MSE Meili AG
Multiphase Systems Engineering

MSE Turntable Feeder MTF

Pulsation free Loss-In-Weight Feeding System

Description

The new gravimetric **'MSE Turntable Feeder'** MTF is a versatile and easy-to-use turntable feeder for various applications in R&D and industrial laboratories at lower feeding rates. The systems consists of the MTF feeder itself, the control unit MTF-CU and the Windows™ based control software **'MSE Rate'**, which calculates and displays the **actual feeding rate in real-time**.

Design Characteristics – Advantages

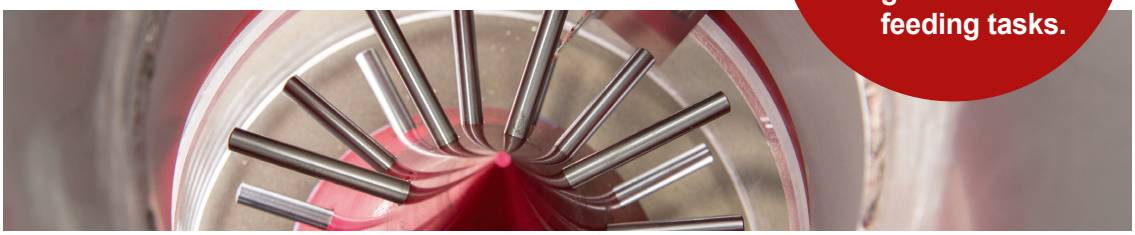
- Turntable feeder principle and special design warrants **highest short-time constancy and pulsation free material flow**
- Integrated load cells yield **precise and instantaneous measurement of dosing rate**
- attractive, robust design, no dead spots, **easy to clean** – permits **quick materials changes**
- robust drive-train with double bearings **capsuled hygienically**
- special mechanism permits **quick and precise adjustment of dosing gap** facilitating a **wide dosing range**
- handy drawer collecting excess material
- attractively priced

Applications

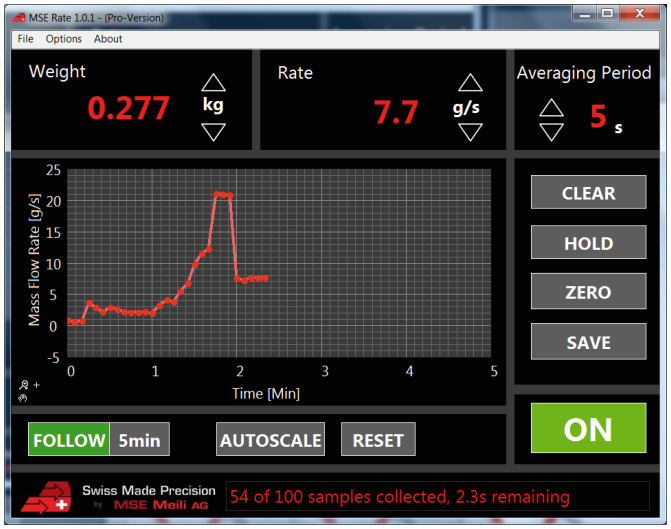
The MSE Turntable Feeder is suited for a variety of dosing tasks of free to medium flowing materials within the chemical, food or pharma industry, especially for laboratory applications as e.g.

- feed to (continuous) mixers, mills, reactors, test or calibration units
- dosing of ingredients, flavors, catalysts, coating powders, etc.
- **Your application …?**

> Versatile feeder suited for volumetric & gravimetric feeding tasks.

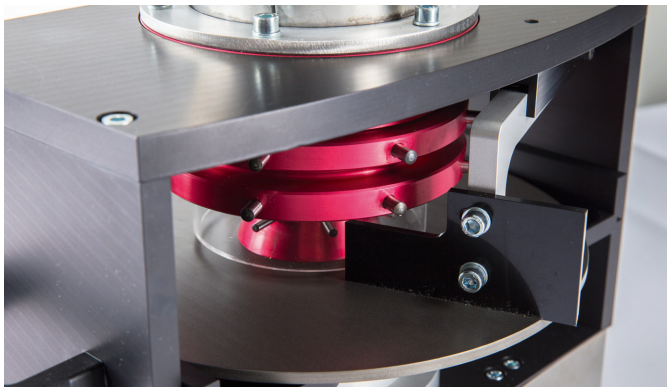


Visualization Software 'MSE Rate'

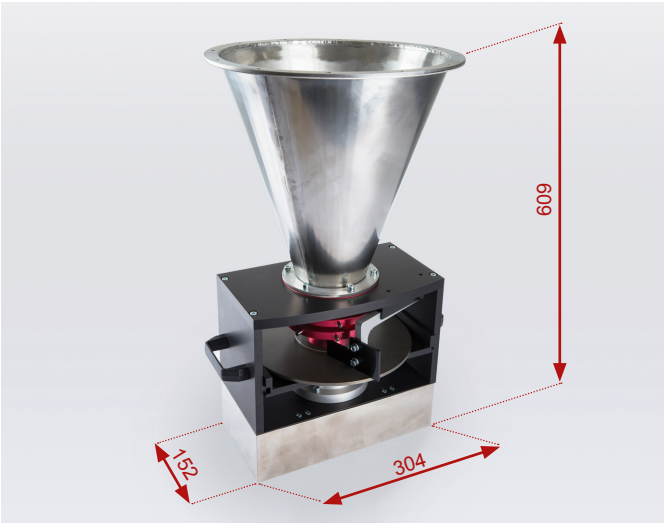


The user friendly software MSE Rate continuously samples the weight data of the load cells and calculates the actual gravimetric feed rate. MSE Rate is Windows™ based (XP, Win7/8) and runs on every PC with an USB 2.0 port. Its main features are:

- display of **actual load**, i.e. weight measurement of feedstock
- numerical and graphical display **of actual mass flow rate**, zoom & pan functions for graphics
- parameters as averaging period (2, 5, 10 s), units for mass and rate adjustable, eg. kg, lb, g/s, kg/h etc.
- **data export** into text files for documentation, further processing & visualization ('Pro' version only)
- additional modules to be implemented upon customer specifications & request



Specifications



- **Feed Rate:** 2 – 500 kg/h (directional quantities)
- **Storage Bin:** 12 liters/25 kg (larger bins optional), opening angle < 19°
- **Speed turntable disc:** ca. 5 – 100 rpm
- **Turntable disc:** Ø 260 mm, coated with anti-frictional and abrasion-resistant ALTEF® coating
- **Dosing gab**: 0 – 15 mm (steplessly adjustable)
- **Weighting system:** load cells with strain-gage amplifier, accuracy: ± 0.05 % FSO in compensated temperature range of -10 – 50 °C
- **Drive:** robust 24 V DC motor with gear box, M_{max} > 5 Nm, P_{max} > 60 W
- **Agitator:** conical mixer with baffle, additional stirrer optional
- **Material:** stainless steel (bin, panels), AlMg-alloy (housing), PMMA (dosing tube), PA6 (scraper)
- **Weight:** ca. 16 kg
- **Control Unit MTF-CU:** contains power supply, drive control, data acquisition (16 bit) for load cells,
  - Input: AC 85-132/187-264 V 50/60 Hz
  - Output: DC 24 V, P < 240 W
  - Interface for PC (MSE Rate): USB 2.0
- **Cables:** shielded power & data cables between MTF feeder and control unit MTF-CU, 5 m length

Upon request models with special features/design or with materials upon customer specifications available.

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