

Volumetric and Gravimetric

### General Information

The FlexWall® Plus [FW40/6](#) feeder is ideal for free flowing bulk ingredients. The feeder has the following main components: a stainless steel trapezoidal housing, flexible polyurethane trough with a large cross-section, a screw, a screw tube, a 3 phase motor and an extension hopper with volumes of 50 dm<sup>3</sup> (1.77 cuft) or 70 dm<sup>3</sup> (2.47 cuft).

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

Screw removal of the [FW40/6](#) 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 be from the front or back.

The gravimetric version includes the analog weighing system [MSS](#), or the digital weighing system [MD5](#) (for highest measurement accuracy), 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	198 min <sup>-1</sup>
Screw speed optional	346 min <sup>-1</sup>
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 feeders	gravimetric feeder	
		Control module CB	Control module CM
50 dm <sup>3</sup> (1.75 cuft) hopper	<a href="#">FW40/6-50</a>	<a href="#">DDW-M5-FW40/6-50</a>	<a href="#">DDW-M5-FW40/6-50 CM</a>
70 dm <sup>3</sup> (2.45 cuft) hopper	<a href="#">FW40/6-70</a>	<a href="#">DDW-M5-FW40/6-70</a>	<a href="#">DDW-M5-FW40/6-70 CM</a>



# FlexWall® Plus

## FW40/6



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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>	S 20/15	210	25.0x2.0	198 (346) / 100Hz	41 (72)	1.4 (2.5)
	S 20/19	210	25.0x2.0	198 (346) / 100Hz	56 (97)	2 (3.4)
	S 20/24	210	25.0x2.0	198 (346) / 100Hz	74 (129)	2.6 (4.6)
	S 24/27	260	30.0x2.0	198 (346) / 100Hz	126 (220)	4.4 (7.8)
	S 24/35	260	30.0x2.0	198 (346) / 100Hz	167 (292)	5.9 (10.3)
	S 30/22	320	38.0x3.0	198 (346) / 100Hz	134 (235)	4.7 (8.3)
	S 30/35	320	38.0x3.0	198 (346) / 100Hz	225 (395)	8.0 (14.0)
	S 33/35	350	38.0x1.5	198 (346) / 100Hz	317 (553)	11.2 (19.5)
	S 43/27	443	48.3x2.0	198 (346) / 100Hz	380 (663)	13.4 (23.4)
	S 43/42	443	48.3x2.0	198 (346) / 100Hz	635 (1110)	22.4 (39.2)
<a href="#">Spiral screw (S) for granules</a>	S 20/15	320	38.0x3.0	198 (346) / 100Hz	74 (130)	2.6 (4.6)
	S 20/19	320	38.0x3.0	198 (346) / 100Hz	99 (174)	3.5 (6.1)
	S 20/24	320	38.0x3.0	198 (346) / 100Hz	131 (228)	4.6 (8.1)
	S 24/27	350	38.0x1.5	198 (346) / 100Hz	195 (341)	6.9 (12)
	S 24/35	350	38.0x1.5	198 (346) / 100Hz	259 (452)	9.1 (16)
	S 30/22	443	48.3x2.0	198 (346) / 100Hz	232 (406)	8.2 (14.3)
	S 30/35	443	48.3x2.0	198 (346) / 100Hz	386 (675)	13.6 (23.8)
	S 33/35	443	48.3x2.0	198 (346) / 100Hz	442 (774)	15.6 (27.3)
<a href="#">Blade screw (B)</a>	B 28/28	320	38.0x3.0	198 (346) / 100Hz	136 (238)	4.8 (8.4)
	B 32/38	350	38.0x1.5	198 (346) / 100Hz	267 (467)	9.4 (16.5)
	B 40/32	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)

\* 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)	* 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)	
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):	1.1 kg/dm <sup>3</sup> (69 lb/cuft)* with hopper 50 dm <sup>3</sup> (1.77 cuft) 0.8 kg/dm <sup>3</sup> (50 lb/cuft) * with hopper 70 dm <sup>3</sup> (2.47 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)	
50 or 70 dm <sup>3</sup> extension hopper	Hopper lid for <a href="#">automatic refilling</a> with vent pipe or <a href="#">manual refilling</a>	** 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.
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 MD5:	56 kg (123.5 lb) with hopper 50 dm <sup>3</sup> (1.77 cuft) 53 kg (116.8 lb) with hopper 70 dm <sup>3</sup> (2.47 cuft)	
Net weighing range MS5:	57 kg (125.7 lb) with hopper 50 dm <sup>3</sup> (1.77 cuft) 54 kg (119 lb) with hopper 70 dm <sup>3</sup> (2.47 cuft)	

### Options and Accessories

- Flexible [inlet and vent connections](#)
- Flexible [outlet connections](#)
- Interchangeable screws and screw tubes
- [DESTACO clamp fasteners](#) with and without safety switch
- Versions for higher and 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 150 mm (5.9 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 [feeder hopper](#)
- Cleaning and refill systems upon request