



schenckprocess



DLM Solids Flow Meter

## DLM Solids Flow Meter

The Schenck Process DLM Solids Flow Meter is suitable for applications involving the measurement of relatively high flow rates of free-flowing pulverized or granular materials. Nominal range of operation is for capacities from 30 to 600 tons per hour. Consult factory for applications outside this range. Material temperatures up to 500° F can be handled. Higher temperatures can be accommodated by special design.

### ACCURACY:

The repeatability of the measuring system when loaded, statistically is better than 0.5% of full scale. Deviation of the measured flow rate to actual flow rate is less than +/- 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.

### MATERIAL PARTICLE SIZE:

Fine powders up to 3/8" granules.

### TEMPERATURE LIMITS:

0-500° F (260° C). Higher temperatures available with special design.

### LOAD CELL:

High precision shear beam load cell mounted in tension.

### DESIGN FEATURES:

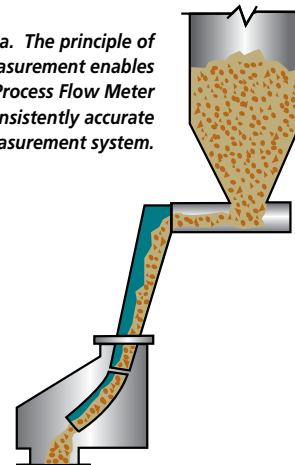
- Completely dust tight.
- Code 8503 F design available.
- Can be applied as a feeder by simple control inter lock with any prefeed device.
- The patented Schenck Process curved measuring chute receives the material stream free of impact and compensates for material friction.
- Force measurement is directly transmitted to a precision load cell.

### FLOW METER SYSTEM:

Applying the principle of force measurement without the use of an impact plate, the Schenck Process Flow Meter design provides a consistently accurate true force measurement system.

By allowing the material to normally slide down on the curved measuring chute, the effects of free-fall height, impact shock and friction forces are eliminated (See Figure 1A). Transmitting the true force measurement to a precision strain gauge load cell without the use of knife edges or bearings provides the best possible accuracy and assures trouble-free performance.

Figure 1a. The principle of force measurement enables the Schenck Process Flow Meter to provide a consistently accurate true force measurement system.



### 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.

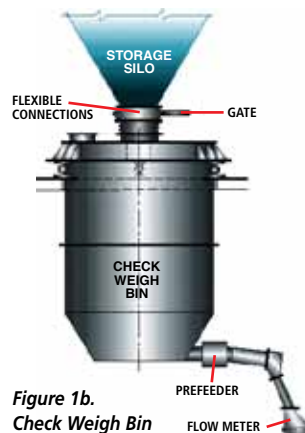
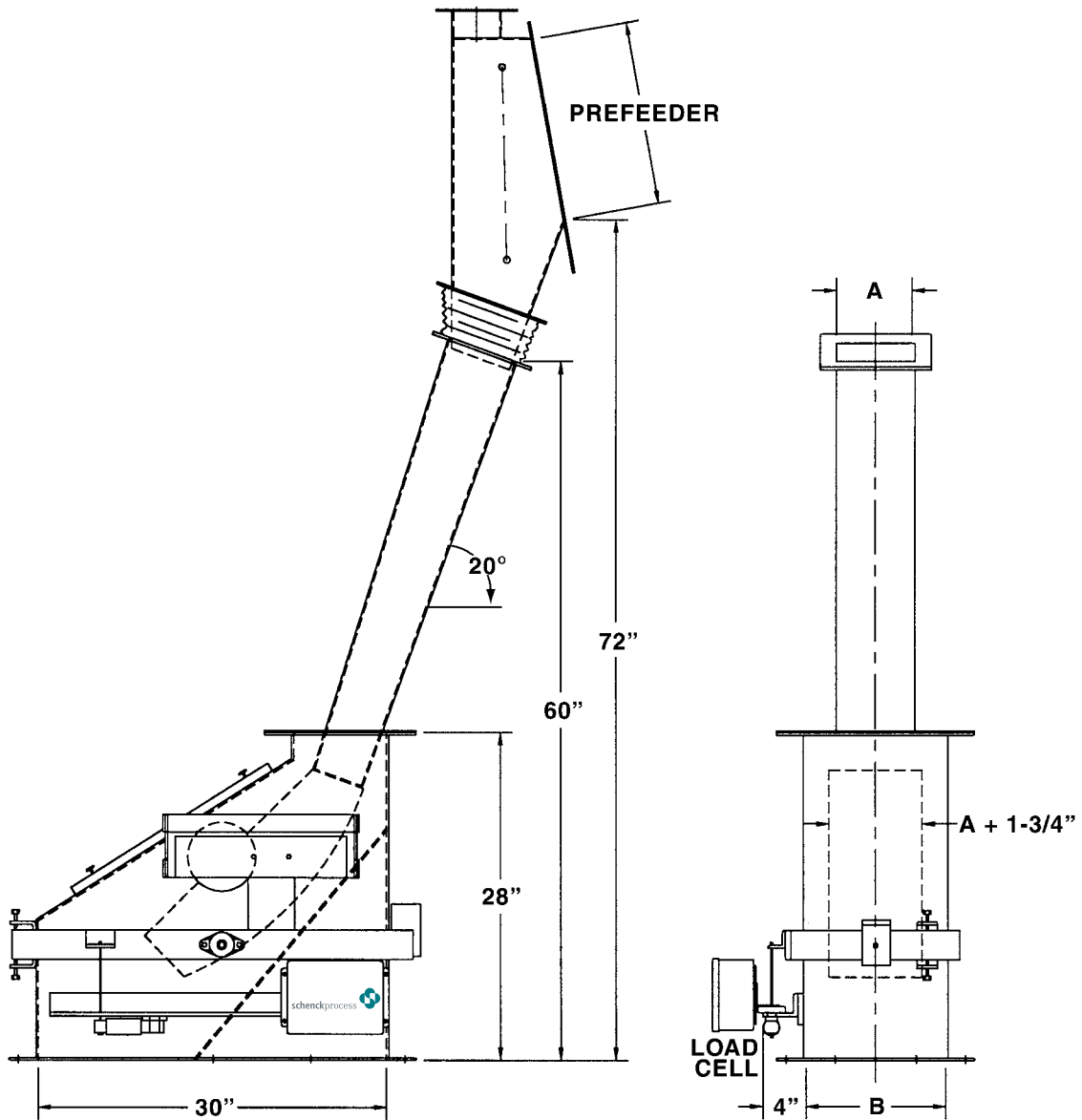


Figure 1b. Check Weigh Bin

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 DISOCONT® measuring and control unit as a completely automatic function. In the case of on stream calibration accuracy, better than +/- 1% of capacity may be realized.

Specifications



Standard Dimensions				
TYPE	CUBIC FT. / HR	A	B	WEIGHT
DLM 6	700 - 2,650	6"	12"	330 lbs.
DLM 10	1,750 - 4,250	10"	16"	395 lbs.
DLM 16	3,500 - 10,600	16"	22"	550 lbs.
DLM 26	7,000 - 21,000	26"	32"	660 lbs.
DLM 40	17,600 - 32,000	40"	46"	880 lbs.

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