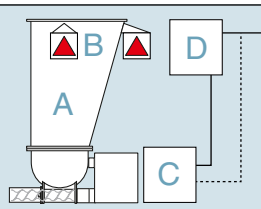


Coperion K-Tron Product Specification

Loss-in-Weight Single Screw Feeder for K4G Blender

K4G-L-BS60



- Ext. communication to Host System
- A Feeder
- B Weighing System
- C Control Module
- D Operator Interface

Each Coperion K-Tron loss-in-weight feeder consists of the components A, B, C and D.

Component A is specified here.

Application

Gravimetric feeding of free flowing bulk solids that require neither horizontal nor vertical agitator. Can be used in combination with K-Tron modular feeders.

→ A volumetric version with a spacer in place of the load cell is also available.

Design

The single screw feeder with extension hopper is suspended on a single-point weighing system. The flange for the load cell is connected directly to the feeder bowl. This design permits easy exchange of extension hoppers. A swivel unit is connected to the weighing system, by which the feeder can be swung up to 90° from the working position. This allows for easy cleaning, replacement of the feeding tools and sampling. All parts that come in contact with the bulk material are made of stainless steel.

This equipment conforms to all applicable European Directives (e.g. Machinery, EMC).

An optional relief cone reduces vertical pressure on the feed screw and is generally used with the 80L hopper at feed rates over 500 kg/h (1100 lb/h).

Controller: (see separate spec sheets)

The SmartConnex™ control system allows individual or multi-component control. Interface-modules for computer communications are installed in the control module.

Hazardous Location Options:

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



Feeder Screw and Tube Combinations with approximate Feed Rates

The sample feed rates below were tested with a free-flowing material (semolina, bulk density 0.783 kg/dm³). 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				
			ø9 (20)	ø22 (30)	ø22 (44)	ø36 (44)	ø36 (66)	ø15 (20)	ø15 (30)	ø25 (30)	ø25 (44)	ø45 (66)*
coarse	Powder < 1.5 mm	dm³/h	0.1 - 10.9	0.42 - 184		2 - 904		0.14 - 63	0.14 - 66	0.7 - 313	1.5 - 470	4.5 - 1961
		ft³/h	0.004 - 0.4	0.015 - 6.5		0.07 - 32		0.005 - 2.2	0.005 - 2.3	0.025 - 11	0.05 - 16.6	0.16 - 69
	Granules < 4 mm	dm³/h	0.2 - 28.4						0.28 - 124		1.4 - 602	7.6 - 3000
		ft³/h	0.007 - 1						0.01 - 4.4		0.05 - 21.3	0.27 - 106
	Granules 4-6 mm	dm³/h			1.06 - 524		5.14 - 2014					
		ft³/h			0.037 - 18.5		0.18 - 71					
fine	Powder < 1.5 mm	dm³/h		0.25 - 111		1.24 - 585				0.34 - 159	0.8 - 270	4.6 - 1710
		ft³/h		0.009 - 3.9		0.04 - 20.7				0.01 - 5.6	0.03 - 9.5	0.16 - 60.4
	Granules < 4 mm	dm³/h									0.76 - 326	4.5 - 1995
		ft³/h									0.03 - 11.5	0.16 - 70.5
	Granules 4-6 mm	dm³/h			0.54 - 280		2.8 - 1256					
		ft³/h			0.02 - 9.9		0.1 - 44.4					

Feed rates shown are with servo motor and KCM controller (Max. motor speed 2000 RPM). For feed rates with DC motors consult factory. Max. screw speed 473 RPM.

*Balancing cone recommended (see dimension drawing)

not recommended or not possible



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Configuration

	Description	Alternatives	Remarks	Weight kg [lb]
	Cover		2D 4D	1 [2.2] 2 [4.4]
	Extension hopper		2D or 4D	see below
	Trough	5 L		3.5 [7.7]
	Gearbox			
	Motor	Servo motor - 800* W, 240 VAC, IP65 *max. output limited by controller KCM-III requires 230 VAC single phase (US split-phase, 3 wire balanced, L1-N-L2)		5.8 [12.8]
	Scale	50 kg 110 lb 100 kg 220 lb	gross capacity	
	Screw		see page 1	1 [2.2]
	Outlet	Horizontal outlet Vertical outlet Pressure compensation	standard: horiz. outlet	1 [2.2]

Materials:

Product contact parts: Stainless steel
EN 1.4404, 1.4435 (AISI 316L)
EN 1.4409 (ASTM A743 CF3M)
Seals: PTFE, Neoprene, silicone
Painting: Light gray RAL 7035

Weighing Range:

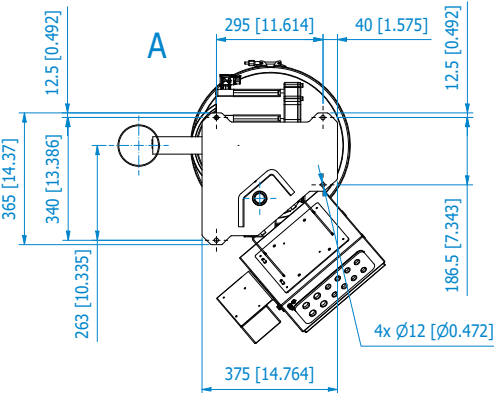
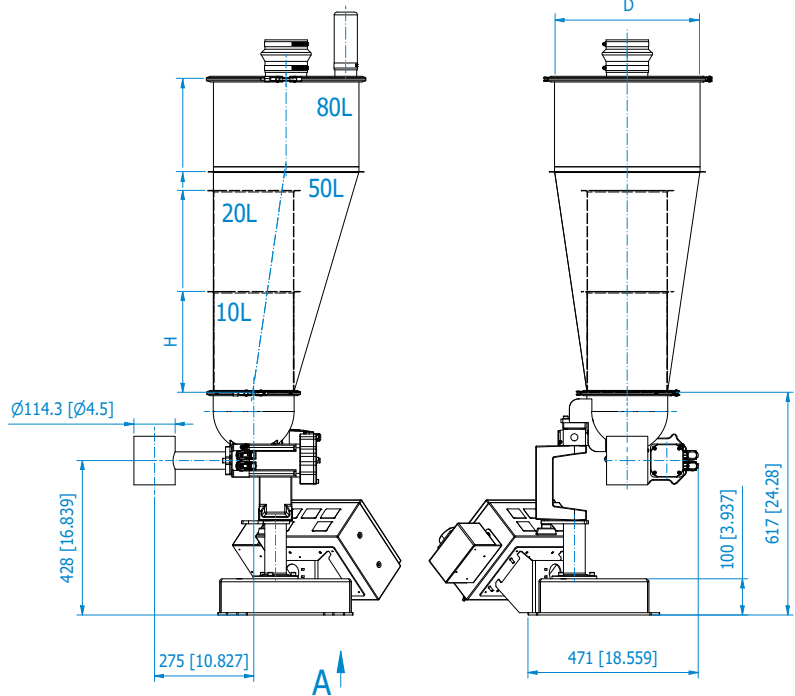
Gross scale capacity less total feeder weight.

Temperature-Limits:

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

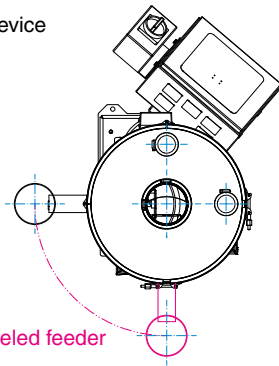
Dimensions mm [in]

Volume dm³ [ft³]	H mm [in]	D mm [in]	Weight kg [lb]
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]
Cylindrical Hoppers			
10 [0.35]	283 [11]	220 [8.66]	3 [6.6]
20 [0.71]	566 [22.28]	220 [8.66]	6 [13.2]



Options

- 1 Standard hopper
- 2 Safety screen
- 3 Vertical outlet
- 4 Special paint / finish
- 5 Quick emptying device
- 6 Balancing cone in hopper



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