

Volumetric and Gravimetric

### General Information

The FlexWall® [FW155/0](#) 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 cross-section, external massage paddles, a screw, a screw tube, a 3 phase motor and an extension hopper with volumes of 600 dm<sup>3</sup> (21.19 cuft) or 1000 dm<sup>3</sup> (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.

Screw removal of the [FW155/0](#) is from the front of the feeder.

The FlexWall® FW155/0 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 <sup>-1</sup>
Massage paddles	yes
Separate paddle drive	no



### 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
600 dm <sup>3</sup> (21.19 cuft) Hopper	<a href="#">FW155/0-600</a>	<a href="#">DDW-MS-FW155/0-600</a>	<a href="#">DDW-MS-FW155/0-600 CM</a>
1000 dm <sup>3</sup> (35.31 cuft) Hopper	<a href="#">FW155/0-1000</a>	<a href="#">DDW-MS-FW155/0-1000</a>	<a href="#">DDW-MS-FW155/0-1000 CM</a>



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#### Screw Sizes and Feed Rates

Screw type	Designation Ø / p [mm]	Tube designation	Tube dia. [mm]	Max. speed [min <sup>-1</sup> ]	Max. feed rate * [dm <sup>3</sup> /h]	Max. feed rate * [cuft/h]
<a href="#">Spiral Screw (S)</a> <a href="#">(TA= with trough activation)</a>	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
<a href="#">Spiral Screw (S)</a> <a href="#">for granules</a>	S 103/105	1270	133.0x3.0	142 / 100Hz	8870	313.2
	S 120/120	1631	168.3x2.6	142 / 100Hz	15530	548.5
<a href="#">Blade Screw (B)</a>	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](#)

#### Technical Specification

Ambient temperature:	0°C to +45°C (32°F to 113°F)	* 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.
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/dm <sup>3</sup> * (94 lb/cuft)	
max. bulk density (gravimetric):	1.5 kg/dm <sup>3</sup> (94 lb/cuft) with hopper 600dm <sup>3</sup> (21.19 cuft) 1.5 kg/dm <sup>3</sup> (94 lb/cuft) with hopper 1000 dm <sup>3</sup> (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 <a href="#">600 dm<sup>3</sup> (21.19 cuft)</a> or <a href="#">1000 dm<sup>3</sup> (35.31 cuft)</a> :	Hopper lid for inlet and vent connections	
Screw drive:	1.5 kW (2.01 HP), IP66; ISO class F; TEFC; frequency-controlled	
Power supply:	AC 230/400 V (110VAC/460VAC)- 50Hz**	
Net weighing range MS:	1770 kg (3902 lb) with hopper 600 dm <sup>3</sup> (21.19 cuft)	
Net weighing range MS:	1710 kg (3770 lb) with hopper 1000 dm <sup>3</sup> (35.31 cuft)	

#### 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
- Screw extension 400 mm (15.8 inches) (not for blade and fibre screws)
- 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