

Twin screw feeder MiniTwin 2.0

Volumetric and gravimetric

General Information

The [MiniTwin](#) feeder is ideal for the reliable feeding of powder in the gram range.

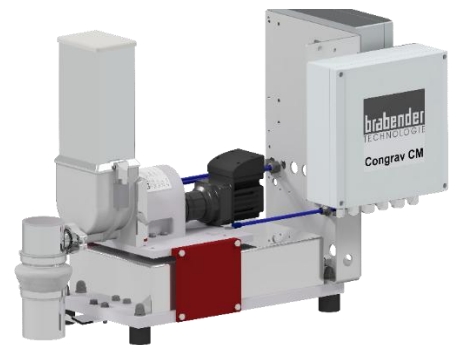
The feeder has the following main components: a free-standing chassis/weighing system combination, a stainless steel screw trough, an agitator in the screw trough, a twin screw, a screw tube, a [DC smart motor](#) , and an extension hopper for bulk material storage.

These components work to consistently fill the screw, because the agitator prevents hopper bridging while providing mass flow into the screw. This results in optimal feeder accuracy and control.

The MiniTwin is easily disassembled for wet or dry cleaning by releasing quick release clamps from the stationary gear unit. All service and maintenance is from the front or rear.

The gravimetric version includes the [weighing system MD0](#) featuring a high-resolution digital load cell with serial data transmission, with advanced filtering technology for compensating disturbances.

The unit conforms to CE directives.



Model Specification

Screw drive	DC-Smart motor
Drive power	0.18 kW (0.24 HP)
Screw speed	140 min ⁻¹
Trough agitator	Yes
Separate agitator drive	No

Control Modules

Control and speed modules are offered either mounted onto the feeder ([Congrav® CM-E](#)) or are available for mounting in a separate control panel ([Congrav® CB-E](#) or [Congrav® CB-S](#)).

Controls can communicate directly to most host/ PLC systems .

Technical Drawings and Dimensions

	volumetric feeders	gravimetric feeders	
		Control module CB	Control module CM
Hopper 0.5 dm ³ (0.02 cuft)	MT 2.0-0,5	DDW-MD0-MT 2.0-0,5	DDW-MD0-MT 2.0-0,5 CM
Hopper 1.0 dm ³ (0.04 cuft)	MT 2.0-1,0	DDW-MD0-MT 2.0-1,0	DDW-MD0-MT 2.0-1,0 CM
Hopper 1.5 dm ³ (0.1 cuft)	MT 2.0-1,5	DDW-MD0-MT 2.0-1,5	DDW-MD0-MT 2.0-1,5 CM



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Screw Sizes and Feed Rates

Screw type	Designation Ø / p [mm]	Tube designation	Tube dia. [mm]	Max. speed [min ⁻¹]	Max. feed rate * [dm ³ /h]	Control range Screw drive
Twin-concave screw (TC)	TC 12/04	130	60.3	140	1.26 (0.04)	1:100
	TC 12/12	130	60.3	140	5.60 (0.2 cuft)	1:100

* Theoretical values at 100% screw filling level and motor speed. Depending on the flow characteristics the screw filling level may decrease to 50%. Further limitations must be considered for gravimetric feeding as max. speed should be reduced to allow for bulk density variations. [How to read the table of screws](#)

Technical Specification

Ambient temperature:	0°C to +45°C (32°F to 113°F)
Humidity of the air:	up to 85% without condensation
max. vacuum/overpressure:	2 hPa (2 mbar) (inches of water)
Ingredient temperature:	0°C to + 60°C (32°F to 140°F)
max. bulk density (volumetric):	1.5 kg/dm ³ (94 lb/cuft)
	1.5 kg/dm ³ (94 lb/cuft) with hopper 0.5 dm ³ (0.02 cuft)
	1,5 kg/dm ³ (94 lb/cuft) with hopper 1,0 dm ³ (0.035 cuft)
max. bulk density (MD0):	0.7 kg/dm ³ (43.7 lb/cuft) with hopper 1.5 dm ³ (0.05 cuft)
Screw trough, extension hopper, hopper lid:	1.4404
Screws, screw tubes, outlets:	1.4404
Non-contact components:	Aluminum, plated or painted steel (RAL 7035)
Extension hopper:	Hopper lid for manual refilling
Drive:	0.18 kW (0.24 HP), IP65
Power supply:	100-240 V , 50-60 Hz (1/N/PE AC) **
	1.8 kg (4 lb) with hopper 0.5 dm ³ (0.02 cuft)
	1.5 kg (3.3 lb) with hopper 1.0 dm ³ (0.035 cuft)
Net weighing range MD0:	1.1 kg (2.4 lb) with hopper 1.5 dm ³ (0.05 cuft)
* other values upon request	** Operation on TT networks, TN networks or networks with earthed neutral. For different networks adaptation measures are necessary.

Options and Accessories

- Flexible [outlet connections](#)
- Interchangeable screws, screw tubes, screw troughs
- Explosion-proof versions as per directive 2014/34/EU (ATEX) or NFPA
- [Wind protection](#) (polycarbonate, transparent) for stabilization of wind and draught
- [Maintenance disconnect box, pluggable execution](#)
- Pressure compensation for the outlet
- [Ground plate](#)
- Cleaning and refill systems upon request

