

From Melt to Yarn, Fibers and Nonwovens Clean Technology. Smart Factory.

Oerlikon Polymer Processing Solutions Division

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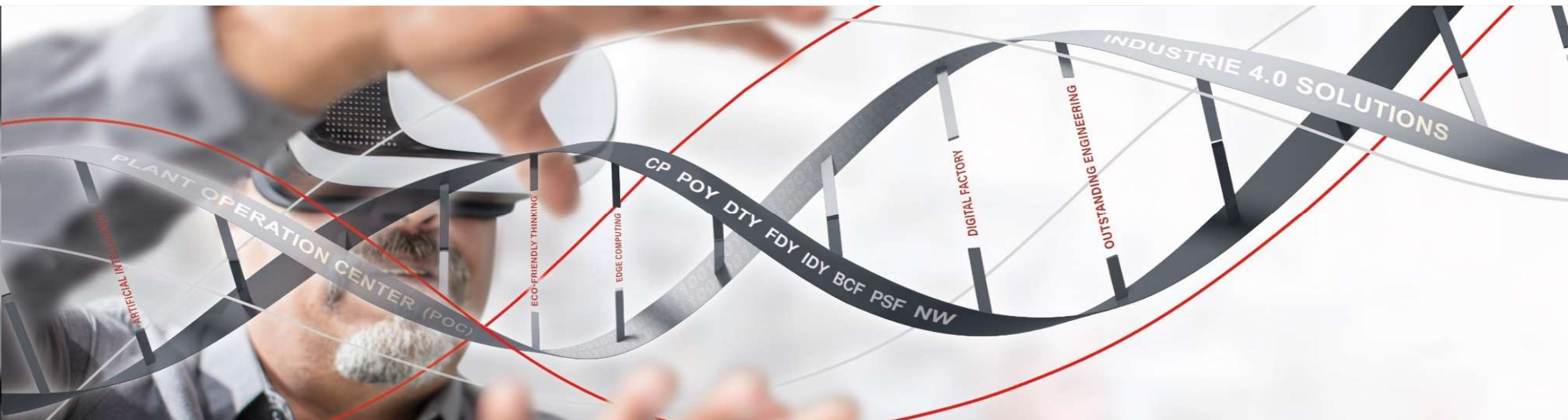
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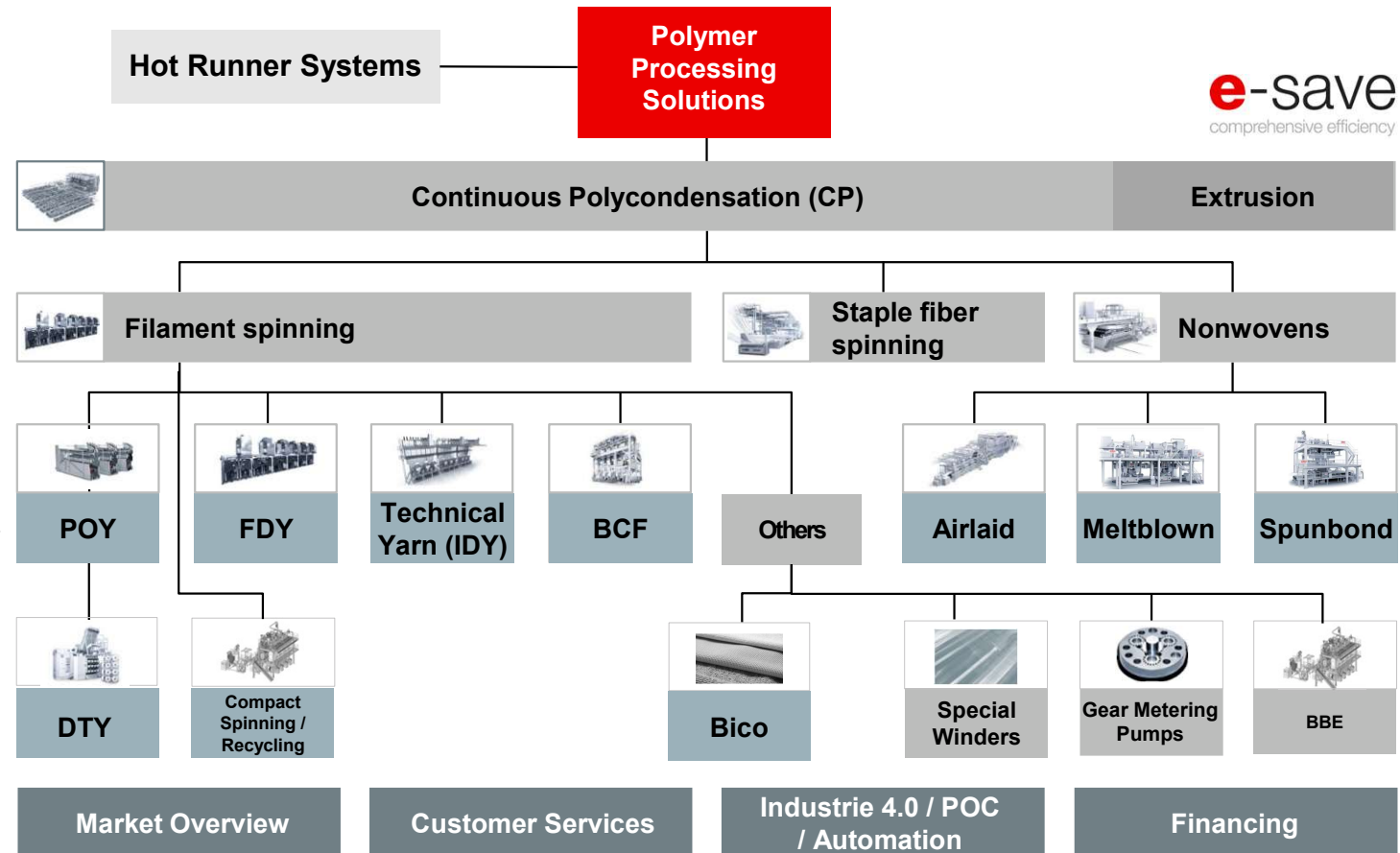
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nonwoven



Our Products: From Melt to ...

- CP Continuous Polycondensation Plant Solutions
- Filament Yarn (POY/FDY)
 - POY spinning with WINGS
 - FDY spinning with WINGS
 - Compact Filament Spinning Line VarioFil
- Textured Yarn (DTY)
- Industrial Yarn (IDY)
- Carpet Yarn (BCF)
- Staple Fiber
- Nonwoven
- Flow Control Solutions
 - Gear Metering Pumps for Manmade Fiber Applications
 - Gear Metering Pumps for Non-textile Applications
 - Hot Runner Systems
- Automation Solutions
- Digital Solutions



e-save
comprehensive efficiency

CP Continuous Polycondensation Plant Solutions

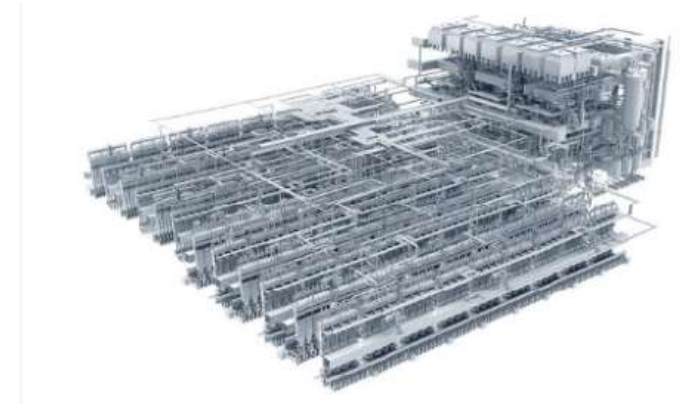
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Polymer Processing

Homogenous melt is the very basis for high quality yarn and all other plastic materials. Producing this is the job of our efficient and high-end continuous polycondensation systems and extrusions lines for fiber-grade and bottle-grade polyester as well as other polymers. Whereas polycondensation plants produce the melt by a chemical reaction, extrusion produces the melt by a mechanical process. The choice of polycondensation or extrusion depends on many factors including the production rate, the nature of the material and the size of the final product. The efficient and high-end continuous polycondensation plants of the subsidiary company Oerlikon Barmag Huitong Engineering (OBHE) produce a homogenous melt using a chemical reaction which transfers different monomers into polymers.

[>> more](#)



Filament Yarn (POY/FDY)

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POY spinning with WINGS

Pre-oriented yarns (POY) are the starting material for a wide range of fashion, sports, functional and home textiles. Following production, POY yarns are textured and – with around 40 percent – make up the lion's share of the global production of manmade fiber yarns.



FDY spinning with WINGS

Fully-drawn yarns (FDY) are used to manufacture textile fabrics without the need for further finishing. Wherever textiles are to hang smoothly or glide fully-drawn yarns are used.



Compact Filament Spinning Line VarioFil

VarioFil is the ideal production unit for manufacturers that have a wide range of products, small lot numbers or specialised products. The VarioFil unit is not limited to using only one material or a particular process. Customised conversion packages allow the unit to be adjusted to the market requirements quickly and at reasonable rates.



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Textured Yarn (DTY)

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Solutions for DTY production

Texturing is a finishing step that transforms the POY supply yarn into DTY and hence into an attractive and unique product.

Apparel, home textiles, automotive – there are countless applications for textured yarns manufactured on Oerlikon Barmag machines. Correspondingly specific are the demands made on the yarns used.

During texturing, pre-oriented yarn (POY) is permanently crimped using friction. As a result, elasticity and heat retention are increased, the yarn receives a pleasant handle, while thermal conduction is simultaneously reduced.



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Industrial Yarn (IDY)

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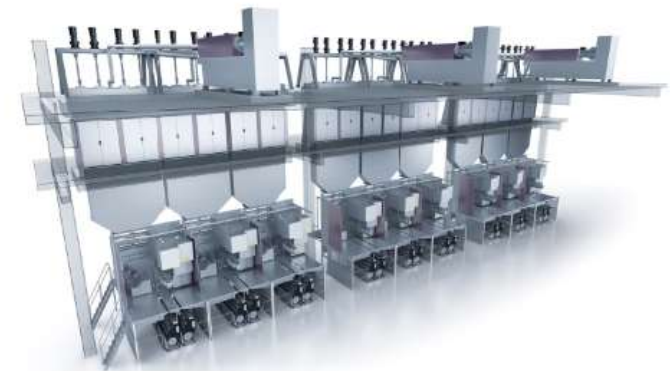
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Industrial Yarn (IDY)

With a operation window of between 50 and 12,000 den per filament, Oerlikon Barmag industrial yarn systems cover an extremely-wide titer range. Depending on the application and the required yarn characteristics, Oerlikon Barmag systems produce 'strong' yarns for all applications: from high-tenacity high-modulus yarn for safety belts, HMLS yarns for tire cords all the way through to low and ultra-low shrinkage yarns for tarpaulins.



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Carpet Yarn (BCF)

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BCF Carpet Yarn Technology

„Mastering the entire carpet yarn production process“

With the BCF plants BCF S8, S+ and Sytec One, Oerlikon Neumag offers a product portfolio in which the customer is certain to find the plant designed to meet their individual needs.



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Staple Fiber



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Staple Fiber Plant Solutions

More than 4 million tons installed production capacity worldwide speak for themselves.

Oerlikon Neumag staple fiber plants stand for highest product quality and absolute reliability.

Oerlikon Neumags **compact 1-step staple fiber spinning lines** have an excellent flexibility with regard to the processable raw materials and titer range.

Oerlikon Neumag's **two-step staple fiber plants** are designed to meet highest quality requirements at minimum operation cost.

The new EvoSteam process for cotton type fiber production. EvoSteam process dispenses with liquid bath, Improving the fiber qualities through optimized draw point release



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Nonwoven



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Nonwoven

As an engineering company for a wide range of nonwoven technologies, Oerlikon Nonwoven provides stand-alone machines and turnkey production lines for almost every type of nonwoven product.

Oerlikon Nonwoven offers flexible, high-performance technologies for Meltblown, Spunbond and Airlaid.



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Flow Control Equipment

Oerlikon has a high precision flow control components business that offers a large selection of gear metering pumps for the textile and other industries, including the automotive, chemical and paint markets. With Oerlikon HRSflow the division develops innovative hot runner systems for the polymer processing industry. In cooperation with Oerlikon Balzers, highly efficient and effective coating solutions are offered here from a single source.

Oerlikon Barmag gear metering pumps are used worldwide as process engineering components in applications involving chemicals, plastics, paints and dyes as well as PUR.

Pumps for Manmade Fiber Applications

Gear metering pumps in textile manufacturing are extremely popular. This is above all due to the fact that numerous systems are being modernized in terms of their efficiency and specialization. And it is precisely here that Oerlikon Barmag pumps are deployed, as we have the perfect solution for every application.

- Spinning Pumps for Manmade Fibers
- Spinning pumps for special fibers
- Spin finish pumps for Manmade Fibers
- Dosing Pumps for Additives & Dyes

Hot Runner Systems

Oerlikon HRSflow develops innovative hot runner systems for the polymer processing industry. In cooperation with Oerlikon Balzers, highly efficient and effective coating solutions are offered here from a single source.

Pumps for Non-textile Applications

- Metering Pumps for Polymer Extrusion
- Metering Pumps for Paints
- Metering Pumps for Chemicals
- Metering Pumps for Multi-Purpose Applications
- Metering Pumps for PUR
- Metering Pumps for Composites
- Metering Pumps for Hot-Melt Adhesives
- Metering Pumps for Silicones
- Metering Pumps for Oils
- Eccentric Screw Pumps for Filled Media

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Automation Solutions



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Automation along the textile value chain

Our aim is to make life easier for our customers. That is why we automate work processes on our machines and systems wherever possible and sensible. The focus here is on yarn handling, occupational safety and ergonomics.

Wiping Robot

The wiping robot guarantees outstanding yarn quality with a high degree of efficiency and optimized systems management. As a result, yarn manufacturers can minimize costs and maximize profits. How is this possible? It's really quite simple: conventionally, the wiping process is sweat-inducing work. By automating it, yarn manufacturers can not only increase the full package rate and reduce the yarn break rate – they can also minimize the deployment of staff at the spin packs and produce less waste, hence supporting their HSE (Health – Safety – Environment) initiatives.

Intralogistics solutions

Together with our partner IG Automation GmbH, we offer comprehensive solutions in the field of intralogistics.

- Doffing systems for spinning machines
- Doffing for texturing machines
- Transport
- Intermediate storage systems
- Automatic packing
- Pallet finishing
- High bay - highly effective
- Automatic bobbin sorting and quality control

[>> more](#)

Digital Solutions



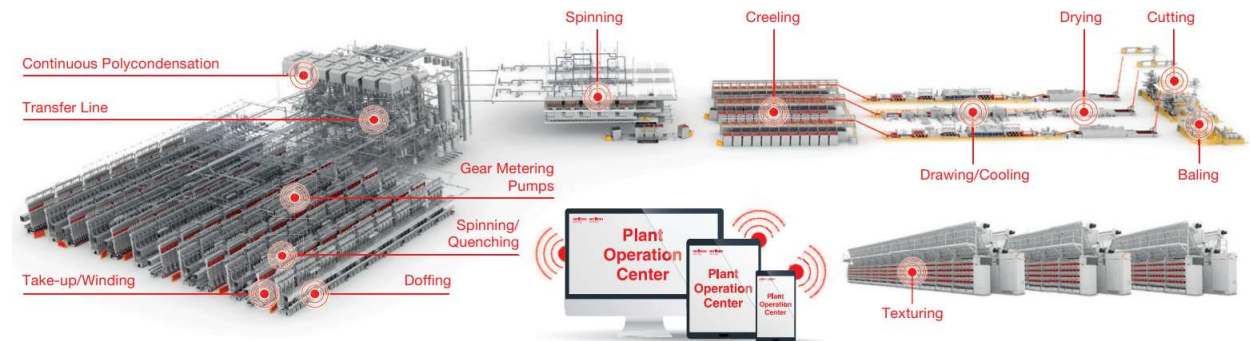
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Oerlikon Polymer Processing Solutions Divisions software for your success.

The digital factory is already reality:

- Datacenter in a box
- Plant Operation Center (POC/atmos.io)
- Fully Automated System (FAUS)
- Artificial Intelligence Manufacturing (AIM)

[>> more](#)



Thank you.

For further information, please contact

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Or mail to:

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