

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.

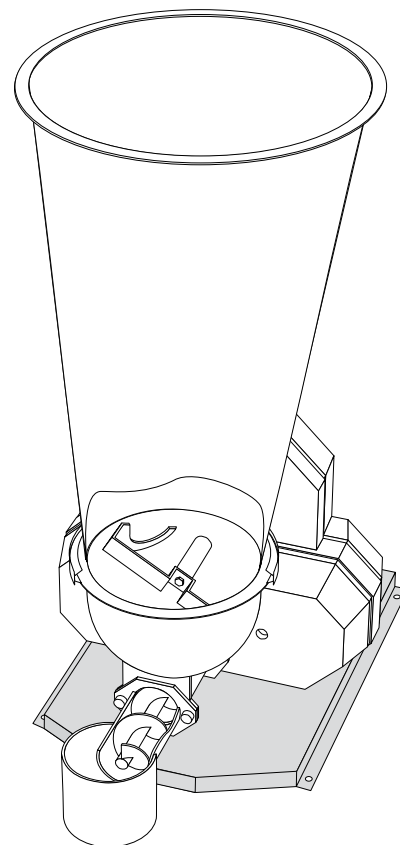
This equipment conforms to CE standards regarding EMC and safety.

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-000002)

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 Sample Feed Rates

Feeder screws are determined based on the material being fed. The theoretical throughput range of 1:100 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					Gearbox
		ø15 (15)	ø25 (30)	ø40 (40)	ø50 (50)	ø60 (60)	ø15 (15)	ø25 (30)	ø40 (40)	ø45 (50)	ø60 (60)	
coarse	dm³/h	0.78 - 70.1	3.84 - 354	12 - 1041	38 - 2740	54 - 4404	0.76 - 74.4	4.14 - 383	15.2 - 1320	32.8 - 2335	58 - 3669	High
	ft³/h	0.03 - 2.47	0.14 - 12.5	0.42 - 36.7	1.34 - 96.72	1.91 - 155	0.03 - 2.63	0.15 - 13.5	0.54 - 46.6	1.16 - 82.43	2.05 - 130	
	dm³/h	0.15 - 14.5	0.82 - 78	2.7 - 233	7.4 - 657	11 - 1000	0.15 - 15.8	0.83 - 80	3.1 - 287	8.17 - 600	12 - 976	Low
	ft³/h	0.01 - 0.51	0.03 - 2.75	0.1 - 8.22	0.26 - 23.2	0.39 - 35.3	0.01 - 0.56	0.03 - 2.82	0.11 - 10.13	0.29 - 21.18	0.42 - 34.5	
fine	dm³/h	--	1.88 - 183	6.9 - 673	21.7 - 1965	31 - 2752	--	2.16 - 199	8.1 - 794	19.4 - 1690	34 - 3002	High
	ft³/h	--	0.07 - 6.46	0.24 - 23.8	0.77 - 69.4	1.09 - 97.2	--	0.08 - 7.02	0.29 - 28	0.68 - 59.7	1.2 - 106	
	dm³/h	--	0.42 - 37	1.4 - 140	4.4 - 433	6 - 576	--	0.46 - 42	1.7 - 165	4.19 - 393	7 - 639	Low
	ft³/h	--	0.01 - 1.31	0.05 - 4.94	0.16 - 15.3	0.21 - 20.3	--	0.02 - 1.48	0.06 - 5.82	0.15 - 13.9	0.25 - 22.6	

Screw speed (RPM): Gearbox **High (3.6:1)** = 5.6 - 555 **Low (18:1)** = 1.1 - 111

Feed rates shown are with DC motor and KCM controller (Range 1:100 / Max. motor speed 2000 RPM).

For feed rates with vector-duty AC motor with speed pick-up and KCM controller multiply values by 0.875 (Range 1:100 / Max. motor speed 1750 RPM).

Configuration

Description	Alternatives	Remarks	Weight kg (lb)
Vertical agitator	KS: 230/400 VAC 180, 250 W IP55	4D (50 L, 80 L)	25 (55)
	KA: 115/230 VAC 0.25, 0.33 HP or 100/200 VDC 0.33 HP	6D (110 L, 180L)	36 (79)
Cover		2D	1 (2.2)
		4D	2 (4.4)
		6D	3 (6.6)
Extension hopper		2D, 4D or 6D	see below
Horiz. agitator			0.7 (1.5)
Trough	5 L		2.5 (5.5)
Gearbox			15 (33)
Motor	100/200 VDC 450 W IP65	standard: 450 W DC	12 (26.4)
	CKS: 3x230 VAC CKA: 3x220 VAC 370/450 W IP65		
Screws		see page 1	1 (2.2)
Outlet	Horiz. 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)

*Horiz. agitator: DIN 1.4034 (AISI 420) standard
DIN 1.4404 (AISI 316L) option

Seals: PTFE, Neoprene, Silicon

Painting: Light gray RAL 7035

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]

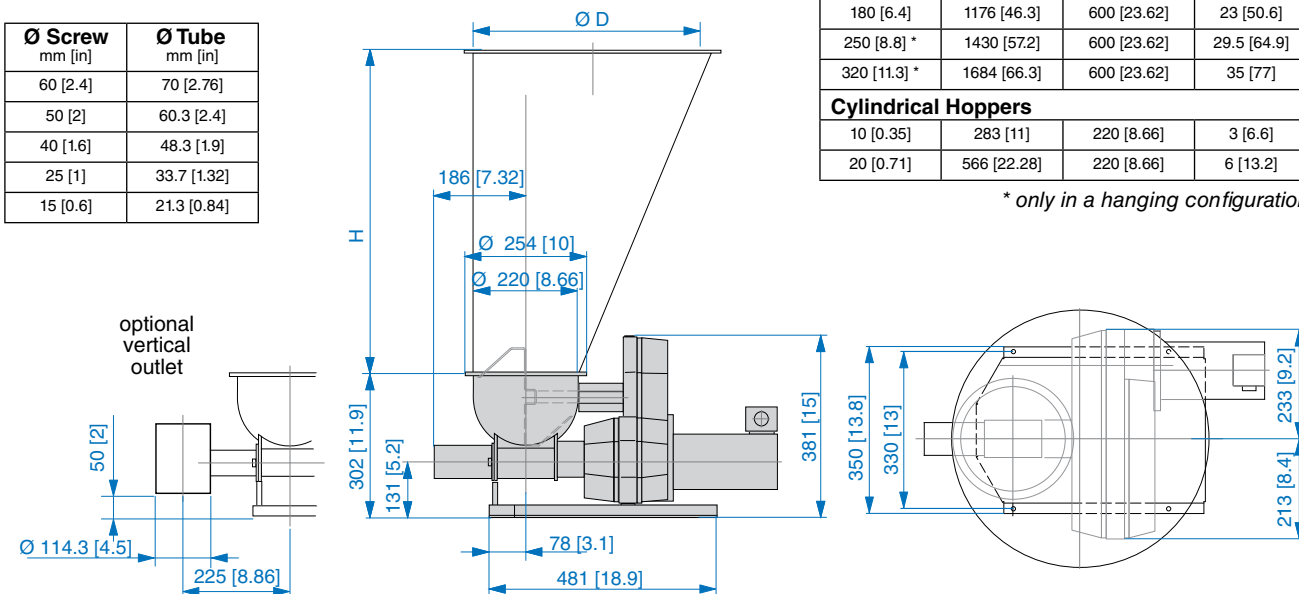
Ø Screw mm [in]	Ø Tube mm [in]
60 [2.4]	70 [2.76]
50 [2]	60.3 [2.4]
40 [1.6]	48.3 [1.9]
25 [1]	33.7 [1.32]
15 [0.6]	21.3 [0.84]

Options

- 1 Standard hopper
- 2 Vertical outlet
- 3 Special paint / finish
- 4 Extended screws

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]
110 [3.88]	922 [36.3]	600 [23.62]	17 [37.4]
180 [6.4]	1176 [46.3]	600 [23.62]	23 [50.6]
250 [8.8] *	1430 [57.2]	600 [23.62]	29.5 [64.9]
320 [11.3] *	1684 [66.3]	600 [23.62]	35 [77]
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]

* only in a hanging configuration



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