Press Release

Oerlikon Barmag Pumps at the K'2019

Fit for the future with additive manufacturing

Remscheid, September 30, 2019 – at this year's K' plastics and rubber trade fair in Düsseldorf, Oerlikon Barmag will be focusing on additive manufacturing (AM), also known as 3D printing. Between October 16 and 23, 2019, the Pumps division is presenting the possibilities offered by this innovative technology in the design and manufacture of components for gear metering pumps (Hall 10, Stand B60).

Competitive edge with high tech
AM is revolutionizing the way components are developed and manufactured. In contrast to conventional methods, this technology offers total design freedom when manufacturing complex shapes that are optimized in terms of their functions. Among other things, this also applies to the production of heating plates for Oerlikon Barmag extruder pumps, the manufacture of heating sleeves for the GM series of pumps and the Polyvac seals for booster and discharge pumps.

Innovatively-designed components for extruder pumps
The high-speed extruder pump achieves higher throughputs at reduced investment costs. The increased speeds enable a considerably greater throughput setting range, while simultaneously reducing pulsation. The additive manufacture of the corresponding heating plate now permits the unrestricted creation of completely new designs for heating channels. Aligned to the respective process conditions and without any mechanical limitations, this guarantees optimum heat transfer to the pump. This not only reduces the heat-up time, it also ensures stable temperature control that is focused on the requirements of the medium and process. Furthermore, the material usage can be reduced to a minimum, in turn generating cost savings and benefits in terms of product life.

Consolidated flexibility when manufacturing heating sleeves for the GM series
The GM series pumps were developed especially for use under difficult conditions. These pumps guarantee high-precision metering even in challenging situations such as conveying low-viscosity media under high pressure. As in the case of heating plates, additive manufacturing of the corresponding heating sleeves enables producers to create all conceivable designs with the corresponding benefits.

The GM 'E' type pump is the latest member of the GM series. With its 1:40 ratio setting range and the resulting throughput range of between 0.5 ml/min. and 40 l/min., this pump covers a considerably broader production window. For manufacturers of components made from polyurethane systems – such as block foam for the production of mattresses, for example – this means that the number of required pumps can be reduced by up to 50 percent.

In the case of this already compact pump, additive manufacturing the heating sleeve additionally reduces the weight and space required, which in turn have a positive impact on the optimized design of the production system in which the pump is used.

421 words

The GM 'E' type pumps shines brightly with its active support point lubrication and optimized inlet geometry for superior pump filling.

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About Oerlikon

Oerlikon (SIX: OERL) develops modern materials, systems and surface technologies and provides specialized services aimed at securing high-performance products and systems with long lifespans for customers. Supported by its technological core competencies and its strong financial footing, the corporation continues its medium-term growth plan by implementing three strategic factors: focusing on attractive growth markets, ensuring structural growth and expanding through targeted M&A activities. Oerlikon is a globally-leading technology and engineering corporation, operating its business in two segments (Surface Solutions and Manmade Fibers) and employing around 10,500 members of staff at 175 sites in 37 countries worldwide. In 2018, Oerlikon generated sales of CHF 2.6 billion and invested around CHF 120 million in research & development.

For further information: www.oerlikon.com

About the Oerlikon Manmade Fibers segment

With its Oerlikon Barmag, Oerlikon Neumag and Oerlikon Nonwoven brands, Oerlikon Manmade Fibers segment is the world market leader for manmade fiber filament spinning systems, texturing machines, BCF systems, staple fiber systems, solutions for the production of nonwovens and – as a service provider – offers engineering solutions for the entire textile value added chain. As a future oriented company, the research and development at this division of the Oerlikon Group is driven by energy-efficiency and sustainable technologies (e-save). With the supply of continuous polycondensation and extrusion systems and their key components, the company caters to the entire process – from the monomer all the way through to the textured yarn. The product portfolio is rounded off by automation and industry 4.0 solutions. The primary markets for the products of Oerlikon Barmag are in Asia, especially in China, India and Turkey, and – for those of Oerlikon Neumag and Oerlikon Nonwoven – in the USA, Asia, Turkey and Europe. Worldwide, the segment – with just under 3,000 employees – has a presence in 120 countries of production, sales and distribution and service organizations. At the R&D centers in Remscheid, Neumünster (Germany) and Suzhou (China), highly-qualified engineers, technologists and technicians develop innovative and technologically-leading products for tomorrow's world.

For further information: www.oerlikon.com/manmade-fibers