



# 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 dm<sup>3</sup> (12.36 cuft) or 600 dm<sup>3</sup> (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 <sup>-1</sup>
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.

### Technical Drawings and Dimensions

	volumetric feeders	gravimetric feeders	
		Control module CB	Control module CM
350 dm <sup>3</sup> (12.36 cuft) Hopper	<a href="#">FW120/2-350</a>	<a href="#">DDW-H33-FW120/2-350</a>	<a href="#">DDW-H33-FW120/2-350 CM</a>
600 dm <sup>3</sup> (21.19 cuft) Hopper	<a href="#">FW120/2-600</a>	<a href="#">DDW-H33-FW120/2-600</a>	<a href="#">DDW-H33-FW120/2-600 CM</a>



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### Available 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 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
<a href="#">Spiral Screw (S) for granules</a>	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
<a href="#">Blade Screw (B)</a>	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
<a href="#">Fibre Screw (F)</a>	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](#)

### 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:	up to 85% without condensation	
max. vacuum/pressure:	3 hPa (3 mbar) (1.2 inches of water)	** 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.
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):	1.2 kg/dm <sup>3</sup> (75 lb/cuft) with hopper 350dm <sup>3</sup> (12.36 cuft); 0.7 kg/dm <sup>3</sup> (44 lb/cuft) with hopper 600 dm <sup>3</sup> (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 <a href="#">350 dm<sup>3</sup> (12.36)</a> or <a href="#">600 dm<sup>3</sup> (21.19 cuft)</a> :	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**	
Net weighing range H33:	408 kg (900 lb) with hopper 350 dm <sup>3</sup> (12.36 cuft)	
Net weighing range H33:	360 kg (794 lb) with hopper 600 dm <sup>3</sup> (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