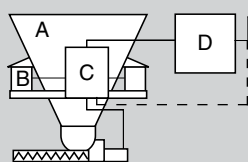


Coperion K-Tron Product Specification

Loss-in-Weight Single Screw Feeder

K-ML-KS60



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.

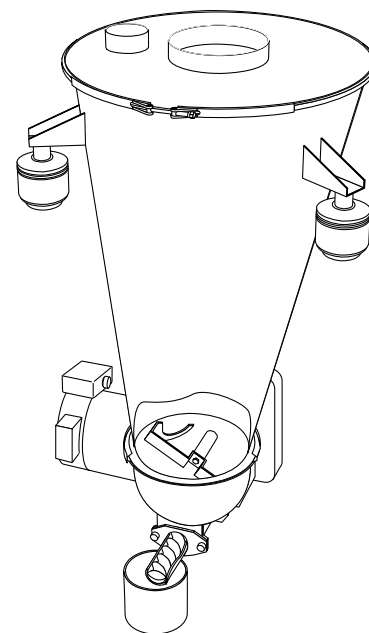
Controller: (see separate data sheets)

The SmartConnex™ control system allows individual or multi-component control. Interface-modules for computer communications are installed in the control module.

Hazardous Location Options: (see sheet I-000002)

NEC Class I, Div. 1 & 2, Group C & D
Class II, Div. 1 & 2, Group F & G

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	0.73 - 65	3.6 - 332	11.3 - 979	36 - 2575	51 - 4140	0.72 - 69	3.9 - 360	14.3 - 1240	30.8 - 2194	54 - 3449	A
	ft³/h	0.03 - 2.29	0.13 - 11.72	0.4 - 34.6	1.27 - 91	1.8 - 146	0.03 - 2.44	0.14 - 12.7	0.5 - 43.77	1.09 - 77.45	1.91 - 122	
	dm³/h	0.3 - 30	1.81 - 161	5.4 - 461	17.4 - 1309	23 - 2120	0.34 - 35	1.8 - 169	6.9 - 600	18.4 - 1347	26 - 1747	B
	ft³/h	0.01 - 1.06	0.06 - 5.68	0.19 - 16.3	0.61 - 46.2	0.81 - 74.8	0.01 - 1.24	0.06 - 5.97	0.24 - 21.18	0.65 - 47.5	0.92 - 61.67	
	dm³/h	0.14 - 14	0.8 - 75	2.6 - 227	7.3 - 639	11 - 973	0.14 - 15.4	0.8 - 78	3 - 279	7.95 - 583	12 - 949	C
	ft³/h	0 - 0.005	0.03 - 2.65	0.09 - 8.01	0.26 - 22.6	0.39 - 34.4	0 - 0.005	0.03 - 2.75	0.11 - 9.85	0.28 - 20.6	0.42 - 33.5	
fine	dm³/h	--	1.7 - 172	6.5 - 633	20.4 - 1847	29 - 2587	--	2 - 187	7.7 - 747	18.2 - 1591	32 - 2822	A
	ft³/h	--	0.06 - 6.07	0.23 - 22.3	0.72 - 65	1.02 - 91	--	0.07 - 6.6	0.27 - 26.4	0.64 - 56.2	1.13 - 100	
	dm³/h	--	0.9 - 82	3 - 290	10.3 - 896	14 - 1266	--	0.9 - 87	3.9 - 355	9.43 - 454	14 - 1352	B
	ft³/h	--	0.03 - 2.89	0.11 - 10.24	0.36 - 31.6	0.49 - 44.7	--	0.03 - 3.07	0.14 - 12.5	0.33 - 16	0.49 - 47.73	
	dm³/h	--	0.4 - 36	1.4 - 136	4.3 - 407	6 - 561	--	0.5 - 40	1.7 - 160	4.078 - 383	7 - 622	C
	ft³/h	--	0.01 - 1.27	0.05 - 4.8	0.15 - 14.4	0.21 - 19.8	--	0.02 - 1.41	0.06 - 5.65	0.14 - 13.5	0.25 - 21.96	

Screw speed (RPM): Gearbox **A** = 5.2 - 522 **B** = 2.5 - 250 **C** = 1.1 - 108

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)

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

K-ML-KS60

Configuration

Description	Selection	Remarks	Weight kg (lb)
Vertical agitator	KS: 230/400 VAC 180, 250 W IP55	4D (50 L, 80 L)	25 (55)
		6D (110 L, 180 L)	36 (79)
Cover	KA: 115/230 VAC 0.25, 0.33 HP or 100/200 VDC 0.33 HP	4D	2 (4.4)
Weigh bridge 3 x K-SFT:	30 kg 66 lb	6D	3 (6.6)
Extension hopper	60 kg 132 lb	IP65, NEMA 4 Gross weigh bridge capacity = 3 x K-SFT	see below
Horiz. agitator	90 kg 198 lb	4D or 6D	0.7 (1.5)
Trough	120 kg 264 lb		2.5 (5.5)
Gearbox	5 L		15 (33)
Motor	A B C	standard: 0.45 kW DC	12 (26.4)
Screws	100/200 VDC 450 W IP65	see page 1	1 (2.2)
Outlet	CKA: 3x220 VAC 370/450 W IP65	standard: horiz. outlet	1 (2.2)
	Horiz. outlet Vertical outlet Pressure compensation		

Materials:

Material 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]

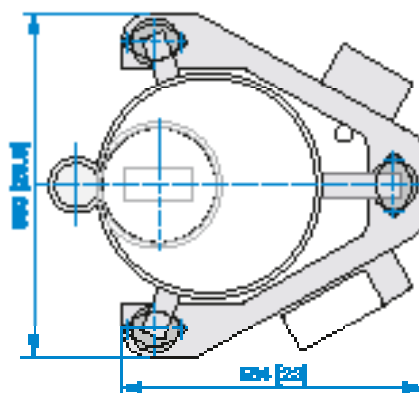
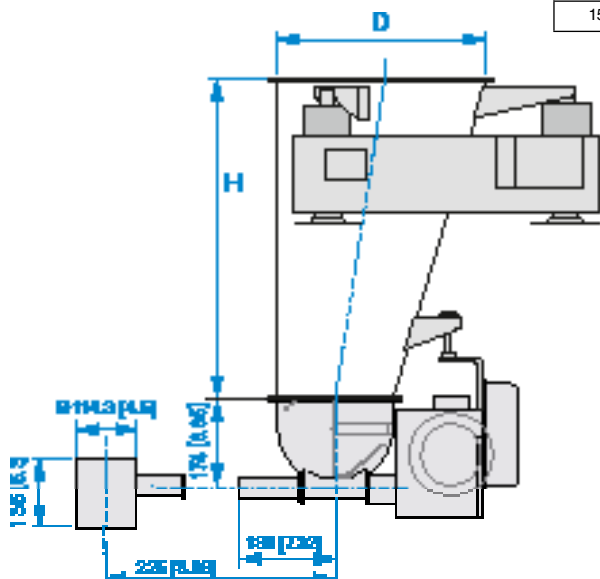
Material: 0...50°C [32...122°F]

for other material temperatures contact factory

Dimensions mm [in]

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]

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]
140 [5.0]	1170 [46.1]	600 [23.62]	23 [50.6]
170 [6.0]	1420 [56.3]	600 [23.62]	29.5 [64.9]
200 [7.1]	1670 [66.1]	600 [23.62]	35 [77]



Options

- 1 Hopper
- 2 Vertical outlet
- 3 Special paint
- 4 Extended screws

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