

Volumetric and gravimetric

## General Information

The FlexWall® [FW155/0](#) is a feeder ideal for poor or difficult flowing bulk ingredients. The feeder has the following main components: a stainless steel rectangular housing, a flexible polyurethane trough with a large cross-section, massage paddles, a screw, a screw tube, a 3 phase motor and an extension hopper with volumes of 600 dm<sup>3</sup> (21.19 cuft) or 1000 dm<sup>3</sup> (35.31 cuft).

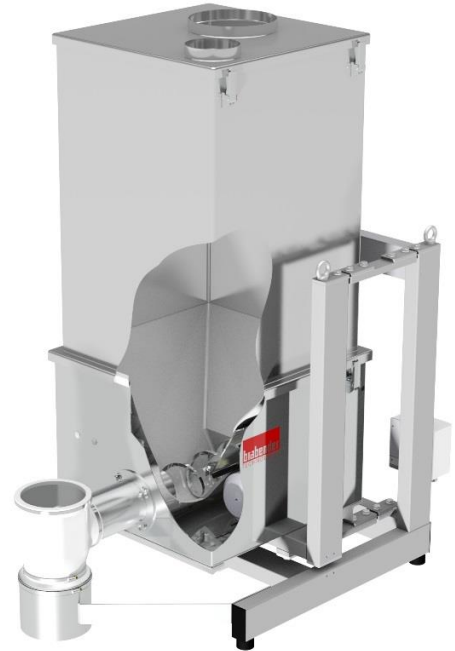
The shape of the trough and the external adjustable amplitude massage paddles work together to provide consistent screw filling and mass flow without ingredient deterioration.

Screw removal of the [FW155/0](#) is from the front.

The FlexWall® is easily disassembled for wet or dry cleaning as the polyurethane trough that is attached to the housing is easily removed.

The gravimetric version includes the [H34 weighing system](#) featuring a high resolution digital load cell with serial data transmission, strain gauge load cell with advanced filtering technology.

The unit conforms to CE directives.



## Model Specification

|                       |                       |
|-----------------------|-----------------------|
| Screw drive           | fixed                 |
| Drive power           | 1.5 kW (2.04 HP)      |
| Screw speed           | 142 min <sup>-1</sup> |
| 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                       |
| 600 dm <sup>3</sup> (21.19 cuft) Hopper  | <a href="#">FW155/0-600</a>  | <a href="#">DDW-H34-FW155/0-600</a>  | <a href="#">DDW-H34-FW155/0-600 CM</a>  |
| 1000 dm <sup>3</sup> (35.31 cuft) Hopper | <a href="#">FW155/0-1000</a> | <a href="#">DDW-H34-FW155/0-1000</a> | <a href="#">DDW-H34-FW155/0-1000 CM</a> |



# FlexWall®

## FW155/0 -(H34)



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### 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/h] |
|--|------------------------|------------------|----------------|---------------------------------|---------------------------------------|---------------------------|
| <a href="#">Spiral screw (S)</a><br><a href="#">(TA= with trough activation)</a> | S 103/105 (TA)         | 1091             | 114.3x2.6      | 142 / 100Hz                     | 7185                                  | 253.7                     |
|  | S 120/120              | 1270             | 133.0x3.0      | 142 / 100Hz                     | 11245                                 | 397.1                     |
|  | S 155/100              | 1631             | 168.3x2.6      | 142 / 100Hz                     | 15503                                 | 547.5                     |
|  | S 155/165              | 1631             | 168.3x2.6      | 142 / 100Hz                     | 25925                                 | 915.6                     |
| <a href="#">Spiral screw (S) for granules</a>                                    | S 103/105              | 1270             | 133.0x3.0      | 142 / 100Hz                     | 8870                                  | 313.2                     |
|  | S 120/120              | 1631             | 168.3x2.6      | 142 / 100Hz                     | 15530                                 | 548.5                     |
| <a href="#">Blade screw (B)</a>  | B 103/105              | 1091             | 114.3x2.6      | 142 / 100Hz                     | 6600                                  | 233.1                     |
|  | B 120/120              | 1270             | 133.0x3.0      | 142 / 100Hz                     | 10530                                 | 371.9                     |
|  | B 155/100              | 1631             | 168.3x2.6      | 142 / 100Hz                     | 14975                                 | 528.9                     |
|  | B 155/165              | 1631             | 168.3x2.6      | 142 / 100Hz                     | 24985                                 | 882.4                     |

\* 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)   | * Optionally available: conductive or chemically resistant FDA approval polyurethane<br><br>** 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. |
| Humidity of the air:   | up to 85% without condensation   |  |
| 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 <sup>3</sup> * (94 lb/cuft)  |  |
| max. bulk density (gravimetric):   | 1.5 kg/dm <sup>3</sup> (94 lb/cuft) with hopper 600dm <sup>3</sup> (21.19 cuft)<br>1.3 kg/dm <sup>3</sup> (81 lb/cuft) with hopper 1000 dm <sup>3</sup> (35.31 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)   |  |
| Extension hopper <a href="#">600 dm<sup>3</sup> (21.19 cuft)</a> or <a href="#">1000 dm<sup>3</sup> (35.31 cuft)</a> : | Hopper lid for inlet and vent connections  |  |
| Screw drive:   | 1.5 kW (2.04 HP), IP66; ISO class F; TEFC; frequency-controlled  |  |
| Power supply:  | AC 230/400 V (110VAC/460VAC)- 50Hz**   |  |
| Net weighing range H34:  | 1200 kg (2646 lb) with hopper 600 dm <sup>3</sup> (21.19 cuft)   |  |
| Net weighing range H34:  | 1150 kg (2535 lb) with hopper 1000 dm <sup>3</sup> (35.31 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
- Vertical outlet with [quick release](#)
- [Maintenance disconnect box](#)
- [Filter bag](#) or [JetFilter](#) for vent pipe
- [Turntable](#) or [cart mounting](#)
- [Pressure compensation for the outlet](#) and/or [feeder hopper](#)
- Cleaning and refill systems upon request