

Microfeeder

K-Tron's MT12 Twin Screw Microfeeder

Volumetric or Gravimetric Feeding of Bulk Materials at Extremely Low Rates



The new K-Tron MT12 Microfeeder has been specially designed to provide maximum accuracy at minimal feedrates, which makes it ideal for use in the chemical and pharmaceutical processing industries. Unique design features ensure that high value ingredients are fed accurately at rates as low as 20 g/hr with minimal residual material left in the feeder. The modular design means more flexibility for the process and easy access to all parts for cleaning and maintenance. The 12mm twin screw design can feed a wide range of free-flowing to difficult powders.

Design Features

- 12mm diameter twin screw technology
- Machined base with maximum screw opening and agitator for optimal screw filling
- Bottom driven vertical agitator provides accurate screw fill with minimal residual material
- Patented quick coupling design for easy cleaning of product contact parts
- Standard version features all product contact parts in stainless steel and other parts in nickel-plated aluminum
- Pharma version is made entirely of stainless steel
- One stepper motor drives both screws and agitator (for hazardous area applications a servo motor drive is used)
- Completely oil and grease free drive system
- Mounting fixture for optional arch breaker
- Protective enclosure to reduce atmospheric/climatic influences
- Versions available for hazardous locations up to ATEX category 2GD as well as US Class1 / DIV 1
- Feed rates 20 g/hr (0.044 lb/hr) to 2000 g/hr (4.4 lb/hr) or 0.04 dm³/hr (0.0014 ft³/hr) to 4 dm³/hr (0.14 ft³/hr)

To accommodate various materials and feed rates, there are 4 twin screw designs available which can easily be exchanged. The design of the feeding trough, combined with the bottom driven vertical agitator, makes it possible to practically eliminate the amount of residual product.

For gravimetric applications, the complete MT12 is mounted on a platform scale utilizing high performance digital Smart Force Transducer weighing technology. Key features include an integrated microprocessor and digital filtering software to suppress environmental vibrations. The control module combines motor control, feeder control and an operator interface into a single unit that can be mounted by the feeder or in a control panel. Interface software is available for communication with a host control system.

The new MT12 microfeeding system ideally fulfills the requirements for exact low rate feeding. It meets the high expectations regarding short term accuracy, reproducibility and linearity. Feeding tests can be conducted at the customer site or in one of K-Tron's test laboratories.



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