

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

Modular single screw feeder with base hopper mounted on a 3-point weighing system with K-SFT load cells.

A variety of feeder screws allows for accommodation of various bulk materials. There are spiral- or auger feeder screws available with different diameters and with short or long pitches. Several feeder screws are equipped with shovels for better filling. All parts in contact with the material being fed are stainless steel. The components are held together by V-clamps.

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



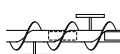
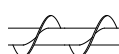
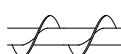
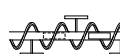
K-ML-S500-16D

(The K-ML-S510-16D has no horizontal agitator)

Feed Screws and Feed Rates

Actual feeder screws are determined based on the material being fed.

Attention: The following rates are theoretical values for free flowing materials being fed volumetrically. Actual feed rates depend on individual material characteristics. The feed range for loss-in-weight feeders is somewhat smaller. For feed rates at the upper or lower limits of the theoretical range, check with a Coperion K-Tron Test Lab.

		Auger Screws			Spiral Screws			
								
Pitch	DN	ø100	ø130	ø150	ø100	ø130	ø150	Max. screw speed
Coarse	dm³/h	140 - 14700	314 - 33060	430 - 45300	140 - 14700	314 - 33060	430 - 45300	400 RPM
	ft³/h	5 - 520	11 - 1168	15 - 1600	5 - 520	11 - 1168	15 - 1600	
Fine	dm³/h	70 - 7400	148 - 15560	200 - 21000				
	ft³/h	2.5 - 261	5.2 - 549	7 - 742				

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.

Configuration	Description	Alternatives	Remarks	Weight kg [lb]
	Agitator drive	EMEA/Asia: 230/400 VAC 2.2 kW, IP55 Americas: 230/460 VAC 3 HP		170 [375]
	Vertical agitator		option, depending on size of hopper	64 [141]
	Cover			
	Base hopper		see below	IP65, NEMA 4 Gross scale capacity
	Load cells 3 x K-SFT	300 kg [660 lb] 500 kg [1100 lb] 1000 kg [2200 lb]		
	Trough S500/S510	50 dm³ [1.8 ft³] / 15 dm³ [0.5 ft³]	Cleaning opening front side: Ø 240 [9.5]	
	Agitator drive (only S500)	EMEA/Asia: 230/400 VAC; 550 W; IP55 Americas: 230/460 VAC; 0.75 HP; IP55		S500: 136 [300]
	Gear box			
	Motor	Servo motor - 1.6 kW, 240 VAC, IP65 KCM-III requires 230 VAC single phase (US split-phase, 3 wire balanced, L1-N-L2)		S510: 66 [146]
	Screw			
	Outlet	Horiz. outlet Vertical outlet Pressure compensation	standard: vertical	

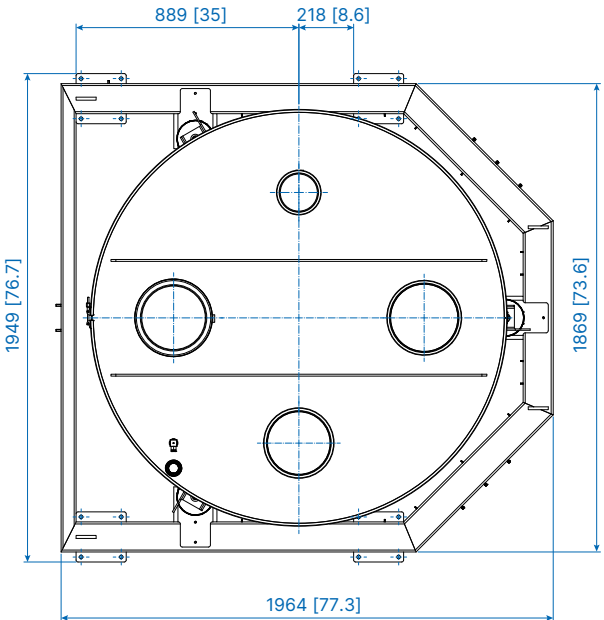
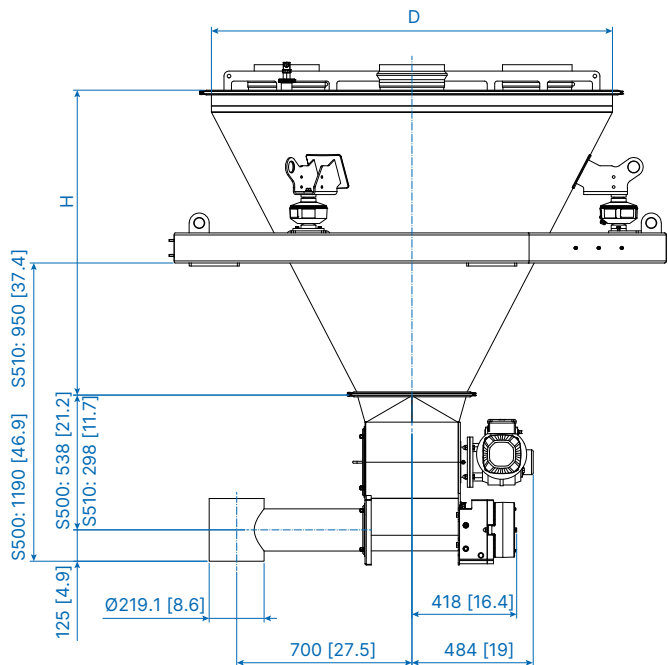
Materials:
Parts in contact with bulk material: Stainless steel EN 1.4404, 1.4435 (AISI 316L)

Seals: PTFE, Neoprene
Painting: Light gray RAL 7035

Weighing Range:
Gross scale capacity (e.g. 3 × 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]
Shown with optional vertical outlet.



Volume dm³ [ft³]	H mm [in]	D mm [in]	Weight kg [lb]
Symmetrical Hoppers			
1100 [39]	1200 [47]	1600 [63]	121 [267]
1600 [56]	1450 [57]	1600 [63]	153 [337]
2800 [100]	2000 [79]	1600 [63]	219 [483]

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