

## Brabender FlexWall® Plus Feeder FW40/1(2)[7]

The Brabender FW40 FlexWall® Plus feeder is capable of reliably and accurately metering bulk ingredients and fibers with temperatures from 0 to 50°C (32-122°F).

The feeder has the following main components: a stainless steel trapezoidal exterior, a flexible polyurethane hopper, external massage paddles (the FW40/1 model is without paddles), a feed screw, a feed screw tube, a 3 phase AC motor and a trapezoidal extension hopper for ingredient storage. Extension hoppers are available with 50 dm<sup>3</sup> (1.8 ft<sup>3</sup>) or 70 dm<sup>3</sup> (2.5 ft<sup>3</sup>) volume.

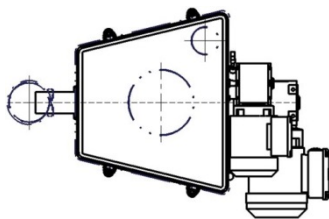
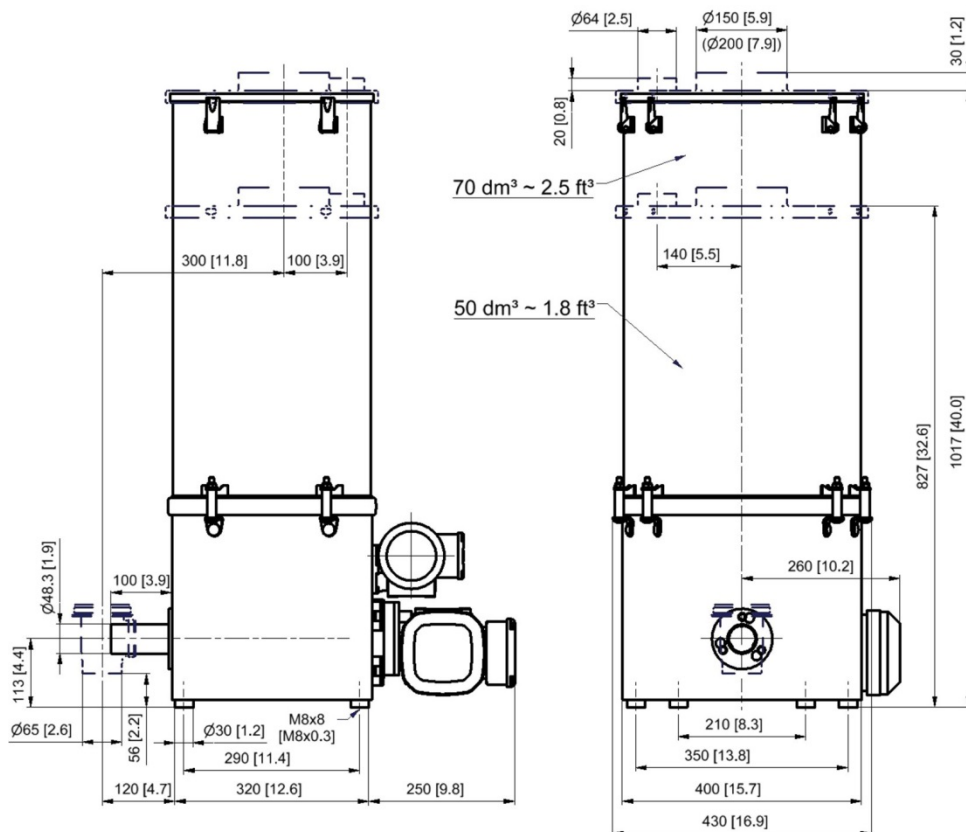
These components work together to provide consistent screw filling and mass flow of ingredient without degradation since the trapezoidal hopper shape naturally induces ingredient flow and the motor driven (amplitude adjustable) paddles flex the polyurethane hopper walls to promote ingredient flow into the screw. The FW40/2 and the FW40/7 use a separate motor for the external

massaging paddles to allow paddle speed adjustment for difficult flowing ingredients. Free flowing ingredients can use the non agitated FW40/1 feeder.

Other advantages of the Brabender FlexWall® Plus feeder are that it is easily disassembled for wet or dry cleaning as the polyurethane hopper is molded to easily fit on the stainless steel housing, and that the compact trapezoidal shape allows up to 6 feeders to be compactly arranged around a central feed point. All service is from the front or back.

Options include a scale to allow gravimetric loss-in-weight feeding and interchangeable screws. For screw removal from the rear models with hinged motors are available.

Ingredient contact steel parts are made of stainless steel. Mild steel parts are painted light grey (RAL 7035). Environmental conditions: 0-45°C (32-113°F), up to 85% humidity without condensation. The feeder conforms to CE directives.



Dimensions in mm (in)

Model	Motor	kW	rpm (optional)	Paddles	Separate paddle drive	kW
FW40/1	hinged	0.37	192 (335)	no	no	---
FW40/2	hinged	0.37	192 (335)	yes	yes	0.12
FW40/7	fixed	0.37	192 (335)	yes	yes	0.12

- Weight without extension hopper approx. 44 kg/97 lb
- Weight with 50 dm<sup>3</sup>/1.8 ft<sup>3</sup> extension hopper approx. 52 kg/115 lb
- Weight with 70 dm<sup>3</sup>/2.5 ft<sup>3</sup> extension hopper approx. 55 kg/121 lb

## Technical Data

### Available screw sizes and feed rates

Screw Type	Ø (mm) x p (mm)	Tube designation	Tube dia. (mm)	Max. speed (rpm)	Max. feed rate (dm³/hr)*	Max. feed rate (ft³/hr)*
<b>Spiral Screw (S)</b> (TA = trough agitation)	S 20/15 (TA)	210	25.0 x 2.0	192 (335) / 100 Hz	40 (70)	1.4 (2.4)
	S 20/19 (TA)	210	25.0 x 2.0	192 (335) / 100 Hz	54 (94)	1.9 (3.3)
	S 20/24 (TA)	210	25.0 x 2.0	192 (335) / 100 Hz	72 (125)	2.5 (4.4)
	S 24/27 (TA)	260	30.0 x 2.0	192 (335) / 100 Hz	122 (213)	4.3 (7.4)
	S 24/35 (TA)	260	30.0 x 2.0	192 (335) / 100 Hz	162 (283)	5.7 (9.9)
	S 28/22 (TA)	320	38.0 x 3.0	192 (335) / 100 Hz	134 (234)	4.7 (8.2)
	S 28/35 (TA)	320	38.0 x 3.0	192 (335) / 100 Hz	225 (393)	7.9 (13.7)
	S 33/35	350	38.0 x 1.5	192 (335) / 100 Hz	307 (535)	10.7 (18.7)
	S 43/27	443	48.3 x 2.0	192 (335) / 100 Hz	368 (642)	12.9 (22.5)
	S 43/42	443	48.3 x 2.0	192 (335) / 100 Hz	616 (1075)	21.6 (37.6)
	<b>Pellet Screw (S)</b>	S 20/15	320	38.0 x 3.0	192 (335) / 100 Hz	72 (126)
S 20/19		320	38.0 x 3.0	192 (335) / 100 Hz	96 (168)	3.4 (5.9)
S 20/24		320	38.0 x 3.0	192 (335) / 100 Hz	127 (221)	4.4 (7.7)
S 24/27		350	38.0 x 1.5	192 (335) / 100 Hz	189 (330)	6.6 (11.5)
S 24/35		350	38.0 x 1.5	192 (335) / 100 Hz	251 (438)	8.8 (15.3)
S 28/22		443	48.3 x 2.0	192 (335) / 100 Hz	232 (405)	8.1 (14.2)
S 28/35		443	48.3 x 2.0	192 (335) / 100 Hz	385 (672)	13.5 (23.5)
S 33/35		443	48.3 x 2.0	192 (335) / 100 Hz	429 (749)	15.0 (26.2)
<b>Blade Screw (B)</b>		B 28/28	320	38.0 x 3.0	192 (335) / 100 Hz	132 (230)
	B 32/38	350	38.0 x 1.5	192 (335) / 100 Hz	259 (452)	9.1 (15.8)
	B 40/32	443	48.3 x 2.0	192 (335) / 100 Hz	302 (526)	10.6 (18.4)
	B 40/46	443	48.3 x 2.0	192 (335) / 100 Hz	451 (787)	15.8 (27.5)
<b>Fiber Screw (F)</b>	F 3322/35-K23	350	38.0 x 1.5	192 (335) / 100 Hz	101 (176)	3.5 (6.2)
	F 3322/35-K12	350	38.0 x 1.5	192 (335) / 100 Hz	170 (297)	6.0 (10.4)
	F 4032/46-K15	443	48.3 x 2.0	192 (335) / 100 Hz	372 (648)	13.0 (22.7)

\* Theoretical values at 100% screw filling level and motor speed. Depending on the flow characteristics the screw filling level may decrease to 50%.



#### FlexWall®Plus Feeder FW40

- Stainless steel trapezoidal housing
- Interchangeable screws
- Paddle-massaged flexible polyurethane hopper (FW40/1 is without paddles)
- Variable frequency driven 3 phase AC motor\* (0.37 kW, IP65, insulation class F, TEFC), max. screw speed optionally 192 or 335 rpm. FW40/1 and FW40/2 have hinged motors.
- FW40/2 and FW40/7 only: second 3 phase AC motor\* for separate paddle drive (0.12 kW, IP65, insulation class F, TEFC)
- Ingredient contact surfaces are polyurethane and SS 1.4301 (304), blade screws are SS 1.4305 (303)



#### Flexible Hopper

- Polyurethane (white)
- Food grade in compliance with the German Foodstuff and Consumer Goods Act (LMBG) or FDA
- Optional anti-static or chemically resistant hoppers available



#### Extension Hoppers

- Trapezoidal extension hoppers
  - 50 dm³ (1.8 ft³), straight walled
  - 70 dm³ (2.5 ft³), straight walled
- Cover with inlet pipe and vent pipe for automatic refill, or
- Lift off cover with handle for manual refill
- Stainless steel SS 1.4301 (304)

#### Accessories

- Vertical downspout on screw tube outlet (PUR)
- Flexible connections
- Exchange screws and screw tubes
- Screw extension 150 mm/5.9 in (not available for blade screws)
- Screw speed monitoring system

#### Options

- Explosion-proof designs
- Sanitary and hygienic designs
- Gravimetric loss-in-weight feeder with scale MD5 or MS5 (see separate Works Standards)
- Designs for higher or lower ingredient and/or ambient temperatures

#### Frequency Converters

Frequency converter FC-B1 for wall mounting, or frequency converter FC-V.1.1 for control cabinet installation (see separate Works Standards), or Allen Bradley Powerflex 40 variable frequency drive (North America only)

\* All Brabender 3 phase AC motors need a supply voltage of 230/400 V, 50 (60) Hz and a grounded neutral (TT, TN). In case of power supply systems not in compliance with these requirements, adaptation measures must be taken. We will be pleased to advise you.



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