schenckprocess

SolidsFlow™ Model 2000 Feeder

- **Natural mass flow feeding device**
- **No material segregation**
- **Feeds abrasive materials and various sized particles**
- **No moving parts, minimizes maintenance**
- **Instantaneous cut-off of flow rate**

Application

The SolidsFlow™ 2000 feeder can be used in a variety of industries covering food, plastics, chemicals, pet food and many others. The ability to handle abrasive materials, feed various sized particles, and easily damaged products without degradation or segregation make the feeder applicable to many process applications.

Operating Principle

The unit operates as a mass flow feeder that utilizes a vibrating drive and tray frame, which contains a removable feed tray. The feed tray is fitted with a number of varying length slats set at an angle and a predetermined distance apart. This effectively divides the discharge area into a series of feed slots.

Each slat acts as a vibratory feeder with a gap and overlap across the entire width of the discharge opening. All slat dimensions and angles are designed to suit the particular characteristics of the material(s) being fed. Therefore, when vibrations cease, material flow stops due to changes in the vibrated and static angle of repose of the product.

The proper feeder size and hopper wall angle for your particular application is determined by the use of a Jenike & Johansen shear tester. By evaluating your material with the shear tester, Schenck Process can recommend which feeder and hopper design best fits your processing needs.

Unique Materials Fed

- Fumed Silica
- Micro Balloons
- Breakfast Cereals
- Dry Marshmallows
- Toner / Carbon Black
- TNT Flakes
- Recycled Tobacco
- Ground Copper Wire
- Sliced Almonds
- Wet Ground Jalapeno Peppers
- Glitter Flakes
- Glass Cullet
- Dry & Wet Chopped Fiberglass up to 2” in Length
- Carbon Fibers
- Heavy Metals

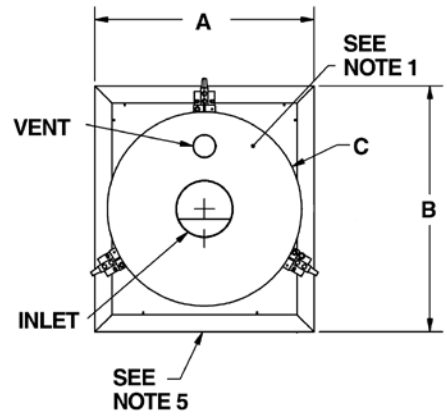
SolidsFlow™ Model 2000 Feeder Specifications

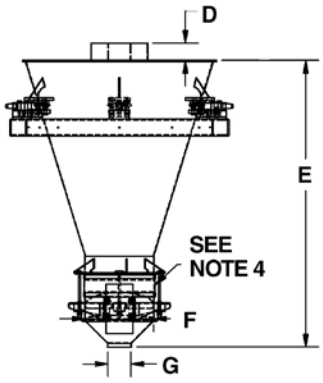
VIBRATOR
Standard electromechanical for all sizes 230/460 V (CSA, CE) Electromagnetic 115/230 V also available in 6” and 12” feeder sizes.

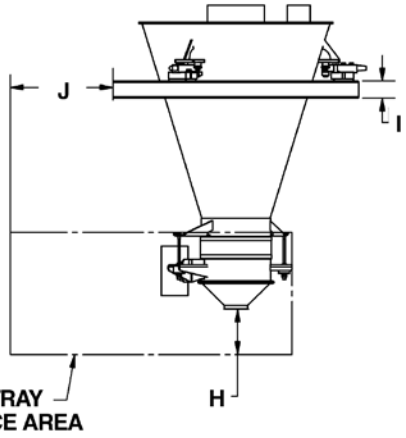
MOUNTING KIT
Standard for all sizes. Includes hopper to feed tray flex connector, (2) flat band clamps, (3) hanger assemblies, and vibrator mounting hardware.

EXTENSION HOPPER AND COVER
Choices include no cover, blank cover, manual refill cover, and covers with inlets & vents.

STANDS AND PLATFORMS
Stands and platforms are available in enamel-coated carbon steel in the 6”, 12”, 18”, and 24” feeder models.
- 12” adjustable riser
- 24” adjustable riser
- 36” adjustable riser





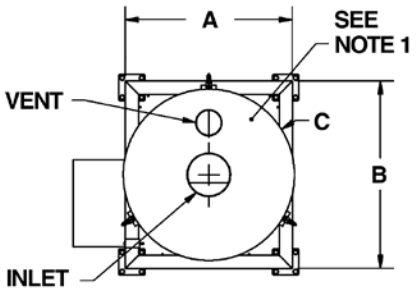


NOTES:
1. Cover is available in auto refill (shown), manual refill or with no cover. Cover may be rotated up to 360° to meet application requirements.
2. 6” & 12” – vibratory drive: .17 hp (.13 kW). Drive is TENV, IP-66, and meets NEMA MG-1. 18” & 24” – vibratory drive: .52 hp (.39 kW). Drive is TENV, IP-66, and meets NEMA MG-1.
3. For volumetric systems, weighing modules are replaced by volumetric spacers. Spacers can be easily replaced for volumetric to gravimetric upgrade.
4. Flexible connector between stationary hopper and feed tray.
5. Mounting platform can be bolted or welded into customer support structure.

2000 Series Dimensions with Platforms

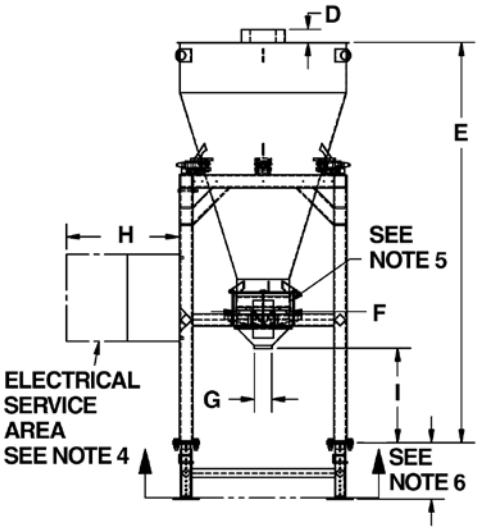
	6" 1 cu/ft hopper	6" 2.5 cu/ft hopper	12" 5 cu/ft hopper	12" 10 cu/ft hopper	12" 20 cu/ft hopper	18" 5 cu/ft hopper	18" 10 cu/ft hopper	18" 20 cu/ft hopper	24" 10 cu/ft hopper	24" 20 cu/ft hopper	24" 50 cu/ft hopper
A	22.00"	22.00"	38.50"	38.50"	38.50"	38.50"	38.50"	38.50"	38.50"	38.50"	38.50"
B	24.50"	24.50"	43.18"	43.18"	43.18"	43.18"	43.18"	43.18"	43.18"	43.18"	43.18"
C	Ø18.94	Ø26.65	Ø34.09	Ø39.50	Ø39.50	Ø34.09	Ø39.50	Ø39.50	Ø39.50	Ø47.00	Ø47.00
D	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"
E	26.81"	39.31"	50.36"	59.09"	70.60"	43.73"	52.76"	64.27"	45.88"	57.89"	89.89"
F	Ø6.38	Ø6.38	Ø12.00	Ø12.00	Ø12.00	Ø18.00	Ø18.00	Ø18.00	Ø24.00	Ø24.00	Ø24.00
G	Ø3.00	Ø3.00	Ø4.00	Ø4.00	Ø4.00	Ø4.00	Ø6.00	Ø6.00	Ø8.00	Ø8.00	Ø8.00
H	4.00"	4.00"	8.00"	8.00"	8.00"	12.00"	12.00"	12.00"	12.00"	12.00"	12.00"
I	2.00"	2.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"
J	9.00"	9.00"	18.00"	18.00"	18.00"	24.00"	24.00"	24.00"	36.00"	36.00"	36.00"

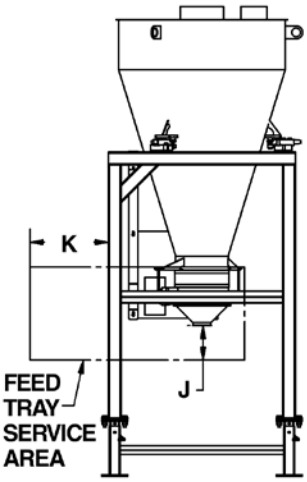
Reference drawings only. Dimensions subject to change without notice. Please contact sales for detailed drawings.



NOTES:

1. Cover is available in auto refill (shown), manual refill or with no cover. Cover may be rotated up to 360° to meet application requirements.
2. 6” & 12” – vibratory drive: .17 hp (.13 kW).
   Drive is TENV, IP-66, and meets NEMA MG-1.
   18” & 24” – vibratory drive: .52 hp (.39 kW).
   Drive is TENV, IP-66, and meets NEMA MG-1.
3. For volumetric systems, weighing modules are replaced by volumetric spacers. Spacers can be easily replaced for volumetric to gravimetric upgrade.

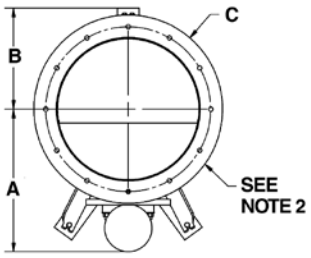


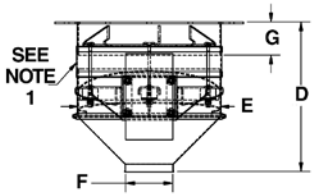


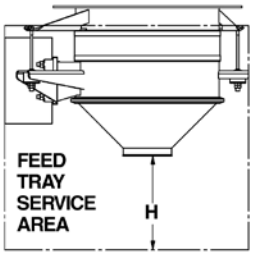
4. Control box can be located in various locations on sides of feeder.
5. Flexible connector between stationary hopper and feed tray.
6. Overall height of feeder can be increased using optional stand risers. Riser height ranges are as follows and can be adjusted in one inch (25 mm) increments:
   - 13” to 18” shown (330 mm to 457 mm)
   - 18” to 30” (457 mm to 762 mm)
   - 30” to 42” (762 mm to 1067 mm)

2000 Series Dimensions with Stands

	6" 1 cu/ft hopper	6" 2.5 cu/ft hopper	12" 5 cu/ft hopper	12" 10 cu/ft hopper	12" 20 cu/ft hopper	18" 5 cu/ft hopper	18" 10 cu/ft hopper	18" 20 cu/ft hopper	24" 10 cu/ft hopper	24" 20 cu/ft hopper	24" 50 cu/ft hopper
A	22.00"	22.00"	38.50"	38.50"	38.50"	38.50"	38.50"	38.50"	38.50"	38.50"	38.50"
B	24.50"	24.50"	43.18"	43.18"	43.18"	43.18"	43.18"	43.18"	43.18"	43.18"	43.18"
C	Ø18.94	Ø26.65	Ø34.09	Ø39.50	Ø39.50	Ø34.09	Ø39.50	Ø39.50	Ø39.50	Ø47.00	Ø47.00
D	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"	3.00"
E	40.30"	52.80"	72.08"	80.80"	92.30"	71.88"	80.91"	92.41"	72.88"	84.88"	116.88"
F	Ø6.38	Ø6.38	Ø12.00	Ø12.00	Ø12.00	Ø18.00	Ø18.00	Ø18.00	Ø24.00	Ø24.00	Ø24.00
G	Ø3.00	Ø3.00	Ø4.00	Ø4.00	Ø4.00	Ø6.00	Ø6.00	Ø6.00	Ø8.00	Ø8.00	Ø8.00
H	8.00"	8.00"	26.00"	26.00"	26.00"	26.00"	26.00"	26.00"	26.00"	26.00"	26.00"
I	13.49"	13.49"	21.80"	21.80"	21.80"	28.24"	28.24"	28.24"	27.08"	27.08"	27.08"
J	4.00"	4.00"	8.00"	8.00"	8.00"	12.00"	12.00"	12.00"	12.00"	12.00"	12.00"
K	9.00"	9.00"	18.00"	18.00"	18.00"	24.00"	24.00"	24.00"	36.00"	36.00"	36.00"







NOTES:

1. Flexible connector between stationary hopper and feed tray.
2. Mounting flange can be bolted or welded onto customer hopper or silo.
3. 6” & 12” – vibratory drive: .17 hp (.13 kW).
   Drive is TENV, IP-66, and meets NEMA MG-1.
   18” & 24” – vibratory drive: .52 hp (.39 kW).
   Drive is TENV, IP-66, and meets NEMA MG-1.

2000 Series Dimensions with Top Plate

	6"	12"	18"	24"
A	9.93"	13.12"	18.16"	21.16"
B	5.56"	9.84"	12.88"	15.88"
C	Ø10.50	Ø17.00	Ø24.00	Ø30.00
D	9.01"	15.99"	19.02"	22.14"
E	Ø6.38	Ø12.00	Ø18.00	Ø24.00
F	Ø3.00	Ø4.00	Ø6.00	Ø8.00
G	2.99"	4.24"	4.22"	5.22"
H	4.00"	8.00"	12.00"	16.00"

Reference drawings only. Dimensions subject to change without notice. Please contact sales for detailed drawings.

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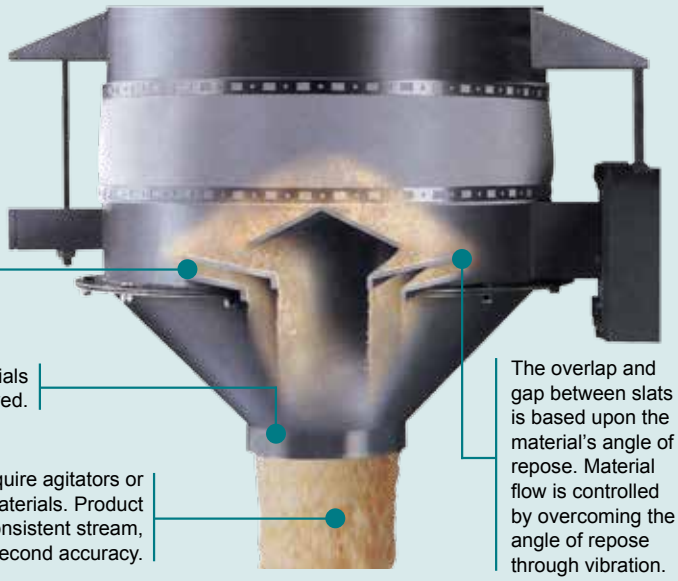
Simply Designed for the Best Accuracy & Reliability

Measuring arching dimensions, wall friction angles and other flow properties ensures mass flow from the hopper. The feeder discharges material from the entire cross-section of the outlet.



Internal slats are engineered and positioned at angles related to the material's angle of slide, enabling the feeder to operate by gravity flow.

Feed trays are designed for the range of materials to be handled and flow rates to be achieved.

SolidsFlow™ feeders do not require agitators or screws, and do not degrade your materials. Product discharges from the feeder in a consistent stream, providing excellent second-to-second accuracy.

The overlap and gap between slats is based upon the material's angle of repose. Material flow is controlled by overcoming the angle of repose through vibration.

SolidsFlow™ Feed Tray Design

The SolidsFlow™ product line consists of a wide variety of feed tray options to meet your specific processing needs. Single slotted trays are offered for applications that require lower feed rates and multiple slotted trays are available when feeding at higher rates is necessary. Testing of your material by our test lab will allow us to locate the most suitable feed tray for your application.

2000 Series Feeder Specifications

Feeder Tray Sizes	Maximum Feed Rate	Feed Rates (Liters)	Discharge Cone Diameter	Product Type
6" (152 mm)	22 cu. ft./hr.	623 liters	3" (76 mm)	Standard
12" (305 mm)	85 cu. ft./hr.	2,407 liters	4" (102 mm)	Standard
18" (457 mm)	168 cu. ft./hr.	4,758 liters	6" (152 mm)	Standard
24" (610 mm)	341 cu. ft./hr.	9,657 liters	8" (203 mm)	Standard
36" (914 mm)	767 cu. ft./hr.	21,721 liters	12" (305 mm)	Custom
48" (1,219 mm)	1,365 cu. ft./hr.	38,657 liters	16" (406 mm)	Custom
60" (1,524 mm)	2,130 cu. ft./hr.	60,322 liters	20" (508 mm)	Custom
72" (1,829 mm)	3,072 cu. ft./hr.	86,999 liters	24" (610 mm)	Custom

SINGLE SLOT FEED TRAY

DUAL SLOTTED FEED TRAY

MULTIPLE SLOTTED FEED TRAY

Schenck Process
746 E. Milwaukee Street
Whitewater, WI 53190
800-558-0184 or Fax: 262-473-4384
mktg@schenckprocess.com
www.accuratefeeders.com