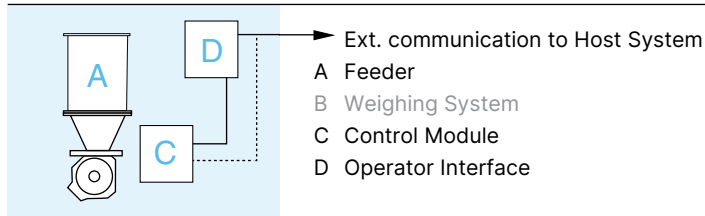


K-MV-BSP-135

Volumetric Bulk Solids Pump (BSP) Feeder



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

Component A is specified here.

Application

Precise volumetric feeding of free flowing bulk materials, e.g. pellets & granules. The feeder can be upgraded to a loss-in-weight feeder system at any time.

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

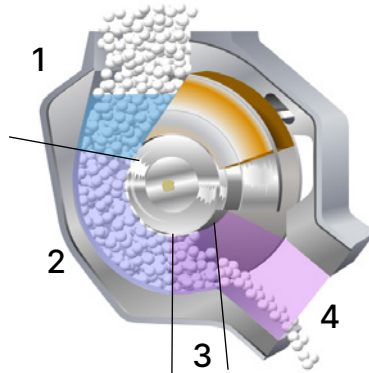
Material is in lock-up condition throughout Zone 2 and rotates as a solid body

ZONE 3: RELAXATION

Interparticle forces fall below lock-up threshold

ZONE 4: ACTIVE DISCHARGE

Flexible 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 feeder can also be mounted in opposite discharge position (180°) to discharge material in a non-process direction.

The K-MV-BSP-135 has three feeding ducts.

Controller:

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

Hazardous Location Options:

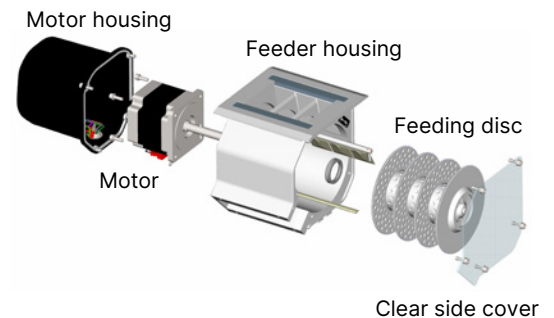
NEC Class II, Div. 2, Group F & G
ATEX N/A

Feed Rates

Nominal feed rate: 22 to 4400 dm³/h [0.78 to 156 ft³/h] at 0.3 to 60 rpm

Theoretical displacement: 1.23 dm³/rev [0.0433 ft³/rev]

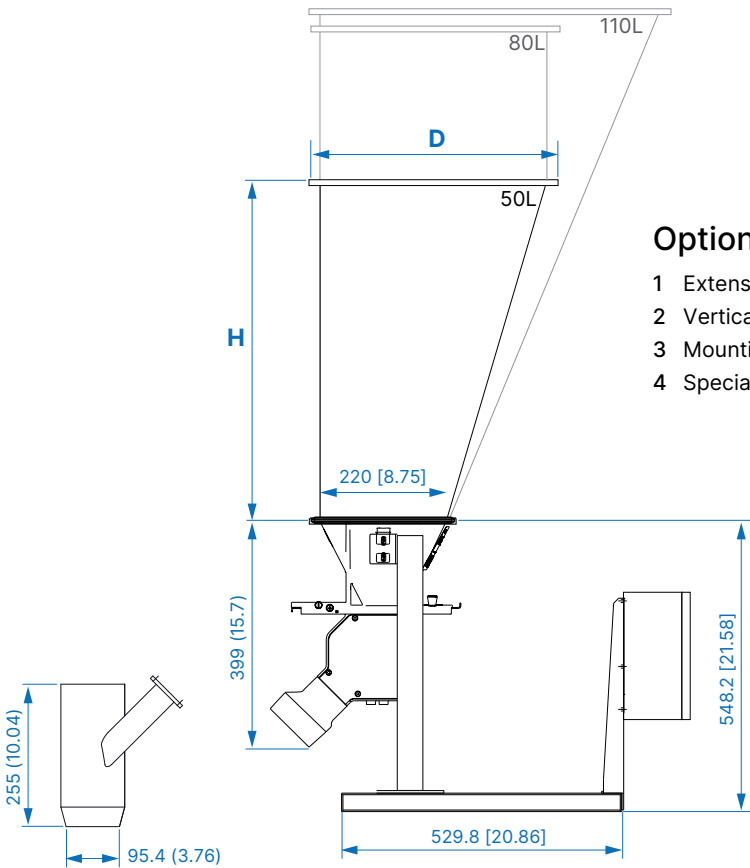
The feed rate indications are approximate values based on material characteristics.



Configuration table with columns: Description, Alternatives, Remarks, Weight kg [lb]. Rows include Cover (4D, 6D), Extension hopper (4D or 6D), Transition hopper (3.2 dm³), Motor drive (stepper motor), and Feeding unit (BSP-135).

Materials: Material contact parts: Cast aluminium AISI 356 [AISI7MG] [DIN 3.2371] electroless nickel plated, stainless steel EN 1.4301 (AISI 304), UHMW Polyethylene, silicone
Seals: Nitrile rubber, EPDM, silicone, PP brush with SST wire core (for pellet feeding)
Motor Cover: black acrylic / PVC
Side Cover: clear polycarbonate
Temperature-Limits: Operating temp.: -20 to 55°C [-4 to 130°F]
Material temp.: -20 to 55°C [-4 to 130°F] <95% humidity
Painting: Light gray RAL 7035

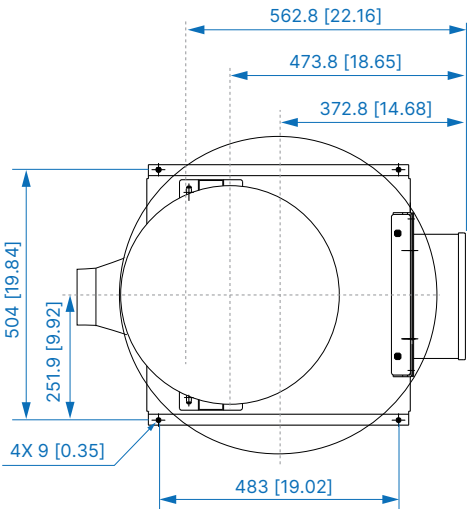
Dimensions mm [in]



Options

- 1 Extension hopper
- 2 Vertical discharge
- 3 Mounting stand
- 4 Special paint

Table with 4 columns: Volume dm³ [ft³], H mm [in], D mm [in], Weight kg [lb]. Rows for Asymmetrical Hoppers with various dimensions.



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