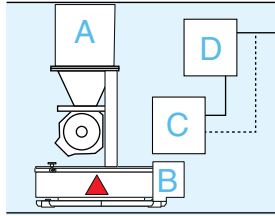


K-ML-D5-BSP-100

Loss-in-Weight Bulk Solids Pump (BSP) Feeder



Ext. communication to Host System

A Feeder

B Weighing System

C Control Module

D Operator Interface

Each Coperion K-Tron Weigh feeder consists of the components A, B, C and D.

Component A is specified here.

Application

Precise gravimetric feeding of free flowing bulk materials, e.g. pellets & granules.

Design

The BSP feeder has a vertical rotating disc that creates a product lock-up zone conveying the material smoothly from storage hopper to outlet. True, linear mass flow is achieved. Because there are no pockets or screws, the feeder is cleaned in seconds. This device utilizes the principal known as lock-up, as described below.

ZONE 1: CONSOLIDATION

Interparticle forces produce lock-up at the end of Zone 1

ZONE 2: ROTATION

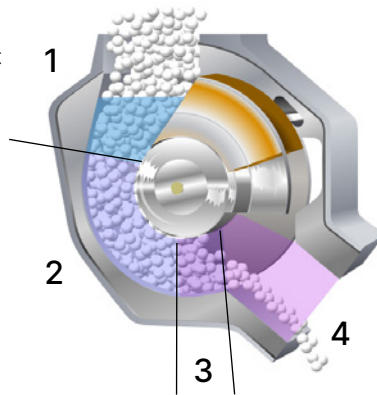
Material is in lock-up condition throughout Zone 2 and rotates as a solid body

ZONE 3: RELAXATION

Interparticle forces fall below lock-up threshold

ZONE 4: ACTIVE DISCHARGE

Flexible tip guide ensures complete material discharge



This allows for a simple feeder design, with excellent linearity and accuracy because the material in the feeder is moved together in true positive displacement. The inlet slide gate allows for material shut-off and removal of the feeder for cleaning and hopper emptying. The BSP-100 has a single feeding duct.

The Bulk Solids Pump feeder is mounted on a D5 platform scale. The scale housing is stainless steel and completely closed.

Controller:

A low power stepper motor drive and controller provide excellent turndown and flexibility ensuring a wide operating range.

The SmartConnex™ control system allows individual or a multi-component control. Interface-modules for computer communication are installed in the control module.

Hazardous Location Options:

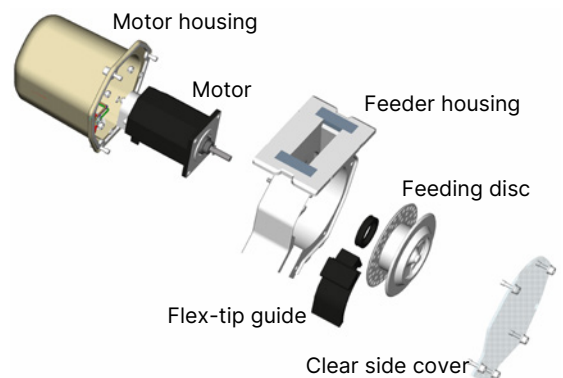
NEC Class II, Div. 2, Group F & G
ATEX N/A

Feed Rates

Nominal feed rate: 2 to 400 dm³/h [0.07 to 14 ft³/h]
at 0.3 to 60 rpm

Theoretical displacement: 0.11 dm³/rev [0.0039 ft³/rev]

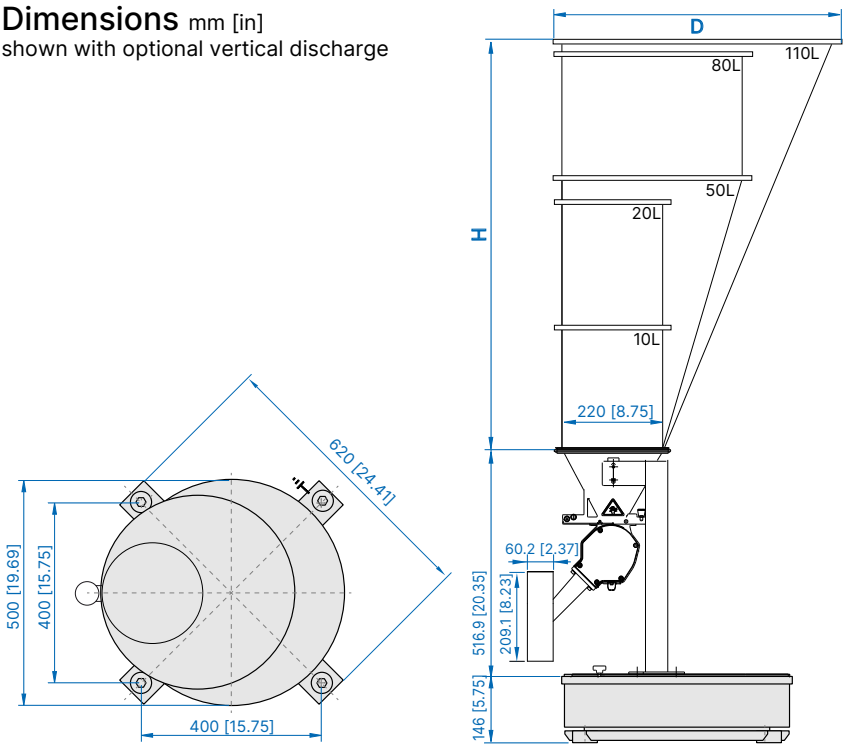
The feed rate indications are approximate values based on material characteristics.



Configuration table with columns: Description, Alternatives, Remarks, Weight kg [lb]. Includes diagrams of Cover, Extension hopper, Transition hopper, Support, Motor drive, Feeding unit, and Platform scale.

Materials, Weighing Range, Temperature-Limits, and Painting specifications table.

Dimensions mm [in]
shown with optional vertical discharge



- Options
1 Extension hopper
2 Vertical discharge 2.37"
3 Special paint

Table with 4 columns: Volume dm³ [ft³], H mm [in], D mm [in], Weight kg [lb]. Rows for Asymmetrical Hoppers (50, 80, 110) and Cylindrical Hoppers (10, 20).

Caution: these measurements are for general reference only. Please consult dimensional drawing for exact measurements