumes, resulting from weak global demand, led to a decline in Group sales. Compared to the previous year, 2023 saw a decrease in sales by EUR 3.6 billion (–20%) to EUR 14.4 billion (previous year: EUR 18 billion). EBITDA fell by EUR 537 million (–33.2%) to EUR 1.1 billion (previous year: EUR 1.6 billion). Although net income in fiscal year 2023 remained negative at EUR –198 million, it nevertheless improved slightly compared to the previous year (EUR –272 million). In addition, thanks to consistent working capital management, Covestro again generated a positive free operating cash flow



(FOCF) of EUR 232 million (previous year: EUR 138 million). ROCE above WACC was –6.1 percentage points (previous year: –5 percentage points). Greenhouse gas emissions for Scope 1 and 2 rose slightly to 4.9 million metric tons of CO₂ equivalents (previous year: 4.7 million metric tons). This is among others due to a more emission-intensive energy mix for purchased power and steam in the United States and Germany last year.

“2023 was one of the most difficult years for the chemical industry in recent decades with ongoing geopolitical tensions, an ailing global economy and high energy prices, especially in Europe. In addition, there are a number of structural problems, especially in Germany. The overall weak demand for our core industries is reflected accordingly in our earnings,” says Dr. Markus Steilemann, Chief Executive Officer of Covestro. “That is why we have been even more resolute in driving the implementation of our strategy “Sustainable Future” in the past year. For this, we are relying on four key levers: We are permanently getting more out of our facilities, we are boosting sales volumes and optimizing ca-



capacity utilization, we are focusing on high-margin demand and, last but not least, we will continue to be cost-conscious. In doing so, we continue to put all our energy into Covestro's transformation in 2024.”

With a negative net income in 2023, the Covestro Board of Management made the decision not to distribute any dividend for the fiscal year 2023. This decision was made in keeping with the Group's dividend policy, which calls for a payout ratio of between 35% and 55% of net income. Covestro has created a stronger link to the Group's overall business situation.

Foundation for sustainable growth expanded

“2023 was again defined by a weak global economy. As a result, although we closed the fiscal year in line with our estimates, we want to get back on track for growth, particularly with regard to our volumes and EBITDA performance,” says Christian Baier, CFO of Covestro. “To that end, in 2023, as part of our growth strategy, we implemented important principles: We are cutting costs, continuing to invest in the right places, ensuring that our plants have the right capabilities to deliver, and leveraging efficiencies. We are therefore taking the right steps to position ourselves for long-term sustainable growth.” Despite the very challenging environment in 2023, Covestro has continuously worked on optimizing its production processes in the past fiscal year. For example, the company improved the energy

efficiency of its production facilities in Shanghai, China, and Dormagen, Germany. In addition, the Group reduced its fixed costs by a mid three-digit million euro amount in 2023.

At the same time, Covestro invested in the expansion of its sustainable product range and production capacities, which also included commissioning a polycarbonate compounding plant for mechanical recycling at its site in Shanghai, China last year. Covestro will thus be able to supply more than 60,000 metric tons of high-quality polycarbonates made from mechanically recycled materials annually in the Asia-Pacific region by 2026.

Outlook 2024: EBITDA between EUR 1.0 billion and EUR 1.6 billion anticipated

Covestro expects economic conditions to remain challenging in 2024. The company will therefore pay special attention to leveraging its own potential in 2024 to achieve even greater efficiency. Against this backdrop, the Group expects EBITDA of between EUR 1.0 billion and EUR 1.6 billion for fiscal year 2024. Covestro anticipates FOCF of between EUR 0 and EUR 300 million and ROCE above WACC of between –7 percentage points and –2 percentage points. The Group's greenhouse gas emissions measured as CO₂ equivalents are expected to be between 4.4 million metric tons and 5.0 million metric tons. The Group anticipates that EBITDA for the first quarter of 2024 will be between EUR 180 million to EUR 280 million.

About Covestro

Covestro is one of the world's leading manufacturers of high-quality polymer materials and their components. With its innovative products, processes and methods, the company helps enhance sustainability and the quality of life in many areas. Covestro supplies customers around the world in key industries such as mobility, building and living, as well as the electrical and electronics sector. In addition, polymers from Covestro are also used in sectors such as sports and leisure, telecommunications and health, as well as in the chemical industry itself.

The company is committed to becoming fully circular. In addition, Covestro aims to achieve climate neutrality for its Scope 1 and Scope 2 emissions by 2035, and the Group's Scope 3 emissions are also set to be climate neutral by 2050. Covestro generated sales of EUR 14.4 billion in fiscal 2023. At the end of 2023, the company had 48 production sites worldwide and employed approximately 17,500 people (calculated as full-time equivalents).

www.covestro.com

ALPLA: stable business performance with turnover of 4.7 billion euros

Material cost reductions led to moderate decline in 2023

ALPLA CEO Philipp Lehner is the third generation of the family to head the plastic packaging and recycling specialist company.



Pharma and recycling expansion, new markets and products: ALPLA invested in further development and growth in 2023. The global packaging and recycling specialist closed

the financial year with turnover of 4.7 billion euros. Lower material and energy costs paired with exchange rate factors resulted in a moderate drop in turnover. Value added remained stable. While there

was strong growth in Africa, demand was weaker in North and Central America as well as in China. ALPLA is on track to achieve its target of using 25 per cent recycled materials in its products.



ALPLA is on track to achieve its target of using 25 per cent recycled materials in its products.

The ALPLA Group invested globally in new production plants, recycling facilities, technologies and strategic acquisitions in 2023. As such, the company continued its further development and laid the foundations for the future. Annual turnover fell by around eight per cent year-on-year, from 5.1 billion euros in the previous year to 4.7 billion euros. This moderate decline above all reflects the industry-wide normalisation of material costs and corrects the high level seen in 2022. At the same time, exchange rate factors took effect. While ALPLA expanded in the growth markets Africa and Asia, demand stagnated in North and Central America as well as in China. In Europe, the company increased its presence in the pharma, recycling and industrial sectors.

'The year of high costs was followed in 2023 by a year of mixed demand and fluctuation industry-wide. We nevertheless generated stable value added, invested extensively, developed innovative products and built up our capacities, thereby laying the foundations for long-term growth,' emphasises CEO Philipp Lehner. ALPLA produces safe, affordable and sustainable packaging solutions in 47 countries. The company had a staff headcount of 23,300 in 2023. The number of sites increased from 190 to 196 due to new builds, extensions and acquisitions.

Expansion and focus on pharma

ALPLA tapped new markets in Africa and increased its presence on this continent with new builds and capacity expansions. The company entered Moroc-

co and began with the construction of a state-of-the-art recycling facility in South Africa in 2023. In addition to the AMET region (Africa, Middle East & Turkey), Asia and North America are further growth markets. ALPLA plans to focus on investments in these regions as well as in the areas of injection moulding and recycling.

The development and production of pharmaceutical packaging via the ALPLApharma brand was intensified in 2023 on the basis of the joint venture with Inden Pharma and capacity expansions in Europe. This line of business is to grow further this year too. Large-volume containers for industrial applications have been being sold via the new ALPLAindustrial brand since 2023. With its entry into the pump market, ALPLA expanded its portfolio as a system provider last year. As the new majority shareholder of the Danish company Paboco, the packaging specialist is also expediting the roll-out of fully recyclable paper bottles.

Sights set on recycling target

ALPLA is on track in the area of recycling in spite of a slight drop in demand in 2023: at least 25 per cent recycled material is to be used in its packaging by 2025. This figure is currently at around 20 per cent. To cover its resource needs, ALPLA is focusing on high-quality recycled PET and HDPE produced in-house. More than 50 million euros are invested annually in new facilities, production lines and technologies. The installed and projected output capacity was increased to 350,000 tonnes in 2023 – already twice as much as in 2021.

About the ALPLA Group

ALPLA is one of the world's leading companies in the manufacture and recycling of plastic packaging. Around 23,300 employees worldwide produce custom-made packaging systems, bottles, caps and moulded parts at 196 sites across 47 countries. The high-quality packaging is used in a wide range of areas, including for food and drinks, cosmetics and care products, household cleaning products, detergents and cleaning agents, pharmaceutical products, engine oils and lubricants.

ALPLA operates recycling plants for PET and HDPE in Austria, Germany, Poland, Mexico, Italy, Spain, Romania and Thailand. Other projects are being realised elsewhere around the world.

www.alpla.com

The packaging and recycling specialist ALPLA made global investments in further development and growth in 2023.



W. MÜLLER: improving productivity with service

W. MÜLLER produces technology in extrusion blow molding: products are all made in Germany and are up to date with the latest requirements for plastics processing. The company introduces a new service initiative



offer customers expert technical and emergency support as needed.

Refurbishments

Refurbished equipment offers improved performance, efficiency and energy savings.

Retrofits

W. MÜLLER also offers a retrofit service that will transform existing machinery from mono to multi-layer application ready.

www.mueller-ebm.com

As part of their newest service initiatives, W. MÜLLER is proudly introducing comprehensive options that include: Spare Part Packages, Maintenance Contracts, Refurbishments, Retrofits and Lab Services. These service initiatives help support the blow molding industry further and pave the way for more accessible applications and solutions.

benefit from less unscheduled downtime.

Maintenance Contracts

Maintenance contracts provide customers with a choice between planned downtime vs. unplanned. In response to the perpetual labor issues facing many clients, these contracts help fill that gap. The maintenance contracts make budgeting easier and



Spare Part Packages

Spare part packages offer blow molding customers independence on long lead times and an opportunity to stay ahead of the supply chain issues and



JEC WORLD

2024

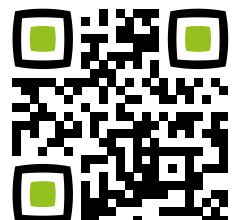
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WITTMANN establishes subsidiary in Vietnam

With the foundation of its own sales and service subsidiary in Vietnam, the WITTMANN Group, headquartered in Austria, strengthens its market presence in Southeast Asia.



Giang An Le has taken over the management of WITTMANN Vietnam Co., Ltd.

“Vietnam is growing rapidly more and more significant as a production location for the injection molding industry”, emphasizes Michael Wittmann, owner and CEO of the WITTMANN Group. “We are now responding to this trend by establishing WITTMANN Vietnam Co., Ltd in Ho Chi Minh City. This will enable us to serve our local customers there even more effectively and to provide flexible support for the development of new production facilities. With this action, we are further strengthening our customer base in Southeast Asia.”

The plastics industry in Vietnam has already shown continuous dynamic growth in recent years. WITTMANN is now further developing its already significant customer base in that area. Since 2015, the company has been present in Vietnam with a local agency, and its cooperation with TAO BANGKOK (VIETNAM) Co. LTD will be continued. In this way, WITTMANN will provide optimal continuity and security for its customers in the region.

Giang An Le is the General Manager of the new subsidiary. He will now further expand the company's sales and service network in Vietnam. The graduate electrical engineer contributes 20 years of experience in international production and mechanical engineering companies, mainly in the plastics industry. As a German citizen with Vietnamese roots, Giang An Le is at home in both the European and Asian cultures.

Innovative technologies and application technology counselling in demand

Ho Chi Minh City is situated in southern Vietnam and thus in an important center of the plastics industry. The corporate headquarters of the new subsidiary are located in the Tan Binh District, in the immediate vicinity of the international airport. This makes WITTMANN in Vietnam also very easy to reach for international customers.

With its new subsidiary in Ho Chi Minh City, WITTMANN is located right in the middle of Vietnam's vibrant plastics processing region.



Numerous global players are building up new production sites in Vietnam, including many companies already using injection molding machines, robots and auxiliary equipment from the WITTMANN Group in other countries.

“With our great complete solution expertise and the ability to supply entire production cells from a single source, we are in a position to provide excellent support to these companies as well as to local plastics processors”, says Wittmann. “The require-

ments for higher efficiency and quality standards are continually rising in Southeast Asia. Accordingly, innovative processing technologies, automation solutions and application technology counselling are in high demand.”

Presence strengthened across Southeast Asia

With a total of nine subsidiaries and additional agencies, WITTMANN shows a very strong presence throughout all of Asia and ensures short distances to its customers in all industrial centers. In China, WITTMANN operates its own production plant for robots and auxiliary equipment thus shortening delivery times for its Asian customers and simplifying logistics.

Simultaneously with the foundation of WITTMANN Vietnam, the Group has also strengthened its presence in the Philippines. There, AustroPlast based in Noveleta near Manila has been engaged as the new sales partner for the entire WITTMANN product portfolio. AustroPlast has more than 20 years of experience in the Philippine plastics processing industry.

www.wittmann-group.com

The WITTMANN Group

The WITTMANN Group is a globally leading manufacturer of injection molding machines, robots and auxiliary equipment for processing a great variety of plasticizable materials – both plastic and non-plastic. The group of companies has its headquarters in Vienna, Austria and consists of two main divisions: WITTMANN BATTENFELD and WITTMANN. Following the principles of environmental protection, conservation of resources and circular economy, the WITTMANN Group engages in state-of-the-art process technology for maximum energy efficiency in injection molding, and in processing standard materials and materials with a high content of recyclates and renewable raw materials. The products of the WITTMANN Group are designed for horizontal and vertical integration into a Smart Factory and can be interlinked to form an intelligent production cell.

The companies of the group jointly operate ten production plants in six countries, and the additional sales companies at their 37 different locations are present in all major industrial markets around the world.

Krall Kunststoff-Recycling Strengthens Presence in Europe

Krall Kunststoff-Recycling now disposes the rejects collected at Sunclear in France as well as plastic, aluminium and composite offcuts.

Krall Kunststoff-Recycling GmbH

Krall Kunststoff-Recycling GmbH is a family-run company founded at the beginning of 1992 in Elsenfeld am Main, which accepts plastic waste and then separates and grinds it to return it to the material cycle. The focus is on transparent plastics such as polycarbonate and PMMA. Other key areas are technical plastics and the recycling of CDs. The company, which consistently relies on solar power, is currently spread over six halls with a usable area of 12,000 square meters. With around 40 employees, two shredders and 10 granulators, the company achieves an annual throughput of around 8,000 tons of plastic.

<https://kunststoff-recycling.de>

SUNCLEAR

is a French leader in the distribution of plastic sheets, aluminium sheets and composite materials. Integrated into the French industrial group ARAMIS since 2015, SUNCLEAR currently generates a turnover of more than 300 million euros in France, Spain, and Italy with almost 520 employees. Typical user areas include façade and roof projects for construction and renovation work, graphic design and signage, as well as industrial sectors such as thermoformers and boiler manufacturers.

www.sunclear.fr



and PVC, as well as engineering plastics and composites with aluminium. Krall processes the plastics into single-origin regrind, which can then be used

as a direct substitute for virgin material in many applications as part of the recycling loop, saving considerable amounts of CO2 in the process.

Louis Krall, authorized signatory: "Sunclear attaches great importance to the integration of recycled raw materials and the search for environmentally friendly processes. Our modern technology of pure separation and processing using a high proportion of solar energy fits in perfectly with these objectives. For us, this partnership means a considerable strengthening of our presence in France. Discussions with their Italian subsidiary and with Sunclear's customers suggest that we will continue to expand our activities in Europe. We are thus underlining our claim to be a top international address for the disposal and reprocessing of recyclable materials that were previously used in architecture, transportation, interior design and advertising, for example."



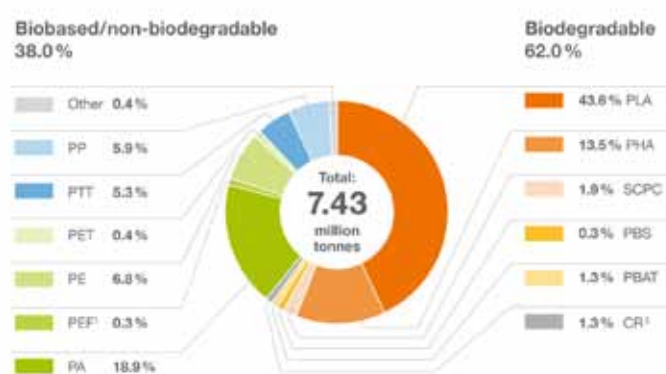
As part of its increased commitment in Europe, Krall Kunststoff-Recycling has signed a disposal contract with distributor Sunclear, a leading supplier of semi-finished products such as sheets, multiwall sheets, corrugated sheets, tubes and profiles made of plastic, aluminium and composites in France. As part of this agreement, Krall is responsible for disposing of the recyclable materials generated during cutting or processing as waste at all 16 French branches of Sunclear and their customers. Krall supplies these collection points with its customized pallet cages, which are then filled and transported back to its own company.

The approximately 250 tons of plastic waste generated by Sunclear each year consist mainly of PC and PMMA, polyolefins (PP and PE), styrenics, PET

European Bioplastics calls for action to accelerate biopolymers industrial growth

European Bioplastics (EUBP) released its Policy Manifesto, calling on the European Union (EU) to develop a comprehensive Biopolymers Industrial Action Plan to accelerate the growth of the bioplastics industry.

Global production capacities of bioplastics 2028



¹ PEF is currently in development and predicted to be available in commercial scale in 2026. ² regenerated cellulose fibre

Source: European Bioplastics, nova-institute

Global production capacities of bioplastics

in 1,000 tonnes



Source: European Bioplastics, nova-institute (2023)

EUBP believes that an actionable EU Bioeconomy Strategy, supporting a strong biopolymers industrial base, should be among the most important elements of the next EU policy cycle. EUBP calls on the future Commission and co-legislators to develop a Biopolymers Industrial Action Plan, prioritising the following 6 key points:

1. Harmonizing regulations: There is a lack of integration of bioeconomy concepts and priorities within the existing EU regulatory framework, despite a high-level political support for the bioeconomy. The EU should harmonize regulations to create a fair level playing field for bioplastics.

2. Incentivizing access to sustainable biomass: The

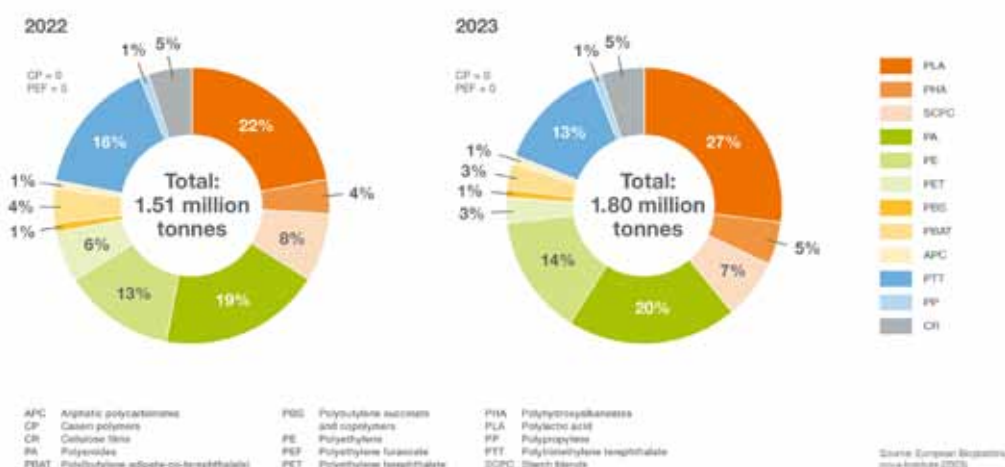
EU needs to strike a balance between bioenergy and biobased sustainable products.

3. Enhancing financial support for technological innovation: Scaling up bioplastics manufacturing processes to meet commercial demands can be technically challenging and will require a favourable financial environment for innovation to be able to grow at scale.

4. Closing infrastructure gaps and incentivising access to food waste collection: Achieving a circular economy for bioplastics requires robust mechanical, chemical, and organic recycling infrastructure, as well as having access to this infrastructure. The EU should invest more in infrastructures for the collection, sorting, and recycling of food waste, to support



Global production of bioplastics



APC: Aliphatic polycarbonates
CP: Cellulose polymers
CR: Cellulose fibre
PA: Polyamides
PBAT: Poly(butylene adipate-co-terephthalate)
PBS: Poly(butylene succinate and copolymers)
PE: Polyethylene
PEF: Poly(ethylene furanate)
PET: Poly(ethylene terephthalate)

PHA: Polylactide
PLA: Polylactic acid
PP: Polypropylene
PTT: Poly(trimethylene terephthalate)
SCPC: Starch blends

Source: European Bioplastics, nova-institute (2023)

the growth of the bioplastics industry.

5. Increasing market uptake: Market incentives are needed in Europe to keep the return on public and private investment from being harvested elsewhere. The EU should set up a fair level playing field for biobased, biodegradable, and compostable plastics.

6. Increasing consumer awareness: Many consumers remain unaware of the actual environmental benefits of biobased or compostable alternatives. The EU should increase consumer awareness of the benefits of bioplastics to help drive the demand.

"Bioplastics have the potential to play a significant role in reducing the environmental impact of plas-

Global production capacities of biodegradable plastics

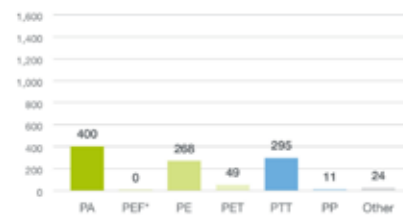


Global production capacities of biobased/non-degradable plastics 2023 vs. 2028

in 1,000 tonnes

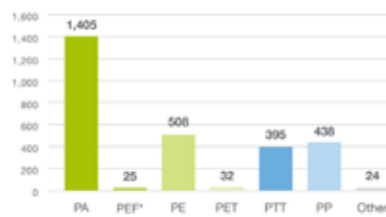
2023

Total: 1.05 million tonnes



2028

Total: 2.83 million tonnes



* PEF is currently in development and predicted to be available in commercial scale in 2024.

Source: European Bioplastics, nova-institute (2023)

tics”, declares Hasso von Pogrell, Managing Director of EUBP. “However, the industry needs a clear and supportive policy framework to reach its full potential.”

The Manifesto is supported by a wide range of stakeholders, including bioplastics producers, converters, and end-users.

“We are calling on the EU to seize this opportunity to create a thriving bioplastics industry that will benefit the environment and the economy,” says Roberto Ferrigno, Head of EU Affairs at EUBP.

EUBP is committed to working with the EU and other stakeholders to develop and implement said Biopolymers Industrial Action Plan.

Results of the 2023 Market Data Report

European Bioplastics unveils the 2023 edition of the market development update during EBC23 taking place in Berlin, Germany. Main findings show that after a period of stagnation, the overall plastic production is picking up again.

The global production for bioplastics is taking off after a few years of stagnation, induced by Covid-19 mainly. This development is driven by rising demand combined with the emergence of more sophisticated applications and products. Global bioplastics production capacity is set to increase significantly from around 2.18 million tonnes in 2023 to approximately 7.43 million tonnes in 2028, report shows.

“The growth in bioplastics production capacity should be understood in the broader global context of a climate crisis, escalating energy costs, and disrupted value chains. Despite these challenges, the capacity for bioplastics production is on the rise, underscoring the resilience and significance of our

industry”, states Hasso von Pogrell, Managing Director of European Bioplastics (EUBP).

Bioplastic alternatives exist for almost every conventional plastic material and corresponding application. Due to a strong development of polymers, such as PLA (polylactid acid), PHA (Polyhydroxyalkanoates), PAs (polyamides) as well as a steady growth of Polypropylene (PP), the production capacities will continue to increase significantly within the next 5 years, according to the data.

Bioplastics are used for an increasing variety of applications, ranging from packaging and consumer products to electronics, automotive, and textiles. Packaging remains still the largest market segment for bioplastics with 43 percent (934 000 tonnes) of the total bioplastics market in 2023.

“While the adoption of the Packaging and Packaging Waste Regulation is still being discussed within

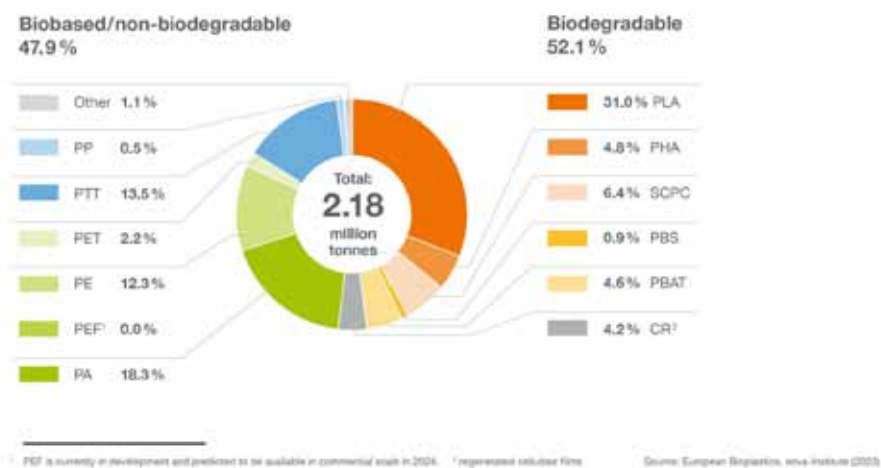
the EU institutions, data shows that bioplastics have a future in the packaging sector, replacing non-recyclable applications and helping phase out of fossil-based options”, von Pogrell explains.

This year, for the first time, the report is including an insight on production data. The comparison between the production capacities and actual production in 2023 shows that the bioplastics industry is producing at nearly full capacity. Although varying from one polymer to another, ranging from 60% to 100%, the average utilization rate in 2023 is 82% (1.79mt production vs. 2.18mt production capacities).

The market data update 2023 has been compiled in cooperation with the market experts of the nova-Institute (Hürth, Germany).

www.european-bioplastics.org

Global production capacities of bioplastics 2023



Environment Ministers failed to acknowledge the value of biobased and compostable plastics' innovation for packaging solutions

European Bioplastics (EUBP) regrets the position adopted by the Environment Ministers in the Environment Council, deeming the failure to recognise the role of bioplastics a missed opportunity.

“Members States appeared today to be split on quite a number of key issues, which will be problematic for the implementation of such a complex regulation, if the consequential shortcomings aren't fixed during the trilogues” declares Roberto Ferrigno, Head of EU Affairs at EUBP. “It is a weak General Approach, barely recognising the value of a very short number of compostable applications and hindering biobased innovative solutions. Disagreement among governments, and derogations on several important measures will result in further fragmentation of the internal market” he adds.

“EUBP supports the European Parliament's proposal for a Regulation on Packaging and Packaging Waste. We call on the Member States and the incoming Belgian Presidency to work in close cooperation with the Parliament, which has been showing clear leadership on the file” concludes Hasso von Pogrell, Managing Director at EUBP.

PFAS-free additives for the plastics industry

Tosaf's new PFAS-free processing aids can be used in a variety of packaging applications in place of conventional products

Tosaf, a globally active manufacturer of additives, compounds, and colour masterbatches for the plastics industry, has developed processing aids for the extrusion of polyolefins that do not contain fluoroelastomers. They can be used without restriction in place of conventional products currently affected by the PFAS debate, are suitable for a wide range of film applications, and they meet the requirements of the FDA and EFSA for use in contact with food. While AP9709PE EU provides enhanced rheological properties, AP9711PE EU is the grade of choice if the focus is on optical properties, including clarity and haze.

In laboratory tests, Tosaf compared the processing properties of a metallocene PE-LLD with those of compounds based on it. One of these contained Tosaf's standard fluoroelastomer-based processing aid (AP5645PE EU), while the comparison materials contained the alternative PFAS-free products. The results for the flow behaviour in the capillary rheometer and for the pressure reduction in the extruder die were largely consistent. The comparison of the optical properties – light transmission, haze

and clarity – even showed slight advantages of the PFAS-free solutions over both the pure PE-LLD and the compound with the previous standard processing aid. The coefficient of friction (COF) showed a negligibly lower value for the film produced with the PFAS-free solution.

Current customer applications include a 5-layer coex-line using 1 % of Tosaf's PFAS-free processing aid AP9709PE EU in the outer layer. Compared to a standard PFAS-based processing aid, this enables a 5°C to 10°C lower melt temperature and shows a significant lower occurrence of melt fracture as well as improved optical properties such as haze. The films can be printed, sealed and laminated without any problems.

As Tosaf's Chief Innovation Scientist Dr Evgeni Zelikman comments: "This and other customer data for single and multilayer film extrusion consistently confirm the results of our extensive laboratory testing. Tosaf has once again demonstrated that its expertise, combined with its state-of-the-art research, development and testing facilities, can deliver solutions that the market is looking for, but which were

previously considered unthinkable. Another particularly important factor for us is the problem-free behaviour of PFAS-free mono-material PE films in recycling. Our application engineers support manufacturers worldwide in optimising their production processes for the use of these alternative solutions."

For over three decades, Tosaf has been developing and manufacturing high quality additives, compounds and Color masterbatches for the plastics industry. With the aim of providing for its customers' every need, it has continuously grown and developed its offering, production capacity, and global reach, becoming a truly close to the market, global organization. Servicing customers in over 50 countries in Europe, North America, South America, Asia and the Middle East, Tosaf has over 1400 employees spread throughout its production sites, warehouses, sales and distribution offices around the world.

www.tosaf.com



Polyimide Coated Magnet Wires: Advantage in >800V EV

Electrical breakdown of high-temperature insulation materials can be prevented by using thermoplastic Polyimide, TPI. This polymer can be extrusion-coated as other polymers, but AURUM, TPI reduces electrical and magnetic losses. AURUM has the highest Tg of any commercially available Thermoplastic, 245°C and its insulation performance especially at temperatures above 150°C beats any other know insulation.



As the automobile sector transitions to electric vehicles, new polymers that offer higher electrical and thermal properties are used. For better system integration, weight-reduction and downsizing in higher-volt systems, for faster charging and longer charging distances, electrical breakdown must be prevented by high-temperature insulation materials. AURUM reduces electrical and magnetic losses with a high comparative tracking index (CTI) > 600 volts.

Thermoplastic Polyimide (TPI) produced by Mitsui Chemicals of Japan, and sold by BIEGLO GmbH is known for excellent thermal stability, high-temperature resistance, and robust electrical insulation properties. TPI coated magnet wires are a suitable choice for high-voltage applications (800V and above). Here are some key characteristics of AURUM® coated magnet wires for high-voltage mobility applications:

- **High-Temperature Resistance:** Capable of withstanding elevated temperatures in general and best-in class performance near welding-spots.
- **Thermal Stability:** Provide thermal stability over a wide temperature range, ensuring the integrity of

the insulation even well above 150°C continuously.

- **Electrical Insulation:** Excellent electrical insulation properties to prevent electrical breakdown and ensure the safety and reliability of the system.
- **Flexibility:** Maintain flexibility even at high temperatures, allowing for ease of winding during the manufacturing process and flexibility in the final application.
- **Chemical Resistance:** Resistant to many chemicals, enhancing the durability of the coating in various cooling environments.
- **High Dielectric Strength:** The high dielectric strength of AURUM® helps in preventing electrical arcing and breakdown.
- **Lightweight:** AURUM® coated magnet wires are lightweight, because even 30% less volume insulates better than other, commonly used materials.

AURUM® is a semicrystalline TPI suitable for powder-coating, injection molding and extrusion coating, with highest-in-class glass transition temperature (Tg = 245°C). Extrusion processing AURUM® for wire insulation is highly economical, allows extremely thin layers (30-40% thinner than PEEK), and has better elasticity and good compatibility with

cooling-/ lubricating oils. Thermosetting polyimides have been known for many years in electronic insulation, but thermoplastic PI offers new ways of mass-producing Polyimide insulation for the automotive industry.

Extrusion-coated magnet wires and powder-coated busbars have been studied: performance parameters, including adhesion to Copper & Aluminum, temperature resistance, flexibility, and dielectric values, have all been evaluated and contrasted with PAI-enamels, PEEK-coating, and other insulation materials.

BIEGLO Group endeavours to offer their range of special HPP products to its global customers by running generic web-shops as www.PEEK-shop.com, www.POLYIMIDE-shop.com, www.PAI-shop.de and www.PBI-shop.de.

BARplast LLC is a subsidiary of the BIEGLO Group and located in Texas. BARplast sells POLYIMIDE like Aurum™ TPI, various thermosetting PI-s like PLAVIS, PEEK and R-PEEK. www.BARplast.com

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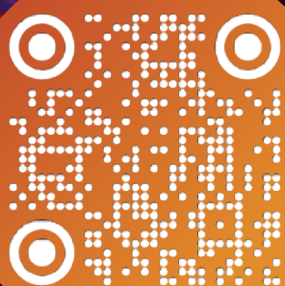
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OMV Technologies celebrates sale of RM77 Thermoforming Machine to Goplas in Mexico City

OMV Technologies USA, LLC, player in thermoforming and extrusion technologies, proudly announces the sale of its state-of-the-art RM77 thermoforming machine to Goplas, a prominent thermoforming manufacturer based in Mexico City. This significant transaction marks a milestone in the partnership between two esteemed companies with a shared commitment to excellence and innovation in the packaging industry.

The OMV RM77 thermoforming machine stands as a testament to cutting-edge engineering and manufacturing prowess. Boasting robust construction and advanced features, including inline rim rolling technology, fully automatic in-mold trimming, and a revolving mold, the RM77 offers unparalleled production capabilities, with the ability to produce over 174,000 water cups per hour. OMV's dedication to pushing the boundaries of thermoforming technology has solidified its reputation as an innovation leader in the industry, with over six decades of experience in delivering high-quality solutions to its customers worldwide.

"We are thrilled to announce the sale of our RM77

thermoforming machine to Goplas," said Brooke Maltun, President at OMV. "This transaction not only underscores the exceptional performance and reliability of our equipment but also represents a strong partnership between two family-owned companies dedicated to delivering excellence to their customers."

Goplas, a market leader in Mexico, as well as across the Americas, has selected the OMV RM77 machine to enhance its production capabilities and meet the growing demand for packaging solutions in the region. With a shared emphasis on quality and customer satisfaction, the collaboration between OMV and Goplas is poised to drive progress and success in the food packaging sector.



"We are excited to integrate the OMV RM77 thermoforming machine into our operations," said Jesus Ordorica, General Director at Goplas. "This investment aligns with our commitment to delivering superior products and services to our customers while maintaining our position as a leader in the industry."

The sale of the OMV RM77 thermoformer to Goplas represents a significant achievement for both companies and reinforces their shared values of excellence, research & development, and customer focus. As they embark on this renewed chapter of collaboration, OMV and Goplas are well positioned to continue delivering cutting-edge solutions that redefine the standards of the packaging industry.



About OMV Technologies

OMV Technologies, with headquarters in West Palm Beach, Florida, is a distinguished leader in the thermoforming and extrusion industries. As part of the OMV Group, which also includes OMV Machinery srl based in Verona, Italy, the company benefits from a global network of expertise and resources.

OMV Technologies specializes in providing cutting-edge thermoforming solutions with a focus on innovation, reliability, and customer satisfaction. OMV Technologies has established itself as a trusted partner for businesses seeking high-performance packaging solutions.

www.omvtechnologies.com

New Coperion Test Center for optimizing plastics recycling

Coperion Recycling Innovation Center is Up and Running



Coperion has successfully launched operation of its new Recycling Innovation Center. In this high-tech test center for plastics recycling applications, every recycling process step – from material handling and feeding to extrusion, compounding, pelletizing, material postprocessing and deodorization – can be tested. Extensively equipped recycling systems are available that can be modified in myriad ways, depending upon the specific requirements of the recycle to be produced.

Coperion's new Recycling Innovation Center is the perfect complement to the Herbold Meckesheim Test Center, where customers can simulate and test the mechanical pretreatment of plastic, allowing customers to experience first-hand the significant reduction in organic impurities by using Herbold Meckesheim's hot washing system, as an example. Herbold Meckesheim has been part of Coperion's Recycling Business Unit since 2022.

Recycling Machinery on the Cutting Edge of Technology

The Recycling Innovation Center is located in Niederbiegen near Weingarten, Germany, directly adjacent to Coperion's existing Test Center for Bulk Solids Handling. Along with proprietary research and development projects, first tests have been

performed for customers, in which new, sustainable products and recycling processes have been developed and tested. Coperion process engineers can modify the available recycling technologies such that the recomponds are manufactured with the highest efficiency possible while maintaining a consistently high level of product quality. The re-

sults achieved can then be effortlessly scaled up to production level thanks to the constant base parameters of all Coperion technologies.

Every new technological development from Coperion that optimizes plastics recycling has been integrated into the Recycling Innovation Center's machinery and can be tested there. For example, in



the area of material conveying, the energy-efficient FLUIDLIFT ecodry® flash drying process is available – moisture remaining in recycling grinds following the washing process is reduced during material transportation. Moreover, the MIX-A-LOT bulk solid mixer, which can create premixes including flakes or powders, and the innovative buffer hopper solution using the ARW discharge agitator as well as the Smart Weigh Belt (SWB) feeder are integrated in the system. Coperion has also installed the ZS-B MEGAfeed side feeder, especially for extruding and compounding plastic recyclates with bulk densities starting as low as 20 kg/m³ at high throughputs. With its innovative design, the ZS-B MEGAfeed handles flakes and fibers such that they can be fed into a ZSK twin screw extruder in large quantities without energy-intensive compacting.

“The new Recycling Innovation Center shows how important it is for us to advance technology that helps our customers work towards more sustainability solutions and a functioning circular economy. The Recycling Innovation Center offers the ideal environment, both for our own research and development projects as well as for our customers, to master the challenges of plastics recycling”, said Frank Lechner, General Manager of Process Technology and Research & Development at Coperion. “With this new Recycling Innovation Center, we’re in a position where we can simulate the entire plastics recycling process. Our customers can test the complete process, from mechanical pretreatment of plastics in Herbold Meckesheim’s Test Center up to compounding and pelletizing, prior to making the investment. As a supplier of entire recycling systems, we are very proud to be able to offer our customers this enormous added value”, said Massimo Serapioni, General Manager of Coperion’s Recycling Business Unit.

www.coperion.com

About Coperion

Coperion (www.coperion.com) is a global industry and technology leader in compounding and extrusion systems, sorting, size reduction and washing systems, feeding systems, bulk material handling and services. Coperion develops, produces, and services plants, machinery, and components for the plastics and plastics recycling industry as well as the chemical, batteries, food, pharmaceutical and minerals industries. Coperion employs more than 5,000 people in its three divisions, Polymer, Food, Health & Nutrition, and Aftermarket Sales & Service, and in its over 50 sales and service companies worldwide. Coperion is an Operating Company of Hillenbrand (NYSE: HI), a global industrial company that provides highly-engineered, mission-critical processing equipment and solutions to customers serving a wide variety of industries around the world.

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Injection molding machine with 8800 t

Innovative power giant from Haitian helps to support the water supply in Europe: with a clamping force of 88,000 kN and an injection volume of 134,000 cm³, the servo-hydraulic two-platen machine Haitian Jupiter Series sets a new industry standard - a milestone in the development of giga injection molding machines.

The French company Belli SAS placed the order to manufacture this unusual large-scale machine. Haitian then put together a team of experts from various specialist areas to realize the project in close cooperation. At the end of October 2023, the JU88000 was successfully accepted by the customer at the Haitian Tongtu Road Division in Ningbo/China.

JU88000, probably the largest injection molding machine in the world

- Footprint of the giant: 27.2 x 9.5 x 6.1 m
- Clamping platen: 5560 x 4920 x 1990 mm; weight: 138 t
- Injection unit: 13498 x 2514 x 2665 mm; weight: 85 t
- Machine bed weight of the clamping unit: 40 t
- Machine bed weight of the injection unit: 19 t

Customer Belli SAS develops and produces a wide range of plastic articles for home & garden, leisure and the environment. A few years ago, the customer had a two-platen machine with a clamping force of 33,000 kN built by Haitian. Managing Director Eric Chanal when asked what prompted him to order what is probably the largest and most powerful injection molding machine in the world: "I wanted to have no limits on the injection volume and told myself I would take the largest machine in the world so that I could produce very, very large parts." The aim is to provide extremely large plastic containers as water tanks and rainwater storage tanks to support the water supply in Europe's regions with little rainfall.

Haitian has taken on an unprecedented challenge with the development and construction of this machine and has mastered it with combined forces. Even during the design phase, the European team, led by Philippe Porret, Technical Director at Haitian

International Germany, managed to exceed customer requirements. Among other things, they were able to significantly minimize the footprint and optimize the injection rate, enabling the machine's performance to reach top international standards. After extensive testing, the JU88000 received CE certification in September 2023. The commitment of the entire Haitian team to research, detail work and quality improvement played a crucial role in this significant push into new dimensions.

Haitian Smart mechanical arm VD-150ID

In parallel to the machine, Haitian Smart Solutions integrated the customized robot of the in-house brand "Hilectro", type VD-150ID. It is also likely to set new standards in terms of size and performance. Eric Chanal, the owner of Belli, personally traveled to Ningbo to inspect the machine and approve it during a formal acceptance ceremony. He was visibly impressed by his new giant: "Right from the





start, Haitian was able to realize all my projects as I had expected. Nevertheless, one of my dreams has come true. Haitian really made it possible, and when I see Jupiter in front of me now, I still can't believe it."

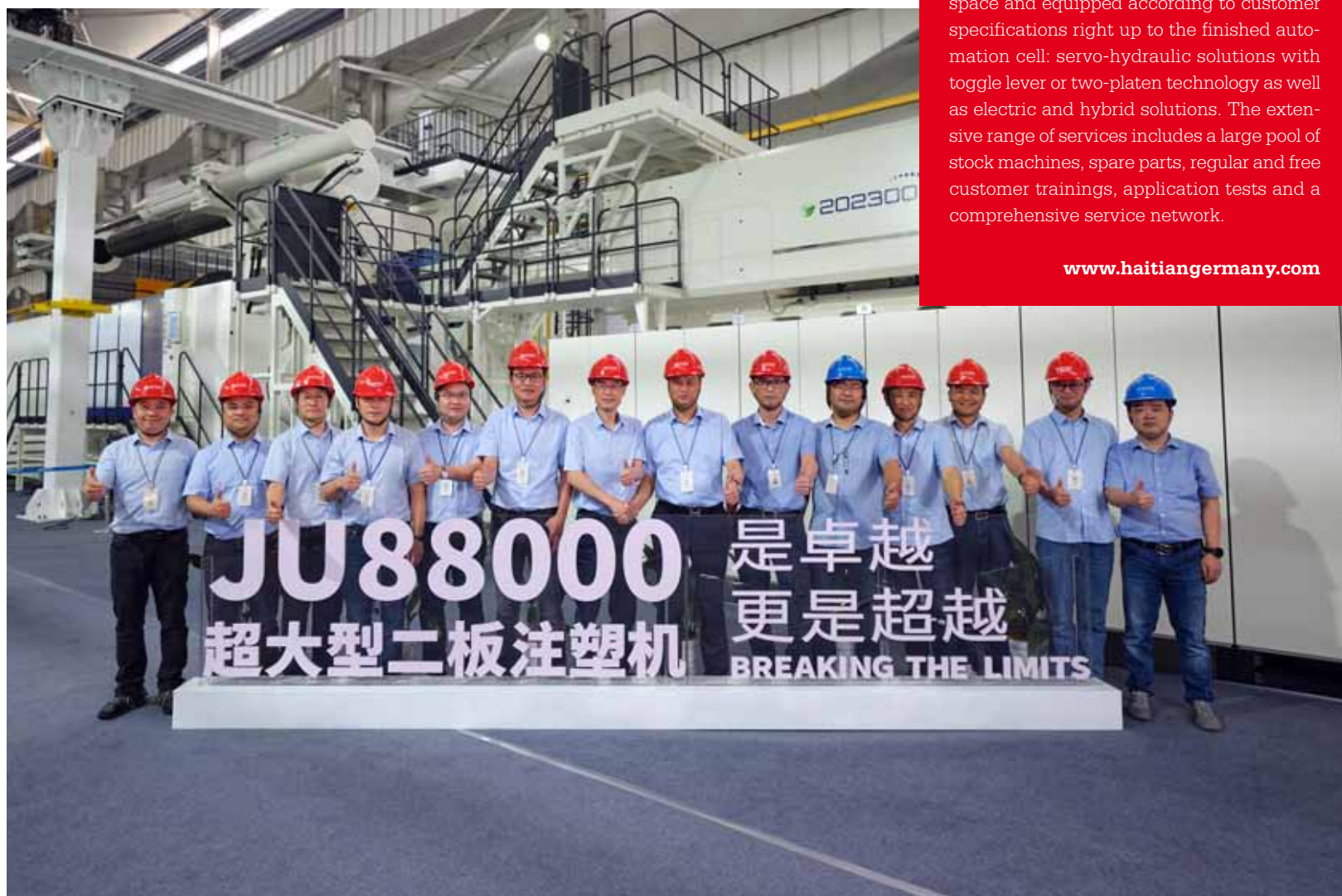
The successful design and production of such a

large injection molding machine and robot underlines Haitian International's know-how and manufacturing power as a manufacturer. It also illustrates the enormous potential of the entire Haitian Group to single-mindedly break new ground and set new standards.

About Haitian International Germany

Haitian International Germany is a subsidiary of Haitian International Holding, one of the leading companies in the development and manufacturing of injection molding machines. Based in Ebermannsdorf, Bavaria, Germany, nearly 100 employees, plus another 70 employees in German agencies and over 200 sales and service technicians throughout Europe, guarantee reliable and fast order processing. In line with the principle of "technology to the point", Haitian and Zhafir machines from 400 to 33,000 kN are assembled on 12,000 square meters of production space and equipped according to customer specifications right up to the finished automation cell: servo-hydraulic solutions with toggle lever or two-platen technology as well as electric and hybrid solutions. The extensive range of services includes a large pool of stock machines, spare parts, regular and free customer trainings, application tests and a comprehensive service network.

www.haitiangermany.com



Bausano: new analysis tools and doubling the space dedicated to testing

Bausano is strengthening its R&D department and reinventing the concept of innovation with the introduction of new analysis tools and doubling the space dedicated to testing. To this end, Bausano provides a wide range of services through which customers can experience the company's quality in the design of their systems

Thanks to the dedicated test and experimentation laboratory, in fact, Bausano offers an exclusive working method, which starts from the customer's specific formulation to elaborate structured analyses, aimed at making each extrusion line completely tailor-made. Indeed, before designing a system, analyses are carried out at Bausano using the capillary rheometer, which studies the behaviour of the material when it flows and deforms, in order to understand its viscosity as a function of the shear rate gradient. With rheological material characterisation, Bausano is able to:

- 1) define the type of materials that can be extruded on an existing plant;
- 2) optimise head design;
- 3) fine-tuning the design of the screws.

At the same time, the information collected is processed using a plastograph. Here, the customer's starting materials are fed into the chamber, where they are heated and undergo shear stresses between two counter-rotating rotors. During machining, the torque applied to the rotating screws is measured, which provides information on the viscosity of the molten material and thus on any changes produced by machining on the system (gelation, branching, degradation).

The result of these analyses, a fundamental and distinctive preliminary step in Bausano's know-how, is compared with data processed by software dedi-





Bausano

Founded in 1946, Bausano is a leading international player specialising in designing and manufacturing custom extrusion lines for processing plastics. Quality, flexibility, and attentiveness to the individual needs of every customer: these are the company's distinctive features in developing tailor-made solutions for the extrusion of pipes, granules, profiles, and WPC for a wide variety of applications, as well as materials used in the medical sector. Bausano is a strategic partner in both the domestic and international markets thanks to its complete control of the value chain and the support of highly qualified pre-sales consultancy and after-sales service with specialised operators, ready to intervene on-site within 24 hours from the request, anywhere in the world. Headquartered near Turin, the Company has 100 employees, an ever-increasing turnover of more than 20 million euros and a widespread presence thanks to production units in Brazil and India and a commercial branch in the United States.

www.bausano.com

cated to fluid-dynamic analysis. This pre-design phase allows the development of new extrusion heads, dies and screws to be optimised by predicting exactly how the material will behave during the machining process.

Bausano's work process also differs in that the data returned by the laboratory instrumentation can be tested in advance at its factory. As a matter of fact, the company is expanding its premises and doubling the space dedicated to the test room for its customers. Specifically, Bausano has two counter-rotating twin-screw extruders MD30 and MD75. The first, for small production trials, allows the customer's formulation to be introduced into the machine and the extruded output to be observed before the line is scaled up to industrial level. The second, dedicated to trials on medium-sized plants, is aimed at guaranteeing the productivity targets required by the customer and providing the latter with a sample of material so that it can also be subjected to internal quality controls. Further enhancing the test are two more complete systems, available to Bausano customers. The first, based on an E-GO single-screw extruder for testing PP/PE base blends for the production of single and multilayer pipes, and the second, based on a single-screw extruder from the E-GO R range to test the possibility of regenerating waste materials.

The uniqueness of Bausano's services therefore lies

in being able to test the customer's system twice, firstly at its own site. Prior to setup at the customer's production site, Bausano starts up the line in its own factory, either in the presence of the customer or virtually, to validate the design assumptions and test its performance, operation and noise levels. Bausano technicians are thus able to intervene promptly even before the factory acceptance test (FAT), guaranteeing maximum flexibility for the customer. In this way, Bausano offers a space where customers can refine their R&D, for a concept of innovation that goes beyond technological progress and also embraces the value-added services sector. "The priority for Bausano is customer satisfaction. This is why our distinctive feature lies both in the exclusive range of pre-design services which, starting from the customer's formulation, allows us to tailor-make the best extrusion line, and in the possibility of verifying the design itself with double testing," says Giovanni Bausano, R&D Manager, who concludes, "In addition to this, there are the after-sales services, which include an extremely well-stocked warehouse of accessories and original spare parts, and a specialised, timely assistance, both onsite and remote, for an all-round support capable of reducing machine downtime and guaranteeing continuity in the production department. A combination that positions us as a reliable partner along the entire value chain'.

“Evorec Rubber Plus”: a two-steps devulcanization process

Maris has designed and patented a new two-step devulcanization process to produce devulcanized rubber with very high-quality standards

By “devulcanization” we mean a process of selective breaking of the S-S and C-S bonds of the elastomer which causes only a limited degradation of the polymeric structure (C-C bond).

The first stage involve devulcanization of the rubber by means of a corotating twin-screw extruder. The rubber thus devulcanized will go to feed, by direct connection, the second extruder.

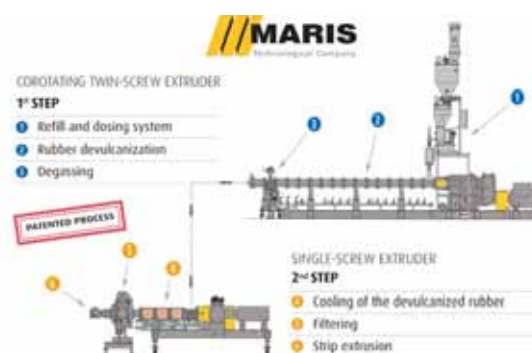
The second stage, given by the combination of a single-screw extruder and a screen-changer, offers the possibility of achieving significant advantages:

- Sudden cooling of the devulcanized rubber: this

operation makes it possible to contain the temperature of the extruded strip while minimizing rubber degradation. The effects are observable both in terms of mechanical properties of the recycled material and in terms of reduced odor gas emissions;

- Rubber filtration: this operation, made possible by the high thrust capacity of the single-screw extruder, allows the devulcanized rubber to be filtered before extrusion, again increasing the mechanical properties and, more generally, the qualities of the recycled material.

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FB Balzanelli: “Pipes are in our DNA”

The Italian company offers a large range of automatic and automatic palletizing systems

In the 1980s, the founder of FB Balzanelli Mr. Vincenzo Balzanelli was a leader in the production of electrical conduits.

Dissatisfied with the lack of automatic coilers available in the market at that time, he felt the urge to design and build his own automatic coilers. They had to be really fast, reliable, and guarantee high-quality packing.

Since 1994 when he built his first automatic coiler, a process of development and growth has been underway at the company's production facility in Fano



(Italy), which has made FB Balzanelli a leader in the automatic and semi-automatic coilers market.

The heart of the company's mission is constant technological research and continuous improvement: which are possible thanks to the over 100 automatic coilers produced and installed every year around the world. FB Balzanelli is able to satisfy new customers' needs and be prepared for a continuously evolving market with innovative solutions. The company has always been the most innovative in its proposals for the automatic coiler





market, such as side-by-side reels, the fully pneumatic strapping unit, or the special haul-off to reduce the pipe ovalization.

Alongside its know-how, it offers excellent customer care service that listens to its customer's production needs. FB Balzanelli was the first company in the sector 15 years ago to introduce an online catalog

for spare parts and remote connection to respond as quickly as possible to any customer request. With FB Balzanelli customers are sure to always find the best solution in terms of both processing efficiency and rapid payback on their investment in the range of coilers offered.

Today, the company is able to offer the largest range

of automatic coilers in the market, automatic palletizing systems, and is able to follow its customers during the entire production project with the best and most appropriate solution.

www.fb-balzanelli.it



100 metric tons of PET recyclate per day

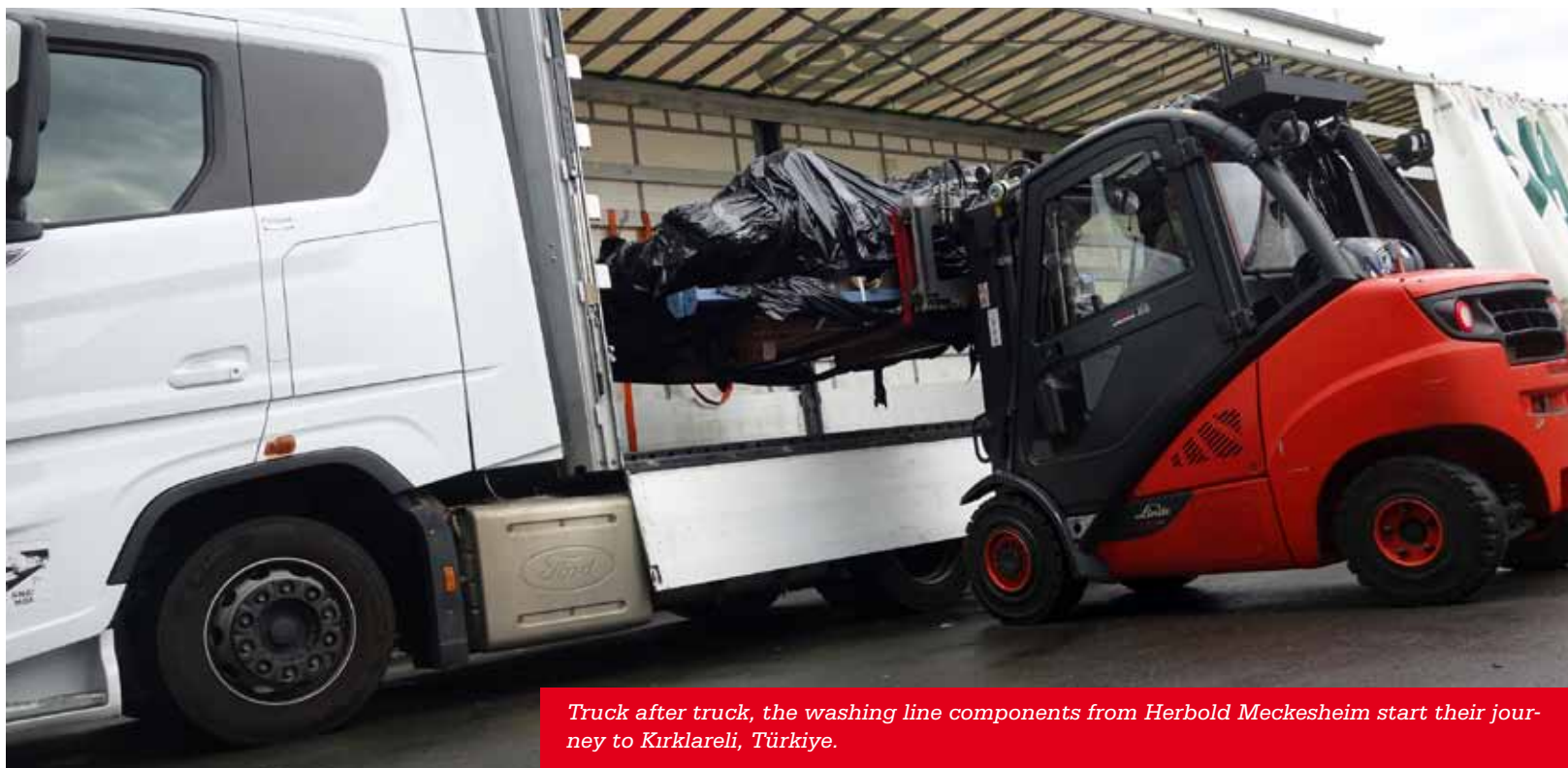
Herbold Meckesheim supplies fifth PET washing line to Türkiye – Doga will produce rPET flakes for bottle-to-bottle applications

The first truck has left the yard. Another 20 will follow. They will deliver the newest washing line from Herbold Meckesheim to Kırklareli, Türkiye, almost 2,100 kilometers away. There, in the European part of Türkiye, the latest recycling plant of the Meckesheim-based special machinery manufacturer is being built for the company Doga. After commissioning, the washing line is expected to produce a daily output of 100 metric tons of PET recyclate. Doga, a company hitherto active in the construction industry, intends to sell the recycled PET flakes for bottle-to-bottle applications. "As the Doga Group, we are proud to add the recycling sector to our activities of fields such as real estate, construction, mining and textiles," explains Ömer Ayvacı, Chairman of the Board of the Doga Group. "In today's world, where the concepts of environmentally friendly production are becoming increasingly important, we aim to start rPET flakes production with completely environmentally friend-

Ömer Ayvacı (right), Chairman of the Board of the Doga Group, and Mustafa Ergin, who represents Herbold and Coperion in the region.



Like the entire PET recycling plant, the hydrocyclone stage for Doga is designed for an output of 100 metric tons per day.



Truck after truck, the washing line components from Herbold Meckesheim start their journey to Kırklareli, Türkiye.

ly solutions with our state-of-the-art machinery park as of the beginning of next year.” Ömer Ayvaci emphasizes: “We are confident that we will meet the needs of the sector with Herbold Meckesheim, a company that has mechanical recycling technology accepted all over the world. With the technical information, support and know-how provided by Herbold Meckesheim, we know that we will realize the highest quality rPET flakes production in the most efficient way.”

The special feature of Herbold’s latest recycling plant is that it also supplies key components for pre-sorting, such as a debaler EWS 45/160 BA or a drum bottle wash unit HWTS 180/750. In terms of space, this section alone accounts for half of the plant lay-

out. The actual cleaning process obeys state-of-the-art technology and starts with two force feeding granulators SMS 80/160-F7-2 SB3, the biggest in the Herbold portfolio. The hot washing and hydrocyclone stages, as well as the subsequent air separators, were designed for the required throughput. And three step dryers of the HVST 150/150 size are installed in the plant to achieve maximum capacity with minimum fines formation. In addition, the recycling line is equipped with an elaborated process water treatment.

Herbold Meckesheim has been part of Coperion’s Recycling Business Unit since last year. Together, the Stuttgart-based machinery and plant manufacturer and Herbold Meckesheim provide com-

prehensive and innovative overall solutions based on the complementary and aligned technologies of both companies. From mechanical processing, from size reduction, washing, separating, drying and agglomeration of plastics, through bulk material handling, feeding and extrusion, to compounding and pelletizing, the business unit covers the entire process and thus value chain. A global network of engineering sites and service locations ensures fast order fulfillment, installation and commissioning as well as competent and fast on-site service. Modern test centers for product development and customer trials round off the portfolio of Coperion’s Recycling Business Unit.

www.herbold.com

About Herbold Meckesheim

Herbold Meckesheim is a leading recycling specialist and produces machines and plants for processing pure plastic waste from the industry as well as used, mixed and contaminated plastics. The modular system solutions for automated recycling lines are tested in the company’s own technical center. More than 260 employees at the headquarters and the staff of the international agencies accompany custom-made plants and machines from the conception stage through commissioning to the end of their commercial use. Since 2022 Herbold Meckesheim is part of the new Recycling Business Unit of Coperion, which offers complete solutions for plastics recycling processing. Coperion is an Operating Company of Hillenbrand, a global industrial company that provides highly-engineered, mission-critical processing equipment and solutions to customers serving a wide variety of industries around the world.

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Coperion

Coperion is a global industry and technology leader in compounding and extrusion systems, sorting, size reduction and washing systems, feeding systems, bulk material handling and services. Coperion develops, produces, and services plants, machinery, and components for the plastics and plastics recycling industry as well as the chemical, batteries, food, pharmaceutical and minerals industries. Coperion employs more than 5,000 people in its three divisions, Polymer, Food, Health & Nutrition, and Aftermarket Sales & Service, and in its over 50 sales and service companies worldwide. Coperion is an Operating Company of Hillenbrand (NYSE: HI), a global industrial company that provides highly-engineered, mission-critical processing equipment and solutions to customers serving a wide variety of industries around the world.

www.coperion.com

Sumitomo (SHI) Demag roadshow puts productivity on the map

Something huge is making its way around Europe over the next four months! Sumitomo (SHI) Demag presents to customers its first ever supersized roadshow truck. A 20 metre long mobile exhibition space containing all of the latest injection moulding technologies and timesavers that promise to put plastic processors on the fastest path to increased productivity and higher operating profits.



Starting at the company's headquarter in Schwaig, Germany on 8 April, 2024, the 40 ton #NextStopProductivity truck will then set off on its European tour. Covering 14 countries in four months, at each of the 25 stopovers local coun-

try experts will present to their customers a fully-operational all-electric IntElect injection moulding machine. Several of the company's latest digital solutions that deliver greater processing transparency and increased machine availability will also

be demonstrated.

Citing customer convenience and sustainability as the rationale for organising this touring exhibition, CEO Gerd Liebig elaborates: "Our inaugural 2024 roadshow means that processors no longer need to commit to travelling to a trade show. Instead, we are bringing processors, managers, maintenance and industry experts all together at central locations in each respective country, with our local teams each hosting customer events, presentations and machine demonstrations. "As well as being less disruptive to businesses, this touring approach reaches more professionals, making it the more convenient travel option for everyone," points out Mr. Liebig.

The unique roadshow event will demonstrate to customers exciting and more profitable ways to optimise production processes. Equipped with a 25mm screw and a 2-cavity tool, processing PP, visitors to the travelling expo will see first-hand the instant IntElect efficiency benefits. HB-Therm provides with the Thermo-6 the appropriate tem-





perature control unit for the application. Users can then explore how to fully utilise features to repeatedly increase cycle times and make even more components at less cost to their business and the environment.

"Optimising productivity and improving TCO are gamechangers for processors, even more so during these challenging times. Being more competitive also requires well-informed, trained personnel. Our live demos will explore a range of operational-enhancing topics. Including minimising machinery downtime, increasing output, identifying the most efficient ways to process recycled and regrind materials, and leveraging the advantages of engaging your teams through training," expands Mr. Liebig. The planned route covers Italy, Spain and France. In May, the tour arrives in Austria, Germany, Hungary, Slovakia, and the Czech Republic. Poland will host four successive events in early June, with the truck then heading to The Netherlands, Belgium, and back through Germany and France. The final four calling points will be in Ireland, Scotland and the UK.

<https://roadshow.sumitomo-shi-demag.eu/roadshow>

Sumitomo (SHI) Demag Plastics Machinery GmbH

Sumitomo (SHI) Demag has shaped the development of the plastics industry from its very beginning. As a specialist for injection moulding machines for plastics processing, Sumitomo (SHI) Demag and its Japanese parent company are leading the industry.

The global development and production network of Sumitomo Heavy Industries and Sumitomo (SHI) Demag is comprised of four facilities in Japan, Germany and China with more than 3,100 employees. The product portfolio includes all-electric, hydraulic and hybrid injection moulding machines with clamping forces of between 500 and 15,000 kN. With more than 163,000 installed machines, Sumitomo (SHI) Demag is present in important global markets and ranks among the largest manufacturers of injection moulding machines in the world.

At Sumitomo's headquarters in Chiba, Japan, the company manufactures machines with clamping forces in the small to medium range. Nearly 95 % of all delivered machines are equipped with an all-electric drive concept. Sumitomo (SHI) Demag's German facilities in Schwaig and Wiehe produce the Systec Servo range with hybrid drive as well as the El-Exis SP and Systec SP range of high-speed, high-performance machines. The all-electric IntElect range for international customers is also being produced in Germany.

As early as 1998, Sumitomo (SHI) Demag set up its first production site in Ningbo/China. In 2015, the Chinese subsidiary Demag Plastics Machinery (Ningbo) Co., Ltd. installed a new facility with a 13,000 m² floor space. It is earmarked for the production of the Systec C range with clamping forces of between 500 and 10,000 kN for the Asian market.

In addition to injection moulding machines, Sumitomo (SHI) Demag offers customised and standardised systems for the part handling automation, technical and process solutions for special applications, tailored services and service concepts as well as a range of financial options to support investment in injection moulding machines.

With its comprehensive sales and service network of subsidiaries and agencies, Sumitomo (SHI) Demag is present in all major markets.



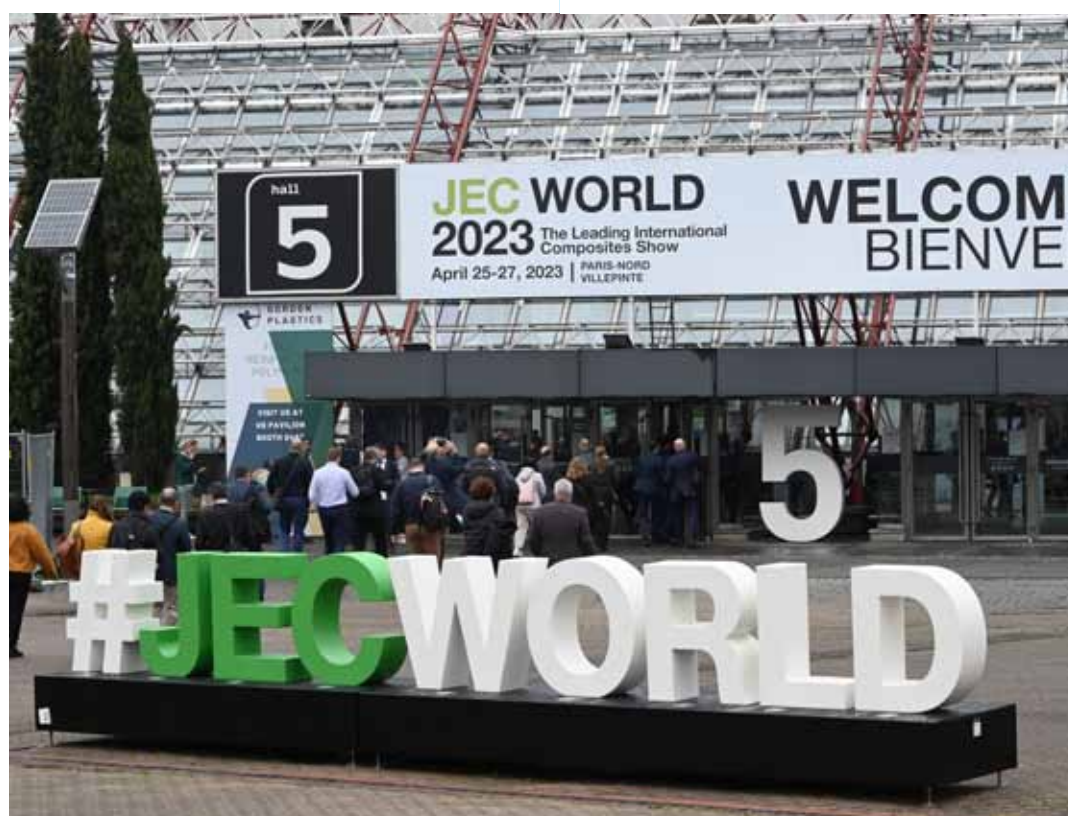
JEC World 2024

JEC World, the leading international trade show dedicated to composite materials, their manufacturing technologies and application markets, will take place in Paris from March 5 to 7 2024. Key players from the four corners of the world return to this event, and with all application sectors seeking sustainable technologies, JEC World is going to be the biggest event ever, welcoming the entire community in a spirit of innovation, business and networking.

JEC World welcomes more than 1,300 exhibitors and expects more than 43,000 professional visits in 2024, from all continents. The whole value chain will then gather in Paris for this "Festival of composites": a source of inspiration for all professionals who wish to tackle sustainability challenges and develop lighter, smarter and more durable composites solutions.

Florent Troubat, President of CHOMARAT Group declares: « JEC World is a key event on our calendar. It is an opportunity to bring together a large part of our sales, technical and purchasing teams from our various global sites, to share moments of work and conviviality with many stakeholders, to meet new people, to initiate new developments, and to grasp the major trends of the composites industry.

The 2024 edition will be an opportunity to share our progress in the deployment of our sustainable development strategy, and to present our solutions to meet this major challenge in our industry. With over 70 years of involvement in the development of composites Chomarats is positioned as a key player in this transformation towards a virtuous industry, providing the most suitable products to meet the challenge of the ecological transition. »



"2024 is a unique year for us at Syensqo (previously part of Solvay Group). JEC World will be the first international event where we will be present and will showcase our new ambitions, building on our heritage and legacy. At the show, we will present new technologies and highlight exciting partnerships supporting the trends of electrification, connectivity, hydrogen propulsion and bio-sourcing with our cutting edge composites and adhesives. We look forward to interacting with the entire industry during what promises to be a fruitful and productive few days," stated Marc Doyle, Executive Vice Presi-



dent Composite Materials, Syensqo.

Harald Wiedemann, Vice President EMEA at Huntsman Advanced Materials, says: "We're pleased to exhibit at JEC World this year, where we'll showcase Huntsman's innovative solutions that support our clients in delivering sustainable, lightweight, and energy-saving materials used in everyday applications. We look forward to connect-



ing with all our stakeholders and being part of one of the industry's most important events of the year." "Here we are again, ready to participate in JEC World, the largest trade exhibition for composite materials and their applications worldwide! Persico Group is a mould engineering Company that

Interview to Nelly Baron, Vice President Marketing and Communication from Jec Composite

JEC Composite is a non-profit organization, it's an old association since for 60 years they have been promoting the composite materials and industry around the world. We had the pleasure to interview in Milan the Vice President of Marketing and Communication Nelly Baron.

What are the pillars of your association?

We have got three main pillars:

First pillar is clearly innovation, paramount to have success in this sector, we always keep an eye on the main advances.

Second pillar are our events, JEC originally stood for Journées Européennes des Composites, just to understand how important this part of business is for us. Initially it was just a series of conferences regarding composite materials. We organize also regional events that works as business meetings and exhibition, we call them forums. Last June we had one in Italy in Bologna, and it's going to be every two years and we have the same type of event also in northern Europe in countries such as Germany, Austria, and Switzerland.

The third and final pillar is the content, we are talking about publication, leading magazines that we distribute in 50 countries around the world. We also have smaller publications as reports about the industry's details and the environmental topic.

Do you think that sustainability is kind of a trend these days?

Definitely, all the companies are linked to this topic,

it's the priority of the moment.

Are you present in some way in Asia? Or at least are you planning on something?

We have some kind of regional meeting; we are going to have a regional meeting in Bangkok in June and in Korea. Other countries such as India and Japan are certainly going to be next targets. And of course, we cannot avoid the centrality of China market.

Encountering some obstacles, for example the pandemic, how the market reacted and what did you think at the time?

Due to Covid crisis, all the industry experienced a slowdown, especially the automotive and aerospace industry had major impact during the pandemic; however, all the companies decided to invest on R&D, choose to pick up the environmental challenges, and diversify in other sectors.

It was very surprising to see companies investing particularly during a crisis of this proportion, it shows how the industry can be very resilient.

Are we talking about a complex sector?

This sector covers a lot of other industries such as sports, electronics, medical, infrastructures, ecc. Automation and artificial intelligence are another example of new sectors that have made great impact in our industry, we will work with European association for an update on where we stand.



What about your show? Your next show?

Last year the show was not the biggest one, but we came close. The biggest remains the one in 2019, so before the pandemic. However last year has been a very good show, there were good vibes, people were happy to finally meet face to face. We didn't reach the attendance rate, just because there were some kind of restrictions still: some companies, especially from China, couldn't have their visa on time. This year is going to be bigger in numbers and sectors, and we can only hope about people participating. We have a huge conference program, in which of course many of our exhibitors are going to talk. The peculiar thing is that this year there are going to be three states that are going to present their country, their market and their strategies, and Italy is one of them. In the several areas present on the show, there are many focuses such as startups or some machines exposed that are going to produce a specific material or product all day long.



provides a wide range of services to various composite industries, including automotive, aerospace, marine, rotomoulding, and many more. During the JEC event, we have the chance to network with key composites players, exchange ideas, and experience innovation for the future. Matching goals and working together to find new solutions: this is the key to a smarter, more tech-savvy world!", stated Claudia Persico, VP & Rotational Director. As Thomas Lepretre, VP Sales & Events at JEC said: "The composites industry is fuelled by the passion and enthusiasm of its stakeholders and this always

seems to come to life at JEC World, providing the best platform possible for professionals, researchers, and industry leaders to network, share ideas, foster collaboration, exchange knowledge. With a significant growth from all sectors of the value chain and from all the geographic areas this edition of JEC World promises to be a great one."

The whole value chain of the composites industry will meet again at JEC World in Paris, preparing major reveals, launches, overall in dynamic and very enthusiastic spirit.

www.jeccomposites.com



PRS Europe welcomes 450 exhibitors to Amsterdam

The Plastics Recycling Show Europe, the global exhibition and conference dedicated to plastics recycling in Europe returns to the RAI Amsterdam, The Netherlands on 19-20 June 2024.



The event dedicated to plastics recycling takes place in four halls for the first time, with a record 450 exhibiting companies and organisations.

Emmanuelle Maire, Head of Unit 'Circular economy, Sustainable Production and Consumption', DG Environment, European Commission is to be the keynote speaker, joining Ton Emans, President of Plastics Recyclers Europe for the conference's opening keynote session examining The way forward for plastic recycling in Europe.

Other prominent speakers from major brands include Mars, Procter & Gamble, IKEA & Colgate Palmolive. Conference sessions will cover the latest political, legislative, market and technological developments in plastics recycling. Key topics will include the future of plastic recycling in Europe, market analysis and forecasts, and in-depth analysis of the EU legislative landscape. In particular, the spotlight will be on the Packaging and Packaging Waste Regulation (PPWR), alongside dedicated sessions on measures to achieve recycled content targets and explore the latest advancements in

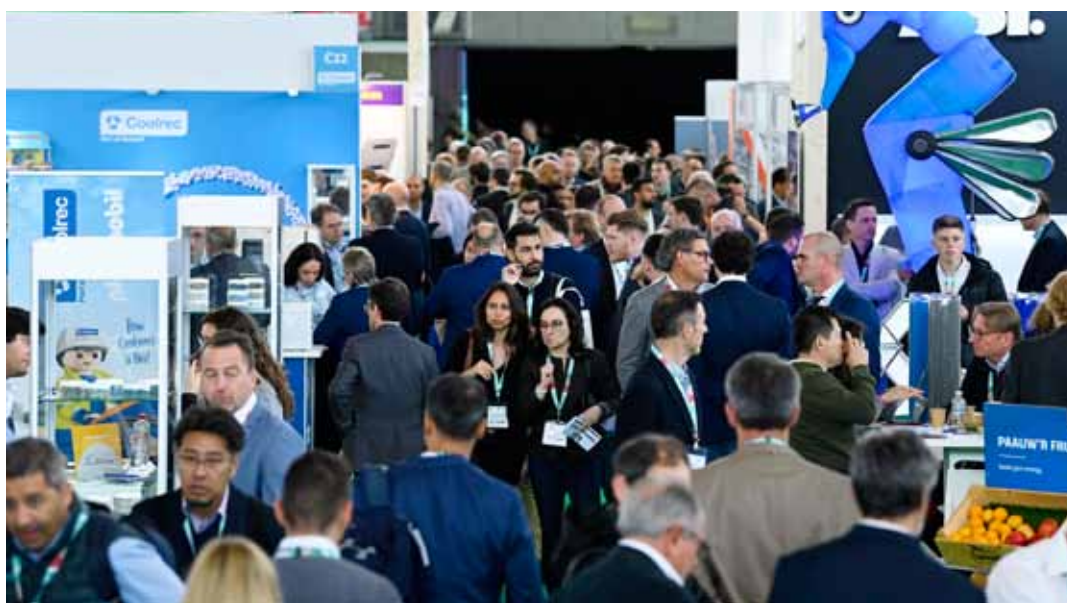
chemical recycling.

In parallel, panel discussions will promote the debate on possible strategies for enhancing and har-

monising collection and sorting, design for recycling, and the latest updates on the advancement of plastics circularity on a global scale.

Dedicated plastic streams focus sessions will tackle the challenges, issues and opportunities in the recycling of PET, PO films, PVC, HDPE, PP and ELV & WEEE.

The winners the Plastics Recycling Awards Europe 2024 will be announced on 20 June. Drawn from across the whole plastics value chain in Europe, all the finalists will be showcased in the exhibition. All of the shortlisted products and projects are made in



Europe and every product contains a minimum of 50% recycled plastics.

Organised jointly by Crain Communications and Plastics Recyclers Europe, the free-to-attend PRS Europe is designed specifically for plastics recycling professionals. It brings together key players from the plastics and recycling sectors to showcase innovative technology, share best practices, network and do business. A broad cross-section of the industry is represented at the event including plastics recycling machinery and equipment suppliers, plastic material suppliers and compounders, pre-processors, mechanical and chemical plastics recyclers, waste management specialists and industry associations. In 2023 PRS Europe attracted more than 8,500 visitors from across Europe and more than 80 different countries internationally.

To register to visit PRS Europe 2024 visit: <https://www.prseventeurope.com/>

Long-awaited return to Shanghai after six years

Rising Expectations to CHINAPLAS 2024 from the Industry

China's economy is showing signs of quick recovery while Asia acts as the locomotive of the global economy. As the economy continues to rebound, the exhibition industry, which is regarded as an economic barometer, is experiencing a strong recovery. Following its impressive performance in 2023, CHINAPLAS 2024 will be held from April 23 - 26, 2024, occupying all 15 exhibition halls of the National Exhibition and Convention Center (NECC) in Hongqiao, Shanghai, PR China, with a total exhibition area of over 380,000

sqm. It is ready to receive more than 4,000 exhibitors from around the world. The market trends of decarbonization and high-value utilization are unlocking the golden opportunities for the high-quality development of the plastics and rubber industries. As Asia's no. 1 plastics and rubber trade fair, CHINAPLAS will spare no efforts to promote the high-end, intelligent, and green development of the industry. The exhibition is making a strong comeback to Shanghai after a six-year absence, upholding the anticipation within the plastics and rubber industries for this reunion in Eastern China.

first half of 2023, the total import and export volume between China and other RCEP members reached RMB 6.1 trillion (USD 8,350 billion), contributing over 20% to China's international trade growth. In addition, as the "Belt and Road Initiative" celebrates its 10th anniversary, there is a pressing demand for infrastructure and manufacturing industry, and the market potential along the Belt and Road routes is poised for development.

Taking the automobile manufacturing industry as an example, Chinese automakers are speeding up



their overseas market expansion. In the first eight months of 2023, car exports reached 2.941 million vehicles, a year-on-year increase of 61.9%. In the first half of 2023, electric passenger vehicles, lithium-ion batteries, and solar cells, also as the "Three New Products" of China's foreign trade, recorded a combined export growth of 61.6%, driving an overall export growth of 1.8%. China supplies 50% of global wind power generation equipment and 80% of solar component equipment, significantly reducing the cost of renewable energy utilization worldwide. What behind these numbers is the accelerated improvement in the quality and efficiency of foreign trade, the continuous upgrading of industries, and the influence of "Made in China". These trends also fuel the demand for plastics and rubber solutions. In the meantime, overseas companies keep on ex-

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Full RCEP Implementation Changing the Landscape of Global Trade

The industrial sector is the cornerstone of the macro-economy and the frontline for stable growth. Starting from June 2, 2023, the Regional Comprehensive Economic Partnership (RCEP) officially took effect in the Philippines, remarking the full implementation of RCEP among all 15 signatories. This agreement allows for the sharing of economic development benefits and reinforcing the growth of global trade and investment. For most RCEP members, China is their largest trading partner. In the





panding their business and investment in China. From January to August 2023, China absorbed a total of RMB 847.17 billion (USD 116 billion) from Foreign Direct Investment (FDI), with 33,154 newly established foreign-invested enterprises, representing a 33% year-on-year growth. As one of the fundamental manufacturing industries, the plastics and rubber industries are widely applied, and various end-user industries are eagerly preparing to source innovative plastics and rubber materials and adopt cutting-edge machinery technology solutions to seize the opportunities brought by the new global economic and trade landscape.

The global buyer team of the show organizer has received positive feedback during their visits to overseas markets. A number of business associations and companies from various countries and regions have expressed their anticipation and support for CHINAPLAS 2024, and have started organizing delegations to join this annual mega event.

Seizing New Opportunities in China's Market

Besides the rebound of foreign trade performance, domestic demand is also seeing a strong recovery. In recent years, China's manufacturing industry has been striving for high-quality development, high value-added and smart manufacturing. Among them, the Ministry of Industry and Information Technology in China, in collaboration with relevant departments, has released robust growth plans for ten key industries, including chemicals, building materials, automobiles, light industry, and electronic information manufacturing industry etc. It imperatively promotes the application of innovative products such as new energy vehicles, smart home appliances, green building materials in rural areas, high-end medical equipment, and robotics. Shanghai, holding for CHINAPLAS 2024, has released a

three year (2023-2025) action plan to promote the high quality development of the city's manufacturing industries, and strengthen of the manufacturing industry's role in supporting the overall economic development of the city, accounting for over one-fourth of the regional GDP.

Lots of industries are experiencing rapid growth. China has emerged as a global leader in the new energy vehicle market, with more than half of the world's new energy vehicles being ridden in the country. With continuous breakthroughs in battery manufacturing technology and charging infrastructure, China's new energy passenger vehicle sales are projected to reach 8.5 million units in 2023, with a penetration rate expected to reach 36% as forecasted by China Passenger Car Association (CPCA).

In the first eight months of 2023, installed capacity of photovoltaic power generation reached 113 GW, representing a year-on-year growth of over 150%. From smart robot vacuums to smart speakers, smart kitchen appliances, and smart refrigerators, an increasing number of smart home appliances can be found in Chinese households. The market size of China's smart home appliances is projected to reach RMB 192.4 billion (USD 26.3 billion) this year.

iiMedia Research from Guangzhou predicted that the pre-packaged food market in China can reach RMB 510 billion (USD 69.8 billion) in 2023, bringing new demand and creating tremendous prospects for the packaging market. China's medical device market has already become the second largest in the world. The development of high-end medical





equipment and related technologies is progressing rapidly, with the market size of active medical devices in China expected to reach RMB 49.6 billion (USD 6.8 billion) by 2030.

The industrial transformation is accelerating, and new impetus is becoming more prominent. "This year, during our communications with plastics and rubber suppliers, we evidently felt that both overseas and local companies have vast confidence in the Chinese market and are very optimistic about exploring business opportunities in China," said Ms. Ada Leung, General Manager of Adsale Exhibition Services Ltd., the organizer of CHINAPLAS.

Time to Show-off Innovative Products and

Technologies to the World

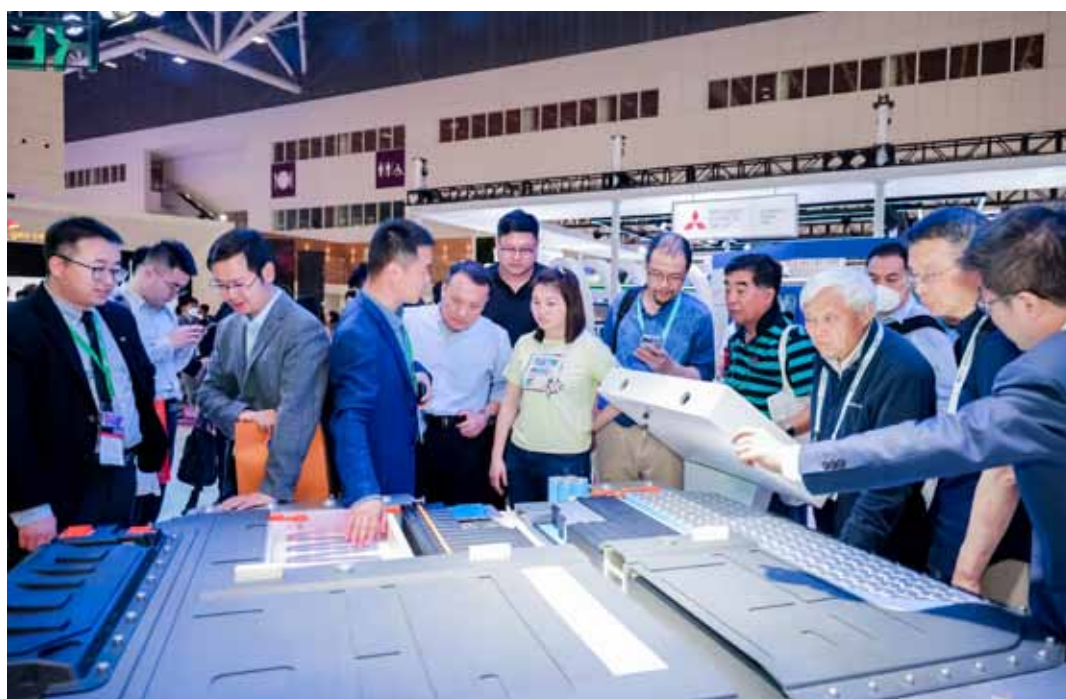
The immense demand of exhibition booths in CHINAPLAS 2024 shows that the confidence of the plastics and rubber industries has recovered just like the economy does. "Reserving booths, showcasing capabilities, capturing business opportunities, and building brand awareness" have become the must-do list of exhibitors to demonstrate their strengths in the post pandemic era. In response to the exhibiting demand from the industry, the exhibition area will increase by over 11% compared with the show in 2018 at the same venue in Shanghai. During the expansion of the show, it is expected to have a more diverse range of exhibits in the fair-ground, as well as exhibitors. International exhibi-

tors are returning to the exhibition enthusiastically and European pavilions are foreseen to regain their pre-pandemic scale. State-owned enterprises and private companies in China, including "Professionalization, Refinement, Specialization and Innovation (PRSI)" enterprises and "Little Giant" companies, shall shine together on the stage. These industrial leaders are bringing breakthrough technologies and showcasing limitless potential for independent innovation. The technologies of plastics and rubber industries have evolved rapidly, with its applications continuously expanding and developing. With over 4,000 exhibitors, professional trade buyers in different application sectors will find a variety of advanced and environmentally friendly solutions as well as intelligent manufacturing technologies for the exploration of innovation, skill enhancement, efficiency improvement, and rapid response to market demands. Technological innovations, serving as the "golden key", will foster the high-quality development of the plastics and rubber industries.

Online Pre-registration is Now Open

"In 2023, CHINAPLAS has reached a new record high in terms of exhibition area and no. of visitors, giving us great confidence and determination. With the accumulated market demands and expectations for the show, returning to Shanghai means a fresh start and brand-new journey to us. As we enter another crucial year, we will strive to present a splendid annual event for the plastics and rubber industries. Look forward to meeting you all in CHINAPLAS 2024 in Shanghai and jointly promoting the high-quality development of the plastics and rubber industries," said Ms. Leung.

www.ChinaplasOnline.com



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www.samuexpo.com

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5-7 March 2024

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The leading international composites show

www.jec-world.events

Chinaplas

23-26 April 2024

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One of the most prestigious international plastics and rubber trade fairs

www.chinaplasonline.com

NPE

6-10 May 2024

Orlando, Florida

With more than 55,000 leaders from over 110 countries representing every industry—from automotive to healthcare to consumer products to construction and more, NPE® is the largest plastics trade show in the Americas and one of the most innovative business events in the world

www.npe.org

Solids Parma

5-6 June 2024

Parma, Italy

All sectors embracing granules, powders and bulk solids technologies on one platform

www.solids-parma.de

PRSE, Plastics Recycling Show Europe

19-20 June 2024

Amsterdam, The Netherlands

The pan-European exhibition and conference dedicated to plastics recycling

www.prseventeurope.com

Fakuma

15-19 October 2024

Friedrichshafen, Germany

At the world's leading trade event for industrial plastics processing, almost 1,500 exhibitors present their international range of products and services. Fakuma offers a comprehensive overview of all plastics technologies

www.fakuma-messe.de

Ipack-Ima

27-30 May 2025

Milano, Italy

The fair specialized in food and non-food processing and packaging

www.ipackkima.com

Powtech

23-25 September 2025

Nurember, Germany

Leading trade fair for powder & bulk solids processing and analytics

www.powtech.de

K Show

8-15 October 2025

Duesseldorf, Germany

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