

02/2025

VA VERLAG  
Cologne /Germany



# EXTRUSION

## INTERNATIONAL



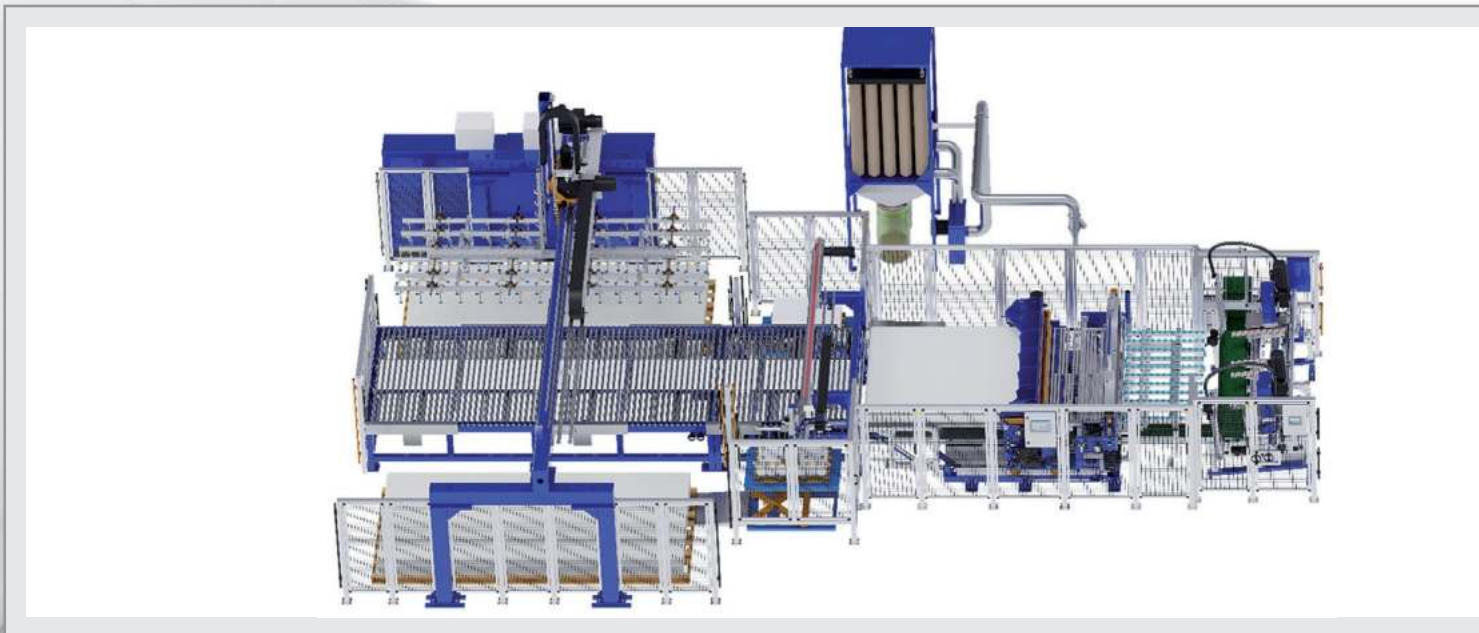


### Plate Stacking Machine

for automatic depositing of your production plates on transport pallets or trolleys.

Optional available with:

- Additional stacking places
- Spreading device of sheets side by side
- Separation of consecutive panels for simultaneous stacking



### Cross Cutting Combination

enables optional sawing or cutting in one machine.

Optional available with:

- Hydraulic driven scissor
- Electric driven scissor
- Cross Cut Mill instead of saw
- Cutting angle adjustment



Made in  
Germany





### Edge Trimming Saw & Trim Strip Chopper

an unbeatable team for longitudinal cutting of your panel and direct shredding of the resulting return material.

The machines are also offered individually with many options.

As a specialist in the field of special machine construction, we always find a solution!



### Pull Off Roller

provides precise regulation and compliance of roller speed and roller force.

#### Optional available with:

- Automatic material run control
- Selection of roller coatings
- Multiple Pull Off Roller version

### Calender

for continuous dimensional accuracy and surface quality.

#### Key data:

- Throughput capacity depending on material 400 - 1300 kg/h
- Line speed 0,5 - 70 m/min
- Line pressure per roller: 100-1300 N/cm



### STEIN Maschinenbau GmbH & Co. KG

Wartbachstrasse 9  
66999 Hinterweidenthal/Germany  
Tel. (+49) (0)63 96-9215-0  
Fax (+49) (0)63 96-9215-25  
stein@stein-maschinenbau.de  
www.stein-maschinenbau.de

## CONTENTS

Firms in this issue	6	New Leadership in Western Europe and Asia	28
Imprint	7	Aim at Brazilian Market	28
<b>Industry News</b>	8	Corrugated Tube Crossheads and Dies	29
Calendar	8	„MICRO MEDICAL“ Extrusion Tooling	29
GreenPlast 2025 – The Sustainable Future of Plastics Takes Shape in Milan	8	<b>Extrusion Tooling</b>	
Plast 2026	9	Pultrusion Dies	30
Guiding Topic of K 2025 – „Embracing Digitalisation“	10	<b>Pipe Extrusion</b>	
Interpack 2026 is Fully Booked	12	Speed Record for Multilayer Composite Pipe Production	31
Plastics Expertise for English Speakers	13	<b>Recycling – Case Study</b>	
New Foundation	14	Pioneer Food-Grade Polystyrene Recycling in Latin America	32
Spare Parts Available 24/7 at the Click of a Button	14	<b>Measurement Technology, Quality Control</b>	
New CEO Appointed	15	How to Eliminate contamination Thanks to the Latest Material Sorting	34
Launch of the New Live Stream Series KARE Talks	15	<b>Extrusion Technology, Processing</b>	
Test Center Expanded	16	Filtration Efficiency in PET Recycling Thanks to Automated Inline Cleaning	35
New Online Course on Advanced Recycling	17	<b>Extrusion Technology</b>	
Italian Plastics and Rubber Machinery Industry – Year-Eng Report	18	Foaming Technology in Wire & Cable Applications	37
POWTECH TECHNOPHARM 2025 – The Hot Spot for Processing Technology	19	<b>Recycling</b>	
Acquisition	20	New Polyolefin Plant Sets the Benchmark in Plastics Recycling	38
Global Initiative for More Sustainability	20	<b>Extrusion Technology</b>	
Sub-Distribution Agreement Signed	21	Newest Dryerless Twin Screw Extruder Series – Made in the USA	39
Commitment to Sustainability	22	<b>Film Extrusion, Digitalisation</b>	
New Office for the Benelux Region Opened	22	Agglomeration, Desiccation, Crystallization	42
Bronze Medal Awarded	23	<b>Fiber Extrusion, Material Handling – Case Study</b>	
Market Study: Plastic Additives	23	Specialists for the Extrusion of Ultra-Thin Filaments	44
Course for Constant Growth and Technological Leadership	24	<b>Film Extrusion – Case Study</b>	
AI Boom Drives Demand for High-Quality Data Cables	25	Production of Recyclable Plastic Films	48
Proportioning Valve for High Throughputs	25	<b>Quality Control – Case Study</b>	
Change in the Management Team	26	Inline Measurement of Wall Thickness, Eccentricity and Diameter	50
New Agent in Italy	26		
Personalia	27		





30

Guill announces the expansion of its product portfolio to include custom-engineered pultrusion dies. This strategic move marks a significant advancement in providing comprehensive, high-quality tooling solutions for industries such as automotive, aerospace, construction, energy, marine, sporting goods and telecommunications



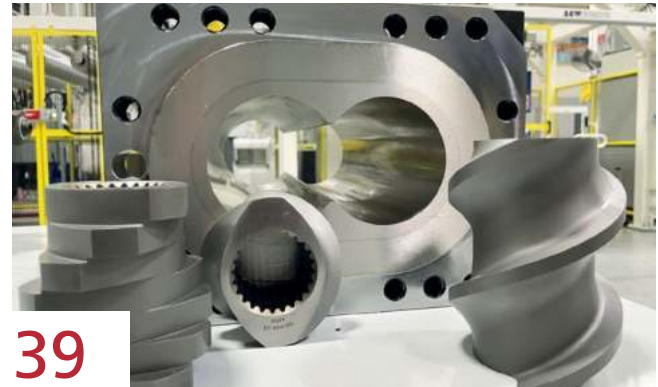
31

battenfeld-cincinnati and Templet are working closely together to develop systems for the production of multilayer composite pipes. In a highly competitive market, pipe manufacturers need solutions to achieve higher production speeds while maintaining consistently high pipe quality and reducing scrap rates



32

Innovative OMNI recycling technology from Gneuss enables Plastit to integrate post-consumer polystyrene into food packaging, setting new sustainability standards in Ecuador and beyond



39

Processing Technologies International (PTI) has announced that it is evolving the HVTSE® brand name to align with its current lineup of extruders, with emphasis placed on its significance as a SUPER-G® Twin Screw Extruder with Multi-Resin capabilities, referred to as SGTSE MultiRESN™

Constantia Flexibles, a leading global supplier of flexible packaging for consumer goods and pharmaceutical products headquartered in Vienna, has commissioned a modern 5-layer blown film line with inline MDO (Machine Direction Orientation) from Hosokawa Alpine at its site in Pirk in Germany

Wuxi Huacheng Cable Co., Ltd., based in Jiangyin City, is a specialist in manufacturing special high temperature resistant cables. The company relies on SIKORA's X-RAY 6000 PRO to ensure optimal processes and the highest product quality



48



50

## Index of Advertisers, companies and fairs referred in this issue

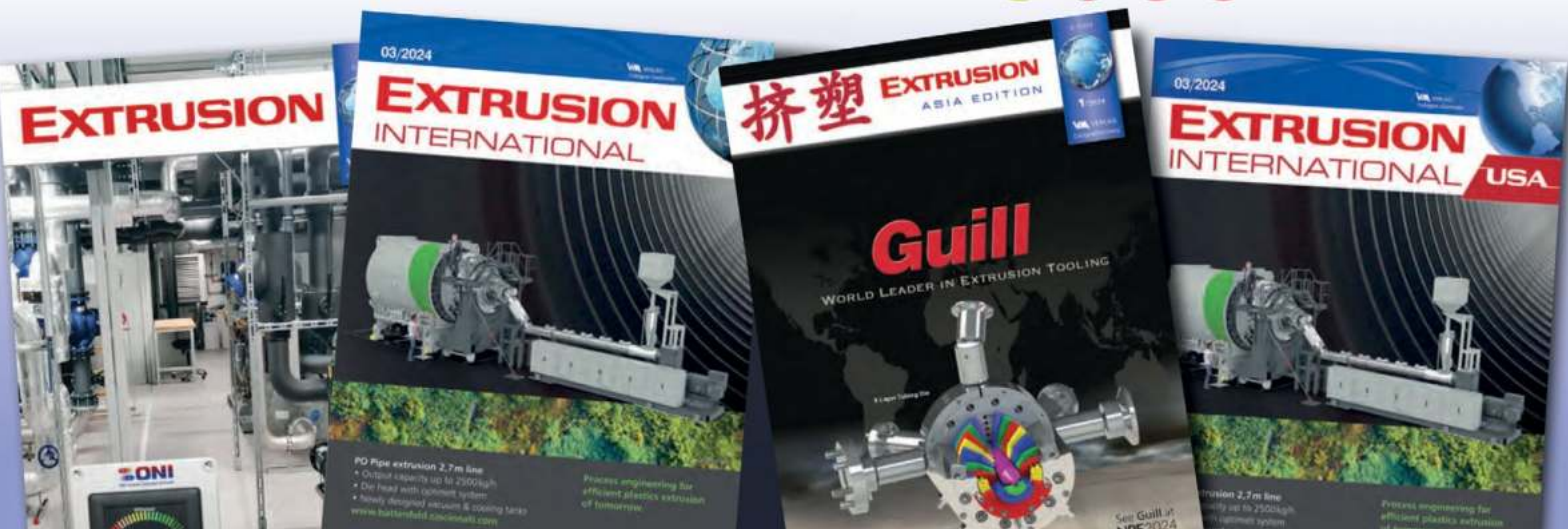
ALPLA	28	ILLIG	26
AMAPLAST	18	Interpack 2026	12
battenfeld-cincinnati	31	Jwell	24
BB Engineering	35	Kautex	24
Brückner	20	K 2025	10
BUSS	20	MAAG	14
CCA	13	motan	7, 25, 44
Ceresana	23	Motan Colortronic UK	44
CONEXTRU	11	Nordson BKG	26
Coperion K-Tron	16	Plasmatreat	22
Davis-Standard	22	Plast 2026	9
EREMA	38	Plastic Agents	21
EXTRUDAMERICA	14	POWTECH TECHNOPHARM	19
Feddersen, K.D.	21	Promix	37
Fibre Extrusion Technology	44	PTi	39
Fimic	26	SI Group	23
GAIA	28	Sikora	25, 34, 50
Gneuss	32	SKZ	13, 15, 17, 27
GreenPlast 2025	8	Smart-Extrusion	41, Outside Back Cover
Guill Tool & Engineering	Outside Cover, 17, 29, 30	Stein Maschinenbau	Inside Front Cover+3
Herbold Meckesheim	42	Troostwijk	21
Hillesheim	9	Vetaphone	15
Hosokawa Alpine	48	VM Verlag	6, Inside Back Cover

# MEDIA DATA 2025

MAGAZINE · WEBSITE · NEWSLETTER

# EXTRUSION

EXPERT MEDIA ON PLASTICS EXTRUSION





02/2025

VM VERLAG  
Cologne / Germany

# EXTRUSION INTERNATIONAL



The Extrusion International Magazine is published bimonthly by VM Verlag GmbH. P.O.Box 501812, D- 50879 Cologne, Germany

#### EDITOR

Bettina Jopp-Witt (Editor-in-chief)  
T. +49 221 546 1539  
redaktion@vm-verlag.com

#### ADVERTISING SALES

Martina Lerner  
T.+49 6226 971515  
lerner-media@t-online.de

Tanja Bolta  
t.bolta@vm-verlag.com  
+49 15205626122

#### ADMINISTRATION

Alla Kravets  
T. +49 2233 949 8793  
a.kravets@vm-verlag.com

#### PRINTING

maincontor GmbH  
Dr.-Gammert-Str. 13a,  
63906 Erlenbach, Germany  
T.: +49 937294810811  
www.maincontor.de,  
info@frankhohmann.com

#### SALES REPRESENTATIVES

China & Asia  
octavia@ringier.com.hk,  
T. +852-9648-2561  
maggieliu@ringiertrade.com,  
T. +86-13602785446

Tokyo PR Inc. (Japan)  
T. +81 (3) 3273-2731  
extrusion@tokyopr.co.jp

#### Reprints, Translation etc

No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photographic, recording or otherwise, without prior permission of the publisher.



[www.smart-extrusion.com](http://www.smart-extrusion.com)



motan

# METRO G

motan's modular hopper loader range.

We exhibit at  
**PLASTPOL**  
Join us



May 20-23, 2025  
Targi Kielce  
Stand: G34



**ZERO LOSS**

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





#### Plastasia

9 – 12 May 2025  
Bangalore / India  
[www.plastasia.in](http://www.plastasia.in)

#### T-PLAS 2025

14 – 17 May 2025  
Bangkok / Thailand  
[www.tplas.com](http://www.tplas.com)

#### Plastpol

20 - 23 May 2025  
Kielce / Poland  
[www.targikielce.pl](http://www.targikielce.pl)

#### Greenplast

27 - 30 May 2025  
Milan / Italy  
[www.greenplast.org](http://www.greenplast.org)

#### National Plastics Conference

22 - 25 September 2025  
Orlando, FL / USA  
<https://e.plasticsindustry.org/>

#### POWTECH TECHNOPHARM 2025

23 – 25 September 2025  
Nuremberg / Germany  
[www.powtech-technopharm.com](http://www.powtech-technopharm.com)

#### K 2025

08 - 15 October 2025  
Düsseldorf / Germany  
[www.k-online.de](http://www.k-online.de)

#### Vinyl Week 2025

10 - 12 December 2025  
New Orleans, LA / USA  
<https://e.plasticsindustry.org/>

#### Swiss Plastics Expo

20 - 22 January 2026  
Luzern / Switzerland  
[www.swissplastics-expo.ch](http://www.swissplastics-expo.ch)

#### interpack 2026

07 - 13 May 2026  
Düsseldorf / Germany  
[www.interpack.de](http://www.interpack.de)

#### Interplas 2026

02 - 04 June 2026  
Birmingham / United Kingdom  
[www.interplasuk.com](http://www.interplasuk.com)

## GreenPlast 2025 – The Sustainable Future of Plastics Takes Shape in Milan

GreenPlast 2025 is set to be the key event of the year for those focused on the sustainable future of plastics. From 27 to 30 May 2025, Milan will host an unmissable exhibition-conference, offering a unique opportunity to explore cutting-edge technologies, engage with international experts, and delve into the trends reshaping the industry. Plants, materials, and processing technologies will take centre stage, providing participants with a comprehensive and inspiring view of plastics sustainability.

### A Growing Event Confirming its Success

Despite current global challenges, GreenPlast 2025 is solidifying its role as a benchmark for the sustainable plastics industry. Registration numbers and sold exhibition space are on par with the 2022 edition, which benefitted from a more favourable economic context and a strong desire for post-Covid normality in trade fairs. To date, over 100 exhibitors have signed up, and the net exhibition area has reached 4,000 square metres. This demonstrates the sector's sustained interest and support. Promaplast, the event's organising company, is pleased with the extraordinary efforts of its commercial team, which has successfully implemented a multichannel strategy. By participating in trade fairs and industry conferences both in Italy and abroad, and combining traditional methods with innovative approaches, the team has ensured significant visibility.

Mario Maggiani, CEO of Promaplast, stated: "We are proud to see GreenPlast 2025 consolidate its position as a reference event for the sustainable plastics industry. This milestone is the result of relentless commitment and the ability to anticipate the needs of a constantly evolving market."

### A Global Promotional Tour and a Rich Content Programme

Promotion for GreenPlast 2025 is already in full swing. The Promaplast team is actively participating in major industry events.

In addition, thanks to collaboration with ITA (Italian Trade Agency), delegations of top buyers from the Middle East, North Africa, Central-Eastern Europe, and the Balkans have been organised. This effort aims to attract a high-quality international audience, fostering networking and the creation of new business opportunities.

Meanwhile, the organisation is finalising the selection of leading speakers for the conference *Shaping a Sustainable Future for Plastics*, which will take place alongside the exhibition.

GreenPlast 2025 will not just be an exhibition-conference but a venue where the future of sustainable plastics takes shape. Through exhibition stands, discussions, and round tables, the event will inspire companies and professionals to adopt greener pathways, turning the challenges of the ecological transition into opportunities.

## Plast 2026

*Plast will return from 9 to 12 June 2026 at Fiera Milano in Rho, with exhibitor registrations opening in March 2025*

With a net exhibition area of 50,000 square metres and 38,000 visitors, the latest edition of PLAST, held in 2023, reaffirmed its status as a highly successful event. The exhibition hosted its dedicated satellite shows: Rubber (rubber industry), 3D Plast (3D printing and related technologies), PlastMat (innovative materials), along with a wide array of cutting-edge technological solutions.

The presence of 1,323 exhibitors, 47% of whom were from abroad, underscored the international scope of the trade fair. This figure is even more significant considering that many Italian subsidiaries of foreign manufacturers were registered as Italian companies. The exhibition halls welcomed visitors from 109 countries, with international attendance accounting for 30% of the total. Europe represented the largest share (64%), followed by Asia (20%), Africa (7.58%), the Americas (7.56%), and Oceania (0.75%). A decisive contribution to the event's international reach came from approximately 300 buyers coordinated by ICE - the Italian Trade Agency for the promotion and internationalisation of Italian enterprises.

Mario Maggiani, General Manager of Promaplast, the company organising the exhibition, stated: "To tackle the increasingly demanding challenges of the industry, it is essential to adopt innovative and



creative strategies. Plast 2026 will be held alongside Xylexpo, the biennial international exhibition dedicated to woodworking and furniture industry technologies, allowing visitors to move freely between the two trade fairs. This synergy is particularly relevant, as there are complementarities between the sectors – for instance, some woodworking machining centres are also used in the processing of plastics and other materials. Our determination and confidence in the trade fair sector enable us to once again offer a benchmark event for the plastics industry in an increasingly competitive international exhibition landscape".

Plast 2026 aims to reaffirm its pivotal role in the plastics and rubber industry, offering an unmissable opportunity for exhibitors and visitors to stay up to date, foster innovation, and develop business connections. The event will also serve as a premier showcase for European manufacturing excellence in plastics and rubber processing machinery, highlighting the technological and qualitative leadership of the continent while facilitating dialogue with emerging markets driving a new phase of economic and technological development.

► [www.plastonline.org](http://www.plastonline.org)



### Flexible electrical heating technology

- Hot melt heated hoses
- Dosing heated hoses
- 2K-heated hoses
- Barrel heaters
- Heating plates
- Special solutions



**Hillesheim GmbH**

Am Haltepunkt 12 • D-68753 Waghäusel • Germany • Phone: +49 72 54 / 92 56-0 • E-Mail: [info@hillesheim-gmbh.de](mailto:info@hillesheim-gmbh.de) • [www.hillesheim-gmbh.com](http://www.hillesheim-gmbh.com)

## Guiding Topic of K 2025 – “Embracing Digitalisation”

K 2025 has set out to tackle the central challenges of our time and present concrete solutions from 8 to 15 October in Düsseldorf. This aim is also reflected by its guiding topics. One of them reads “Embracing Digitalisation”.

The plastics industry faces major economic and regulatory disruptions worldwide. Rising competitive pressure, stricter environmental regulations and higher demands made on circularity increase the pressure to innovate. On-going digitalisation offers new opportunities for producing more efficiently and sustainably here. Automated processes, data-based control systems and smart connectivity already ease adaptation to stricter requirements in many companies today. The Federal Ministry for Economic Affairs and Climate Protection’s (BMWK) Digitalisation Index 2024 provides an indication of the increasing level of digitalisation and has found that the German economy has become around 14% more digital in the last five years. This has increased especially fast in the category “Processes” which describes both the digital maturity of intra-company workflows and the connection with external partners.

Artificial Intelligence (AI) is considered a key milestone in this. According to a Bitkom study, 78% of the industrial companies polled view AI as decisive for their competitiveness while more than half are waiting to see how others get on first. At the same time, 48% lack the necessary AI skills and 91% demand fewer regulatory obstacles so as not to hamper AI innovations. These figures underline that there is broad consensus on the relevance of digitalisation but many firms are hesitant to implement it in practice.

### Digital key technologies: connectivity and IoT

The digital control and connectivity of machines forms the basis for new technologies. “In plastics machinery construction automation has already been ongoing for over 40 years. Now nearly all go one step



further and bank on digitalisation,” says Ulrich Reifenhäuser, Chairman of the Advisory Board at K in Düsseldorf. Cyber-physical systems (CPS) and the Internet of Things (IoT) make it possible to capture and evaluate production data seamlessly in real time. Sensors monitor temperature, flow rate or in-mould pressures, for example, and transmit the values to Cloud applications. An important communication standard for this is OPC UA, which makes for safe and cross-manufacturer data exchange.

Rising data volumes lead to questions of data use. According to industrial associations, the so-called “EU Data Act” has created clarity on this now. The new Data Act obliges machinery manufacturers to provide machine users with the data generated during operation in a simple and understandable, machine-readable way. At the same time, predictive maintenance moves into focus because real-time analyses can detect deviations early on and reduce unplanned downtimes.

### Artificial Intelligence and automation

AI adds new dynamism to digital processes as self-learning algorithms analyse large data volumes and optimise processes flexibly.

Machine learning accelerates development cycles and improves process control. Digital twins go even one step further: they depict real

production lines virtually and deliver structured data on the complete machinery utilisation. Furthermore, they offer the possibility to save machine data and information in a structured and machine-readable format over the complete lifecycle. Digital twins are said to also comply with the requirements of the Digital Product Passport (DPP), which was introduced with the EU’s Ecodesign for Sustainable Products Regulation (ESPR) entering into force in July 2024. These virtual twins of real manufacturing plants accelerate development cycles and ease maintenance strategies.

### Optical quality control & AI-assisted sorting

In the field of quality assurance camera systems and AI-based image processing support manufacturing processes. They detect shape deviations, surface defects or material impurities during production and ensure consistent quality levels. These technologies allow early defect detection thereby reducing rejects and ensuring a more efficient use of resources.

In the wake of stricter environmental regulations and rising customer expectations the fitness of plastics for circularity is also moving centre stage. AI-assisted sorting systems with near-IR sensors (NIR) identify different plastic types, separate high-quality recyclates from impurities and improve the recycling quality. This increases reuse



rates and contributes to compliance with regulatory requirements.

What's more, digital systems are closely linked with the DPP, which features comprehensive information about the used raw materials, production processes and recycling paths. These technologies support companies in establishing closed material cycles, reducing environmental burdens and complying with the ESPR.

### Challenges and skilled labour shortage

Despite numerous lighthouse projects progress is faltering in many companies, especially in SMEs. "Many small and medium-sized enterprises have not sufficiently invested in digitalisation since this is associated with substantial costs and dependent on specific skills," reports Mauritius Schmitz of the Institute for Plastics Processing (IKV) talking to the Industry Association for Plastics Packaging (IK). Another obstacle is the shortage of skilled staff. Those wanting to introduce automation, AI and IoT technologies require specialists for data analysis and IT security. This staff and skills shortage occasionally slows down implementation even though technical solutions already exist. AR (Augmented Reality) goggles can provide relief here by displaying maintenance instructions or training content right in the staff's field of vision. This accelerates maintenance and onboarding processes



without always having external experts on site.

At K 2025 the enormous potential that digitalisation holds for the plastics sector will be both highlighted at the over 3,000 exhibitor stands and flagged up at the various Specials that also address the challenges – first and foremost the official K Special "Plastics Shape the Future", organised by Plastics Europe Deutschland, or also the VDMA Forum.

### Start-up Zone and Start-up Pitch TOWARDS ZERO

After its successful debut at the previous K the Start-up Zone will also form an integral part of the trade fair again in 2025 – this time located in the direct proximity of the Science Campus. Celebrating a premiere will be the Start-up Pitch as part of the Special Plastics Shape the Future.

By organising the Start-up Zone K in Düsseldorf intends to once again

offer young companies a dedicated stage from 8 to 15 October 2025. After all, it is especially start-up companies that play a decisive role for the plastics and rubber industry since they introduce innovations and fresh ideas into an industry increasingly faced with such challenges as sustainability, efficiency and digitalisation. Especially start-ups are characterised by great pioneering spirit, risk affinity and high flexibility.

At K 2025 the Start-up Zone will be situated in Hall 7.0 and, hence, in the immediate vicinity of the Science Campus. At the Science Campus universities (of applied sciences) and institutes will present the latest results of their plastics research. Both K Specials ideally complement each other. The immediate vicinity of the Start-up Zone and Science Campus will make Hall 7.0 a unique science and innovation hub.

➔ [www.k-online.com](http://www.k-online.com)

# CONEXTRU

Individual solution for  
highly efficient production:  
engineered by CONEXTRU



[www.conextru.eu](http://www.conextru.eu) | [dobrowsky.j@conextru.eu](mailto:dobrowsky.j@conextru.eu)



## interpack 2026 is Fully Booked



With a clear year's run-up, the course is set for interpack: the Hot Topics are in place with Smart Manufacturing, Innovative Materials and Future Skills, and they reflect the sector's most pressing challenges and drivers of innovation. Visitors can again look forward to fully booked trade fair premises.

In 2026, interpack returns at full throttle – with dynamism, a passion for innovation and a busy exchange of ideas within the global processing and packaging community. Some 2,800 exhibitors plus professional visitors are expected from all around the world.

The planning provides for a focus on interpack's eight main visitor target groups: exhibitors offering solutions for the food, beverages, confectionery, baked goods, pharmaceuticals, cosmetics, non-food and industrial goods sectors can be found in their own respective areas, which makes orientation easier. And the expansive section at the heart of interpack – packaging materials

*(Credit: Messe Düsseldorf/Constanze Tillmann)*



*(Credit: Messe Düsseldorf/Andreas Wiese)*

and packaging goods – along with machines for labelling and marking, production of packaging material and integrated packaging printing, are brought together in their own halls as well. On top of this, there is the accompanying suppliers' trade fair 'components', with two halls of its own for the first time.

In times of societal and geopolitical upheavals, dialogue within this global community is more vital than ever. Digitalisation, resource prices, supply chains, new regulations, altered consumer behaviour and the call for more sustainability – all of those are having an impact on the sector and changing business models and production processes. At interpack, forward-looking solutions will be presented, impetuses provided, and sustainable, efficient and safe packaging and processes methods will be worked on jointly.

In order to meet these challenges, interpack 2026 is placing its focus specifically on forward-looking topics. These form the thematic framework for dialogue, innovation and inspiration. The Hot Topics in 2026 are: Smart Manufacturing, Innovative Materials and Future Skills.

Numerous specials feature in the programme alongside the trade fair events. They include the Spotlight Forum, in which experts discuss the sector's current trends. The Start-Up Zone brings fresh ideas and new perspectives onto the stage. With Women in Packaging, interpack places the focus on female qualified professionals and their role in the sector. And with interpack TV, highlights, innovations and voices are broadcast to the world directly from the trade fair premises.



## Plastics Expertise for English Speakers

German Plastics Center SKZ in Wuerzburg, Germany is expanding its course range to include two new English-language basic courses. The working environment is becoming increasingly international, and with it the requirements for further training and qualifications. In order to enable all employees equal to access high-quality plastics knowledge, SKZ is offering two new basic courses in English. With the expansion of the basic courses in English, participants have the opportunity to choose the course that suits them best and expand their knowledge in the field of plastics in a targeted manner. To ensure maximum flexibility, the SKZ offers both courses twice a year and in two different versions.

The course "Basics of Plastic Materials" is aimed at anyone who wants to know how plastics are made and how they are structured. Participants discover the different properties of plastics and find answers to the key question of which plastic to use and when to use it.

The course "Basics of Plastics Technology" is suitable for participants who want to learn more about the manufacturing processes of plastic products. The focus is on processing methods such as extrusion, injection molding and blow molding.

In the live online version, the courses take place on two mornings for 3 hours each and are suitable for anyone who wants to participate flexibly from anywhere, without any travel costs. In the face-to-face version, which takes place at German Plastics Center headquarters, course participants benefit from direct exchanges and a tour of SKZ.

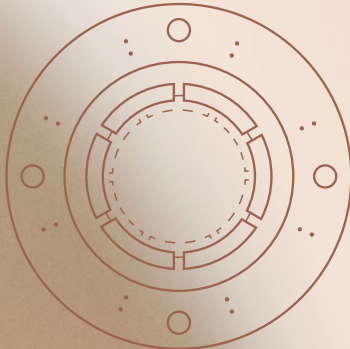
Further information:

► [www.skz.de/en/training/courses/introduction-to-plastics-technology](http://www.skz.de/en/training/courses/introduction-to-plastics-technology)

*Basic courses at SKZ on the topics of material properties and manufacturing processes (Image: SKZ)*



hoch5.com



# CCA


The Original  
Since 2005

## Quality is our Priority

CCA develops high-performance calibration sleeves for plastic pipe extrusion:

- from  $\varnothing$  12 mm up to  $\varnothing$  2.400 mm pipe outside diameter
- precisely matched to the production requirements of our international customers

**Rely on quality „Made in Germany“ – celebrating 20 years in 2025.**



[www.ccagmbh.de](http://www.ccagmbh.de)



## New Foundation

Dr. Joseph Scuralli, a seasoned executive and former president of the previously closed manufacturer of the historical Wayne 'Yellow Jacket Line' of extrusion equipment, has reemerged in the plastics industry. His extensive experience and deep-rooted expertise have culminated in forming a new entity, EXTRUDAMERICA, a manufacturer's representative and sales agency specializing in plastic, silicone, and rubber extrusion equipment. The company will also represent ancillary products, control systems, technology, services, and aftermarket parts.

EXTRUDAMERICA is dedicated to providing a comprehensive range of products. This portfolio encompasses large, mid-sized, and small production extrusion lines and pilot and laboratory-scale equipment. Leveraging his extensive experience in extruder screw manufacturing and building extrusion lines for various processes, Scuralli aims to offer equipment solutions featuring single and twin-screw technology in film, sheet, compounding, wire



*Dr. Joseph Scuralli*

insulation, high-temperature, fluorocarbon, profiles, devolatization, monofilament, medical and industrial tubing, and specialty applications.

The company offers three primary services: direct manufacturer's representation and sales agency services in the Northeast and Mid-Atlantic regions of the USA; nationwide/global management coverage for master manufacturer's representation/sales agency network services; and lead generation and management services.

Recently, Scuralli shared his enthusiasm for the plastics industry, stating, "I am an 'NPE fan' and first attended the NPE Chicago as a teenager in the 1970s. After visiting the 2024 NPE, I became quite bullish on the prospects for the plastics industry. EXTRUDAMERICA LLC is committed to playing a significant role in the industrial renaissance the extrusion sector of the plastics industry is poised to realize." Scuralli, with a strong academic background and a doctorate in business with concentrations in international business and marketing, is eager to combine his expert marketing knowledge and decades of experience in the extruder manufacturing industry. The result will deliver unique selling propositions and innovative solutions for EXTRUDAMERICA LLC principals and clients. We are actively seeking to add new equipment and service supplier partners."

**EXTRUDAMERICA LLC**

▶▶ [www.extrudamerica.com](http://www.extrudamerica.com)

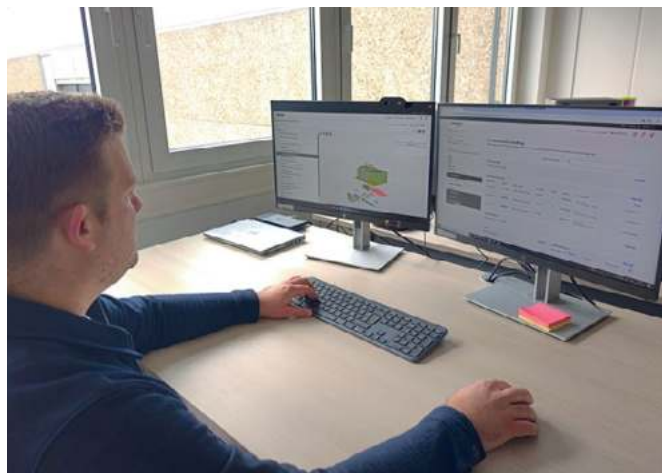
## Spare Parts Available 24/7 at the Click of a Button

The myMAAG webshop is a comprehensive tool for ordering spare parts quickly and securely. Since going live at the beginning of 2022, several hundred customers have begun using the platform to efficiently order spare parts for gear pumps, pelletizing and filtration systems and pulverizers.

The MAAG Group webshop is being continuously updated and offers convenience and functionality. In addition to the optimized quotation function, myMAAG enables faster ordering thanks to an improved quick order process. The order history feature has also been further refined. In the near future, the optimized installed base feature will enable even faster retrieval of documentation, media content and suitable spare parts for the corresponding machines.

One highlight is the proactive e-mail notification of order and delivery status, which increases transparency and planning reliability. The range is constantly being expanded, so that almost 300,000 products are now available online. The stored images help with better identification.

myMAAG is a comprehensive, digital platform that offers customers convenient and efficient interaction.



*myMAAG webshop*

The web store is currently available for customers in Europe and the USA, and other regions will be connected gradually.

**MAAG Group**

▶▶ [www.maag.com](http://www.maag.com), [shop.maag.com](http://shop.maag.com)

## New CEO Appointed

Vetaphone has appointed Micheal Behrens as Chief Executive Officer (CEO) as part of its strategy for future growth and success. His appointment is effective from 1st December 2024.

The announcement was made by Frank and Jan Eisby, sons of the company founder Verner, who established the business in 1951, and who under the Eisby Family Council have managed the company since 1993. "We acknowledge that to fulfil our high expectations of the business going forward we needed additional expertise at a senior level as my brother and I undertake new tasks away from the day-to-day operations, and we see Michael Beh-

rens as a perfect fit for that task," commented Frank Eisby.

Michael Behrens joins Vetaphone with an outstanding CV and more than 20 years' experience in a variety of senior management positions.

Frank and Jan Eisby will remain on the Company Board of Directors – Frank will head-up a new Development Business Unit, while Jan will run the Vetaphone Academy Educational Unit. "We are extremely proud of our family heritage and the contribution that Vetaphone has made to the global industry. The new management structure maintains the family succession and provides a firm base on which to take the company into



*Vetaphone has appointed Michael Behrens as CEO*

the future and achieve even greater success," explained Jan.

Vetaphone A/S

www.vetaphone.com

## Launch of the New Live Stream Series KARE Talks

A training series that is directly geared towards the needs of the participants and whose topics are regularly adapted and updated, and is also free of charge? - It hardly sounds realistic, but it is the most sensible answer to complex topics in an agile business world. Especially when it comes to the major topic of transformation towards a circular economy in the plastics industry. As part of the KARE project, the SKZ Plastics Center is launching the live stream series "KARE Talks", in which topics relating to the transformation of the plastics industry will be addressed and actively discussed. The special feature: Thanks to the intensive cooperation with plastics processing companies in the KARE competence center and the survey of the status quo of the circular economy, the experts know exactly where the shoe pinches. However, the participants themselves can help to determine further focal points. In other words, knowledge transfer geared towards real industrial needs in a subject area that all companies currently have to deal with.

The first planned focus topics for the 30-minute online sessions are

- Strategic approach to reducing greenhouse gas emissions



- Sustainability assessment for plastic products
- The Ecodesign Regulation for sustainable products
- The EU packaging regulation (PPWR)

In addition, the live streams are designed in such a way that companies can contribute their questions and suggestions for topics directly and, if necessary, discuss them in greater depth in follow-up discussions.

The KARE Trend Radar, which visualizes the current "landscape" of sustainability regulations, technological and ergonomic trends, helps companies to maintain an overview and prioritize the various aspects of transformation. This gives par-

*KARE Talks - Live stream series provides impetus for action for the plastics industry (Photo: Adobe Stock/SKZ)*

ticipants a kind of recommendation for action as to where they should focus their attention or where they should already take action.

The BMBF-funded KARE project focuses on sustainable solutions for people and the environment. In a network of companies, research and educational institutions in the plastics value chain, new concepts for work processes and environments are being developed that can be supported by employees.

SKZ Plastics Center

Stefan Trieb, s.triess@skz.de



## Test Center Expanded

Coperion K-Tron located in Switzerland announced the expansion of its state-of-the-art test center at its facility in Niederlenz. This strategic move is designed to enhance the company's capabilities, particularly for tests involving materials that require containment. The expansion will allow Coperion to conduct more comprehensive and diverse testing, providing customers with a broader range of solutions for their specific material handling needs. The new facility will be equipped with the latest technology and equipment, ensuring the highest standards of safety and efficiency. The addition to the Test Center will feature advanced containment systems for handling all types of materials, including an airlock system with filtration, ensuring the safety of both the testing process and the staff as well as the environment. This will allow the company to better serve industries such as battery, chemi-



cals, pharmaceuticals, and food processing, where containment and hygienic requirements can be a critical concern.

*The Test Center also provides opportunities to the Research and Development teams to test prototypes when developing new products or improving existing equipment and processes*

*Breaking ground on the much-anticipated expansion. From left to right: Keith Melton, Sales Manager Battery Industry, Marco Hadrys, Test Center Manager, Manfred Bossart, Facility Manager, Michael Reinhard, General Manager (Photos: Coperion K-Tron (Switzerland) LLC)*



"Coperion is committed to delivering the best possible solutions to our customers," said Marco Hadrys, Test Center Manager in Niederlenz. "The expansion of our Test Center is a significant step towards achieving this goal. It will enable us to conduct more extensive tests, particularly with materials that require containment, and provide our customers with even more reliable and efficient solutions."

The new addition is expected to be completed by April 2025, and the company looks forward to welcoming customers to the new facilities.

Coperion K-Tron (Switzerland) GmbH  
[www.coperion.com](http://www.coperion.com)



## New Online Course on Advanced Recycling



*New live online course on advanced recycling  
(Source: Nattapun - stock.adobe.com)*

The SKZ is expanding its educational program with a new live online course: Advanced Recycling - Technology overview beyond mechanical recycling.

The EU's recycling targets with recycling quotas and the increasing demands on the chemical industry are increasing the pressure on the recycling sector. The recycling of plastics is therefore becoming increasingly important. At the same time, interest in renewable raw materials for chemicals and materials is growing, which raises the question of which recycling technologies are best suited. While mechanical recycling is an established method, advanced recycling technologies offer a number of advantages. Companies that address these technologies at an early stage can secure competitive advantages and integrate more sustainable solutions into their production chains.

The SKZ Plastics Center, in cooperation with Lober GmbH & Co. KG, the SKZ Plastics Center is offering a comprehensive overview of alternative recycling processes to mechanical recycling in a 3-hour live online course, highlighting both their potential and the challenges they present.

The new course, which will take place for the first time on April 3, 2025, is aimed at specialists and managers in the plastics industry who want to familiarize themselves with new recycling technologies. Participants will gain in-depth knowledge of physical and chemical recycling processes, their fields of application and their advantages and disadvantages.

Newer recycling methods offer several advantages compared to the conventional mechanical recycling of plastics. By breaking down or dissolving plastics into their original chemical building blocks, a higher quality of recycled materials is achieved and difficult-to-recycle plastics such as mixed plastics, contaminated plastics and composites can be recycled. However, there are also challenges, such as high energy requirements and limited industrial scaling.

"We want to help companies better understand the challenges and opportunities in the field of advanced recycling and successfully integrate them into their processes," says Andreas Büttner, Group Manager Education Materials, Compounding, Extrusion. "That's why the regulatory framework and the current capacities and demand situation in the recycling sector are also part of the seminar."

"The new online course gives participants the opportunity to learn more about current market developments, players and practical application examples in advanced recycling," adds Mathias Ruckdeschel, course instructor at SKZ. "At the end of the course, they will be able to better understand the necessity of alternative recycling processes as well as the opportunities and challenges."

The SKZ Plastics Center

➔ Mathias Ruckdeschel, m.ruckdeschel@skz.de

## Revolutionary New Cam Lock Design

Available on the Bullet, Guill's Cam Lock is now offered on other heads where applicable. The Cam Lock feature allows quick and easy assembly and disassembly of the crosshead and eliminates socket head cap screws. By removing and replacing the internals, a different profile can be extruded in minutes rather than hours.

This translates into **BIG SAVINGS** for your production.

To find out more, visit [www.guill.com](http://www.guill.com)



10 Pike Street  
West Warwick, RI 02893  
Email: [sales@guill.com](mailto:sales@guill.com)

powered by  
**Guill**

## Italian Plastics and Rubber Machinery Industry – Year-End Report

The Italian plastics and rubber machinery industry experienced a mix of highs and lows in 2024, as shown in the year-end report prepared by the Mecas Study Centre based on foreign trade data gathered by ISTAT.

According to direct surveys conducted by the secretariat of Amaplast, the roughly 160 member companies closed 2024 with a turnover drop of just less than two percentage points compared to 2023. These results follow a vigorous post-pandemic rebound, where steady growth marked the 2021 to 2023 period after a relatively mild contraction (-3%) recorded in the difficult year of 2020.

On a more positive note, by the end of 2024, there was a slight yet steady increase (+1%) in the number of employees in Amaplast member companies, reaffirming the industry's ongoing commitment to renewing and strengthening its structure to cope with the increasingly complex challenges in a rapidly evolving global context. This includes the development of cutting-edge technologies using Artificial Intelligence and the implementation of servitisation-based systems.

The performance of Amaplast members once again shows that the Italian plastics and rubber machinery industry is resilient and able to overcome challenges arising at various levels.

Based on these results, Amaplast forecasts an overall three-point contraction in turnover for the whole sector, compared to 2023. More detailed findings – broken down by geographic position, company size, machinery type, and application sectors – will be presented in the National Statistical Survey, which will be published at the end of June following the members' assembly.

Despite the well-known and increasingly numerous geopolitical factors threatening global economic stability, this key segment of Italian industrial machinery has once again managed to limit losses, thanks to the quality of its exports. As a matter of fact, exports increased for

the fourth consecutive year, posting +1.5%, reaching a total value of 3.62 billion euros.

Moreover, a surge in foreign sales registered during the final quarter of the year, particularly in December, prompted an upward revision of previous estimates, which had been based on trends observed up until September.

The solid performance of exports, which account for approximately three-quarters of total production, helps to offset a domestic market that is clearly struggling. This is further confirmed by a nearly seven-point decline in imports, which barely exceeded one billion euros – a sharper drop than that recorded the previous year. Italian companies are facing difficulties in planning and implementing the structural investments necessary to acquire the technological innovations needed to improve the competitiveness of their production system. Although this situation is exacerbated by the delays in the implementation of Industria 5.0 decrees, the recently announced simplification measures are expected to ease access to funding and facilitate the application of new policies.

At a macro level, exports appeared weaker in the European quadrant, especially within the EU, and revealed stagnation across the Americas. More positive results were observed in Asia.

Focusing on the most important individual markets, supplies to Germany declined by around 2% – a relatively modest drop considering the severe economic and industrial crisis the country has been facing. Nonetheless, Germany remains the top destination for Italian exports in this sector. This trend appears even more encouraging when compared to the results of German manufacturers, who suffered a dramatic 30% collapse in domestic sales and order intake in 2024.

Other major European markets that had performed well in recent years, such as Spain and Romania, experienced a slowdown (6% and 20%, respectively), while Poland

registered a further decline (19%). Conversely, demand from Turkey continued to grow (+15%), despite the ongoing expansion of its domestic manufacturing industry.

Mixed signals were observed in overseas markets, compounded by the recent turmoil caused by tariffs and other protectionist measures threatened, implemented, suspended, and reinstated by the Trump Administration. Compared to 2023, Italian exports of plastics and rubber machinery to the United States, the sector's second-largest destination, fell by 4%; however, it will take several more months to fully assess the impact any potential new tariff measures may have. On the other hand, further growth was recorded in Mexico, adding to the far more significant expansion seen in previous years. Even so, Mexico remains closely tied to its overbearing northern neighbour, whose policies directly affect Mexican investment plans.

Further South, Italy's exports to Brazil showed excellent performance, with an 86% increase compared to 2023 and a gain of over 120 million euros – an all-time record driven by strong demand for high-tech machinery.

In Asia, Italy's two main markets delivered highly satisfactory results, as exports to both China and India increased by 15% compared to 2023.

Top ten destination countries of the Italian plastics and rubber machinery, equipment and moulds exports (January-December 2024; million euros -  $\Delta\%$  2024/2023).

As for the types of primary processing machinery that contribute most to Italian exports, there was a 7% decline in injection and extrusion machines, counterbalanced by the remarkable performance of blow moulding machines, increasingly demanded by and delivered to the United States, the United Kingdom, France, Turkey, and Poland.

Positive trends were also observed for flexographic printing machines, which grew by 5% and account for 5% of total exports,



and presses, which also hold a 5% market share and recorded an impressive 59% rise. On the contrary, moulds, which represent a fifth of total export value, ended the year with a less than satisfactory 5%.

In anticipation of 2025, Italian manufacturers have already noted some encouraging signs, even from the domestic market, in the early weeks of the year, despite rising global tensions. However, a real

turnaround – or a more pronounced stabilisation of indicators at least – may not be possible until the second half of the year.

► [www.amaplast.org/en/](http://www.amaplast.org/en/)

## POWTECH TECHNOPHARM 2025 – *The Hot Spot for Processing Technology*

POWTECH TECHNOPHARM will relaunch following its scheduled break. From 23 to 25 September 2025, the Nuremberg exhibition grounds will again become the hub where everything revolves around technologies for processing powders, solids and liquids. Visitors can already look forward to their old favourites as well as some new ideas and concepts. Participants will also benefit from the co-location with FACHPACK, the European Trade Fair for Packaging, Technology and Processes. PARTEC, the prestigious international scientific congress, will be held alongside POWTECH TECHNOPHARM again in 2025.

The trade fair looks set to be a successful event, with around 600 exhibitors expected in Nuremberg in September. Around 80 percent of the exhibition space has already been booked.

A new feature this year is that POWTECH TECHNOPHARM will occupy Halls 9 to 12 in the northwest grounds of the exhibition centre. This area is readily accessible directly from the underground station or coming from the eastern section of the grounds through the exhibition park, where live demonstrations of explosions will be held again this year. Many visitors are sure to also benefit from a tour of the other exhibition halls, where FACHPACK will simultaneously be showcasing current and future packaging solutions. The POWTECH TECHNOPHARM ticket also gives visitors access to FACHPACK.

Supporting programme: At the September 2025 event, the supporting programme for POWTECH TECHNOPHARM will include familiar features and new concepts. Alongside the TECHNOPHARM Forum, the popular POWTECH Forum gives companies another opportunity to present themselves and their innovative solutions to an interested audience. The Call for Papers has already been launched and is available on the website. A proven and familiar feature is the special show by the VDMA – a long-standing partner to POWTECH TECHNOPHARM – which will also be part of the supporting programme this year. Organised by the VDMA's Air Handling Technology and Processing Technology and Equipment associations, it will feature presentations by companies under the banner "Experience the process chain of the bulk solids industry first-hand". The Networking Pavilion will once again offer established market players and newcomers the opportunity to take part in the trade fair without overstretching their re-



sources. A new addition to the programme is the inaugural meeting of the "Women4Processing" network for women working in the processing industry. The aim is to give women a platform where they can share knowledge and ideas, learn from one another.

One of the main themes at POWTECH TECHNOPHARM is support for the next generation of industry professionals and R&D activities. With its Campus Pavilion and Students' Day, the trade fair is therefore giving universities, tertiary institutions and students ideal opportunities to network with the industry. In addition, for the first time, the trade fair is providing the VDI Association of Process and Chemical Engineering – one of its institutional sponsors – with a platform for two of its competitions: chemPLANT, which calls for theoretical knowledge and practical applications in processing engineering, and ChemCar, a race between model cars powered by a (bio)chemical reaction. At this year's event, the DSIV (German Powder and Bulk Association) will once again offer trade fair tours specifically for students.

An highlight in 2025 will be the PARTEC Scientific Congress on the latest particle research, which takes place concurrently with POWTECH TECHNOPHARM. The new Chair, Professor Lutz Mädler from the Leibniz Institute for Materials Engineering in Bremen, is working with the VDI Association of Process and Chemical Engineering to plan yet another high-calibre programme featuring keynotes, lectures, poster sessions and awards ceremonies at the highest international standard.

► [www.powtech-technopharm.com](http://www.powtech-technopharm.com)  
[www.partec.info](http://www.partec.info)

## Acquisition

The Swiss industrial company Jakob Müller Holding (JMH), based in Frick/AG, is taking over 100% of the shares in Buss AG, based in Pratteln/BL, as of 31 January 2025. This acquisition will enable JMH to expand its 'Process Solutions' division and secure a leading position in the field of continuous high-viscosity process engineering.

Stephan Bühler, owner of JMH: "In the future, we will be able to offer even more and even more efficient solutions in the field of process engineering and plant construction. This includes processes in the areas of kneading, mixing, compounding and cooling."

Buss will be integrated into the corporate structure of Jakob Müller Holding through the acquisition, but will continue to operate independently. "Buss AG already has a great deal in common with its new corporate environment. Our technologies are highly complementary and our process and mechanical en-



*Philip Nising, CEO of Buss AG*

gineering expertise is ideally suited to each other. Together with JMH, Buss AG will be able to continue its growth course and offer our customers even more added value in the future," says Philip Nising, CEO of Buss AG. He adds that JMH, like Buss AG, is a long-established company with Swiss roots and the same values, prioritising quality and innovation.

As a result of the acquisition of Buss AG, the Process Solutions division will in future comprise three



*Stephan Bühler, owner of Jakob Müller Holding*

companies: List Technology AG, BBA INNOVA AG and Buss AG. Textile Solutions, JMH's second division, consisting of the Jakob Müller Group and Benninger AG, will remain in its current structure.

**Buss AG**

➔ <https://busscorp.com/>

**Jakob Müller Holding AG**

➔ [www.jmh.swiss](http://www.jmh.swiss)

## Global Initiative for More Sustainability

How can we put a stop to the global environmental pollution caused by plastic waste? How can a modern circular economy be meaningfully integrated into people's everyday lives? One thing is certain: We can only do it together. That's why the Brückner Group launched the "Yes, we care" initiative back in 2017. Now the next important step is being taken – in cooperation with a global organization: Starting in January 2025, the Brückner Group will be a member of the Alliance to End Plastic Waste. Founded in 2019, this international association now comprises 70 renowned industrial companies. Jacob Duer, President and CEO at the Alliance, said, "Collaboration across the value chain is key to effecting the systems change needed to achieve a circular economy for plastics. Brückner Group's focus on innovation and sustainability in film production is aligned with the Alliance's first thematic program on the recycling of flexible plastics. We welcome Brück-

ner Group as a member of the Alliance and very much look forward to collaborating on our shared ambition to end the environmental leakage of plastic waste, transforming plastic into a sustainable material."

The Alliance plays a decisive role in bringing together important interest groups. This creates diverse links between politics, business, finance, science and civil society, at both the international level and the local level. Specifically, the Alliance can build bridges between research, waste management and recycling – and thus help individual projects achieve a breakthrough more quickly. In addition, initiatives are specifically promoted so that they can sustain themselves and function autonomously after a certain period of time.

Dr. Axel von Wiedersperg, CEO of Brückner Group, is looking forward to the next milestones in partnership with the Alliance: "This global network enables the exchange of expertise in order to take meaning-



*Dr. Axel von Wiedersperg, CEO Brückner Group*

ful steps and drive systemic change. We at the Brückner Group are happy to take on our responsibility to make our contribution to achieving important ecological goals."

**Brückner Group SE**

➔ [www.brueckner.com](http://www.brueckner.com)



## Sub-Distribution Agreement Signed

The Hamburg-based distributor K.D. Feddersen signed a sub-distribution agreement with the Spanish Plastic Agents, S.L. at the beginning of 2025. Through this partnership, K.D. Feddersen Distribution will distribute the products of leading manufacturers such as, Celanese, Hyosung and Teijin on the Spanish market.

As part of the agreement, K.D. Feddersen will utilise Plastic Agents' expertise and extensive network to more effectively offer the high-quality products of these renowned manufacturers in Spain. "This partnership will not only increase the reach of these products but also help to create innovative solutions for local businesses," says Daniel Brock, Director Marketing & Productmanagement EU at K.D. Feddersen GmbH & Co. KG.

The cooperation includes local warehousing in Spain and thus ensures short-term delivery to customers there.

"This partnership is an important step for us to offer our customers an even greater selection of high-quality materials," says Marcos Barraca, co-owner of Plastic Agents S.L.

The product range includes a variety of plastics that can be used in different applications, including automotive, construction and electronics. Through this collaboration, K.D. Feddersen Distribution will be able to offer



From left: Daniel Brock, Dr. Stephan Schnell (both K.D. Feddersen), Marcos Barraca (Plastic Agents) and André Bartels (K.D. Feddersen)

customised solutions that meet the specific requirements of the Spanish industry.

K.D. Feddersen GmbH & Co. KG  
 ► [www.kdfeddersen.com](http://www.kdfeddersen.com)

Plastic Agents, S.L.  
 Marcos Barraca Gutiérrez  
 ► [marcos@plasticagents.com](mailto:marcos@plasticagents.com)

## Online Auction



### Bankruptcy of Plastic manufacturer SIDAPLAX Vof

WINDMOLLER & HOLSCHER blown film line (year 2018), J. KAMPF slitters, PAVEL film/film compactors (year 2021), NRG recycling line, EISBAR industrial dryer with 2 silos and 2 KKT chillers, 2 silos 150 tons with FRIGEL chiller and MUNTERS dryer, stock of foil, laboratory equipment, warehouse and workshop inventory, etc.



Scan the QR-code to view the auction

**CLOSING:** Thursday 8 May 2025  
**VIEWING:** Friday 2 May 2025 (9:00 – 16:00) or by prior appointment: [planning@vavato.com](mailto:planning@vavato.com)  
**LOCATION:** Eddastraat 40, 9042 Gent (Belgium)

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

V A V A T O

**troostwijk**  
 auctions

## Commitment to Sustainability

Davis-Standard announced that its Davis-Standard Global Services UK facility has renewed its ISO 14001 certification. This international standard recognizes organizations for their commitment to environmental management.

The Davis-Standard Global Services UK facility is responsible for sales, support, and aftermarket services for extrusion equipment for all Davis-Standard and heritage brands, including field service support, spare and replacement parts, line upgrades, retrofits, and IIOT solutions. The facility has a long history of environmental stewardship and has implemented several initiatives to reduce its environmental impact, including – but not limited to – overall scrap and waste reduction, energy conservation, and water management.

"This certification is a testament to our ongoing commitment to sustainability and our dedication to providing our customers with industry-leading technologies and a robust offering of aftermarket solutions designed to

ensure we are the Lifecycle partner in polymer processing excellence for our customers, and do so efficiently with an eye toward sustainability," said Ching Gettman, President of Davis-Standard Global Services. Gettman added, "Our UK facility is a key part of our global service network, and we are proud to be able to offer our customers the most comprehensive aftermarket care in the industry and doing so responsibly."

### Davis-Standard Global Services Appoints Mark Cox, Managing Director, UK

In addition to its ISO 14001 certification, the Davis-Standard Global Services team has appointed Mark Cox as Managing Director, UK. Cox has been with the company since 2006 and is a trained extrusion Toolmaker with extensive industry experience. "Our commitment to customer success extends far beyond the initial sale. At Davis-Standard Global Services, we are dedicated to



Mark Cox

providing comprehensive aftermarket care that maximizes uptime, optimizes performance, and ensures our customers achieve the highest levels of productivity throughout the entire lifecycle of their equipment," said Cox.

Longstanding UK Managing Director Mark Woodgate will support the changeover whilst transitioning to a new part-time role with Davis-Standard.

Davis-Standard, LLC

► [www.davis-standard.com](http://www.davis-standard.com)

## New Office for the Benelux Region Opened

Plasmatreat continues to expand its presence in the Benelux region. With the opening of a new office in Eindhoven, the Netherlands, the company strengthens its global sales and service network and offers customers in Belgium, Luxembourg and the Netherlands a direct point of contact for technical advice and application development.

Job van Galen is Managing Director of the new subsidiary. In his new role at Plasmatreat, van Galen will be responsible for technical sales, the development of sustainable relationships and application development with valued customers. Application-related tests and customer trials can be carried out in modern facilities.

Plasmatreat GmbH Managing Director Lukas Buske emphasizes the importance of the new office and Job van Galen's expertise: "With the opening of our subsidiary in Eindhoven, we are further expanding our proximity to customers in the Benelux region. Job van Galen brings not only technical expertise, but also valuable industry experience and a high level of commitment. We are delighted to have recruited him for this important role and are confident that his expertise and customer-focused approach will play a key role in driving our development in the region".

With the new subsidiary, Plasmatreat aims to support companies in the Benelux region in optimizing



Job van Galen heads the newly established subsidiary for the Benelux region and brings with him extensive industry knowledge (Copyright: Plasmatreat GmbH)

their manufacturing processes. Atmospheric-pressure plasma technology makes it possible to precisely modify material surfaces, improve adhesion properties and create environmentally friendly alternatives to chemical pretreatment.

Plasmatreat GmbH

► [www.plasmatreat.com](http://www.plasmatreat.com)



## Bronze Medal Awarded

SI Group has received a Bronze medal from EcoVadis, a globally trusted platform for evaluating corporate sustainability performance. This recognition highlights SI Group's commitment to responsible business practices and its continuous efforts in environmental, social, and governance (ESG) initiatives.

The EcoVadis assessment evaluates companies based on a comprehensive range of stringent sustainability criteria, including environmental impact, labor practices, ethics, and sustainable procurement. The methodology is built on international corporate social responsibility standards, including the Global Reporting Initiative, the United Nations Global Compact, and the ISO 26000. The company's most recent ranking places SI Group in the top 35 percent of the more than 150,000 businesses worldwide assessed by EcoVadis.

Key Highlights of SI Group's 2025 EcoVadis Ranking:

- SI Group scored in the 79th percentile of all Bronze medals awarded during the past 12 months by EcoVadis.
- SI Group's supporting documents show an exceptional level of coverage of environmental actions or certification throughout company operations.
- SI Group's company policies demonstrate the intention to reduce impact, mitigate risk and improve performance.

SI Group has elevated its focus on sustainability in recent years and is continually striving to develop innovative solutions that will improve sustainability worldwide. "We are proud to receive a Bronze ranking from EcoVadis," said Dave Brassington, Sr. Director, Regulatory & Sustainability. "It only strengthens our commitment to evolving and im-



proving on the social and environmental initiatives we have in place. We are striving for a Gold medal or better in future years."

As part of its commitment to sustainability, SI Group has released several ESG Reports to maintain transparency across every aspect of its business operations and corporate social responsibility. The company plans to release a 2025 ESG Report later this year.

SI Group

➔ [www.siigroup.com/sustainability](http://www.siigroup.com/sustainability)

## Market Study: Plastic Additives

Solid or malleable, colored, durable, and inexpensive: Thanks to additives, plastics are becoming virtually invincible materials. Additives are usually only added in small quantities, but without them plastic products would not stand a chance against heat, UV rays, and oxidation. More than 10,000 different chemicals are used to improve the properties of plastics, including fillers, plasticizers, pigments and colorants, flame retardants, antioxidants, light stabilizers and heat stabilizers, blowing agents for foams, impact modifiers, and lubricants. The demand for these additives is growing in line with the constant increase in plastics production: According to the latest market study by Ceresana, around 36.7 million tonnes of plastic additives are already consumed worldwide every year.

### The study in brief:

Chapter 1 provides a description and analysis of the global market

for plastic additives – including forecasts up to 2033: For each region of the world, such as Western Europe or North America, demand in tonnes and revenues in US dollars and euros are given. Furthermore, global and regional demand and revenues per application area are analyzed. In addition to market development, demand for product types and plastic types is also analyzed.

These plastic additive types are examined in detail: Fillers; Plasticizers; Pigments; Flame retardants; Stabilizers; Impact modifiers; Lubricants; Antioxidants; Blowing agents; other plastic additives.

Application areas analyzed in this study: Packaging; Construction industry; Transportation, especially the automotive industry; Electrical & electronics; Industry; other applications.

The following plastic types are considered individually: Polyvinyl chloride (PVC); Polypropylene (PP); Polyethylene (PE); Polyurethane (PUR); Engineering plastics; other plastics.



In Chapter 2, 29 countries are examined individually, particularly large national markets such as the USA, China, Japan, or Germany. Country-specific demand, demand per additive type, additive demand per plastic type as well as revenues are depicted. Furthermore, demand and revenues are analyzed split by the individual application areas.

Chapter 3 provides company profiles of the largest manufacturers of plastic additives – clearly arranged according to contact details, revenues, net income, product range, production sites, and profile summary. In-depth profiles of 68 manufacturers are given.

➔ <https://ceresana.com/en/produkt/plastic-additives-market-report>

## Course for Constant Growth and Technological Leadership

Kautex Maschinenbau is embarking on an innovative and sustainable future under the leadership of its new CEO. With a clear strategy, a focus on the further development of economic technologies and the development of new markets, the company is providing structured impulses for global growth. The expansion of the technical center and the development of new product segments are intended to reposition Kautex as a leading provider in the field of efficient mechanical engineering for plastics processing.

Kautex Maschinenbau System announced the appointment of Eike Wedell as its new Chief Executive Officer. With over 35 years of experience in plastics technology, Eike Wedell brings a combination of industry knowledge, leadership and innovative spirit that will lead the company into a new era of growth and sustainability.

"Kautex is a company with a global reputation in the plastics industry and enormous potential. I look forward to working with the team to develop new technologies and implement a sustainable growth strategy that will bring Kautex back to the top," says Eike Wedell at the start of his new position.

As a long-standing expert in plastics technology and with a clear plan for sustainable development, Wedell sees the circular economy as one of the key challenges of the future. "Visions are a reach for the stars. However, the next achievable steps are clear to me: the entrepreneurial success of Kautex and the establishment of a stable organization after turbulent years. This will provide security for our customers, but also for the families of our employees. It will also accelerate the development of sustainable technologies that save our customers money and protect the environment."

In order to achieve these goals, Wedell is planning an intensive examination of the company's previous working methods.

A central strategic focus is the development of new markets and product segments. To this end, tar-



*Eike Wedell*

geted investments are being made in adjacent technologies, among other things. Eike Wedell explains: "I have three main priorities: I want to ensure that employees are proud of their Kautex products and that everyone has the goal of producing the most economical blow molding systems – in time and exceeding expectations.

Secondly, we will massively expand our technical center to serve not only as an innovation center, but also as a central location for further training and exchange. It will become a place where employees, customers and partners can come together to work on forward-looking solutions."

Wedell's third focus is on the development of a new product segment that will help to balance out market fluctuations. The focus will be on technologies that address both sustainable materials and innovative fields of application, for example in the circular economy and in the area of renewable energies. The aim of this initiative is to reduce dependence on traditional markets and at the same time open new growth opportunities.

In his management work, Eike Wedell relies on a cooperative management style based on trust, personal responsibility and teamwork. "The greatest success is when my team can say: We did it together". In addition to a lean organization and more efficient processes, opti-

mizing the ERP system will also be a top priority, which will have a positive impact for our customers.

"Our current standard of living would be inconceivable without plastics, but the industry has so far failed to consistently implement the circular economy. We want to make our contribution here and I will continue to strongly promote this. That is why we are also part of R-Cycle," says Wedell. It is clear to him that innovation, sustainability and close cooperation with employees, customers and partners are the pillars of Kautex's future success.

Eike Wedell is convinced that the common path into the future requires commitment and a willingness to change. "Success comes through participation. We want to be a reliable problem solver and partner for our customers and business partners."

With the appointment of Eike Wedell as CEO, Kautex Maschinenbau System GmbH is optimistic about the future and is setting clear signals for growth, innovation and sustainability.

Kautex Maschinenbau  
[www.kautex-group.com](http://www.kautex-group.com)

Jwell Machinery Co. Ltd.  
[www.jwell.cn](http://www.jwell.cn)



# AI Boom Drives Demand for High-Quality Data Cables – Best Measuring Technology for this New Trend



With the huge investments in AI data centers such as Stargate in the USA and Deepseek in China and elsewhere, the demand for high-quality data cables is rapidly growing. The quality requirements for these cables set new standards for the extrusion process.

In the past, it was sufficient to control the diameter to the nominal value. Nowadays, however, brief variations in a wide range of parameters of this cable type cause reflections during data transmission. This significantly reduces the usable length of a wire pair. Anyone who has to meet the requirements for this cable type on a permanent basis cannot

do it without continuously monitoring the performance of the extrusion process.

Data cables are generally used for data transmission in the range of up to several gigabytes/s. Twisted wires with low-loss foamed insulation with minimized reflections can be used for this high data rate up to a length of 100 meters and more.

The real challenges with this cable type lie in the short-term, periodic variations and not only in the diameter and the scatter of these and other measured values.

It is the single value accuracy that matters, not the average of

*SIKORA offers suitable technology for the extrusion of data cables (\*This image was created using AI)*

many measured values: SIKORA devices such as LASER, CENTERVIEW or CAPACITANCE measure diameter and eccentricity values with the highest single value precision, so that decisive deviations and scatter of the nominal values can be precisely recorded.

**SIKORA AG**

➔ [www.sikora.net](http://www.sikora.net)

## Proportioning Valve for High Throughputs

The METROMIX Ø76 mm has been added to the proportioning valve series from motan. This means that maximum throughputs of 6000 kg/h are now possible.

With the proportioning valve, the precise and reliable addition and mixing of regrind and virgin material is easy to achieve. The proportion and number of mate-

rial layers per conveying cycle can be easily adjusted. A large transparent access flap enables easy cleaning.

The METROMIX Ø76 is now available.

**motan Group**

➔ [www.motan-group.com](http://www.motan-group.com)



*METROMIX 76 (motan Group)*

## Change in the Management Team

ILLIG packaging solutions GmbH has made a change in management with effect from January 15th, 2025. Matthias Holder has taken over the dual position of Chief Sales Officer/Chief Technology Officer from Jürgen Lochner, who is leaving the Heilbronn-based company after several years to pursue new career opportunities.

Matthias Holder will head the Sales, Technology and Service divisions at ILLIG. His initial focus will be on the strategic realignment of the global sales and service business in a challenging market environment. The successful market launch of the ILLIG Dry Fiber Systems for the production of sustainable packaging solutions made from dry natural fiber will be one of his key priorities. At the same time, business with the well-known portfolio of thermoforming and packaging systems has to be strengthened.

Matthias Holder has extensive experience in the printing and packaging industry as well as in mechanical engineering. He successfully led transformation processes in corporate groups and medium-sized companies.



*The management of ILLIG packaging solutions GmbH, from left to right: Matthias Holder, Carsten Strenger, Thomas Schmidt (Source: ILLIG)*

Jürgen Lochner, who has been Managing Director (CSO/CTO) at ILLIG since December 2020, will leave the company after handing over all topics and projects to his successor.

The management of ILLIG packaging solutions GmbH is represented by Carsten Strenger (CEO), responsible for production and commercial divisions, Matthias

Holder (CSO/CTO), responsible for sales, service and technology, and Thomas Schmidt, who has been Chief Transformation Officer for the company since its restart as ILLIG packaging solutions GmbH on August 1st, 2024.

ILLIG packaging solutions GmbH  
[www.illig.com](http://www.illig.com)

## New Agent in Italy

Nordson Corp.'s Polymer Processing Systems (PPS) division has announced an expansion of its sales agent network in Europe to boost global support for its BKG® melt delivery and pelletizing customers.

FIMIC has been appointed the exclusive agent for Nordson's BKG® products in Italy. This strategic partnership combines the expertise of two industry leaders, aiming to strengthen the Nordson BKG brand and provide enhanced solutions to the Italian plastics processing market.

The collaboration combines Nordson BKG's globally recognized portfolio of high-performance melt pumps, screen changers, and pelletizing systems with FIMIC's extensive knowledge of melt filtration processes and established network within the Italian plastics industry. This powerhouse combination is poised to deliver unparalleled technical support, streamlined sales channels, and innovative solutions tailored to the specific needs of Italian processors.

The partnership will allow Nordson BKG to expand its reach and reinforce its commitment to delivering innovative solutions for the plastics industry globally.



*From left to right: Claudio Bonafede (FIMIC Sales Director), Christian Schröder (Nordson BKG Global Segment Manager, Recycling), Erica Canaia (FIMIC CEO), Sven Conrad (Nordson BKG Global Segment Development Director)*



"We are delighted to welcome FIMIC as our strategic partner in Italy," says Sven Conrad, BKG's Global Segment Development Director at Nordson. "FIMIC's strong industry connections, technical expertise, and dedication to customer satisfaction make them the ideal partner to represent the Nordson BKG brand. This strategic alliance will enable us to reach a wider customer base and provide our innovative melt processing technologies with the high level of service our customers expect. We are confident we will deliver significant value to the Italian market together."

"We are thrilled to partner with Nordson BKG to bring their cutting-edge technology to the Italian mar-

ket," says FIMIC CEO Erica Canaia. "FIMIC has long been committed to providing our customers with the highest quality and most efficient filtration solutions. Adding Nordson's BKG renowned products to our portfolio allows us to offer a more comprehensive, end-to-end solution and elevate process efficiency for our customers. Our deep understanding of the Italian market and our technical expertise ensure customers will receive exceptional support and customized solutions."

This partnership officially commenced on January 1st, 2025.

Nordson BKG GmbH  
[www.nordson.com](http://www.nordson.com)

## Personalia

Dr. Oliver Tröppner took over the Materials Development Group at the SKZ Plastics Center at the beginning of the year. This means that the Würzburg institute has found a successor from within its own ranks.

Oliver Tröppner has already been working at SKZ-Das Kunststoff-Zentrum for ten years. After joining in April 2015 as a research assistant in Materials Development, he took over as Head of Materials Testing for two years before returning to Materials Development as a Senior Scientist. Since January 1, 2025, he has been responsible for this strategically important group as Group Leader.

The Materials Development group deals with industry-related research and development in the field of plastics and biopolymers as well as relevant additives. To this end, the institute offers various services for industrial companies and is involved in research projects.

The Materials Development group at the SKZ is dedicated to new and further developments of plastic systems with practical relevance to industry. This includes the development of bio-based and biodegradable plastics, recycling and the sustainable use of materials. Additives and functional fillers to optimize properties are also being researched, as is the development of blends and compounds for specific applications. Finally, new manufacturing processes for materials in additive manufacturing are also being developed



*Dr. Oliver Tröppner: "Together with the team, I look forward to being available to our members, customers and partners as a competent point of contact for the development of plastic formulations and other areas of material development. Our projects are not only technologically exciting, but often have direct industrial applications, which makes our work particularly varied and practical." (Photo: Luca Hoffmannbeck, SKZ)*

In addition to research, the Materials Development Group offers a wide range of services for industrial partners. These include complete material data determination for simulation purposes, determination of melt viscosity using high-pressure capillary rheometry (HKR), analysis of molar mass distribution using gel permeation chromatography (GPC), microscopic examinations (SEM, light microscopy), market analyses for material research based on specific specifications and development of customized materials for individual applications in our own technical centre.

"We are delighted that we have been able to fill this group, which is of enormous importance for a plastics institute, with a long-standing employee with a wealth of experience and expertise. This will enable us to further promote current topics relating to materials and to develop sustainable and innovative plastics technologies for the future," says Dr. Johannes Rudloff, Head of Materials, Compounding and Extrusion.

The SKZ Plastics Center  
[Dr. Oliver Tröppner, o.troepner@skz.de](mailto:o.troepner@skz.de)



## New Leadership in Western Europe and Asia

Packaging and recycling specialist ALPLA is restructuring its leadership in its two Western Europe (WEEU) and Asia-Pacific (APAC) regions. Roland Wallner (Managing Director APAC since 2021) took over as Managing Director Western Europe (WEEU) on 1 April 2025. Ronald Tichelaar, General Manager China until then, succeed him as Managing Director APAC at that time.

With over 27 years of international management experience in Europe, the US, Middle East and Asia, and 14 years at the company, Roland Wallner was most recently Managing Director Asia-Pacific (APAC). During his successful time in Asia, driving significant top- and bottom-line growth, Wallner built up and expanded the company's presence in several Asian countries and oversaw multiple major green-field projects. He established the new technical centre for product development in Shanghai and introduced services such as the STUDIOa design centre and mould manufacturing. In recent years, Wallner successfully merged the former North-East Asia and South-East Asia regions into the new APAC region, based in Singapore.



*Roland Wallner, Managing Director  
Western Europe (WEEU) at ALPLA*



*Ronald Tichelaar, Managing Director  
Asia-Pacific (APAC) at ALPLA  
(Photos: ALPLA)*

Ronald Richelaar, the new Managing Director APAC, has 14 years of international management experience at ALPLA, including as Head of Operations in North Asia and Plant Manager in Spain. As General Manager China, he led six plants, the technical centre and STUDIOa in Shanghai as well as the mould shop

and Future Corner training centre. Despite the challenges posed by the pandemic, Tichelaar revitalised business growth, achieved first-class operational excellence and set benchmarks in quality and efficiency.

**ALPLA Group**  
▶ [www.alpla.com](http://www.alpla.com)

## Aim at Brazilian Market

Gaia Biomaterials has appointed MFI Polymers as their commercial representative in Brazil. The company is headed by Dr. Mercia Fernandes who holds a PhD in Polymer Science and specializes in sustainable polymer solutions.

Gaia Biomaterials from Sweden produce Biodolomer – a limestone based alternative to plastic that is fully compostable and leaves no microplastics.

"The Brazilian market for sustainable alternatives to fossil plastic is huge", says Dr. Fernandes. "The size of the country makes it difficult to create an infrastructure for recycling, and therefore, there is a big interest in compostable solutions – such as Biodolomer."

Dr. Fernandes has a lengthy academic background in polymers and has focused her research on sustainability and degradable materials for several years. "When I found Gaia Biomaterials, it was what I had always looked for – a genuine compostable alternative with very high quality and, more importantly, that leaves no

microplastics. I see the most significant potential in rigid materials for straws and cups and flexible film materials for packaging in the food industry, agriculture, and plastic bags."

According to Dr Fernandes, the market is currently flooded with products that are marketed as sustainable. Yet, these are often accompanied by inaccurate information or a lack of a clear understanding of key environmental concepts. "For a researcher, explaining the difference between Gaia's materials and others is easy. And once you explain it to people and they see and feel for themselves, you tend to have a "follower". I am confident that many Brazilian businesses will transfer to Biodolomer in the coming years."

**GAIA Biomaterials AB**  
Dr. rer.nat. Mércia Fernandes  
▶ [www.gaiabiomaterials.com](http://www.gaiabiomaterials.com)

## Corrugated Tube Crossheads and Dies

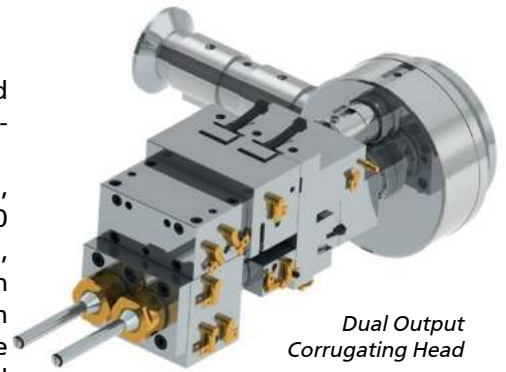
Guill Tool, the global leader in extrusion tooling, offers their patent pending extrusion tooling, Series 400. It's adaptable to a wide variety of corrugated equipment and molds. The Series offers a host of benefits for OEMs, as well as for automotive and medical applications.

The unique tooling includes the multi-port spiral flow design that provides a balanced compound distribution with no weld lines to the

corrugator. The elimination of weld lines significantly increases the finished product's overall strength.

Models offered include 420, 423, 432 and 434. Features of the 400 Series include Spiderless Inline, fixed center or adjustable, built in cartridge heaters, adjustable gum space, low inventory, expandable to multi-layer, heated core pin and one-piece body/flow diverter.

Since there are no spider lines, there's room for more air and no cold legs. Most products should be run fixed. Users can change only one component and become fully adjustable. The cartridge heaters offer even heat for better flow and ensure there aren't any cold spots. More control of product size is achieved with adjustable gum space. Low inventory results in no burning or

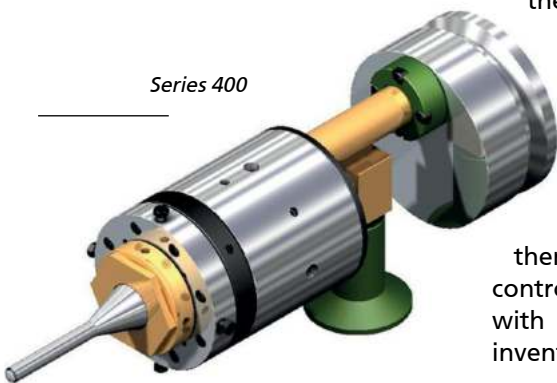


Dual Output Corrugating Head

stagnation-quick color change. Due to the fact that it's expandable to multi-layer, the crossheads run a variety of products. Lastly, benefits of the heated core pin and one-piece body/flow diverter are better temperature control and easy cleaning-quick changer, respectively.

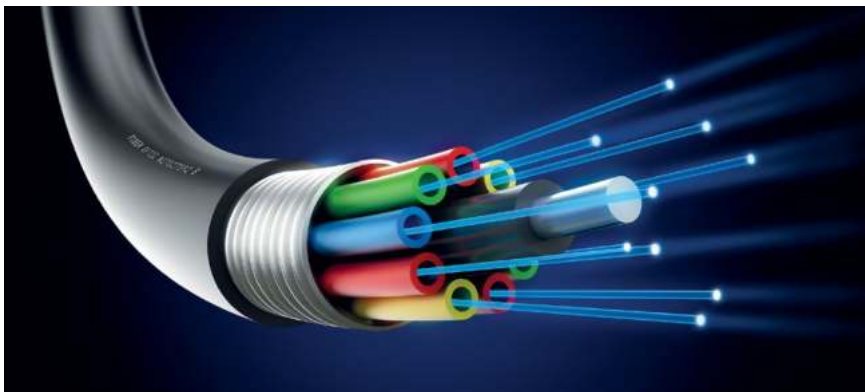
For more information:

Guill Tool & Engineering, Co., Inc.  
Tom Baldock, Sales Manager, Extrusion  
→ [tbaldock@guill.com](mailto:tbaldock@guill.com)



Series 400

## "MICRO MEDICAL" Extrusion Tooling



Additionally, the Guill Micro Medical crosshead offers great flexibility to its users. It not only accepts both vacuum and micro-air accessories, but is also ideal for pressure and sleeving applications. Fluoropolymer designs are available upon request.

For more information:

Bill Conley, Sales Manager,  
Guill Tool & Engineering  
→ [www.guill.com](http://www.guill.com)

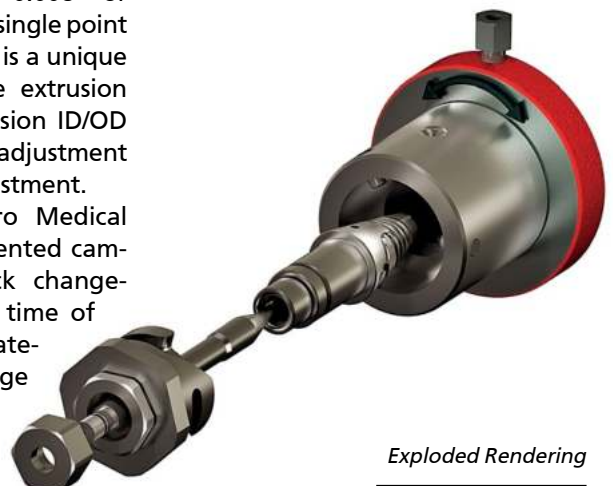
Guill Tool & Engineering introduces the new Micro Medical, an extrusion crosshead that uses micro-fine adjustment screws for precise concentricity adjustment. The precision

of concentricity reaches 0.008" or finer per revolution. This single point concentricity adjustment is a unique Guill innovation for the extrusion of thin-walled and precision ID/OD medical tubing. One adjustment bolt controls 360° of adjustment.

Features of the Micro Medical crosshead include a patented cam-lock deflector for quick changeovers, with a residence time of one minute at .5 lb/hr material flow, optimized usage with extruders measuring 1/2" and 3/4", and a max die ID of .250."



Rendering



Exploded Rendering

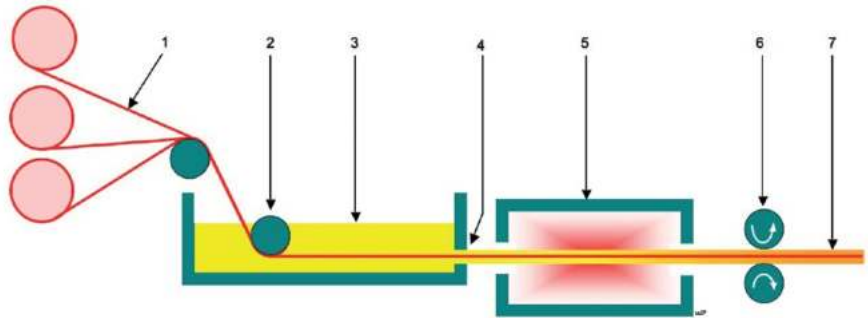
# Pultrusion Dies

*Guill Extrusion Division Enters Pultrusion Market with Advanced, Custom-Engineered Tooling Solutions.*

Guill proudly announces the expansion of its product portfolio to include custom-engineered pultrusion dies. This strategic move marks a significant advancement in providing comprehensive, high-quality tooling solutions for industries such as automotive, aerospace, construction, energy, marine, sporting goods and telecommunications.

As the demand for pultruded composites grows due to their strength, durability and lightweight properties, Guill is well-positioned to meet this need. Leveraging its expertise in extrusion tooling, Guill is now applying its precision engineering capabilities to develop innovative pultrusion dies tailored to the specific requirements of each target industry.

"We are excited to enter the pultrusion market with our advanced tooling solutions," said Peter Leary, Technical Sales Engineer at Guill. "Our extensive knowledge of extrusion processes and commitment to custom engineering enable us to design dies that not only meet but exceed our clients' expectations



*Diagram of the pultrusion process:*

- 1) Continuous roll of reinforced fibers/woven fiber mat;
- 2) Tension roller;
- 3) Resin impregnator;
- 4) Resin soaked fiber;
- 5) Die and heat source;
- 6) Pull mechanism;
- 7) Finished hardened fiber reinforced polymer

in terms of performance, efficiency and quality."

The Guill Tool Extrusion Division has a long history of designing and manufacturing tooling for various applications, including medical tubing, wire and cable coating, hose production and multi-layer extrusions. Its capabilities include creating multi-layer crossheads, in-line, reciprocating, rotary dies and a variety of other custom solutions supporting materials such as plastics, rubber and silicone.

## New Pultrusion Tooling for Advanced Composite Applications

Guill's new line of pultrusion dies is engineered for industries utilizing fiber-reinforced polymers (FRP), such as:

- \* Fiberglass Reinforced Polymers (FRP)
- \* Carbon Fiber Reinforced Polymers (CFRP)
- \* Aramid Fiber Reinforced Polymers (e.g., Kevlar)

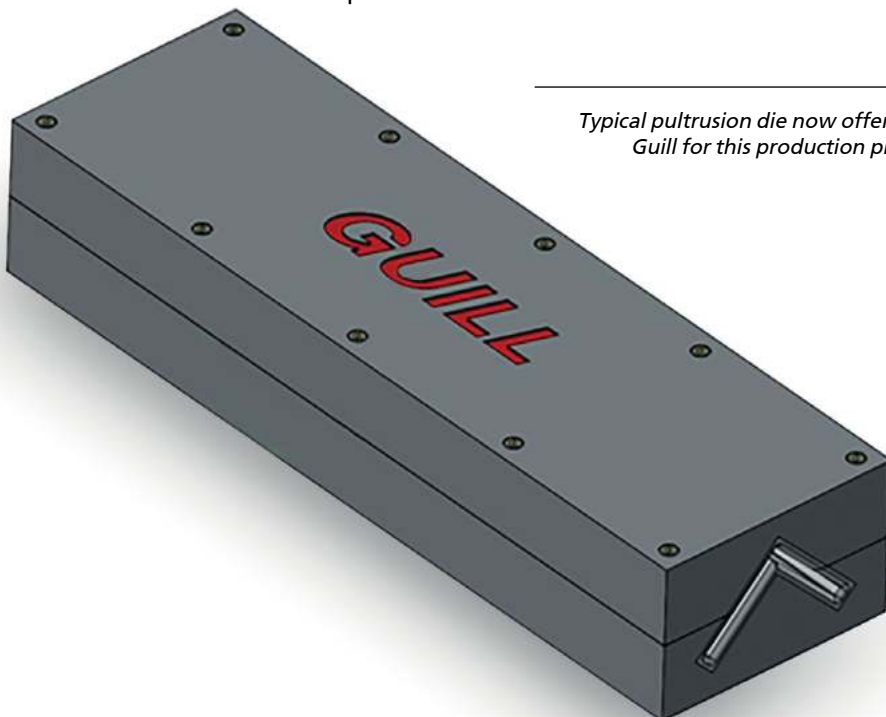
These dies are compatible with a range of polymer matrices, ensuring versatility and high performance across different applications.

Tom Baldock, Guill sales manager, is looking forward to introducing a whole new set of customers to the company's dies. He notes, "Pultrusion is a cost-effective process for producing parts with a constant cross section in high volumes, requiring relatively little labor. Fiber-reinforced polymer (FRP) pultruded composites are durable, corrosion-resistant and eco-friendly."

For more information:

Guill Tool & Engineering, Co., Inc.  
Tom Baldock, Sales Manager, Extrusion  
10 Pike Street, West Warwick,  
RI 02893, USA  
→ [tbaldock@guill.com](mailto:tbaldock@guill.com)

*Typical pultrusion die now offered by Guill for this production process*





# Speed Record for Multilayer Composite Pipe Production

*battenfeld-cincinnati and Templet are working closely together to develop systems for the production of multilayer composite pipes. In a highly competitive market, pipe manufacturers need solutions to achieve higher production speeds while maintaining consistently high pipe quality and reducing scrap rates.*

Thanks to continuous new- and further developments, and the use of state-of-the-art technologies, the two partners have now succeeded in setting new standards. Machines with guaranteed production speeds of 60m/min were already delivered in 2018. Six years later, the two technology leaders have managed to develop turnkey systems that continuously produce at speeds of 80m/min. This leap in speed of 20m/min guarantees the pipe manufacturer an increase in production capacity of around 30,000 m per day.

However, it is not only the significantly higher production speeds that are worth mentioning, but also

---

*New uniEX 75-30, from battenfeld-cincinnati Germany GmbH. Latest processing technology an new BCtouch UX Control System with intuitive process control for best results in the extrusion process. The Templet Laser Line is fully integrated in the battenfeld-cincinnati machine control (Picture: battenfeld-cincinnati)*



*LASER LINE, manufactured by Templet Deutschland GmbH. Sophisticated measuring and automation solutions for efficient high-speed production of aluminium multilayer pipes (Picture: Templet)*

the newly designed control system. This allows the machine operators easy handling and extremely precise setting options. Various measuring devices provide the plant operator with real-time analyses that depict the production process in the form of a diagram. This enables any errors that occur to be recognized at an extremely early stage and production waste to be reduced enormously.

"It is crucial that the high speeds can be easily simulated - simulation is es-

sential for this," says Alexander Bonn Managing Director of Templet.

An absolute highlight of the new high-tech system is definitely the optimized control of all vacuum pumps on both, the vacuum tanks and the vacuum generators used on the coating tools. "This means that the speed of the entire system can be easily changed at any time without producing scrap", adds Thomas Ritz, the responsible product manager at battenfeld-cincinnati. This means that the pump performance and the resulting vacuum can be assigned to the product-specific speed ramps after a one-time pre-parameterization during commissioning. When ramping the system speed up and down, this eliminates the need for manual intervention by the operating personnel, which means that saleable pipes can continue to be produced



without any problems, even if the system speed is changed. "You can imagine it as follows – after starting up the production line, an operator increases the speed from e.g. 20m/min to 80m/min by simply activating the stored target ramp in the system control. The system does everything else by itself. Without any further manual intervention, the machine consistently produces flawless, saleable pipe," adds Thomas Ritz.

battenfeld-cincinnati and Templet offer the newly developed

systems for the production of laser-welded multilayer composite pipes for a dimension range of 14-40mm. A new concept has also been developed for larger pipe diameters up to 75mm. However, it should be noted that the speeds are limited due to the larger components and the resulting lack of dynamics.

With customized solutions and their combined innovative strength, battenfeld-cincinnati and Templet Deutschland continue to achieve the highest product quality and mea-

asurable increases in the efficiency of their systems. Last but not least, customers can also count on a highly qualified, globally available service network, which guarantees high plant availability and qualified support for process engineering challenges at all times.

battenfeld-cincinnati

► [www.battenfeld-cincinnati.com](http://www.battenfeld-cincinnati.com)

Templet Deutschland GmbH

► [www.templet.de](http://www.templet.de)

# Pioneer Food-Grade Polystyrene Recycling in Latin America

*Innovative OMNI recycling technology enables Plastlit to integrate post-consumer polystyrene into food packaging, setting new sustainability standards in Ecuador and beyond.*

PLASTLIT, a company with over 55 years of experience in Ecuador and South America, began its journey with flexible packaging for the food industry and later expanded into food service packaging for delivery and various applications. Renowned for its industrial, ecological, and social responsibility, PLASTLIT has built a strong reputation through continuous innovation, producing high-tech products made from materials that are recyclable, reusable, and renewable.

While foodservice packaging has provided essential solutions to the industry since the 1980s, it has also brought waste management challenges, particularly in markets such as Ecuador. Collaboration with local authorities and waste management companies has been limited, making pollution, particularly from single-use plastics, a significant issue.

As a leading supplier of single-use plastics to the foodservice industry, PLASTLIT recognised its responsibility to address this challenge.

Esteban Simon, PLASTLIT CEO: "We began to look at recycling as a solution for the community, recognising that pollution, particularly from plastic, is a significant issue. It is a challenge that affects and involves all businesses operating in the community."

PLASTLIT now uses 18% post-consumer polystyrene with 82% virgin material in all of its expanded polystyrene foam packaging. This innovative solution has been made possible through a joint effort with local recyclers who collect material from towns and cities. The collected post-consumer material is washed, shredded and then processed using Gneuss OMNI recycling technology for decontamination and cleaning. This ensures that the recycled material meets food grade standards. A Letter of No Objection (LNO) from a North American food safety authority confirms compliance with food safety requirements.

Esteban Simon: "We chose Gneuss as our partner because of their



*Esteban Simon, CEO of PLASTLIT*

outstanding technologies and know-how. Their achievements in the plastics and recycling industries truly convinced us of their ability to support our project."

The Gneuss Super-Clean Process enables the efficient recycling of 100% post-consumer plastics into safe, high-quality materials, even





Sorting polystyrene packaging from the post-consumer sector



Food grade polystyrene packaging from Plastlit

for food packaging. This outstanding performance is achieved using a Gneuss OMNI recycling system, which combines advanced degassing with the MRS extruder and fine filtration with the RSFgenius system to effectively remove contaminants. Unlike other processes, this Gneuss technology requires no pre- or post-processing steps. Vacuum systems to remove contaminants from the degassed vapours complete the system, enabling previously unattainable recycling loops. Successful challenge tests and certifications, including approvals from a North American and a Colombian food safety authority (INVIMA), confirm the exceptional decontamination efficiency of the process, which exceeds global standards and ensures safety under various storage conditions.

The Gneuss OMNI recycling line at PLASTLIT is the first of its kind in Lat-

in America to recycle post-consumer polystyrene waste into food contact materials. This installation represents a significant advancement in sustainable recycling solutions for the region.

Since 2020, Ecuador has been at the forefront of Latin America's efforts to reduce single-use plastics and promote recycling. The legislation includes bans on certain items, requirements for recyclable materials, improved waste management through public-private partnerships and initiatives to raise environmental awareness. These measures create a win-win situation for recyclers, the environment and the food packaging industry, establishing Ecuador as a leader in promoting sustainability and a circular economy.

"Our current focus is on incorporating up to 18% recycled material into our finished products, and

we're very pleased with the progress we've made so far," says Esteban Simon. "Looking ahead, this is just the beginning. Our goal is to expand the use of recycled materials into industrial packaging for the food industry. This includes flexible packaging solutions, such as sheets for dairy or yogurt manufacturers. Transitioning from food service to industrial packaging with recycled materials is a key area we are actively pursuing. When you think about plastic packaging in the future and recycled material, recycling and plastic must go hand in hand, and Gneuss is the right partner to make that vision a reality."

**Gneuss Kunststofftechnik GmbH**  
 Moenichhusen 42, 32549 Bad  
 Oeynhausen, Germany  
[www.gneuss.com](http://www.gneuss.com)



Michael Miele - Operator, Josué Sellan - Operator, César Parra - Production Manager, Donato Álvarez - Process Engineer, Stalin Arias - Operator in front of the OMNI Recycling Line

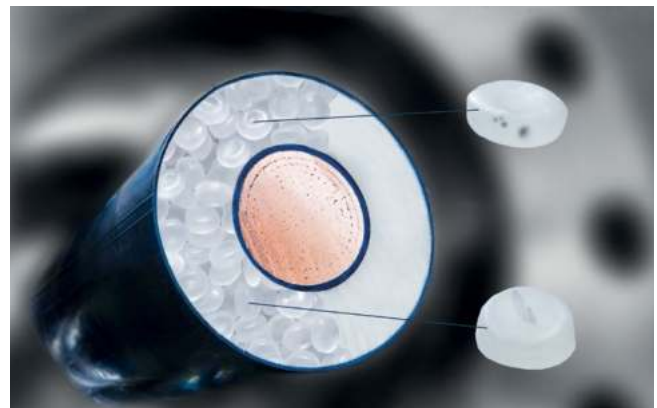


# How to Eliminate Contamination Thanks to the Latest Material Sorting

*Plastics used for the insulation of medium, high and extra-high voltage cables must meet the highest standards of purity. The two most common materials are XLPE (cross-linkable polyethylene) and PP (polypropylene). Both materials have their specific advantages, but also special requirements that must be considered in the extrusion process. SIKORA's PURITY SCANNER ADVANCED is an advanced inspection and sorting system that reliably ensures the material quality of both plastics.*

## Impurities in XLPE and PP – a common challenge

XLPE is a proven insulation material for medium and high voltage cables, manufactured by chemical cross-linking of polyethylene. It offers good electrical and physical properties, but requires long degassing times and is not recyclable. PP is a modern alternative with similar properties, but does not require cross-linking. This enables a more efficient, continuous production and also makes PP recyclable. However, PP has a higher degree of contamination, especially by metallic particles, which can affect the quality of the cable insulation. Regardless of the material used, the purity of the pellets is a decisive factor for the quality of the final product. Impurities such as metallic particles affect both XLPE and PP for use as insulation.



*Impurities such as metallic particles can affect both XLPE and PP. The PURITY SCANNER ADVANCED detects the smallest contamination in the material – before they enter the extrusion process*

*The PURITY SCANNER ADVANCED for the inspection and sorting of XLPE and PP pellets*



## State-of-the-art inspection and sorting system ensures quality

The PURITY SCANNER ADVANCED by SIKORA is the ideal inspection and sorting solution for XLPE and PP. It combines X-ray technology with optical camera technology to real-time detect and sort out contaminated pellets such as metallic particles, black specks and yellowing. This ensures that material quality is continuously monitored, so that only pure pellets enter the further processing.

The system detects even the smallest impurities: down to 25 µm for black specks and 50 µm for metal particles. An intelligent sorting process, known as "hybrid blow-out", minimizes the rejection of valuable, clean material. Depending on the customer's requirements, it is possible to define which contaminants are tolerable. Small, light black specks can be removed with a smaller air-blast unit, thus reducing the by-catch. Critical contaminants, such as metal particles, which can impair the functionality of the end product, are sorted out with a larger unit. This highly precise interplay ensures the highest material quality.

In many production environments, space is a limiting factor. The PURITY SCANNER ADVANCED has been specially developed for a compact and efficient integration, so that optical and metallic sorting is done by one device. This reduces costs and ensures a smooth material flow.

In order to avoid secondary contamination during the inspection, SIKORA relies on an enclosed material transport via stainless steel channels that does not introduce any particles into the material flow. The targeted sorting is carried out by means of purified compressed air, which ensures the purity of the XLPE or PP pellets.

For over 10 years, medium, high and extra-high voltage cable manufacturers worldwide have relied on the PURITY SCANNER ADVANCED – now in its fourth generation. Regardless of whether XLPE or PP is used, the purity of the insulation material remains a critical factor in cable quality. Thanks to state-of-the-art inspection and sorting, the PURITY SCANNER ADVANCED helps to optimize production processes, reduce costs and promote sustainability in the plastics industry.

SIKORA AG

Bruchweide 2, 28307 Bremen, Germany

→ [www.sikora.net](http://www.sikora.net)

# Filtration Efficiency in PET Recycling Thanks to Automated Inline Cleaning

*Large-area filtration faces the stigma of high costs, maintenance efforts, and time-consuming changeover and cleaning activities. However, good filtration is unavoidable with increasing rPET proportions. So, BB Engineering has addressed these issues with its decades of experience in extrusion and filtration. The new COBRA filter combines continuous and automated large-area filtration with integrated intermediate filter cleaning – setting a new standard in efficiency, ease of use and resource saving, and finally meeting the demanding requirements of recycling processes.*

## Large-area fine filtration made for recycling

Recyclers are currently dealing with a dilemma when it comes to filtration. Increasing recycling quotas coupled with insufficient availability mean that lower input qualities are also being considered for recycling, resulting in more challenging contaminants. At the same time, higher-quality applications are being targeted, which further intensifies the requirement for fine filtration. There are systems for large quantities of contaminants, but they do not filter as finely as a candle filter. There are also candle filters that provide excellent filtration but cannot cope with high levels of contamination.

The new COBRA filter can do both. It was specially developed for demanding filtration tasks with high levels of contamination, particularly in PET recycling. Multitasking is the keyword. COBRA unites large-area fine filtration with simultaneous, fast and effortless cleaning, and is therefore able to handle higher contamination rates, which common candle filters would fail on. However, this allrounder can also be used for other applications, e.g. in synthetic fiber spinning.

*Rendering of BB Engineering's new COBRA filter*



### Continuity and process stability thanks to automation

As a continuous filter, the COBRA filter has two filter inserts, one of which is always active in production mode and the other either in stand-by mode or in intermediate cleaning. The automated switchover ensures a smooth changeover between the inserts. The status of the filter inserts is constantly checked by the system and, if necessary, the COBRA filter automatically initiates the cleaning and changeover process. All the operator has to do is confirm this on the user interface – no further manual intervention is required. The process thus continues to run stably and safely without interruption. Operator-related deviations in the switching process, operating errors or delays, all of which could affect the process, cannot occur.

### Effortless inline cleaning – effective and safe

The highlight of the COBRA filter is the integration of BBE's White Filter Cleaning technology (WFC). This process enables absolutely chemical-free and environmentally friendly intermediate cleaning of the filter inserts using hot steam alone and extends the filter's service life many times over. BBE has already had WFC in its product portfolio as a stand-alone solution for several years. Now, for the first time, the cleaning system is integrated directly into a filter, bringing additional advantages, like cleaning speed and wear-reduction. Production and cleaning becomes an alternating interaction. Only after multiple operating/cleaning cycles (the exact number depends on product and degree of soiling) is it necessary to completely remove the filter insert for a service check and full cleaning. The WFC cleaning process only takes around 10 hours, whereas conventional cleaning takes several days. Filtration and cleaning form a self-contained, automated system that guarantees process and operating safety in equal measure: The operator does not have to handle melt or chemicals.

### Development goals: Simplified handling, economic efficiency

BB Engineering pursued clear objectives when developing the COBRA filter: in addition to adapting the system to the growing challenges arising from increasing levels of contamination in recycling, BBE focused on simplifying filter changes and cleaning processes through automation as well as significant savings in operating costs.

And that has been successful. Comparing the COBRA filter with other fine filters with a throughput of 2000 kg/h reveals a saving of 40% in pure operating costs. This saving results from various aspects. One significant part of the savings comes from the reduction of melt loss through backflush-cycles. Another key point is the continuous operation with significantly longer service life thanks to the integrated cleaning with steam. This is linked to reduced use of spare parts and consumables due to the gentle treatment, conversion costs and a lower energy requirement, as no heating and cooling phases and generally lower cleaning temperatures are required. Costs of chemicals are completely eliminated. Automation reduces personnel costs due to the low operating effort and training requirements. In terms of operation, the COBRA filter is also very safe – the closed system of filtration and cleaning without chemicals eliminates many of the risks associated with conventional filters and cleaning methods, such as the risk of injury and fire.

The cost savings are even more far-reaching if you extend the consideration to the downstream processes. The outstanding cleaning performance of COBRA saves a great deal of effort, interruptions and further processing.

The new COBRA filter was presented to the public for the first time at the PRSE in Amsterdam at the beginning of April.

BB Engineering GmbH  
[www.bbeng.de](http://www.bbeng.de)



# Foaming Technology in Wire & Cable Applications

*Promix Microcell Technology is applicable to any extrusion process where material cost is sensitive, and performance requirements are non-negotiable. The Wire & Cable industry is a regulated field where electrical, mechanical and ageing performance is key for the successful introduction of reliable products.*

While chemical foaming of coaxial telecom cables has been applied in the past, physical foaming of a much broader range of data (fiber optical, copper) and power cable applications leads to a more cost-attractive, more stable, more sustainable and better performing product. Promix Solutions is the leader in physical foam extrusion using environmentally friendly blowing fluids like CO<sub>2</sub> and nitrogen. The company will showcase its technology at **Interwire USA from May 13 – 15, 2025 in Atlanta, GA** at booth 539, Swiss Competence Cluster.

The world of wires and cables is diverse, offering various cable designs. While there are limitations for foaming in high voltage power land and submarine cables due to the high electrical stresses, the many low voltage cables and data cable types show great potential to reduce material consumption in the range of 15 to 25% for jacketing and insulation, and even 30 to 60% for bedding and filling compounds. This goes hand in hand with increased cable flexibility, weight reduction and an improved carbon footprint.

Promix Solutions has proven its applicability in many extrusion processes, including sensor cables, fiber optic cables and low-voltage power cables.

A further trend towards replacing the environmentally critical Azo compounds used in chemical foaming of coaxial cables by physical foaming technology results in lower long-term costs, higher process and product stability and end-of-life recyclability. Cables require a super-smooth surface of their sheathing.

If required, by applying a very thin skin layer extruded over the foamed jacket, cable manufacturers have additional design options to benefit from the material savings.

All relevant polymeric materials, by means of LDPE, HDPE, PBT, EVA, Polyolefin elastomers, including filled systems, and PVC have been used in combination with the Microcell Foaming Technology. Performance benefits on the electrical side, i.e. improved dielectric constant and reduced external electrical interference, were realized.

On the mechanical side, higher cable flexibility and a very stable foaming process resulting in narrow diameter tolerances are the outcome for the performance characteristics. The high-quality cell structure made with Microcell Foaming Technology permits a wide application range for wires & cables.

The picture showcases an example of a sensor data cable as used in automotive (upper section), where the bedding is foamed. On the lower part an A-B jacket with a thin skin-layer highlights the potential for jacketing applications in data and power cables.

Gas dosing stations for physical foaming function either on a mass-flow or pressure-controlled dosing regulation. Promix Solutions offers both types of systems, matching customer needs by applications. Besides the actual cable, microducts (material savings of 10 to 15%, mono and multi-layer) and cable protection tubes (material savings of 10 to 25%, multi-layer) serving as cable infrastructure are more examples enabling physical foaming to save material cost and improve their sustainability footprint.



Promix Microcell Technology works for all types of extrusion processes including cables, packaging, films, sheets and boards, pipes and profiles, blown film and extrusion blow molding as well as thermoforming. The technology can be retrofitted to existing extrusion lines as well as installed in new lines. Promix is working with a number of machine builders to achieve a perfect match.

Promix Solutions AG  
Technoparkstr. 2, 8406 Winterthur,  
Switzerland  
www.promix-solutions.com

# New Polyolefin Plant Sets the Benchmark in Plastics Recycling

*Premiere: the new INTAREMA® 2325 sees EREMA grow its post-consumer series to enter a new dimension in recycling. The INTAREMA® 2325 T-VEplus® for regrind applications with laser filter is the largest system ever built to recycle polyolefin regrind and marks a milestone in the very latest recycling technology.*



*The INTAREMA® 2325 T-VEplus® is the largest machine ever built for PO regrind and achieves a throughput of over 4 tonnes per hour. The picture shows the project team in front of the new plant (Photo credits: EREMA GmbH)*

As the demand for recycled plastics increases, so does the need for larger recycling machines. This is an industry where EREMA can draw on a wealth of proven experience. In the PET sector, the machine manufacturer has already implemented several projects with large-scale systems of this magnitude featuring their VACUREMA® technology. Now the company is following that up in polyolefin recycling. The new size of INTAREMA® is EREMA's response to market demand. "New legislation and the voluntary commitment of major product brands mean that in the future, our customers will need to process an increasing volume of plastic waste to make high quality recycled pellets without any compromises," says Markus Huber-Lindinger, Managing Director at EREMA. "The INTAREMA® 2325 is our answer to this need."

## More recycled pellets per hour

The INTAREMA® generation of machines is EREMA's flexible series for handling a wide variety of feed mate-

rials. Available in 13 sizes for film and 9 sizes for regrind applications, the INTAREMA® range covers a broad spectrum. The new 2325 model with a preconditioning unit (PCU) diameter of 2.30 metres and an extruder screw with a diameter of 250 millimetres enables the production of high volumes of high-quality recycled pellets using a single machine. "With a throughput of over 4,000 kilograms per hour for PO regrind, the INTAREMA® 2325 sets new standards in terms of performance and efficiency," emphasises Huber-Lindinger. The system also impresses with its compact footprint in contrast to its high throughput capacity.

## Consistent processes combined with a high level of automation

The plant is packed with innovative technology. The proven key principle of the TVEplus® Counter Current® system lies in melt filtration upstream of extruder degassing. This makes it possible to produce recycled pellets of

impressively high quality, meaning that the proportion of recycled plastics used in the final product can be significantly higher than with lower-quality recycled pellets. "Our extensive trials with around 500 tonnes of material have shown that the INTAREMA® 2325 impresses with high-quality recycled pellets at high throughput rates, all within a very stable process," says Sophie Pachner, R&D Manager for Process Engineering at EREMA.

Like all INTAREMA® systems, this one is also equipped with patented Counter Current® technology. The plastic material moves through the preconditioning unit in the opposite direction to the extruder screw, ensuring a consistently high output over a wide temperature range. This system, combined with a high degree of automation thanks to the intelligent Smart Start® user interface and energy-saving ecoSAVE® technology, makes the INTAREMA® series particularly user-friendly and efficient.

### Largest laser filter ever

"We are convinced that the INTAREMA® 2325 is capable of achieving very high throughputs even with challenging process parameters," says Huber-Lindinger. "This machine is further proof of our company's outstanding engineering capabilities and our willingness and expertise to solve major challenges in plastics recycling."

Many of the specially built, large-scale components were installed and matched together for the first time during this project, such as 690-volt motors and the largest laser filter system ever built by EREMA. The

2/406 Quattro Laser Filter has a total filter area of 7,800 square centimetres and contributes to the high stability of the plant thanks to its robust design and precision filtration. The control panel array is also something new. At 12 metres long, the electrical container is imposing, but it is compact relative to the size of the machine. The well-thought-out configuration makes prior installation, transport and maintenance work particularly straightforward.

### Machine available at short notice

EREMA offers machines for all applications, from small through to XXL sizes. From small systems for production waste with a throughput of around 100 kilograms per hour to large-scale PET systems with an output of 6,000 kilograms per hour, the company's product range covers the whole spectrum. "The INTAREMA® 2325 fits perfectly into our wide product portfolio and enables us to respond even more specifically to the needs of our customers," says Huber-Lindinger.

The INTAREMA® 2325 is available immediately and can currently be purchased through EREMA's Fast Track scheme, which offers selected machines with particularly short delivery times. More information:

EREMA Engineering Recycling Maschinen und Anlagen GmbH  
Unterfeldstr. 3, 4052 Ansfelden, Austria  
[www.erema.com](http://www.erema.com)  
▶ <https://www.erema.com/en/fast-track-machines>

# Newest Dryerless Twin Screw Extruder Series – *Made in the USA*

*Processing Technologies International (PTi) has announced that it is evolving the HVTSE® brand name to align with the current lineup of extruders, with emphasis placed on its significance as a SUPER-G® Twin Screw Extruder with Multi-Resin capabilities, referred to as SGTSE MultiRESN™.*

PTi's HVTSE® line has undoubtedly led the market in dryerless extrusion technology, with the High Vacuum Twin Screw Extrusion (HVTSE®) systems dominating in the areas of energy efficiency, multi-resin capabilities, and dryerless technology. Stressing its inclusion within the SUPER-G® Series of extruders, correlating technology, and substantial sustainable value achieved through multi-resin processing capabilities, means evolving the name to something identifiable and inclusive of its pertinent attributes.

The SGTSE MultiRESN™ model is not new to the product line, as it has been in production for a little over two years now. Improvements have been implemented over time to meet industry demands and processing capabilities. Originally established and operating as a 90mm 50/LD, 430 hp oil cooled, co-rotating twin screw in PTi's Technology Development Center (TDC), the SGTSE MultiRESN™ has proven to be unwavering in power and versatility, without compromise to the HVTSE® standards of efficiency. Maintaining the premise



Picture above represents a SGTSE MultiRESN™ 90mm with die assembly

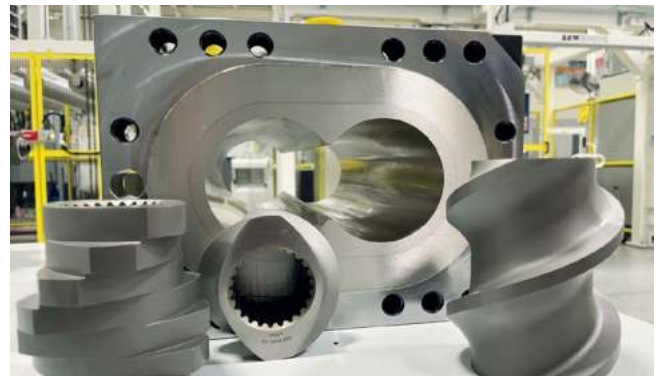


of fully intermeshing co-rotating, self-wiping screws, with high vacuum venting for the elimination of the crystallizing and drying processes, the SGTSE MultiRESN™ outperforms other twin-screw technology in terms of operating performance, energy efficiency, and sustainable utilization of resources.

Capable of processing a variety of virgin, post-consumer, post-industrial resins and flake, including PET, PLA, PP, PS, PE and other unique blends, without first having to crystallize, dry or change screws, the SUPER-G® Twin Screw Extruder with Multi-Resin capabilities offers significant advantages to a processor. Capital equipment needs, floor space, logistics, associated labor and energy usage are minimized or eliminated with dryer-less technology. The added capability to process a multitude of resins on one extrusion system leads to greater versatility and opportunities for the processor to meet consumer demands.

The SGTSE MultiRESN™ speaks to processor sustainability goals and standards in terms of energy efficiency and resource management. Energy efficient designs target sensible production rate ranges well suited in today's production environments, with increased efficiency ratings of over 20%. The newly configured square barrels design heats up faster with higher heater-to-barrel mass density ratios vs that of round barrel counterparts, resulting in heat-up times reduced by as much as 30%. Resins (pellet, flake, and process scrap) can be immediately introduced into the process without

*Oven style guards for high heat retention, cast bronze and aluminum heaters use a targeted energy theory to deploy energy where the process demands it*



*SGTSE MultiRESN™ fully welded modular barrel sections, featuring liquid-cooled cores that eliminate over 350 hydraulic plugs, are coupled with high-torque-rated screw elements with full-length spline bores*

drying, further saving energy while utilizing the most available resources. Furthermore, the starve fed system means blends, colors, and quick change overs can be accomplished on the fly and in as little as 20 minutes reducing downtime, maintenance and startup times.

Like the HVTSE®, PTi standards and technology have been integrated into the SGTSE MultiRESN™, including, but not limited to, PTi's patented M-ATEX™ technology which allows free thermal expansion of the equipment, the TITAN® Control system, and RealTIME™ IV monitoring. This newest machine series features many improvements over past designs, including: Targeted sizes; Modular components; Heat retention; Energy efficient; High torque rates; Unique screw removal; Stainless steel; Higher outputs; Made in the USA.

Furthermore, the SGTSE MultiRESN™ equipment footprint has migrated from a L/D of 52 to L/D of 50, with equivalent or greater output rates of previous HVTSE® models.

The SGTSE MultiRESN™ 90mm currently resides in PTi's TDC as a full production line capable of conducting tailored trials and formulations.

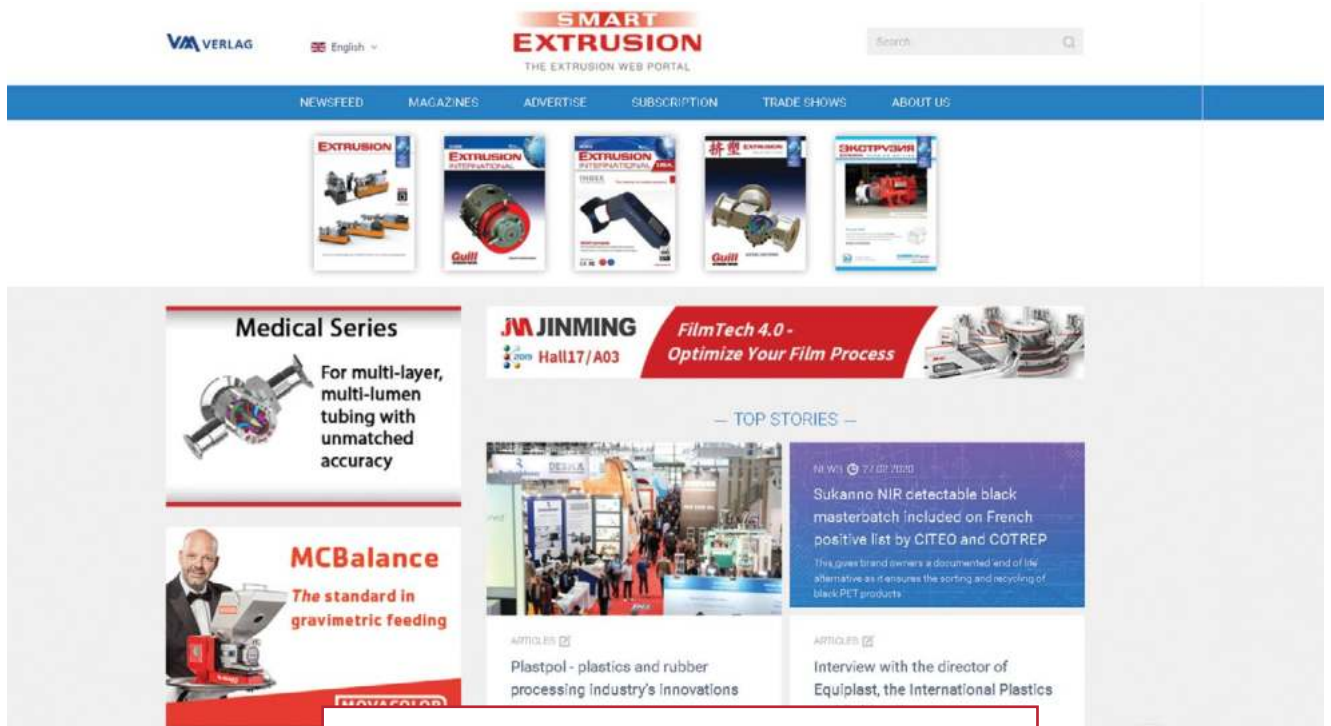
Processing Technologies International, LLC  
Aurora, Illinois, USA  
[www.ptiextruders.com](http://www.ptiextruders.com)

*The SGTSE MultiRESN™ frame bulkhead provides a machine-split feature for ease of screw removal out-the-back side of the extruder*



# SMART EXTRUSION

The only website collecting information about smart technologies of extrusion

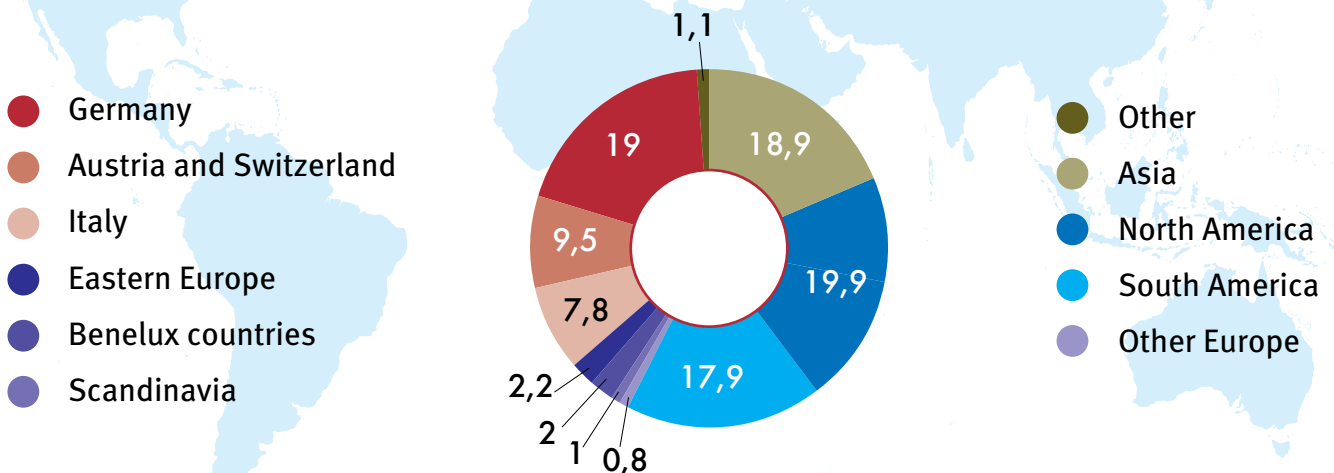


## A SPECIALIZED WEB PORTAL

- ▶ News about relevant products and events
- ▶ Detailed reviews of various smart technologies
- ▶ Case studies from processors
- ▶ English, German, and Chinese
- ▶ Video clips demonstrating smart equipment in live action
- ▶ Latest magazines available for reading and downloading
- ▶ Weekly e-mail newsletters

**38 400 + average monthly visits**

Geographic distribution of Smart\_Extrusion readers, %





# Agglomeration, Desiccation, Crystallization

*Agglomeration systems are a highly efficient solution that is in constant demand for achieving free-flowing regrind with a high bulk density that can be directly processed in extruders or injection molding machines. And with Plastcompactors from Herbold Meckesheim, even complex intermediate steps can be saved when reprocessing recycled PET: The agglomerate does not require any special silos for storage as it can be easily discharged and conveyed, unlike classic flakes. In addition, the recycled PET is already partially crystallized through the agglomeration.*

All in all, the material is much easier to handle and therefore more suitable for further processing steps in preform injection molding machines or film extruders with gravimetric dosing. Furthermore, the specific energy requirement for the extrusion of compacted plastics is lower and the throughput higher.

The Plastcompactor HV 70 is the most powerful of the series from Herbold Meckesheim. It compresses the feedstock in continuous operation between a rotating and a stationary disk that are equipped with bolt-on and easily replaceable kneading bars. A stepless adjustable feeding screw constantly con-

veys granulated material from the buffer silo into the working zone through the center of the stator disk in a controlled manner. Since the rapidly warmed material leaves the compacting zone within fractions of a second, the thermal impact on the plastic is extremely low. The process is regulated by two degrees of freedom – the speed of the screw and the distance between the discs.



*The HV 70 Plastcompactor is the most powerful of the series from Herbold Meckesheim (All pictures: Herbold Meckesheim)*



*Agglomeration plant for fibers, fines, tapes, foams, films, powders or shavings*





*Plastcompactors process the feedstock in continuous operation between a rotating and a stationary disk*

HV Plastcompactors can be used to agglomerate a wide variety of materials into products with a high bulk density: thermoplastics such as fibers, fines, tapes, foams, stretch or thin films, powders or shavings, as well as plastics that are difficult to convey, store or mix. In particular with stretch films or foams, adequate drying by mechanical or thermal means would only be possible with an immense use of energy. This is where a Plastcompactor is the solution of choice.

Moreover, the compactors from Herbold Meckesheim are often installed downstream of washing lines: Here, the damp material is heated in the compacting zone to such an extent that the moisture escapes. With subsequent agglomeration – in conjunction with a secondary granulator and a classifier – residual humidity of less than one percent is achievable. Likewise, various additives such as lubricants, plasticizers or color pigments can be intensively incorporated using special dosing units on the feeding

screw. Compounding or the recrystallization of PET flakes are further fields of application.

The HV 70 from Herbold Meckesheim also combines high throughput with low maintenance costs and a fully automatic control system in which settings for different infeed materials can be recorded. And thanks to the performance and temperature monitoring, the process is controlled in such a way that only minimal personnel deployment is necessary.

In the course of the latest enhancements, the disk geometry of the Plastcompactor HV 70 has been significantly modified. In combination with improved automatization of the compactor and a more compact design, manual interventions during operation are even less frequently required, offering customers a higher degree of operational reliability.

On the other hand, the silo and the feeding device have been optimized in such a way that even more complex materials with the lowest bulk densities and the most difficult flow characteristics can now be handled safely. This opens up further fields of application for the HV 70 from Herbold Meckesheim.

**Herbold Meckesheim GmbH**  
 Industriestr. 33, 74909 Meckesheim,  
 Germany  
[www.herbold.com](http://www.herbold.com)



*The agglomeration produces a free-flowing regrind of high bulk density*

# Specialists for the Extrusion of Ultra-Thin Filaments

*A world without yarns, fibers and nonwovens is simply unthinkable. However, in order to produce high-quality fibers – which in turn are processed into high-quality textiles as well as numerous other products – precision technology is essential. After all, in addition to technical requirements, many legal standards must also be met.*

**F**ibre Extrusion Technology (FET), based in Leeds (UK), is a leading UK manufacturer and supplier of process technology and equipment for the chemical yarn and fiber extrusion industry. Founded in 1998, the company designs and manufactures highly specialized extrusion lines which it supplies, installs and maintains for its customers worldwide.

All FET systems can be tailored to the individual needs of the customer. FET supplies the extruders, including the necessary downstream equipment, both on a laboratory, pilot and turnkey production scale:

- Melt spinning systems for monofilaments and multifilaments
- Meltblown and spunbond systems for nonwoven structures
- Wet spinning systems for filaments and fibers

In the ultra-modern fiber development center with integrated test laboratory, developments are carried out, tested and customer trials also take place there. Examples include:

- Resorbable polymers for use in medical devices
- New types of special fibers made from exotic and difficult-to-process polymers
- Sustainable polymers such as biodegradable and compostable materials
- Textiles for a wide range of composite materials
- Functional textile materials as well as a wide variety of nonwovens

The range of applications for yarns, fibers or nonwovens produced with FET systems is extremely diverse and affects almost all areas of daily life. Obvious applications are, of course, textiles, be it normal clothing or functional clothing. Other applications, depending on the type (yarn, fibre, nonwoven), include diapers, mattresses, upholstery, but also the construction sector, which uses nonwovens for substrate stabilization, for example. Both absorbable and non-absorbable polymers are in demand in the medical sector, for example for surgical sutures or a wide variety of implants.

In the case of medical products such as suture material, further processing (assembly, needling, packaging and sterilization) is carried out either by FET's customers themselves or by appropriately qualified contractors. Sterilization is mainly carried out using ethylene oxide or gamma irradiation.



Suture Yarns (©FET)

## Fiber development center

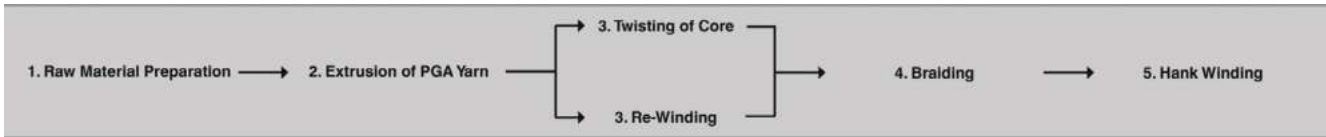
However, FET's core competence lies not only in the manufacture of systems, but also in working with its technologically demanding customers. Following an extensive investment program, FET opened its Fiber Development Center (FDC) in 2023. The two-storey building offers a wide range of state-of-the-art fiber extrusion systems. The purpose is to find scientific and production technology solutions for optimal fiber production in close cooperation with customers, raw material manufacturers and research institutes. The trials, investigations and tests at the Fiber Development Center cover almost all conceivable materials.

## Extruded yarns and fibers for medical applications

In 2012, an inquiry from a customer triggered a turning point for FET. The customer - itself a market leader in its field - was looking for a turnkey solution for processing materials such as resorbable polymers for use as surgical sutures and other medical products.

In collaboration with Motan Colortronic LTD UK and the suppliers of synthetic resorbable polymers, FET decided to take on the development project. The first step was to determine the product requirements, including:

- Extremely low and uniform moisture content of the material
- Additives must be dosed constantly and with an accuracy of 0.02%, even with different extruder throughputs
- Product-specific tensile strength and length elasticity



- The manufactured products must be biocompatible and free from impurities

*A typical system for the production of biomedical yarns is described here as an example (©FET)*

Regulatory requirements must also be taken into account. For example, in addition to the starting material and thread structure, the thread strength is particularly important for tensile strength and knotting properties. Their classification is regulated in a binding manner. Although suture materials are considered medical devices, the normative and regulatory requirements are regulated in the European Pharmacopoeia. In the EU and other associated countries, the decimal system is used in accordance with the European Pharmacopoeia (EP), in which the diameter designation is metric. Although the EP classification is more rational, the USP (United States Pharmacopoeia) is predominantly used in practice. For example: Suture material of thread size 10-0 USP corresponds to thread size 0.2 EP and has a diameter of 20 µm.

From an economic point of view, it should also be noted that some of the materials used cost a good GBP 2,500 (appr. €3.000) per kilogram or more.

As far as the manufacturing process was concerned, it turned out that conventional melt spinning processes were unsuitable in this case. Consequently, FET and its partners initially developed a substantially modified melt spinning system. After further research and development work in FET's special laboratory, which was equipped with a prototype of the Motan Colortronic material handling solution, further development of the machine and material handling for this unique process became necessary in the second half of 2012.

The close cooperation between the technical teams at FET and Motan Colortronic resulted in a number of solutions that were ultimately implemented, including:





Multifilament plant at the FET Fiber Development Center (©FET)



Multifilament systems at the FET Fiber Development Center (©FET)

- Host interface of the mixer to the operator interface of the machine
- Further reduction of the final moisture content of the material
- Improved accuracy in the dosing of additives
- Reduced energy consumption of the entire process (minimum W/kg consumption)
- Automatic spinning head adjustment of the dosing system for extremely fast throughput changes

As a result, the following further developments were incorporated into the series:

- Automatic dew point control and improved drying of the material through automatically controlled air flow to the hopper. This adapts to fluctuations in the material and ambient conditions.
- Conveying the material with dehumidified air from the dryer to a small machine hopper with minimal volume.
- Gravimetric loss-in-weight dosing, which follows the extruder speed synchronously and automatically compensates for fluctuations in the bulk density of the material.

*motan glass machine hopper for holding specially modified glass containers with dried material (©FET)*



- Variable-speed dryer blower and heat recovery system that returns the heat from the dryer to the heating process.
- Special spinning head switching software for the gravimetric loss-in-weight dosing unit to cope with rapid, extensive changes in machine throughput.
- Wireless interface software to the machine interface via TC/IP for complete system integration.

After completion of the development project, the first system was delivered and installed to the full satisfaction of the customer. Since then, further systems have been and are regularly supplied to FET with the complete Motan Colortronic accessory program for their customers all over the world.

Motan Colortronic provides the material supply for these projects. Depending on the equipment, gravimetric dosing systems, conveyor systems and drying systems are used.

Today, there is a wide range of polymers that are used worldwide for medical applications. Absorbable sutures are mainly made from synthetic polymers. Most sutures are produced either as monofilaments or as multifilament yarns, which are further processed into suture material. They are based on a homopolymer or combinations of different block copolymers.

The materials used are PLA (polylactic acid), PGA (polyglycolic acid), PCL (polycaprolactone), P4HB (poly-4-hydroxybutyrate), PDO (poly-p-dioxanone) and PTMC (polytrimethylcarbonate). These polymers are used due to their high biocompatibility, low toxicity and adjustable absorption rates.

FET has processed over 70 different types of polymers in the form of monofilaments, multifilaments and nonwovens, including polymers from sustainable sources. This process involved working closely with research institutions and raw material manufacturers to carry out tests and evaluations.

During extrusion, care must be taken to ensure that the polymer does not degrade before or during processing, which is why it must be dried precisely before extru-

sion. The reason for this is that these polymers are very sensitive to degradation by hydrolysis, which leads to considerable fluctuations in intrinsic viscosity (IV) and makes them unprocessable. After polymer preparation, FET uses a specially developed combination of extruder and screw to extrude the molten material under an inert atmosphere to achieve the desired product properties.

### Material preparation and supply

With regard to the peripheral systems for material preparation and supply, the variety of materials poses a particular challenge, which Motan-Colortronic LTD, Chesterfield, part of the Motan Group, Constance, has risen to. Depending on the application, for example, small dryers for low throughputs or drying systems with dew point and air volume control are used. The material is also supplied automatically with a conveyor system or manually, depending on requirements. If aggregates are required, gravimetric dos-



Picture 7: Small dryer from the motan LUXOR series, which is used for small throughputs (©motan)

ing and mixing systems are also used. All these components must be optimally selected and coordinated for the respective requirements and for the overall process. FET attaches great importance to using standard components wherever possible to ensure trouble-free and safe operation.

For low throughputs, such as in laboratory or small pilot plants, the dryer is usually set up separately. Drying then takes place in batches. In this case, the dried material is transported contamination-free to the extruder in hermetically insulated glass containers from the Motan portfolio. For this purpose, FET has developed a special quick-lock system that is adapted to the standard glass containers.

Fibre Extrusion Technology Limited  
Units F & G Treefield Industrial Estate,  
Gelderd Road, Leeds, LS27 7JU, United Kingdom  
► [www.fetuk.com](http://www.fetuk.com)

motan gmbh  
Otto-Hahn-Str. 14, 61381 Friedrichsdorf, Germany  
► [www.motan-group.com](http://www.motan-group.com)

Motan Colortronic UK Ltd  
Matilda House, Carrwood Road, Chesterfield, Derbyshire,  
S41 9QB, United Kingdom  
► [www.motan-colortronic.co.uk](http://www.motan-colortronic.co.uk)

*f.l.t.r. Karl Miller (CEO Motan Colortronic U.K. Ltd), Richard Slack (CEO Fibre Extrusion Technology LTD), Jochen Freier (Sales Director Export motan gmbh) (©motan)*





# Production of Recyclable Plastic Films

*Constantia Flexibles, a leading global supplier of flexible packaging for consumer goods and pharmaceutical products headquartered in Vienna, has commissioned a modern 5-layer blown film line with inline MDO (Machine Direction Orientation) from Hosokawa Alpine at its site in Pirk in Germany. Instead of the usual ten rollers, this MDO has twelve, which gives the film more time to cool down after stretching. This improves the homogeneity and physical properties of the stretched film and is one of the many small components for better film quality.*

Constantia Flexibles uses the new machine technology to produce EcoLam HighPlus, among other things. It is one of the products in the company's monopolymer EcoLam family based on PE. "Plastic packaging materials and films are an essential part of our modern world," explains Prof. Achim Grefenstein, Head of Group Research and Development at Constantia Flexibles. In recent years, the demand for more sustainable packaging solutions has increased continuously as part of efforts to protect the environment. The use of mono-materials or packaging laminates made from a single material is therefore becoming increasingly important for the transition to a genuine circular economy. Constantia Flexibles wants to play an active role in shaping this trend.

## **Mono-materials fulfil the requirements for a circular economy**

"We pursue a 360-degree approach in order to be able to offer recyclable solutions made of paper, aluminium, polypropylene and polyethylene," emphasises Prof. Grefenstein. The aim is basically to develop and produce sustainable, innovative packaging solutions that both optimally meet customer needs and minimise the negative impact on the environment. Constantia Flexibles has its competence centre for films in Pirk with 800 employees and a large R&D department. Formulas are developed there and tested and checked in the company's own laboratory. In



*The modern 5-layer blown film line with inline MDO at Constantia Flexibles in Pirk has twelve rollers. This improves the homogeneity of the stretched film as it has more time to cool down after stretching*

addition, all production steps are carried out at the plant - from extrusion, metallisation and printing to lamination, slitting and packaging. "For us, the acquisition of an MDO machine at the Pirk site was the next logical step in expanding

our range of services," says Prof. Grefenstein. This is because the mono-PE films produced with it are recyclable, reduce plastic consumption and minimise the environmental impact compared to composite films made from several materials.



*The MDO technology from Hosokawa Alpine is based on monoaxial stretching of blown film. The mono PE films produced in this way reduce plastic consumption and have improved optical and mechanical properties*

"For us, these are the key elements of a functioning circular economy," adds Grefenstein.

### Production of high-performance mono-material composites made of polyethylene

Hosokawa Alpine's MDO technology is a crucial building block for the production of high-performance monomaterial composites from polyethylenes and is based on the monoaxial stretching of blown films. Here, the film is pulled between two rollers that rotate at different speeds. Depending on the application, the film runs over a total of eight to twelve rollers in this process, two of which are stretch rollers. After heating to the optimum temperature, the film is stretched to the desired stretch ratio during the stretching phase. The stretching process reduces the film thickness while improving the optical and mechanical properties. These include, for example, transparency or amenity to processing.

"MDO films also have an improved barrier effect due to the orientation in the material. This keeps packaged products fresh and protected for longer," explains Frank Bernotat, Senior Sales Manager at Hosokawa Alpine. "MDO also allows us to reduce the thickness and therefore the amount of material used in the PE films - without compromising on mechanical performance," adds Prof. Grefenstein. This is particularly important for subsequent process steps such as printing or laminating. Technical challenges with regard to thickness profile and flatness were continuously improved in the joint further development of the system by Constantia Flexibles and Hosokawa Alpine, as the quality of the blown film has a strong influence on the further processing steps.



### Customised system design and high film quality

"More than 100 of our MDOs are now in use around the world," says Bernotat. Working with the customer, Hosokawa Alpine designs the respective MDO blown film line precisely for the desired film production, customised exactly to the customer's needs. "This was also the case at Constantia Flexibles and is ultimately the secret of our success. The other is the quality of the MDO films," says Bernotat. It is characterised by excellent workability, optimised flatness and no hanging edges. To ensure this, the MDOs from Hosokawa are equipped with three unique features: TRIO technology (Trim Reduction for Inline Orientation) for optimised flatness and roll cylindricity, flexible adjustment of the stretching gap to reduce necking and the unique vacuum technology for optimum flatness and outstanding process stability.

### Targeted adjustment of barrier properties

"Typically, the MDO PE film is combined with a PE sealing film," says Prof. Grefenstein. If you want to increase the barrier against oxygen and water vapour, an additional metallised MDO-PE film can also be integrated into the composite. "This allows our customers to cover a wide range of applications," emphasises Bernotat. An impor-

tant prerequisite for metallising a film is very good flatness, which is achieved by the vacuum roller from Hosokawa Alpine. Mono-PE films retain their recyclability even when laminated. In Constantia Flexibles' proprietary formulations, for example, only minimal quantities of necessary barrier layers and other functional layers are used.

### Good prospects for the future

The market for MDO films and mono PE films has grown steadily in recent years and is expected to continue to develop positively in the future. "The growing demand for sustainable packaging solutions and increased consumer awareness of environmental issues will further accelerate this trend towards a circular economy," predicts Prof. Grefenstein. "Our MDO technology makes a significant contribution to reducing plastic consumption and promoting recyclability, making it an attractive option for the packaging industry," concludes Bernotat.

### Author

*Susanne Schwenk, Project Manager Marketing Film Extrusion, Hosokawa Alpine AG*

Hosokawa Alpine AG  
Peter-Doerfler-Str. 13 – 25  
86199 Augsburg, Germany  
[www.hosokawa-alpine.com](http://www.hosokawa-alpine.com)

# Inline Measurement of Wall Thickness, Eccentricity and Diameter

*Wuxi Huacheng Cable Co., Ltd., based in Jiangyin City, is a specialist in manufacturing special high temperature resistant cables. The company relies on SIKORA's X-RAY 6000 PRO to ensure optimal processes and the highest product quality. Since 2018, Huacheng Cable has used seven sets of SIKORA X-ray technology for quality control in seven new energy cable extrusion production lines that effectively leads to perfect monitoring and controlling of parameters of cable during the production.*

Quality and performance requirements for new energy cable are extremely high. All parameters, such as diameter, wall thickness and eccentricity must comply with specifications. Several measuring methods for quality control are available on the market. Due to its functionality, however, SIKORA X-ray technology has proven itself as a leading method for measuring new energy cable.

"With the X-RAY 6000 PRO we can use the full potential for process optimization and to deliver the

*The production data is clearly displayed at the vertical, 22" wide-screen monitor of the ECOCONTROL 6000*



*Wuxi Huacheng Cable uses SIKORA's X-RAY 6000 PRO for measuring and control during new energy cable production*

highest product quality to our customers", says Mr. Haihua Min, the general manager at Huacheng Cable. Directly integrated in the extrusion line the system allows to constantly monitor the wall thickness of up to three material layers and to reduce it to the minimum tolerance value. Safety margins can be successively reduced, and the automatic control keeps the dimensions within the specification.

Quality control in combination with material savings leads to a significant increase in productivity. In addition, by providing highest product quality, customer demands can be fulfilled, and customer satisfaction is achieved.

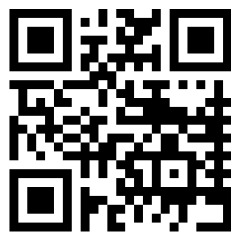


# SMART EXTRUSION

**THE SPECIALIZED WEBPORTAL  
ON EXTRUSION  
FOR EVERY MODERN NEED**



**VM** Verlag GmbH  
Cologne, Germany



[www.smart-extrusion.com](http://www.smart-extrusion.com)



# EXTRUSION

EXPERT MAGAZINE ON PLASTICS EXTRUSION

The only technical magazine worldwide exclusively for the sectors:

- Material Preparation
- Compounding
- Extrusion
- Recycling
- Calendering
- Thermoforming
- Welding
- Finishing of Plastics and Elastomers



**Extrusion** (German)

**Extrusion International** (English)

**Extrusion International USA** (English)

**Extrusion Asia Edition** (Mandarin/English)

The only plastics trade magazine for Asia, published from Germany

8 issues a year

6 issues a year

6 issues a year

2 issues a year

**SMART  
EXTRUSION**

All editions available for free:  
[www.smart-extrusion.com](http://www.smart-extrusion.com)

**VMA** Verlag GmbH Cologne/Germany

