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PRESS RELEASE

WITTMANN BATTENFELD Highlights 2020 – INGRINDER

Waste prevention and cost cuts with the new Ingrinder from WITTMANN BATTENFELD

The Ingrinder from WITTMANN BATTENFELD offers an innovative solution for plastic waste recycling as well as reducing energy costs as a contribution to sustainable production. It is a production cell consisting of a machine combined with a sprue picker, granulator and vacuum conveyor. The granulator and the sprue picker are integrated in the machine's UNILOG B8 control system.

The Ingrinder solution is designed for smaller injection molding machine models from the *EcoPower* and *SmartPower* series, since these machines are used in particular together with molds incorporating cold runner technology, thus producing sprue which must either be scrapped or passed on to a recycling system following injection molding. On the Ingrinder, a WITTMANN sprue picker with swivel drive removes the sprue directly during the injection process and passes it through an ejection chute integrated in the machine frame to a built-in and specially modified G-Max 9 granulator. A WITTMANN vacuum conveyor transports the recycled material via a 2-component switch to the machine's material hopper. The 2-component switch from WITTMANN enables alternating loading of virgin material and regrind in a relationship which can be preset, so that these materials are thoroughly mixed by this alternation and subsequent release into the material hopper.

To equalize viscosity fluctuations caused by the recycled material, the WITTMANN BATTENFELD HiQ Flow® software package is used on the machine. With HiQ Flow®, viscosity fluctuations detected during the injection phase are actively corrected directly within the same shot. For this purpose, the integral of the injection energy is calculated over a certain segment of the injection curve. On the basis of a reference shot, the changeover point and the holding pressure level are corrected depending on the injection energy of the current shot.

Using the Ingrinder yields numerous benefits:

- » Integration of the auxiliaries into the production cell gives the user a CE-certified system with a significantly smaller footprint than would be possible with a non-integrated solution. Depending on the machine model, the amount of space saved by using the Ingrinder is approx. 400 to 600 mm.
- » The regrind is mixed in during the production process. In addition to the cost savings realized by using the regrind, additional cost cuts are achieved with hygroscopic materials, since the material has no time to absorb water, and consequently is still dry within the cycle when it reaches the granulator, which means that it need not be dried again prior to grinding.
- » Using the HiQ Flow[®] application software increases process reliability.
- » The system can be extended easily into a WITTMANN 4.0 cell with additional auxiliaries and the WITTMANN TEMI+ MES solution.

The Ingrinder has been developed for machines from the *EcoPower* series with clamping forces of up to 1100 kN and the *SmartPower* series up to 900 kN and is available from autumn 2020 onwards.

To present the highlights to future users, WITTMANN BATTENFELD has posted a product video on the company's YouTube channel. The Ingrinder is presented on a machine from the servo-hydraulic *SmartPower* series, a *SmartPower 60/210*. This machine is shown producing a can with a lid made of PS: The sprue is removed and passed on to the G-Max 9 granulator by a WP50 sprue picker with swivel drive. A FEEDMAX S3 vacuum conveyor is used to transport the regrind to the material hopper.



Fig.1: Ingrinder – SmartPower 60 with sprue picker, granulator and vacuum conveyor

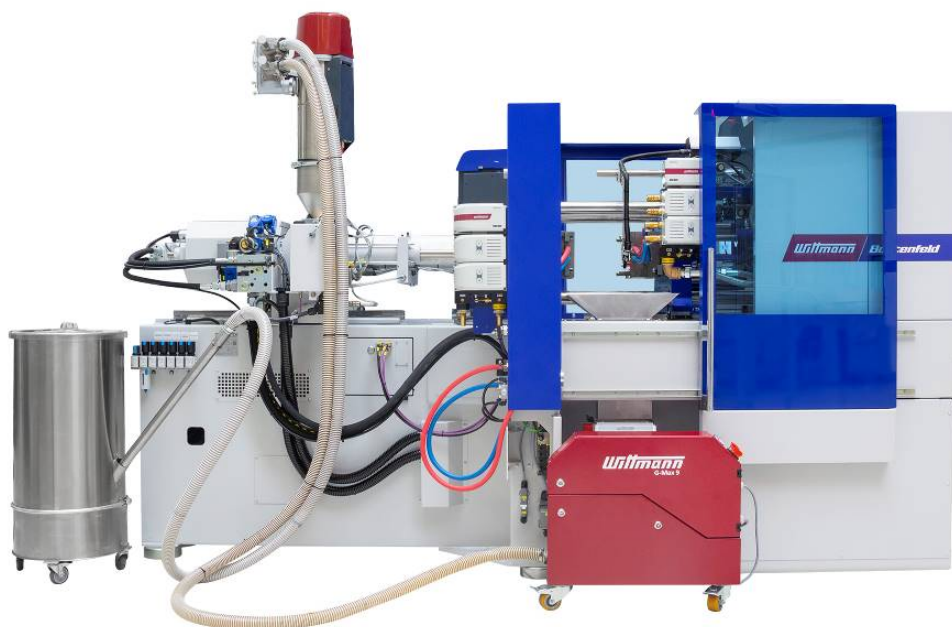


Fig. 2: Ingrinder – sprue picker passes the sprue just removed to the granulator



Fig. 3: Ingrinder – closeup view of integrated granulator



Fig. 4: SmartPower 60 as a compact insider cell

The WITTMANN Group

The WITTMANN Group is a worldwide leader in the production of injection molding machines, robots and auxiliaries for the plastics processing industry, headquartered in Vienna/Austria and consisting of two main divisions: WITTMANN BATTENFELD and WITTMANN. They jointly operate the companies of the group with eight production plants in five countries, and its additional sales and service companies are active with 34 facilities on all important plastics markets around the world.

WITTMANN BATTENFELD pursues the further expansion of its market position as an injection molding machine manufacturer and specialist for state-of-the-art process technologies. As a supplier of comprehensive, modern machine technology in modular design, the company meets both present and future market demands for plastics injection molding equipment.

The WITTMANN product portfolio includes robots and automation systems, material handling systems, dryers, gravimetric and volumetric blenders, granulators, temperature controllers and chillers. With this diversified range of auxiliaries, WITTMANN offers plastics processors solutions to cover all production requirements, ranging from independent production cells to integrated plant-wide systems.

The syndication of the various segments under the umbrella of the WITTMANN Group has led to complete connectivity between the various product lines, for the benefit of plastics processors with an increasing demand for seamless integration of processing machinery with automation and auxiliaries.

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