



GRAVIKO



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Gravimetric dosing and weighing system (patented)

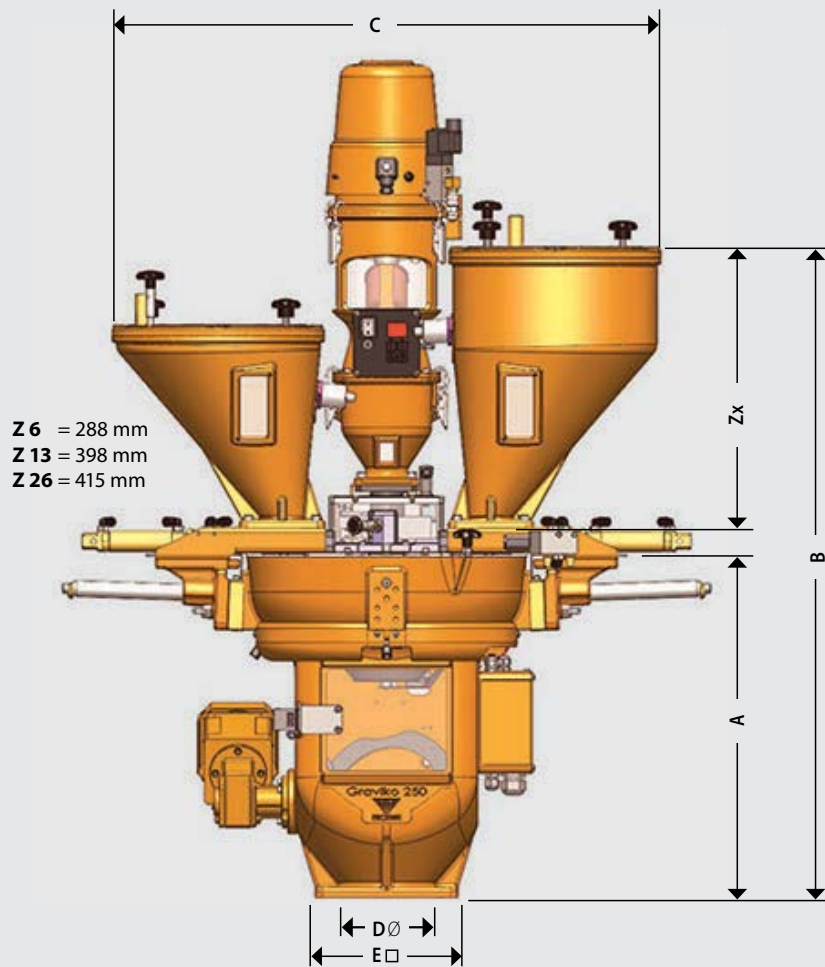
The patented GRAVIKO doses plastic materials precisely and reliably with the highest reproducibility

Accurate, reproducible dosing is essential to the quality of any manufactured product. If raw materials, additives and other components are not accurately dosed and weighed, the characteristic features of many shaped parts cannot be achieved. The GRAVIKO was developed for accurate dosing. It is a patented gravimetric dosing and weighing system with excellent reproducibility.

The functional principle of the GRAVIKO

The individual components, such as grains, powder, ground material or coarse powders, can be dosed into the weighing container with a slider, or alternatively using chamber volume dosing. Tiny quantities are dosed with an accuracy calculation of 0.001 s. A load cell registers the actual weight of the individual components and communicates the values to the Koch control unit, which compares them with the calculated nominal weight. Each filling is weighed hundreds of times in succession to balance out any variations. If the nominal weight and the actual weight are the same, the bulk materials are emptied into the mixer. Here an agitator optimally mixes the dosed batch before it is processed on the machine.





Type	A mm	B mm	C mm	D Ø mm	E □ mm
GK 65	405	A + 35 + Zx	671	50	140
GK 250	485	A + 35 + Zx	729	96	200
GK 600	700	A + 35 + Zx	910	96	200
GK 800	980	A + ZF* + Zx	1060	96	330
GK 1000	1161	A + ZF* + Zx	1190	96	330
GK 1500	1362	A + ZF* + Zx	1190	96	330
GK 2000	1658	A + ZF* + Zx	1449	96	300

* FU = Feeder unit (142 - 225 mm depending on type)

Type	Throughput kg/h*	Housing	Stations max.	Output kW	Voltage V/Hz
GK 65	65	GKAL	4	0,19	400/50
GK 250	300	GKAL	4	0,19	400/50
GK 600	600	V2A	4/6	0,19	400/50
GK 800	800	V2A	5	0,47	400/50
GK 1000	1000	V2A	6	0,47	400/50
GK 1500	1500	V2A	6	0,47	400/50
GK 2000	2000	V2A	8	0,47	400/50

* Requirements: Bulk density > 0.65 kg/dm³ / with feeder unit D 50



It is possible to take a Graviko GK apart within two minutes without tools. Dosing stations can be pushed outwards once two wing screws have been released.

With dosing volumes of more than 800 kg/h, the slider is replaced by a mechanism that swivels through 90°. This swivelling action facilitates material changes and cleaning.



90°



GRAVIKO GK 65 integrated in a modular system with a MCM-G Touch control unit

The basic version can process up to four different materials depending on the throughput of the processing machine. The GRAVIKO can be used directly on the injection moulding machine or extruder and is compatible with all KOCH equipment and accessories.

GRAVIKO GK 65

for throughputs up to 65 kg/h

Up to four components can be added via sliders or the proven powder, master batch or grain stations (Pu / Ma / Kö). All the components are mixed very thoroughly after weighing and before further processing. The GRAVIKO can be dismantled within two minutes without the need for tools.



GRAVIKO – exploded view

- ① Lid
- ② Weighing hopper with high-precision weighing cell
- ③ Cleaning door (window)



GRAVIKO GK 600 / Z13 / A8 and hopper loader A2 + Z1

GRAVIKO GK 250

The basic design of the GK 250 is comparable to the GRAVIKO GK 65, but is larger and intended for throughputs up to 300 kg/h. 4 dosing stations can be combined as part of the modular system.

GRAVIKO GK 600, GRAVIKO GK 800, GRAVIKO GK 1000

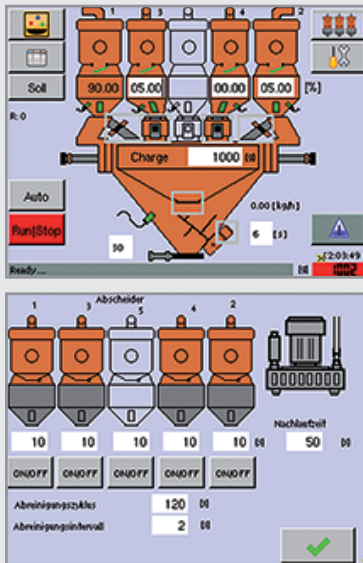
Throughputs up to 600 kg/h, 800 kg/h and 1000 kg/h

4 to 8 dosing stations can be combined as part of the modular system, depending on the model. Granules, powder, regrind or grains – each material can be individually weighed, registered and mixed before it is processed.

All GRAVIKO units can process up to 5 material components using two-component conveyor units.

MCm-G Touch control unit

The MCm G Touch is an easy-to-use control unit for gravimetric dosing systems. All dosing parameters, including all results, can be documented via the control unit. Once the recipe has been entered in %, dosing takes place starting with the first cycle without the need for calibration.



Parameters of integrated conveyor system

Dosing parameters and recipe memory

Alarm table

Alarm definition

Results

Graphic weighed value display

Dosing parameters



Control unit MCm-G Touch for gravimetric dosing systems

DISPLAY

- TFT LCD 5.7", 24-bit with LED illumination and touch function

HARDWARE

- 16-bit processor ARM 9 and up to 4 GB non-volatile memory
- SD slot and optional interfaces: Ethernet, USB, RS232/422
- Control for up to 4 dosing units (8 dosing units as an option)

SOFTWARE

- Very user-friendly software
- Language changeover: Display in 16 languages
- Manual actuation of all functions (cleaning and setup mode)
- 100 recipes and ground material program
- Dosing parameters with nominal and actual value display
- Specification of dosing volume, e.g. for octabin fill
- USB interface as option for exporting the recorded dosing data
- Internet FTP server implemented (IP and DNS server address can be set)
- 3 password levels and password administration
- Alarm records, Alarm configuration and tolerance monitoring
- Connection to visualisation software (optional)
- Control of 4 conveyor components (up to 8 conveyors optional)



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