

- 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

Gravimetric feeding of free flowing powders, granules and other bulk materials.

Design

Single screw feeder with interchangeable feeding tools suspended in a three-point weighing system.

All parts in contact with the material being fed are stainless steel. Feeding equipment is easy to disassemble. The horizontal agitator gently moves the bulk material to the large throat and then into the screws. Feeder screws are easily interchangeable.

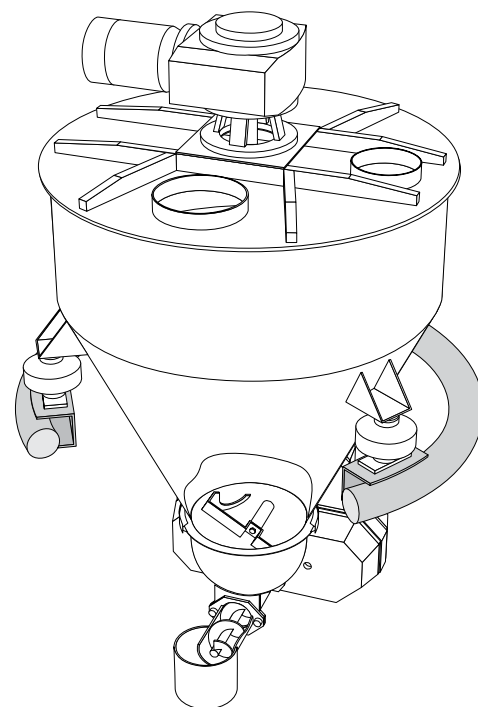
This equipment conforms to CE standards regarding EMC and safety.

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: (see sheet I-000002)

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



Feed Screws and Sample Feed Rates

Feeder screws are determined based on the material being fed. The theoretical throughput range of 1:100 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			Reduction / Screw Speed (RPM)
		ø60	ø80	ø100	ø60	ø80	ø100	
Coarse	dm³/h	37 - 3474	93 - 7775	217 - 17135	40 - 3135	70 - 5946	174 - 12455	High (5.01:1) 4 - 399
	ft³/h	1.3 - 123	3.3 - 274	7.7 - 605	1.4 - 111	2.5 - 210	6.1 - 440	
	dm³/h	20 - 2000	53 - 4480	125 - 10944	23 - 1962	46 - 3636	93 - 7310	Low (8.4:1) 2.4 - 238
	ft³/h	0.7 - 71	1.9 - 158	4.4 - 386	0.8 - 69	1.6 - 128	3.3 - 258	
Fine	dm³/h	21 - 2100	60 - 4537	119 - 11126	22 - 2008	53 - 4760	119 - 9864	High (5.01:1) 4 - 399
	ft³/h	0.7 - 74	2.1 - 160	4.2 - 393	0.8 - 71	1.9 - 168	4.2 - 348	
	dm³/h	13 - 1245	29 - 2677	66 - 6556	12 - 1100	30 - 2839	65 - 5819	Low (8.4:1) 2.4 - 238
	ft³/h	0.5 - 44	1 - 94	2.3 - 231	0.4 - 39	1.1 - 100	2.3 - 205	

Feed rates shown are with DC motor and KCM controller (Range 1:100 / Max. motor speed 2000 RPM).

For feed rates with vector-duty AC motor with speed pick-up and KCM controller multiply values by 0.875 (Range 1:100 / Max. motor speed 1750 RPM).

Coperion K-Tron Product Specification Loss-in-Weight Single Screw Feeder

K2-ML-S100

Configuration

	Description	Alternatives	Remarks	Weight kg (lb)
	Vertical agitator	KS: 230/400 VAC 1.5 kW IP55 KA: 115/230 VAC 1 HP or 180/200 VDC 1, 1.5 HP	10D	130 (286)
	Cover		10D	27 (59)
	Extension hopper		10D	see below
	Weigh bridge 3 x K-SFT:	200 kg 440 lb 300 kg 660 lb 500 kg 1100 lb 1000 kg 2200 lb	IP65, NEMA 4 Gross weigh bridge capacity = 3 x K-SFT	
	Horiz. agitator			1.8 (4)
	Trough	15 L		7 (15.4)
	Gearbox			28 (62)
	Motor	200 V DC 1.6 kW IP55 CKS: 3x230 VAC CKA: 3x220 VAC 1.6 kW IP65	standard: 1.6 kW DC	30 (66)
	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
 DIN 1.4404, 1.4435 (AISI 316L)
 DIN 1.4409 (ASTM A743 CF3M)
 *Horiz. agitator: DIN 1.4034 (AISI 420) standard
 DIN 1.4404 (AISI 316L) option
 Seals: PTFE, Neoprene, Silicon
 Painting: Light gray RAL 7035

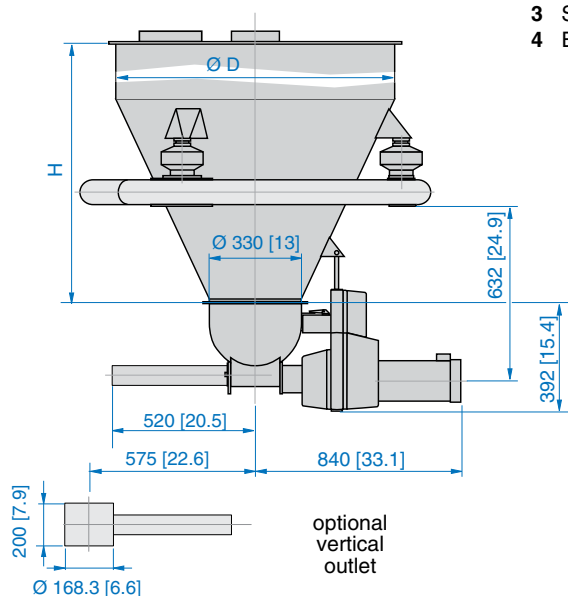
Weighing Range:

Gross weighbridge capacity (e.g. 3 x 60 = 180 kg) less total feeder weight and less 10% reserve

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]

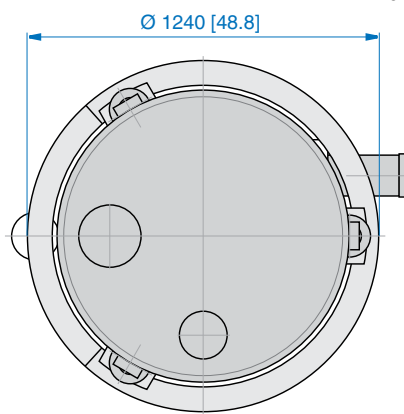


Options

- 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



Ø Screw & Tube

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

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