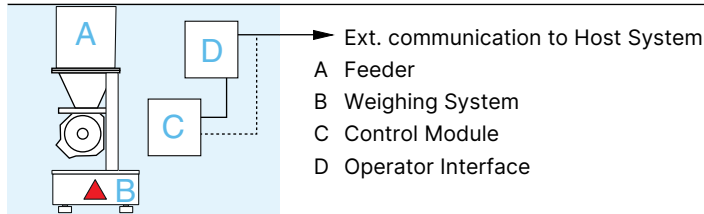


K-CL-SFS-BSP-100

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



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

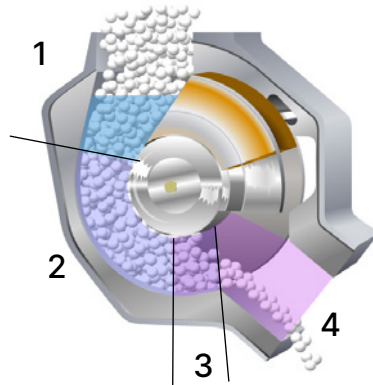
Material is in lock-up condition throughout Zone 2 and rotates as a solid body

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 an SFS-24 platform scale. This unit can be easily interchanged by hand with another unit from the Compact Feeder Line. The scale housing is stainless steel and completely closed.

Controller:

The SmartConnex™ control system allows individual or a multi-component control. A low power stepper motor drive and controller provide excellent turndown and flexibility ensuring a wide operating range.

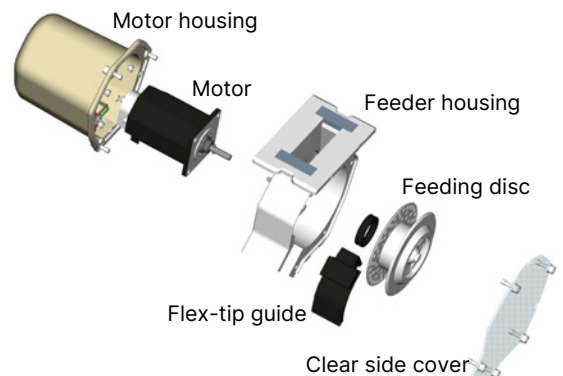
Hazardous Location Options:

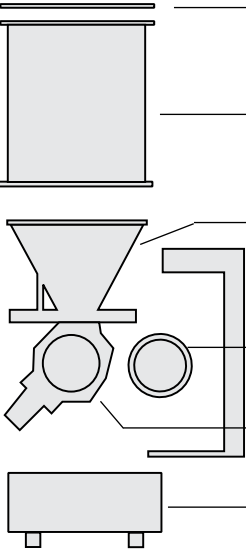
NEC	Class II, Div. 2, Group F & G
ATEX	N/A

Feed Rates

Nominal feed rate:	2 to 400 dm ³ /h [0.07 to 14 ft ³ /h] at 0.3 to 60 rpm
Theoretical displacement:	0.11 dm ³ /rev [0.0039 ft ³ /rev]

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

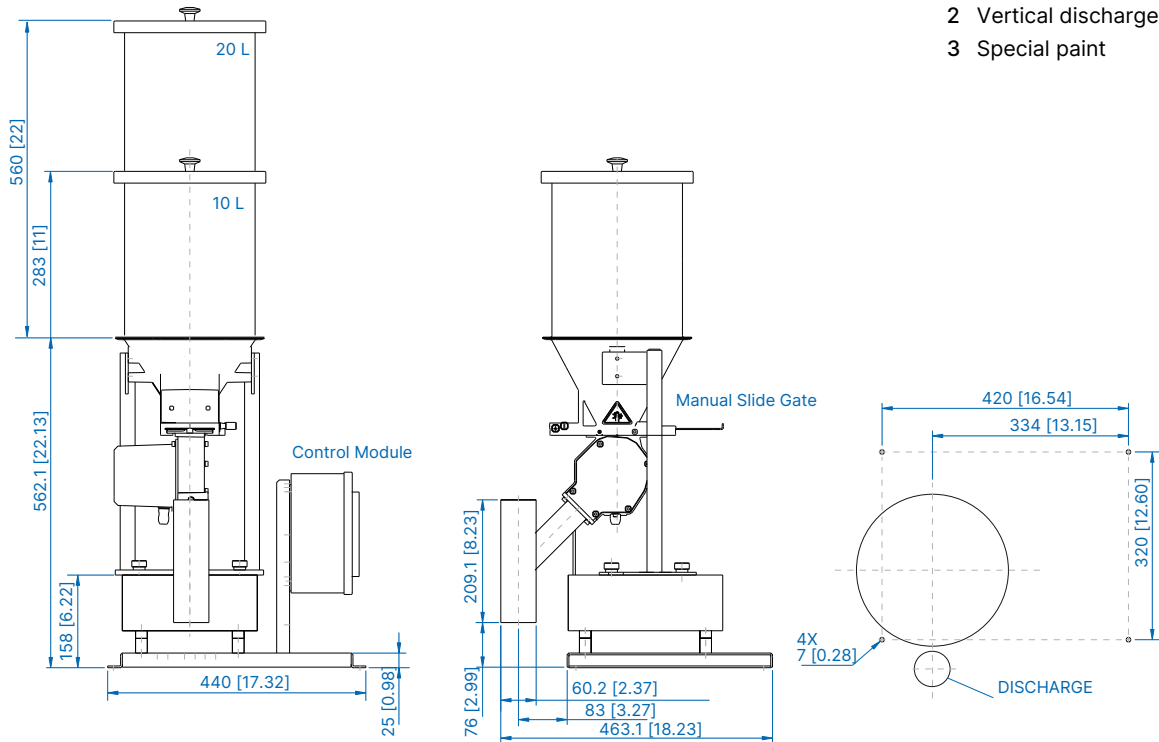


Configuration	Description	Alternatives	Remarks	Weight kg [lb]
	Cover		2D	0.8 [1.8]
	Hopper		2D - 10 L	3 [6.6]
			2D - 20 L	4 [8.8]
	Transition hopper	2.4 dm³ [0.085 ft³]		11 [23]
	Support			
	Motor drive	stepper motor 43 W, 48 VDC IP55, NEMA 12		
	Feeding unit	BSP-100		
	Platform scale		K-SFS-I IP65, NEMA 4	

Materials: Material contact parts: Cast aluminium AISI 356 [AISI7MG] [DIN 3.2371] electroless nickel plated, stainless steel EN 1.4301 (AISI 304), UHMW Polyethylene, Viton		Weighing Range:	24 kg [52.8 lb]
Seals:	Nitrile rubber, EPDM, silicone, closed cell PVC foam, PP brush with SST wire core (for pellet feeding)	Temperature-Limits: Operating temp.:	-20 to 55°C [-4 to 130°F]
Motor Cover:	black ABS	Material temp.:	-20 to 55°C [-4 to 130°F]
Side Cover:	clear polycarbonate	Painting:	Light gray RAL 7035
			<95% humidity

Dimensions mm [in]

shown with optional vertical discharge



- Options
- 1

Extension hopper
- 2

Vertical discharge 2.37"
- 3

Special paint

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