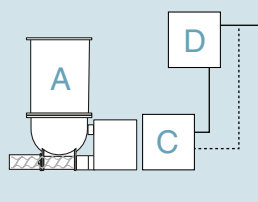


Coperion K-Tron Product Specification Volumetric Single Screw Feeder

K2-MV-S100



Ext. communication to Host System
A Feeder
B Weighing System
C Control Module
D Operator Interface

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

Component A is specified here.

Application

Volumetric feeding of free flowing powders, granules and other bulk materials. The feeder can be upgraded to a loss-in-weight feeder system at any time.

Design

Single screw feeder with interchangeable feeding tools. All parts in contact with the material being fed are stainless steel. Feeding equipment is easy to disassemble. The modular components are held together by V-clamps. The horizontal agitator gently moves bulk material to the large throat and then into the discharge screws. It is removable without tools. The horizontal agitator speed totals 5% of the screw speed. High and low reducer ranges are available. The user will need to select either high or low range. Unit can mechanically be changed over as necessary. This equipment conforms to all applicable European Directives (e.g. Machinery, EMC).

Controller: (see separate data sheets)

The SmartConnex™ control system allows individual or multi-component control. Each feeder has its own control module. Connection between feeders, operator interface and smart I/O is via an industrial network. A variety of protocols is available for connection to the plant's host system.

Hazardous Location Options:

NEC Class II, Div. 2, Groups F & G / Class II, Div. 1, Groups F & G
Class I, Div. 2, Group D / Class I, Div. 1, Group D
ATEX 3D/3D, 3D/2D, 3G/3G, 2G/2G, 2D,2D (outside/inside)



Feed Screws and Sample Feed Rates

Feeder screws are determined based on the material being fed. The theoretical throughput range is influenced by feeder configuration and material characteristics. The sample feed rates below were tested with a free-flowing material (semolina, bulk density 0.783 kg/dm³).

Attention: Actual feed rates depend on individual material characteristics. For feed rates at the upper or lower limits of the theoretical range, check with a Coperion K-Tron Test Lab.

Pitch	DN	 Auger screws			 Spiral screws			Max. screw speed
		ø60	ø80	ø100	ø60	ø80	ø100	
Coarse	dm³/h	20 - 3474	53 - 7775	125 - 17135	23 - 3135	46 - 5946	93 - 12455	400 RPM
	ft³/h	0.7 - 123	1.9 - 274	4.4 - 605	0.8 - 111	1.6 - 210	3.3 - 440	
Fine	dm³/h	13 - 2100	29 - 4537	66 - 11126	12 - 2008	30 - 4760	65 - 9864	
	ft³/h	0.5 - 74	1 - 160	2.3 - 393	0.4 - 71	1.1 - 168	2.3 - 348	

Feed rates shown are with servo motor and KCM controller (Max. motor speed 2000 RPM). For feed rates with DC or AC motors consult factory.

Configuration

Description	Alternatives	Remarks	Weight kg [lb]
Vertical agitator	EMEA/Asia: 230/400 VAC 1.5 kW, IP55 Americas: 230/460 VAC 2 HP	10D	130 [286]
Cover		10D	27 [59]
Extension hopper		10D	see below
Horiz. agitator			1.8 [4]
Trough	15 L		7 [15.4]
Gearbox			28 [62]
Motor	Servo motor - 1.6 kW, 240 VAC, IP65 KCM-III requires 230 VAC single phase (US split-phase, 3 wire balanced, L1-N-L2)		9.5 [20.9]
Screws		see page 1	6 [13.2]
Outlet	Horiz. outlet Vertical outlet Pressure compensation	standard: horiz. outlet	5 [11]

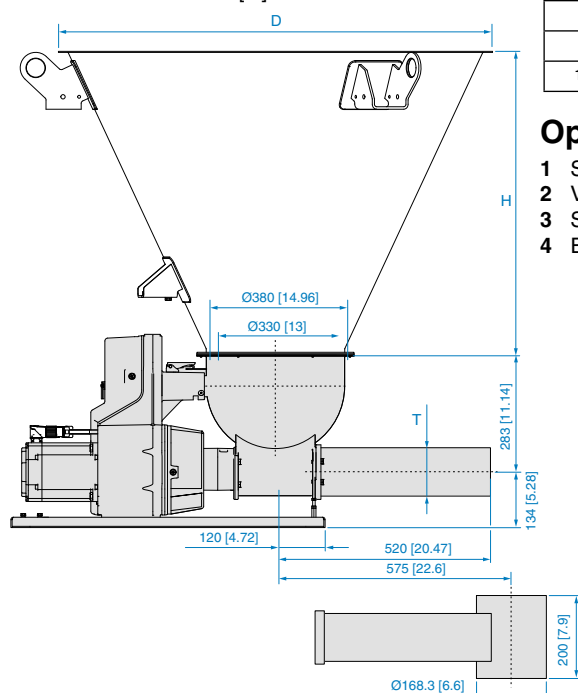
Materials:

Product contact parts*: Stainless steel
 EN 1.4404, 1.4435 (AISI 316L)
 EN 1.4409 (ASTM A743 CF3M)
 *Horiz. agitator: EN 1.4034 (AISI 420) standard
 EN 1.4404 (AISI 316L) option
 Seals: PTFE, Neoprene, silicone
 Painting: Light gray RAL 7035

Temperature-Limits:

Ambient: 0...40°C [32...104°F]
 Material: 0...50°C [32...122°F]
 for other material temperatures contact factory

Dimensions mm [in]



Ø Screw Ø Tube (T)

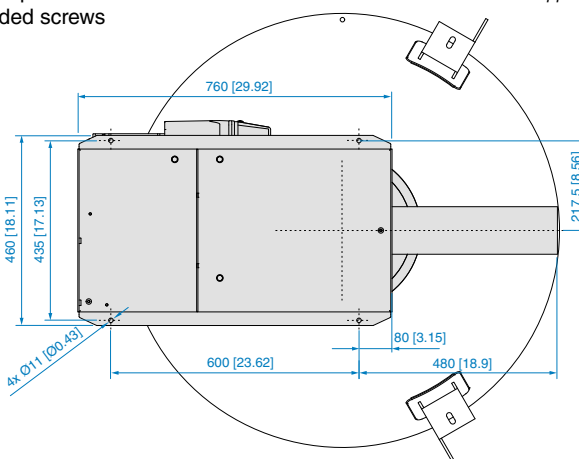
60 [2.4]	70 [2.8]
80 [3.1]	89 [3.5]
100 [3.9]	114 [4.5]

Options

- 1 Standard hopper
- 2 Vertical outlet
- 3 Special paint / finish
- 4 Extended screws

Volume dm³ [ft³]	H mm [in]	D mm [in]	Weight kg [lb]
Symmetrical Hoppers			
250 [9]	732 [29]	1000 [39.4]	37 [81]
450 [15]	1086 [43]	1000 [39.4]	59 [130]
750 [26]	1450 [57]	1000 [39.4]	82 [180]
1100 [39]	1820 [72]	1000 [39.4]	106 [234]
1400 [49]	2350 [93]	1000 [39.4]	140 [308]

6D and 16D hoppers also available



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