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ZSE 50 XX Concept Extruder: XX = 20

From October 16th through 23rd, 2013, Leistritz introduces a world novelty at the K show (hall 16/F22): a concept extruder with the highest specific torque of 20 Nm/cm³ and an intelligent screw system

Duesseldorf/Germany (October 16th, 2013) – Future viability is an attribute which is considered very highly in many business segments. This is particularly true for extrusion technology. „With the new ZSE 50 XX we want to make the future of co-rotating twin screw extruders a tangible experience“, says Sven Wolf, Managing Director of Leistritz Extrusionstechnik GmbH. „This is why we present ourselves at the K show with the motto ‚XXperience us!‘. Because we’ll show you a team with progressive ideas, which are reflected in our products.“ The features of the ZSE 50 XX extruders are the best proof for this.

XX=20

It can hardly be overseen that the extruder builders from Nuremberg, Germany, have been taken with double X letters. Already at the K 2007 the specific torque of the Leistritz ZSE MAXX extruder was increased to 15 Nm/cm³ – at that time the top value for co-rotating twin screws. As a matter of fact, XX = 20 Nm/cm³ had been the goal from the very beginning, which can finally, after many years of research and development, be announced. „For the very first time this sonic wall could be reached“, Sven Wolf reports proudly. „With this, the process window has been opened further and after all, even higher throughputs are possible.“

smartXX – the Clever Screw

This value can only be reached by means of compact screws, which can transfer such high torques. This special screw system becomes even more interesting when you take a closer look at the smartXX feature – a screw identification via an RFID chip (radio-frequency identification), which activates the full power of the

drive unit. The extruder control transmits the according parameters to the frequency converter and the pneumatic safety coupling between drive and gearbox. But the capability of the new smartXX screw identification goes much further as the RFID chip can also store data by means of a read/write head. For example logging of operation time, formulation data and storage of specific processing values can be done. In order to track the high torque, a new online torque measurement is installed, which uses specifically magnetized sleeve couplings in combination with special measuring probes around the gear shafts.

Well Thought-out Side Equipment

While conducting the concept study quite some great ideas were poured into the newly conceived side equipment. Consequently, the side stuffer LSB 52 was equipped with a modular screw set, similar to the extruder. The screws can even be optionally equipped with internal cooling. Adapting the aggregate can be done via tie-rods which are guided through the gearbox and can be tightened without having to work in the hot and tight space around the processing unit.

The same drive unit is used for the side degassing system LSE 52. The barrel is heated by means of heating cartridges and thermally separated from the rest of the parts by insulating plates. High tightness is facilitated by new shaft seals and enables the unit to realize higher vacuum levels and thus more efficient degassing of the melt.

Live Demonstration

„As you can see, during the last few years we have invested quite a bit in our design know-how“, Wolf summarizes. „At the exhibition we are showing a concept extruder. But in the very near future, the ideas seen here will be available on the market.“ Everyone interested can check out the ZSE 50 XX during the daily live shows on the Leistritz stand in hall 16/F22.

Leistritz Extrusionstechnik GmbH at the K fair in hall 16/F22

Picture:



Premiere: The concept extruder ZSE 50 XX with a specific torque of up to 20 Nm/cm³

Leistritz Extrusionstechnik GmbH

For almost 50 years Leistritz Extrusionstechnik GmbH with its headquarters in Nuremberg/Germany has been building twin screw extruders for the processing technology. Leistritz customers benefit from the know-how in various areas of material processing such as masterbatch, compounding, direct, lab and pharmaceutical extrusion. The company employs around 160 people worldwide and keeps subsidiaries in the US (American Leistritz Extruder Corp.) and in China (Leistritz Machinery (Taicang) Co. Ltd.) as well as sales offices in Italy and France.

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