



28. Fakuma

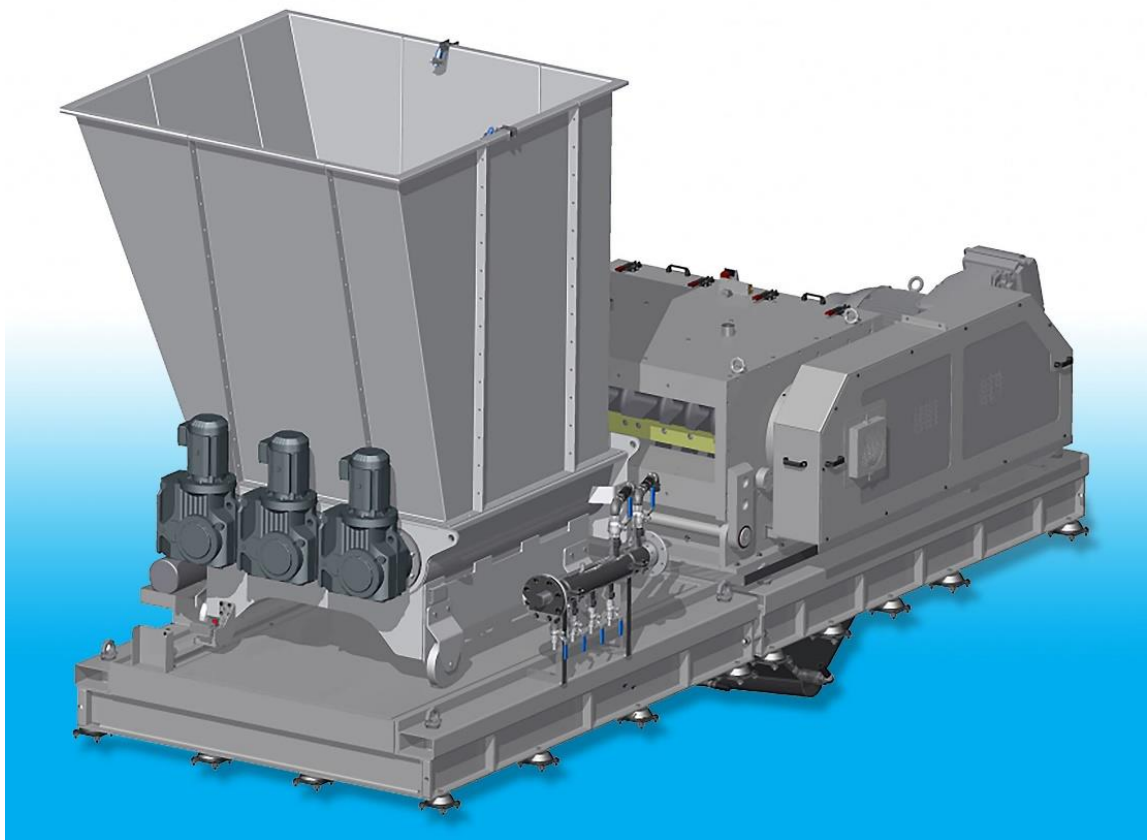
17.–21. Oktober 2023 in Friedrichshafen



Press Release

Hellweg at Fakuma 2023:

New Wet Grinder Minimizes Operating Costs, Optimizes Flake Geometry for Film Shredding



The new 600 W series high-performance wet grinders, equipped with a forced feed system, enable significant energy savings compared to conventional technology. © Hellweg Maschinenbau

Roetgen/Germany, Germany, October 2023. Hellweg Maschinenbau, a manufacturer of advanced, digitally controlled shredders for efficient plastics recycling, will premiere its wet grinder equipped with a forced feed system for film recycling at this year's Fakuma. Its trailblazing drive concept uses low-power motors rated from 45 kW to 110 kW. These enable previously unattained low power consumption of the order of just 70 kWh to 90 kWh, so ensuring very low operating costs which are reduced still further by high throughputs of up to 5,000 kg of film per hour. Forced feed using a tamping screw ensures long-term,

trouble-free operation even with contaminated input materials. Their usual, robust, heavy-duty and durable design means the new grinders can handle even demanding applications with high degrees of contamination.

Scissor-cut Technology for Perfect Flakes

PET, PE, PP, PS, PVC, PC, PLA, HDPE or LDPE films are force-fed to the grinders using tamping screws, which means smooth operation even with contaminated input materials. Depending on version, the grinders are fitted with five or seven rotary blades plus two or three static blades. Being highly wear-resistant, these blades provide additional, significant cost savings. As usual for Hellweg, these blades use double scissor-cut technology which sets a benchmark in terms of cut quality and dust-free operation, ensures a constant cutting gap and requires no adjustment of the rotary blades.

As a result, the shredding process consistently produces optimum quality flakes with a perfect particle size distribution and geometry. The flakes' sharp-edged and, above all, flat shape without twists or folds makes them ideal for further processing including transport, washing and, if necessary, delamination. This advantageous technology also minimizes fines which usually cannot be used as a new, valuable raw material. Depending on the screen size used, fines content is typically a very low 3% or less.



*Too big for the Fakuma booth: Mark Hellweg presents a model of the new wet grinder.
© Hellweg Maschinenbau*

At Fakuma, the MDSG 1500/600 W model will initially be commercially available, with MDSG 600/600 W and MDSG 600/300 W versions to follow. The first number in the model name denotes the working width of 600 mm or 1500 mm, while the second denotes the diameter of the torsionally rigid, perfectly balanced rotors (300 mm or 600 mm) made from a material blank with double, water-protected external bearings, which ensure exceptionally smooth running.

Smart Control for Optimized Operation

All versions are equipped with Hellweg's own in-house developed digital Smart Control system which is already tried and trusted in many of its products. Together with an internal logic processor, the control system ensures maximum operating efficiency, irrespective of fluctuating operating conditions, while minimizing effort for operating personnel. In this way, forced feed can also be precisely tailored to the particular shredding task by way of numerous parameters so as to ensure the optimum combination of feed rate, motor load and throughput.

The Smart Control system is now available for all sizes of Hellweg grinders, starting from the 150 series machine-side grinders for small parts and sprues right up to the heavy-duty 600 series designed for the toughest applications.

Parameters captured by the control system include not only power consumption, motor speed and bearing temperatures but also blade, screen and V belt status.

Hellweg Maschinenbau GmbH & Co. KG, founded as a family business in 1985, is now managed by the second generation of the family. The company manufactures machinery and systems, including many custom designs, for the global plastics and recycling industry in its own production facilities. The product range includes laboratory grinders, machine-side grinders, toothed roll grinders, central grinders, lump grinders, punched skeleton grinders and film & edge strip grinders, edge strip feeders, film cutters as well as dust extraction and removal systems including accessories. Robustly constructed, Hellweg grinders are synonymous with advanced technology and meet the most stringent quality requirements – and all with a well-balanced price-performance ratio.

Further information

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