

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

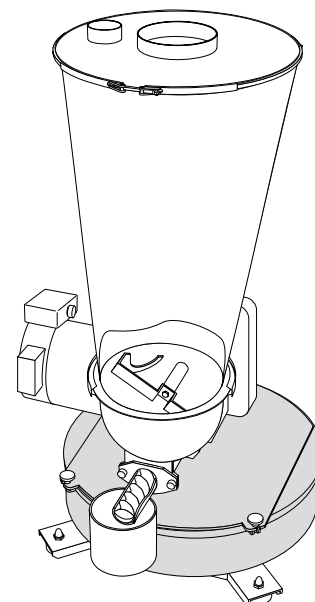
Single screw feeder with interchangeable feeding tool mounted on a D5 weigh bridge. The weigh bridge is stainless steel and the scale housing is completely enclosed.
 All parts in contact with the material being fed are stainless steel. Feeding equipment is easy to disassemble. The horizontal agitator 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 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	0.73 - 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 - 0.49	0.03 - 2.65	0.09 - 8.01	0.26 - 22.6	0.39 - 34.4	0 - 0.54	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 RPM).

Configuration

Description	Alternatives	Remarks	Weight kg (lb)
Vertical agitator	KS: 230/400 VAC 180, 250 W IP55	4D (50 L, 80 L) 6D (110 L)	25 (55) 36 (79)
Cover	KA: 115/230 VAC 0.25, 0.33 HP or 100/200 VDC 0.33 HP	2D 4D 6D	1 (2.2) 2 (4.4) 3 (6.6)
Extension hopper		2D, 4D or 6D	see below
Horiz. agitator			0.7 (1.5)
Trough		5 L	2.5 (5.5)
Gearbox	A B C		15 (33)
Motor	100/200 VDC 450 W IP65	standard: 450 W DC	12 (26.4)
Screws	CKS: 3x230 VAC CKA: 3x220 VAC 370/450 W IP65	see page 1	1 (2.2)
Outlet	Horiz. outlet Vertical outlet Pressure compensation	standard: horiz. outlet	1 (2.2)
Weigh bridge (gross capacity)	60 kg 132 lb 120 kg 264 lb 200 kg 440 lb	D5 IP65, NEMA 4	32 [70]

Materials:

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

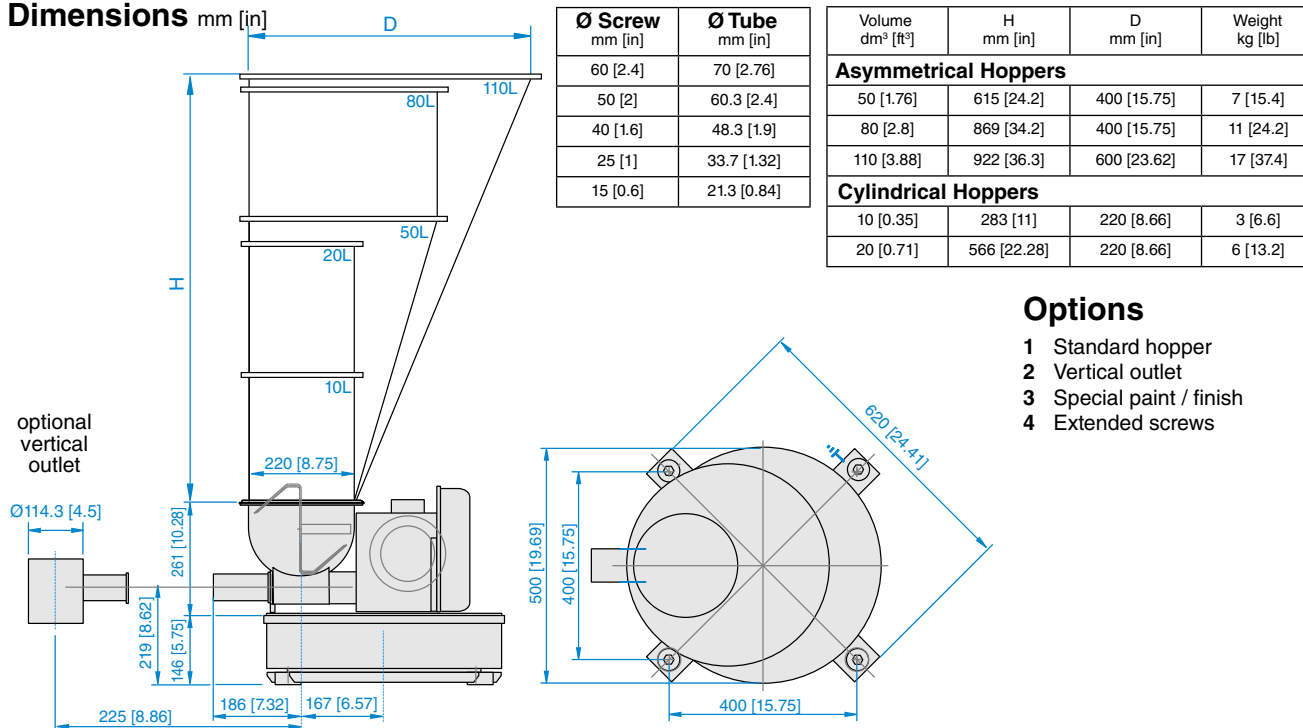
Weighing Range:

Gross weighbridge capacity (60, 120 or 200 kg) less total feeder weight.

Temperature-Limits:

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

Dimensions



Options

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

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