

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

Component A is specified here.

Application

The MT12 twin screw microfeeder provides accurate, low-rate gravimetric feeding of free-flowing powders, challenging materials prone to lumping or bridging, and micropellets. It is ideally suited for feeding high-value additives in applications requiring exceptional accuracy and second by second consistency.

Design

The MT12 twin-screw microfeeder with SFS platform scale combines exceptional feeding accuracy with a compact, hygienic design. The fully enclosed stainless steel scale housing and protective acrylic draft shield help maintain precise gravimetric performance, even in difficult environments. Motor and drive are integrated into the fully enclosed feeder base, while an optional interchangeable 16 mm feeding unit provides exceptional application flexibility.

Designed for rapid cleaning and maintenance, all product-contact parts can be removed as a single module, with easy disassembly, minimizing downtime during cleaning and product changeovers.

Multiple screw and agitator configuration options allow the feeder to handle a broad range of bulk materials. The modular agitator gently conditions and conveys material into the feed screws, ensuring consistent flow, while the screw filler minimizes residual product left in the hopper.

This equipment conforms to all applicable European Directives (e.g. Machinery, EMC).

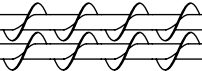
Controller: (see separate data sheets)

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:

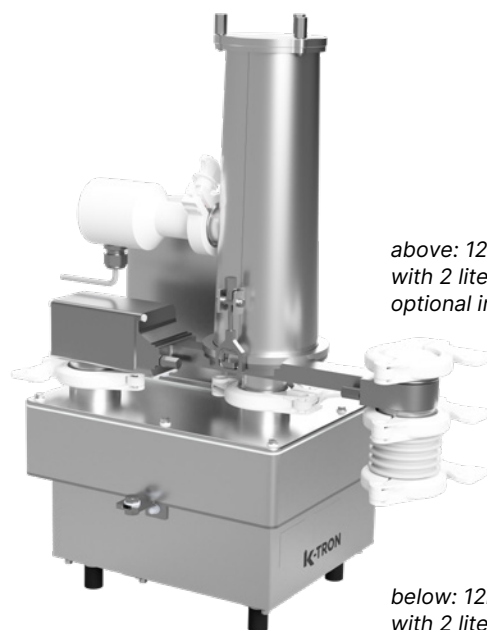
NEC consult factory
ATEX 3D/2D (outside/inside)

Feeder Screws and Feed Rates

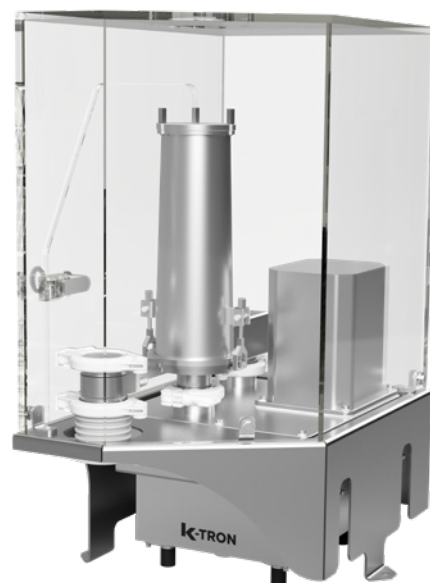
Pitch		Twin concave screws 	Twin auger screws 	Screw speed range
coarse	dm ³ /h	0.078 - 10.36	0.076 - 10.71	1 - 150 RPM
	ft ³ /h	0.0028 - 0.3656	0.0027 - 0.3781	
fine	dm ³ /h	0.045 - 5.89	0.031 - 4.52	
	ft ³ /h	0.0016 - 0.2079	0.0011 - 0.1595	

The feed rate indications are approximate values and vary according to material characteristics.

CAUTION: Minimum feed rate should not be less than 32 g/hr. Lower feed rates may be possible for some materials but tests must be done in the Test Lab to confirm feasibility. Material tests are also required for materials with bulk density of more than 0.8 kg/dm³.



above: 12mm Microfeeder
with 2 liter hopper and
optional impactor



below: 12mm Microfeeder
with 2 liter hopper and
draft shield

The feed rates were tested with a free-flowing material (semolina, bulk density 0.783 kg/dm³). Actual feed screws will be determined by the material being fed. Feeder screws are easily interchangeable.

K-CL-SFS-MT12

Loss-in-Weight Twin Screw Microfeeder



Configuration	Description	Alternatives	Remarks	Weight kg [lb]
	Cover		Standard (SST)	0.3 [0.7]
	Hopper		1 dm³ [0.04 ft³]	1 [2.2]
			2 dm³ [0.07 ft³]	1.6 [3.5]
	Motor drive	Servo motor - 800 W, 240 VAC, IP65 <i>KCM-III requires 230 VAC single phase (US split-phase, 3 wire balanced, L1-N-L2)</i>		23.3 [51]
	Feeding unit	Horizontal outlet Vertical outlet (std)		
	Scale		K-SFS-I IP65, NEMA 4	

Materials:

Product contact parts: Stainless steel
EN 1.4435/1.4404 (AISI 316L),
X2CrNiMo 17-12-2

Seals: Silicone (food grade),
PTFE (food grade)

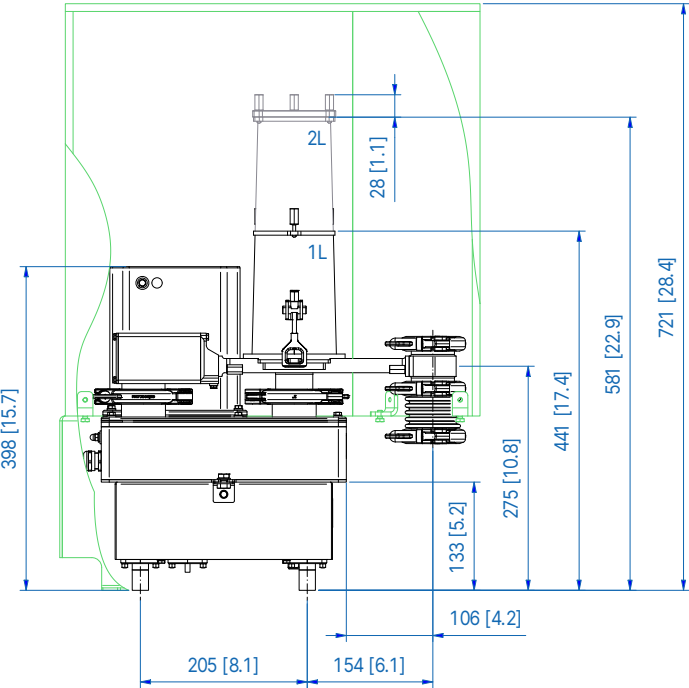
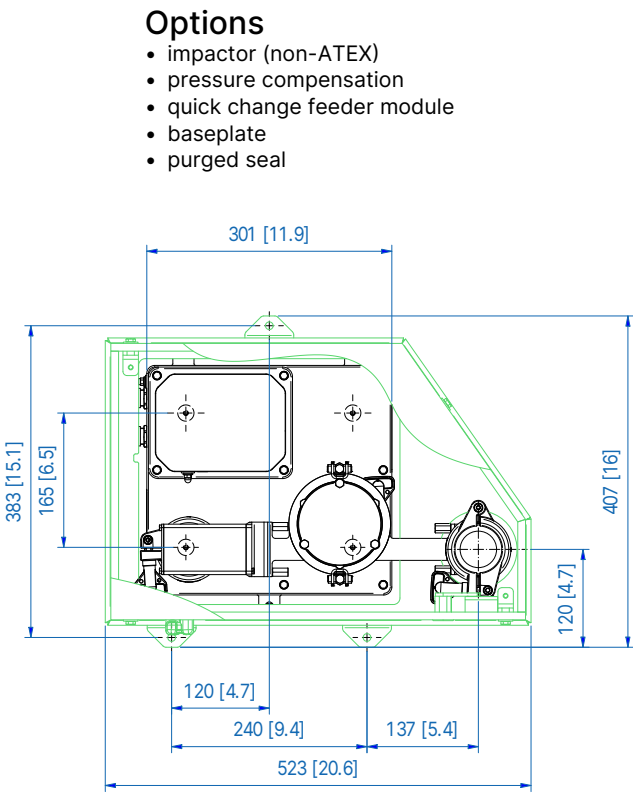
Weighing Range: 24 kg [52.8 lb]

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]



- Options**
- impactor (non-ATEX)
 - pressure compensation
 - quick change feeder module
 - baseplate
 - purged seal

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