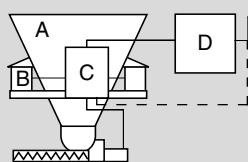


# Coperion K-Tron Product Specification

## Loss-in-Weight Twin Screw Feeder

K-ML-T80-10D



- 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 to difficult 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.

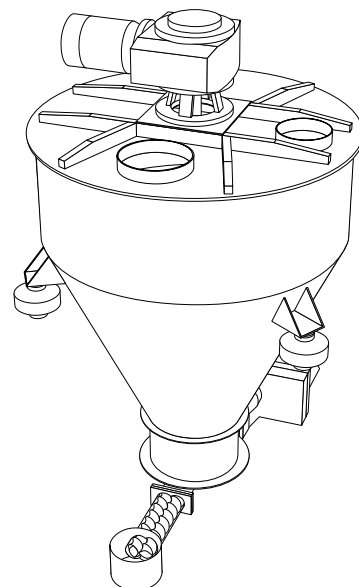
By opening the V-clamp on the lower end of the transition piece, the feeder will swing out for easy cleaning.

**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)

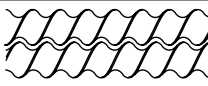
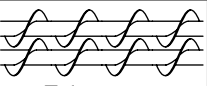
- NEC Class II, Div. 2, Groups F & G / Class II, Div. 1, Groups F & G
- Class I, Div. 2, Group D / Class I, Div. 1, Group D
- ATEX 3D/3D, 3D/2D (outside/inside)



## 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                                                                                              |                   |                         |

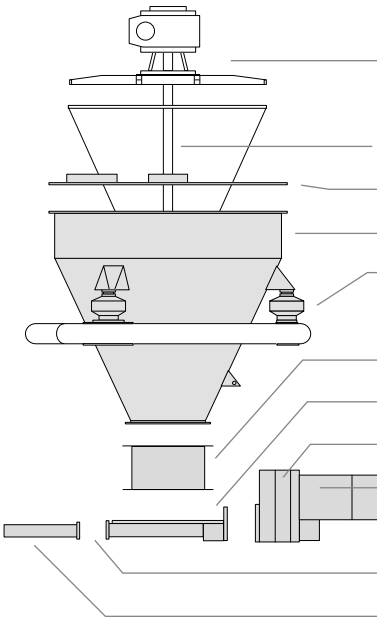
Feed rates shown are with DC motor and KCM controller (Range 1:100 / Max. motor speed 2000 RPM). For feed rates with vector-duty AC motor with speed pick-up and KCM controller multiply values by 0.875 (Range 1:100 / Max. motor speed 1750 RPM).

# Coperion K-Tron Product Specification

## Loss-in-Weight Twin Screw Feeder

**K-ML-T80-10D**

### Configuration

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

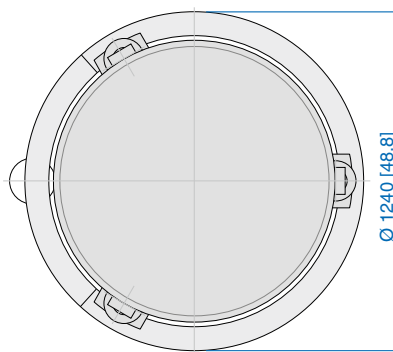
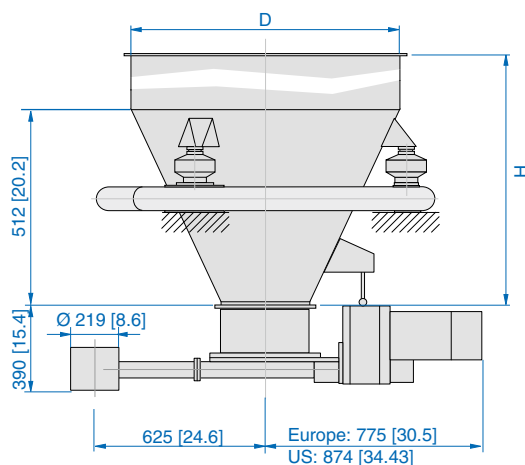
Gross weighbridge capacity (e.g. 3 x 60 = 180 kg) less total feeder weight and less 10% reserve

#### 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.



| Volume<br>dm³ [ft³]        | H<br>mm [in] | D<br>mm [in] | Weight<br>kg [lb] |
|----------------------------|--------------|--------------|-------------------|
| <b>Symmetrical Hoppers</b> |              |              |                   |
| 250 [9]                    | 732 [29]     | 1000 [39.4]  | 37 [81]           |
| 450 [15]                   | 1086 [43]    | 1000 [39.4]  | 59 [130]          |
| 750 [26]                   | 1450 [57]    | 1000 [39.4]  | 82 [180]          |
| 1100 [39]                  | 1820 [72]    | 1000 [39.4]  | 106 [234]         |
| 1400 [49]                  | 2350 [93]    | 1000 [39.4]  | 140 [308]         |

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