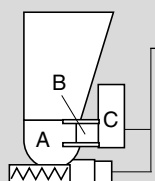


Coperion K-Tron Product Specification

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

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

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 CE standards regarding EMC and safety.

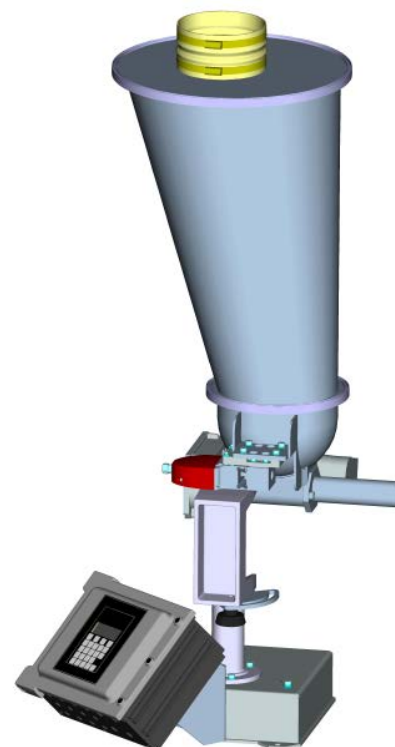
An optional relief cone reduces vertical pressure on the feed screw and is generally used with the 80L hopper at feed rates over 500 kg/h (1100 lb/h).

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.

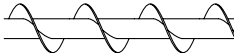
Hazardous Location Options: (see sheet I-000002)

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



Feeder Screw and Tube Combinations with approximate Feed Rates

The feed rates indicated [dm³/h (ft³/h)] are approximate values. Actual feed screws and feed rates are determined by the material being fed. The speed range is determined by the feed rate.

	Auger screw 					Spiral screw 					Screw speed range RPM 11 - 473
long pitch											
screw [mm]	ø 9	ø 22		ø 36		15 ø		ø 25		ø 45	
ID tube [mm]	20	30	44	44	66	20	30	30	44	66	
Powder < 1.5 mm	0.5 - 15.5 (0.02-0.55)	4.6 - 162 (0.16-5.7)		25 - 782 (0.88-27.6)		1.8 - 63.7 (0.06-2.3)	2.1 - 79.6 (0.07-2.8)	8.5 - 297 (0.3-10.5)	12.3 - 381 (0.43-13.5)	71 - 2388* (2.5-84.4)	
Granules < 4 mm	0.7 - 23 (0.02-0.81)						3.1 - 108 (0.11-3.8)		17 - 550 (0.6-19.4)	89 - 2813* (3.1-99.4)	
Granules 4-6 mm			13.8 - 346 (0.49-12.2)		71 - 2043 (2.5-72.2)						
short pitch											
screw [mm]		ø 22		ø 36				ø 25		ø 45	
ID tube [mm]		30	44	44	66			30	44	66	
Powder < 1.5 mm		3.1 - 113 (0.11-4)		15 - 554 (0.53-19.6)				4.1 - 160 (0.14-5.7)	6.3 - 222 (0.22-7.8)	55 - 1945* (1.9-68.7)	
Granules < 4 mm									7.5 - 260 (0.27-9.2)	61 - 2053* (2.2-72.5)	
Granules 4-6 mm			8.5 - 237 (0.3-8.4)		48 - 1145 (1.7-40.5)						

Speed controller with DC-motor drive. Max. feed rates were determined on a motor speed of 2250 RPM (= 90% of max. speed) and a screw fill of 90%.

* Balancing cone (see dimension drawing) recommended

not recommended or not possible

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Loss-in-Weight Single Screw Feeder for K4G Blender

K4G-L-BS60

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	180 VDC 124 W IP65, NEMA 4		6.5 (14.3)
	Weigh bridge	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
DIN 1.4404, 1.4435 (AISI 316L)
DIN 1.4409 (ASTM A743 CF3M)
Seals: PTFE, Neoprene, Silicon
Painting: Light gray RAL 7035

Weighing Range:

Gross weighbridge capacity less total feeder weight.

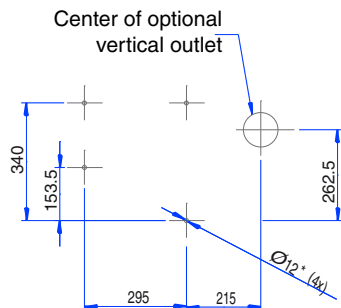
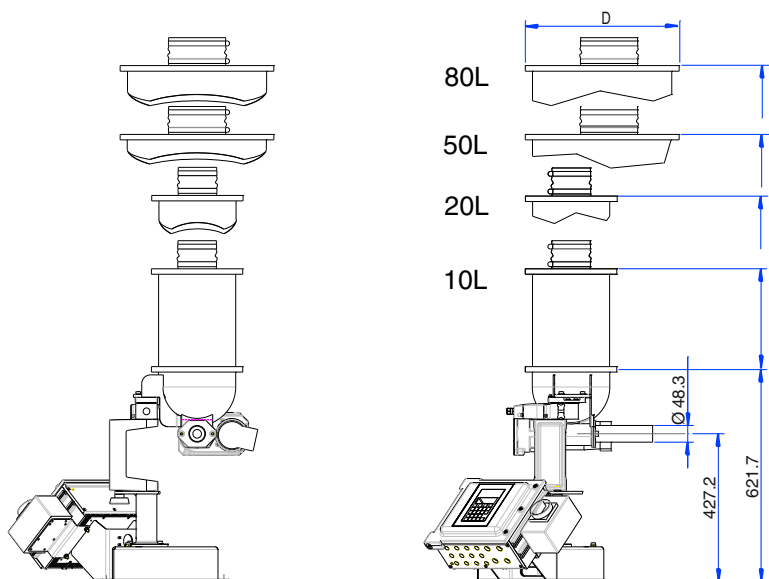
Temperature-Limits:

Ambient: 0 to 40°C (32 to 104°F)
Material: 0 to 50°C (32 to 122°F)
for other material temperatures contact factory

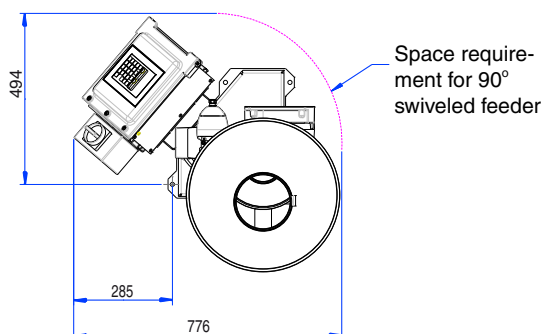
Options

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

Dimensions mm [in]



Mounting holes base plate
Befestigungslöcher Grundplatte



Space require-
ment for 90°
swiveled feeder

Asymmetrical Hoppers

Volume dm ³ (ft ³)	H mm (in)	D mm (in)	Weight kg (lb)
50 (1.76)	615 (24.2)	400 (15.75)	7 (15.4)
80 (2.8)	869 (34.2)	400 (15.75)	11 (24.2)

Symmetrical Hoppers

Volume dm ³ (ft ³)	H mm (in)	D mm (in)	Weight kg (lb)
10 (0.35)	283 (11)	220 (8.66)	3 (6.6)
20 (0.71)	566 (22.28)	220 (8.66)	6 (13.2)

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