



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, 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 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 | fixed |
| Drive power | 0,37 kW (0.5 HP) |
| Screw speed | 198 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-M6-FW80/5-100 | DDW-M6-FW80/5-100 CM |
| 200 dm ³ (7.06 cuft) Hopper | FW80/5-200 | DDW-M6-FW80/5-200 | DDW-M6-FW80/5-200 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 | 198 / 100Hz | 380 | 13.4 |
| | S 43/42 (TA) | 443 | 48.3x2.0 | 198 / 100Hz | 635 | 22.4 |
| | S 52/39 (TA) | 563 | 60.3x2.0 | 198 / 100Hz | 821 | 29 |
| | S 52/62 (TA) | 563 | 60.3x2.0 | 198 / 100Hz | 1391 | 49.1 |
| | S 67/45 | 715 | 76.1x2.3 | 198 / 100Hz | 1665 | 58.8 |
| | S 67/71 | 715 | 76.1x2.3 | 198 / 100Hz | 2745 | 96.9 |
| | S 79/45 | 843 | 88.9x2.3 | 198 / 100Hz | 2357 | 83.2 |
| | S 79/82 | 843 | 88.9x2.3 | 198 / 100Hz | 4499 | 158.9 |
| Spiral screw (S) for granules | S 43/27 | 563 | 60.3x2.0 | 198 / 100Hz | 521 | 18.4 |
| | S 43/42 | 563 | 60.3x2.0 | 198 / 100Hz | 863 | 30.5 |
| | S 52/39 | 715 | 76.1x2.3 | 198 / 100Hz | 1191 | 42.1 |
| | S 52/62 | 715 | 76.1x2.3 | 198 / 100Hz | 2003 | 70.7 |
| | S 67/45 | 843 | 88.9x2.3 | 198 / 100Hz | 2155 | 76.1 |
| | S 67/71 | 843 | 88.9x2.3 | 198 / 100Hz | 3537 | 124.9 |
| Blade Screw (B) Stainless Steel | B 40/32 | 443 | 48.3x2.0 | 198 / 100Hz | 311 | 11 |
| | B 40/46 | 443 | 48.3x2.0 | 198 / 100Hz | 465 | 16.4 |
| Blade Screw (B) Polyurethan | B 50/45 ** | 563 | 60.3x2.0 | 198 / 100Hz | 797 | 28.1 |
| | B 50/70 ** | 563 | 60.3x2.0 | 198 / 100Hz | 1279 | 45.2 |
| | B 79/50 ** | 843 | 88.9x2.3 | 198 / 100Hz | 2280 | 80.5 |
| | B 79/88 ** | 843 | 88.9x2.3 | 198 / 100Hz | 4193 | 148.1 |
| Fiber screw (F) | F 5230/45-K20 | 563 | 60.3x2.0 | 198 / 100Hz | 579 | 20.4 |
| | F 5245/60-K20 | 563 | 60.3x2.0 | 198 / 100Hz | 898 | 31.7 |
| | F 7945/60-K39 | 843 | 88.9x2.3 | 198 / 100Hz | 1846 | 65.2 |
| | F 7945/60-K20 | 843 | 88.9x2.3 | 198 / 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 must 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 +40°C (32°F to 104°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) | |
| Screws, screw tubes, outlets: | 1.4571 (316 SS), 1.4301 (304 SS) or polyurethane, food-proof acc. to LMBG* | ** 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. |
| 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 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