FlexWall®
FW120/2-(H33)

Volumetric and gravimetric

General Information

The FlexWall® FW120/2 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, massage paddles with separate drive, a screw, a screw tube, a 3 phase motor and an extension hopper with volumes of 350 dm³ (12.36 cuft) or 600 dm³ (21.19 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 FW120/2 features a separate paddle drive to allow paddle speed adjustment for difficult flowing ingredients.

Screw removal of the FW120/0 is from the front.

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

The gravimetric version includes the H33 weighing system featuring a high resolution digital load cell with serial data transmission and advanced filtering technology.

The unit conforms to CE directives.

Model Specification

Screw drive	fixed
Drive power	0.75 kW (1.02 HP)
Screw speed	142 min^{-1}
Massage paddles	Yes
Separate paddle drive	Yes
Drive power	0.37 kW (0.5 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.

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Technical Drawings and Dimensions

	volumetric feeders	gravimetric feeders	
		Control module CB	Control module CM
350 dm³ (12.36 cuft) Hopper	FW120/2-350	DDW-H33-FW120/2-350	DDW-H33-FW120/2-350 CM
600 dm³ (21.19 cuft) Hopper	FW120/2-600	DDW-H33-FW120/2-600	DDW-H33-FW120/2-600 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 79/45 (TA)	843	88,9x2,3	142 / 100Hz	1694	59.8
	S 79/82 (TA)	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
Fibre Screw (F)	F 12066/90-K60	1270	133,0x3,0	142 / 100Hz	4500	158.9

* 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)	* Optionally available: conductive or chemically resistant FDA approval polyurethane
Humidity of the air: max. vacuum/pressure: Ingredient temperature:	up to 85% without condensation 3 hPa (3 mbar) (1.2 inches of water) 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):	1.2 kg/dm³ (75 lb/cuft) with hopper 350dm³ (12.36 cuft); 0.7 kg/dm³ (44 lb/cuft) with hopper 600 dm³ (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	
Paddle drive:	0,37 kW (1/2 HP), IP66; ISO class F; TEFC; frequency-controlled	
Power supply:	AC 230/400 V (110VAC/460VAC)- 50Hz**	** 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.
Net weighing range H33:	408 kg (900 lb) with hopper 350 dm³ (12.36 cuft)	
Net weighing range H33:	360 kg (794 lb) with hopper 600 dm³ (21.19 cuft)	

Options and Accessories

- Flexible inlet and vent connections
- Flexible outlet connections
- Interchangeable screws and screw tubes, screw troughs
- BagDumper (bag chute 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