

# Extruder screw and barrel

Increase performance and product quality  
with optimized screw design



# Fifty years of extrusion process know-how to optimize your end product

Oerlikon Barmag has more than fifty years of experience in extruder design, delivering over 15,000 extruders and over 20,000 extruder screws to customers around the world. Our proprietary process know-how enables us to optimize extruder screw design to improve fiber or filament quality with:

- Lower melt temperature
- Shorter residence times
- Less shear stress
- Improved dispersion of dyes or additives

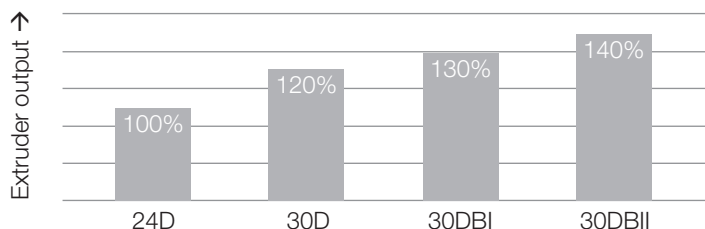
Our in-house experts can analyze the performance of your current screw design to improve output, melt quality and/or melt temperature

We can deliver precise reproduction of existing geometries with the same materials and finish of screws and barrels that came with your system. Additionally, our experts can adapt the screw design to your changed requirements for throughput, polymer and mixing.

## Your benefits

- Higher output
- Higher pressure stability
- Long service lifetime
- Excellent melt homogeneity
- Improves superior color uniformity
- Reduced purging time
- Higher counter pressure
- Save energy with optimized geometries

## Increased extruder output

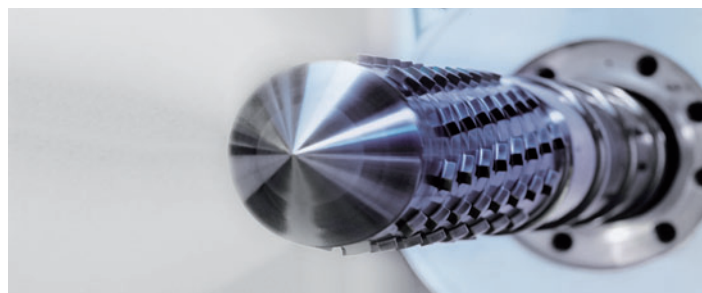


The output of extruders has increased over the last twenty years by using barrier designs and longer screw lengths.

## Oerlikon Barmag

Zweigniederlassung der Oerlikon Textile GmbH & Co. KG  
Leverkuser Straße 65 · P.O. Box 11 02 40 · 42862 Remscheid · GERMANY  
Phone +49 21 91 67-0 · Fax +49 21 91 67-12 04  
www.oerlikontextile.com · originalparts.barmag@oerlikon.com

New screw geometries customized to your application can increase efficiency and improve processes.

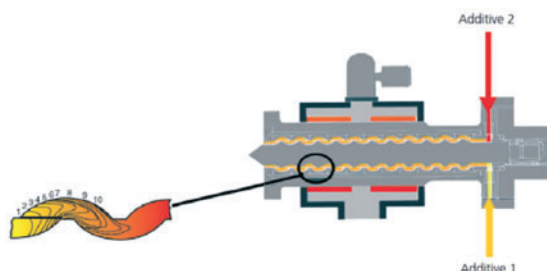


## Special mixing screws

Processing pure polymers without the use of additives in end products is unusual. Improve the mixing of additives in your polymer with a customized mixing screw. Oerlikon Barmag offers a unique combination of dispersive and distributive mixing, combined with our process know-how, to optimize your end product. Our special mixing screws offer high quality mixing but with low shear and low temperature increase.

## 3DD dynamic cavity mixer for intensive mixing

Increase process flexibility with the 3DD mixer allowing the addition of masterbatches and liquid dyes and additives to the main melt stream at the extruder head. The 3DD mixer creates a 3-dimensional longitudinal, dispersive and distributive mixing. The 3DD mixer even allows the addition and mixing of small volumes of additives of widely different viscosities with a high degree of homogeneity.



The 3DD mixer technology has proven itself in over 30 years of experience in spinning and film plants. The 3DD mixer can be retrofitted to your existing extruder.

## Barrel replacement bushing

Oerlikon Barmag offers replacement barrels and can even repair existing barrels to extend their life. Even bimetal barrels exhibit wear. Extend the life of your barrel with the Oerlikon Barmag barrel bushing.

The information supplied in this brochure is for guidance only. We reserve the right to modify it at any time.

03/2011  
Studio 45 / Koch  
Subject to changes