

# SMART DRUM DISCHARGE STATION

**General:**

The Smart Drum Discharge Station is part of the unique Matcontainer range of equipment designed to discharge Matcon's Cone Valve Smart Drums for flowable solids such as powders and granules.

**Discharging:**

The Discharge Station incorporates a powerful lifting "probe" which engages and locks to the Cone Valve in the Smart Drum. On demand, this probe lifts rapidly and powerfully using a pneumatic bellows, carrying the Cone Valve upwards into the contents of the Smart Drum and creating an annular gap around its perimeter, through which the material will discharge in a mass-flow manner. The lift height of the probe (and thus the annular gap around the Cone Valve) may be set to suit the flow characteristics of the material and the desired discharge rate. The probe is able to vibrate if required, thus imparting further energy into the material if required to induce flow. For materials which adhere to the sides of the Smart Drum, the Discharge Station can include frame vibrators, which vibrate the entire Smart Drum and its contents.

**Dosing & Automatic Control:**

The Discharge Station can be controlled in a variety of ways to automatically dose material contents to a process below. For example this can be by means of timers or level sensors in the infeed of the process below or by means of a weight signal (either Gain In Weight or Loss In Weight).

**Sealed Operation:**

The Lip Seal is a feature that is fitted to all Matcon Discharge Stations. This provides a sealed connection between the outlet of the Smart Drum and the Discharge Station during material Discharge. In addition, an expanding "Pneumaseal" locks the Discharge Station probe to the Smart Drum's Cone Valve to deliver an even higher level of dust tight operation before, during and after material transfer.

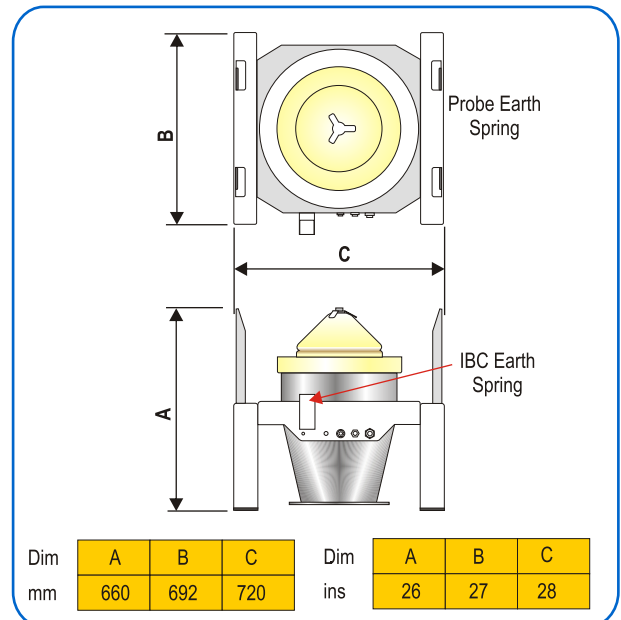
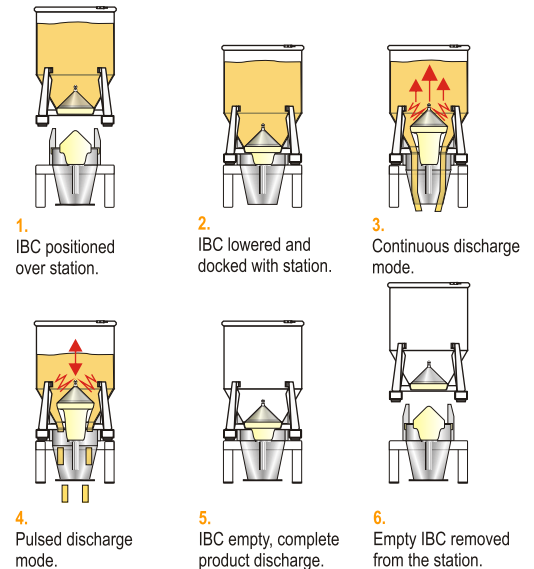
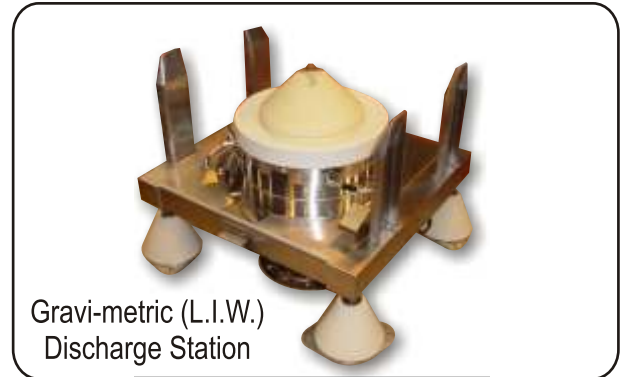
**Cleaning:**

The Discharge Station is designed to be easily and thoroughly cleaned. Working components are fully sealed behind an air-tight flexible cover. Cleaning may be done off place by removing the central hopper (material contact surfaces) and washing manually in a suitable location. Alternatively Clean In Place (CIP) can be used to automatically wash the material contact surfaces without hopper removal.

**Options:**

As standard the Discharge Station (central hopper & Smart Drum location frame) is manufactured in Stainless Steel. The following options are available.

- Mild Steel Frame.
- Gravimetric, Loss In Weight operation.
- Air wash cleaning system.
- Clean-In-Place (CIP).
- Frame Vibrators.
- A Flat Plate type model is available.



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