



BB Engineering GmbH Leverkuser Str. 65 42897 Remscheid Germany Fon +49 2191 9510 - 100 sales@bbeng.de www.bbeng.de Jetting first-class



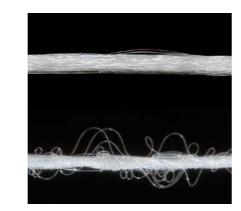




JeTex® – creates effects that affect

JeTex® is a production line for high-quality air-textured yarn (ATY). In air-texturizing, cold air stream is used to produce bulked yarns of low elongation. By treating the feed yarn with the help of nozzles millions of small loops are created that contribute to the bulk and loft of the fabric and offer a natural, cotton-like look and feel.

Our line combines an innovative texturizing process by BB Engineering as key component with state-of-the-art components by Oerlikon and Heberlein to ensure fast production speed, the desired effects and the quality of your product. It offers a wide range of production volume, processable feedstocks and applications, both textile and industrial. At the same time, it guarantees an energy- and cost-efficient production.

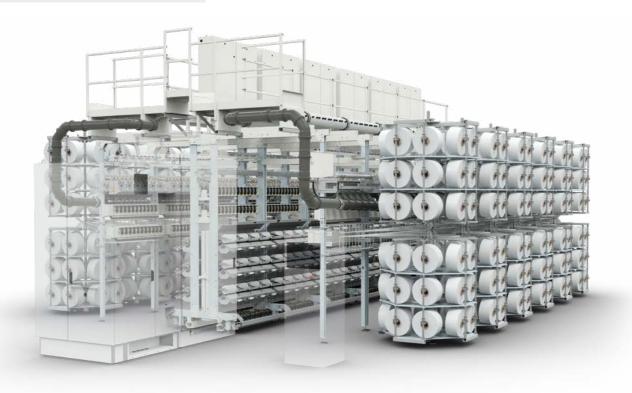


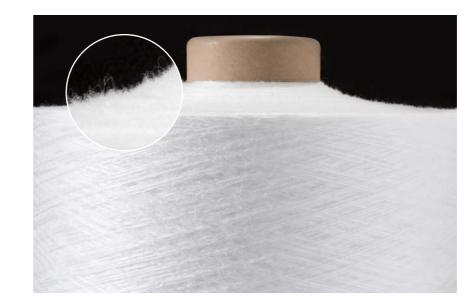
Synthetic yarn before and after texturizing.

Benefits: Efficient in every respect

JeTex® is designed for cost-efficient production of high-quality airtexturized yarn. That means: High production speed combined with low energy consumption and the permanent focus on your product's quality through gentle yarn treatment and an optimized yarn path.

- **O Low OPEX**
- **⊘** Highest product quality
- **⊘** Versatile process





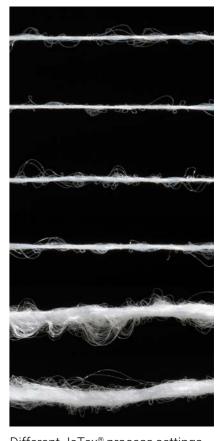
Effects & applications

In the air-texturizing principle of JeTex®, the filaments of the "effect yarn", loop around and interlace with the filaments of the "core yarn". The result is a voluminous, bulky yarn with a firmly locked structure.

Air-texturizing is a very versatile method to texture yarn. There is a broad range of both feed yarn and resulting effects. The loop formation created by JeTex® can be designed in various ways. By using different feed stock, nozzles, or adapting process parameters such as speed, air pressure and temperature, the intensity, size, uniformity and stability of the loops are influenced. Also, the mixture of core and effect colors to achieve a mélange effect is possible.

The wide range of feed material and effects result in a variety of applications.

- Apparel e.g. fashion, underwear, sports, accessories, sneakers
- Home furnishing e.g. upholstery, carpets, blankets, curtains
- Technical e.g. carpet backing, sewing thread



Different JeTex® process settings lead to a wide variety of effects.





Technology overview

JeTex®'s technology is focused on the quality of your product while maintaining cost efficiency. We achieve this through high-quality components from leading suppliers such as Oerlikon Barmag and Heberlein and, of course, our innovative in-house development and core component, the texturizing system.

JeTex® is a versatile system that we customize to your needs:

- System size and production volume
- Feed material and titer
- Final titer and texturizing effect
- Independently operating A and B side
- 1 Godet feed system
- 2 Texturizing box
- 3 Mechanical stabilization

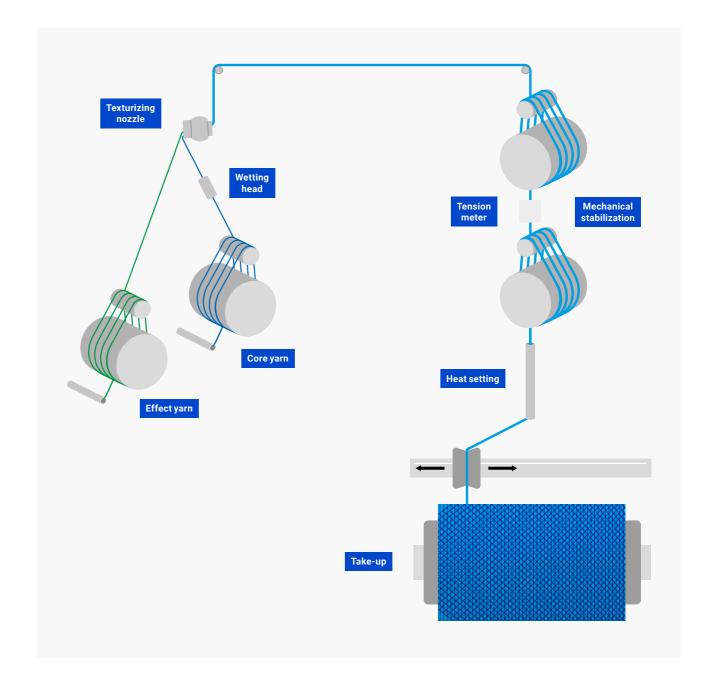
- 4 Heat setting (lagging behind)
- 5 Take-up



Configuration example: FDY, manual

Design for FDY

| Technical data | |
|--|--|
| Feedstock | FDY made of PET, PA6, PA6.6, PP and others |
| Titer range of feedstock | 30 – 600 den single yarn end (for both core and effect filament) |
| Titer range final | 60 – 1200 den |
| Max. mechanical speed | 1200 m/min at overfeed godets (depending on product, jet type and feed/supply yarn quality) |
| Layout / no. of positions double-sided (A and B) | 24 – 384 Either side can operate independently in different conditions |

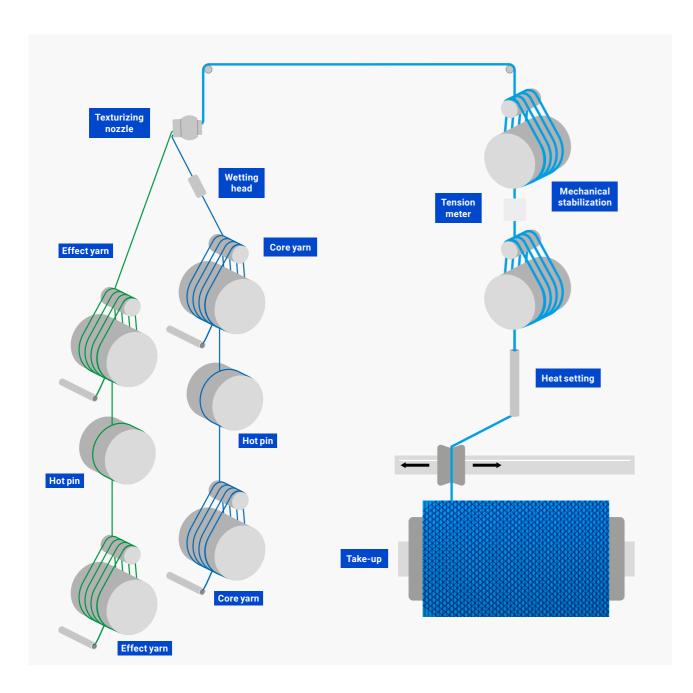






Design for POY

| Technical data | |
|--|--|
| Feedstock | POY made of PET, PA6, PA6.6, PP and others |
| Titer range of feedstock | 30 – 300 den single yarn end (for both core and effect filament) |
| Titer range final | 60 – 720 den |
| Max. mechanical speed | 1200 m/min at overfeed godets (depending on product, jet type and feed/supply yarn quality) |
| Layout / no. of positions double-sided (A and B) | 24 – 384 Either side can operate independently in different conditions |



Main features

Texturizing system

The core component of JeTex®

Our innovative texturizing system is the heart of JeTex®. The intelligent design offers many advantages. The most important: To achieve convincing results, we use high-quality components from Heberlein in our jet box.

In addition to the jet box, the water supply and the suction device are part of our texturizing system.

Benefits:

- Compact design: More positions with less space required
- Nozzles by Heberlein: state-of-the art technology with top performance, easy handling and a variety of models for specific texturizing effects
- Wetting head by Heberlein: Optimal wetting of the filaments, robust and reliable.
- Optimized yarn path: Reduced friction due to guide rollers
- Efficient fume suction: Stabilizing the process
- Easy to retrofit on Oerlikon DTY systems







Large rotary creel

For non-stop material feeding

The Jumbo Rotary Creel 3+3 by Oerlikon Barmag holds 48 supply packages (24 core + 24 effect, max. Ø 435 mm) and operates non-stop – one package is in operation and one on hold for replenishment.

That makes it very efficient.

- Large capacity
- Non-stop operation
- Low operating effort



Godet feed system

Gentle treatment for high-quality yarn

We use the godet feed system by Oerlikon Barmag. Feeding via godets offers some advantages compared to shafts.

- Regarding, fine denier products, higher yarn quality and extended yarn eveness over time
- Abrasive products like full dull or spun-dyed yarn, that usually wear down components fast, are processed with higher efficiency and at lower production cost
- Higher consistency over package run time and from position to position
- Lower energy consumption



Precise and flexible pre treatment for POY

Before POY can be textured, it has to undergo heat pre-treatment for stretching. The hot-pin system by Oerlikon Barmag allows individual temperature setting for both core and effect yarn and thus enables the processing of different input yarns.

- Temperature range: 20 180°C
- Electrically heated
- Matt hard chrome plated surface
- Extended lifetime due to yarn displacement unit
- Not limited to POY: processing FDY is still possible without conversion





Take-up solutions

Basis for successful downstream processing

Our 3 deck take-up section is preferably equipped with ATT / Advanced Take-up Technology" by Barmag. This high-end solution offers extremely precise computer-controlled package building and allows unique flexibility in package geometry and quality

Other advantages are the low noise level as well as easy maintenance and accessibilty.

Auto-doffing option

For reliable doffing performance the take-up section can also be upgraded by an automated doffing unit, Barmag's IAD "Individual Automatic Doffer". It enables the production of packages of uniformly-metered lenght and allows unattended operation for longer periods of time.

The take-up section with ATT and IAD provides:

- Max. take-up package Ø: 250 mm
- Basic traverse stroke length: 250 273 mm
- Winding of taper-ended packages with nominal taper angles of 65° – 90°
- Max. double strokes per minute: ≤ 800

Alternatively, we offer Oerlikon Barmag's camshaft take-up. The whole take-up step is controlled by eFK control system by Oerlikon Barmag.

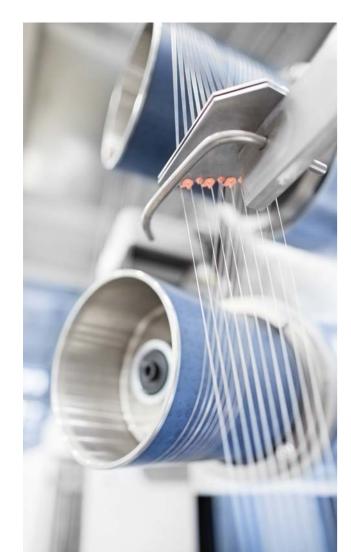












BBE Valueneering

Innovative services in the field of machines and plant design for more than 25 years.

Our business is development, engineering, design and manufacturing of extrusion and filtration technologies as well as complete spinning (VarioFil®) and recycling (VacuFil®) machines for the plastics and textile industry. The services offered range from the design and planning phases all the way through to the implementation of projects. Innovation, quality and trust are our greatest strengths from which you will benefit. Founded in 1997 as a joint venture between Oerlikon Barmag, a subsidiary of Oerlikon Textile GmbH & Co. KG and Brückner Group GmbH, the company nowadays employs more than 160 members of staff at its Remscheid-Lennep location.

Worldwide operation

All over the world companies trust in our products and services. Closely partnered with Oerlikon Barmag Customer Services, we provide a global service network comprising about 20 service stations, over 60 agencies and hotline support for finding solutions to the challenges you face.



Countries with BBE customers



Let's get in touch

Our experts look forward to hearing from you and are ready to answer any questions you may have.

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