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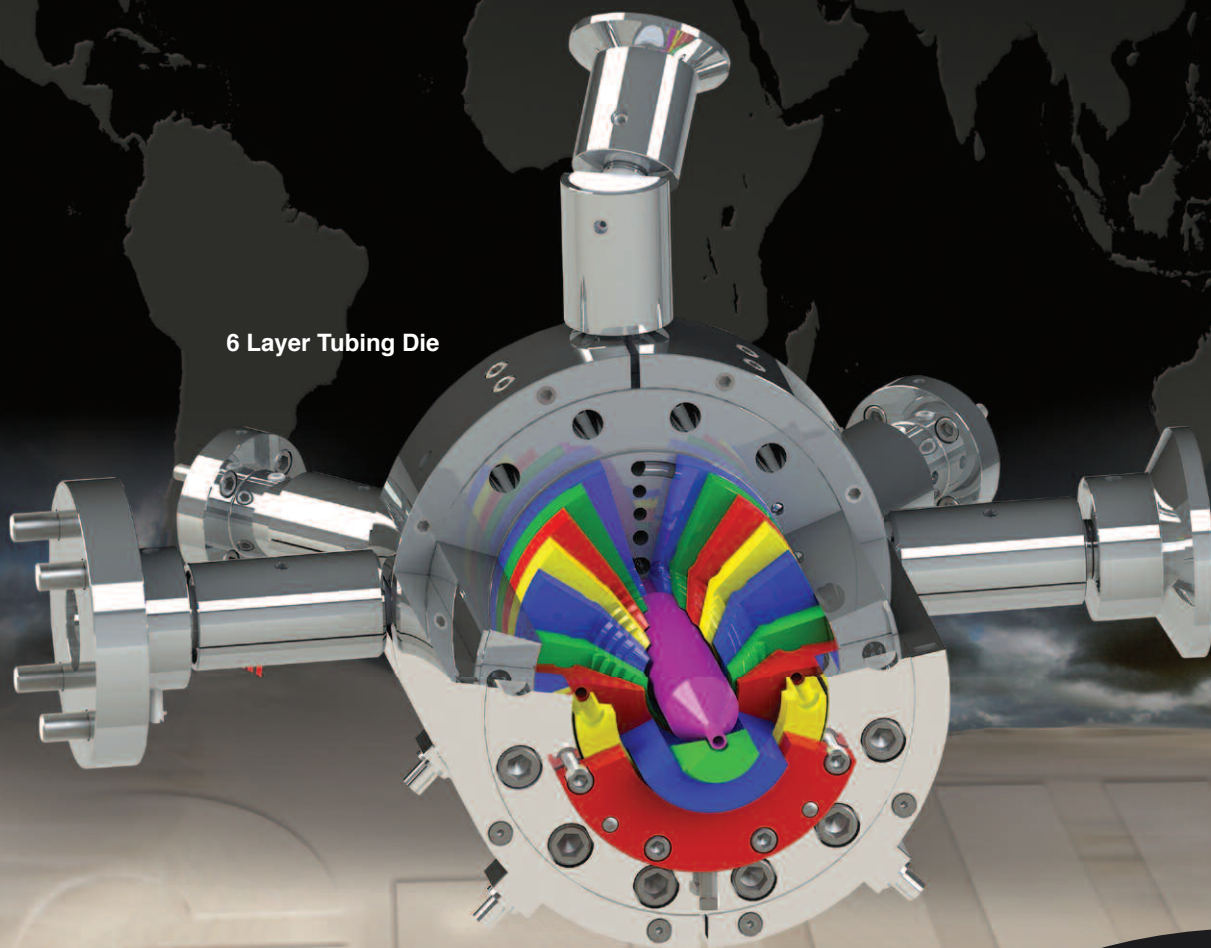
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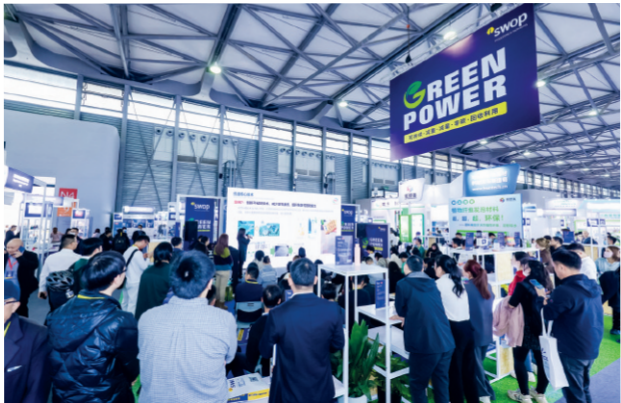
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22 第29届Fakuma国际塑料加工交易会在弗里德里希港闭幕，取得了巨大成功。在12个几乎座无虚席的大厅里，1639家参展商展示了他们在效率、可持续发展 and 循环经济领域的创新，展位几乎被预订一空。
The 29th Fakuma international trade fair for plastics processing closed as a great success. 1639 exhibitors presented their innovations in the fields of efficiency, sustainability and circular economy.

作为亚洲最大的包装加工行业贸易展览会之一，上海国际包装展(swop)每年都会吸引数万名来自食品和饮料包装。

As one of the largest trade fairs for the processing & packaging industry in Asia, Shanghai World of Packaging (swop) each year attracts tens of thousands of visiting professionals.



Guill模具公司推出了新型500系列十字模头以及MAGS橡胶间隙调整装置。

18 *Guill Tool introduces the NEW 500 Series cross-head with MAGS gum space adjustment.*

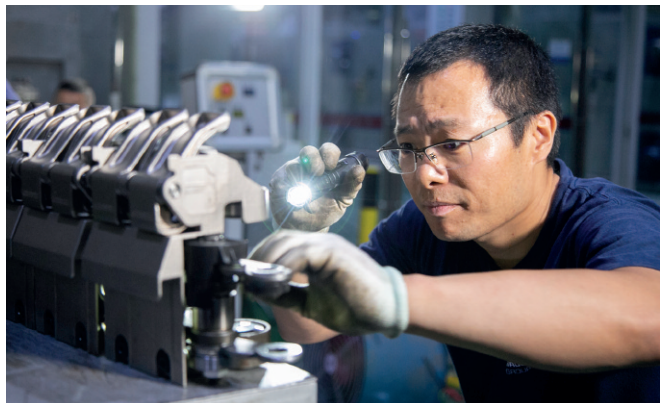


面对日益增长的环境问题和监管压力，塑料行业正在经历重大转型。这一变化的核心是采用更先进的回收技术，特别是双重过滤系统。

In the face of growing environmental concerns and regulatory pressures, the plastics industry is undergoing a significant transformation. Central to this change is the adoption of more advanced recycling technologies, particularly double filtration systems.

在第六届中国国际塑料展览会上，布鲁克纳的展会展示重点关注特种薄膜的生产，特别是针对快速增长的电动汽车和新能源领域。

At the 6th China International Plastics Exhibition Brückner's trade fair presentation focused on the manufacturing of specialty films, especially for the rapidly growing e-mobility and new energy sector.



婴儿喂养和养育产品品牌Thyseed (世喜)的奶瓶现在由巴斯夫的高性能热塑性Ultrason®制成。

Baby bottles of the baby feeding and nurturing products brand Thyseed are now made of BASF's high-performance thermoplastic Ultrason®.



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Arabplast 2025

07 - 09 January 2025

Dubai / United Arab Emirates

迪拜 / 阿拉伯联合酋长国

➡ <https://arabplast.info/>

PLASTIMAGEN

11 - 14 March 2025

Mexico City / Mexico

墨西哥城 / 墨西哥

➡ www.plastimagen.com.mx/es

Plastics & Rubber Vietnam

18 - 20 March 2025

Ho Chi Minh City / Vietnam

胡志明市 / 越南

➡ <https://plasticsvietnam.com/en/>

CHINAPLAS 2025

15 - 18 April 2025

Shenzhen / PR China

深圳 / 中國

➡ www.ChinaplasOnline.com

T-PLAS 2025

14 - 17 May 2025

Bangkok / Thailand

曼谷 / 泰国

➡ www.tplas.com/

Plastpol

20 - 23 May 2025

Kielce / Poland

基尔采 / 波兰

➡ www.targikielce.pl/en/plastpol/

K 2025

08 - 15 October 2025

Dusseldorf / Germany

杜塞尔多夫 / 德国

➡ www.k-online.de/

interpack 2026

07 - 13 May 2026

Düsseldorf / Germany

杜塞尔多夫 / 德国

➡ www.interpack.de/

Interplas 2026

02 - 04 June 2026

Birmingham / United Kingdom

伯明翰 / 英国

➡ www.interplasuk.com/

K 2025 - 倒计时已经开始



■ K 2025的筹备工作正在如火如荼地进行，展览空间已经被预订一空。在座右铭“塑料的力量！”“绿色-智能-信赖”的口号下，许多经过验证的和创新的特别节目将和来宾见面。参展商数据库将于2025年1月上线。

10月8日至15日，全球塑料和橡胶行业的来宾将齐聚德国杜塞尔多夫（Düsseldorf），参加最具国际相关性的贸易博览会。与该行业的其它任何贸易展会一样，K 2025将提供该行业全球范围的完整概貌，这再次由参展商的国际来源得到保证。来自各大洲的企业已经注册，为贸易来宾提供最高水平的创新。Portfolio Plastics & Rubber（塑料和橡胶组织）董事长 Thomas Franken说：“明年，塑料和橡胶行业的名人将再次出现在杜塞尔多夫展会上。我们非常高兴的是，即使是那些因疫情而在2022年暂缓参展的公司，现在已经再次回到了董事会”。关于展位空间分配的对话目前正在K 2025参展商数据库上线之前进行。在K 2025题为“塑料的力量！绿色-智能-信赖”的座右铭将同样建立在与循环经济和数字化有关的趋势和创新上，也将建立在对人类和地球的责任上。这反映在已经证明的和新推出的特别节目上：首先，也是最重要的，由德国塑料欧洲组织的官方特别节目“塑料塑造未来”。德国机械设备制造业联合会（VDMA）将再次在户外场所举办一个全面的论坛，这次的主题是“塑料的力量”。创业区在上次K展成功首次亮相。它也将于2025年继续举办，并扩大为让尽可能多的新来者提供一个专门的展示区，他们特别致力于开发塑料和橡胶领域的创新产品和解决方案。初创企业现在仍有机会在创业区注册。

在科学园区，大学、学院和研究所将分享他们在塑料研究领域所取得的最新成果。科学校园的新概念允许参展商除了参加自己的展台外，还可以选择参加科学校园中心。此外，目前正在为年轻来宾和职业初学者制定一项新的服务，以便使他们熟悉该部门的多样性和吸引力。除此之外，还将专门为塑料和橡胶行业的妇女组织一次网络活动，以促进相互交流，加强专业网络的联络，以提升行业内女性领导者的关注度。两种方式将于2025年K展首次亮相。这两种方式都将庆祝它们在K 2025年的首次公演。

K 2025 – The Countdown has Begun

■ The preparations for K 2025 are in full swing, the exhibition space is already fully booked. Numerous proven and new specials hone in on the motto “The Power of Plastics! Green – Smart – Responsible”. The exhibitor database will go live in January 2025.

From 8 to 15 October the global plastics and rubber industry will come together for its internationally most relevant trade fair in Düsseldorf, Germany. Like no other trade fair of this sector, K 2025 will provide the complete overview of this industry's global ranges – once again guaranteed by the international origin of exhibitors. Enterprises from all continents have registered to offer trade visitors highest-level innovations. “Next year the Who's Who of the plastics and rubber in-

dustries will be back again in Düsseldorf. We are very pleased that even companies who had suspended their participation in 2022 as a consequence of the pandemic, are now back on board again," says Thomas Franken, Director K, Portfolio Plastics & Rubber. The conversations on stand space allocation are currently underway before the K 2025 exhibitor database goes live.

At K 2025 under the heading "The Power of Plastics! Green – Smart – Responsible" the focus will be just as much on trends and innovations related to the circular economy and digitalisation as on the responsibility for people and the planet. This is reflected by both proven and new specials: first and foremost, the official

special show "Plastics shape the Future" organised by Plastics Europe Deutschland. Also presenting a comprehensive forum on the outdoor premises again will be the VDMA – this time entitled "The Power of Plastics".

The Start-up Zone successfully debuted at the last K. It will also be continued in 2025 and expanded to provide a dedicated presentation area for as many newcomers as possible who are particularly committed to the development of innovative products and solutions in the fields of plastics and rubber. Start-ups still now have the opportunity to register for the Start-up Zone.

At the Science Campus universities, colleges and institutes will share the latest

results of their plastics research. A new concept of the Science Campus allows exhibitors to optionally also take part in the Science Campus Center in addition to participating with their own exhibition stands.

In addition, a new offering is currently being developed for young visitors and career starters with a view to familiarising them with the diversity and appeal of the sector. Beyond this, a networking event will be organised specifically for women in the plastics and rubber industry to promote mutual exchange, strengthen professional networks and give visibility to female leaders in the industry. Both formats will celebrate their premiere at K 2025.

K 2025 的座右铭和关键主题已经敲定： 塑料的力量！绿色、智能、负责任

■ 今年早些时候，K 2025委员会为2025年10月8日至15日在杜塞尔多夫举行的K展大会选择了座右铭。它由一个口号和三个核心信息组成，都围绕着2025年K展的关键话题：

塑料的力量！绿色-智能-负责任。

- 发展循环经济
- 拥抱数字化
- 关心人类

“塑料的力量！”这句口号反映了展会所展示的行业当前的价值观和目标。强调了塑料在从医疗设备技术、汽车到包装解决方案等各个行业中发挥的无可争议的作用。塑料是许多行业不可或缺的组成部分，对创新和进步做出了重大贡献，对设计可持续发展的未来至关重要。“绿色-智能-负责任”是该行业承诺在

塑料生产和处理中采取可持续、智能化和负责任的行动的代名词。

额外的核心信息集中于以下三个关键主题：

- 发展循环经济。

该行业越来越多地以可持续循环经济为基础，促进塑料废物的再利用、回收和减少。

- 拥抱数字化：

从事塑料和橡胶行业的公司意识到数字化的变革力量，并采用越来越多的数字化技术来提高其设备和产品的效率，并推动创新。

- 关心人类：

该行业意识到其保护环境的社会责任。这里的重点是负责任地利用资源。与此同时，该行业越来越多地关注年轻人

才，并为塑料和橡胶行业的年轻专业人员创造未来的前景

K 2025邀请来自世界各地的参展商，专家，和有兴趣的各方遵循其座右铭，共同塑造塑料和橡胶工业的未来。

**K 2025 Motto and Key Topics:
The Power of Plastics! Green – Smart – Responsible**

■ Earlier this year the committees of K 2025 chose the motto for the coming K in *Düsseldorf*, from **8 to 15 October 2025**. It consists of one slogan and three core messages, all focusing on the key topics of K in 2025: **The Power of Plastics!**



Green – Smart – Responsible.

- Shaping the circular economy
- Embracing digitalization
- Caring about people

The slogan reflects the current values and goals of the industry mirrored by the trade fair. *"The Power of Plastics!"* underscores the indisputable role that plastics play in various sectors of industry, ranging from medical device technology and automotive to packaging solutions. Plastics are an indispensable component of many industries, make a significant contribution to innovations and progress and are essential to designing a sustainable future. *"Green – Smart – Responsible"* is synonymous with the sector's commitment to act sustainably, smartly and responsibly in plastics production and handling.

The additional core messages focus on the following three key topics:

- *Shaping the circular economy:* The sector is increasingly based on a sustainable circular economy that promotes the re-use, recycling and reduction of plastic waste.
- *Embracing digitalisation:* The companies operating in the plastics and rubber industry are aware of the transformative power of digitalisation and employ more and more digital technologies to boost the efficiency of their machines and products and to drive innovations.
- *Caring about people:* The sector is aware of its social responsibility to protect the environment. Responsible handling of resources is in focus here. At the same time, the sector increasingly promotes young talents and creates future pros-



The World's No. 1 Trade Fair
for Plastics and Rubber
8-15 OCTOBER 2025
Düsseldorf, Germany
k-online.com

pects for young professionals in the plastics and rubber industry. K 2025 invites its exhibitors, experts, multipliers and interested parties from around the world to follow its motto and join forces to shape the future of the plastics and rubber industry.

➔ **Messe Düsseldorf GmbH**
www.k-online.de

推出新网站

■ 吉尔工具与工程公司 (Guill)，世界领先的挤出工具设计和制造公司，推出了一个新的网站。

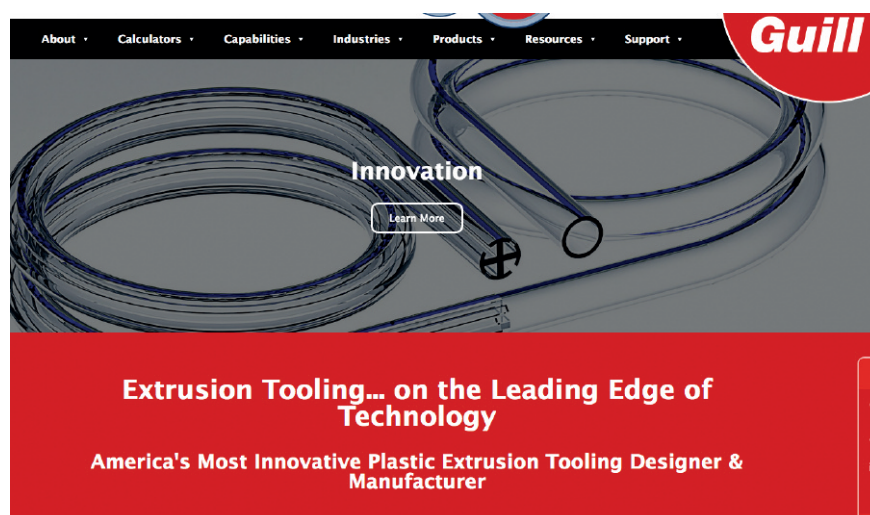
新网站详细介绍了该公司的整个产品线，提供了广泛的标准和定制设计的挤出模具，包括十字模头，直列模头，旋转模头和挤出模头以及模具。新产品中的亮点是直列无蜘蛛管模具，其设计效率和工艺性能目前在世界市场上独一无二，适用于中小型塑料管。

该网站包括所有产品和规格的完整列表，其中包含计算工具，其设计效率和工艺性能在目前世界市场上独树一帜。该网站包括所有产品和规格的完整清单，以及计算工具，用于计算冗长的同心度调整和十字模头更换的年度成本分析，以及计算收缩的计算器，每分钟英尺和每小时磅的计算器，使挤出生产调度和估算更加准确和高效。该网站还包括带有详细数据的图表和表格，以及按行业和工具类型组织的完整的可下载文献库。吉尔在全球销售其设备，目前正在选定的国家寻找新的代表。

吉尔网站对手机是友好的，并提供方便，用户可以在线上询问报价。

New Website Launched

■ Guill Tool & Engineering, world leader in extrusion tooling design and manufac-



turing, has unveiled a new website.

The new site offers a detailed look at the company's entire product line, which offers a wide-range of standard and custom designed extrusion tooling, including crossheads, in-line heads, rotary heads and extrusion tips & dies. Highlight among the new products is the inline Spiderless Pipe Die, unique in the world market currently for its design efficiency and process performance on small to medium sized plastic pipe.

The site includes a full listing of all products and specifications with calculation tools to compute annual cost of lengthy concentricity adjustments and crosshead replacement analysis, plus calculators to

compute draw-down, feet per minute and pounds per hour, making extrusion production scheduling and estimating far more accurate and efficient. The website also includes charts and tables with detailed data and a full library of downloadable literature organized by industry and tool type. Guill markets its equipment worldwide and is currently seeking new representatives in select countries.

The Guill website is mobile phone friendly and offers the convenience of allowing users to request a quote online.

➔ **Guill Tool & Engineering**
West Warwick, Rhode Island (USA)
www.guill.com

上海国际包装展(swop) 2024

■ 作为亚洲最大的包装加工行业贸易展览会之一，上海国际包装展(swop)每年都会吸引数万名来自食品和饮料包装、药品、化妆品和消费品行业的专业人士前来参观。

2023年的上海国际包装展吸引了3万多名参观者，其中不乏知名品牌。2024年的上海国际包装展展厅也有类似的水准。原因是，对于这些顶级品牌来说，交易会是蓬勃发展的中国包装市场的重要会面机会。这是全面了解所有相关细分市场和趋势的地方。今年，包括中国、德国、日本和英国在内的国内外参展商预计将于11月18日至20日在上海新国际博览中心65000平方米左右的展览空间参展。上海国际包装贸易博览会是interpack(德国杜塞尔多夫国际包装机械、包装及糖果机械展览会)联盟的一部分，涵盖包装行业的所有部门，从机器和材料到物流和回收。

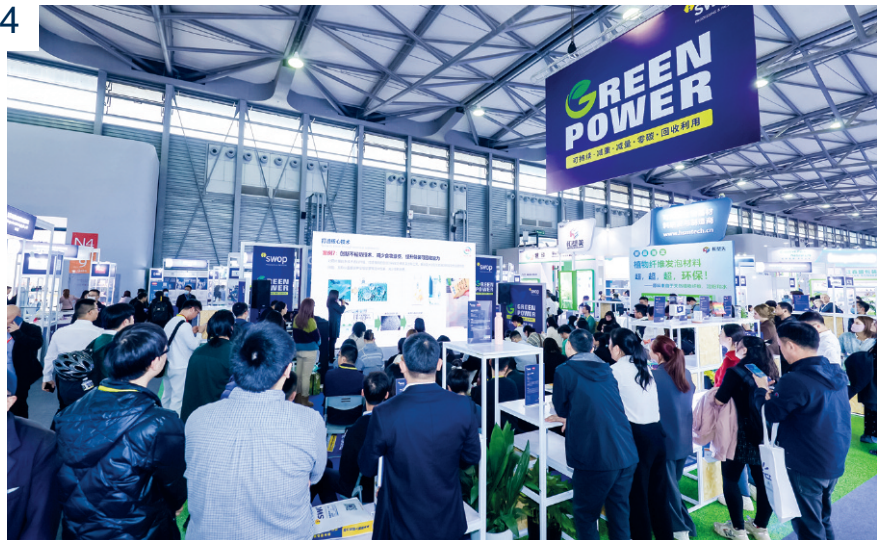
2023上海国际包装展，88%的观众是决策者或有影响力的来宾，在本届展会上，主办方杜塞尔多夫展览(上海)有限公司和雅式展览服务有限公司希望业界的高级专家能够参加，以便有目的地加强网络和商业的新机会。在这种背景下，与中国市场上关键的参与者合作是至关重要的。例如，与“中国食品科学技术研究院(CIFST)”的新合作将吸引众多食品行业的专业人士参加交易会。

与中国食品科学技术研究院的新合作伙伴关系使上海国际包装展有目的地将其影响力扩展到中国食品行业的独家采购商。此次合作标志着“食品加工与智能制造专区”在展会上首次亮相，该专区专门为食品生产商提供创新的加工技术和包装解决方案。论坛将涵盖一些当前的话题，其中包括人工智能，食品大数据，食品图像分析，机器学习，智能制造，营养和安全以及质量控制。预计将有约300名业内关键来宾和管理人员参加。

参展商仍可报名

上海国际包装展为您提供与业内有影响力的领导者会面、深入了解亚洲新兴市场以及建立战略业务合作伙伴关系的机会。感兴趣的参展商仍然可以注册上海国际包装展，最简单和最舒适的方式之一是参加德国或国际馆的全套服务。

中国决定对包括德国、法国、意大利、荷兰、西班牙、瑞士、奥地利和波兰在内的15个国家的普通护照持有人实施在中国旅行15天单边免签证政策，包括商务访问，将进一步便利国际参展商和参观者的参与。



Shanghai World of Packaging (swop) 2024

■ As one of the largest trade fairs for the processing & packaging industry in Asia, Shanghai World of Packaging (swop) each year attracts tens of thousands of visiting professionals from the sectors food and beverage packagings, pharmaceuticals, cosmetics and consumer goods.

More than 30,000 visitors attended swop 2023, among them well-known brands – in 2024, the halls are said to be of a similar calibre. The reason is that for these top brands, the trade fair is an important meeting opportunity within the booming Chinese packaging market. This is where all relevant market segments and trends come together. This year as well, national and international exhibitors, among them from China, Germany, Japan and the United Kingdom, are expected from 18 to 20 November on the approx. 65,000 square meters of exhibition space at the Shanghai New International Expo Center. The swop trade fair, which is part of the portfolio of interpack alliance, covers all sectors of the packaging industry, from machines and materials to logistics and recycling.

88 percent of the visitors at swop 2023 were decision makers or influencers, and for the current edition, the hosts of Messe Düsseldorf (Shanghai) Co., Ltd. and Ad-sale Exhibition Services Ltd. are hoping that high-ranking experts from the industry will participate in order to purposefully strengthen new opportunities for networking and business. In this context, the cooperation of swop with important key players in the Chinese market is of central importance. For example, the new co-

operation with the “Chinese Institute of Food Science and Technology (CIFST)” will attract numerous professionals from the food industry to the trade fair.

The new partnership with CIFST allows swop to purposefully extend its influence to exclusive purchasers within the Chinese food industry. The cooperation marks the debut of the “Food Processing and Intelligent Manufacturing Zone” at the trade fair, which specialises in innovative processing technologies and packaging solutions for food producers. The forum will cover a number of current topics, among them artificial intelligence, food big data, image analysis of food, machine learning, intelligent manufacture, nutrition and safety as well as quality control. Around 300 key players and managers from the industry are expected.

Exhibitors can still register

swop offers the opportunity to meet influential leaders in the industry, gain insights into the up-and-coming-Asian market and enter into strategic business partnerships. Interested exhibitors can still register for swop – one of the easiest and most comfortable ways is to participate in the German or International Pavilion with an all-inclusive package.

Participation by international exhibitors and visitors will be further facilitated by China's decision to implement a unilateral visa-free policy for ordinary passport holders from 15 countries, including Germany, France, Italy, the Netherlands, Spain, Switzerland, Austria and Poland, to travel to China for 15 days without a visa, including for business visits.

► Messe Düsseldorf GmbH
www.swop-online.com/en/

在高科技应用领域中， 专业化的生产线以及BOPP材料的生产速度树立了新的标杆

■ 在11月1日至3日在南京国际博览中心举行的第六届中国国际塑料展览会上，布鲁克纳的展会重点将展示特种薄膜的生产，特别是针对快速发展的电动汽车和新能源行业。以及在包装薄膜生产过程中实现可持续性与循环性的目标。展会的第二个亮点是包装薄膜生产中提高效率

- 电池隔膜：生产线概念以及定制的机器部件，确保高能量效率、低生产成本和一致的薄膜质量——在全球领先的制造商那里得到验证。
- 复合型电流采集器薄膜：通过减轻重量、节省金属材料、提升安全性以及实现每个单元卓越的能量密度——布鲁克纳展示了其最新的拉伸技术。
- 电容器薄膜：采用连续与同步拉伸工艺制造的超薄高温薄膜，适用于电动汽车及可再生能源在电力工业中的应用。
- 用于BOPP、BOPET和BOPA薄膜生产的高效快速高产能生产线，具备特定能量消耗低的优势。
- 展示亮点：介绍BOPP生产线的理念，其生产线速度已达到前所未有的700米/分钟。
- 针对BOPP、BOPET和BOPE塑料包装的全生命周期闭环解决方案，包含独特的BOPE/BOPP混合生产线，从而使薄膜生产商能够迅速且灵活地应对市场趋势。

Brückner Servtec: (布鲁克纳技术服务有限公司) 在联合展位上展示针对薄膜拉伸生产线的服务与升级方案，旨在提供更为专业化的解决方案。

- 在中国，为中国而服务：本地备件库存、本地化服务及专业技术人员。
- 升级与生产线改造：节能技术及新型薄膜材料的应用。
- 全新的生命周期服务：一站式综合解决方案。

中国新塑料展是中国塑料工业的核心展会，近年来持续在南京国际展览中心举行。该展会展示了塑料薄膜生产领域的前沿技术，如双向拉伸(BO)薄膜等。

布鲁克纳机械制造有限公司 (Brückner Maschinenbau) 和布鲁克纳技术服务有限公司 (Brückner Servtec) 均为德国布鲁克纳集团 (Brückner Group) 的成员，作为全球塑料和包装行业定制工程解决方案及服务的领先供应商，公司拥有超过2900名员工。



布鲁克纳机械制造有限公司连续式电容器薄膜生产线

Brückner Maschinenbau – Sequential capacitor film line

Specialty Lines for High-Tech Applications and a New Benchmark in BOPP Production Speed

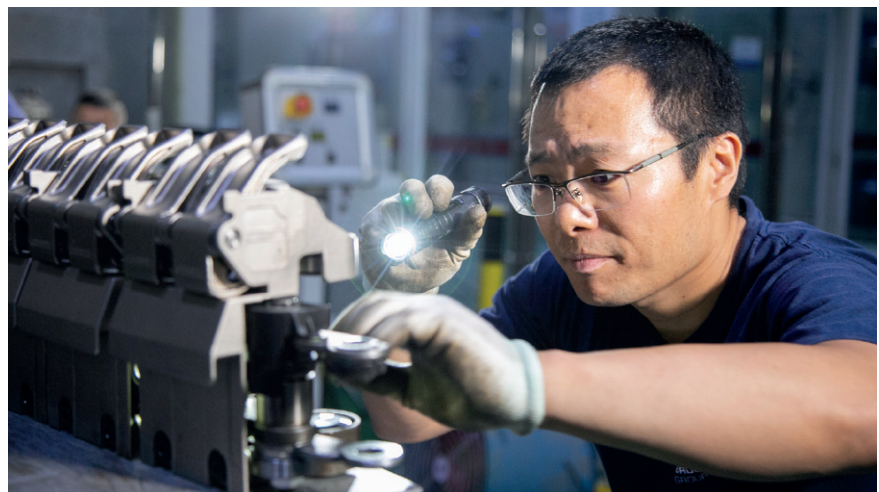
■ At the 6th China International Plastics Exhibition from November 1st to 3rd at the Nanjing International Expo Centre, Brückner's trade fair presentation focused on the manufacturing of specialty films, especially for the rapidly growing e-mobility and new energy sector. Second highlight of the fair were developments

for increased efficiency and sustainability as well as circularity in packaging film production.

- **Battery separator films:** Line concepts as well as customized machine components guaranteeing high energy efficiency, low production costs and consistent film quality – proven at leading manufacturers around the globe
- **Composite current collector films:** Downgauging, weight saving, reduction of metal as well as increased safety and an outstanding energy density per cell –

布鲁克纳技术服务有限公司 (Brückner Servtec) –在中国境内经过认证的为中国生产夹具及链条的加工企业

Brückner Servtec – Certified clip and chain workshop in China for China



Brückner presented latest stretching technologies

- **Capacitor films:** Sequential as well as simultaneous stretching process to manufacture extremely thin and high-temperature films for EV applications or high energy density film for renewable energy applications in the power industry
- **Efficient and fast high output lines** for a low specific energy consumption in BOPP, BOPET, BOPA film production.
- **Show highlight:** Presentation of BOPP line concepts with a previously unattained line speed of 700m/min
- **Mono-material solutions** to close the life cycle of BOPP, BOPET and BOPE

plastic packaging, including unique BOPE/BOPP hybrid lines allowing film manufacturers to react swiftly and flexible to market trends

Brückner Servtec was also at the joint booth and showed service & upgrading solutions for film stretching lines:

- **In China for China:** local spare part stock, local services and specialists
- **Upgrading and line transformation:** Energy saving and new film types
- **New lifecycle services:** One-stop shop

The China New Plastics is an important exhibition for the plastics industry in China, which in recent years has been

held at the Nanjing International Exhibition Center. The event features discussions and presentations on the latest technologies in plastic film production, such as biaxially oriented (BO) films.

Brückner Maschinenbau and Brückner Servtec are members of the Brückner Group, Germany, a worldwide leading supplier of tailor-made engineering solutions and services for the plastics and packaging industry, with more than 2,900 employees.

➔ **Brückner Group**
www.brueckner.com



Zumbach
SWISS PRIME MEASURING SINCE 1957

min

2

Min. object diameter (mm)

300

Line speed (m/min)



Surface Inspection System



max

108

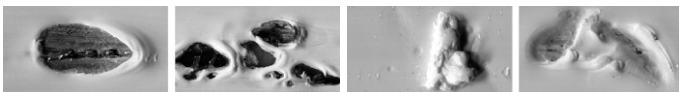
Max. object diameter (mm)

140'000

Scan rate (scans/s)

SIMAC®

Cable, Pipe & Hose Surface Quality Inspection System



Benefits:

- ✓ Accurate & continuous detection of the tiniest surface anomalies and material defects
- ✓ Advanced defect detection algorithms detect all surface variations
- ✓ Image processing based technology with a scan rate of 140,000 scans per second
- ✓ Offers continuous in-line surface inspection with a line speed up to 300m/min
- ✓ Optical system using four cameras ensure 100% coverage with overlapping imaging zones

联合创始人去世

■ 埃瑞玛 (EREMA) 集团哀悼赫尔穆特·巴赫 (Helmut Bacher) 的离去。奥地利塑料回收设备制造商埃瑞玛的联合创始人和前管理合伙人于9月20日去世，享年81岁。

Helmut Bacher被认为是塑料回收行业的先驱。1983年在奥地利的林茨，Helmut Bacher与他的两位同事Georg Wendelin和Helmuth Schulz一起创立了埃瑞玛回收机械和设备工程股份公司。2008年，三位创始人获得了上奥地利省颁发的金奖，表彰了他们毕生的工作。

Helmut Bacher在塑料回收行业方面展现了其远见卓识和开放的心态。他接受了钳工培训，并完成了机械工程师的学业，在20世纪70年代初进入一家机械工程公司从事塑料机械制造之前，他在各种不同的技术岗位上工作。Helmut Bacher和他的两位同事都相信塑料回收的潜力。在无数次的试验中，他寻找正确的解决方案-直到他找到了它。尽管最初遇到了困难，但三位创始人仍然相信塑料垃圾回收设备的成本效益，并在1983年创办了自己的公司。

1983年在杜塞尔多夫举办的K展上，埃瑞玛展示了一个简单、坚固、可靠、经济的回收系统，这标志着成功故事的开始。这家年轻的公司莱昂丁的两个小作坊和一个双车库的简陋场所生产了第一批订单。今天，埃瑞玛集团提供的工厂和组件在全球每年实现了超过2500万吨的塑料回收能力。直到2004年从公司管理层退休，Helmut Bacher一直是公司背后的驱动力。直到去世，他都与埃瑞玛集团保持着密切的联系。他的技术能力，加上以解决方案为导向的思维，以及对员工的真诚赞赏，给公司留下了持久的印象，并继续塑造着公司，直到今天。

Co-Founder has Died

■ The EREMA Group mourns the loss of Helmut Bacher. The co-founder of Austrian plastics recycling machine manufacturer EREMA and former managing partner, passed away on 20 September at the age of 81.

Helmut Bacher is regarded as a pioneer of plastics recycling. Together with his two colleagues Georg Wendelin and Helmuth Schulz, Helmut Bacher founded EREMA Engineering Recycling Maschinen und



埃瑞玛集团哀悼联合创始人Helmut Bacher的去世，他享年81岁
(图片来源：埃瑞玛集团)

The EREMA Group mourns the loss of co-founder Helmut Bacher, who passed away at the age of 81 (Photo credit: EREMA Group)

Anlagen Ges.m.b.H. in Linz, Austria, in 1983. Their life's work was acknowledged in 2008 when the three founders received the Golden Award of Honour from the Province of Upper Austria.

Helmut Bacher displayed visionary foresight and open mind in playing a key role in shaping the plastics recycling industry. Following his training as a fitter and completing his schooling as a mechanical engineer, he worked in various technical positions before moving to a mechanical engineering company for plastics processing in the early 1970s. Helmut Bacher shared with his two colleagues a belief in the potential of plastics recycling. During countless trials, he searched for the right solution - until he found it. Despite initial adversity, the three founders remained convinced of the idea of a cost effective recycling machine for plastic waste and started up their own company in 1983.

At the K trade fair in Düsseldorf in 1983, EREMA presented a simple, robust, reli-

able and economical recycling system, signalling the start of a success story. The young company produced its first orders in modest premises in Leonding with two small workshops and a double garage. Today, the plants and components supplied by the EREMA Group achieve recycling capacities of over 25 million tonnes of plastic per year worldwide.

Up until his retirement from company management in 2004, Helmut Bacher was a driving force behind the company and remained closely associated with the EREMA Group until his death. His technical ability, coupled with solution-oriented thinking and genuine appreciation of his employees, have left a lasting impression and continue to shape the company to this day.

► EREMA Group
www.erema.com

在新加坡开设新的销售办事处

■ BUSS公司宣布在东南亚扩张。在新加坡开设一个新的销售办事处是其国际扩张的又一个里程碑。

在BUSS中国和瑞士分公司的支持下，来自新加坡的Sien Kiong Lim将成为东南亚地区的新销售经理。Lim有多年的行业经验，非常熟悉客户的需求。

他的工作重点将是扩大在泰国、印度尼西亚、马来西亚、新加坡和台湾的现有客户关系，以及在越南、澳大利亚和菲律宾等没有BUSS代表的国家建立新的业务关系。

由于他出色的技术背景，Lim将能够通过提供技术咨询和当地支持，为在东南亚市场推广创新的BUSS复合技术做出重要贡献。

随着在新加坡设立销售办事处，BUSS现在离客户更近了，可以为他们提供更好的支持。Lim先生可以依靠与BUSS在中国上海的紧密合作。这将使该地区的技术支持变得更快、更容易，无论是通过提供零部件，还是通过服务专家的参与。

New Sales Office Opened in Singapore

■ BUSS announced its expansion in Southeast Asia. The opening of a new sales office in Singapore is setting another milestone in its international expansion.

With the support of the BUSS locations in China and Switzerland, Sien Kiong Lim will be the new sales manager for the Southeast Asia region from Singapore. Lim has many years of experience in the industry and is very familiar with the market requirements of his customers.

His focus will be on expanding existing customer relationships in Thailand, Indonesia, Malaysia, Singapore and Taiwan, as well as building new business relationships in countries without BUSS representation, such as Vietnam, Australia and the Philippines.

Thanks to his excellent technical background, Lim will be able to make an important contribution to promoting inno-



Sien Kiong Lim

vative BUSS compounding technology in the Southeast Asian market by providing technical advice and local support.

With the opening of the sales office in Singapore, BUSS is now even closer to its customers and can provide them with even better support. Mr Lim can rely on close cooperation with the BUSS location in Shanghai, China. This will make technical support in the region even quicker and easier, whether through the supply of spare parts or the involvement of service experts.

➔ **BUSS**
www.busscorp.com

任命流体涂料中国区销售工程师

■ 诺信公司(Nordson Corp.)聚合物加工系统部门宣布任命 (Rachel 徐)为远东流体涂层业务的销售工程师。Rachel徐将为诺信流体涂料业务提供销售和技术支持，维护现有客户关系，推动市场扩张。

她将直接向诺信中国/韩国高级销售经理胡洁 (Jie Hu) 汇报。Rachel 徐还将监督诺信的Premier™和Ultratoat™模槽涂层产品线的分销网络。

“Rachel徐广泛的销售和技术经验使她非常适合这个新角色，”胡洁说。“我相信她将利用她的专业知识与关键客户合作，同时领导关键流体涂料市场的新增长的努力。”

“我很高兴加入诺信团队，因为公司专注于亚洲流体涂料应用的雄心勃勃的增长战略，”Rachel 徐说。“我期待着加强与主要客户的关系，并努力带来新的商机。”

在此之前，Rachel 徐曾担任宁波

伊瑞富节水技术有限公司的销售经理三年，负责管理客户销售、市场营销和技术项目。在加入诺信之前，她曾在Trend银行担任业务开发经理一年，在那里她发展了广泛的行业资源网络并与流体涂料市场建立了联系。

Sales Engineer for Fluid Coatings in China Appointed

■ Nordson Corp.'s Polymer Processing Systems division has announced the appointment of Rachel Xu as Sales Engineer for the fluid coating business in the Far East. Xu will provide sales and technical support, maintain existing customer relationships, and drive market expansion for Nordson's fluid coating business.

She will report directly to Jie Hu, Senior Sales Manager for Nordson in China/



Rachel Xu

South Korea. Rachel Xu will also oversee the distribution network for Nordson's Premier™ and Ultracoat™ die slot coating product line.

“Rachel's broad-based sales and technical experience make her uniquely qualified for this new role,” said Jie Hu. “I'm confident that she will leverage her expertise with key customers while leading new growth

efforts in key fluid coating markets.” “I’m thrilled to join the Nordson team as the company focuses on an ambitious growth strategy in Asia for fluid coating applications,” said Rachel Xu. “I look forward to strengthening relationships with key customers and working to bring new business opportunities.”

Rachel Xu previously served for three years as a sales manager for NINGBO IRRIRICH WATER SAVING TECHNOLOGY where she managed customer sales, marketing, and technical initiatives. Prior to joining Nordson, she worked for one year as a Business Development Manager at Trendbank, where she cultivated a broad

network of industry resources and contacts in the fluid coating market.

➔ **Nordson Polymer Processing Systems**
www.nordsonpolymerprocessing.com

新的管理层

■ Kiefel (凯孚尔) 是一家在热成型和连接技术领域处于市场领先地位的公司，同时也是布鲁克纳 (Brückner) 集团的成员。近期，该公司正在经历管理层变动：布鲁克纳集团美国平台公司的前首席执行官兼总裁马蒂亚斯·西弗丁 (Matthias Sieverding) 于9月1日接任托马斯·哈雷特 (Thomas Hallett) 成为凯孚尔的新任首席执行官。西弗丁作为一位经验丰富的行业专家，将进一步推动这家综合解决方案供应商的创新与国际化进程。

“凯孚尔公司在近70年的发展历程中，多次成功地通过尖端技术解决方案适应市场变化。布鲁克纳集团首席执行官阿克塞尔·冯·韦德斯佩格博士 (Dr. Axel von Wiedersperg) 表示：“多亏了托马斯·哈雷特的开拓精神，凯孚尔公司取得了显著的发展，并确立了强大的市场地位，这一地位将在未来得到进一步巩固。”在马蒂亚斯·西弗丁的领导下，凯孚尔计划通过持续关注客户需求，在全球范围内扩大业务规模，并巩固其市场领先地位。借助灵活的流程和程序以及快速整合数字技术，该公司将增强其产品组合的创新力，以便在未来继续引领行业标准。凯孚尔将在今年10月举行的凯孚尔包装对话日期间展示一系列开创性的设备创新，以此强调这一战略方向。”

马蒂亚斯·西弗丁在国际塑料与机械工程领域积累了超过25年的丰富经验。2021年，他加入布鲁克纳集团美国公司，担任该集团区域平台公司的首席执行官兼总裁，并成功推动其显著扩

展，使之更加以客户为导向。他曾在多个高级管理职位上发挥重要作用。

New Management

■ Kiefel, a market-leading company for thermoforming and joining technology and a member of the Brückner Group, is undergoing a change in management: Matthias Sieverding, previously CEO/President of the Brückner Group's USA platform company, succeeded Thomas Hallett as CEO of Kiefel on September 1st. Sieverding, an experienced industry expert, will further drive the turnkey solution provider's innovation and internationalization course.

Over the company's almost 70 years of history, Kiefel has repeatedly successfully adapted to market changes with cutting-edge technological solutions. “Thanks to Thomas Hallett's pioneering spirit, Kiefel has grown significantly and achieved a strong position, which will now be further expanded,” says Dr. Axel von Wiedersperg, CEO of the Brückner Group. Under the leadership of Matthias Sieverding, Kiefel plans to expand its global presence and secure market leadership through a consistent customer focus. The innovative power of the product portfolio is to be strengthened through agile processes and procedures and the rapid integration of digital technologies in order to continue



马蒂亚斯·西弗丁自2024年9月1日起正式担任凯孚尔有限公司的新任首席执行官 (©凯孚尔有限公司)

Matthias Sieverding has been the new CEO at Kiefel since September 1, 2024 (© Kiefel GmbH)

to set industry standards into the future. Underlining this strategic direction, Kiefel is presenting several groundbreaking machine innovations at the Kiefel Packaging Dialogue Days in October this year.

Matthias Sieverding has more than 25 years of experience in the international plastics and mechanical engineering industries. In 2021, he joined Brueckner Group USA, as the CEO/President of the group's regional platform company, which he significantly expanded to be more customer-centric. He has previously held various executive or managerial positions.

➔ **KIEFEL GmbH**
www.kiefel.com

加强外勤服务业务

■ 莱芬豪舍集团宣布在中东和非洲 (MEA) 地区大幅扩大其现场服务业务。基于在该地区的长期存在，包括五年前在阿拉伯联合酋长国设立的销售办事处，莱芬豪舍现在迈出了重要的一步，以增强其在当地的客户支持和服务能力。

随着为 MEA 建立新的服务中心，UAE (阿联酋) 和 GCC (海湾阿拉伯国家合作委员会，其成员国为沙特阿拉伯，科威特，阿拉伯联合酋长国，卡塔尔，阿曼苏丹王国，巴林王国，也门 7 国)，海湾合作委员会区域莱芬豪舍鼓励其加强全面和响应性服务解决方案的战略。该中心将包括扩展场地和在现场建立一个高度专业化的服务团队，以涵盖全方位的现场工程服务，涵盖机械安装，调试和持续的服务支持。

这一扩张是由莱芬豪舍致力于“贴近客户”的承诺推动的，这是一种优先接近客户以更好地了解 and 满足市场需求的理念。新中心将使莱芬豪舍能够提供增强的本地支持，确保更快地解决问题，并改善在 MEA 地区运营的企业可接触性。随着这一增长，莱芬豪舍也扩大了其在拉各斯 (尼日利亚) 的设施，并计划进一步扩大其存在性。MEA 市场被莱芬豪舍认为是一个非常重要和快速增长的地区。

莱芬豪舍中东和非洲董事总经理 Bharath Yalla 评论了这一扩张措施：“我们对当地市场的强烈奉献现在体现在 UAE 和拉各斯。我们承诺了，我们也做到了。这只是让我们的全球专业知识更贴近客户需求的开始。”

莱芬豪舍在 MEA 地区的投资强调了其提供卓越服务和支持的承诺，巩固了其作为塑料挤出行业值得信赖的合作伙伴的地位。

Field Service Operations Strengthened

■ Reifenhäuser Group announced a significant expansion of its field service operations across the Middle East and Africa (MEA) region. Building on a long-standing presence in the region, which includes a sales office established in United Arab Emirates five years ago, Reifenhäuser is now taking a major step forward to enhance its local customer support and service capabilities.

With the establishment of a new Service

Hub for the MEA, UAE and GCC regions Reifenhäuser encourages its strategy to strengthen comprehensive and responsive service solutions. The hub will include extended premises and the establishment of a highly specialized service team on site to encompass a full spectrum of field-engineering services, covering the installation of machinery, commissioning, and ongoing service support.

This expansion is driven by Reifenhäuser's commitment to being "Close to our customers," a philosophy that prioritizes proximity to customers to better understand and meet market demands. The new hub will enable Reifenhäuser to offer enhanced local support, ensuring faster problem resolution and improved accessibility for businesses operating in the MEA region. In line with this growth, Reifenhäuser has also expanded its facilities in Lagos (Nigeria), with plans to further expand its presence. The MEA market is recognized by Reifenhäuser as a very important and rapidly growing region.

Bharath Yalla, Managing Director of Reifenhäuser Middle East & Africa, commented on the expansion: "Our strong dedication to local markets is now embodi-



Bharath Yalla, 莱芬豪舍 MEA 的常务董事

Bharath Yalla, Managing Director Reifenhäuser MEA (Bild: Reifenhäuser)

died in UAE and Lagos. We promised, and we delivered. This is just the beginning of bringing our global expertise closer to our customer needs."

Reifenhäuser's investment in the MEA region underscores its commitment to delivering exceptional service and support, reinforcing its position as a trusted partner in the plastics extrusion industry.

► Reifenhäuser
bharath@reifenhauserindia.com
www.reifenhauser.com

宣布拓展欧洲市场

■ 挤压模具的全球领导者 Guill Tool 最近宣布通过创建 Guill Tool Europe 来扩张欧洲市场。他们将提供全系列的 Guill 产品，以及整个欧洲的销售和工程支持。Padric Lunn 将继续在英国代表 Guill。

从概念设计到工程、制造和支持客户流程，Guill 在常规挤出、多层应用、护套、多腔、橡胶、硅胶等方面拥有 60 多年的经验。无论何种应用，公司都保持最高的质量标准。

Padraic Lunn Enterprises Ltd 为所有挤出工艺提供全方位的挤出机械和咨询，重点是管材、线材、管材和型材应用。该公司代表英国、爱尔兰和欧洲其



Gerjan ter Wal, 欧洲销售经理

Gerjan ter Wal, Sales Manager, Europe

他地区的挤出设备公司。

Guill 在每个国家/地区都有当地的销售代表，他期待在欧洲大陆建立强大的影响力。

Expansion in the European Market Announced

■ Guill Tool, global leader in extrusion tooling, recently announced their expansion in the European market with the creation of Guill Tool Europe. They will offer a full line of Guill products, as well as sales and engineering support throughout Europe. Padric Lunn will continue to represent Guill in the UK. From concept design to engineering, ma-

nufacturing and supporting client processes, Guill has more than 60 years of experience in regular extrusion, multi-layered applications, jacketing, multi lumen, rubber, silicone and much more. The company maintains the highest quality standards regardless of application.

Padraic Lunn Enterprises Ltd offers a full range of extrusion machinery and consultancy for all extrusion processes with a strong emphasis on tubing, wire, pipe

and profile applications. The firm represents extrusion equipment companies in the UK, Ireland and other parts of Europe. With local sales representatives in each country, Guill looks forward to establishing a strong presence on the European continent.

► **Guill Tool & Engineering Europe**
Gerjan ter Wal, Sales Manager, Europe /
欧洲销售经理
Gerjan.terwal@guill.eu, www.guill.com

安全而坚固的奶瓶

■ 婴儿喂养和养育产品品牌Thyseed (世喜) 的奶瓶现在由巴斯夫的高性能热塑性Ultrason®制成。用于婴幼儿的奶瓶在几个方面受益于巴斯夫聚苯砜(PPSU) Ultrason®P 3010: 它被批准用于食品接触, 具有优异的机械强度, 耐化学性以及耐134°C的过热蒸汽。这些特性确保了婴儿奶瓶的安全使用, 同时又轻便、防摔。它们很容易承受洗碗机和微波炉的高温, 因此可以多次重复使用, 而不会失去其优异的机械性能或光学外观。同时, 世喜和巴斯夫也达成了战略合作, 共同探索Ultrason®对世喜其他产品在中国及海外市场的优势。

“世喜一直致力于定制世界上最好的产品, 用精致的材料和工艺, 创新的产品设计和服务, 保护婴儿进入世界,” 世喜品牌创始人兼CEO王浩说。“通过使用巴斯夫的高性能PPSU, 我们的产品将在全球市场上树立新的安全和质量标准。同时, 这也将有助于世喜进一步拓展国际市场, 提升我们的品牌竞争力。与巴斯夫的合作不仅限于Ultrason®的供应, 还包括进一步的开发, 以确保这种高性能材料可以有效地应用于我们的产品, 从而提高产品的整体质量和用户体验。”该战略合作于2024年7月17日在上海的启动仪式上正式签署, 将包括技术创新方面的合作, 以及在可重复使用和高卫生标准等趋势和可持续性主题上的交流。

透明, 浅蜂蜜色的Ultrason® P 3010是中等粘度级, 具有优异的韧性和抗应力开裂性。它非常适合注塑拉伸吹塑成型, 这是亚洲最普遍的婴儿奶瓶制造工艺。Ultrason®P 3010的生产优势: 快速的循环时间和简单的加工, 配有适当配置的热流道系统, 没有废料损失。



Baby Bottles – Safe and Robust

■ Baby bottles of the baby feeding and nurturing products brand Thyseed are now made of BASF's high-performance thermoplastic Ultrason®. The bottles for babies and toddlers benefit from the BASF polyphenylsulfone (PPSU) Ultrason® P 3010 in several ways: It is approved for food contact and features excellent mechanical strength, chemical resistance as well as resistance to superheated steam at 134°C. These properties ensure that the baby bottles are safe to use, while being lightweight and shatter-proof. They easily withstand the high temperatures in dishwashers and microwave ovens and can thus be reused many times without losing their excellent mechanical properties or their optical appearance. Thyseed and BASF have also entered into a strategic cooperation to explore the advantages of Ultrason® for other products of Thyseed in China and beyond. “Thyseed has been committed to customizing the world's best products, with exquisite materials and processes, innovative product

design and services, to protect babies' entrance into the world,” says Wang Hao, Brand Founder and CEO of Thyseed. “Through the use of BASF's high-performance PPSU, our products will set new safety and quality standards in the global market. At the same time, it will also help Thyseed to further expand internationally and enhance our brand competitiveness. The cooperation with BASF is not limited to the supply of Ultrason® but involves further development to ensure that this high-performance material can be effectively applied to our products, thereby improving their overall quality and user experience.” The strategic cooperation, which was officially signed at a launch event in Shanghai on July 17, 2024, will include collaboration on technical innovations as well as exchanges on trends and sustainability topics like reusability and high health standards.

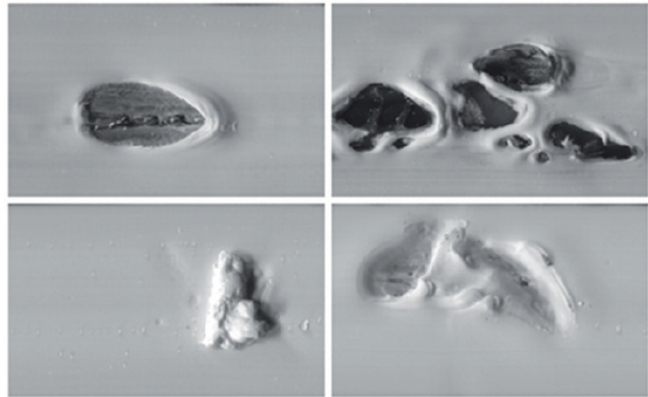
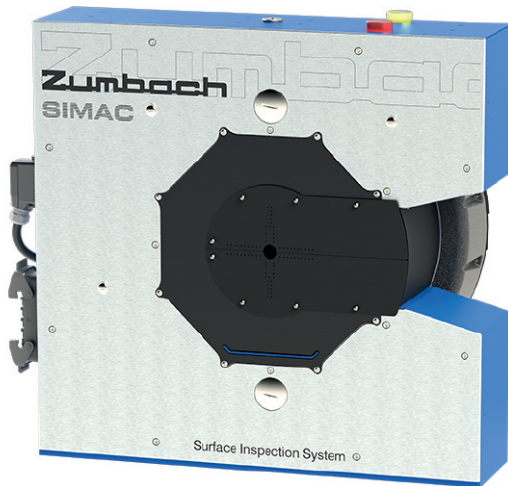
The transparent, lightly honey-colored Ultrason® P 3010 is a medium viscosity grade with superior toughness and stress crack resistance. It is well-suited for injection stretch blow molding, which is the

most widespread manufacturing process for baby bottles in Asia. The production advantages of Ultrason® P 3010: rapid

cycle times and easy processing with suitably configured hot runner systems without scrap losses.

➔ **BASF**
www.ultrason.basf.com/householdcatering
➔ **Thyseed**
www.thyseed.com

SIMAC®表面质量检测系统提高了电缆、管道和软管的制造效率



■ ZUMBACH电子是全球非接触式测量技术的领导者，生产市场上最先进的表面质量检测系统之一。ZUMBACH SIMAC®提供最先进的解决方案，利用图像处理来检测和识别电缆、管材和软管生产中的材料缺陷和异常，否则这些缺陷和异常会对产品的盈利能力和可靠性产生负面影响。

在电缆、管材和软管制造过程中可能出现的表面缺陷和异常包括划痕、脊线、气泡和裂纹，以及结晶不完全、燃烧的材料夹杂物、涂层缺失和颜色缺陷。如果没有先进的表面质量检测系统，这些缺陷是非常难以识别的。

SIMAC®可以直接集成到生产线中，并提供连续的在线表面检测，线速高达500米/分钟。由于重叠的成像区域，四个摄像头确保提供100%的覆盖率，即使是小至2mm的产品也能实现全覆盖。

SIMAC®系列的主要特点:

- 精确和连续检测:即使是最微小的表面异常和材料缺陷也能检测到，扫描速率为每秒14万次。
- 简单的触摸屏操作:通过现代图形用户界面易于导航和控制。
- 先进的缺陷检测算法:光学系统检测并分类各种表面变化，包括最暗的表面。

SIMAC®系列有三种型号，最小产品直径从2mm到108mm。该系列中的所有型号都提供相同的高标准成像和扫描速率，以及通过侧开口快速轻松地导入生产线。

SIMAC® Surface Quality Inspection System Improves Cable, Pipe & Hose Manufacturing Efficiency

■ Global leader in non-contact measuring technologies, ZUMBACH Electronic, manufacture one of the most advanced surface quality inspection systems available in the market. ZUMBACH SIMAC® provides with a state-of-the-art solution that utilises image processing to detect and identify material defects and anomalies in the production of cables, pipes and hoses, which would otherwise negatively impact profitability and product reliability. Surface defects and anomalies that can occur during the cable, pipe and hose manufacturing process include scratches, ridges, bubbles and cracks, as well as incomplete crystallization, burnt material inclusions, missing coatings and colour defects. Without an advanced surface

quality inspection system, these defects are notoriously challenging to identify. SIMAC® can be integrated directly into the production line, and offers continuous in-line surface inspection with a line speed up to 500m/min. Four cameras ensure 100% coverage is provided, even for product as small as 2mm thanks to overlapping imaging zones.

Key Features of the SIMAC® Range:

- *Accurate & Continuous Detection:* Detects even the tiniest surface anomalies and material defects, with a scan rate of 140,000 scans per second.
- *Simple Touchscreen Operation:* Easy to navigate and control via a modern graphical user interface.
- *Advanced Defect Detection Algorithms:* The optical system detects and categorizes all kinds of surface variations, including on the darkest of surfaces. The SIMAC® range is available in three models covering a minimum product diameter of 2mm up to 108mm. All models in the range offer the same high standard of imaging and scan rate as well as quick and easy introduction into the production line by way of a side opening.

➔ **Zumbach Electronics Ltd.**
www.zumbach.com

新型500系列橡胶/硅胶挤出十字模头

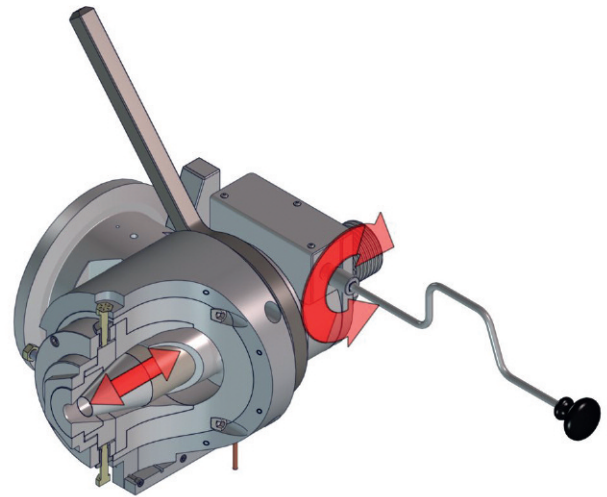
■ Guill模具公司推出了新型500系列十字模头以及MAGS橡胶间隙调整装置。500系列是专门为弹性化合物的流动特性和独特的加工挑战而设计的。Guill设计的新型十字模头主要特点之一是机械辅助橡胶间隙(MAGS)调节系统。这种调整橡胶间隙的新方法允许操作人员使用普通套筒扳手从一个点进行轻松的调整。不再需要为了调整橡胶间隙而对多个螺母和螺栓作调整，这样，所需的调整更快捷。芯管上的视觉指示器可以让操作人员看到橡胶间隙移动了多远，使这些调整更加准确并且可重复。

Guill新型500系列的无需硬件和拥有专利的凸轮锁紧设计意味着不用将时间浪费在拆卸和重新组装紧固件上。只需要旋转凸轮螺母半圈，导流器就可以自动松开并从模头体中取出，这是另一个节省时间的方法。此外，由于导流板上没有凹痕，因此在取出导流板时不会出现材料挂机，从而可以更快，更轻松地进行清洁和更换。

新的500系列模头还具有最新的中心级同心度调节系统，可显著降低对模具的压力，使得同心度调整更方便和更精确，而无需松开表面螺栓。调节螺栓的易取出插件也有助于方便地更换被锁定或损坏的调节螺栓，这进一步节省了维修和停机时间。

这种新型橡胶/硅胶十字头的另一个创新功能是铸铝液体冷却套，用户在发生管道阻塞时可以切换冷却套，与传统的集成冷却系统相比，进一步减少了停机时间。

新型500系列十字模头与MAGS橡



具有机械辅助橡胶间隙(MAGS)调节的Guill系列500十字模头...专门针对弹性化合物的流动特性而设计

Guill Series 500 crosshead with Mechanically Assisted Gum Space (MAGS) adjustment...specially designed for the flow characteristics of elastomeric compounds

胶间隙调整是在大多数现有的NRM生产线上的一个插入式替代品，这种十字模头设计也可以适用于任何挤出机或生产线的布局。

新设计的入口通道减少了材料加工过程中产生的剪切和热量。这样就获得了较低的模头压力，使得物料在一个更加平衡和均匀的流动方式下通过模头。

Guill提供的所有十字模头都配有安装和拆卸工具包以及详细的操作说明手册。Guill的工程团队将很乐意协助用户实施和操作新型500系列十字模头。Guill新型500系列十字头与MAGS橡胶间隙调整的视频：

<https://youtu.be/jeNovmMtcBs>

NEW 500 Series Rubber/Silicone Extrusion Crosshead

■ Guill Tool introduces the NEW 500 Series crosshead with MAGS gum space adjustment. The 500 Series is designed specifically for the flow characteristics and unique processing challenges of elastomeric compounds. One of the key features engineered by Guill on this new crosshead design is the mechanically assisted gum space (MAGS) adjustment system. This new method of gum space adjustment allows the operator to make an effortless adjustment from a single point using a common socket wrench. No more need to struggle with multiple nuts and bolts in order to adjust gum space, which leads to faster adjustments. The visual indicator on the core tube allows the operator to see how far the gum space has been moved, making those adjustments much more accurate and repeatable.

The hardware-free and patented cam lock design of the new 500 Series from Guill means no time is wasted unbolting and re-securing fasteners for disassembly and re-assembly. Only half of a rotation of the cam nut is required to loosen and automatically extract the deflector from the head body, which is another time saver. Also, with no undercuts on the deflector, there are no material hang-ups when extracting the deflector, allowing



for faster and easier cleaning and changeover.

The new 500 Series also features the latest Center-Stage concentricity adjustment system that significantly reduces pressure on the tooling, allowing easier and more precise concentricity adjustments without loosening the face bolts. Easy-Out inserts for the adjusting bolts also allow simple replacement of locked or damaged adjusting bolts, which further saves on repair and downtime.

Another innovative feature of this new rubber/silicone crosshead is a cast aluminum liquid-fed cooling sleeve that allows

the user to switch out the cooling jacket in the event of a line obstruction, again reducing downtime compared to traditional integrated cooling systems.

The new 500 Series crosshead with MAGS gum space adjustment is a drop-in replacement on most existing NRM lines, however this crosshead design can also be adapted to fit any extruder design or line layout.

The addition of a newly designed flow inlet channel reduces the shear and heat that is generated as the materials are being processed. This leads to lower head pressures allowing the material to move

through the head in a much more balanced and even flow.

All crossheads supplied by Guill are furnished with a tool kit for assembly and disassembly as well as a detailed operator's instruction manual. The engineering team at Guill will gladly assist users in the implementation and operation of the new 500 series crosshead.

For a video of the new Guill 500 Series crosshead with MAGS gum space adjustment:

<https://youtu.be/jeNovmMtcBs>

吹塑模具

■ 挤出模具的全球领导者 Guill Tool 推出其 1000 系列。该系列吹塑挤出模具的芯径在 8.5 英寸 (219.5 毫米) 至 10 英寸 (254.0 毫米) 之间。1025 型使用混合材料, 是医疗、汽车和特种包装的理想选择。

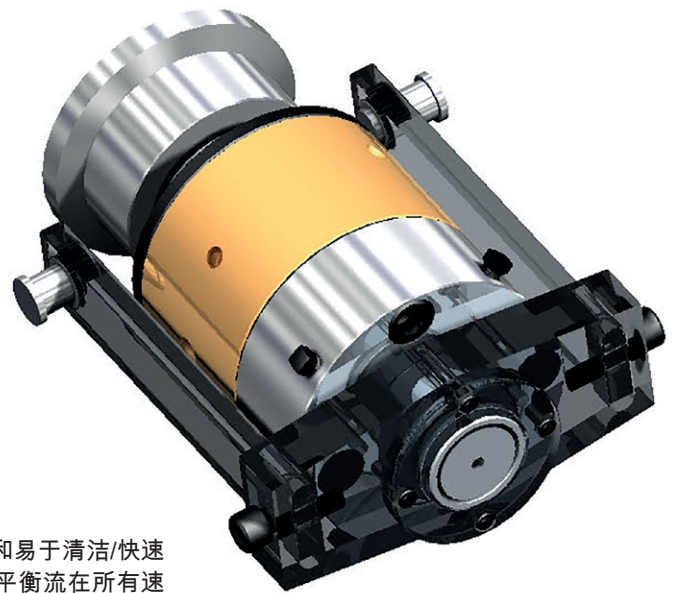
1000 系列可提供单层、共挤或三重挤出。它适应现有的挤出机布局, 在大多数情况下, 接受现有的工具。其特点包括固定中心或可调节的内置筒式加热器、低库存、可扩展到多层、加热芯销、一体式阀体/流量分流器和分流式进料平衡流量。

大多数产品都应该是固定运行的。用户只需更改一个组件即可实现完全可调。筒式加热器提供均匀的热量, 以获得更好的流动性, 并确保没有任何冷点。低库存不会产生燃烧或停滞, 从而导致快速换色。由于它可以扩展到多层, 因此十字头可以运行各种产品。加热芯销和一体式阀体/流量分流器的优点

分别是更好的温度控制和易于清洁/快速更换。最后, 分流进料平衡流在所有速度下都能实现同心壁。

Blow Molding Dies

■ Guill Tool offers its Series 1000. This series of blow molding extrusion dies, features a core diameter between 8.5" (219.5 mm) to 10" (254.0 mm). Model 1025 uses material blends which are ideal for medical, automotive and specialty packaging. Series 1000 is available as single layer, co-extrusion or triple extrusion. It adapts to existing extruder layout and in most cases, accepts existing tooling. Features include fixed center or adjustable, built-in cartridge heaters, low inventory, expanda-

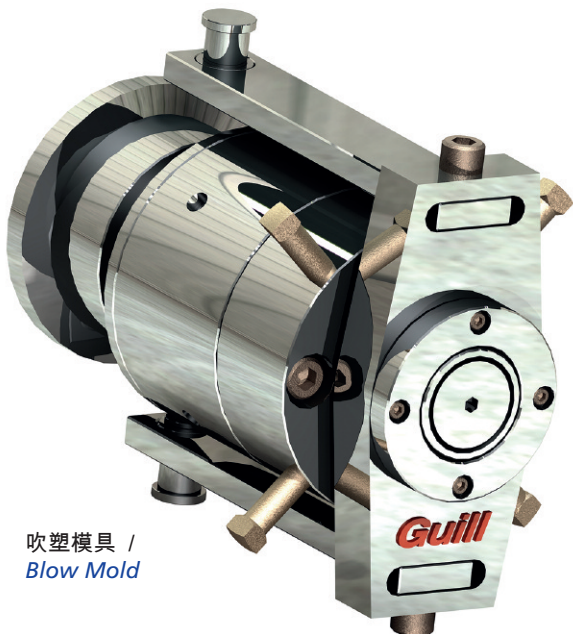


1000系列 / Series 1000

ble to multi-layer, heated core pin, one-piece body/flow diverter and split feed balanced flow.

Most products should be run fixed. Users need to change only one component to become fully adjustable. The cartridge heaters offer even heat for better flow and ensure there aren't any cold spots. Low inventory produces no burning or stagnation, resulting in quick color change. Since it's expandable to multi-layer, the crossheads run a variety of products. Benefits of the heated core pin and one-piece body/flow diverter are better temperature control and easy cleaning/quick change over, respectively. Lastly, the split feed balanced flow achieves concentric walls at all speeds.

➔ **Guill Tool & Engineering**
Tom Baldock, Sales Manager, Extrusion
tbaldock@guill.com



吹塑模具 / Blow Mold

任命流体涂料中国区销售工程师

■ Syensqo 之前隶属于索尔维集团，在台北举行的 2024 年台湾国际半导体展上首次亮相，其材料组合涵盖了半导体加工的所有阶段。作为全球领先的先进性能材料和化学解决方案供应商，该公司为半导体行业提供特种聚合物。9 月 4 日至 6 日，Syensqo 的展览重点展示了可帮助客户突破芯片性能极限并实现更可持续的半导体未来的材料解决方案。

Syensqo 的特种聚合物具有出色的清洁度、化学稳定性和高耐热性，可满足当今先进半导体应用对长期可靠性和效率的要求。Syensqo 的产品是根据 FEOL（前端生产线）到 BEOL（后端生产线）制造的独特需求定制的，包括设施管道涂层、超纯水 (UPW) 系统、干法蚀刻、湿法工艺、薄膜、光刻和 CMP（化学机械抛光）。它们已被证明适合要求严格的关键节点设计，并广泛应用于半导体芯片生产的湿法清洁、沉积、干法蚀刻和化学机械抛光 (CMP) 阶段。沉积、干法蚀刻和化学机械研磨 (CMP) 阶段。

以廣泛的科技產品專業、研究開發的關鍵投資為基礎，Syensqo 具有豐富的經驗來提供次世代半導體程序所需的永續高性能材料。此外，該公司在上海的進階應用實驗室具備卓越的無塵室設備，能為鄰近的客戶提供服務，並為當地市場提供更快速的回覆。

(图片 / Pictures Syensqo)



Debut at Semicon Taiwan 2024

■ Syensqo, previously part of Solvay Group, debuted at Semicon Taiwan 2024 in Taipei with the materials portfolio covering all stages of semiconductor processing. As a leading global provider of advanced performance materials and chemical solutions, the company offers specialty polymers for the semiconductors industry. From September 4 to 6, Syensqo's exhibit highlighted material solutions that help customers push the limits of

chip performance and enable a more sustainable semiconductor future.

Syensqo's specialty polymers are engineered with superior cleanliness, chemical stability and high heat tolerance to meet today's demands for long-term reliability and efficiency in advanced semiconductor applications. Syensqo's products are custom-engineered to the unique needs of FEOL (front-end-of-line) to BEOL (back-end-of-line) manufacturing, including Facility Duct Coating, Ultra-pure Water (UPW) system, Dry Etch, Wet Process, Thin film, Lithography and CMP (Chemical Mechanical Polishing). They have a proven fit in demanding critical node designs and are widely used in the wet cleaning, deposition, dry etching, and chemical mechanical polishing (CMP) stages of semiconductor chip production. Building on extensive technical industry expertise and key investments in R&D, Syensqo is also well positioned to deliver the sustainable high-performance materials needed for next-generation semiconductor processes. Moreover, the company's advanced application lab in Shanghai with state-of-the-art cleanroom capabilities provides greater proximity to customers and fast response to local market needs.



► Syensqo
www.syensqo.com

interpack(德国杜塞尔多夫国际包装展览会)与世界包装组织扩大合作伙伴关系



■ Interpack和世界包装组织 (WPO) 正在加强他们的长期合作。战略伙伴关系的目的是促进创新, 可持续发展和全球知识交流的包装行业, 甚至更强有力的合作。

这次合作有着悠久的历史。WPO主席Luciana Pellegrino说道:“我们与杜塞尔多夫展览中心 (Messe Düsseldorf) 合作多年, interpack早已成为我们在德国的家。我们希望一起为行业取得伟大的成就而努力, 并热情地支持interpack。”

WPO和interpack有许多共同的目标, 特别是在促进创新、可持续发展、教育和全球网络方面。扩大合作将进一步促进循环经济、可持续发展和包装行业资源节约等重要议题。“我们的努力是促进加工和包装行业的发展和进步, 并确保其在世界市场上的成功,” interpack总监Thomas Dohse在描述贸易博览会的愿景时说。有了WPO, 我们有了一个理想的合作伙伴, 可以继续实现这些目标。共同利用我们的全球网络是一个伟大的进步。”

世界包装组织和世界之星全球包装奖都在世界上久负盛名。2026年, 颁奖典礼将作为interpack的一部分再次举行, 为参与者提供一个重要的国际舞台。WPO本身将在贸易博览会上设立展位, 并在interpack上参加电视演播室和聚光灯论坛等各种内容形式的活动。作为主题合作伙伴关系的一部分, WPO还将参与贸易博览会外的interpack渠道, 例如焦点杂志。

WPO已经是2023年《包装中的女性》首次推出的强大合作伙伴, 当时interpack首次在全球范围内为包装行业的女性组织了一次网络活动和圆桌讨论。这一举措是开创性的, 业内其他参

与者现在也越来越关注这一主题。世界妇女组织还将再次参加interpack 2026, 并作为interpack联盟贸易博览会的一部分, 为其圆桌讨论及其全球妇女网络作出贡献。

interpack and the World Packaging Organisation Expand Partnership

■ interpack and the World Packaging Organisation (WPO) are intensifying their long-standing cooperation. The aim of the strategic partnership is to promote innovation, sustainability and the global exchange of knowledge in the packaging industry even more strongly.

This cooperation has a long tradition: “We have been associated with Messe Düsseldorf for many years, and interpack has long since become a home for us in Germany. Together we want to achieve great things for the industry and support interpack with passion,” says Luciana Pellegrino, President of the WPO.

The WPO and interpack share many common goals, particularly in the promotion of innovation, sustainability, education and global networking. The expanded cooperation will promote important topics such as circular economy, sustainability and resource conservation in the packaging industry even more intensively. “Our drive is to promote the development and progress of the processing and packaging industry and to ensure its success in the world’s markets,” says Thomas Dohse,

Director of interpack, describing the trade fair’s vision. “With the WPO, we have the ideal partner at our side to continue to fulfil these goals. Utilising our global network together is a great step.”

The WPO organises one of the world’s most prestigious packaging competitions with the WorldStar Global Packaging Awards. In 2026, the awards ceremony will once again take place as part of interpack, providing participants with a major international stage. The WPO itself will have a stand at the trade fair and take part in various content formats at interpack, such as the TV studio and the Spotlight Forum. As part of a theme partnership, the WPO will also be involved in interpack channels such as Spotlight Magazine outside of the trade fair.

The WPO was already a strong partner for the premiere of ‘Women in Packaging’ in 2023, when interpack organised a networking event and panel discussion for women in the packaging industry on a global level for the first time. This initiative was groundbreaking and other players in the industry are now also increasingly focussing on this topic. The WPO will also be on board again at interpack 2026 and as part of the interpack alliance trade fairs, contributing with panel discussions and its global women’s network.

► Messe Düsseldorf GmbH
www.interpack.de
www.worldpackaging.org



(Photo: VM Verlag, Bettina Jopp-Witt)

Fakuma (德国塑料工业展览会) 2024 – 塑料行业的家庭庆典

Fakuma 2024 – A Family Celebration for the Plastics Industry

■ 第29届Fakuma国际塑料加工交易会在弗里德里希港 (Friedrichshafen) 闭幕, 取得了巨大成功。从2024年10月15日到19日, 在12个几乎座无虚席的大厅里, 1639家参展商展示了他们在效率、可持续发展和循环经济领域的创新, 展位几乎被预订一空。为期5天的康斯坦斯湖商品交易会以繁忙的活动、深入的讨论和精彩的节目而闻名。

Fakuma正变得越来越国际化。47.5%的参展商来自德国以外 (去年为44.0%), 今年的塑料加工行业交易会再次占据全球领先地位。共有1639家参展商 (比2023年增加3家), 其中778家来自不同国家, 包括170家来自中国, 142家来自意大利, 81家来自瑞士, 77家来自奥地利, 51家来自土耳其。对于制造商和用户来说, 提高效率、工艺稳定性、可重复性和安装时间最小化等主题是首要的议程。因此, 塑料加工商正在实施所有可能的技术和组织措施, 以及投资, 以确保他们保持竞争力……因为他们必须要生产更多更经济的产品。

圆桌会议

作为今年贸易博览会计划的一部分, 高度专业化的专家社区呈现了许多有吸引力的亮点。最初, 第二届Fakuma圆桌会议在交易会第一天的下午举行, 这一次的主题是“数字化-成功还是失败? ”。专家组包括、Braungart EPEA(环境保护促进组织)创始人兼科学总监Michael Braungart博士, ALPLA公司运营控制主管Miranda Burtscher, Arburg (德国雅宝) 常务技术总监、总经理Guido Frohnhaus教授。汉诺威莱布尼茨大学塑料和回收技术研究所的Hans-Josef Endres博士, Schmalkalden应用科学大学的Thomas Seul。

著名的专家小组成员达成了结论性的意见。圆桌会议由K-Profi主编Markus Lüling主持, 研究了数字化在多大程度上成为可持续的以及合格人员短缺问题, 并提供了解决方案。著名的小组成员得出了一个决定性的结论: 数字化是重中之重。这是必需品。Thomas Seul强调, 这是实现有效性的工具, 反过来又会带来更高的效率。来自多个行业的大量例子表明, 数字化帮助我们向前迈

进。Hans-Josef Endres也为“成功”辩护, 因为数字化在整个流程链中提供了许多机会和实际优势。

就业星期五新员工招募

“就业星期五”是今年的一个特别亮点: 展会推广机构、参展商顾问委员会和参展商联合举办了一场面向小学生、中学生和初级员工的活动, 其口号是“塑造你的梦想, 塑造你的未来”。目的是让年轻人了解塑料工业的职业机会, 同时传授塑料领域的知识。这个活动很受欢迎。400多名有强烈兴趣的年轻人利用这个机会参加了各种导游旅行。

积极的结果

Fakuma 2024再次成为塑料行业的一个伟大的家庭庆祝活动, 贸易博览会推广机构P. E. Schall的董事总经理Bettina Schall在总结shafen的成功的5天活动时表示, 该活动吸引了36675名游客。在开幕式的新闻发布会上, Michael Braungart教授用他的方法启发了我们, 他认为‘一切都可以作为营养物质’。随后, 在人潮涌动的展厅和会议室里举行

了无数次讨论和会议。创业区在其交易会展位上受到了热烈的关注。专家论坛再次成为专家群体收集深入技术信息的中心会议场所。Bettina Schall对该行业的未来持乐观态度。董事总经理说：“虽然目前的形势充满挑战，我们必须同时处理许多高度复杂的问题，但Fakuma 2024年会议上经历的集中创新力量强烈表明，我们正在以决心和信心面对这些问题。过去几天在贸易博览会上的活动有助于逐步实施建设性的办法。我要感谢所有参展商和观众的积极贡献和参与。诚挚邀请所有行业利益攸关方出席2026年 10月 13日至 17日 在Friedrichshafen举行的第30届Fakuma!”

■ *The 29th Fakuma international trade fair for plastics processing closed in Friedrichshafen as a great success. 1639 exhibitors presented their innovations in the fields of efficiency, sustainability and circular economy in twelve almost fully occupied halls and nearly booked-out foyers from the 15th through the 19th of October, 2024. The 5-day trade fair on Lake Constance was characterised by bustling activity, in-depth discussions and a programme packed with highlights.*

Fakuma is becoming increasingly international. With 47.5% of the exhibitors coming from outside of Germany (previous year: 44.0%), this year's trade fair for the plastics processing industry once again occupied a leading position throughout the world. From a total of 1639 exhibitors (3 more than in 2023), 778 travelled to Stuttgart from many different countries – including 170 companies from China, 142 from Italy, 81 from Switzerland, 77 from Austria and 51 from Turkey. For manufacturers and users, topics such as increased efficiency, process stability, reproducibility and minimised setup times are at the top of the agenda. Consequently, plastics processors are implementing all conceivable technical and organisational measures, as well as investments, to ensure that they remain competitive ... because they're being forced to produce more and more economically.

Roundtable Discussion

The highly specialised expert community was presented with lots of attractive highlights as part of this year's trade fair programme. Initially, the second edition

of the Fakuma Round Table was held during the afternoon of the first day of the trade fair, this time addressing the topic of “Digitalisation – Top or Flop?” The panel of experts included Professor Dr. Michael Braungart, founder and scientific director of BRAUNGART EPEA, Miranda Burtscher, head of corporate operations controlling at ALPLA, Guido Frohnhaus, managing technology director at Arburg, Professor Dr.-Ing. Hans-Josef Endres from the Institute for Plastics and Recycling Technology at Leibniz University Hannover and Professor Dr.-Ing. Thomas Seul from the Schmalkalden University of Applied Sciences. The panellists, moderated by Markus Lüling, Editor-in-Chief of K-Profi, examined the extent to which digitalisation offers solutions to the issues of sustainability and the shortage of qualified personnel. The prominent panellists arrived at a conclusive verdict: digitalisation is tops. It's a necessity. It's a tool for achieving effectiveness, which in turn leads to greater efficiency, emphasised Thomas Seul. There are plenty of examples from numerous sectors indicating that digitalisation has helped us to move forward. Hans-Josef Endres also made his case for “tops”, because digitalisation offers many opportunities and practical advantages throughout the entire process chain – for example in order to make the flow of materials transparent by collecting and using the relevant data, in order to be able to reuse materials. Michael Braungart stressed that the prerequisites for closed loop processes can only be fulfilled by means of digitalisation. However, digitalisation should not be taken to absurd extremes. “We shouldn't focus attention on irrelevant aspects,” says Braungart. “Always take a careful look at what you want to digitalise first.” The panellists agreed in this regard: simplify and improve processes first, then digitalise them. This is the only way to ensure meaningful and effective digitalisation. Miranda Burtscher pointed out an important task: digitalisation also results in large amounts of data that require the use of appropriate analysis tools. However, the interfaces must first be equipped with a common language because networking would otherwise be doomed to failure.

New Talent Recruitment on Career Friday

Career Friday was a special highlight this

year: The trade fair promoters, the exhibitor advisory board and the exhibitors jointly organised a campaign for pupils, students and entry-level employees in keeping with the motto “Mould Your Dreams, Mould Your Future”. The objective was to inform young people about career opportunities in the plastics industry and, at the same time, impart knowledge in the field of plastics. The campaign was very well received – many exhibitors organised shuttle services, activities, tours of the trade fair booths and glimpses behind the scenes of plastics processing. More than 400 highly interested young people took advantage of this opportunity and joined the various guided tours.

Positive Verdict

“Fakuma 2024 was once again a great family celebration for the plastics industry,” says Bettina Schall, managing director of trade fair promoters P. E. Schall, in summing up the 5 successful days of the event in Friedrichshafen, which attracted 36,675 visitors. “Already at the opening press conference, Professor Dr. Michael Braungart inspired us with his approach which holds that ‘everything can serve as a nutrient’. This was followed by countless discussions and meetings in the highly frequented exhibition halls and conference rooms. The Startup Area enjoyed lively interest at its trade fair booths. And the expert forum was once again a central meeting place for the expert community for gathering in-depth technical information.” Bettina Schall is optimistic about the industry's future. “Although the current situation is challenging and we have to deal with numerous highly complex issues simultaneously, the concentrated innovative power experienced at Fakuma 2024 is a strong indication that we're tackling the issues with determination and confidence,” says the managing director. “The last several days at the trade fair have helped to make it possible to implement constructive approaches, step by step. I would like to thank all of the exhibitors and visitors for their active contribution and for their participation. All industry stakeholders are cordially invited to the 30th Fakuma in Friedrichshafen from the 13th through the 17th of October, 2026!”

► P.E. Schall GmbH
www.fakuma-messe.de

挤压技术新发展

Extrusion Tooling: Extrusion Takes Some New Turns



Guill Tool 公司位于美国罗德岛州西沃里克市，多年来一直是医用管材和其他产品挤压模具领域的全球领导者，并在多层共挤模具领域取得了诸多成就。

A longtime global leader in extrusion tooling for medical tubing and other products, Guill Tool has achieved a series of successes in the areas of multi-layer dies and, most recently, a reciprocal tubing die for wound draining that reconfigures the internal chambers of the tubing to accommodate drainage.

最近，该公司又推出了一款往复式伤口引流管模具，此款模具可以重新配置管材的内腔，以适应引流的需要。引流管可用于预防性插入，以防止或清除伤口积液，也可用于治疗性插入，以排出伤口内现有积液。排出积液是为了治疗或预防感染，促进伤口愈合，并提升病人舒适度。引流管还可用于诊断术后并发症，如吻合口瘘或出血。Guill 的模具设计具有独特的功能，无需以焊接等方式连接不同型材的截面。

“我们的自动挤压工艺可在生产中显著改变挤压型材，无需连接内部型材的不同截面。” – Tom Baldock, Guill Tool 销售经理。

Guill 设计的这款新型往复式管材模具具有多种独特功能。传统的头端和模具组件由线性往复式组件代替，该组件在给定

长度内改变管材的外形。此过程在挤出全程不间断地重复进行。切割能力外加挤出速度将成品切割成一定的长度。

可降低成本和减少价值流活动，同时提升质量。一次挤压即可产出成品，无需多次挤压、更换模具，以及通过声波焊接等连接方法手工组装不同形状的管材。Guill 的新型往复式挤压头完全消除了装配操作。它还消除了在制品库存。因此，无需储存装配、订单履单和成品补给所需的各种形状的管材和接头。

此外，往复式挤压头消除了连接件，允许准时生产和按订单生产产品。最后，它还缩短了从接收订单到发货的总运行时间。

在 Guill Tool 多年来优先关注的多层共挤领域，该公司还

推出了最新款 Series 800，这是一款 2 至 6 层挤出模具，旨在生产面向医疗和外科应用的 1/8" 至 6" 外径管材，具有出色的质量和材料效率。经过重新设计的 Series 800 可实现含氟聚合物和其他材料的无缝平滑挤出和分层，适用于所有多层、多腔医用管材。Guill 的设计进一步允许聚合物和粘合剂的薄层（0.02 毫米以下）组合。

Guill 提供各种十字头和内联管路模具，具有固定或可调节中心，适用于单挤压或共挤压应用。该模具旨在用于加工所有化合物，具有公司享有专利的精密 Feather Touch 同心度调节器，即 Seal Right 系统，该系统与 Feather Touch 系统相结合，消除了聚合物泄漏。Guill 还提供独特的螺旋流量分配系统。

所有 Guill 模具的生产都利用计算流体力学 (CFD) 程序进行了严格的流道计算机模拟，从而优化均匀流动，而且没有接合线。

最后，Guill Tool 全新推出的 Series 900 内联管路模具实行标准定价，并提供更好的挤出性能和定制能力。

这个新系列适用于直径从 0.005 英寸（0.127 毫米）到 8.0 英寸（635 毫米）的软管或管材挤出，以及各类聚合物或橡胶 OEM、食品服务、汽车、工业、电信和医疗应用。

Series 900 技术具有以下主要优点：

- 实现同心度或“产品圆度”，与其他类型的挤出模具相比，可显著降低材料用量
- 无十字线内联设计挤压头不会产生十字线，从而允许更多空气进入，无需可能限制产品产量的冷却支架
- 可同时运行 1-5 层
- 专为多种应用而设计，包括特殊的含氟聚合物应用

Guill Tool Series 900 的一个主要技术亮点是正在申请专利的 FeatherTouch™ 模座调节装置，以及无需松开固定螺钉即可进行调节的筒式滚珠组件。Series 900 的其他独特优势

还包括 Guill 的 Seal Right Systems，该系统带来良好的密封性，可消除导流板之间的泄漏，而且易于自动对准，可减少装配过程中的操作错误，并适应各种特定的挤出机布局配置。

“这个系列提供面向挤压头的标准平台设计，以及针对具体应用的独特功能，且不会增加模具成本。因而，企业能以标准价格获得可定制的精密切具，这是一项卓越优势。这无疑可帮助我们的客户提升利润。”Guill 销售经理 Tom Baldock 表示。

Guill Tool 还使用最先进的计算机数控机床和 EDM 设备制造喷嘴、模具和断流板。此外，该公司还提供工程服务，使用最新的 CAD 系统来定制设计挤压模具产品，如十字头、喷嘴、夹具、法兰、成型辊、无十字网内联模具、模具、摆门、断流板、专用设备和定径模具。

Guill Tool 于 1995 年获得 ISO 认证。作为首家达到国际标准的大型挤出模具公司，Guill Tool 长期以来一直被公认为是定制挤出模具的领先设计商和制造商之一，其产品应用领域包括电线、电缆、光纤、医用管材、木质复合材料、汽车管、塑料复合、定制应用、橡胶、型材、工业管材、软管/管材、吹塑以及食品和包装等。

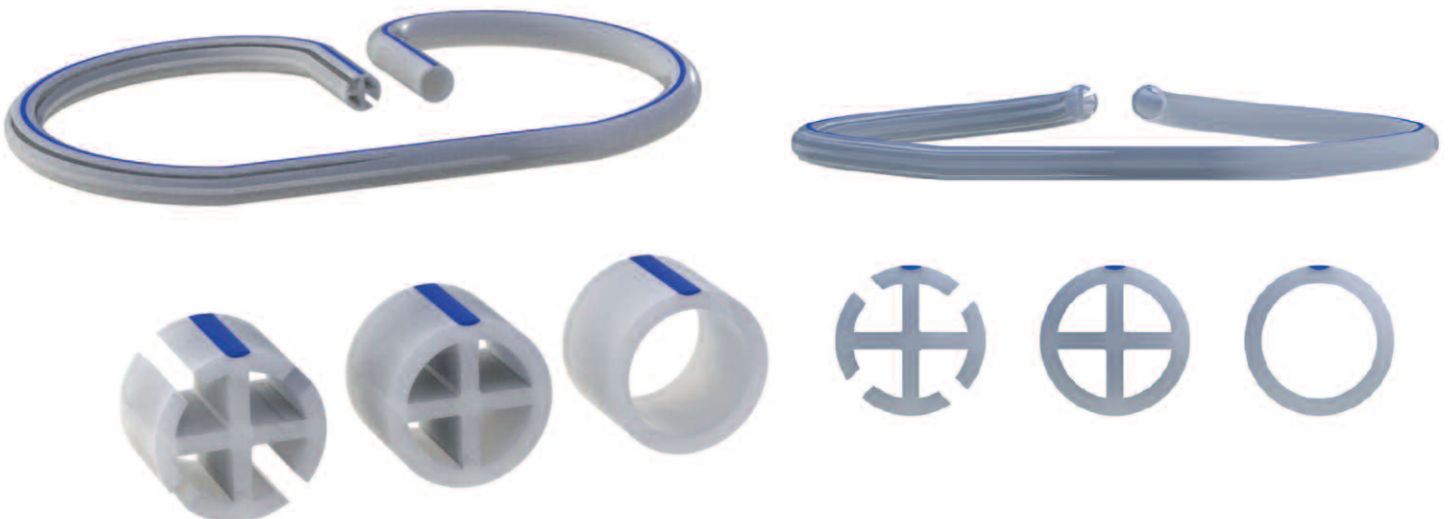
Guill Tool 还鼓励并为挤出行业提供教育和培训，包括塑料和铝制模型挤压头、图文并茂的分步组装和拆卸操作手册、培训视频以及挤出模具的维护和清洁课程。

Guill Tool 成立于 1962 年，由 A. Roger Guillemette 在罗德岛创立，最初是为新英格兰地区的电线、电缆或电线电缆、塑料和橡胶行业提供喷嘴、模具、十字头和替换部件的加工厂。后来，Guill Tool 逐步成为整个美国和加拿大的供应商，并迈入全球市场。

医疗领域的技术不断发展，通常需要各种材料和厚度的医疗级管材。Guill 专注于与客户合作设计和制造定制挤压工具，以生产业内最高质量的医用管材。该公司的 Micro Medical 模具可挤出比头发丝更细的管材，每转 0.008 英寸或更细，从而尽可能实现微创手术。其他型号可用于生产喂食用管，包括鼻胃管和空肠管。

各种伤口引流管和手术管设计的内部配置无需再分别挤出和截面连接。Guill 的往复式挤压头设计可连续生产管材内的各种型材

Internal configurations of different designs used on wound drain and surgical tubing no longer require separate sections to be extruded, then joined. The Guill reciprocating head design produces various profiles within the tubing in a constant production run



Drain tubes can be inserted prophylactically to prevent or remove the accumulation of fluid in a wound. Alternatively, such tubing can also be therapeutically inserted to evacuate an existing collection of fluid in a wound. Fluid is removed in order to treat or prevent infection and promote wound healing and patient comfort. Drain tubes can also be used to diagnose post-operative complications such as an anastomotic leak or hemorrhage. The Guill design has unique features that eliminate the need to weld or otherwise join sections with different profiles together.

“Our automated extrusion process drastically changes the extruded profile in production, with no need to join separate sections of internal profiles,” comments Tom Baldock, Sales Manager, Guill Tool

Guill has engineered this new reciprocal tubing die with various features, unique to the product. The traditional tip and die assembly is replaced with a linear reciprocating assembly that changes the tube's profile within a given length. This process is repeated throughout a single extrusion run without interruption. Cutting capability, in association with the extrusion speed, cuts the finished product to length.

While cost and value stream activities are reduced, quality is actually improved. Only one extrusion run is needed to produce a finished product, as opposed to multiple extrusion runs with tooling changes along with a manual assembly operation to connect different tubing shapes via sonic welds or other methods of joining. Guill's new reciprocating head eliminates this entire assembly operation. It also eliminates in-process inventory. Thus, there is no need for storage of various tubing shapes and connectors needed for assembly, fulfillment of orders and replenishment of finished goods.

Furthermore, the reciprocating head eliminates a connecting piece, allows JIT production and products made-to-order. Lastly, it reduces total run time from receiving the order to shipping product.

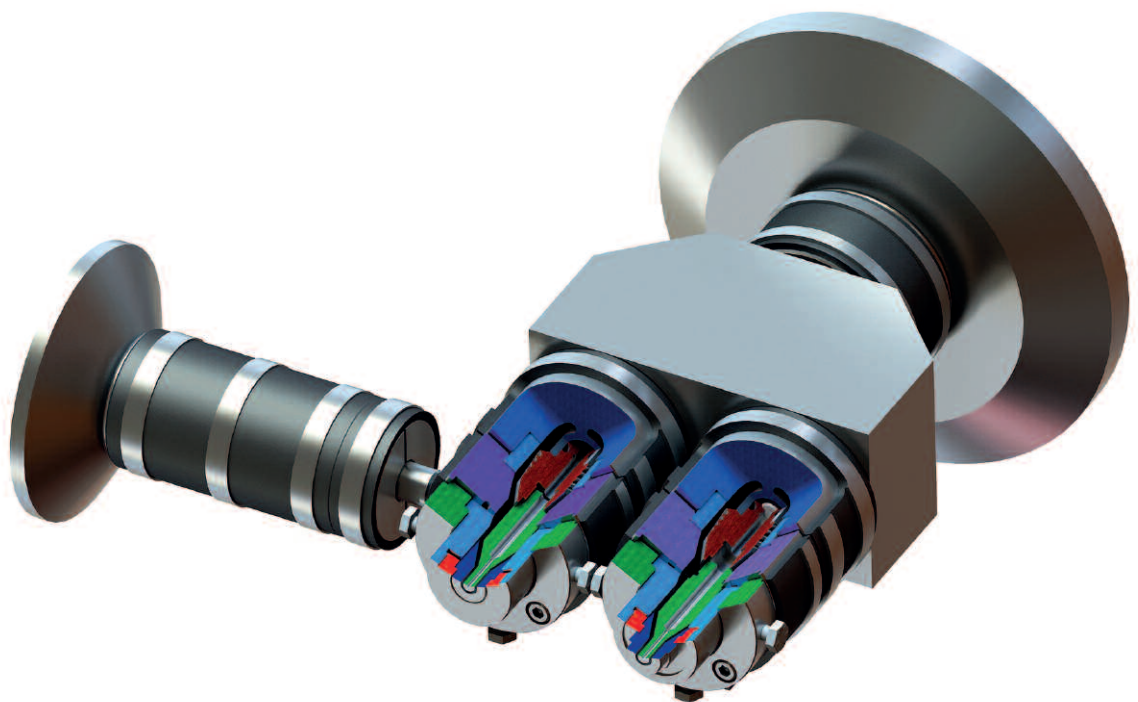
In the multi-layer extrusion arena, a primary focus of Guill Tool over the years, the company has also introduced the latest generation of its Series 800, the 2-to-6 layer extrusion tooling designed to produce the highest quality, highest material-efficient 1/8" to 6" OD tubing for medical and surgical applications. The redesigned Series 800 produces flawlessly smooth extrusion and layer definition of Fluoropolymer and other materials for all multi-layer, multi-lumen medical tubing. The Guill design further allows thin layer combinations of polymers and adhesives to 0.02mm or less.

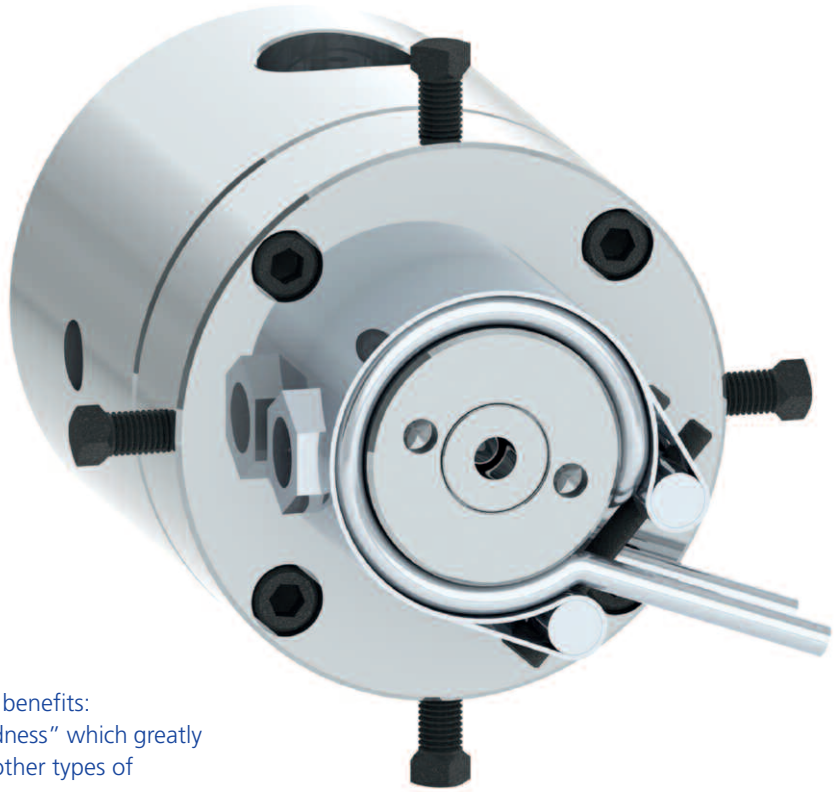
Guill offers its extensive line of crossheads and inline tubing dies in fixed and adjustable center, for single or co-extrusion applications. The tooling is designed to process all compounds and features the company's patented, precision Feather Touch Concentricity adjustment, the Seal Right System, which combines with the Feather Touch system to eliminate polymer leaking. Guill also offers its unique spiral flow distribution system.

All Guill tooling is produced with rigorous computer simulation of the flow channels using Computational Fluid Dynamics (CFD) programs, resulting in optimum uniform flow with no weld lines. Finally, the new Series 900 of inline tubing dies from Guill Tool offers improved extrusion performance and capabilities to customize at standard, off-the-shelf prices.

The new series is applicable to extrusion of hose or pipe ranging from 0.005" (0.127mm) to 8.0" (635mm) in diameter for all types of OEM, food service, automotive, industrial, telecom and medical applications in polymer or rubber.

Guill Series 800



Guill Series 900

The Series 900 technology offers these key benefits:

- Achieves concentricity or “product roundness” which greatly reduces material usage compared with other types of extrusion tooling
- Spiderless inline-designed heads results in no spider lines and allows room for more air – thus eliminating cold legs, which can inhibit product output
- Runs 1 to 5 layers simultaneously
- Engineered for a multitude of applications – including special fluoropolymer applications

A key Guill Tool technical highlight of the Series 900 is a patent-pending FeatherTouch™ adjustment in the die holder and a cartridge-style ball assembly that does not require the loosening of retaining screws to make adjustments. Additional unique benefits of the Series 900 include Guill’s Seal Right Systems, a positive seal, which eliminates leakage between deflectors, along with easy self-alignment that reduces operator error during assembly and is adaptable to a variety of specific extruder layout configurations.

“This series offers a standard platform design of the head with specific characteristics that are unique to individual applications included at no additional charge in the cost of the tooling. This is a tremendous benefit to a company that requires precision tooling with custom benefits at a standard off-the-shelf price. That certainly helps our customers’ bottom line,” says Tom Baldock, Guill Sales Manager.

Guill Tool also manufactures tips, dies, and breaker plates using state-of-the-art computerized CNC machining and EDM equipment. As well, engineering services using the latest CAD systems are available for custom-designing extrusion tooling product such as crossheads, tips, clamps, flanges, forming rolls, spiderless inline dies, dies, swing gates, breaker plates, special equipment and sizing dies.

Guill Tool received ISO certification in 1995. The first major extrusion tooling company to meet international standards, Guill Tool has long been recognized as one of the leading established designers and manufacturers of custom extrusion tooling for ap-

plications including wire, cable, fiber optics, medical tubing, wood composites, automotive tube, plastic compounding, custom applications, rubber, profile, industrial pipe, hose/tube, blow molding, plus food and packaging.

Guill Tool also encourages and provides education and training for the extrusion industry with plastic and aluminum model heads, fully illustrated operating manuals for step-by-step assembly and disassembly, training videos, and classes on the care and cleaning of extrusion tooling.

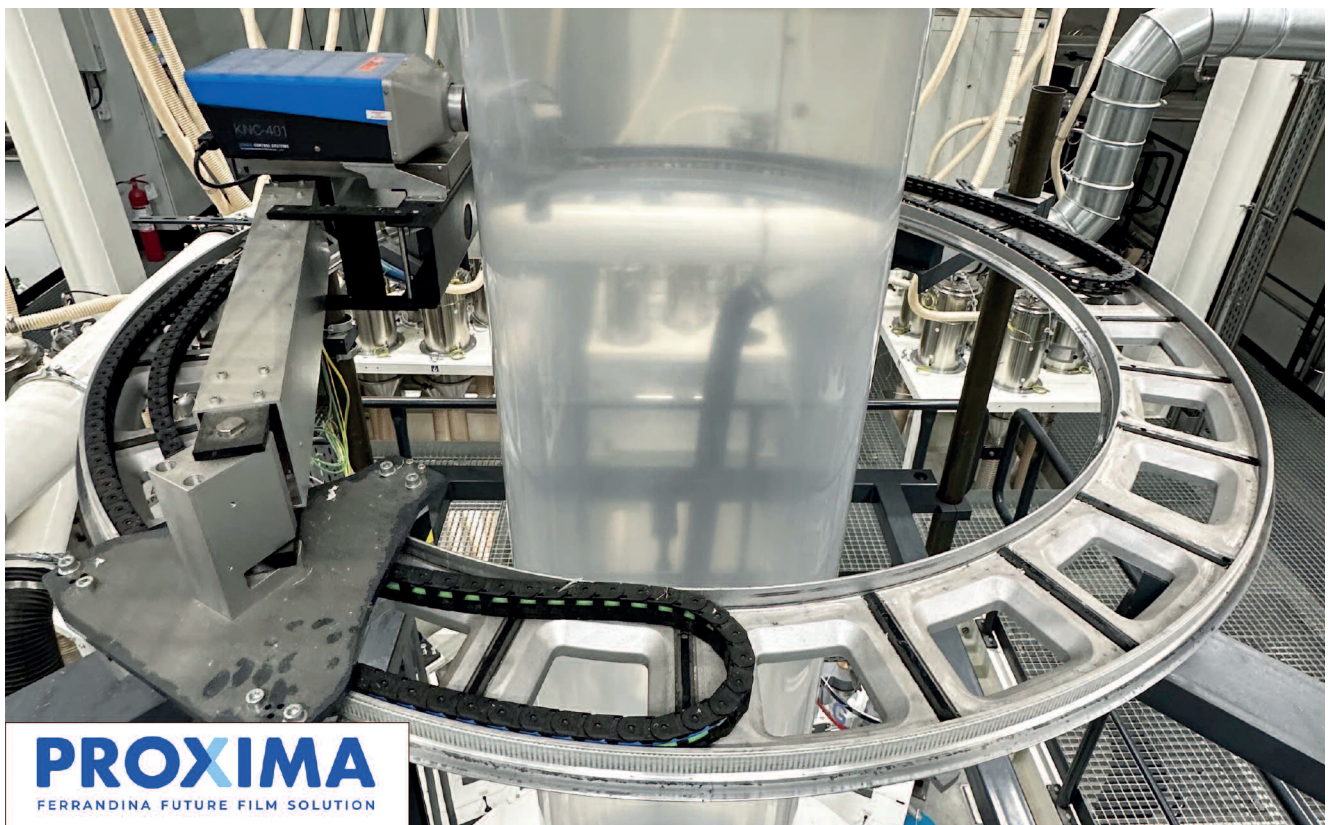
Founded in Rhode Island in 1962 by A. Roger Guillemette, Guill Tool was established as a job shop supplying tips, dies, cross-heads and replacement parts to the wire, cable or wire and cable, plastic and rubber industries in New England. Later, Guill Tool became a supplier for the entire United States and Canada, and today enjoys a worldwide market presence.

Technology in the Medical field is constantly evolving, and often requires an extensive array of Medical grade tubing in a variety of materials and thicknesses. Guill specializes in working with clients to design and manufacture Custom Extrusion Tooling to produce an unparalleled range of the highest quality Medical tubing in the industry. The company’s Micro Medical tooling can extrude tube thinner than a human hair, 0.008” or finer per revolution, and can be used to keep procedures as non-invasive as possible. Other models are used to produce tubing for feeding applications, including nasogastric and jejunal tubes.

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用于吹膜生产线的KNC-401 在线厚度传感器上市

Measurement Technology, Blown Film: Market Launch of the KNC-401 Online Thickness Sensor for Blown Film Lines



PROXIMA
FERRANDINA FUTURE FILM SOLUTION

KNC-401 Rotomat KT 3G
(资料来源:意大利费兰蒂纳coopbox 集团有限公司)

KNC-401 Rotomat KT 3G
(Source: Coopbox Group S.p.A., Ferrandina, Italy)

如何利用电容式厚度传感器在零点几毫米的距离上掠过一个晃动的膜泡，并以微米级精度测量它的厚度，而不留下任何痕迹？昆帝格控制系统(KCS)，作为HCH. KÜNDIG & CIE. AG (HKC) 公司旗下的一个专业部门，20多年来一直在应对这一挑战，并即将推出其最新的薄膜厚度传感器KNC-401。

How do you manage to fly over a wobbling bubble of film with a capacitive thickness sensor at a distance of a few tenths of a millimeter, measure its thickness with micrometer precision and leave no traces behind? KÜNDIG CONTROL SYSTEMS (KCS), a specialist division of HCH. KÜNDIG & CIE. AG (HKC), has been tackling this challenge for over 20 years and is about to launch its latest film thickness sensor, the KNC-401.

高精度、快速的圆柱形膜泡在线厚度测量是生产拥有最佳厚度公差薄膜的支柱。由于测量精度高、适用于测量带色薄膜以及测量过程不需要许可证等原因，电容式厚度测量方法目前仍是聚烯烃薄膜和低比例尼龙、EVOH或类似薄膜的首选测量方法。

大部分非接触式的电容式厚度测量，对于微米级精度，传感器表面和薄膜气泡之间的距离必须只有零点几毫米。为了实现这一点，通常通过细气孔在测量电极区域创建气垫，并将厚度传感器压入薄膜中。特别是在测量有粘性或表面敏感的外层材料时，这种方法会导致薄膜表面出现气泡或印记。此外，使用此类材料时，气泡通过非接触式定径框时稳定性很差，厚度传感器往往与薄膜表面失去接触，导致这些受影响位置的测量值为零。

作为一个独特的卖点，KCS提供了一种厚度测量装置，其中传感器头部通过直线电机跟随波动的薄膜表面。这保证了高精度的厚度测量，最大限度地减少产生气垫所需的压缩空气量，并允许控制气垫温度。这种气垫的温度控制以最好的方式减少了高光泽度薄膜上的朦胧雾化痕迹。

在2010年，KCS将根据上述原理工作的KNC-400薄膜厚度传感器推向全球市场。在最开始的两年，该传感器被安装在具有径向伸缩调整的回转装置上，并作为薄膜测厚仪出售，称为KNC-400 Rotomat Synchro和KNC-400 Rotomat Vario。自2012年起传感器被安装在具有铰接臂横梁的回转装置上，型号为KNC-400 Rotomat KT 2G和KNC-400 Rotomat KT 3G。

自KNC-40上市以来，源自日常生产使用的数百个厚度传感器的反馈信息已被纳入产品改进的变更需求中。其中大部分需求已经实现，KNC-40在理念上仍然符合最初的开发设想。

在过去的十年中，吹膜生产线的产量成倍增长，对薄膜质量的要求也大大提高，这也是减少原材料使用数量的原因。**KCS的使命是使全球薄膜挤出行业实现高质量、资源节约和可靠的生产。**该使命要求KCS适应新的客户要求，并在五年前启动了基于电容测量方法的所有厚度传感器的新开发项目。

第一步是仔细分析过去几年与KNC-400传感器有关的服务和维修情况，并将这些发现纳入后续传感器新开发的规格中，命名为KNC-401，它在稳定性、电磁兼容性、模块化、

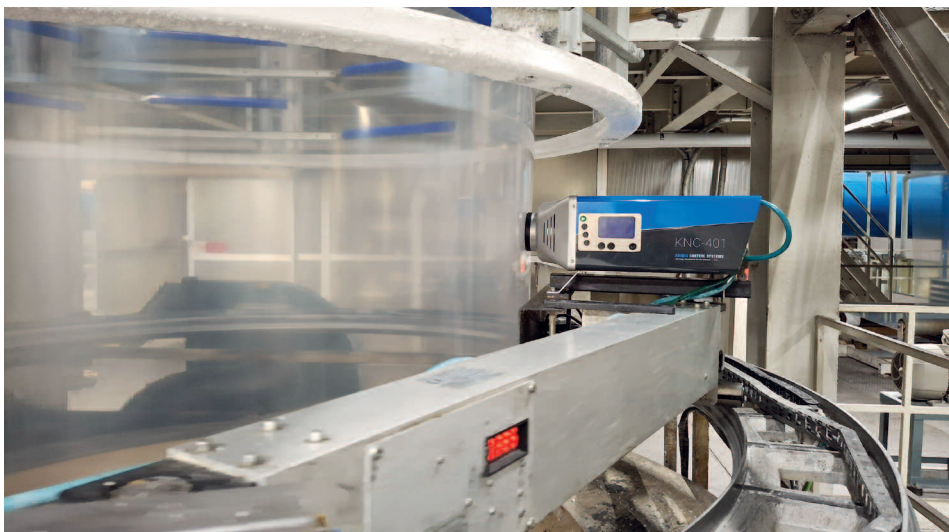
减少压缩空气消耗量以及制造和测试过程方面得到了很高的关注。在整个开发周期内，对新评估的外部采购组件进行了各种压力测试，并在必要时以其它更稳健的组件取而代之。

样品在我们的内部设施上以尽可能最佳的方式进行测试，然后移交给选定的终端客户和OEMs（原始设备制造商），用于吹膜生产线。在深入原型测试的基础上，生产了KNC-401传感器的试点系列。之后试点设备从实验生产投入到各种薄膜制造商的日常生产中，这一经验又被纳入到KNC-401系列传感器的生产中。

由于疫情及随后的采购危机，新一代电容式测厚仪的市场推出已被推迟。但现在时机已经成熟，从2024年底开始，KNC-401传感器将成为全球市场上的第一款产品，并将以新设备的名称“KNC-401 Rotomat KT 3G”销售。由于其对旧设备的兼容性，KNC-401传感器还可以取代现有的上一代型号的测量系统。

KCS的愿景是成为世界上最值得信赖的薄膜挤出测量仪器制造商。该公司坚信，随着KNC-401传感器推向市场，他们正在为实现这一愿景做出贡献。KCS还会尽快将余下的最新一代成熟的电容式厚度传感器投入生产，并将其分销给全球客户。

High-precision, fast online thickness measurement on the cylindrical film bubble is the cornerstone of film production with optimum thickness tolerances. Capacitive thickness measurement is currently still the favored measurement method for films based on polyolefins and those with low proportions of polyamide, EVOH or similar. This is due to the measurement accuracy, the suitability for measuring colored films and the fact that the measurement process does not require a permit. For micrometer-precise, largely non-contact, capacitive thickness measurement, the distance between the sensor surface



KNC-401 Rotomat KT 2G
(资料来源: 意大利达沃里奥, 戈吉奥股份有限公司)

KNC-401 Rotomat KT 2G
(Source: Goglio S.p.A.,
Daverio, Italy)

and the film bubble must only be a few tenths of a millimeter. To achieve this, an air cushion is often created in the area of the measuring electrode by means of fine holes and the thickness sensor is pressed into the film. Especially when measuring the thickness of sticky or surface-sensitive outer layers, this method leads to bubbles or marks on the film surface. In addition, with such materials, the bubble is poorly stabilized by a non-contact calibration cage and the thickness sensor often loses contact with the film surface, resulting in zero measurements at these affected positions.

As a unique selling point, KCS offers a type of thickness gauge in which the sensor head follows the fluctuating film surface by means of a linear motor. This guarantees high-precision thickness measurement, minimizes the volume of compressed air needed to generate the air cushion and allows the control of the air cushion temperature. This temperature control of the air cushion reduces haze marks on high-gloss films, for example, in the best possible way.

In 2010, KCS introduced the KNC-400 film thickness sensor, which works according to the above principle, to the global market. For the first two years, this sensor was mounted on a reversing device with telescopic radial adjustment and sold as a film thickness gauge with the designation KNC-400 Rotomat Synchro and KNC-400 Rotomat Vario. Since 2012, it has been mounted on the reversing device with articulated arm cross-beam with the model designations KNC-400 Rotomat KT 2G and KNC-400 Rotomat KT 3G.

Since the market launch of the KNC-400, the feedback from the hundreds of thickness sensors in daily production use have been incorporated into change requests for product improvements. Most of these have been implemented, but the KNC-400 still corresponds conceptually to the original development ideas.

Over the last decade, the output rates of blown film lines have multiplied and the demands on film quality – also for the reason to reduce the amount of raw materials used – have increased enormously. **KCS's mission is to enable the global film extrusion industry to a high quality, resource-saving and reliable production.** This mission statement obliges KCS to adapt its product range to the new customer requirements and five years ago launched the project for the new development of all thickness sensors based on the capacitive measuring method.

The first step was to meticulously analyze the service and repair cases associated with the KNC-400 sensor over the past few years and incorporate these findings into the specifications for the new development of the successor sensor with the designation KNC-401. A great deal of attention was paid to improvements in terms of robustness, electromagnetic compatibility, modularity, reduction of compressed air consumption and the manufacturing and testing process. During the entire development cycle, the newly evaluated, externally procured components were subjected to various stress tests and, if necessary, replaced with other, more robust components.

Prototypes were tested in the best possible way on our in-house facilities and then handed over to selected end customers and OEMs for use on blown film lines. Based on the in-depth prototype tests, a pilot series of KNC-401 sensors was produced. Devices from the pilot series production were then put into daily production use at various film manufacturers and this experience was in turn incorporated into the series production of the KNC-401 sensors.

The market launch of this new generation of capacitive thickness gauges has been delayed due to the pandemic and the subsequent procurement crisis. However, the time has now come and the KNC-401 sensor will be the first product available to the global market from the end of 2024 and will be sold as a new device with the designation KNC-401 Rotomat KT 3G. Thanks to its backwards compatibility, the KNC-401 sensor can also replace the predecessor model on existing measuring systems.

The vision of KCS is to be the world's most trusted gauge manufacturer for film extrusion. The company firmly believes that with the market launch of the KNC-401 sensor they are contributing to achieving this vision. KCS will also bring the remaining capacitive thickness sensors of the latest generation to production maturity as quickly as possible and distribute them to the global customer base.

► **KÜNDIG CONTROL SYSTEMS (KCS), HCH. KÜNDIG & CIE.AG**
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双重过滤塑料回收 - 不仅仅是一种趋势

Processing, Recycling: Double Filtration in Plastics Recycling – More Than a Trend

2024国际塑料展览会上的
Fimic展台

Fimic booth at NPE2024



面对日益增长的环境问题和监管压力，塑料行业正在经历重大转型。这一变化的核心是采用更先进的回收技术，特别是双重过滤系统。随着对高质量再生塑料的需求增加，双重过滤正成为确保再生材料纯度和一致性的关键工艺，使其适合更广泛的应用。

In the face of growing environmental concerns and regulatory pressures, the plastics industry

全球塑料垃圾危机已经达到了惊人的程度，每年产生出数百万吨塑料垃圾。这些废料中的大部分最终会进入垃圾填埋场或存在于环境中，在那里这些废料需要几个世纪的时间才能分解。再生利用提供了一个解决方案，但传统的再生工艺往往难以生产出满足质量要求的材料，用于高价值的应用。污垢、油质和非塑料材料等污染物可能会损害回收塑料的完整性，限制其使用和市场价值。

is undergoing a significant transformation. Central to this change is the adoption of more advanced recycling technologies, particularly double filtration systems. As the demand for high-quality recycled plastics intensifies, double filtration is emerging as a critical process that ensures the purity and consistency of recycled materials, making them suitable for a wider range of applications.

在消费者偏好和监管规定的推动下，对高质量再生塑料的需求不断增加，导致回收设施更广泛地采用双重过滤系统。整个塑料价值链上的公司都在投资于先进的回收技术，以提高其产品的质量，并在快速发展的市场中保持竞争力。

例如，在欧洲，欧盟的“一次性塑料指令”(Single-Use Plastics Directive)等严格的法规正在推动对更能持续的塑料

解决方案的需求，双重过滤正在成为许多回收工厂的标准做法。在美国，随着各州和市政府颁布旨在减少塑料废物和提高回收率的法律，类似的趋势正在出现。

为了应对这些挑战，塑料回收行业越来越多地转向双重过滤技术。该工艺涉及在回收过程中让塑料材料通过两个连续的过滤阶段，显著地提高了最终产品的纯度和质量。

第二个过滤阶段采用更纤细的过滤器或额外的专门过滤系统，以去除可能穿过第一个过滤器的更小的颗粒和污染物。其结果是得到一种更纯净、质量更高的再生塑料，可以满足包括汽车、包装和消费品在内的各个行业的严格要求。尽管双重过滤有其优点，但也不是没有挑战。这一工艺需要对设备和技术进行大量投资，这可能成为规模较小的回收作业的障碍。此外，回收过程的复杂性增加可能导致更高的运营成本。然而，FIMIC拥有经过实践证明的双重过滤技术，能够处理被严重污染的塑料废弃物，只需一台机器和两个过滤步骤：这就是ERA熔体过滤器。使用ERA过滤器，可以有效地处理一些重度污染的废弃物料流，而无需安装两个单独的熔体过滤器和熔体泵，或两个单独的挤出机。回收商不仅避免了更高额的投资，同时还缩短了熔体在生产线上不同部位的更长的滞留时间，滞留时间过长会导致物料长期摩擦造成的降解问题。

事实证明，在更低的温度、更低的压力水平和更短的滞留时间下处理塑料废物，可以获得更高的最终产品质量。FIMIC特别专注于通过关注降低运营成本，达到消费后废弃物料流的更高水平，这是FIMIC系列产品的许多优势之一。通过在第二个过滤室中放置第一个筛网和第二个更精细的筛网，回收者可以在ERA过滤器的第一个刮拭室中获得预过滤，并从第一个排放阀排放污染物。同样的，通过从第二个排放阀(独立于第一个，放置在熔体过滤器的底部)排出污染，也可以处理残留在第二个滤网上的污染。由于两个排污阀互相独立，第二个腔室上的滤网以较慢的速度工作，与第一个滤网相比，排出的污染物更少。这种新的FIMIC技术允许处理严重污染的塑料废物流，只需一台机器和两个过滤步骤，使用更便宜的滤网过滤出较粗(通常是最危险的)杂质，然后进入更精细的滤网(即更昂贵的)。

FIMIC的熔体过滤器代表着塑料回收技术的重大进步，为行业一些最紧迫的挑战提供了解决方案。ERA熔体过滤器凭借其自动操作、自清洁系统和处理重度污染的能力，正在为回收过程中的效率、质量和多功能性设定新的标准。随着对高质量回收塑料的需求继续增长，这一时代将在该行业实现可持续性和减少塑料废料的努力中发挥关键作用。

The global plastic waste crisis has reached alarming levels, with millions of tons of plastic waste generated annually. Much of this waste ends up in landfills or the environment, where it can take centuries to decompose. Recycling offers a solution, but traditional recycling processes often struggle to produce materials of sufficient quality for reuse in high-value applications. Contaminants such as dirt, oils, and non-plastic materials can compromise the integrity of recycled plastics, limiting their use and market value.

The increasing demand for high-quality recycled plastics, driven by both consumer preferences and regulatory mandates, is leading to broader adoption of double filtration systems in recycling facilities. Companies across the plastics value chain are investing in advanced recycling technologies to enhance the quality of their output and to stay competitive in a rapidly evolving market.

For example, in Europe, where stringent regulations like the European Union's Single-Use Plastics Directive are driving the need for more sustainable plastic solutions, double filtration is becoming a standard practice in many recycling plants. In the United States, similar trends are emerging as states and municipalities enact laws aimed at reducing plastic waste and increasing recycling rates.

In response to these challenges, the industry is increasingly turning to double filtration techniques. This process involves passing plastic materials through two successive filtration stages during recycling, significantly improving the purity and quality of the end product.

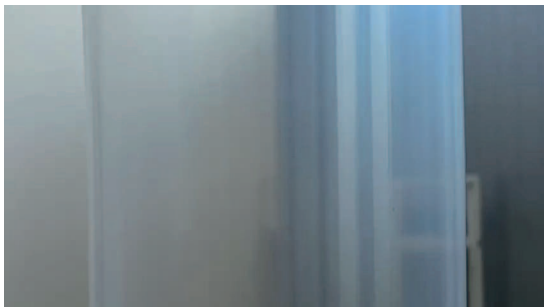
This second filtration stage employs a finer filter or an additional specialized filtration system designed to remove even smaller particles and contaminants that may have passed through the first filter. The result is a much purer, higher-quality recycled plastic that can meet the stringent requirements of various industries, including automotive, packaging, and consumer goods.

Despite its advantages, double filtration is not without challenges. The process requires significant investment in equipment and technology, which can be a barrier for smaller recycling operations. Additionally, the increased complexity of the recycling process can lead to higher operational costs.

However, FIMIC has a proven double filtration technology that

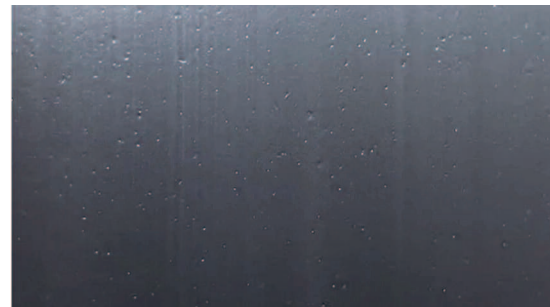
预分类LLDPE拉伸未洗膜，FIMIC ERA 500

Pre-sorted LLDPE stretch unwashed FIMIC ERA 500



预分类LLDPE拉伸未洗膜，其他过滤器

Pre-sorted LLDPE stretch unwashed other filter



allows to process heavily contaminated plastic waste streams, with only one machine and two filtration steps: ERA melt filter. With the ERA filter, some very contaminated material streams can be effectively processed, bypassing the need to install two separate melt filters and a melt pump between them, or two separate extruders. Recyclers not only avoid a higher investment but also a longer residence time of the melt in the different parts of the line which could take to degradation issues caused by prolonged friction.

It is in fact proven that processing plastic waste at lower temperatures, lower pressure levels and shorter residence times leads to superior quality of the final product. FIMIC is specifically concentrating to reach such levels with post-consumer material streams, by keeping an eye on low operational costs, which is one of the many advantages of FIMIC range of products.

By placing a first screen and a second finer screen in the second filtration chamber, recyclers can obtain a pre-filtration in the first scraping chamber of the ERA Filter and discharge the contamination from the first discharge valve. The same can be done with the contamination left on the second screen, by discharging it from a second discharge valve (independent from the first one and placed at the bottom of the melt filter). Being

the two discharge valves independent, the one on the second chamber works at a slower pace and will discharge much less material compared to the first one.

This new FIMIC technology allows to process heavily contaminated plastic waste streams, with only one machine and two filtration steps, by using a much cheaper filtering screen to filter out the coarser (and usually the most dangerous) impurities to then proceed to a finer filtration screen (i.e. the most expensive one).

FIMIC's Melt Filter ERA represents a significant advancement in plastics recycling technology, offering a solution to some of the industry's most pressing challenges. With its automatic operation, self-cleaning system, and ability to handle high contamination levels, the ERA melt filter is setting new standards for efficiency, quality, and versatility in the recycling process. As the demand for high-quality recycled plastics continues to grow, the ERA is poised to play a crucial role in the industry's efforts to achieve sustainability and reduce plastic waste.

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强有力的合作推动了中国塑料回收事业

Recycling – Case Study: Strong Partnership Drives Plastics Recycling in China

江苏赛维尔新材料科技有限公司是一家知名的中国回收公司，于2024年6月签署了另一台VACUREMA®工厂的采购协议。这家回收专家正在通过投资第五套EREMA（埃瑞玛）设备来扩大其运营，以回收消费后的PET废料。

Jiangsu Ceville New Materials Technology Co, Ltd, a leading Chinese recycling company, signed the purchase of another VACUREMA® plant in June 2024. The recycling specialist is thus investing in its fifth EREMA machine for the recycling of post-consumer and PET waste.

Ceville(赛维尔)与埃瑞玛多年来一直保持着成功的合作伙伴关系。签约仪式在埃瑞玛位于奥地利安斯费尔登的总部举行，出席仪式的有中国政府的代表，包括由丹徒区委书记毛建带领的镇江丹徒区代表团。此次高层政治和商业代表团的访问被视为中国政府对赛维尔和埃瑞玛的尊重，体现了两家公司之间对成功合作的认可。

赛维尔成立于2018年，是中国一家专注于回收消费后材料的公司。在公司创始人兼总经理黄斌的领导下，该公司从PET、HDPE和PP等材料中生产出高品质的再生颗粒料，并向全球各行各业供应这些颗粒料。这些颗粒料被用于食品和饮料包装、纺织品和汽车产品等领域。

目标，我们需要一个经验丰富、可靠的技术合作伙伴。我们已经找到了这样的合作伙伴——埃瑞玛，”黄斌强调道。

目前在赛维尔使用了四套埃瑞玛系统。除了包含ReFresher防臭技术的INTAREMA®TVEplus®外，该回收公司还拥有三套用于瓶对瓶回收的VACUREMA®系统。黄斌说：“埃瑞玛的独特之处在于其直接接触食品的技术得到了全球公认的欧洲和北美食品安全当局以及全球品牌所有者的认可，”。在接下来的几年里，赛维尔将主要投资于PET回收解决方案的扩展。“埃瑞玛的瓶对瓶技术非常出色。除了瓶对瓶之外，我们已经将颗粒料用于瓶对纤维和瓶对片的应用，质

产能提升至15万吨

黄斌解释道：“我们的目标是成为高质量塑料回收的领先企业。我们在未来几年内有具体的增长计划。赛维尔目前的回收产能为每年6万吨。到2025年底，这一数字将增加到15万吨，重点是rPET。要实现我们雄心勃勃的

赛维尔总经理黄斌和埃瑞玛中国销售总监库尔特·皮克勒曼在2024年6月的签约仪式上庆祝双方的成功合作

Bin Huang, Managing Director of Ceville, and Kurt Pichlmann, Head of Sales China at EREMA, seal their successful partnership at the signing ceremony in June 2024





埃瑞玛总经理罗宾·罗特和埃瑞玛中国销售总监库尔特·皮克勒曼欢迎丹徒区代表团参观埃瑞玛总部 (图片版权 : 埃瑞玛有限公司)

Robin Roth, Managing Director at EREMA, and Kurt Pichlmann, Head of Sales China at EREMA, welcomed the delegation from the Dantu District to EREMA's headquarters in Ansfelden (Photo Credits: EREMA GmbH)

量非常好。”从2025年年底开始，新的VACUREMA®将被添加到丹徒工厂的设备中。

分享未来目标

为了实现未来的增长计划，赛维尔将继续与埃瑞玛合作，正如黄斌所强调的那样：“我们在未来几年的产能将有所提升。我们希望为客户生产优质的再生PET、再生HDPE和再生PP，为了实现这一目标，我计划进一步扩大与埃瑞玛的合作。我们也愿意与他们一起探索新的路径，在机械回收达到极限时考虑化学回收。”赛维尔对回收机械制造商埃瑞玛的技术领导地位深信不疑，因为他们正在共同为中国市场开发特殊应用。“我信任埃瑞玛的人，”黄斌继续说道。“他们的专业知识非常出色，我们之间的商业关系也非常好。”

Ceville and EREMA have enjoyed a successful partnership for several years. The signing ceremony at EREMA's headquarters in Ansfelden, Austria, was attended by representatives of the Chinese government, including a delegation from Zhenjiang Dantu District led by Mao Jian, Party Secretary of the Dantu District Committee. The visit of this high-ranking political and business delegation is seen as a sign of the Chinese government's respect for Ceville and EREMA, and recognizes the successful cooperation between the two companies.

Ceville, founded in China in 2018, specializes in the recycling of post-consumer material. Under the leadership of company founder and Managing Director Bin Huang, the company produces high-quality recycled pellets from PET, HDPE and PP and supplies various industries worldwide. These use the pellets for food and beverage packaging, textile and automotive products and more.

Increase in production capacity to 150,000 tons

"Our goal is to be a leading company for high-quality plastics recycling. We have concrete growth plans for this in the coming years," explains Bin Huang. Ceville's current recycling capacity is 60,000 tons per year. This is set to increase to 150,000 tons

by the end of 2025, with a focus on rPET. "To achieve our ambitious goal, we need an experienced and reliable technology partner. We have found that partner in EREMA," emphasizes Bin Huang.

Four EREMA systems are currently in use at Ceville. In addition to an INTAREMA® TVEplus® including the ReFresher anti-odour technology - together a highly efficient combination for contaminated post-consumer waste - the recycling company also has three VACUREMA® systems for bottle-to-bottle recycling in operation. "What sets EREMA apart is the approval of its technologies for direct food contact by globally recognized European and North American food safety authorities and global brand owners," says Bin Huang. Over the next few years, Ceville will be investing primarily in the expansion of PET recycling solutions. "The EREMA bottle-to-bottle technology is outstanding. We have already used the pellets for bottle-to-fiber and bottle-to-sheet applications in addition to bottle-to-bottle, and the quality has been exceptionally good." The new VACUREMA® will be added to the machinery at the Dantu site from the end of 2025.

Sharing future goals

In order to realize its future growth plans, Ceville will continue to rely on the cooperation with EREMA, as Bin Huang emphasizes: "Our capacity will increase in the coming years. We want to produce excellent rPET, rHDPE and rPP for our customers, and to achieve this, I intend to further expand our cooperation with EREMA. We are also willing to explore new paths together and consider chemical recycling where mechanical recycling reaches its limits." Ceville is convinced by the technological leadership of the recycling machine manufacturer, also because they are jointly developing special applications for the Chinese market. "I trust the people at EREMA," Bin Huang continues. "The company's expertise is extraordinary and we have a very good business relationship."

► EREMA Group
Unterfeldstr. 3, 4052 Ansfelden, Austria
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让气味浓烈的农用薄膜和洗涤剂瓶重新进入循环

Recycling – Case Study: Getting Strongly Smelling Agricultural Films and Detergent Bottles Back Into the Loop



Ambiente回收被污染和气味强烈的消费后洗涤剂瓶和农用薄膜(所有图片©Starlinger)

Ambiente recycles contaminated and strongly smelling post-consumer detergent bottles and agricultural film (All pictures © Starlinger)

那些经常受到严重污染，湿度高并且伴随浓烈气味的消费后废塑料对回收商来说绝不是理想的原材料。葡萄牙塑料回收公司Ambiente S.A.接受了这一挑战，在史太林格回收机 recoSTAR dynamic 165 C-VAC回收线上，用清洗后的农用薄膜和洗涤剂瓶生产高质量的除臭再生颗粒，目的是使更多的塑料制品保持闭环回收。

Often heavily contaminated, with high humidity levels and strong smell: post-consumer plastic waste is anything but a recycler's dream. The Portuguese plastics recycling company Ambiente S.A. has taken on the challenge and produces high-quality deodorized regranulate from washed agricultural films and detergent bottles on a Starlinger recoSTAR dynamic 165 C-VAC recycling line with the aim of keeping more plastic products in a closed loop.

这条史太林格的回收生产线于2024年6月在里斯本北部莱里亚的Ambiente新工厂投入运营，该公司在那里回收工业后（PIR）和消费后（PCR）的塑料废料。其中很大一部分原材料是由废弃的LDPE农用薄膜和HDPE洗涤剂瓶组成，Ambiente将其转化为高品质再生颗粒，然后再次用于薄膜挤出和吹塑应用。

Ambiente S.A.的总经理说：“对我们来说，重要的是我们生产出高质量的可回收产品，并且可以在同一应用中再次重复利用。我们的最终目标是建立真正的循环经济，这意味着在各自的应用领域中具有循环性——例如，灌溉管道再次变成灌溉管道，农用薄膜还是变成农用薄膜，食品包装也还是食品包装应用，以此类推。此外，我们也希望探索具有浓烈气味和高污染水平的输入原材料的新应用。为此，在回收过程中需要尽可能彻底地消除所有污染物。这就是为什么我们投资于最好的技术——从清洗、挤出和过滤到气味处理。我们的目标是通过提供可持续且具有竞争力的塑料工业原材料，实现循环经济，从而同时产生经济和环境效益。”

• 气味大大改善的再生颗粒

安装在Ambiente工厂的recoSTAR dynamic 165 C-VAC回收线采用了史太林格全球闻名的除味技术，可处理由HDPE制成的洗涤剂瓶和经过清洗的消费后农业LDPE薄膜。史太林格回收技术商业主管Paul Niedl解释说：“农用薄膜用于各种应用，例如温室、作物覆盖或青贮饲料贮存。这导致即使在洗涤后也会出现有机残留物，在随后的回收过程中会产生气味。在洗涤剂瓶等包装应用中，其内容物的气味在保质期和使用时间内会迁移到包装材料中。我们的气味去除技术旨在永久去除这些气味，使产生的再生颗粒适用于高品质应用。它可以在同一个应用中重复同级使用，而不是降级循环，这样就形成真正的闭环了。”

为了适应各种各样的输入材料，整个回收过程可以根据输入材料的污染和气味浓度以及所生产的再生颗粒的所需规格进行单独调整。该回收工艺始于在SMART给料机中切割和均匀化输入原材料，在那里材料也被加热，直至达到理想的状态。在该工艺步骤中可以初步提取出高挥发性的气味。在主挤出机之后，熔体通过连续的熔体过滤器，在这里熔体中的固体污染物将被高效去除，这样可以避免这些固体污染物在接下来的工艺步骤中持续释放浓烈气味。在后续的C-VAC级联真空单元中，可以使熔体表面积增加了300%，实现了极高的真空脱气效果。这确保了即使是根深蒂固的气味也能被永久去除。最后一步，在回收造粒过程结束时，生产出来的再生颗粒将会在颗粒调节装置（PCU）中进行处理，得以去除最深层次的气味。这确保了所生产的永久性气味去除的再生颗粒可用于制造各种塑料制品。

• 葡萄牙的回收先驱

Ambiente S.A.的企业历史可以追溯到1953年，当时其母公司葡萄牙塑料薄膜生产公司Fabrica Leiriense de Plasticos已经在进行工厂内部废料的回收生产。从20世纪70年代初开始，Fabrica Leiriense de Plasticos还处理外部收集的塑料废料，包括来自德国等其他欧洲国家的进口废塑料，并在20世纪90年代成为葡萄牙国内废塑料回收的先驱。公司管理层意识到，塑料回收是可持续未来的基本前提，因此于1989年成立了Ambiente S.A.公司。自2000年以来，它注册为一家独立公司，目前拥有36名员工，每年可以回收超过7000吨消费后、工业和生活垃圾。生产的再生LDPE和再生HDPE颗粒适用于挤出、吹塑和注塑应用，并供应给欧洲和北非的客户。



在颗粒调节装置中，回收的颗粒接受最后的接触，并被转化为永久减少气味的材料

In the pellet conditioning unit the recycled pellets receive the last touch and are turned into permanently odor-reduced material

The Starlinger line took up operation in June 2024 in Ambiente's new factory in Leiria, north of Lisbon, where the company recycles both industrial and domestic post-consumer plastic waste. A large share of it consists of discarded LDPE agricultural films and HDPE detergent bottles which Ambiente converts into pellets for film extrusion and blow molding applications.

“For us it is important that we produce a high-quality recycled product that can be reused in the same application,” said Paulo Pires, Managing Director of Ambiente S.A. “Our goal is to establish a circular economy. This means circularity within the respective application – for example, irrigation pipes become irrigation pipes again, agricultural film becomes agricultural film, food packaging becomes food packaging, and so on. Furthermore, we want to explore new applications for input materials with strong odors and high contamination levels. For this, all contaminants need to be eliminated as thoroughly as possible in the recycling process. That's why we are investing in the best available technologies – from washing, extrusion and filtration to odor treatment. Our objective is to generate economic and environmental benefits by offering the plastics industry feedstock that is sustainable as well as competitive to make a circular economy become reality.”

Odor-improved recycled pellets

The recoSTAR dynamic 165 C-VAC recycling line installed at Ambiente features Starlinger's renowned odor reduction technology and processes detergent bottles made of HDPE and washed post-consumer agricultural LDPE films. "Agricultural films are used for various applications – for example in greenhouses, as crop covering, or for silage. This results in organic residues being present even after washing which create gases in the subsequent recycling process," explained Paul Niedl, Commercial Head of Starlinger recycling technology. "In case of packaging applications such as detergent bottles the smells of their contents migrate into the packaging material during their shelf life and usage time. Our odor reduction technology is designed to permanently remove such odors so that the produced regranulate

由Ambiente生产的高质量经过气味处理的HDPE和LDPE再生颗粒产品有着广泛的用途

The high-quality odor-treated HDPE and LDPE regranulate produced by Ambiente is suitable for a wide range of applications



late is suitable for high-level applications. Instead of downcycling it can be reused in the same application, which creates circularity."

To accommodate a wide range of input materials, the entire recycling process can be individually adapted according to the contamination and odor intensity of the input material and the desired specifications of the produced regranulate. The process starts with cutting and homogenizing the input material in the SMART feeder where the material is also heated until it reaches the ideal operating point. Highly volatile odors are extracted already during this process step. After the main extruder the melt passes through continuous melt filters where solid contaminants are removed so that they cannot release odors during the following process steps. In the subsequent C-VAC module the melt surface is increased by 300 %, achieving extremely high degassing efficiency. This ensures that even deeply embedded odors are permanently extracted. In the final step, the produced recycled pellets are treated in the pellet conditioning unit (PCU) at the end of the recycling process to extract the most persistent odors. This ensures permanently odor-improved regranulate that can be used for manufacturing a wide range of plastic products.

A Portuguese recycling pioneer

The roots of Ambiente S.A. reach back to 1953 when its mother company, the Portuguese plastic film production company Fabrica Leiriense de Plasticos, was already recycling internal production waste. From the early 1970's on Fabrica Leiriense de Plasticos also processed externally collected plastic waste, including imported materials from other European countries such as Germany, and became Portugal's recycling pioneer for domestic plastic waste in the 1990's. The company management's awareness that plastics recycling constitutes a fundamental prerequisite for a sustainable future led to the foundation of Ambiente S.A. in 1989. Since 2000 it is registered as an independent company, currently employing 36 people and recycling 7000 tons of post-consumer, industrial and domestic waste per year. The produced recycled LDPE and HDPE pellets are suitable for extrusion, blow molding and injection molding applications and are supplied to customers in Europe and Northern Africa.

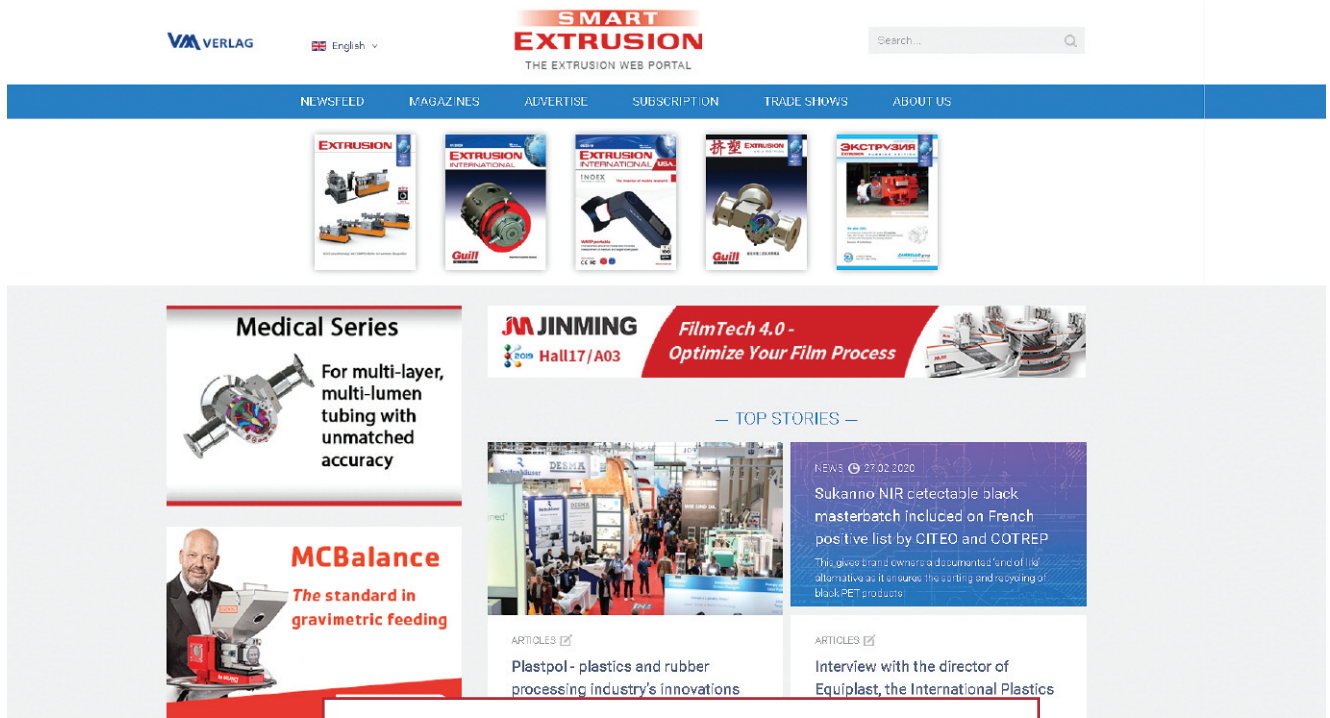
► **Starlinger recycling technology**
Furtherstr. 47a, 2564 Weissenbach, Österreich
www.recycling.starlinger.com

► **Ambiente S.A.**
www.ambiente-sa.com

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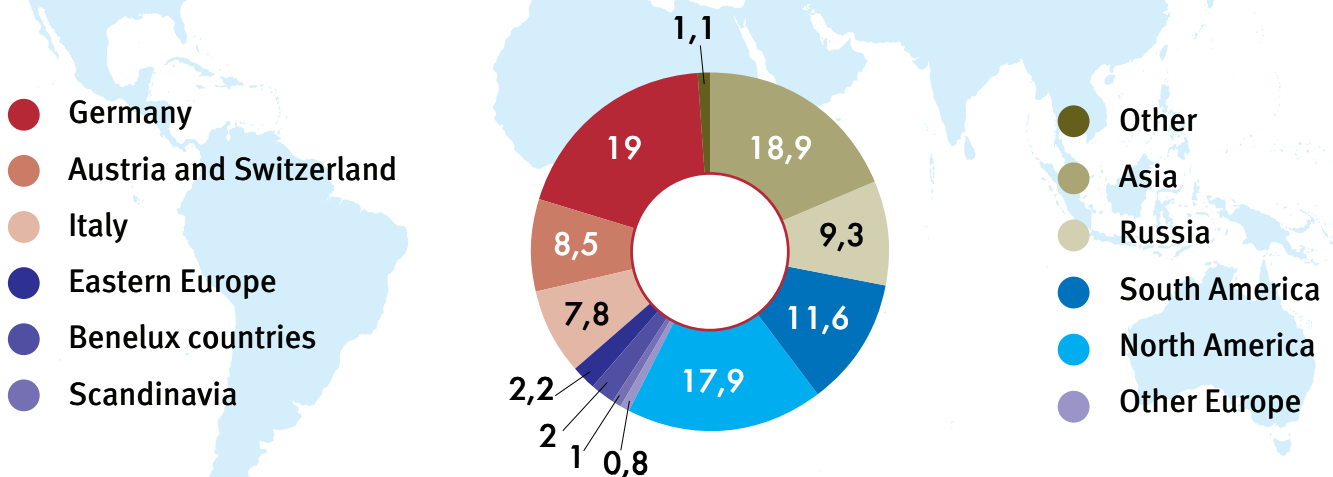


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