



FlexWall® Plus

FW80/5

Volumetric and gravimetric



General Information

The FlexWall® Plus [FW80/5](#) feeder is ideal for poor or difficult flowing bulk ingredients. The feeder has the following main components: a stainless steel trapezoidal housing, flexible polyurethane trough with cross-section, external massage paddles with separate drive, a screw, a screw tube, a 3 phase motor and a trapezoidal extension hopper with volumes of 100 dm³ (3.53 cuft) or 200 dm³ (7.06 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 [FW80/5](#) is from the front of the feeder.

The FlexWall® Plus is easily disassembled for wet or dry cleaning as the polyurethane hopper that is attached to the housing is easily removed. Moreover, the [compact trapezoidal shape](#) allows up to 6 feeders to be arranged around a central feed point. All service is from the front or back.

The gravimetric version includes the analog weighing system [MS6](#), or the digital weighing systems [DLS6](#) (Digital Load System) or [MD6](#) (for highest measurement accuracy), both featuring a high resolution robust digital load cell with serial data transmission and advanced filtering technology.

The unit conforms to CE directives.



Model Specification

Screw drive	fixed
Drive power	0,37 kW (0.5 HP)
Screw speed	192 min ⁻¹
Screw speed optional	--
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
100 dm ³ (3.53 cuft) Hopper	FW80/5-100	DDW-DLS(MD)(S)6-FW80/5-100	DDW-DLS(MD)(S)6-FW80/5-100 CM
200 dm ³ (7.06 cuft) Hopper	FW80/5-200	DDW-DLS(MD)(S)6-FW80/5-200	DDW-DLS(MD)(S)6-FW80/2-200 CM



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Available Screw Sizes and Feed Rates

Screw type	Designation ϕ / 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 43/27 (TA)	443	48.3x2.0	192 / 100Hz	368	13
	S 43/42 (TA)	443	48.3x2.0	192 / 100Hz	616	21.8
	S 52/39 (TA)	563	60.3x2.0	192 / 100Hz	796	28.1
	S 52/62 (TA)	563	60.3x2.0	192 / 100Hz	1349	47.6
	S 67/45	715	76.1x2.3	192 / 100Hz	1615	57
	S 67/71	715	76.1x2.3	192 / 100Hz	2662	94
	S 79/45	843	88.9x2.3	192 / 100Hz	2286	80.7
	S 79/82	843	88.9x2.3	192 / 100Hz	4363	154.1
Spiral screw (S) for granules	S 43/27	563	60.3x2.0	192 / 100Hz	505	17.8
	S 43/42	563	60.3x2.0	192 / 100Hz	837	29.6
	S 52/39	715	76.1x2.3	192 / 100Hz	1155	40.8
	S 52/62	715	76.1x2.3	192 / 100Hz	1942	68.6
	S 67/45	843	88.9x2.3	192 / 100Hz	2090	73.8
	S 67/71	843	88.9x2.3	192 / 100Hz	3430	121.1
Blade screw (B)	B 40/32	443	48.3x2.0	192 / 100Hz	302	10.7
	B 40/46	443	48.3x2.0	192 / 100Hz	451	15.9
	B 50/45	563	60.3x2.0	192 / 100Hz	773	27.3
	B 50/70	563	60.3x2.0	192 / 100Hz	1240	43.8
	B 79/50	843	88.9x2.3	192 / 100Hz	2211	78.1
	B 79/88	843	88.9x2.3	192 / 100Hz	4066	143.6
Fiber screw (F)	F 5230/45-K20	563	60.3x2.0	192 / 100Hz	561	19.8
	F 5245/60-K20	563	60.3x2.0	192 / 100Hz	871	30.8
	F 7945/60-K39	843	88.9x2.3	192 / 100Hz	1790	63.2
	F 7945/60-K20	843	88.9x2.3	192 / 100Hz	2213	78.2

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

Technical Specification

Ambient temperature:	0°C to +45°C (32°F to 113°F)	
Humidity of the air:	up to 85% without condensation	* Optionally available: conductive or chemically resistant FDA approval polyurethane
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 100dm ³ (3.53 cuft)	
	1.1 kg/dm ³ (69 lb/cuft) with hopper 200 dm ³ (7.06 cuft)	
Flexible screw trough:	polyurethane, food-proof acc. to LMBG*	
Housing, extension hopper, hopper lid:	1.4301 (304 SS)	** 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.
Screws, screw tubes, outlets:	1.4571 (316 SS), 1.4301 (304 SS) or polyurethane, food-proof acc. to LMBG*	
Non-contact components:	Aluminium, plated or painted steel (RAL 7035)	
Extension hopper: 100 dm ³ (3.53 cuft) or 200 dm ³ (7.06 cuft)	Hopper lid for automatic refilling or manual refilling	
Screw drive:	0.37 kW (0.5 HP), IP65; ISO class F; TEFC; frequency-controlled	
Power supply:	AC 230/400 V (110VAC/460VAC) - 50Hz** or 266/460 V (230/460VAC) - 60Hz	
Net weighing range DLS6/MD6:	238 kg (524.7 lb) with hopper 100dm ³ (3.53 cuft)	
	226 kg (498.2 lb) with hopper 200dm ³ (7.06 cuft)	
Net weighing range MS6:	208 kg (458.5 lb) with hopper 100dm ³ (3.53 cuft)	
	196 kg (432.1 lb) with hopper 200dm ³ (7.06 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
- FlexWall® Plus with [Hygienic Design \(HD\)](#) as per directive 1935/2004 or FDA
- Screw extension 300 mm (11.8 inches) (except for blade and fiber screws)
- Vertical outlet with [quick release](#)
- [Maintenance disconnect box](#)
- [Filter bag](#) or [JetFilter](#) for vent stub
- [Turntable](#) or [cart mounting](#)
- [Pressure compensation](#) for the outlet and/or [feeder hopper](#)
- Cleaning and refill systems upon request