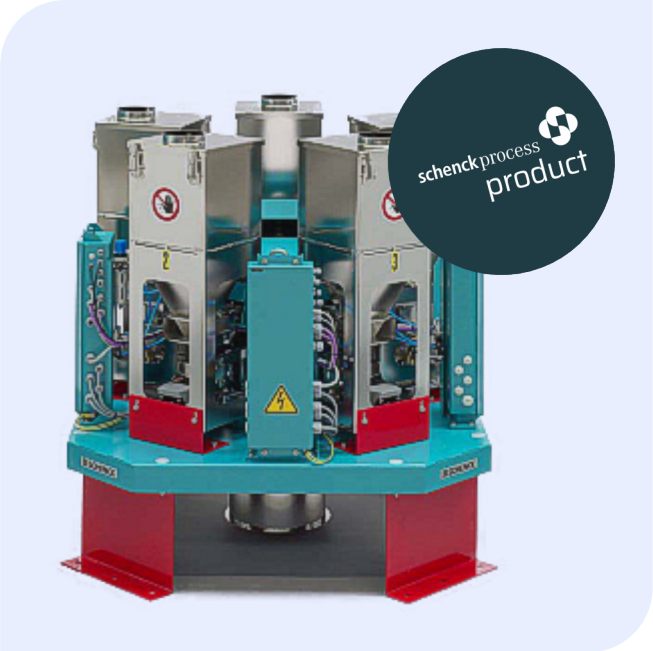
MULTIGRAV
Feed station

- **Continuous blending of free-flowing granulates**
- **Up to 5 individual components, each ranging from 0.3 to 400 kg/h**
- **High feeding accuracy and consistency, better +/- 0.5%**
- **Compact design, reduced installation effort**
- **Vibration discharge is maintenance-free and easy to clean**



Application

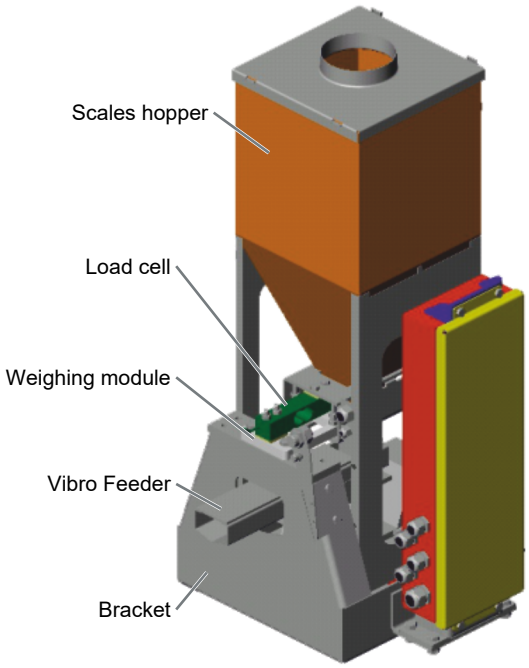
The MULTIGRAV feed station is used for continuous gravimetric feeding of granulates. Typical applications are found in the plastics and chemical industries, for example, in extruder and compounder systems.

Design

The system module, with a weighing hopper and vibrating feeder, is optimally connected to a weighing module. This weighing module includes a vibration-resistant load cell and is connected to a console suitable for various applications (see image MULTIGRAV single feeder).
For blending applications, two to five system modules are grouped around a central mixing hopper on a shared console. This mixing hopper can also be equipped with the aforementioned weighing module. The assembly and wiring of the individual components are carried out at the manufacturer's facility, making the on-site connection via a terminal box as simple as possible. The compact design of the individual system modules results in extremely low installation volume for the blending system, with special attention given to optimal accessibility.

Function

Each system module operates on the principle of a loss-in-weight feeder (controlled weight reduction per unit of time). The vibrating feeder enables precise and virtually wear-free regulation of the material flow via the dosing trough.
Burden preparation:
The dosing troughs feed into the mixing hopper, which has a special insert to optimize the mixing quality of various bulk materials. This mixing hopper also serves as a buffer for the downstream process. The console is designed to provide the highest possible protection against disruptive environmental influences. The regulation of the system modules and the level control is handled by application-specific electronics, preferably in a mechatronic design with DISOCONT. A master control system manages the recipe, depending on the level in the mixing hopper. The interplay of the individual functions ensures that the blending system meets the highest demands for feeding accuracy and mixing quality.



Technical Data

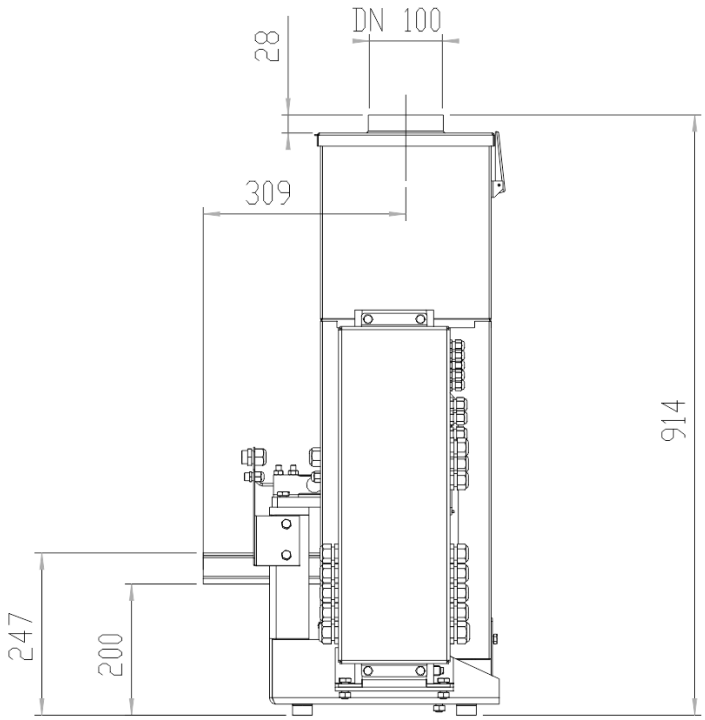
Feed rate range	0.3 … 400 kg/h
(Single feeder)	max. 720 dm^3/h
Total feed rate	max. 550 kg/h
(Sum of all single feeders)	max. 1100 dm^3/h
Feed material	Granules
Grain size	0.5 … 5 mm
Bulk material weight range	0.3 … 0.8 kg/dm^3
Flow properties	good flowing, non-adhering
Recommended refill quantity	12 dm^3
Feed material temperature	max. 100 °C
Ambient Temperature	max. 50 C
Moisture	max. 0.5 %
Accuracy	±0.5 % (typically)
Feed constancy	±0.5 % (typically)

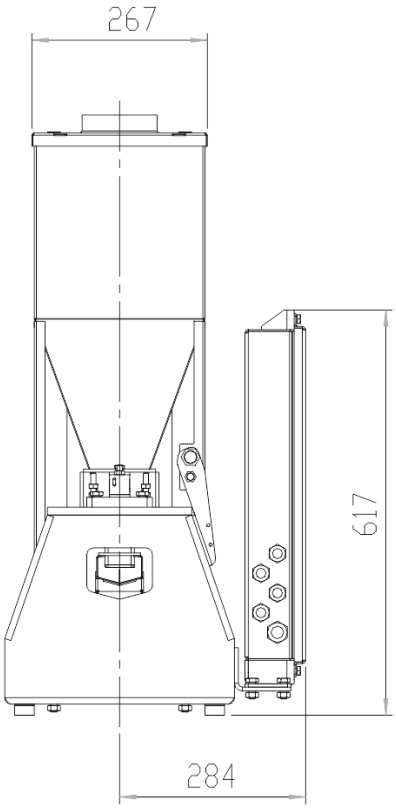
Supply voltage 230 V AC, max. 8 A.

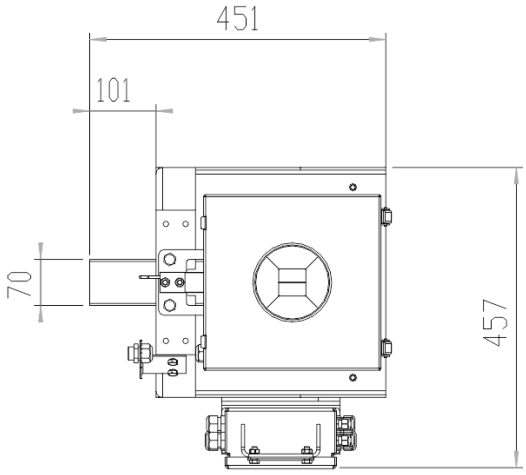
The electrical data of the mechatronic version can be found in the datasheet DISOCONT BV-D2051DE.

Dimension

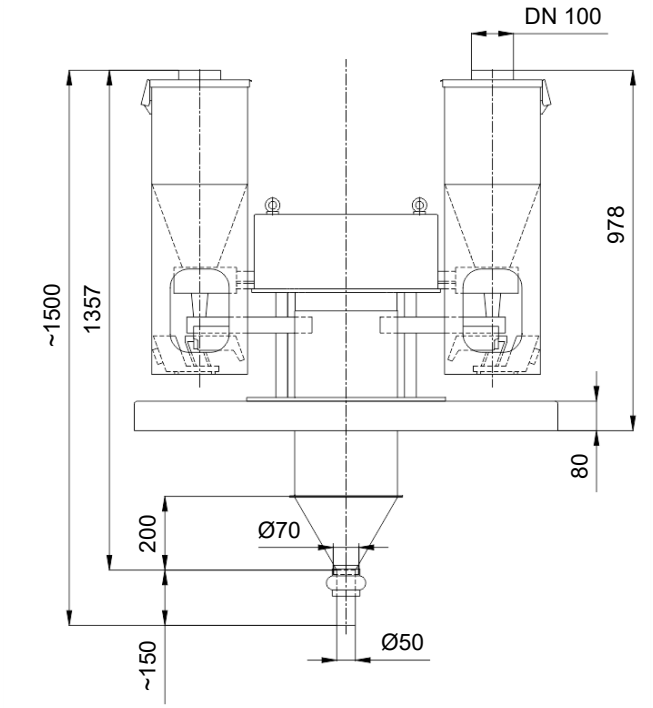
Single feeder (information in mm)

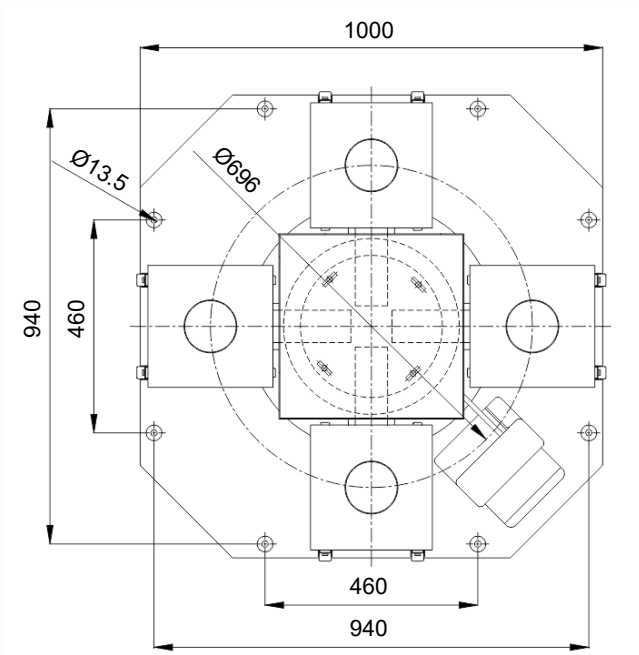






2-4-fold feeder (information in mm)





5-fold feeder (information in mm)