



# FlexWall® Plus

## FW40/7

Volumetric and Gravimetric



### General Information

The FlexWall® Plus [FW40/7](#) 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 a large 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 50 dm<sup>3</sup> (1.77 cuft) or 70 dm<sup>3</sup> (2.47 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 [FW40/7](#) features a separate paddle drive to allow paddle speed adjustment for difficult flowing ingredients.

Screw removal of the FW40/7 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. 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.

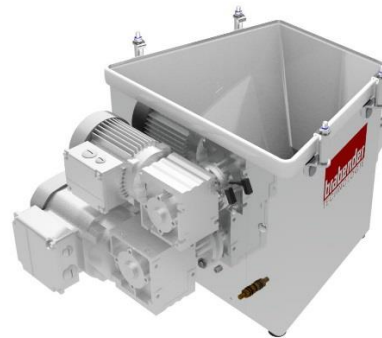
The gravimetric version includes the analog weighing system [MSS](#), or the digital weighing systems [DLS5](#) (Digital Load System) or [MDS](#) (for highest measurement accuracy), both featuring a high resolution robust digital load cell with serial data transmission and advanced filtering technology.

The unit conforms to CE directives.



### Model Specification

Screw drive	fixed
Drive Power	0.37 kW (0.5 HP)
Screw speed	192 min <sup>-1</sup>
Screw speed optional	335 min <sup>-1</sup>
Massage paddles	Yes
Separate paddle drive	Yes
Drive power	0.12 kW (0.16 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
50 dm <sup>3</sup> (1.77 cuft) hopper	<a href="#">FW40/7-50</a>	<a href="#">DDW-DLS(MD)(S)5-FW40/7-50</a>	<a href="#">DDW-DLS(MD)(S)5-FW40/7-50 CM</a>
70 dm <sup>3</sup> (2.47 cuft) hopper	<a href="#">FW40/7-70</a>	<a href="#">DDW-DLS(MD)(S)5-FW40/7-70</a>	<a href="#">DDW-DLS(MD)(S)5-FW40/7-70 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 20/15 (TA)	210	25.0x2.0	192 (335) / 100Hz	40 (70)	1.4 (2.5)
	S 20/19 (TA)	210	25.0x2.0	192 (335) / 100Hz	54 (94)	1.9 (3.3)
	S 20/24 (TA)	210	25.0x2.0	192 (335) / 100Hz	72 (125)	2.5 (4.4)
	S 24/27 (TA)	260	30.0x2.0	192 (335) / 100Hz	122 (213)	4.3 (7.5)
	S 24/35 (TA)	260	30.0x2.0	192 (335) / 100Hz	162 (283)	5.7 (10)
	S 28/22 (TA)	320	38.0x3.0	192 (335) / 100Hz	134 (234)	4.7 (8.3)
	S 28/35 (TA)	320	38.0x3.0	192 (335) / 100Hz	225 (393)	7.9 (13.9)
	S 33/35	350	38.0x1.5	192 (335) / 100Hz	307 (535)	10.8 (18.9)
	S 43/27	443	48.3x2.0	192 (335) / 100Hz	368 (642)	13 (22.7)
	S 43/42	443	48.3x2.0	192 (335) / 100Hz	616 (1075)	21.8 (38)
<a href="#">Spiral screw (S) for granules</a>	S 20/15	320	38.0x3.0	192 (335) / 100Hz	72 (126)	2.5 (4.4)
	S 20/19	320	38.0x3.0	192 (335) / 100Hz	96 (168)	3.4 (5.9)
	S 20/24	320	38.0x3.0	192 (335) / 100Hz	127 (221)	4.5 (7.8)
	S 24/27	350	38.0x1.5	192 (335) / 100Hz	189 (330)	6.7 (11.7)
	S 24/35	350	38.0x1.5	192 (335) / 100Hz	251 (438)	8.9 (15.5)
	S 28/22	443	48.3x2.0	192 (335) / 100Hz	232 (405)	8.2 (14.3)
	S 28/35	443	48.3x2.0	192 (335) / 100Hz	385 (672)	13.6 (23.7)
	S 33/35	443	48.3x2.0	192 (335) / 100Hz	429 (749)	25.7 (26.5)
<a href="#">Blade screw (B)</a>	B 28/28	320	38.0x3.0	192 (335) / 100Hz	132 (230)	4.7 (8.1)
	B 32/38	350	38.0x1.5	192 (335) / 100Hz	259 (452)	9.1 (16)
	B 40/32	443	48.3x2.0	192 (335) / 100Hz	302 (526)	10.7 (18.6)
	B 40/46	443	48.3x2.0	192 (335) / 100Hz	451 (787)	15.9 (27.8)
<a href="#">Fiber screw (F)</a>	F 3322/35-K23	350	38.0x1.5	192 (335) / 100Hz	101 (**)	3.6 (**)
	F 3322/35-K12	350	38.0x1.5	192 (335) / 100Hz	170 (**)	6 (**)
	F 4032/46-K15	443	48.3x2.0	192 (335) / 100Hz	372 (**)	13.1 (**)

\* 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

### 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):	0.9 kg/dm <sup>3</sup> (56 lb/cuft) with hopper 50dm <sup>3</sup> (1.77 cuft) 0.6 kg/dm <sup>3</sup> (38 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:	Galvanized 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	
Paddle drive (FW40/2; FW40/7 only):	0.12 kW (0.16 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 DLS5/MD5:	45 kg (99.2 lb) with hopper 50 dm <sup>3</sup> (1.77 cuft) 42 kg (92.6 lb) with hopper 70 dm <sup>3</sup> (2.47 cuft)	
Net weighing range MS5:	50 kg (110.2 lb) with hopper 50 dm <sup>3</sup> (1.77 cuft) 47 kg (103.6 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 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 150 mm (5.9 inches) (not for blade and fiber screws)
- Vertical outlet with [quick release](#)
- [Maintenance disconnect box](#)
- [Filter bag](#) or [JetFilter](#) for ventstubb
- [Turntable](#) or [cart mounting](#)
- [Pressure compensation for the outlet](#) and/or [feeder hopper](#)
- Cleaning and refill systems upon request