Application

Gravimetric feeding of free flowing to very poorly flowing powders (e.g. lumpy, moist or bridge building materials), especially in pharma applications.
The feeder can be upgraded to a loss-in-weight feeder system at any time.

K-PH-CV-KT20
(Shown with evertical outlet, optional housing for motor and gearbox)

Design

Twin-screw feeder with interchangeable feeding tools. All parts in contact with the bulk material being fed are stainless steel. Feeding equipment is easy to dismantle. The horizontal agitator gently moves bulk material to the large throat and into the discharge screws.

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)

Feeder Screws and Feed Rates

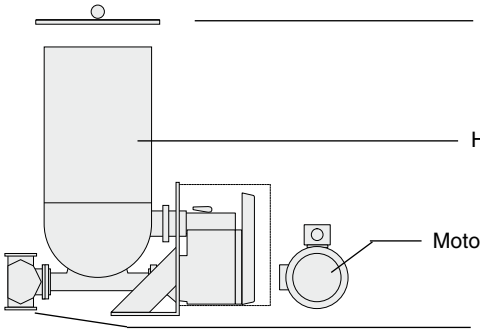
The feed rate indications are approximate values. Actual feeder screws will be determined by the material being fed. Speed range (rpm) and the type of gear are determined by the feed rate. Feeder screws are easily interchangeable.

Pitch	Type of drive	Twin concave screws		Twin auger screws		Speed range	Gearbox type
		dm^3/h	ft^3/h	dm^3/h	ft^3/h	RPM	
coarse	⎓	1.5 - 149	0.05 - 5.3	1.6 - 164	0.06 - 5.8	8 - 745	A
		0.7 - 70	0.02 - 2.5	0.8 - 79	0.03 - 2.8	4 - 357	B
		0.3 - 31	0.01 - 1.1	0.3 - 34	0.01 - 1.2	2 - 154	C
	~	10 - 182	0.4 - 6.4	11 - 200	0.4 - 7.1	52 - 909	A
		5 - 87	0.2 - 3.1	5.5 - 96	0.2 - 3.4	25 - 436	B
		2 - 38	0.07 - 1.3	2.3 - 41	0.08 - 1.4	11 - 188	C
		dm^3/h	ft^3/h	dm^3/h	ft^3/h	RPM	
fine	⎓	0.6 - 56	0.02 - 2	0.6 - 60	0.02 - 2.1	8 - 745	A
		0.27 - 27	0.01 - 1	0.3 - 29	0.01 - 1	4 - 357	B
		0.12 - 124	.004 - 0.4	0.12 - 12	.004 - 0.4	2 - 154	C
	~	4 - 68	0.14 - 2.4	4.2 - 73	0.15 - 2.6	52 - 909	A
		2 - 33	0.07 - 1.2	2 - 35	0.07 - 1.2	25 - 436	B
		0.8 - 14	0.03 - 0.5	0.9 - 15	0.03 - 0.53	11 - 188	C

⎓ DC-motor with speed controller / Range 1 : 100 / Max. motor speed 2000 RPM
Pre-reducer with a reduction of 1:4 available for use with B orC gearboxes and DC motor.
~ AC-motor with frequency inverter / Range 1 : 17 / Max. motor speed 2440 RPM /
NOTE: in USA AC motor range is 1:12 with max. motor speed of 1725

Configuration

Description	Alternatives			Remarks	Weight kg (lb)
Cover	plastic	stainless			36 (79.4)
Hopper	12 dm³ (0.42 ft³)				
Motor drive	95 W, 180V IP55, NEMA 12				
Outlet	Horiz. (std)	Vertical	Pressure compensation		



Materials:

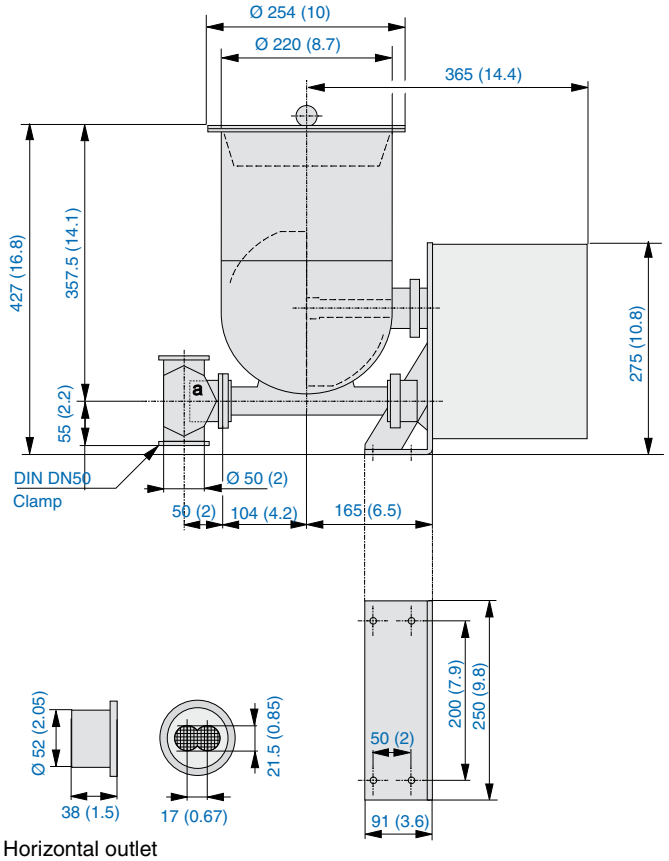
Material contact parts and scale:	stainless steel DIN 1.4404 / 1.4435 (AISI 316L)
Seals:	PTFE and Silicone
Paint:	Light grey RAL 7035

Temperature-Limits:

Ambient:	0 to 40.5 °C / 32 to 105 °F
Material:	-20 to 55 °C / -4 to 130 °F

Dimensions mm (in)

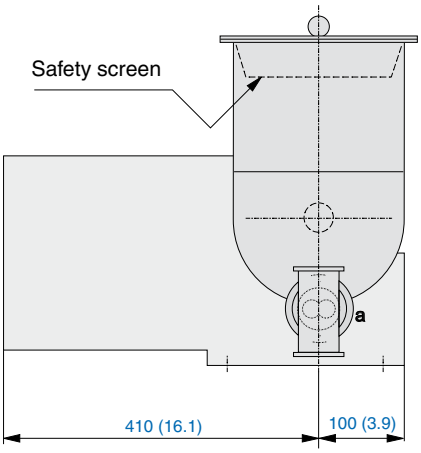
shown with vertical outlet



Horizontal outlet

Options

1. Housing for motor & gearbox
2. Wall mounting fixture
3. Air purge nozzles
4. Vertical discharge



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