

# Volumetric FlexWall® Plus Feeders

## FW80/0Plus, FW80/1Plus Model Specifications

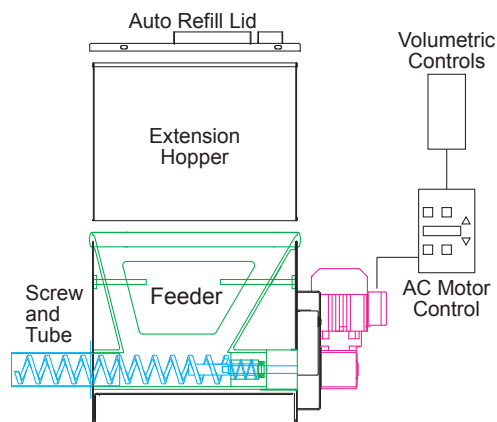


### RELATED DOCUMENTS:

- [2110-C00-1 – Volumetric FlexWall® Plus Table of Contents](#)
- [2110-C25-1 – Product Description](#)
- [2110-C26-1 – Model Selection Guide](#)
- [2110-C31-1 – Standard Options and Accessories](#)
- [7100-C01-1 – Volumetric Controls](#)

### Components:

- [1300-C21-2 – FlexWall® Screw Trough](#)
- [1300-C21-3 – AC Motor Controller](#)



### WEIGHTS AND MEASURES

Model Number	Screw Trough Volume	Ext. Hopper Volume	Total Volume
	liters (cu.ft.)	liters (cu.ft.)	liters (cu.ft.)
FW80/0Plus-0 FW80/1Plus-0	45 (1.6)	0	45 (1.6)
FW80/0Plus-200 FW80/1Plus-200	45 (1.6)	200 (7.1)	245 (8.8)

### SCREW AND TUBE SIZES AND FEED RATES

Screw and Tube Designation	Max. Particle Size mm (inch)	Tube ID mm (inch)	Tube OD mm (inch)	Max. Feed Rate at Specified Screw Speed*			
				High Screw Speed †		Low Screw Speed	
				RPM (Hz)	cu.ft./hr (liters/hr)	RPM (Hz)	cu.ft./hr (liters/hr)
<b>Spiral Screw and Tube for Powders</b>							
S40/27-443	2.2 (0.08)	44.3 (1.74)	48.3 (1.90)			192 (100)	12 (340)
S40/42-443	2.2 (0.08)	44.3 (1.74)	48.3 (1.90)			192 (100)	19.6 (555)
S52/39-563	2.2 (0.08)	56.3 (2.22)	60.3 (2.37)			192 (100)	31.3 (885)
S52/62-563	2.2 (0.08)	56.3 (2.22)	60.3 (2.37)			192 (100)	51 (1440)
S79/45-843	2.7 (0.10)	84.3 (3.32)	88.9 (3.50)			192 (100)	81.5 (2310)
S79/82-843	2.7 (0.10)	84.3 (3.32)	88.9 (3.50)			192 (100)	155 (4390)
<b>Spiral Screw and Tube for Granules/Pellets</b>							
S40/27-563	8.2 (0.32)	56.3 (2.22)	60.3 (2.37)	335 (100)	29.3 (831)	192 (100)	16.8 (476)
S40/42-563	8.2 (0.32)	56.3 (2.22)	60.3 (2.37)	335 (100)	47.9 (1360)	192 (100)	27.4 (777)
S52/39-843	16.2 (0.64)	84.3 (3.32)	88.9 (3.50)	335 (100)	76.3 (2160)	192 (100)	43.8 (1240)
S52/62-843	16.2 (0.64)	84.3 (3.32)	88.9 (3.50)	335 (100)	125 (3530)	192 (100)	71.4 (2020)
S67/71-843	8.7 (0.34)	84.3 (3.32)	88.9 (3.50)	335 (100)	231 (6550)	192 (100)	133 (3750)
<b>Blade Screw and Tube</b>							
B40/32-443	2.2 (0.08)	44.3 (1.74)	48.3 (1.90)			192 (100)	13.5 (382)
B40/46-443	2.2 (0.08)	44.3 (1.74)	48.3 (1.90)			192 (100)	20 (566)
B50/45-563‡	3.2 (0.12)	56.3 (2.22)	60.3 (2.37)			192 (100)	26.8 (759)
B50/70-563‡	3.2 (0.12)	56.3 (2.22)	60.3 (2.37)			192 (100)	42.2 (1190)
B79/50-843‡	2.7 (0.10)	84.3 (3.32)	88.9 (3.50)			192 (100)	77.2 (2190)
B79/88-843‡	2.7 (0.10)	84.3 (3.32)	88.9 (3.50)			192 (100)	143 (4040)
<b>Mass Flow Screw and Tube</b>							
F52/30/45/K20-563	2.2 (0.08)	56.3 (2.22)				192 (100)	19.3 (546)
F52/45/60/K20-563	2.2 (0.08)	56.3 (2.22)				192 (100)	30.2 (856)
F79/45/60/K39-843	2.7 (0.10)	84.3 (3.32)				192 (100)	61.7 (1750)
F79/45/60/K20-843	2.7 (0.10)	84.3 (3.32)				192 (100)	77.8 (2200)

\* The screw speed shown is the standard maximum Volumetric screw speed (100% of full speed). Higher maximum screw speeds are possible. The Maximum Feed Rates are theoretical values based on a screw filling efficiency of 100% at the specified screw speed. Ingredient flow characteristics determine the screw filling efficiency.

† The high screw speed is available on the '1' model, and is available on the '0' model with the Screw Motor Upgrade Option (MD-8).

‡ A Polyurethane Screw is also available (Standard Length Only)

**MATERIALS OF CONSTRUCTION**

<b>FlexWall® Flexible Screw Trough</b>	White polyurethane, resistant to abrasion, mild acids and alkaline solutions, FDA approvable compound
<b>Feeder Housing</b>	304SS, 2B finish inside, mirror finish outside
<b>Screw and Tube</b>	304SS, 2B finish, electropolished
<b>Screw Drive Shaft</b>	304SS, Polyurethane
<b>Screw Drive Shaft Seals</b>	Lip Seals (2)
<b>Extension Hopper and Lid</b>	304SS, 2B finish inside, mirror finish outside
<b>Gaskets</b>	Neoprene

**MECHANICAL PROCESS CONNECTIONS**

<b>Refill (on Lid)</b>	Pipe stub connection. See Mechanical Drawing for location and size.
<b>Vent (on Lid)</b>	Pipe stub connection. See Mechanical Drawing for location and size. The vent allows dusty air to escape during refill and atmospheric air to enter during feeding. Brabender offers a vent filter for pellets or non-dusty ingredients. For powders, dust collector is by others.
<b>Outlet</b>	Standard is horizontal from screw tube, optional is vertical outlet.

**ENVIRONMENTAL SPECIFICATIONS**

<b>Temperature</b>	<b>Ambient</b>	Operating: 0° to 40°C (32° to 104°F), Storage: -40° to 40°C (-40° to 104°F)
	<b>Ingredient</b>	Continuous: 0° to 60°C (32° to 140°F), Intermittent: -20° to 60°C (-4° to 140°F)
<b>Humidity</b>	<b>Ambient</b>	5% to 95% (no condensation)
	<b>Ingredient</b>	The ingredient flow characteristics may vary with excessive humidity. The feeder must be dry when feeding.
<b>Pressure</b>	<b>Altitude</b>	To 10,000 feet (3,048 m)
	<b>Ingredient</b>	The pressure inside the feeder should be the same as outside the feeder.
<b>Vibration</b>		Normal plant vibration does not effect performance.

**ACCURACY**

<b>Measuring Criteria</b>	Data sample time of 1 minute
<b>Feed Range</b>	15:1 screw speed range
<b>Repeatability</b>	± 1% to 5% depending on ingredient flow properties
<b>Linearity</b>	± 0.5% over a screw speed range of 10:1 for each screw type

**Standard Options and Accessories (See Document [2110-C31-1](#) for Details)****Extension Hoppers and Lids**

XH-2(A/B)	Extension Hopper Lid
XH-3A	Feeder Lid with Integrated Safety Gate (No Extension Hopper)
XH-3B	Feeder Lid with Inlet and Vent Connection (No Extension Hopper)
XH-4B	Extension Hopper Safety Gate
XH-6	Flanged Inlet on Extension Hopper Lid
XH-7	Bag Loading Hopper with Safety Gate and Lid
XH-8	Extension Hopper Handles

**Screw and Tube Options**

ST-2A	Vertical Outlet
ST-2B	Outlet Plunger Valve
ST-2C	Outboard Screw Bearing
ST-3	Tube Support with Guy Wire
ST-5	Air Purged Seal

**Optional Materials of Construction**

MC-2B	Conductive Polyurethane FlexWall® Screw Trough
MC-2C	High Chemical Resistance FlexWall® Screw Trough
MC-3A	316SS Ingredient Contact Parts
MC-4A	Food Grade Hopper Finish
MC-4B	Food Grade Screw Finish
MC-4C	Food Grade Tube Finish

**Motor and Drive Options**

MD-2(A-L)	Screw VFD Options
MD-8	Screw Motor Upgrade

**Flexible Connections**

FC-1	Flexible Inlet Connection
FC-2	Flexible Vent Connection
FC-3	Flexible Outlet Connection

**Modifications for Hazardous Areas**

XP-1(A-D)	Volumetric Feeder Suitable for Hazardous Areas
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**Accessories**

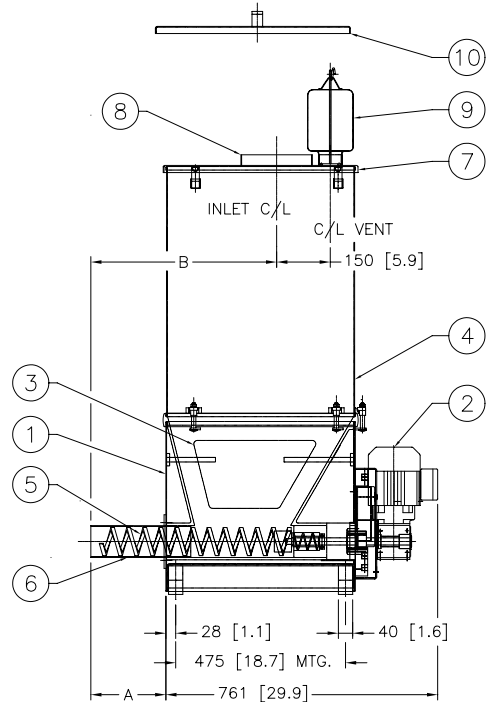
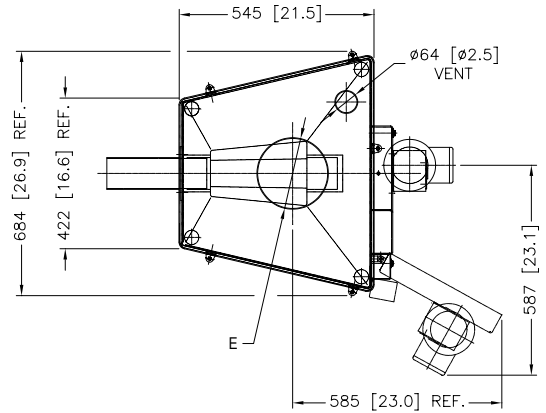
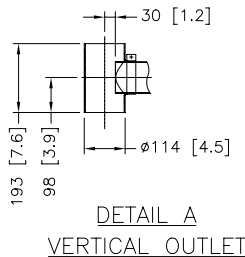
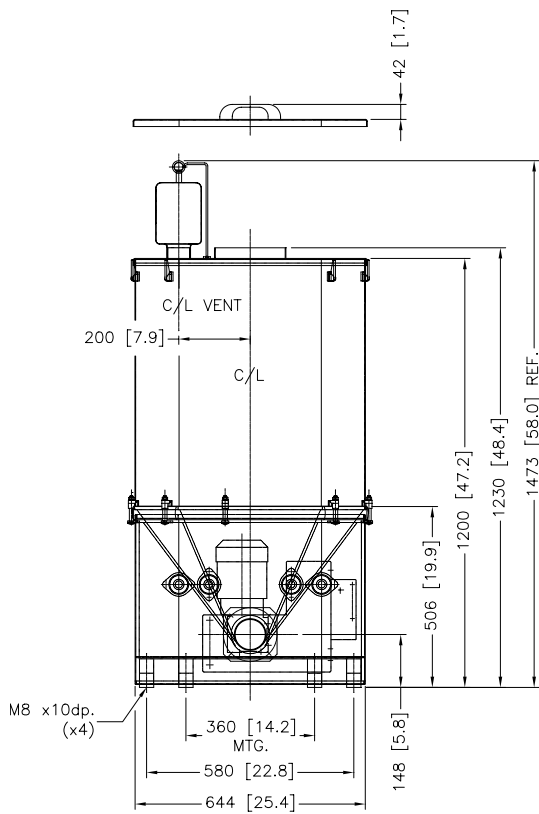
ACC-3	Level Probe Connection (Female NPT, Probe not included.)
ACC-7A	Vent Dust Bag
ACC-16A	Feeder Lift Station

**Extra Parts Ordered with Feeder**

EP-1	Extra Screw Trough
EP-2	Extra Screw
EP-3	Extra Tube

# Mechanical Drawing

ITEM	DESCRIPTION
1	FlexWall® Plus FW80/0Plus Feeder
2	Screw Motor
3	Paddles
4	Extension Hopper 200L (7.1 cu.ft.)
5	Screw
6	Tube
7	Auto Refill Lid (Optional)
8	Inlet (On Auto Refill Lid)
9	Vent Dust Bag (Optional)
10	Manual Refill Lid (Optional)



**Notes:**

1) All Dimensions are in Millimeters [Inches]

Description	'A'	'B'
Standard Tube Length	210 [8.3]	520 [20.5]
Standard Extended Tube Length	510 [20.1]	820 [32.3]

Description	'E'
Standard Inlet Diameter	200 [7.9]
Standard Larger Inlet Diameter	250 [9.8]

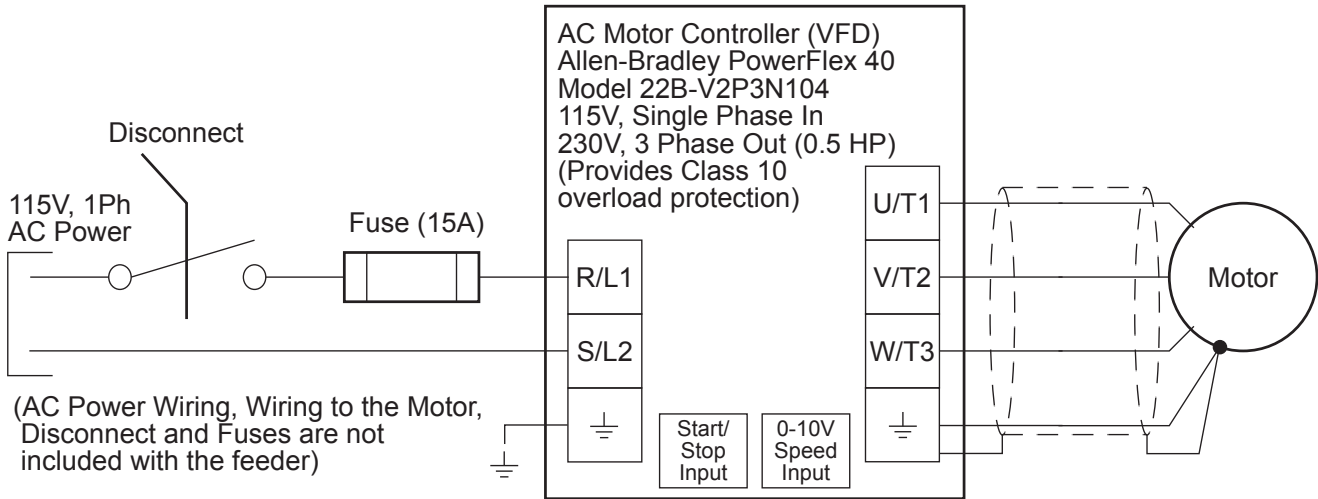
Empty Feeder Weight	Kg (lb)
With no Extension Hopper	64 (141)
With 200L (7.1 cu.ft.) Extension Hopper	101 (223)

**Screw Availability**

- 1) All Tubes and standard Spiral Screws are available in Standard and Standard Extended lengths from stock
- 2) Polyurethane Blade Screws are available only in Standard lengths from stock
- 3) Whenever possible, use a stocked length screw and tube and move the inlet location to align the inlet and outlet of the feeder with the existing equipment
- 4) All Spiral Screws requiring modifications, all Stainless Steel Blade Screws and all Mass Flow Screws are special order

## Typical Feeder Electrical Connections

**Note:** The Disconnect, Fuse Holders, Fuses, Motor Thermal Overload and wiring are by others. The AC Motor Controller is supplied loose with the feeder.



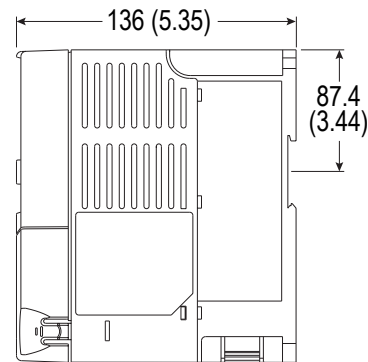
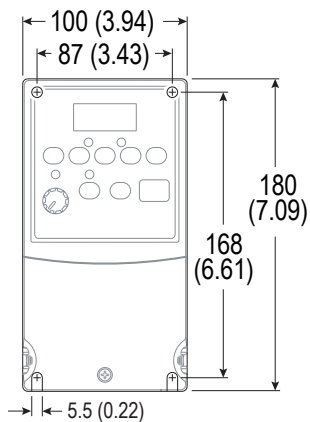
### FEEDER ELECTRICAL SPECIFICATIONS

<b>Screw and Paddle AC Motor Controller (A-B VFD)</b>	<b>Input Power:</b> 115 VAC, 50/60Hz, Single Phase; <b>Motor Output:</b> 230 VAC, 3 Phase; <b>Motor Control Input:</b> 0-10V or 4-20ma; <b>Enclosure:</b> NEMA 1 with Keypad for Speed Control and Run/Stop
<b>Screw and Paddle Motor</b>	½ HP (0.37 KW), 230/460 VAC, 3 Phase, TEFC

## AC Motor Controller (A-B VFD) Dimensions

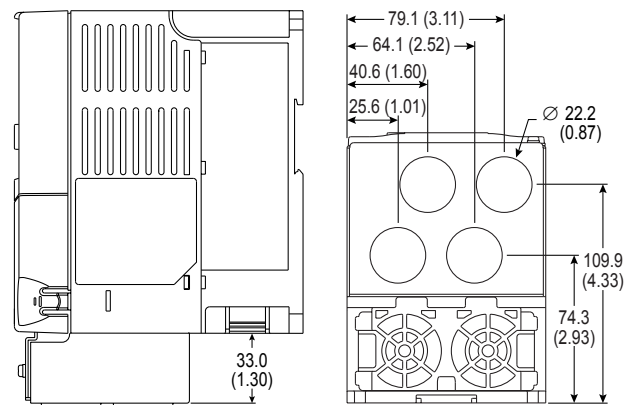
**Note:** The AC Motor Controller is supplied loose with the feeder.

### Panel Mount (Open Frame)



Shipping Weight: 2 Kg (4.9 lbs)

### With IP30/NEMA 1 Cover Option



Dimensions are in millimeters (inches)



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