* **ProTec presents Industry 4.0 use of batch dosing units and resin dryers at Fakuma**
* **ProTec demonstrates the performance of its LFT pultrusion lines with newly developed long fiber reinforced polymer compounds**

*Bensheim, 31 July 2017.* ProTec Polymer Processing's presence at this year's Fakuma will showcase potential Industry 4.0 applications for SOMOS batch dosing units and resin dryers. As a one-stop shop supplier for materials handling, ProTec is presenting the capabilities of its components to communicate and interact in interlinked injection molding, extrusion and blow molding systems.

The performance of ProTec's pultrusion lines is being demonstrated with innovative long fiber reinforced thermoplastic (LFT) pellets. Developed in-house, these pellets have excellent temperature stability, making them suitable for manufacturing parts for vehicle engine compartments. ProTec is exhibiting at Fakuma in hall B3, booth 3119.

**Full-featured PLC controller brings Industry 4.0 capabilities to SOMOS dryers and dosing units**

ProTec is demonstrating efficient, Industry 4.0 materials handling with various SOMOS products: Batchmix dosing and mixing systems, the RDT-250 stationary resin dryer and RDM mobile dryers. These product ranges have been progressively introduced with a new, uniform design. This has met with success and ProTec is very pleased with its healthy order book in particular from Germany and other European countries.

All SOMOS dryers and dosing units are fitted with network-compatible PLC controllers. Their 6" color touchscreen with graphical user interface ensures intuitive operation.

Once interlinked with injection molding machines, extruders, as well as peripheral components and conveyors using a wide variety of available interfaces, the components can communicate with one another in real time. For instance, a SOMOS dosing unit's PLC controller can control an extruder's throughput. SOMOS dryers can also stop an injection molding machine from withdrawing material prematurely and so ensure that optimally dried material is supplied at exactly the right time for processing.

**Drying and dosing with quality control and high process reliability**

If the PLC controllers receive error messages from other system components, they adapt their operations accordingly. In the reverse direction, the controllers transmit authorizations or report any faults. Numerous formulations can also be stored in and retrieved from the internal storage devices of the dosing units and dryers. Moreover, the controller can document all manufacturing parameters, so ensuring end-to-end quality control and utter process reliability.

**Gravimetric Batchmix units for accurate mixing and dosing**

SOMOS Batchmix Industry 4.0 capable gravimetric dosing and mixing systems can handle throughputs of up to 1,920 kg/h. The only batch dosing units developed and manufactured in Germany, they can supply injection molding machines and extruders with homogeneous mixtures of up to six flowable components. Weighing and mixing bins each fitted with two load cells ensure accurate, reproducible dosing. In addition to the Batchmix M and Batchmix L models, which will be shown at Fakuma, the range is rounded out with a third XL model for large throughputs.

**Efficient resin dryers for stationary and mobile use**

The new design resin dryers which ProTec is presenting at its booth are also fitted with a PLC controller. Of the SOMOS stationary dry air dryers, it is the RDT-250 for moderate pellet throughputs of up to 200 kg/h which is being shown. Up to a maximum of six multichamber drying modules with capacities of between 50 l and 300 l can be combined to form a drying system.

The mobile auxiliary dryer range is represented at Fakuma by the RDM-20/50, RDM-40/100 and RDM-70/200 models A sixth model has just recently been added to the top of the range, meaning throughputs of between 5 and 150 kg/h can now be handled. The mobile units which comprise a dry air generator and single chamber drying bin are particularly suitable for the versatile pre-processing of frequently changing pellet types.

**Energy-saving dryers respond to pellet throughput and water content**

All stationary and mobile RDT and RDM models offer drying temperatures of 60°C to 140°C as standard, with high temperature variants for up to 180°C being available as an option, which can also be retrofitted. Smart energy-saving systems make the dryers particularly resource-efficient: drying air volume is matched to throughput and regeneration cycles are controlled on the basis of the actual water content of the pellets. The dryers are also simple to install, clean and maintain. Integrated dry air conveying for automatically charging processing machines is available as an option. Together with further ProTec conveying components, SOMOS mixers, dosing units and dryers can be combined to form complete materials handling solutions.

**Custom pultrusion lines for high quality LFT compounds**

The pultrusion line, developed by ProTec, can produce up to 1,000 kg/h of high quality long fiber reinforced thermoplastic pellets. It is capable of producing a wide range of pelletized LFT compounds which can be converted by injection molding into high-strength lightweight components with very good surface quality. Each line is individually customized by ProTec and commissioned as a complete system.

Any conventional thermoplastics can be used as the matrix, while reinforcement can be provided by glass, steel, aramid and carbon fibers. Recycled material and additional fillers can also be included. ProTec is demonstrating at its booth that even demanding compounds can be produced.

Compounders and suppliers are invited to try out ProTec's LFT pultrusion lines with their own test formulations. This will be of particular interest to those working in the automotive and packaging industries and in the electrical, household, medical and sporting equipment sectors.

**About ProTec:**

ProTec Polymer Processing GmbH is an international one-stop shop supplier to the plastics industry with a focus on injection molding, extrusion and blow molding. Its range of services covers components, solutions and turn-key systems for efficient materials handing, treatment and recycling of plastics and for manufacturing long fiber reinforced thermoplastics using LFT pultrusion lines. Managed by Peter Theobald and Dirk Egemann, the company has some 120 staff at is base in Bensheim, near Darmstadt, Germany.

**Photos:**



Photo 1:

Compact SOMOS RDM mobile dryers are fitted with a full-featured PLC controller and are designed for throughputs of 5 to 150 kg/h. They can be supplied, as shown, with optional integrated dry air conveying direct to the processing machine (photo: ProTec Polymer Processing).



Photo 2:

Industry 4.0 capable, the gravimetric SOMOS Batchmix is the only batch dosing unit developed and manufactured in Germany (photo: ProTec Polymer Processing).



Photo 3:

All SOMOS dryers and dosing units are fitted with network-compatible PLC controllers. Their 6" color touchscreen with graphical user interface ensures intuitive operation (photo: ProTec Polymer Processing).



Photo 4:

The performance of ProTec's LFT pultrusion lines is demonstrated with innovative, in-house developed long fiber reinforced thermoplastic pellets (photo: ProTec Polymer Processing).

**This press release as a Word document and print-ready images can also be downloaded from** [**http://www.auchkomm.com/aktuellepressetexte**](http://www.auchkomm.com/aktuellepressetexte)**.**

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