

Press Release

Digitally Controlled Grinders for Energy-saving Plastics Recycling



*From the smallest to the largest: SmartControl control is available for all Hellweg grinders.
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Roetgen, Germany, September 2023. At Fakuma, Hellweg Maschinenbau will be presenting a selection of its pioneering, digitally controlled grinders for efficient, energy-saving plastics recycling at booth A1-1005 in hall A1. These include the MDSi 340/150 Smart Control machine-side grinder with fill level monitoring, the MDSi 600/300 Smart Control Plus central grinder and the MDSGi 1500/600 as a representative of a newly developed series of wet grinders with forced feed which have particularly low power consumption.

The MDSi 340/150 Smart Control machine-side grinder is the highest power model of the series with drive powers of 1.5 kW to 4 kW for grinding capacities of 10 kg/h

to 80 kg/h. Its primary application is to save raw materials by enabling the recirculation of even the bulkiest sprue stars, spiders or ladders directly beside one or more injection molding machines. Material can be fed in by chute, feed hopper or conveyor belt, and discharged by suction. A film edge strip feeder is available as an option.

Hellweg's 300 series central grinders combine a compact design with high performance. Thanks to the sturdy machine housing and the high moment of inertia of the massive, solid rotor they enable powerful grinding of thick-walled moldings, sheets, sprue cakes, pipes and profiles and, when using the special BR rotor, even single-stage shredding of solid lumps from production start-ups. The MDSi 600/300 Smart Control Plus version on display at Fakuma features power consumption analysis to optimize economy and automated lubrication with Bluetooth monitoring to minimize maintenance effort.

Hellweg will be presenting the new MDSGi 1500/600 wet grinder featuring a forced feed system for film recycling to visitors as a 3D printed model due to its considerable weight of around 25 metric tons. In addition to its rugged, durable design typical of this manufacturer, it offers an unprecedentedly good ratio of throughput to energy consumption, enabling very low operating costs. Its cutting geometry is also outstanding, producing flakes of consistently optimum quality, as well as a particle size distribution and geometry which are perfect for further processing with a very low proportion of unusable "fines".

Smart Control for Optimized Operation

All these systems feature Hellweg's in-house developed digital Smart Control System which captures parameters such as power consumption, motor speed and bearing temperatures, as well as blade, screen and V belt status. Because the control system is capable of continuously optimizing the relationship between motor load and throughput, it ensures particularly economical operation while requiring little input from operators. Smart Control is generally available for all models and sizes of Hellweg's systems, starting from the 150 series machine-side grinders for granulating small parts and sprues up to the 600 series heavy duty grinders designed for the toughest applications.

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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