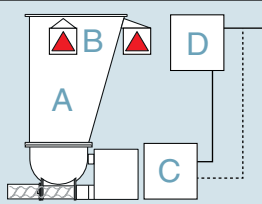


Coperion K-Tron Product Specification

Loss-in-Weight Single Screw Feeder

K2-ML-S60



- 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 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. For feed rates at the upper or lower limits of the theoretical range, check with a Coperion K-Tron Test Lab.

	DN Screw (Tube)	Auger screws					Spiral screws				
		ø15 (15)	ø25 (30)	ø40 (40)	ø50 (50)	ø60 (60)	ø15 (15)	ø25 (30)	ø40 (40)	ø45 (50)	ø60 (60)
coarse	dm³/h	0.14 - 70.1	0.8 - 354	2.6 - 1041	7.3 - 2740	11 - 4404	0.14 - 74.4	0.8 - 383	3 - 1320	7.95 - 2335	12 - 3669
	ft³/h	0.005 - 2.47	0.03 - 12.5	0.09 - 36.7	0.26 - 96.72	0.39 - 155	0.005 - 2.63	0.03 - 13.5	0.11 - 46.6	0.28 - 82.43	0.42 - 130
fine	dm³/h	--	0.4 - 183	1.4 - 673	4.3 - 1965	6 - 2752	--	0.5 - 199	1.7 - 794	4.08 - 1690	7 - 3002
	ft³/h	--	0.01 - 6.46	0.05 - 23.8	0.15 - 69.4	0.21 - 97.2	--	0.02 - 7.02	0.06 - 28	0.14 - 59.7	0.25 - 106

Max. screw speed: 556 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 111 RPM.

Coperion K-Tron Product Specification

Loss-in-Weight Single Screw Feeder

K2-ML-S60

Configuration

Description	Alternatives	Remarks	Weight kg [lb]
Vertical agitator (option)	EMEA/Asia: 230/400 VAC 180 250 W, IP55	4D (50 L, 80 L)	25 [55]
	Americas: 230/460 VAC 0.25, 0.33 HP	6D (110 L, 180L)	36 [79]
Cover		4D	2 [4.4]
		6D	3 [6.6]
Load cells 3 x K-SFT:	30 kg 66 lb	IP65, NEMA 4 gross weighing capacity	
	60 kg 132 lb		
	90 kg 198 lb		
	120 kg 264 lb		
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	1 [2.2]
Outlet	Horiz. outlet	standard: horiz. outlet	1 [2.2]
	Vertical outlet		
	Pressure compensation		

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

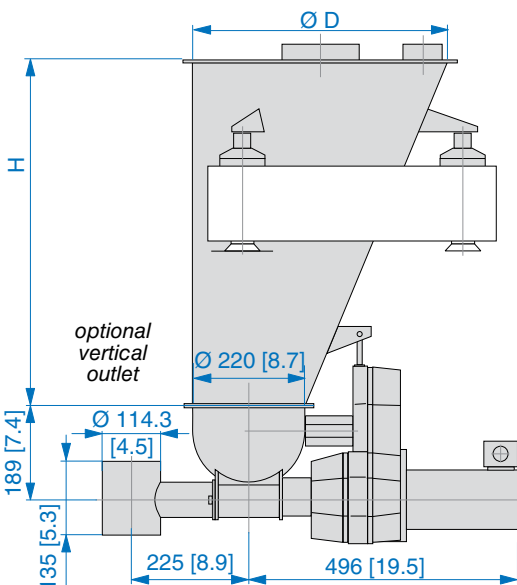
Temperature-Limits:

Ambient: 0...40°C [32...104°F]

Material: 0...50°C [32...122°F]

for other material temperatures contact factory

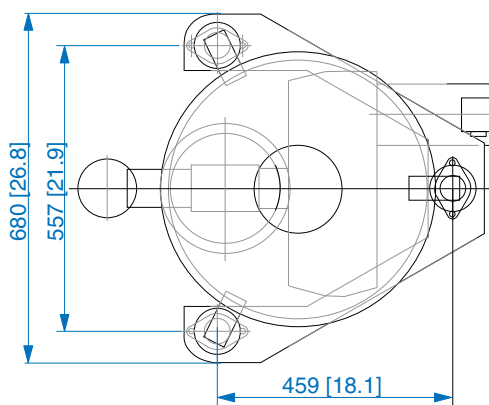
Dimensions mm [in]



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]



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]

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