

THE NEW SMART CONTROL SYSTEM



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“Smart Control is new control system that provides user-friendly monitoring, maintenance & repair and guarantees safe and intuitive operation.”

As with conventional Hellweg granulators, the digital version of each granulator with Smart Control **focuses on user-friendliness**: the familiar **fast operation** and **intuitive interface** ensure perfect processes.

To ensure safe and smooth operation, **power consumption, rotation speed and temperatures are measured, analysed and documented in real time**. In this way, direct conclusions can be drawn about relevant downtimes and excess of these is reported at an early stage – long before malfunction can occur.

With the new **“eco” operating mode**, power consumption can be reduced by up to 40%. The Smart Control unit measures the power consumption, evaluates it over long periods of time and actively learns the requirements

of the respective applications, in order to independently apply optimum operating settings. During operation, the operator can read current consumption with a digital Ampere meter in real time operation and gain access to detailed statistics on long term operation.

Another novelty is **boost operation**, with which the grinding capacity can be temporarily increased, in order to compensate for production-related fluctuations. In addition, various rotation speed ranges are available for a wide variety of plastics. Even plastics with extremely low melting temperatures can be granulated without using additional cooling.



TWO VERSIONS

GRANUmaster *smart control Ecotec*
4,3" Plastic Touch Display



GRANUmaster *smart control Professional*
7" Glass Touch Display



36 months
Firmware update
inclusive





Monitoring & maintenance

The Smart Control system monitors bearing temperatures and gives early warning of insufficient bearing lubrication or of a bearing defect, before damage can occur. Active monitoring of the wedge-profile drive belt (V belt) is also part of the digital control system. It switches the granulator off early in the event of a malfunction, in order to prevent further damage or a V-belt fire.



Operating hours counter & maintenance instructions

Cutting blades, the sieve and V-belts are monitored by the Smart Control system, operation time counted and required maintenance intervals displayed on the touch screen.



Instructions & intuitive operation

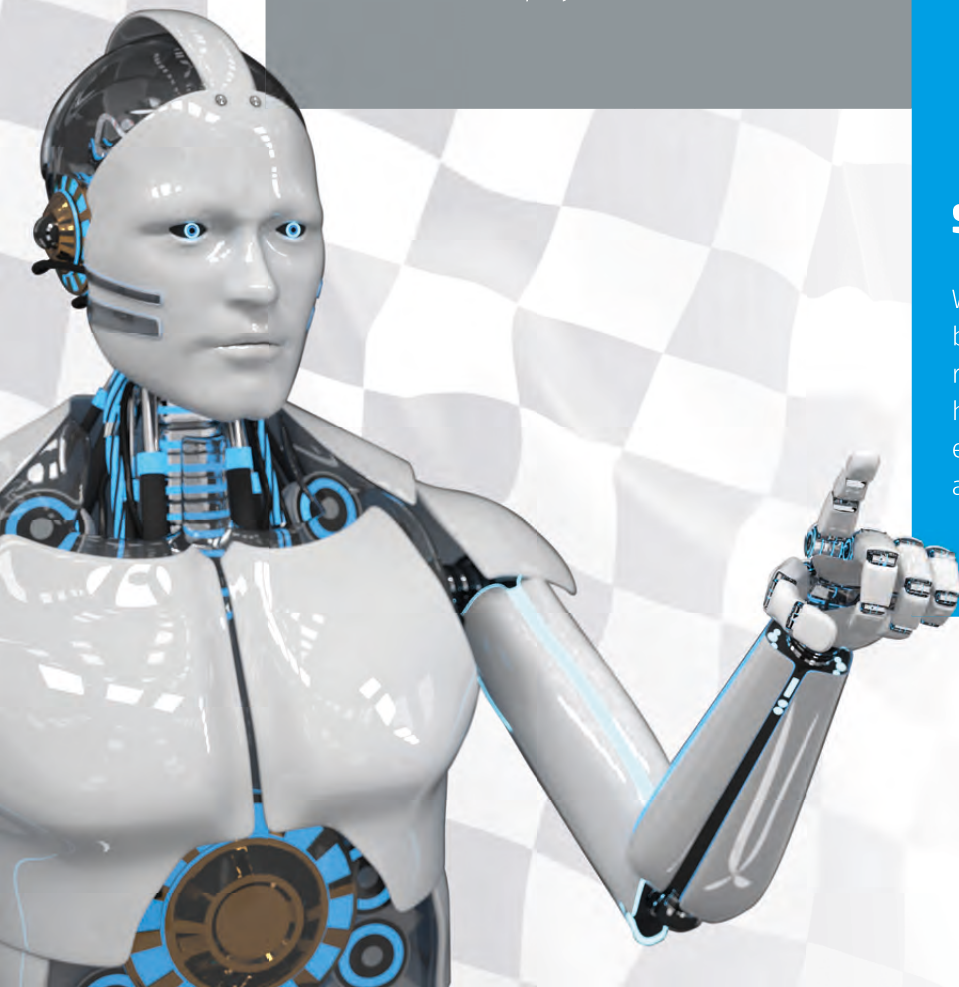
With detailed step-by-step instructions, every operator becomes a machine operation specialist. The Smart Control touchscreen displays instructions for cleaning, changing blades and V-belt maintenance – illustrated in a user-friendly and understandable way.

Further instructions for general maintenance and visual inspection are also integrated into the Smart Control system and can be easily performed by any operator.



Spare parts management

When Internet network connection is available, the Smart Control system allows direct requests for spare parts and parts subject to high wear to be automatically sent out. This ensures that all necessary components are available on site at all times.





THE ADVANTAGES

Industry 4.0 features

- OPC UA data exchange standard
- monitoring of the bearing temperature to prevent bearing damage
- operating hours counter with active alarm unit for blades, sieves and V-belts
- rotation speed monitoring and control
- measurement, display and storage of power output
- detailed statistics on electricity consumption
- active maintenance instructions

NEW STANDARD FUNCTIONS

- different operating modes for numerous plastics
- eco operation with up to 40% energy saving
- digital Ampere meter
- smooth start
- safe shutdown (fast-stop)
- rotation direct monitoring
- V-belt fire monitoring with emergency shutdown
- inclusion of V-belt tension-tester
- operator-friendly, illustrated "step-by-step" instructions for cleaning, blade change & adjustment, checking V-belts (visual inspection)
- intuitive and fast operation
- hybrid solution – both touchscreen and key operation is available
- remote monitoring
- spare parts request by **GRANUmaster smart control Professional**

HELLWEG GRANULATORS



High energy-efficiency is a feature of Hellweg granulators. This is characterised by cutting rotors working according to the scissor-cut principle that have no welds, as they are produced from a solid metal blank.

The high torsional stiffness guarantees gentle material granulation with a constant cutting gap, which demonstrably leads to lowest dust content. Due to high own weight, the solid cutting rotors generate a maximum moment of inertia, which contributes considerably towards reduction of power consumption.

The aggressive scissor-cut action features a retracting cutting geometry that benefits the material and has positive effects on grinding performance and in low material heating.

Rotor blades do not require any adjustment and lie closely fitting over the entire length against a stable back supporting system. Only the stator blades need adjustment, by means of easily accessible setting screws.



What if the control system fails? Can the machine still be operated?

Yes, if the control system actually fails, the granulator can still be operated. The safety circuits also continue to be operational.

Can the machine be integrated within a network?

Yes, both Smart Control systems can be integrated within a network (e.g. OPC UA). Active replace part requests are possible with **GRANUmaster Smart Control Professional**.

Are there any firmware updates? How can these be updated?

Yes, the controller is constantly being further developed and can be updated by the operator directly on the control system using a USB stick. The purchase of a Smart Control system includes 36 months of free firmware updates.

Does the machine send unsolicited data to the producer?

No. The manufacturer neither has access to the machine and its control system, nor does the machine and its control system send any data, whether user data or technical data, to the producer. The data collected by the control system is only stored locally within the control system. Only spare part enquiries are transmitted to the producer in encrypted form.

Which granulators can be equipped with the Smart Control?

All granulators from the 150 series upwards.

CONTACT



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