

NEWS RELEASE

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Blending with Perfect Accuracy Every Batch



GRAVIMAX 14V material blender

The model **GMX 14V** is the first of the WITTMANN **GRAVIMAX** blender series with their enhanced metering system for truly repeatable batch-to-batch consistency. The **GMX 14V** can blend up to 4 components with a total batch size of 2.2 lbs (1 kg) and a material throughput of up to 170 lbs (80 kg) per hour. The **GRAVIMAX** series of blenders provide single and multi-component gravimetric blending of up to 11,000 lbs/hr (5,000 kg/hr) for injection molding, blow molding and extrusion processes.

The **GMX 14V** represents a further development of its successful predecessor – the **GRAVIMAX 14R** – now with a completely revised design that gives it greater functionality in addition to a much more elegant look. Its construction is based on a new modular concept for the very best compactness. As a result, the hoppers and body fit precisely together to form one sturdy compact unit. The new corner windows of each hopper provide a full view for material inspection and detach quickly for simpler and easier cleaning access.

The enhanced “pinch” valve design and WITTMANN’s proven **RTLS** technology (Real Time Live Scale) provide high precision blending. **RTLS** is a unique 2-stage metering method achieving the most precise dispensing for batch-to-batch consistency and accuracy. This is achieved using progressively smaller dispensing algorithms to achieve the target

weight every single batch without any overshoot or “averaging” typical of other, less precise methods. The first step (free flow) allows quick dispensing to near target weight – approximately 95%. The second step (fine pulsing) is the controlled high frequency dispensing precisely to target. Only one kind of standard high precision valve is needed for the various materials i.e. pellets, regrind and additives.

Ensuring precise batch-to-batch accuracy with **RTLS** allows the operator to set the percentages exactly to the required minimum level. However, other blending methods constantly over and under dose which requires the minimum required level to be set higher to ensure any under dosed batch still meets the correct percentage. This results in overdosing all other batches, sometimes even significantly, causing tremendous excess material usage and increased cost. **RTLS** can pay for itself in an unrivaled short time.

The main technical improvements are to be found inside the **GMX 14V**:

- The PUR pinch valves have been replaced with highly precise wear-resistant stainless steel valves making the **GMX 14V** ideal for blending highly abrasive materials.
- The metering valve is integrated into the outlet of the hopper and features a self-closing mechanism to stop material flow when the hopper is removed.
- The self-closing discharge flap mechanism on the weigh bin prevents the release of material in the event of compressed air pressure loss.
- Two load cells are used for higher metering accuracy, resulting in even more precise metering of the material.
- An innovative laser sensor meters the amount of material in the mixer. This sensor is positioned above the mixing chamber outside of the material flow and thus, is protected from abrasion and contamination to guarantee permanent process security.
- The highly efficient mixer provides a homogenous material blend and the mixing chamber is designed for easy cleaning and prevents dead spots or material hang-up.

The **GRAVIMAX GMX 14V** blender uses the WITTMANN **XLB** control for simplicity, ease-of-use and high efficiency. The large touch screen allows the user to recall the cycle, total run and inventory reports. The control options include Ethernet-connectivity compatible with central PCs, laptops and PDAs. The WITTMANN **XLB** blender control offers many more features including:

- Input of ingredient values in %.
- Metric or imperial units.
- Display of operating conditions.
- 100 recipe storage on the local memory.
- Multi-level password.

WITTMANN worldwide is one of the leading manufacturers of robots and peripheral equipment for the plastics industry. The WITTMANN group with Headquarters in Vienna/Austria is a worldwide operating company with 7 production facilities and 20 branch offices in all major plastics markets in the world. WITTMANN's product range includes robots and automation systems, automatic material handling with dryers and plastic recycling, temperature controllers and chillers for machine tools and volumetric and gravimetric blenders.

With this comprehensive range of peripheral equipment, WITTMANN can provide processors of plastics with total solutions which cover all their requirements, ranging from autonomous work cells with single zone temperature controllers, screenless granulators, sprue pickers, integrated vacuum loading systems and integrated cross-linked control systems with integrated material loading and dryers to automated robotic systems for flexible finishing of semi-finished injection molded parts.

On April 1, 2008 WITTMANN has taken over the BATTENFELD Kunststoffmaschinen GmbH at Kottlingbrunn (Lower Austria). The market for auxiliary equipment on one hand and that for injection molding machines by BATTENFELD on the other will continue to grow independently. However, the syndication will of course lead to the completion of both product lines, providing the advantage plastics processors have been looking for in terms of a seamless combination of processing machines, automation and auxiliary equipment – all occurring at a progressive rate.

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