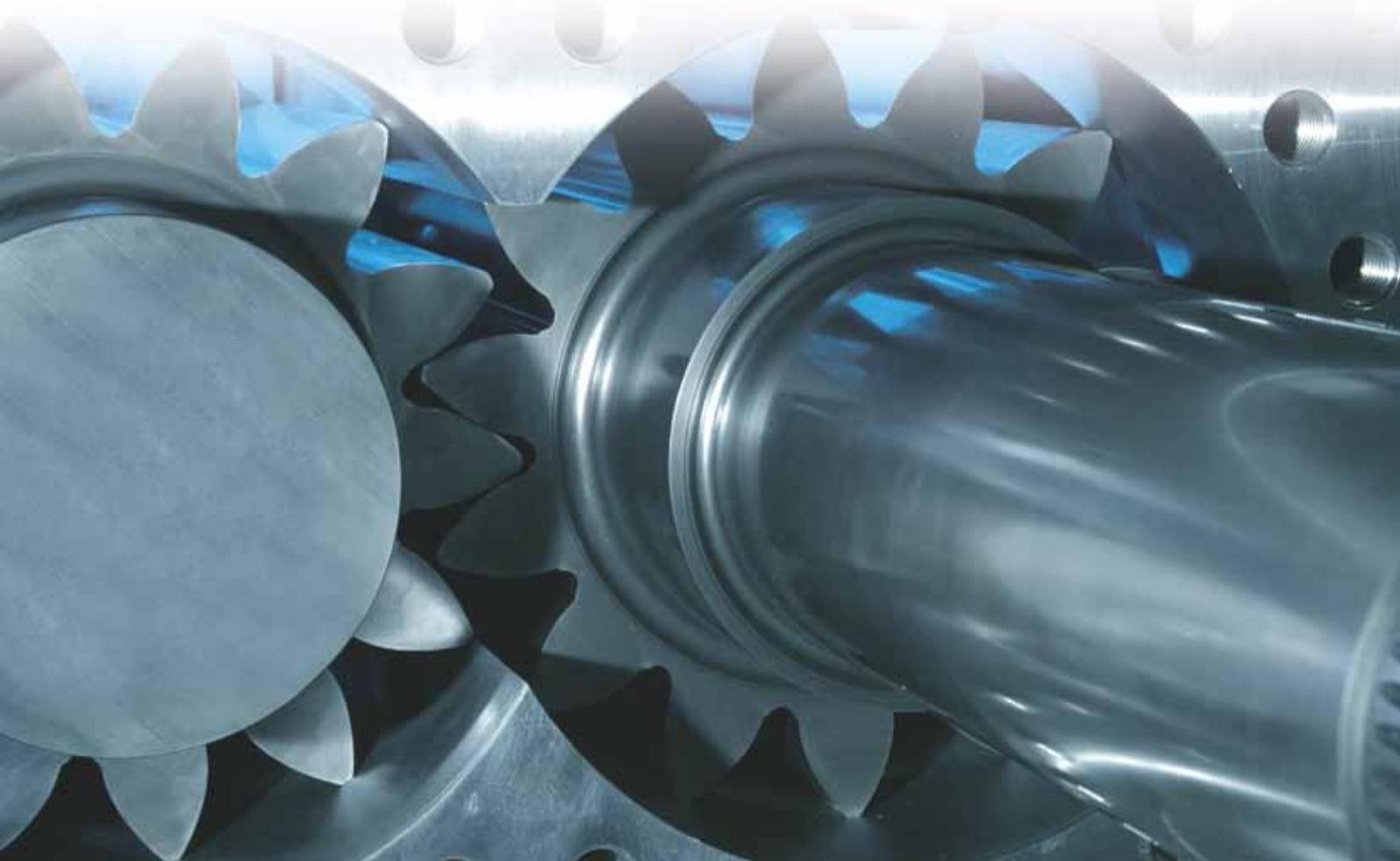


oerlikon
barmag

Booster pumps

For Extrusion and Polymersystems



Booster pumps

Customers and markets demand optimum product quality, efficient production and improved performance. We have the perfect solution!

Oerlikon Barmag designs and manufactures precision gear pumps for the textile industry since 1922. The company's gear pump portfolio was expanded with booster pumps in 1975. Today, Oerlikon Barmag booster pumps are frequently used in both extrusion systems within the plastics-processing industry as well as in polymer plants.

The benefits of the Oerlikon Barmag booster pumps are

- The special geometry of the melt inlet and outlet areas: This ensures both optimal filling of the gears while eliminating potential dead zones and also minimizing radial strain on the pinion shafts.
- The teeth: The straight teeth with an optimized tooth-base ensure low-pulsation and low-wear operation as well as a high level of efficiency and hence lower power consumption.
- The heating: Electrical heating plates in place of heating cartridges, or for liquid heating, heating shell or welded heating jackets ensure even heating of the overall pump housing with a simultaneously high level of operating safety and reliability.
- The drive shaft seal: The polymer seal (reverse thread in the seal bushing) offers high accessibility and low maintenance costs. It is also available in a coolable design. Alternatively, a stuffing box seal is the preferred solution for low melt viscosities.
- The steel quality: Using proven and tested special steel qualities considerably extends the service life of Oerlikon Barmag booster pumps.

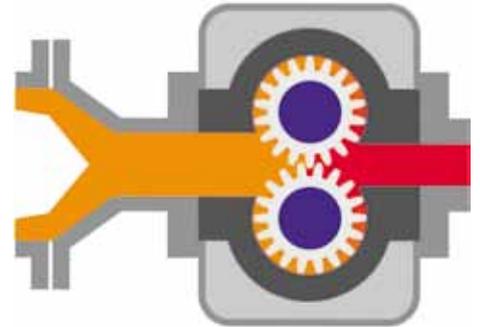


Booster pumps for extrusion

Among other things, Oerlikon Barmag booster pumps allow throughout increases in existing systems. Pressure fluctuations are compensated, thus reducing wear on the extruder.

The development of, e.g., capacitor films, films for audio and video tapes, packaging films, high-end monofilaments, drawn film tapes, gas pipes, window profiles, etc. is increasingly allowing far less product deviation or quality tolerances.

Using booster pumps is particularly beneficial wherever recycling materials are processed. This reduces strain on the extruder, which in turn lessens wear and tear. The effects of varying material viscosities are compensated by the booster pump. And, depending on the application, there are various heating elements for the same type of pump – for electrical liquid heating or steam heating.



Housing geometry

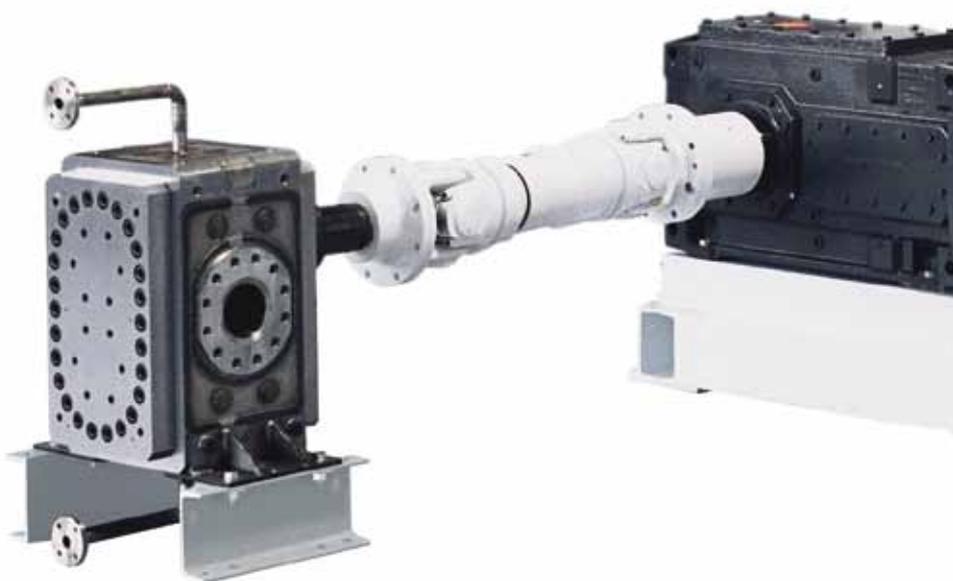


Booster pumps for polymerization and polycondensation

Oerlikon Barmag booster pumps build up the pressure which is required by the system – with a high degree of flexibility and reliability.

Booster pumps in polymerization or polycondensation plants, also known as transfer pumps, receive the necessary supply pressure from the discharge pump. These are used to provide the necessary pressure for the downstream consumer units. These consumer units include spin pumps, flat nozzles, perforated plates for granulation, etc. Frequently, the conditions

within the system can also change, for example, through standstill of the downstream units. These demand flexibility; depending on the application even negative differential pressures can occur. Oerlikon Barmag booster pumps solve these tasks thanks to the universally applicable design of the bearing lubrication system.

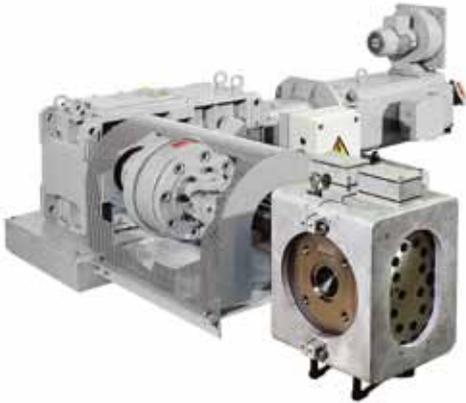


The shaft seal is selected in accordance with the viscosity of the medium being conveyed. Polymer seals (thread bushings) are also available in a coolable design. Furthermore, Oerlikon Barmag also offers stuffing box seals for low-viscosity media.

As explosion protection is required for almost all polymer systems, and steam or liquid heating systems are used for other units and pipe conduits, booster pumps for polymer systems are virtually always designed, constructed and supplied for steam or liquid heating.

Drives

Oerlikon Barmag offers the full package: pumps, drives and all the associated units and equipment. From a single source!



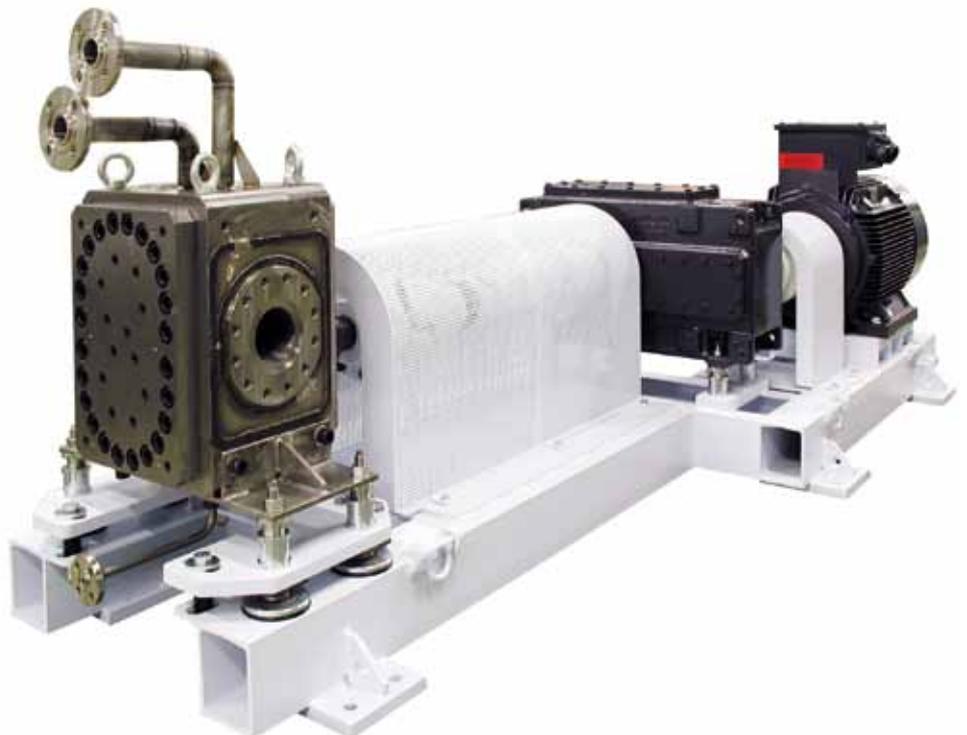
When it comes to designing the drives, taking customer requirements into consideration is of the utmost priority for our R&D engineers. The drive variants are correspondingly diverse.

Whether the pump is ball-bearing mounted to the frame (heat expansion in horizontal direction) or freely installed in the pipe conduit, Oerlikon Barmag has the suitable design for each and every application. Here, decades of experience goes hand in hand with the customer requests and requirements. The drives are designed to suit the individual applications. As an option, Oerlikon Barmag offers a safety coupling in the drive shaft, which prevents „cold start-up“ and protects the gear pump correspondingly in the event of other overloads.

In addition to the perfect sizing of the individual drive components, the drives also adhere to the ambient conditions and the associated requirements in terms of, for example, explosion protection as well as heat and noise emissions.

For deployment in extrusion systems, there is a separate control cabinet for steering the pump supply pressure using an extruder pressure/speed control as well as for optimally controlling the pump heating system.

Furthermore, Oerlikon Barmag offers inexpensive, tailor-made insulation for each type of pump. This flexible insulation is made to measure and very easy to install and remove using simple fixtures. It also offers the perfect heat insulation, thus supporting problem-free operation.



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