



FlexWall® Plus

FW80/1



Volumetric and Gravimetric

General Information

The FlexWall® Plus [FW80/1](#) 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 trough cross-section, a feed screw, a screw tube, 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 provides consistent screw filling and mass flow without ingredient deterioration.

The [FW80/1](#) 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 system [MD6](#) (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 | hinged |
| Drive power | 0.37 kW (0.5 HP) |
| Screw speed | 198 min ⁻¹ |
| Screw speed optional | 346 min ⁻¹ |
| Massage paddles | no |
| 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 feeder | |
|--|----------------------------|-----------------------------------|--------------------------------------|
| | | Control module CB | Control module CM |
| 100 dm ³ (3.53 cuft) hopper | FW80/1-100 | DDW-M6-FW80/1-100 | DDW-M6-FW80/1-100 CM |
| 200 dm ³ (7.06 cuft) hopper | FW80/1-200 | DDW-M6-FW80/1-200 | DDW-M6-FW80/1-200 CM |



FlexWall® Plus

FW80/1



Volumetric and Gravimetric

Available Screw Sizes and Feed Rates

| Screw type | Designation Ø / p [mm] | Tube designation | Tube dia. [mm] | Max. speed [min ⁻¹] | Max. feed rate * [dm ³ /h] | Max. feed rate* [cuft/hr] |
|---|------------------------|------------------|----------------|---------------------------------|---------------------------------------|---------------------------|
| Spiral screw (S) | 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) |
| | S 52/39 | 563 | 60.3x2.0 | 198 (346) / 100Hz | 821 (1433) | 29 (50.6) |
| | S 52/62 | 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) |
| | S 79/82 | 843 | 88.9x2.3 | 198 (346) / 100Hz | 4499 (7863) | 158.9 (277.7) |
| Spiral screw (S) for granules | 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) |
| Blade Screw (B) Stainless Steel | 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) |
| Blade Screw (B) Polyurethan | 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) |

* 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.

**alternatively also available as stainless steel version

[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 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) | |
| 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 ³ extension hopper | Hopper lid for automatic refilling with vent pipe or manual refilling | |
| Screw drive: | 0.37 kW (1/2 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 MD6: | 243 kg (535.7 lb) with hopper 100 dm ³ (1.75 cuft) 231 kg (509.2 lb) with hopper 200 dm ³ (7.06 cuft) | |
| Net weighing range MS6: | 213 kg (469.5 lb) with hopper 100 dm ³ (1.75 cuft) 201 kg (443.1 lb) with hopper 200 dm 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 and lower temperatures
- [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) (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