FlexWall®
FW155/2-(MS)

Volumetric and gravimetric

General Information

The FlexWall® FW155/2 feeder is ideal for poor or difficult flowing bulk ingredients.

The feeder has the following main components: a stainless steel rectangular housing, a flexible polyurethane trough with a large trough cross-section, external massage paddles with separate drive, a screw, a screw tube, a 3 phase motor and an extension hopper with volumes of 600 dm³ (21.19 cuft) or 1000 dm³ (35.31 cuft).

The shape of the trough and the external adjustable amplitude massage paddles work together to provide consistent screw filling and mass flow without ingredient deterioration. The FW155/2 features a separate paddle drive to allow paddle speed adjustment for difficult flowing ingredients.

Screw removal of the FW155/2 is from the front of the feeder.

The FlexWall® FW155/2 is easily disassembled for wet or dry cleaning as the polyurethane trough that is attached to the housing is easily removed.

The weighing system MS is available as gravimetric version with four high-resolution load cells with advanced filtering technology.

The unit conforms to CE directives.

Model Specification

Screw drive	fixed
Drive power	1.5 kW (2.01 HP)
Screw speed	142 min^{-1}
Massage paddles	yes
Separate paddle drive	yes
Drive power	0,75 kW (1.01 HP)

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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 feeder	gravimetric feeder	
		Control module CB	Control module CM
600 dm³ (21.19 cuft) Hopper	FW155/2-600	DDW-MS-FW155/2-600	DDW-MS-FW155/2-600 CM
1000 dm³ (35.31 cuft) Hopper	FW155/2-1000	DDW-MS-FW155/2-1000	DDW-MS-FW155/2-1000 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]
Spiral Screw (S) (TA= with trough activation)	S 103/105 (TA)	1091	114.3x2.6	142 / 100Hz	7185	253.7
	S 120/120	1270	133.0x3.0	142 / 100Hz	11245	397.1
	S 155/100	1631	168.3x2.6	142 / 100Hz	15503	547.5
	S 155/165	1631	168.3x2.6	142 / 100Hz	25925	915.6
Spiral Screw (S) for granules	S 103/105	1270	133.0x3.0	142 / 100Hz	8870	313.2
	S 120/120	1631	168.3x2.6	142 / 100Hz	15530	548.5
Blade Screw (B)	B 103/105	1091	114.3x2.6	142 / 100Hz	6600	233.1
	B 120/120	1270	133.0x3.0	142 / 100Hz	10530	371.9
	B 155/100	1631	168.3x2.6	142 / 100Hz	14975	528.9
	B 155/165	1631	168.3x2.6	142 / 100Hz	24985	882.4

* 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 have to be considered for gravimetric feeding, as max. speed should be reduced to allow for bulk density variations.

How to read the table of screws

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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 +50°C (32°F to 122°F)
max. bulk density (volumetric):	1.5 kg/dm³ * (94 lb/cuft)
max. bulk density (gravimetric):	1.5 kg/dm³ (94 lb/cuft) with hopper 600 dm³ (21.19 cuft) 1.5 kg/dm³ (94 lb/cuft) with hopper 1000 dm³ (35.31 cuft)
Flexible screw trough:	polyurethane, food-proof acc. to LMBG*
Housing, extension hopper, hopper lid:	1.4301 (304 SS)
Screws, screw tubes, outlets:	1.4571 (316 SS), 1.4301 (304 SS) or polyurethane, food-proof acc. to LMBG*
Non-contact components:	Aluminum, plated or painted steel (RAL 7035)
Extension hopper 600 dm³ (21.19 cuft) or 1000 dm³ (35.31 cuft):	Hopper lid for inlet and vent connections
Screw drive:	1.5 kW (2.04 HP), IP66; ISO class F; TEFC; frequency-controlled
Paddle drive:	0.75 kW (1.01 HP), IP66; ISO class F; TEFC; frequency-controlled
Power supply:	AC 230/400 V (110VAC/460VAC)- 50Hz**
Net weighing range MS:	1740 kg (3836 lb) with hopper 600 dm³ (21.19 cuft)
Net weighing range MS:	1690 kg (3725 lb) with hopper 1000 dm³ (35.31 cuft)

* Optionally available: conductive or chemically resistant FDA approval polyurethane

** 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
- BagDumper (for manual refilling)
- DESTACO clamp fasteners with and without 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 or cart mounting
- Pressure compensation for the outlet and/or feeder hopper
- Cleaning and refill systems upon request