

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 to very poorly flowing powders (e.g. lumpy, moist or bridge building materials) as well as fibers, flakes and other bulk materials.

Design

Twin 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.

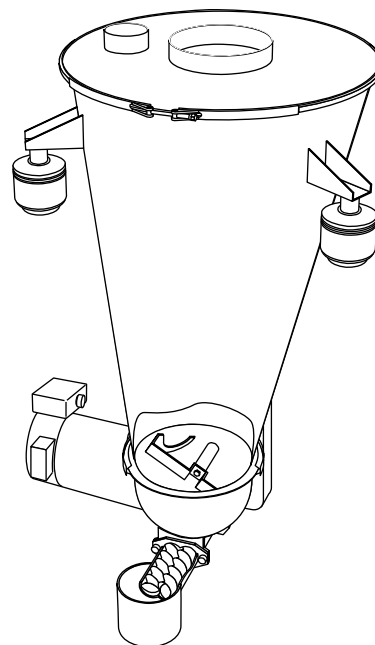
This equipment conforms to CE standards regarding EMC and safety.

Controller: (see separate spec 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)

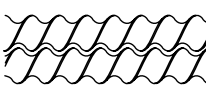
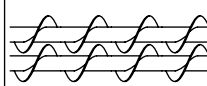
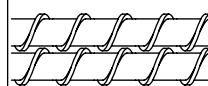
NEC Class I, Div. 1 & 2, Group C & D
 Class II, Div. 1 & 2, Group F & G
 ATEX 3D/3D, 3D/2D, 3G/3G, 2GD/2GD (outside/inside)



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).

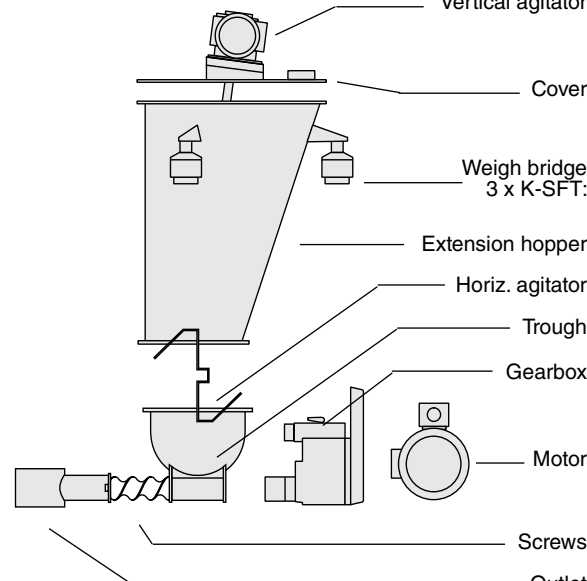
Attention: Actual feed rates depend on individual material characteristics. At higher screw speeds a poorly flowing powder may only achieve 30-50% of the throughput possible with a free-flowing material due to reduced degree screw fill. For feed rates at the upper or lower limits of the theoretical range, check with a Coperion K-Tron Test Lab.

Pitch						Screw speed RPM	Gearbox type
coarse pitch	dm³/h	2.8 - 254	4.2 - 371	3.0 - 288	3.1 - 254	7.5 - 746	A
	ft³/h	0.10 - 8.97	0.15 - 13.10	0.11 - 10.17	0.11 - 8.97		
	dm³/h	1.6 - 148	2.4 - 237	1.9 - 171	2.0 - 167	3.6 - 357	B
	ft³/h	0.056 - 5.22	0.085 - 8.37	0.067 - 6.04	0.071 - 5.90		
fine pitch	dm³/h	0.7 - 66	1.1 - 97	0.8 - 78	0.8 - 77	1.5 - 154	C
	ft³/h	0.025 - 2.33	0.039 - 3.42	0.028 - 2.75	0.028 - 2.72		
	dm³/h	1.5 - 138	1.2 - 112	1.9 - 185	2.3 - 202	7.5 - 746	A
	ft³/h	0.053 - 4.87	0.042 - 3.95	0.067 - 6.53	0.081 - 7.13		
	dm³/h	0.9 - 81	0.7 - 65	1.2 - 109	1.5 - 124	3.6 - 357	B
	ft³/h	0.032 - 2.86	0.025 - 2.29	0.042 - 3.85	0.053 - 4.38		
	dm³/h	0.4 - 36	0.3 - 29	0.5 - 49	0.6 - 57	1.5 - 154	C
	ft³/h	0.014 - 1.27	0.011 - 1.02	0.018 - 1.73	0.021 - 2.01		

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). Pre-reducer with a reduction of 1:4 available for use with B or C gearboxes and DC motor.

Configuration

Configuration	Description	Selection	Remarks	Weight kg [lb]		
	Vertical agitator	KS: 230/400 VAC 180, 250 W IP55	KA: 115/230 VAC 0.25, 0.33 HP or 100/200 VDC 0.33 HP	4D (50 L, 80 L) 25 [55] 6D (110 L, 180 L) 36 [79]		
	Cover			4D 2 [4.4] 6D 3 [6.6]		
	Weigh bridge 3 x K-SFT:	30 kg 66 lb	60 kg 132 lb	90 kg 198 lb	120 kg 264 lb	IP65, NEMA 4 Gross weigh bridge capacity = 3 x K-SFT
	Extension hopper			4D or 6D	see below	
	Horiz. agitator				0.7 [1.5]	
	Trough			5 L	2.5 [5.5]	
	Gearbox	A	B	C	6 [13.2]	
	Motor	100/200 VDC 450 W IP65	CKS: 3x230 VAC CKA: 3x220 VAC 370/450 W IP65	standard: 450 W DC	12 [26.4]	
	Screws			see page 1	2 [4.4]	
	Outlet		Horiz. outlet	Vertical outlet	Pressure compensation	standard: horiz. outlet 1 [2.2]

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

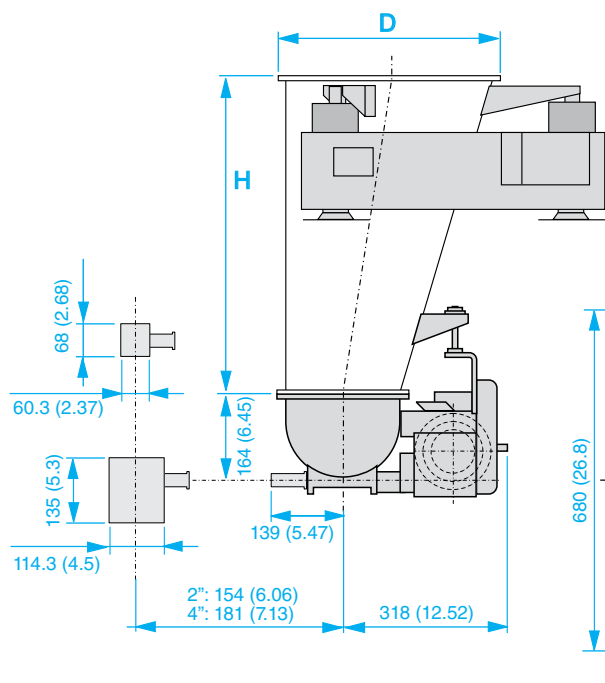
Temperature-Limits:

Ambient: 0...40°C [32...104°F]

Material: 0...50°C [32...122°F]

for other material temperatures contact factory

Dimensions mm [in]



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]

Options

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

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