



# FlexWall® Plus

## FW80/2

Volumetric and Gravimetric



### General Information

The FlexWall® Plus [FW80/2](#) feeder is ideal for poor or difficult flowing bulk ingredients. The feeder has the following main components: a stainless steel trapezoidal housing, a flexible polyurethane trough with a large cross-section, external massage paddles with separate drive, a screw, a screw tube, 3 phase motor and a trapezoidal extension hopper with volumes of 100 dm<sup>3</sup> (3.53 cuft) or 200 dm<sup>3</sup> (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. The FW80/2 features a separate paddle drive to allow paddle speed adjustment for difficult flowing ingredients.

The [FW80/2](#) features a hinged motor for screw change from the rear.

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. Service can be 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	hinged
Drive power	0.37 kW (0.5 HP)
Screw speed	198 min <sup>-1</sup>
Screw speed optional	346 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		
		Control module CB	Control module CM
100 dm <sup>3</sup> (3.53 cuft) hopper	<a href="#">FW80/2-100</a>	<a href="#">DDW-DLS(MD)(S)6-FW80/2-100</a>	<a href="#">DDW-DLS(MD)(S)6-FW80/2-100 CM</a>
200 dm <sup>3</sup> (7.06 cuft) hopper	<a href="#">FW80/2-200</a>	<a href="#">DDW-DLS(MD)(S)6-FW80/2-200</a>	<a href="#">DDW-DLS(MD)(S)6-FW80/2-200 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/hr]
<a href="#">Spiral screw (S)</a>  <a href="#">(TA= with trough activation)</a>	S 43/27 (TA)	443	48.3x2.0	198 (346) / 100Hz	380 (663)	13.4 (23.4)
	S 43/42 (TA)	443	48.3x2.0	198 (346) / 100Hz	635 (1110)	22.4 (39.2)
	S 52/39 (TA)	563	60.3x2.0	198 (346) / 100Hz	821 (1433)	29 (50.6)
	S 52/62 (TA)	563	60.3x2.0	198 (346) / 100Hz	1391 (2431)	49.1 (85.9)
	S 67/45	715	76.1x2.3	198 (346) / 100Hz	1665 (2911)	58.8 (102.8)
	S 67/71	715	76.1x2.3	198 (346) / 100Hz	2745 (4796)	96.9 (169.4)
	S 79/45	843	88.9x2.3	198 (346) / 100Hz	2357 (4120)	83.2 (145.5)
<a href="#">Spiral screw (S) for granules</a>	S 43/27	563	60.3x2.0	198 (346) / 100Hz	521 (910)	18.4 (32.1)
	S 43/42	563	60.3x2.0	198 (346) / 100Hz	863 (1509)	30.5 (53.3)
	S 52/39	715	76.1x2.3	198 (346) / 100Hz	1191 (2081)	42.1 (73.5)
	S 52/62	715	76.1x2.3	198 (346) / 100Hz	2003 (3499)	70.7 (123.6)
	S 67/45	843	88.9x2.3	198 (346) / 100Hz	2155 (3766)	76.1 (133)
	S 67/71	843	88.9x2.3	198 (346) / 100Hz	3537 (6180)	124.9 (218.3)
<a href="#">Blade screw (B)</a>	198 min-1	443	48.3x2.0	198 (346) / 100Hz	311 (543)	11 (19.2)
	B 40/46	443	48.3x2.0	198 (346) / 100Hz	465 (813)	16.4 (28.7)
	B 50/45	563	60.3x2.0	198 (346) / 100Hz	797 (1393)	28.1 (49.2)
	B 50/70	563	60.3x2.0	198 (346) / 100Hz	1279 (2234)	45.2 (78.9)
	B 79/50	843	88.9x2.3	198 (346) / 100Hz	2280 (3985)	80.5 (140.7)
	B 79/88	843	88.9x2.3	198 (346) / 100Hz	4193 (7328)	148.1 (258.8)
<a href="#">Fiber screw (F)</a>	F 5230/45-K20	563	60.3x2.0	198 (346) / 100Hz	579 (**)	20.4 (**)
	F 5245/60-K20	563	60.3x2.0	198 (346) / 100Hz	898 (**)	31.7 (**)
	F 7945/60-K39	843	88.9x2.3	198 (346) / 100Hz	1846 (**)	65.2 (**)
	F 7945/60-K20	843	88.9x2.3	198 (346) / 100Hz	2282 (**)	80.6 (**)

\* 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.

\*\* Available upon request

[How to read the table of screws](#)

### Technical Specification

Ambient temperature:	0°C to +45°C (32°F to 113°F)	* Available options: 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)	** 3 phase motors are designed for a power supply of: 230/400 V, 50 (60) Hz, and for the operation in TT networks, TN networks or networks with earthed neutral conductor. For different networks adaptation measures are necessary.
Product 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 100dm <sup>3</sup> (3.53 cuft); 1.0 kg/dm <sup>3</sup> (69 lb/cuft) with hopper 200 dm <sup>3</sup> (7.06 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:	Aluminium, plated or painted steel (RAL 7035)	
100 or 200 dm <sup>3</sup> extension hopper	Hopper lid <a href="#">for automatic refilling</a> with vent pipe or <a href="#">manual refilling</a>	
Screw drive:	0.37 kW (0.5 HP), IP65; ISO class F; TEFC; frequency-controlled	
Paddle drive (FW80/2; FW80/7 only):	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:	226 kg (498.2 lb) with hopper 100 dm <sup>3</sup> (3.53 cuft)	
	214 kg (471.8 lb) with hopper 200 dm <sup>3</sup> (7.06 cuft)	
Net weighing range MS6:	196 kg (432.1 lb) with hopper 100 dm <sup>3</sup> (3.53 cuft)	
	184 kg (405.6 lb) with hopper 200 dm <sup>3</sup> (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 and lower temperatures than standard
- [Explosion-proof executions](#) 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 (11.81 inches) (not 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 the [feeder hopper](#)
- Cleaning and refill systems upon request