GRAVIKO

Gravimetric dosing and weighing system (patented)

The patented GRAVIKO series makes it easy to dose and weigh, monitor, correct and analyse – in one cycle.

The individual components are dosed into a weighing hopper by a slider or alternatively a cellular wheel (volumetric chamber dosing). The scale registers the actual weight of the individual components which is transferred to the KOCH controller and compared with the calculated desired weight. The weighing for each filling is performed several times consecutively, and normal fluctuations are compensated by forming the mean value.

If the desired and actual weight coincide, the bulk goods are emptied into the pre-mixer.

As a rule, by combining slide opening times with chamber volume dosing, it is possible to achieve dosing accuracy of ± 4 grains per 1,000. The KOCH Graviko programme recognises external influences as "aberrations" and does not take them into account when comparing the weights.

GRAVIKO type GK 150

Control unit MCm-G Touch

An exploded view of the Graviko GK 60 gravimetric dosing system

Graviko type GK 60

for throughputs up to 60 kg/h

The main components are added via a slider or dosing stations (Pu / Ma / Kö). All components are thoroughly mixed after weighing, before they are processed.

It is possible to take a GRAVIKO GK apart within two minutes without tools.

❶ *lid with high-precision weighing cell*
❷ *weighing hopper*
❸ *SV 2 pushing device*
❹ *intermediate hopper*

Graviko type GK 150

Identifically constructed like Graviko GK 60 but larger. For **througputs up to 150 kg/h**, suitable for four dosing stations.

Graviko type GK 300

for throughputs up to 300 kg/h

Depending on your requirements, up to four to five dosing stations can be combined as part of the modular system. Granules, powder, regrind or grains – each material can be individually weighed, registered and mixed before being passed on for processing.

Graviko type GK 300

Graviko type GK 350 (patent pending)

"Double mixer" for throughputs up to 300 kg/h

The counter-running agitator is very suitable for the varying bulk densities of grains, powder, recycled material and so on. The Graviko GK 350 guarantees excellent mixing!

Graviko type GK 600
Graviko type GK 1000

for throughputs up to 600 kg/h resp. 1000 kg/h

Comparable to Graviko type GK 300 but lager.

The counter-running agitator of the Graviko type GK 350

Graviko type GK 1500

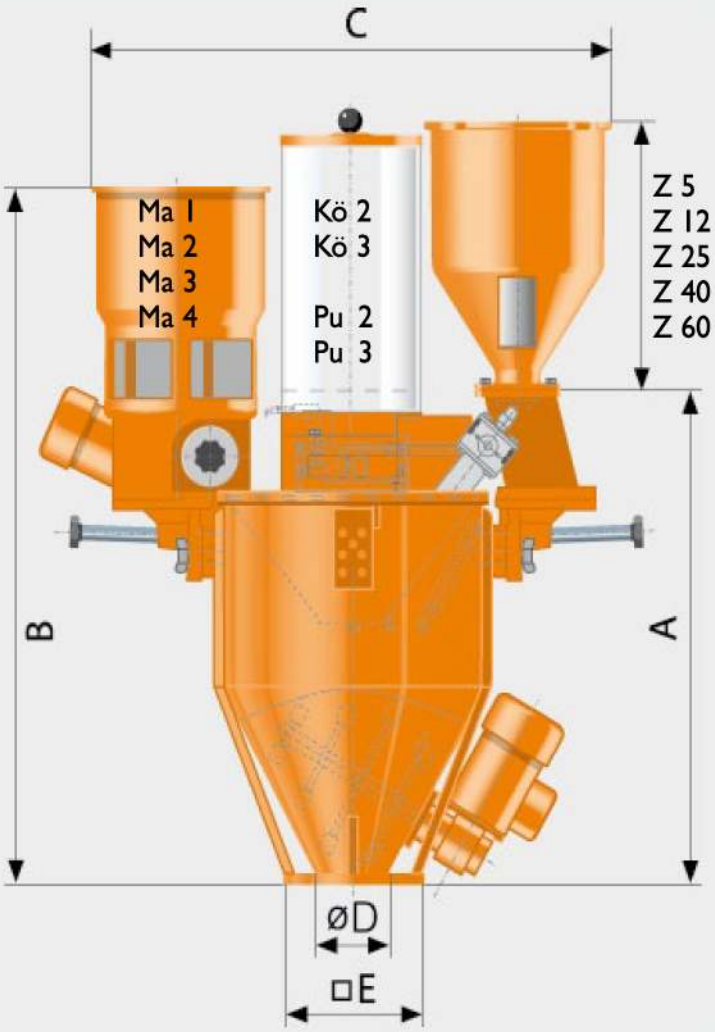
for throughputs up to 2000 kg/h

This GRAVIKO can be used to process up to 2000 kg/h. The 100 mm slider opens up to an accuracy of a thousandth and weighs the quantity within two seconds. This is followed by the second and third component until the entire content has been emptied in the mixer and mixed there. Here the mix is directly fed to the processing machine. Depending on the container size between four and six dosing stations can be mounted.

It is optionally possible to have the Graviko fitted with a differential dosing system, also known as a loss-in-weight control system, and adapted to any extruder.

Six Gravikos for two components

GRAVIKO – technical specifications



type/dim.	A	B	C	ø D	□ E
GK 60	540	805	735	50	140
GK 150	649	885	822	95	200
GK 300	660	905	880	100	200
GK 350	785	1025	740	90	250
GK 600	860	1640	910	100	200
GK 1000	1400	1560	1060	100	330
GK 1500	1780	2280	1190	100	330

Graviko **type**	*throughput* **kg/h***	*material* **Graviko**	*stations* **max.**	*power* **kW**	*voltage* **V / Hz**
GK 60	50 - 60	GKAL / V 2 A**	4	0,19	400 / 50
GK 150	150	GKAL / V 2 A	4	0,19	400 / 50
GK 300	300	V 2 A***	5 - 6	0,19	400 / 50
GK 350	300	V 2 A	4	0,19	400 / 50
GK 600	600	V 2 A	5 - 6	0,19	400 / 50
GK 1000	1000	V 2 A	6	0,47	400 / 50
GK 1500	2000	V 2 A	5 - 7	0,47	400 / 50

** bulk density > 0,65 kg/h*
*** die-cast aluminium or V 2 A (highest-quality stainless steel)*
**** V 2 A (highest-quality stainless steel)*

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.

For dosing stations with material throughputs of over 800 kg/h, the swivel device is replaced by a pivoting mechanism to make it easier to change the material.

GRAVIKO GK with the *LOSS IN WEIGHT* control system

Graviko Type GK 1000 equipped with a loss-in-weight control system.

Graviko GK

with the loss-in-weight control system

It is optionally possible to have the Graviko fitted with a differential dosing system, also known as a *loss-in-weight* control system, and adapted to any extruder. The *loss-in-weight* control system records the weight of the material added. This is guaranteed to be highly accurate.

All the dosing stations or conveyors in the KOCH modular system can be used to dose and convey the material.

Graviko type GK 1000 (with a loss-in-weight control system)

Control systems for GRAVIKO

Control unit type MCm-G (not shown)

The MCm-G control unit for gravimetric dosing systems offers innovative technology and is easy to use. All the parameters such as recipes, batch sizes and mixer follow-up times can be entered and edited via the keypad.

An internal memory allows recipes to be managed and all the relevant operating data to be stored for documentation purposes. The control unit can also be connected to a master computer via a serial interface.

MCm-G Touch control unit for gravimetric dosing and mixing systems

Control unit type MCm-G Touch

Advanced control system for gravimetric dosing and mixing systems

The MCm-G Touch is an easy-to-use control unit specifically for gravimetric dosing systems. After the size of the weighing container and the recipe have been input, dosing proceeds from the first cycle without the need for any calibration. All the process data, such as the date, the time, batch information, recipe and machine downtimes, are queried, edited and stored via the touch screen. It is possible to use the unit to document the dosing parameters including all the results.

The internal microprocessor offers exceptional processing power with low energy consumption. It can be easily integrated into an existing network with a network connector. As well as non-volatile memory, it has a slot for a bootable SD/MMC card.

Central dosing and mixing unit Graviko type GK 1000

Graviko type GK 150 with dosing stations