

- 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 difficult 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 modular components are held together by V-clamps. By opening the V-clamp on the lower hopper end by tool, the feeder will swing out for easy cleaning. The horizontal agitator gently moves bulk material to the large throat and then into the discharge screws. It is removable without tools. The horizontal agitator speed totals 5% of the screw speed.

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:

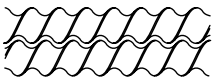
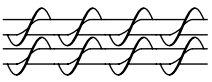
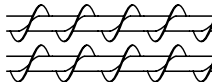
- NEC Class II, Div. 2, Groups F & G / Class II, Div. 1, Groups F & G
- Class I, Div. 2, Group D / Class I, Div. 1, Group D
- ATEX 3D/3D, 3D/2D, 3G/3G, 2D/2D, 2G/2G (outside/inside)



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. 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	 Double auger screws	Max. screw speed
Coarse	dm³/h	32 - 5270	48 - 7040	27 - 4050	425 RPM
	ft³/h	1.1 - 186	1.7 - 249	0.9 - 143	
Fine	dm³/h	20 - 2600	28 - 4430	21 - 3230	
	ft³/h	0.7 - 92	1 - 156	0.7 - 114	

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.

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

**K2-ML-T60
(10D)**

Configuration

Description	Alternatives	Remarks	Weight kg [lb]
Vertical agitator	EMEA/Asia: 230/400 VAC 1.5 kW, IP55 Americas: 230/460 VAC 2 HP	option, 10D	130 [286]
Cover		10D	27 [59]
Extension hopper		10D	see below
Load cells 3 x K-SFT:	200 kg 440 lb 300 kg 660 lb 500 kg 1100 lb 1000 kg 2200 lb	IP65, NEMA 4 Gross weighing capacity	
2x ActiFlow		option (250L only)	19 [42]
Horiz. agitator			1.8 [4]
Trough	15 L		7 [15.4]
Gearbox			28 [62]
Motor	Servo motor - 1.6 kW, 240 VAC, IP65 <i>KCM-III requires 230 VAC single phase (US split-phase, 3 wire balanced, L1-N-L2)</i>		9.5 [20.9]
Screws		see page 1	12 [26.4]
Outlet	Horiz. outlet Vertical outlet Pressure compensation	standard: horiz. outlet	5 [11]

Materials:

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

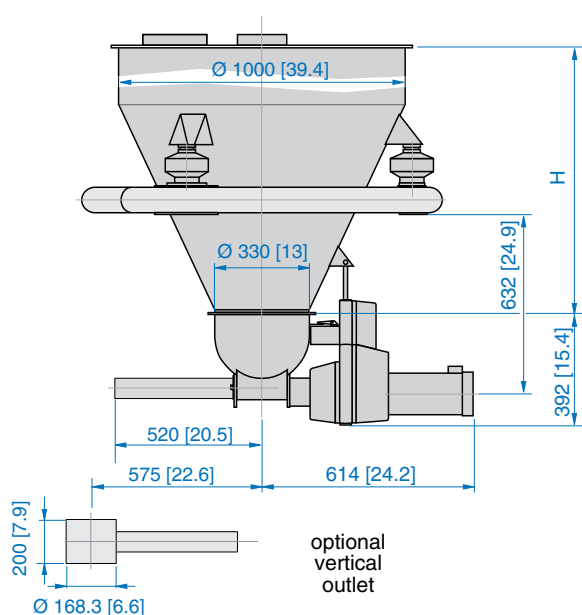
Weighing Range:

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

Temperature-Limits:

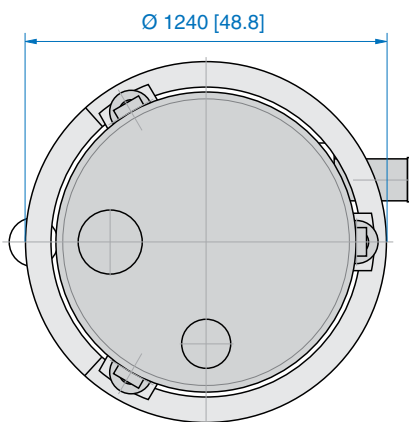
Ambient: 0 ... 40°C [32 ... 104°F]
 Material: 0 ... 50°C [32 ... 122°F]
for other material temperatures contact factory

Dimensions mm (in)



Volume dm³ [ft³]	H mm [in]	D mm [in]	Weight kg [lb]
Symmetrical Hoppers			
250 [9]	732 [29]	1000 [39.4]	37 [81]
450 [15]	1086 [43]	1000 [39.4]	59 [130]
750 [26]	1450 [57]	1000 [39.4]	82 [180]
1100 [39]	1820 [72]	1000 [39.4]	106 [234]
1400 [49]	2350 [93]	1000 [39.4]	140 [308]

6D and 16D hoppers also available



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