



Screw Feeder

DSR67

Volumetric and gravimetric



General Information

The [DSR67](#) is a feeder ideal for poor or difficult flowing bulk ingredients at medium feed rates.

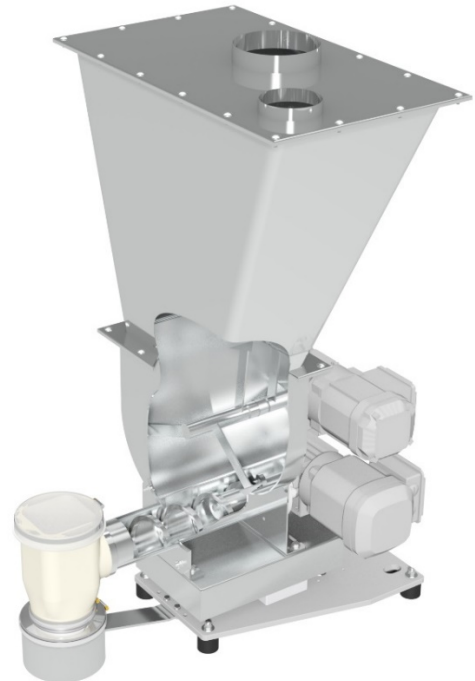
The feeder has the following main components: a stainless steel screw trough, an agitator in the screw trough, a 3 phase motor as agitator drive, a screw, a 3 phase motor as screw drive, a screw tube, an extension hopper with volumes of 35 dm³ (1.24 cuft), 60 dm³ (2.12 cuft) or 110 dm³ (3.88 cuft).

The horizontal agitator works to consistently fill the screw and prevents hopper bridging while providing mass flow. This results in optimal feeder accuracy and control.

The [DSR67](#) is easily disassembled for wet or dry cleaning. All service is from the front or rear.

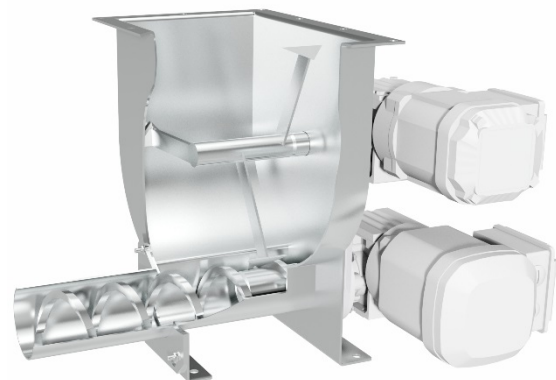
The gravimetric version includes the [weighing systems](#) DLS5, DLS6, MD5 and MD6 featuring a high resolution digital load cell with serial data transmission as well as MS5 and MS6, with strain gauge load cell with advanced filtering technology.

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
35 dm ³ (1.14 cuft) Hopper	DSR67-35Q	DDW-DLS(MD) S 5(6)-DSR67-35Q	DDW-DLS(MD) S 5(6)-DSR67-35Q CM
60 dm ³ (2.12 cuft) Hopper	DSR67-60	DDW-DLS(MD) S 5(6)-DSR67-60	DDW-DLS(MD) S 5(6)-DSR67-60 CM
110 dm ³ (3.88 cuft) Hopper	DSR67-110	DDW-DLS(MD) S 5(6)-DSR67-110	DDW-DLS(MD) S 5(6)-DSR67-110 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 33/35 (TA)	350	38.0x1.5	168 (270) / 100Hz	268 (431)	9.5 (15.2)
	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 33/35	443	48.3x2.0	168 (270) / 100Hz	381 (612)	13.5 (21.6)
	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 DLS5 MD5):	1.1 kg/dm ³ (69 lb/cuft) * with hopper 35 dm ³ (1.24 cuft); 0.7 kg/dm ³ (44 lb/cuft) * with hopper 60 dm ³ (2.12 cuft)
max. bulk density (with DLS6 MD6):	1.5 kg/dm ³ (94 lb/cuft) * with hopper 60 dm ³ (2.12 cuft); 1.5 kg/dm ³ (94 lb/cuft) * with hopper 110 dm ³ (3.88 cuft)
max. bulk density (with MS5):	1.2 kg/dm ³ (75 lb/cuft) * with hopper 35 dm ³ (1.24 cuft); 0.8 kg/dm ³ (50 lb/cuft) * with hopper 60 dm ³ (2.12 cuft)
max. bulk density (with MS6):	1.5 kg/dm ³ (94 lb/cuft) * with hopper 60 dm ³ (2.12 cuft); 1.5 kg/dm ³ 94.lb/cuft) * with hopper 110 dm ³ (3.88 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 35 dm³ (1.24 cuft) or 60 (2.12 cuft) and 110 dm³ (3.88 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), IP65; ISO class F; TEFC; frequency-controlled
Power supply:	AC 230/400 V (110VAC/460VAC)- 50Hz** or 266/460 V (230/460VAC) - 60Hz
Net weighing range DLS5 and MD5:	45 kg (99.2 lb) with hopper 35 dm ³ (1.24 cuft); 41 kg (90.4 lb) with hopper 60 dm ³ (2.12 cuft)
Net weighing range DLS6 and MD6:	271 kg (597.4 lb) with hopper 60 dm ³ (2.12 cuft); 264,5 kg (583.1 lb) with hopper 110 dm ³ (3.88 cuft)
Net weighing range MS5:	50 kg (110.2 lb) with hopper 35 dm ³ (1.24 cuft); 46 kg (101.4 lb) with hopper 60 dm ³ (10.5 cuft)
Net weighing range MS6:	241 kg (531.3.4 lb) with hopper 60 dm ³ (2.12 cuft); 234,5 kg (517 lb) with hopper 110 dm ³ (3.88 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
- [Hopper with horizontal agitator](#)
- [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
- Screw extension 200 mm (7.9 inches)
- 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