



Granule screw

DDW-M-DS60

Gravimetric



General Information

The DS60 screw feeder is capable of reliably metering granules as well as free-flowing and fine-grained bulk ingredients at medium feed rates. There are two feeder types, the type S for standard, or type E for enhanced.

The [type S](#) has the following components: screw drive assembly, 50-litre extension hopper, hopper lid, 3 phase drive unit connected to the screw tube by quick release clamps and feed screw. Cleaning and screw change for the type S is done by opening the latch and pulling the screw out with the drive assembly.

The [type E](#) has the same components as the type S but includes a valve for [complete ingredient discharge](#) and a [sliding guide](#) to allow the screw drive assembly to be disconnected from the screw and moved to one side allowing [full screw removal](#) from the rear.

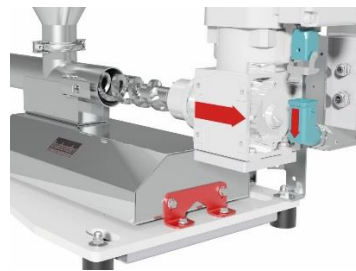
These components are mounted on the analog weighing system MS5, or the digital weighing system DLS5, both featuring a high resolution robust load cell with serial data transmission and advanced filtering technology.

The unit conforms to CE directives.

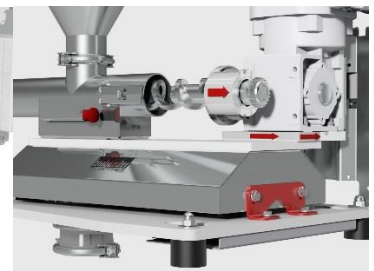


Model Specifications

Screw drive	AC 230/400 /460 V
Drive power	0.37 kW (1/2 HP)
Screw speed	270 min ⁻¹
Screw speed optional	142 min ⁻¹
Agitator in screw trough	No
Agitator drive	--
Drive power	--



[DDW-MS\(DLS\)5-DS60-S-50](#)



[DDW-MS\(DLS\)5-DS60-E-50](#)

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

	gravimetric feeders	
	Control module CB	Control module CB
S-type (standard)	DDW-MS(DLS)5-DS60-S-50	DDW-MS(DLS)5-DS60-S-50 CM
E-type (enhanced)	DDW-MS(DLS)5-DS60-E-50	DDW-MS(DLS)5-DS60-E-50 CM



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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/hr]
Spiral screw with core	S 33/35 C	563	60.3x2.0	142 (270) / 100Hz	330 (620)	11.7 (21.9)
	S 33/35	563	60.3x2.0	142 (270) / 100Hz	430 (820)	15.2 (29.0)
Spiral screw	S 33/50 C	563	60.3x2.0	142 (270) / 100Hz	480 (910)	17.0 (32.1)
	S 33/50	563	60.3x2.0	142 (270) / 100Hz	630 (1190)	22.2 (42.0)
	S 43/27 C	563	60.3x2.0	142 (270) / 100Hz	260 (500)	9.2 (17.7)
	S 43/27	563	60.3x2.0	142 (270) / 100Hz	390 (750)	13.8 (26.5)
	S 43/42 C	563	60.3x2.0	142 (270) / 100Hz	430 (820)	15.2 (29.0)
	S 43/42	563	60.3x2.0	142 (270) / 100Hz	640 (1210)	22.6 (42.7)

* 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. underpressure/overpressure:	3 hPa (3 mbar) / (1.2 inches of water)
Product temperature:	0°C to +60°C / (32°F to 122°F) (others upon request)
max. bulk density (gravimetric):	1.4 kg/dm ³ (87 lb/cuft) (MS5); 1.3 kg/dm ³ (81 lb/cuft) (DLS5) (others upon request)
Screw trough, screw tube, hopper cover:	1.4301 (304)
Hopper cover:	1.4301 (304) for automatic refilling with vent pipe
Spiral screws:	1.4571 (316)
Vertical outlet:	polyurethane, food-proof acc. to LMBG
Non-contact components:	Steel painted (RAL 7035), aluminium
Screw drive:	0.37 Kw (1/2 HP), IP65; ISO class F; TEFC; frequency-controlled
Power supply:	AC 230/400V **-50Hz or 266/460 V - 60Hz
Net weighing range MS5 / DLS5:	69 kg (152 lb) / 64,2 kg (141,5 lb)

** 3 phase motors are designed for a power supply of: 230/400 V, 50 (60) 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 connection](#)
- [Filter bag](#) for vent
- Vertical outlet with [flexible connection](#)
- Horizontal outlet with [flexible connection](#)
- Interchangeable screws
- [Maintenance disconnect box](#), [electrical quick disconnect](#)
- Versions for higher or lower temperatures
- Cleaning and refill systems upon request