



Screw Feeder

DSR67B

Volumetric and gravimetric



General Information

The [DSR67B](#) is a feeder ideal for difficult flowing bulk ingredients that tend to compact or form bridges while it is at rest in the storage hopper.

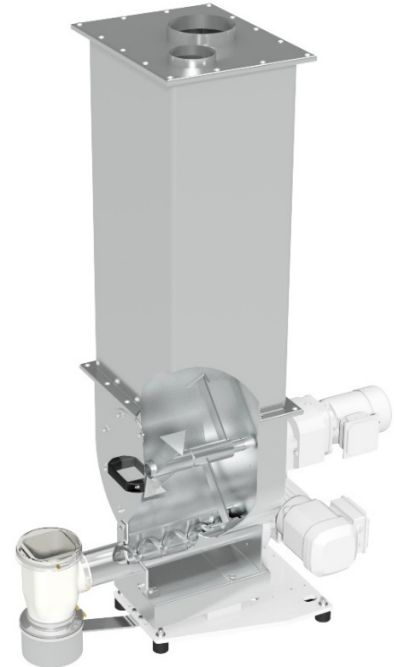
The feeder has the following main components: a stainless steel screw trough, an agitator in the screw trough, a 3 phase motor as agitator drive, a screw, a 3 phase motor as screw drive, a screw tube, an extension hopper with volumes of 100 dm³ (3.53 cuft) or 200 dm³ (7.06 cuft).

The horizontal agitator works to consistently fill the screw and prevents hopper bridging while providing mass flow. In addition, the screw trough has a large cross-sectional area which when combined with a steep walled hopper naturally promotes ingredient flow. This results in optimal feeder accuracy and control.

The [DSR67B](#) is easily disassembled for wet or dry cleaning. All service is from the front or back.

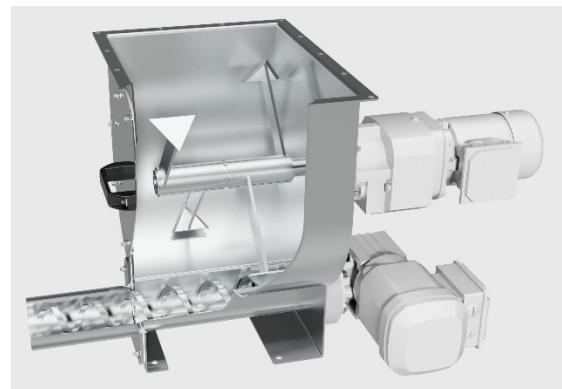
The gravimetric version includes the [weighing systems](#) DLS6 and MD6 featuring a high resolution digital load cell with serial data transmission as well as MS6 with strain gauge load cell with advanced filtering technology.

The unit conforms to CE directives.



Model Specification

Screw drive	Three-phase motor
Drive power	0.37 kW (0.5 HP)
Screw speed	168 min ⁻¹
Optional Screw speed	270 min ⁻¹
Trough agitator	yes
Agitator drive	Three-phase motor
Drive power	0.12 kW (0.16 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](#) or [Congrav® CB-S](#)).

Controls can communicate directly to most host/ PLC systems or to Brabender Technologie Congrav® Operator Interfaces.

Technical Drawings and Dimensions

	volumetric feeders	gravimetric feeders	
		Control module CB	Control module CM
100 dm ³ (3.53 cuft) Hopper	DSR67B-100Q	DDW-DLS(MD) S 6-DSR67B-100Q	DDW-DLS(MD) S 6-DSR67B-100Q CM
200 dm ³ (7.06 cuft) Hopper	DSR67B-200	DDW-DLS(MD) S 6-DSR67B-200	DDW-DLS(MD) S 6-DSR67B-200 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]	Max. feed rate * [cuft/hr]
Spiral screw (S) (TA= with trough activation)	S 28/22 (TA)	320	38.0x3.0	168 (270) / 100Hz	118 (189)	4.2 (6.7)
	S 28/35 (TA)	320	38.0x3.0	168 (270) / 100Hz	197 (317)	7 (11.2)
	S 43/27 (TA)	443	48.3x2.0	168 (270) / 100Hz	322 (518)	11.4 (18.3)
	S 43/42 (TA)	443	48.3x2.0	168 (270) / 100Hz	539 (866)	19 (30.6)
	S 52/39 (TA)	563	60.3x2.0	168 (270) / 100Hz	696 (1119)	24.6 (39.5)
	S 52/62 (TA)	563	60.3x2.0	168 (270) / 100Hz	1180 (1897)	41.7 (67)
	S 67/45	715	76.1x2.3	168 (270) / 100Hz	1413 (2271)	49.9 (80.2)
Spiral screw (S) for granules	S 28/22	443	48.3x2.0	168 (270) / 100Hz	209 (335)	7.4 (11.8)
	S 28/35	443	48.3x2.0	168 (270) / 100Hz	342 (549)	12.1 (19.4)
	S 43/27	563	60.3x2.0	168 (270) / 100Hz	454 (729)	16 (25.7)
	S 43/42	563	60.3x2.0	168 (270) / 100Hz	744 (1195)	26.3 (42.2)
	S 52/39	715	76.1x2.3	168 (270) / 100Hz	1039 (1669)	36.7 (58.9)
	S 52/62	715	76.1x2.3	168 (270) / 100Hz	1725 (2772)	60.9 (97.9)
Blade screw (B)	B 50/45	563	60.3x2.0	168 (270) / 100Hz	676 (1087)	23.9 (38.4)
	B 50/70	563	60.3x2.0	168 (270) / 100Hz	1085 (1744)	38.3 (61.6)

* 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. The values in brackets refer to optional motors.

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):	1.5 kg/dm ³ * (94 lb/cuft)
max. bulk density (with DLS6 MD6):	1.5 kg/dm ³ (94 lb/cuft) * with hopper 100 dm ³ (3.53 cuft);
	1.2 kg/dm ³ (75 lb/cuft) * with hopper 200 dm ³ (7.06 cuft)
max. bulk density (with MS6):	1.5 kg/dm ³ (94 lb/cuft) * with hopper 100 dm ³ (3.53 cuft);
	1.1 kg/dm ³ (69 lb/cuft) * with hopper 200 dm ³ (7.06 cuft)
Screw trough, extension hopper, hopper lid:	1.4301 (304SS)
Screws, screw tubes, outlets:	1.4571 (316 SS), 1.4301 (304SS) or polyurethane, food-proof acc. to LMBG*
Non-contact components:	Aluminium, plated or painted steel (RAL 7035)
Extension hopper 100 dm³ (3.53 cuft) 200 dm³ (7.06 cuft) :	Hopper lid for automatic refilling or manual refilling
Screw drive:	0.37 kW (0.5 HP), IP65; ISO class F; TEFC; frequency-controlled
Agitator drive:	0.12 kW (0.16 HP), IP55; ISO class F; TEFC; (option: frequency-controlled)
Power supply:	AC 230/400 V (110VAC/460VAC)- 50Hz** or 266/460 V (230/460VAC) - 60Hz
Net weighing range DLS6 and MD6:	246.5 kg (543 lb) with hopper 100 dm ³ (3.53 cuft)
	233.5 kg (515 lb) with hopper 200 dm ³ (7.06 cuft)
Net weighing range MS6:	216.5 kg (477 lb) with hopper 100 dm ³ (3.53 cuft)
	216,5 kg (477 lb) with hopper 200 dm ³ (7.06 cuft)
* other values upon request	** Three-phase motors are designed for a power supply of: 230/400 V - 50 Hz, and for the operation in TT networks, TN networks or networks with earthed neutral. For different networks adaptation measures are necessary.

Options and Accessories

- Flexible [inlet and vent connections](#)
- Flexible [outlet connections](#)
- Interchangeable screws and screw tubes
- Screw extension 200 mm (7.87 inches)
- [DESTACO clamp fasteners](#) with safety switch
- Versions for higher or lower temperatures than standard
- [Explosion-proof versions](#) as per directive 2014/34/EU (ATEX) or NFPA
- Vertical outlet with [quick release](#)
- [Maintenance disconnect box](#)
- [Filter bag](#) or [JetFilter](#) for vent pipe
- [Turntable](#), [cart mounting](#), [BagDumper](#)
- Pressure compensation for the [outlet](#) and/or [feeder](#) hopper
- Cleaning and refill systems upon request