

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

Each Coperion K-Tron weigh feeder consists of the components A, B, C and D.

Component A is specified here.

Application

Gravimetric feeding of materials from free flowing up to very hard to handle powders (e.g. lumpy, moist or bridge building materials) as well as fibers, flakes and other bulk materials.

Design

Modular twin screw feeder with base hopper mounted on a 3-point weighing system. A great variety of feeder screws and agitators allows accommodation of various bulk materials. All parts in contact with the material to be fed, are made of stainless steel. The modular design allows easy interchange of hopper, agitator and drive. By opening the V-clamp on the lower end of the transition piece, the feeder will swing out for easy cleaning.

Controller: (see separate data sheets)

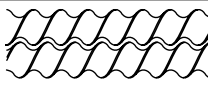
The SmartConnex™ control system allows individual or multi-component control. Interface-modules for computer communications are installed in the control module.

Hazardous Location Options: (see sheet I-000002)

- NEC Class II, Div. 2, 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 (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. At higher screw speeds a poorly flowing powder will not achieve the full throughput possible with a free-flowing material due to reduced degree screw fill. For feed rates at the upper or lower limits of the theoretical range, check with a Coperion K-Tron Test Lab..

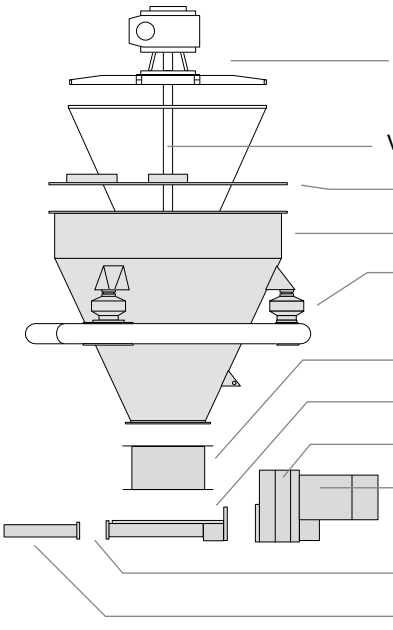
Pitch		 Twin concave screws	 Twin auger screws	Screw speed range	Exchangeable gear ratio
coarse	dm³/h	297 - 23530	353 - 24671	9 - 909	45 / 16
	ft³/h	10.5 - 831	12.5 - 871		
	dm³/h	165 - 14913	224 - 17164	5.3 - 534	38 / 23
	ft³/h	5.8 - 526	7.9 - 606		
	dm³/h	71 - 5742	84 - 6925	1.9 - 195	23 / 38
	ft³/h	2.5 - 203	3.0 - 244		
fine	dm³/h	42 - 3487	50 - 4238	1.1 - 115	16 / 45
	ft³/h	1.5 - 123	1.8 - 150		
	dm³/h	184 - 16246	190 - 17244	9 - 909	45 / 16
	ft³/h	6.5 - 573	6.7 - 609		
	dm³/h	108 - 9624	112 - 10339	5.3 - 534	38 / 23
	ft³/h	3.8 - 340	4.0 - 365		
	dm³/h	42 - 3566	42 - 3908	1.9 - 195	23 / 38
	ft³/h	1.5 - 126	1.5 - 138		
	dm³/h	25 - 2097	25 - 2329	1.1 - 115	16 / 45
	ft³/h	0.9 - 74	0.9 - 82		

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 Loss-in-Weight Twin Screw Feeder

K-ML-T80-16D

Configuration

Description	Alternatives	Remarks	Weight kg (lb)
	3 x 400/230 VAC 1.5 kW; IP55 KA: 115/230 VAC 2 HP or 180/200 VDC 2 HP		125 (276)
Vertical agitator		depending on size of hopper	20-38 (44-84)
Cover			27 (60)
Base hopper		see below	
3 Load cells	200 kg (440 lb) 300 kg (660 lb) 500 kg (1100 lb) 1000 kg (2200 lb)	IP65, NEMA 4 Gross weigh bridge capacity = 3 x K-SFT	
Adapter			6 (13.2)
Feeder Base	incl. CC screws		25 (55)
Gear box			20 (44)
Motor	200 VDC 1.6 kW IP55 CKS: 3x230 VAC CKA: 3x220 VAC 1.6 kW IP65 CKS: 230/400 VAC CKA: 230/460 VAC 2.2 kW, IP55 with Freq. Inverter	standard: 1.6 kW DC	25 (55)
Screws			
Outlet	Horiz. outlet Vertical outlet Pressure compensation	standard: vert. outlet	7 (15.4)

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

Weighing Range:

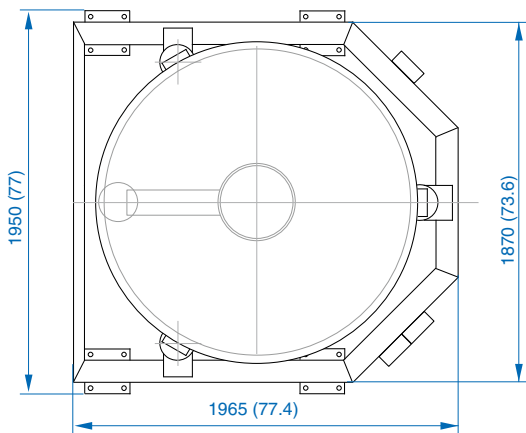
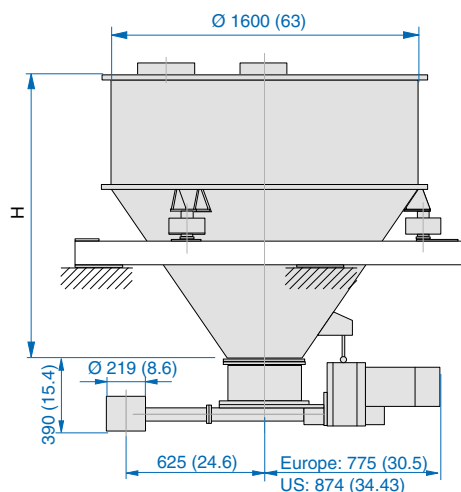
Gross weighbridge capacity (e.g. 3 x 60 = 180 kg) less total feeder weight and less 10% reserve

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]

Shown with optional vertical outlet.



Symmetrical Hoppers

Volume dm³ (ft³)	H mm [in]	Weight kg [lb]
1400 [49]	1253 [49]	72 [158]
2800 [100]	1978 [78]	128 [282]

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



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Rev.
2021-09

S-020403-en
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