

- 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 with K-SFT load cells.

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 all applicable European Directives (e.g. Machinery, EMC).

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:

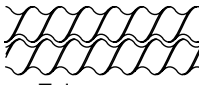
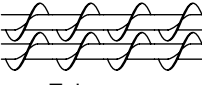
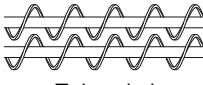
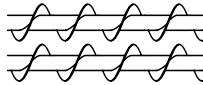
- NEC Class II, Div. 2, Groups F & G / Class II, Div. 1, Groups F & G
- Class I, Div. 2, Groups C & D / Class I, Div. 1, Groups C & D
- ATEX 3D/3D, 3D/2D, 3G/3G, 2D/2D, 2G/2G (outside/inside)



Feed Screws and Sample Feed Rates

Feeder screws are determined based on the material being fed. The theoretical throughput range 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 will not achieve the full 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		 Twin concave screws	 Twin auger screws	 Twin spiral screws	 Double auger screws
coarse pitch	dm³/h	2.9 - 1417	5.2 - 2267	3.4 - 1398	4.3 - 1712
	ft³/h	0.1 - 50.02	0.18 - 80.03	0.12 - 49.35	0.15 - 60.43
fine pitch	dm³/h	2.1 - 920	2.4 - 1370	1.82 - 1023	2.4 - 1254
	ft³/h	0.07 - 32.48	0.08 - 48.36	0.06 - 36.11	0.08 - 44.27

Max. screw speed: 599 RPM

Feed rates shown are with servo motor and KCM controller (Max. motor speed 2000 RPM). For feed rates with DC or AC motors consult factory.

Note: A 'Low' gear reduction is available for low feed rates with high torque (heavy bulk material). Max. screw speed 120 RPM.

Coperion K-Tron Product Specification

Loss-in-Weight Twin Screw Feeder

K2-ML-T35

Configuration

Description	Alternatives	Remarks	Weight kg [lb]
Vertical agitator (option)	EMEA/Asia: 230/400 VAC 180, 250 W, IP55 Americas: 230/460 VAC 0.25, 0.33 HP	4D (50 L, 80 L) 6D (110 L, 180L)	25 [55] 36 [79]
Cover		4D 6D	2 [4.4] 3 [6.6]
Load cells 3 x K-SFT:	30 kg 66 lb 60 kg 132 lb 90 kg 198 lb 120 kg 264 lb	IP65, NEMA 4 gross weighing capacity	
Extension hopper		4D or 6D	see below
ActiFlow		option (4D, 6D)	9.6 [21.6]
Horiz. agitator			0.7 [1.5]
Trough	5 L		2.5 [5.5]
Gearbox			15 [33]
Motor	Servo motor - 800 W, 240 VAC, IP65 KCM-III requires 230 VAC single phase (US split-phase, 3 wire balanced, L1-N-L2)		5.8 [12.8]
Screws		see page 1	2 [4.4]
Outlet	Horiz. outlet Vertical outlet Pressure compensation	standard: horiz. outlet	1 [2.2]

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, silicone

Painting: Light gray RAL 7035

Weighing Range:

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

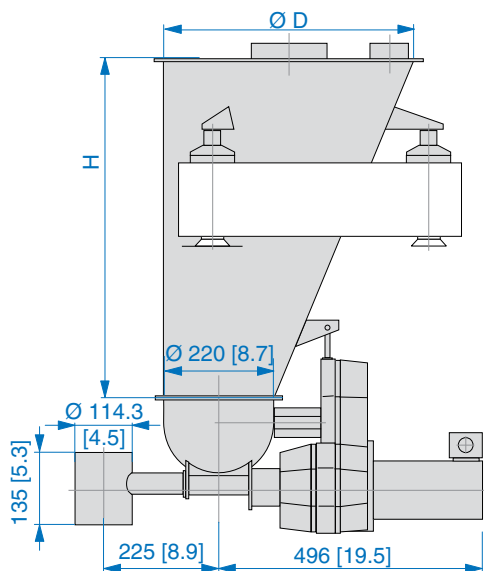
Temperature-Limits:

Ambient: 0...40°C [32...104°F]

Material: 0...50°C [32...122°F]

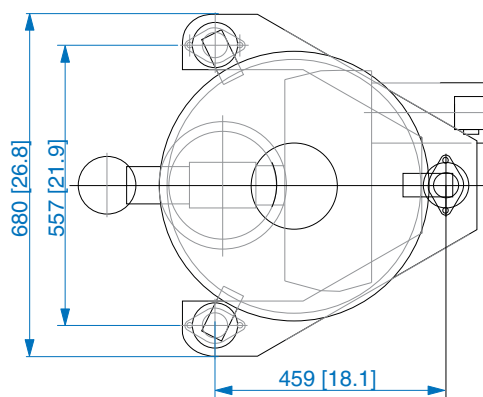
for other material temperatures contact factory

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]

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