

# SMART DRUM

## General

The Matcon "Smart Drum" is part of the unique Matcontainer range of Intermediate Bulk Containers (IBCs), used for the storage and distribution of powders, granules and other materials. It comes in a range of small capacities, making it ideal for handling small batches.

## Discharging

The Smart Drum incorporates the Matcon Cone Valve at its outlet, which enables it to be discharged in a controlled and dust-tight manner using a Matcon Smart Drum Discharge Station.

Unlike conventional drums, the Smart Drum does not need to be inverted to discharge it.

## Filling

Matcon supply a variety of manual or automatically operated Fill Heads, which attach to the Smart Drum inlet and provide a dust tight connection during filling.

## Blending

As an option the Smart Drum may be tumbled in a Smart Drum Blender to provide a quick and efficient means of homogenising its contents. The Smart Drum is tumbled on an asymmetric axis to achieve optimum blend efficiency.

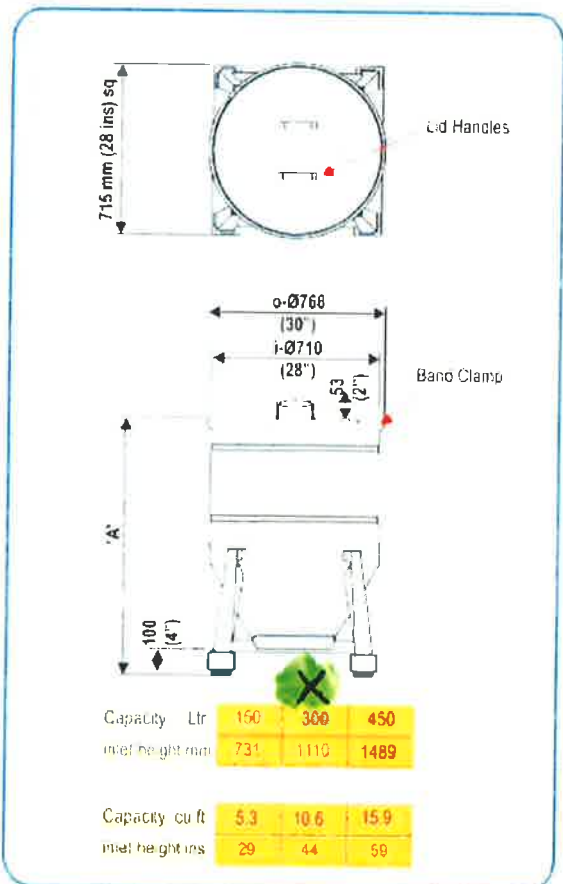
## Cleaning

The Smart Drum is designed to be easily and thoroughly cleaned. Matcon supply a variety of manual or automatically operated Smart Drum Wash Stations and Wash Booths.

## Options

As standard the Smart Drum is manufactured in Stainless Steel. The following options are available:

- 150 to 450 ltr / 5.3 to 17 cu ft. capacities
- Stacking feature 2/3 high
- Containment filling and discharging.
- IBC movement by either pallet/fork truck, chain/roller conveyor, overhead handling or AGV's
- Certifiable to DOT 56/UN chapter 16 for transport of hazardous goods
- Pharmaceutical version



## IBC DISCHARGE STATION (frame type)

### General:

The IBC Discharge Station is part of the unique Matcontainer range of equipment designed to discharge Matcon's Cone Valve Intermediate Bulk Containers (IBCs) 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 IBC. On demand, this probe lifts rapidly and powerfully using a pneumatic bellows, carrying the Cone Valve upwards into the contents of the IBC 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 IBC the Discharge Station can include frame vibrators, which vibrate the entire IBC 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 IBC and the Discharge Station during material discharge. In addition, an expanding "Pneumaseal" locks the Discharge Station probe to the IBC Cone Valve to deliver an even higher level of dust tight operation before, during and after material transfer

### Cleaning:

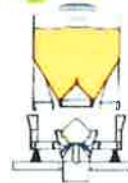
The IBC Discharge Station is designed to be easily and thoroughly cleaned. Working components are fully sealed behind an air-tight flexible cover. Cleaning may be done off place by removing the central hopper (material contact surfaces) and washing manually in a suitable location. Alternatively Clean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

### Options

As standard the IBC Discharge Station (central hopper & IBC location frame) is manufactured in Stainless Steel

The following options are available

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



IBC positioned over station



IBC lowered and station raised



Continuous discharge mode



Pulsed discharge mode



IBC empty, cone valve product discharge



Empty IBC removed from the station

