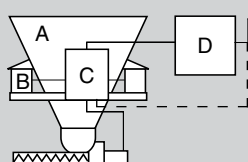


Coperion K-Tron Product Specification Loss-in-Weight Single Screw Feeder

K2-ML-S60



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.

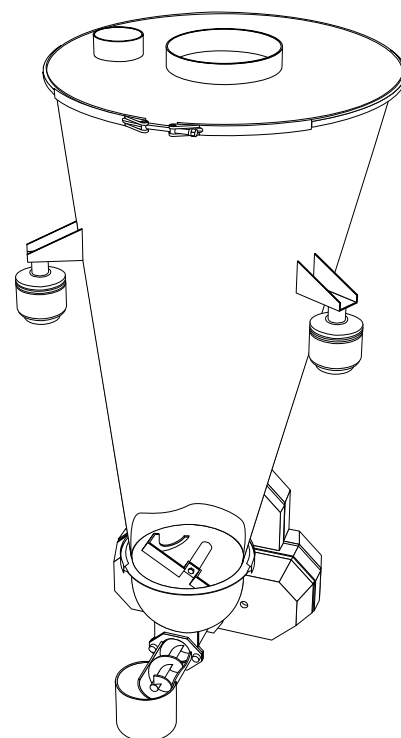
This equipment conforms to CE standards regarding EMC and safety.

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)

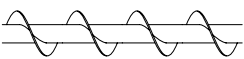
NEC Class II, Div. 2, Groups F & G / Class II, Div. 1, Groups F & G
Class I, Div. 2, Groups C & D / Class I, Div. 1, Groups C & D
ATEX 3D/3D, 3D/2D, 3G/3G, 2GD/2GD (outside/inside)



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 Screw (Tube)	 Auger screws					 Spiral screws					Gearbox
		ø15 (15)	ø25 (30)	ø40 (40)	ø50 (50)	ø60 (60)	ø15 (15)	ø25 (30)	ø40 (40)	ø45 (50)	ø60 (60)	
coarse	dm³/h	0.78 - 70.1	3.84 - 354	12 - 1041	38 - 2740	54 - 4404	0.76 - 74.4	4.14 - 383	15.2 - 1320	32.8 - 2335	58 - 3669	High
	ft³/h	0.03 - 2.47	0.14 - 12.5	0.42 - 36.7	1.34 - 96.72	1.91 - 155	0.03 - 2.63	0.15 - 13.5	0.54 - 46.6	1.16 - 82.43	2.05 - 130	
	dm³/h	0.15 - 14.5	0.82 - 78	2.7 - 233	7.4 - 657	11 - 1000	0.15 - 15.8	0.83 - 80	3.1 - 287	8.17 - 600	12 - 976	Low
	ft³/h	0.01 - 0.51	0.03 - 2.75	0.1 - 8.22	0.26 - 23.2	0.39 - 35.3	0.01 - 0.56	0.03 - 2.82	0.11 - 10.13	0.29 - 21.18	0.42 - 34.5	
fine	dm³/h	--	1.88 - 183	6.9 - 673	21.7 - 1965	31 - 2752	--	2.16 - 199	8.1 - 794	19.4 - 1690	34 - 3002	High
	ft³/h	--	0.07 - 6.46	0.24 - 23.8	0.77 - 69.4	1.09 - 97.2	--	0.08 - 7.02	0.29 - 28	0.68 - 59.7	1.2 - 106	
	dm³/h	--	0.42 - 37	1.4 - 140	4.4 - 433	6 - 576	--	0.46 - 42	1.7 - 165	4.19 - 393	7 - 639	Low
	ft³/h	--	0.01 - 1.31	0.05 - 4.94	0.16 - 15.3	0.21 - 20.3	--	0.02 - 1.48	0.06 - 5.82	0.15 - 13.9	0.25 - 22.6	

Screw speed (RPM): Gearbox **High (3.6:1)** = 5.6 - 555 **Low (18:1)** = 1.1 - 111

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-S60

Configuration

Description	Alternatives	Remarks	Weight kg (lb)
Vertical agitator	KS: 230/400 VAC 180, 250 W IP55	4D (50 L, 80 L)	25 (55)
Cover	KA: 115/230 VAC 0.25, 0.33 HP or 100/200 VDC 0.33 HP	6D (110 L, 180L)	36 (79)
Weigh bridge 3 x K-SFT:		4D	2 (4.4)
Extension hopper		6D	3 (6.6)
Horiz. agitator			
Trough			
Gearbox			
Motor			
Screws			
Outlet			

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

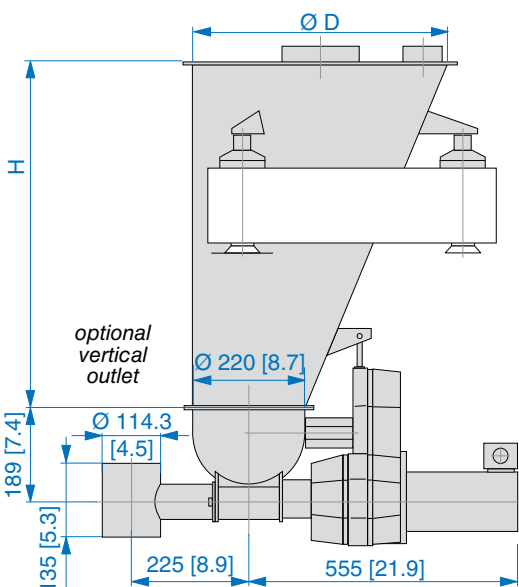
Weighing Range:

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 Hopper
- 2 Vertical outlet
- 3 Special paint / finish
- 4 Extended screws

Volume dm³ [ft³]	H mm [in]	D mm [in]	Weight kg [lb]
Asymmetrical Hoppers			
50 [1.76]	615 [24.2]	400 [15.75]	7 [15.4]
80 [2.8]	869 [34.2]	400 [15.75]	11 [24.2]
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]

Ø Screw mm [in]	Ø Tube mm [in]
60 [2.4]	70 [2.76]
50 [2]	60.3 [2.4]
40 [1.6]	48.3 [1.9]
25 [1]	33.7 [1.32]
15 [0.6]	21.3 [0.84]

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