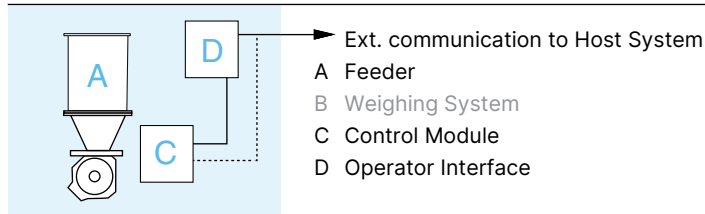


K-MV-BSP-150-S

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.

Design

The BSP feeder has a vertical rotating disc assembly 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

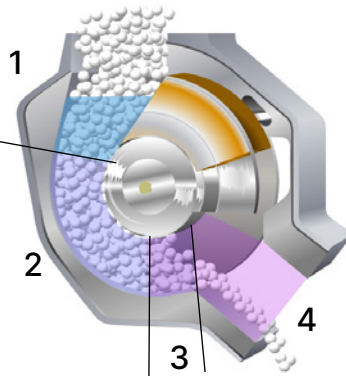
Material is in lock-up condition throughout Zone 2 and rotates as a solid body

ZONE 3: RELAXATION

Interparticle forces fall below lock-up threshold

ZONE 4: DISCHARGE

Flexible tip guide aids 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. With only one moving part and no pockets or screws, the design is simple, providing ease of use and almost zero maintenance.

The BSP-150-S has four feeding ducts. The standard disc is molded silicone on a stainless steel core. For special applications [e.g. super absorbent polymer] a completely steel disc is used.

Controller:

A low power stepper motor drive provides 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:

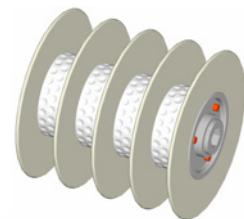
NEC Class II, Div. 2, Group F & G
ATEX N/A

Feed Rates

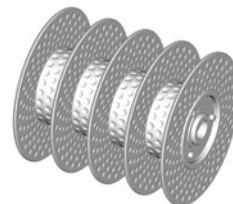
Nominal feed rate: 34 to 6700 dm³/h [1.2 to 237 ft³/h]
at 0.3 to 60 rpm

Theoretical displacement: 1.84 dm³/rev [0.065 ft³/rev]

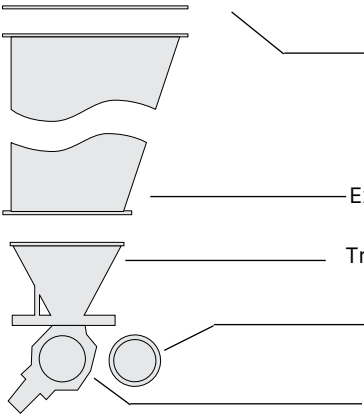
The feed rate indications are approximate values based on material characteristics.



silicone over stainless steel disc assembly



stainless steel disc assembly

Configuration	Description	Alternatives	Remarks	Weight kg [lb]
	Cover		6D	3 [6.6]
	Extension hopper		6D	see below
	Transition hopper	3.4 dm³ [0.12 ft³]		
	Motor drive	Stepper motor 194W, 48VDC max IP55, NEMA 12		18 [40]
	Feeding unit	BSP-150-S		

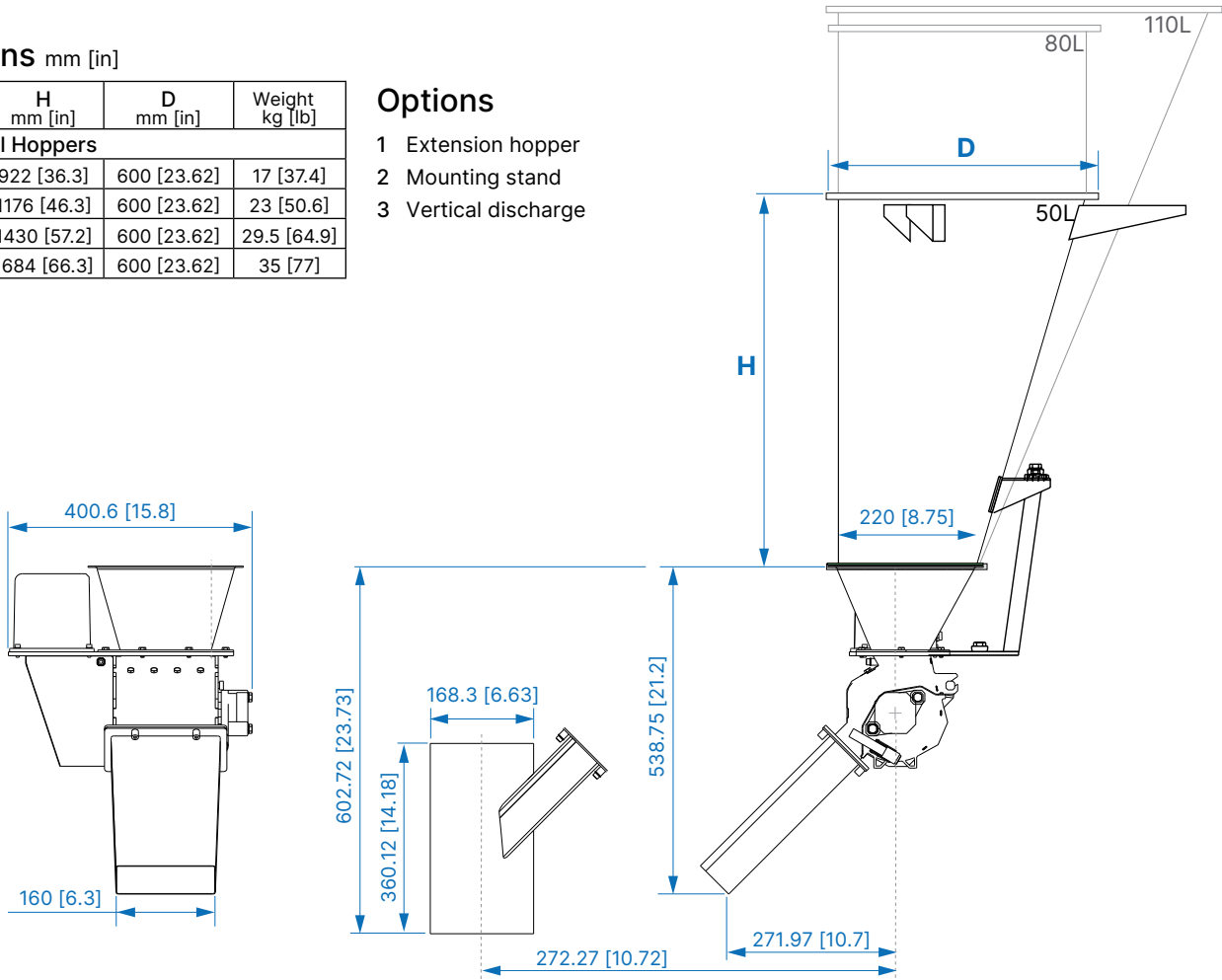
Materials:		Temperature-Limits:	
Material contact parts:	stainless steel AISI 304 [DIN 1.4301], Santoprene® thermoplastic elastomer (FDA approved)	Operating temp.:	-20 to 55°C [-4 to 130°F]
Seals:	PTFE, nitrile rubber, silicone	Material temp.:	-20 to 55°C [-4 to 130°F]
Motor Cover:	Acrylic/PVC blend		<95% humidity
		Painting:	Light gray RAL 7035

Dimensions mm [in]

Volume dm³ [ft³]	H mm [in]	D mm [in]	Weight kg [lb]
Asymmetrical Hoppers			
110 [3.88]	922 [36.3]	600 [23.62]	17 [37.4]
180 [6.4]	1176 [46.3]	600 [23.62]	23 [50.6]
250 [8.8]	1430 [57.2]	600 [23.62]	29.5 [64.9]
320 [11.3]	1684 [66.3]	600 [23.62]	35 [77]

Options

- 1 Extension hopper
- 2 Mounting stand
- 3 Vertical discharge



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