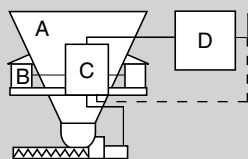




K-TRON Product Specification Single Screw Loss-in-Weight Feeder

K2-ML-S60



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

Each K-TRON Weigh feeder consists of the components A, B, C and D.

Component A is specified here.

Application

Volumetric 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.

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.

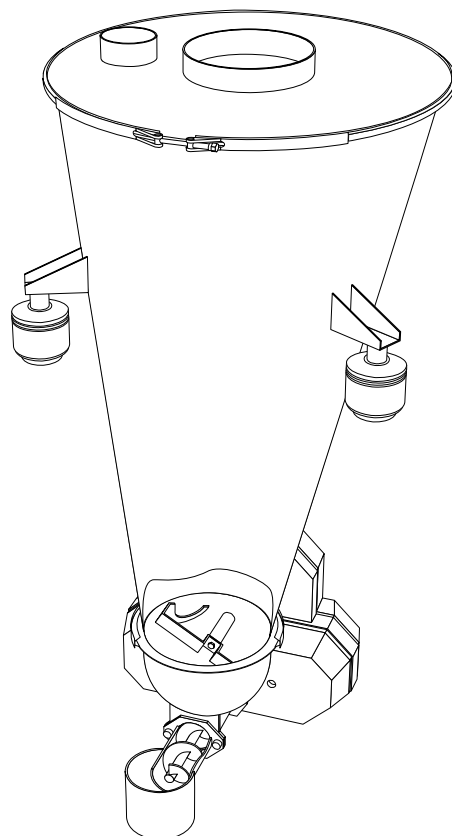
This equipment conforms to CE standards regarding EMC and safety.

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: (see sheet I-0000002)

- 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, 2GD/2GD (outside/inside)



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 K-Tron Test Lab.

Pitch	Auger screw					Spiral screw					Reduction/ Max Screw Speed (RPM)
Coarse	3 (0.10) 4 (0.15) 6 (.25) 8 (0.30) 9 (0.35)					4 (0.15) 6 (.25) 9 (0.35)				Maximum Particle Size mm (in)	
	15mm	25mm	40mm	50mm	60mm	25mm	40mm	60mm			
	.425 - 42.5	3.40 - 340	11.3 - 1130	24.1 - 2410	45.0 - 4500	4.25 - 425	8.50 - 850	42.5 - 4250	dm³/hr		High 3.6:1 / 555
	.015 - 1.50	.120 - 12.0	.400 - 40.0	.850 - 85.0	1.60 - 160	.150 - 15.0	.300 - 30.0	1.50 - 150	ft³/hr		
	.115 - 11.5	.850 - 85.0	2.80 - 280	5.95 - 595	9.06 - 906	1.15 - 115	2.10 - 210	8.78 - 878	dm³/hr		Low 18:1 / 111
	.004 - .400	.030 - 3.00	.100 - 10.0	.210 - 21.0	0.32 - 32.0	.040 - 4.00	.075 - 7.50	.310 - 31.0	ft³/hr		
Fine	4 (0.15) 6 (.25) 9 (0.35)					4 (0.15) 6 (.25) 9 (0.35)				Maximum Particle Size mm (in)	
		25mm	40mm	60mm		25mm	40mm	60mm			
		1.70 - 170	5.65 - 565	28.3 - 2832		2.00 - 200	4.25 - 425	27.5 - 2750	dm³/hr		High 3.6:1 / 555
		.060 - 6.00	.200 - 20.0	1.00 - 100		.070 - 7.00	.150 - 15.0	.970 - 97.0	ft³/hr		
		.425 - 42.5	1.40 - 140	7.08 - 708		.500 - 50	1.15 - 115	5.50 - 550	dm³/hr		Low 18:1 / 111
		.015 - 1.50	.050 - 5.00	.250 - 25.0		.017 - 1.70	.040 - 4.00	.194 - 19.4	ft³/hr		

DC-motor with speed controller / Range 1 : 100 / Max. motor speed 2000 RPM

Feed rates when using AC motors: The feed rates may here be roughly estimated through a calculation using the screw speeds.

Europe/Asia: AC motor with frequency inverter / Range 1 : 17 / Max. motor speed 2440 RPM

Americas: AC motor with frequency inverter / Range 1 : 12 / Max. motor speed 1725 RPM



K-TRON Product Specification Single Screw Loss-in-Weight Feeder

K2-ML-S60

Configuration

Description	Alternatives	Remarks	Weight kg (lb)
Vertical agitator	KS: 230/400 V AC 0.18, 0.25 kW IP55	4D (50 L, 80 L)	25 (55)
	KA: 115/230 V AC 0.25, 0.33 HP or 100/200 VDC 0.33 HP	6D (110 L)	36 (79)
Cover		4D	2 (4.4)
		6D	3 (6.6)
Weigh bridge 3 x K-SFT:	30 kg 66 lb	IP65, NEMA 4 Gross weigh bridge capacity = 3 x K-SFT 4D or 6D	see below
	60 kg 132 lb		
	90 kg 198 lb		
	120 kg 264 lb		
Extension hopper			
Horiz. agitator			
Trough	5 L		0.7 (1.5)
Gearbox			2.5 (5.5)
Motor	100/200 V DC 0.45 kW IP 65	standard: 0.45 kW	15 (33)
	3 phase with freq. inverter KS: 230/400 V AC KA: 230/460 V AC 0.55 kW, IP 55		12 (26.4)
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
DIN 1.4404, 1.4435 (AISI 316L)
DIN 1.4409 (ASTM A743 CF3M)

*Horiz. agitator: DIN 1.4034 (AISI 420) standard

DIN 1.4404 (AISI 316L) option

Seals: PTFE, Neoprene, Silicon

Painting: Light grey RAL 7035

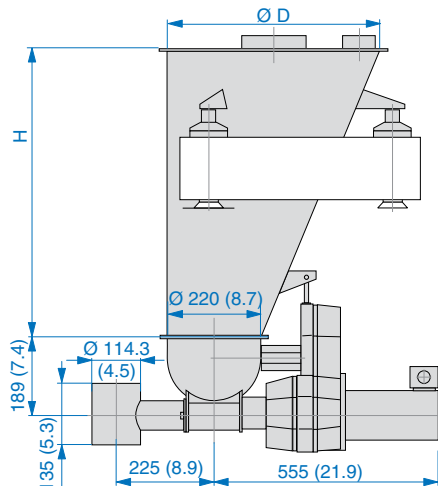
Weighing Range:

Gross weighfeeder capacity (e.g. 3 x 60 = 180 kg) less 10-15% and less feeder weight, according to the chosen configuration.

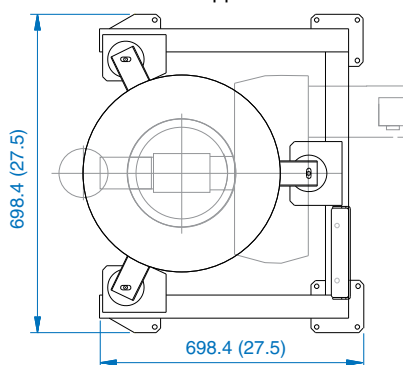
Temperature-Limits:

Ambient: 0 to 40.5 °C (32 to 105°F)
Material: standard: -20 to 55 °C (-4 to 130 °F)
option: -20 to 150 °C (-4 to 300 °F)

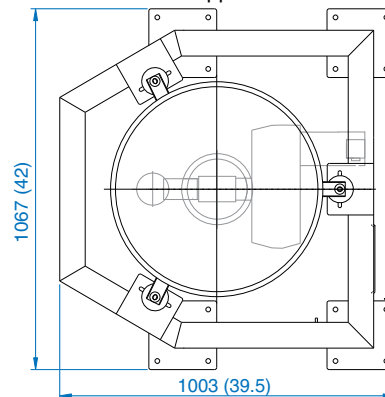
Dimensions mm (in)



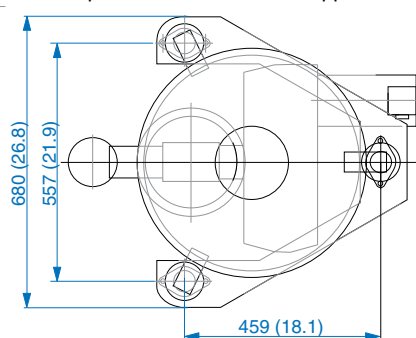
US frame for 4D hoppers



US frame for 6D hoppers



European frame for 4D/6D hoppers



Options

- 1 Hopper
- 2 Frame
- 3 Vertical outlet
- 4 Special paint / finish
- 5 Extended screws

Asymmetrical Hoppers

Volume dm ³ (ft ³)	H mm (in)	D mm (in)	Weight kg (lb)
50 (1.8)	615 (24.2)	400 (15.7)	7 (15.4)
80 (2.8)	869 (34.2)	400 (15.7)	11 (24.2)
110 (3.9)	922 (36.3)	600 (23.6)	17 (37.4)
180 (6.4)	1176(46.3)	600 (23.6)	23 (50.6)
320 (11.3)	1684 (66.3)	600 (23.6)	35 (77)

Symmetrical Hoppers

Volume dm ³ (ft ³)	H mm (in)	D mm (in)	Weight kg (lb)
80 (2.8)	727 (28.6)	400 (15.7)	11 (24.6)
180 (6.4)	889 (35)	600 (23.6)	23 (50.6)

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



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All addresses on sheet: / Alle Adressen auf Blatt: / Toutes les adresses sur fiche: I-000001

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