

Volumetric and Gravimetric

General Information

The FlexWall® [FW120/1](#) feeder is ideal free flowing bulk ingredients. The feeder has the following main components: a stainless steel rectangular housing, a flexible polyurethane trough with a large cross-section, a screw, a screw tube, a 3 phase AC motor and an extension hopper with volumes of 350 dm³(12.25 cuft) or 600 dm³ (21 cuft).

The shape of the trough provides consistent screw filling and mass flow without ingredient deterioration.

Screw removal of the [FW120/1](#) is from the front of the feeder.

The FlexWall® is easily disassembled for wet or dry cleaning as the polyurethane hopper 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	0.75 kW (1.01 HP)
Screw speed	142 min ⁻¹
Massage paddles	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 feeder	gravimetric feeder	
		Control module CB	Control module CM
350 dm ³ (12.36 cuft) Hopper	FW120/1-350	DDW-MS-FW120/1-350	DDW-MS-FW120/1-350 CM
600 dm ³ (21.19 cuft) Hopper	FW120/1-600	DDW-MS-FW120/1-600	DDW-MS-FW120/1-600 CM



FlexWall®

FW120/1 -(MS)



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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/h]
Spiral Screw (S)	S 79/45	843	88.9x2.3	142 / 100Hz	1694	59.8
	S 79/82	843	88.9x2.3	142 / 100Hz	3227	114
	S 103/66	1091	114.3x2.6	142 / 100Hz	4430	156.4
	S 103/105	1091	114.3x2.6	142 / 100Hz	7190	253.9
	S 120/120	1270	133.0x3.0	142 / 100Hz	11251	397.3
Spiral Screw (S) for granules	S 79/45	1091	114.3x2.6	142 / 100Hz	2475	87.4
	S 79/82	1091	114.3x2.6	142 / 100Hz	4656	164.4
	S 103/66	1270	133.0x3.0	142 / 100Hz	5586	197.3
	S 103/105	1270	133.0x3.0	142 / 100Hz	9028	318.8
Blade Screw (B)	B 79/45	843	88.9x2.3	142 / 100Hz	1637	57.8
	B 79/82	843	88.9x2.3	142 / 100Hz	3072	108.5
	B 103/66	1091	114.3x2.6	142 / 100Hz	4084	144.2
	B 103/105	1091	114.3x2.6	142 / 100Hz	6604	233.2
	B 120/120	1270	133.0x3.0	142 / 100Hz	10536	372.1

* 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 ³ * (94 lb/cuft)	
max. bulk density (gravimetric):	1.5 kg/dm ³ (94 lb/cuft) with hopper 350dm ³ (12.36 cuft) 1.2 kg/dm ³ (74 lb/cuft) with hopper 600 dm ³ (21.19 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 350 dm³ (12.36) or 600 dm³ (21.19 cuft) :	Hopper lid for inlet and vent connections	
Screw 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:	670 kg (1477 lb) with hopper 350 dm ³ (12.36 cuft)	
Net weighing range MS:	622 kg (1371 lb) with hopper 600 dm ³ (21.19 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 (15.7 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