

Each Coperion K-Tron volumetric feeder consists of the components A, C and D.

Component A is specified here.

Application

Volumetric feeding of free flowing powders, granules and other bulk materials. The feeder can be upgraded to a loss-in-weight feeder system at any time.

Design

Single screw feeder with interchangeable feeding tools.

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:

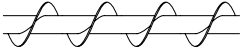
NEC Class II, Div. 2, Groups F & G / Class II, Div. 1, Groups F & G
Class I, Div. 2, Groups C & D / Class I, Div. 1, Groups C & D
ATEX 3D/3D, 3D/2D, 3G/3G, 2G/2G, 2D/2D (outside/inside)



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	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.

Configuration table with columns: Description, Alternatives, Remarks, Weight kg [lb]. Includes a diagram of the feeder components like Vertical agitator, Cover, Extension hopper, etc.

Materials: Product contact parts*: Stainless steel...
Temperature-Limits: Ambient: 0...40°C [32...104°F]...
Painting: Light gray RAL 7035

Dimensions mm [in]

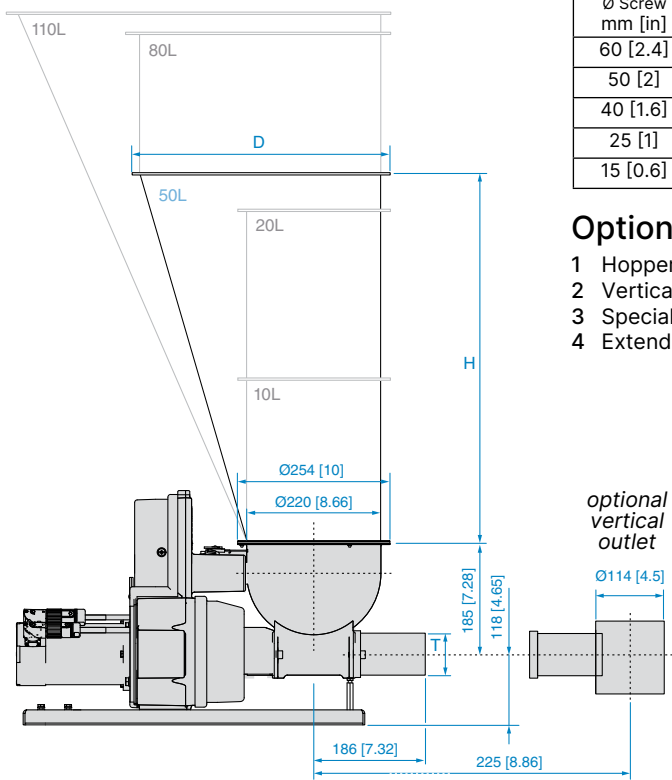


Table with 2 columns: Ø Screw mm [in], T Ø Tube mm [in]. Rows for 60, 50, 40, 25, 15 mm screws.

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

Table with 4 columns: Volume dm³ [ft³], H mm [in], D mm [in], Weight kg [lb]. Rows for Asymmetrical Hoppers and Cylindrical Hoppers.

