

Twin Screw Feeder NXT45M (Smart)

Volumetric and gravimetric

General Information

The [NXT45M](#) feeder is ideal for difficult, sticky powders as well as fibers and granules.

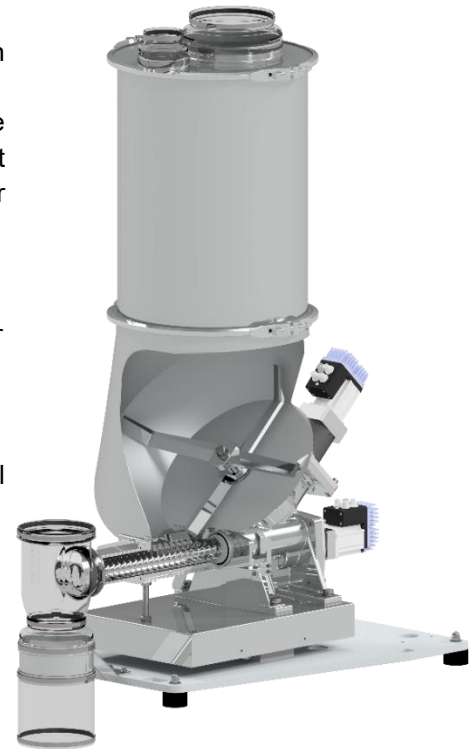
The feeder has the following main components: a screw trough with negative wall angle structure, a gearbox, an inclined agitator in the screw trough, a smart motor for the agitator, a twin screw, a smart motor for the screw drive, a screw tube and an add-on hopper for a total bulk storage of 110 dm³ (3.9 cuft).

These components work together to ensure the mass flow of the bulk material and a uniform screw filling level, as both the agitator and the hopper geometry prevent bridging and ensure optimum bulk material flow into the screw.

The [NXT45M](#) is easily disassembled for wet or dry cleaning. All service is from the front or back.

The gravimetric version includes the [Weighing system](#) MD6 featuring a high resolution digital load cell with serial data transmission as well as MS6 with strain gauge load cell, all of which feature filter technology to compensate for interference.

The unit conforms to CE directives.



Model Specification

Screw drive	Servo motor
Drive power	0.4 kW (0.54 HP)
Screw speed	329 min ⁻¹
Trough agitator	Yes
Agitator drive	Servo motor
Drive power	0.4 kW (0.54 HP)

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](#)).

Controls can communicate directly to most host/ PLC systems.



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Technical Drawings and Dimensions

	gravimetric feeder	
	Control module CB	Control module CM
Hopper 60 dm ³ (2.1 cuft)	DDW-M6-NXT45M-60	DDW-M6-NXT45M-60 CM

Available 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]	Max. feed rate* [cuft/h]
Twin concave screw (powder, MS type)	MSS 45/11	500	50	329	327	11.5
	MSM 44/2x32	500	50	329	1042	36.8
	MSL 45/2x46	500	50	329	1780	62.9
Twin blade screw (granules, PS type)	PSS 30/10	500	50	329	331	11.7
	PSM 32/2x30	500	50	329	1067	37.7
	PSL 34/2x44	500	50	329	1774	62.6
Twin blade screw (fibers, FS type)	FSS-C 45/15	500	50	329	681	24
	FSM-C 45/25	500	50	329	1186	41.9
	FSL-C 45/42	500	50	329	2063	72.9

* 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/pressure:	3 hPa (3 mbar) (1.2 inches of water)
Ingredient temperature:	0°C to + 60°C (32°F to 140°F)
max. bulk density (volumetric):	1.1 kg/dm ³ (69 lb/cuft)*
max. bulk density (with MD6):	1.1 kg/dm ³ (69 lb/cuft)* with hopper 60 dm ³ (2.1 cuft)
max. bulk density (with MS6):	1.1 kg/dm ³ (69 lb/cuft)* with hopper 60 dm ³ (2.1 cuft)
Screw trough, add-on hopper, hopper lid	1.4301 (304SS)
Screw, -tubes, outlets:	1.4301 (304SS)
Non-contact steel components:	1.4301 (304SS), plated or painted steel (RAL 7035)
Add-on hopper 60 dm ³ (2.1 cuft)	Hopper lid for automatic refilling or manual refilling
Screw drive:	0.4 kW (0.54 HP) , IP65; ISO class F
Agitator drive:	0.4 kW (0.54 HP) , IP65; ISO class F
Power supply:	AC 230 V - 50Hz
Net weighing range MD6:	100 kg (220 lb) with hopper 60 dm ³ (2.1 cuft)
Net weighing range MS6:	100 kg (220 lb) with hopper 60 dm ³ (2.1 cuft)
* other values upon request	



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Options and Accessories

- Flexible [inlet and vent connections](#)
- Flexible [outlet connections](#)
- Interchangeable screws and screw tubes
- Versions for higher or lower temperatures than standard
- Hopper 100 dm³ (3.5 cuft)
- Vertical outlet with [quick release](#)
- [Maintenance disconnect box, pluggable version](#)
- [Filter bag](#) oder [JetFilter](#) to vent pipe
- Pressure compensation for the [outlet](#) and the whole [feeder](#)
- Cleaning and refill systems upon request

