* **ProTec show premiere at Fakuma: manufacturing solution for new "SOMOS Perfoamer" physical foaming process achieves material savings of up to 60 per cent**
* **Partners: Kunststoff-Institut Lüdenscheid and Linde AG**
* **Easily combined with existing injection molding machines**

*Bensheim, 24 July 2018.* ProTec Polymer Processing GmbH is premiering the "SOMOS Perfoamer" manufacturing solution at this year's Fakuma. This enables the new "PLASTINUM Foam Injection Molding" process presented by Kunststoff-Institut Lüdenscheid and Linde AG in 2017 to be used for physically foaming plastics parts on an industrial scale. ProTec's innovation includes all the components for drying and temperature adjusting polymer pellets, loading them with CO2 under pressure and then feeding them to any desired injection molding machine, which generally requires no modification. From 16 to 20 October, ProTec will be carrying out live foaming demonstrations using the "SOMOS Perfoamer" and an Engel e-victory 310/80 injection molding machine at Fakuma, hall B3, booth 3119.

It will also be showing smart, Industry 4.0 capable SOMOS components for efficient conveying, drying, dosing and mixing as well as presenting its LFT pultrusion lines for manufacturing long fiber reinforced thermoplastics.

**"SOMOS Perfoamer": simple and efficient physical foaming** **of plastics parts**

Thanks to the "SOMOS Perfoamer", a wide range of users can now make use of the innovative foaming process which combines the advantages of the simple handling typical of chemical blowing agents with the high foaming pressure of physical processes. Since good foaming results are achieved even at low wall thicknesses, considerable material savings can be made. For example, under laboratory conditions, it has proven possible to cut polycarbonate consumption by up to 60 per cent, polyamide GF30 consumption by up to 16 per cent and mineral reinforced polypropylene consumption by up to 37 per cent. Virtually any usual polymers can be used, including bio-based and engineering materials and composites such as glass fiber reinforced polyamide.

**Mobile unit with central, Industry 4.0 capable controller**

The "SOMOS Perfoamer" shown at Fakuma is designed for mobile use, is easy to transport and can be used on different injection molding machines at the same time without any problem. It is made up of a conditioner in which the pellets are dried and then adjusted to temperature, an autoclave in which it is impregnated together with an associated CO2 supply and a buffer tank for the material. Integrated conveyors transport the material through the various stations to the injection molding machine. The "SOMOS Perfoamer" is centrally controlled on the conditioner. The Industry 4.0 capable controller is equipped with numerous interfaces. It can also be integrated into and operated from an injection molding machine.

**"SOMOS Perfoamer" – modular structure means easy scalability**

Its modular structure means the "SOMOS Perfoamer" can easily meet changing requirements and be expanded with additional components. As a result, output volume can easily be scaled to supply different sizes of injection molding machines or a number of machines at the same time.

The demonstration system at the booth can supply a throughput of up to 59 kg/h of polycarbonate or up to 45 kg/h of polypropylene. The system will be demonstrated live manufacturing bottle openers from a variety of polymers with a shot weight of 42 grams. Since the bottle opener also has a metal insert, the overall cycle time is 135 seconds.

Demonstration systems for the new physical foaming process using ProTec's "SOMOS Perfoamer" will also be shown at the partners' booths: Linde AG (hall B3, booth 3309) and Kunststoff-Institut Lüdenscheid (hall 5, booth 5312).

**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 handling, 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 and is based in Bensheim, near Darmstadt, Germany.

**Photos:**

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Photo 1:

ProTec's "SOMOS Perfoamer" includes all the components for drying and temperature adjusting polymer pellets, loading them with CO2 under pressure and then feeding them to any desired injection molding machine, which generally requires no modification (photo: ProTec Polymer Processing).



Photo 2:

Using ProTec's "SOMOS Perfoamer", the new "PLASTINUM Foam Injection Molding" process presented by Kunststoff-Institut Lüdenscheid and Linde AG in 2017 can for the first time be used for physically foaming plastics parts on an industrial scale (photo: ProTec Polymer Processing).



Photo 3:

Using "SOMOS Perfoamer" and an Engel e-victory 310/80 injection molding machine, ProTec will carry out live demonstrations of bottle opener production at Fakuma, booth 3119, hall B3 (photo: Kunststoff-Institut Lüdenscheid).

**The text of this press release as a Word document and print-ready images can also be downloaded from** [**https://www.auchkomm.com/aktuellepressetexte#PI\_247**](https://www.auchkomm.com/aktuellepressetexte#PI_247)**.**

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