

Application

Volumetric feeding of easy flowing powders, granules and other bulk materials.

Design

S500: Single-shaft feeder with interchangeable feeding tools and horizontal agitator to keep the bulk material in the storage hopper moving and ensure a reliable infeed.

S510: Single-shaft feeder with interchangeable feeding tools without horizontal agitator.

A variety of feeder screws allows for accommodation of various bulk materials. There are spiral- or auger feeder screws available with different diameters and with short or long pitches. Several feeder screws are equipped with shovels for better filling.

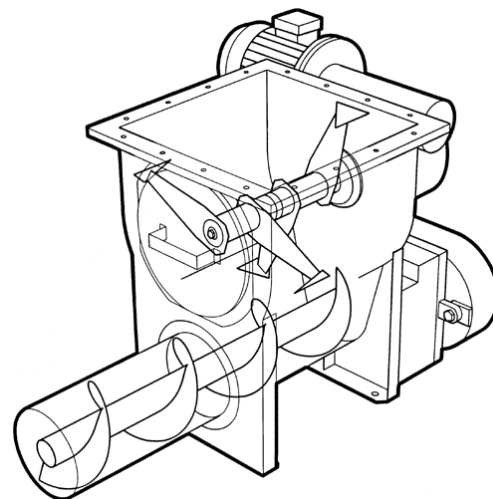
All parts in contact with the material being fed are stainless steel.

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, Group D / Class I, Div. 1, Group D
 ATEX 3D/3D, 3D/2D, 3G/3G, 2GD/2GD (outside/inside)



K-MV-S500

(The K-MV-S510 has no horizontal agitator)

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 Coperion K-Tron Test Lab.

Pitch	Auger Screws			Spiral Screws			RPM	Reduction
Coarse	Ø 65 (2.6)	Ø 100 (3.9)	Ø 150 (5.9)	Ø 65 (2.6)	Ø 100 (3.9)	Ø 150 (5.9)		
dm³/h	38 - 1140	140 - 5500	430 - 17000	38 - 1140	140 - 5500	430 - 17000	5 - 150	2 : 1
ft³/h	1.4 - 40	5 - 194	15 - 600	1.4 - 40	5 - 194	15 - 600		
dm³/h	51 - 2270	180 - 11000	570 - 34000	51 - 2270	180 - 11000	570 - 34000	5 - 300	1 : 1
ft³/h	1.8 - 80	6.4 - 388	20 - 1200	1.8 - 80	6.4 - 388	20 - 1200		
dm³/h	51 - 3040	180 - 14700	570 - 45300	51 - 3040	180 - 14700	570 - 45300	5 - 400	1 : 1.33
ft³/h	1.8 - 107	6.4 - 520	20 - 1600	1.8 - 107	6.4 - 520	20 - 1600		
Fine	Ø 65 (2.6)	Ø 100 (3.9)	Ø 150 (5.9)					
dm³/h	19 - 780	70 - 2700	200 - 7900				5 - 150	2 : 1
ft³/h	0.7 - 28	2.5 - 95	7 - 280					
dm³/h	25 - 1560	140 - 5500	260 - 15800				5 - 300	1 : 1
ft³/h	0.9 - 55	5 - 194	9 - 560					
dm³/h	25 - 2090	140 - 7400	260 - 21000				5 - 400	1 : 1.33
ft³/h	0.9 - 74	5 - 261	9 - 742					

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

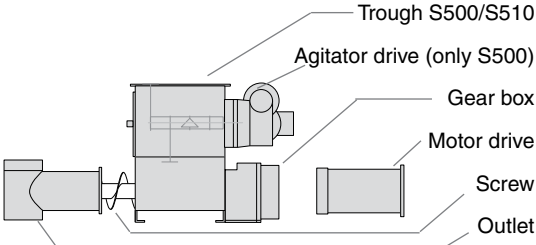
For feed rates with vector-duty AC motor with speed pick-up and KCM controller multiply values by 0.875 (Range 1:100 / Max. motor speed 1750 RPM).

Coperion K-Tron Product Specification

Volumetric Single Screw Feeder

K-MV-S500
K-MV-S510

Configuration

Description	Alternatives	Remarks	Weight kg (lb)
	50 dm³ (1.8 ft³) / 15 dm³ (0.5 ft³) 3 x 400/230 V; 550 W; IP55 200 VDC 1.6 kW IP55 CKS: 3x230VAC CKA: 3x220VAC 1.6 kW IP65 CKS: 230/400VAC CKA: 230/460VAC 2.2 kW, IP55 with Freq. Inverter Horiz. outlet Vertical outlet Pressure compensation	Cleaning opening front side: Ø 240 (9.5) std.: 1.6 kW DC std.: vertical	S500: 105 (232) S510: 58 (128)

Materials:

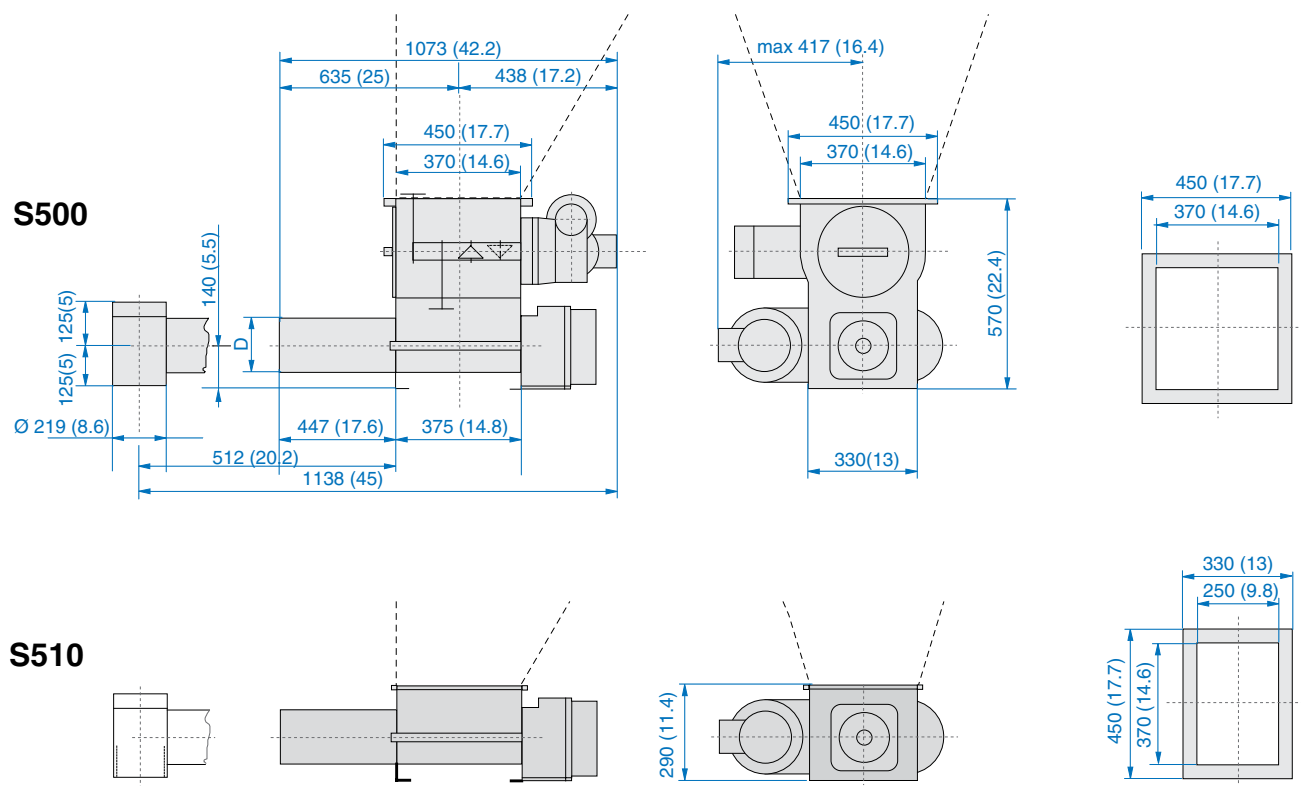
Parts in contact with bulk material: Stainless steel, DIN material no. 1.4404 / 1.4435, AISI 316L

Seals: PTFE, Neoprene
Painting: Light gray RAL 7035

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

Dimensions [mm(in)]



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



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