

NEWS RELEASE

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CARD – Overview of new functions

CARD (Compressed Air Resin Dryer) is the name of the new compressed air granulate dryers from WITTMANN. They offer to injection molders an efficient solution to achieve optimal drying results even with small material throughput rates – as low as just 0.16 kg/h. Various functions such as the **SLEEP** mode, the **RAMP** mode, the **COUNT DOWN** mode and the **POWER** mode support the production process and ensure adequate as well as gentle and energy-efficient drying.



**CARD 3G/FIT with touch operation panel,
formulation memory and alarm light.**

Users of dryers expect carefree use of the equipment, with the operator's job being more or less limited to filling the drying container and pressing the start/stop button, and everything else should ideally proceed in the background. This is precisely how the granulate dryers from WITTMANN work.

Whenever an unintended standstill of a production cell occurs, the aim of every user is to resume production as fast as possible. Here, the main focus always lies on the injection molding machine and the automation system. Usually the granulate dryer tends to be overlooked, which often means continued drying of the material with full heating capacity during the downtime and new startup. The consequence is not only that an unnecessary amount of energy is consumed, but also that the plastic material can be damaged. With the **CARD** compressed air granulate dryers from WITTMANN, this is prevented by what is called the **SLEEP** mode.

Automatic filling of the drying container proceeds directly proportional to the machine's material consumption. While no material is extracted from the dryer, i.e. the drying container does not need to be refilled. In this case, the dryer's control system registers the fact that the material loader used for filling the container has not shown any activity for a certain period of time. This period can be set on the **CARD** dryer (depending on the model). Then the dryer automatically reduces the heat output and quantity of air supply. This immediately protects the material and reduces the consumption of electricity and compressed air. As soon as the processing machine is restarted, it can continue to operate at once with dried material. The dryer starts to regulate the drying process at the right moment and raises the drying temperature as required.

The **RAMP** mode permits unlimited drying of sensitive materials, too, which tend to get sticky when heated. Here, the drying temperature is raised in two steps. If, for example, PC is to be dried, the material can be pre-dried at 80 °C for about 75 min following initial filling of the container, and subsequently the drying process can be continued at the desired temperature of 120 °C. In this way the material, which is mostly stored at room temperature or in cooler storage halls, can be gently preheated at the first fill, before being completely dried at the target temperature.

The **COUNT DOWN** mode provides a signal output, which can be used for a machine startup. When production is started on a processing machine, it is very often important to know how long the material drying equipment has already been active and whether the material has been dried sufficiently. The **COUNT DOWN** mode shows the remaining drying time on its display panel and finally issues a signal when the preset period of time is over.

Depending on the model, the air quantity regulation in **CARD** dryers is controlled in an analog or digital form via the temperature. Here, digital control provides a higher degree of precision, and the correct value for the temperature range to suit the material can be stored in the control system. For strongly hygroscopic materials such as PA, this automatic air supply control can be deactivated. This function is called the **POWER** mode, which permits a constant drying process with the necessary quantity of compressed air.

These innovative functions of the **CARD** dryers from WITTMANN not only contribute to energy efficiency, but also provide a gentle drying process to protect the material.

The WITTMANN Group is a worldwide leader in the production of injection molding machines, robots and peripheral equipment for the plastics processing industry, headquartered in Vienna/Austria and consisting of two main divisions: WITTMANN BATTENFELD and WITTMANN. These two divisions jointly operate the companies of the WITTMANN Group with eight production plants in five countries. Additional sales and service companies are active in 34 facilities in 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 plastic processing 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 peripheral units, WITTMANN offers plastics processors solutions to cover all production requirements, ranging from independent production cells to integrated plant-wide systems.

The integration of these various segments under the umbrella of the WITTMANN Group has led to complete connectivity between the various product lines. This integration has greatly benefited plastics processing users, who are increasingly looking for seamless production, including automation and peripheral functions.

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