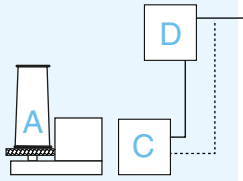
K-CV-MT12

Volumetric Twin Screw Microfeeder



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

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

Component A is specified here.

Application

The MT12 twin screw microfeeder provides accurate, low-rate volumetric 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.

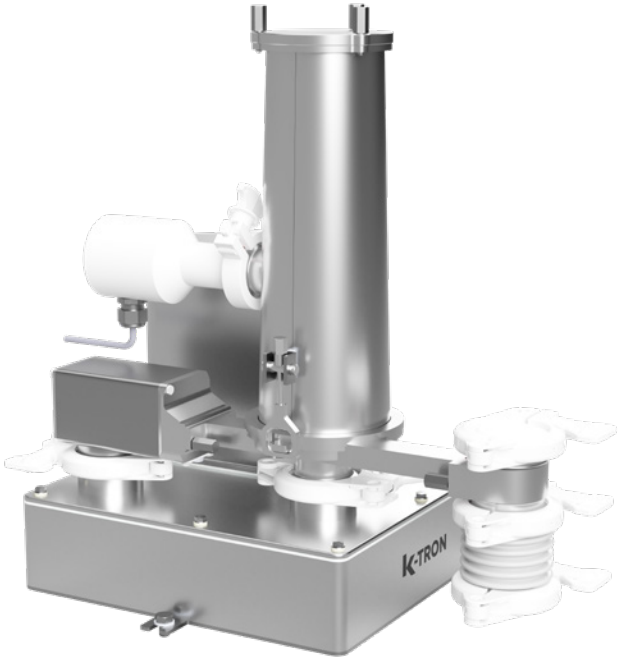
Design

The MT12 twin-screw microfeeder combines exceptional low-rate feeding with a compact, hygienic design. 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)



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



below:
12mm Microfeeder with 2 liter hopper

Feeder Screws and Feed Rates

The feed rates below 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.

Pitch		Twin concave screws	Twin auger screws	Screw speed range
coarse	dm³/h	0.078 - 10.36	0.076 - 10.71	1 - 150 RPM
	ft³/h	0.0028 - 0.3656	0.0027 - 0.3781	
fine	dm³/h	0.045 - 5.89	0.031 - 4.52	
	ft³/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/h. 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.

K-CV-MT12

Volumetric 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 *KCM-III requires 230 VAC single phase* *(US split-phase, 3 wire balanced, L1-N-L2)*		
Feeding unit	Horizontal outlet / Vertical outlet (std)		23.3 [51]

Materials:

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

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

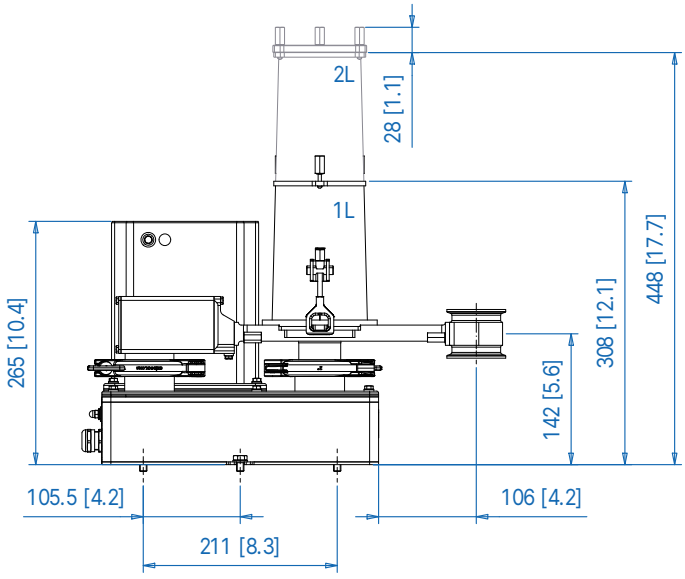
Temperature-Limits:

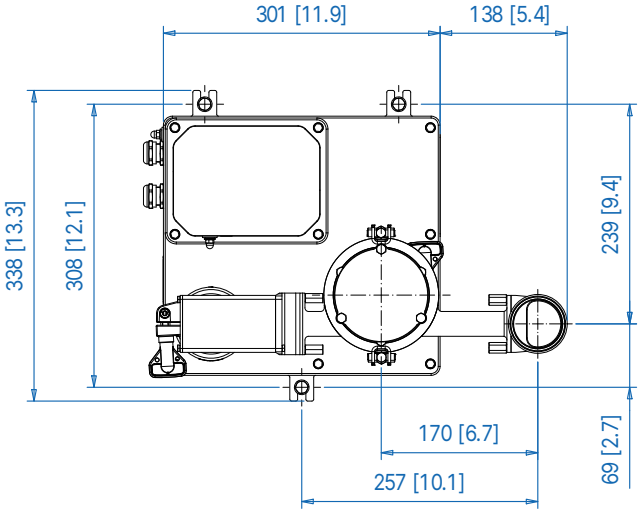
Ambient: 0...40°C [32...104°F]

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.

Copyright by K-Tron Technologies, Inc. Covered by patents in USA and other countries. Specifications subject to change without notice.