

DLM Solids Flow Meter

- Measures high flow rates of free-flowing pulverized or granular materials
- Operating capacity of 30 to 600 tons per hour
- Handles material temperatures up to 475 °F (246 °C)
- Dust containing design

Application

DLM Solids Flow Meters are designed for applications involving the measurement of relatively high flow rates of free-flowing dry bulk solid materials. The system is highly accurate and repeatable. When loaded it measures better than 0.5% of full scale. Deviation of the measured flow rate to actual flow rate is less than $\pm 2\%$ of full scale over a 5 to 1 range – when regular maintenance and recalibration are carried out using actual material reweighed or preweighed on a static weigher. Handles granular materials up to 3/8" (9.53 mm).

Equipment

The DLM Solids Flow Meter has the following features:

- Dust containing design
- Can be applied as a feeder by using a simple control interlock with any prefeed device
- The Coperion curved measuring chute receives the material stream free of impact and compensates for material friction
- Force measurement is directly transmitted to a precision load cell

Function

Applying the principle of force measurement without the use of an impact plate, the Coperion flow meter design provides a consistently accurate true force measurement system.

By allowing material to normally slide down on the curved measuring chute, the effects of free-fall height, impact shock

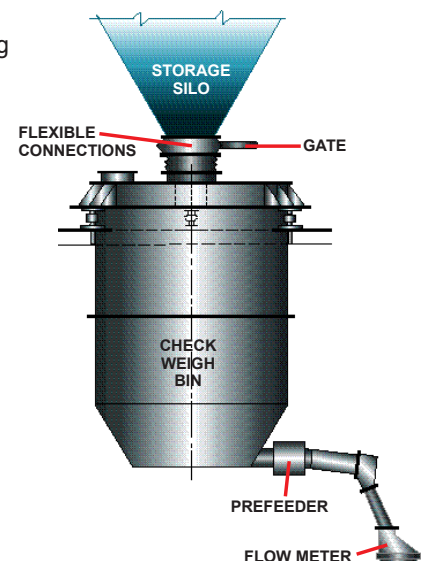
and friction forces are eliminated. Transmitting the true force measurement to a precision strain gauge load cell without the use of knife edges or bearings, results in the best possible accuracy and trouble-free performance.

Accuracy – On Stream Calibration

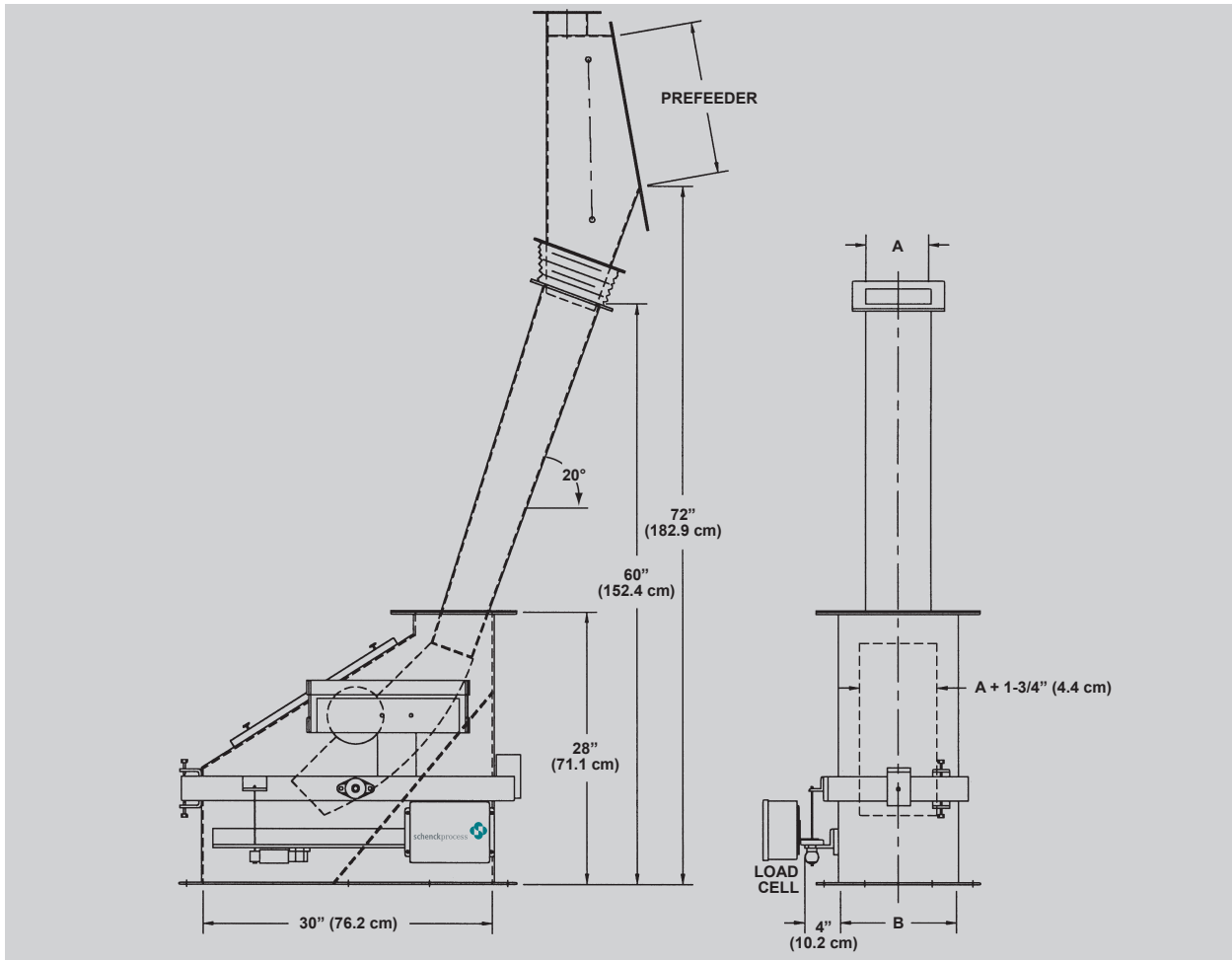
A field-proven method to ensure accuracy in a flow meter system is to employ a check weigh bin between the flow meter and the storage silo.

The check weigh bin, using load cells and a precision static weighing system, allows positive, precise material testing without interrupting the operation.

The calibration may be done manually or can be incorporated in the measuring and control unit as a completely automatic function. In the case of on stream calibration accuracy, better than $\pm 1\%$ of capacity may be realized.



Dimensions



Type	Cubic feet per hour (Cubic meters per hour)	Dimensions inches (cm)		Weight lbs. (kg)
		A	B	
DLM6	700 - 2,650 (19.8 - 75.0)	6" (15.2)	12" (30.5)	330 (149.7)
DLM10	1,750 - 4,250 (49.6 - 120.4)	10" (25.4)	16" (40.6)	395 (179.2)
DLM16	3,500 - 10,600 (99.1 - 300.1)	16" (40.6)	22" (55.9)	550 (249.5)
DLM26	7,000 - 21,000 (198.2 - 594.7)	26" (66.0)	32" (81.3)	660 (299.4)
DLM40	17,600 - 32,000 (498.4 - 906.1)	40" (101.6)	46" (116.8)	880 (399.2)

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