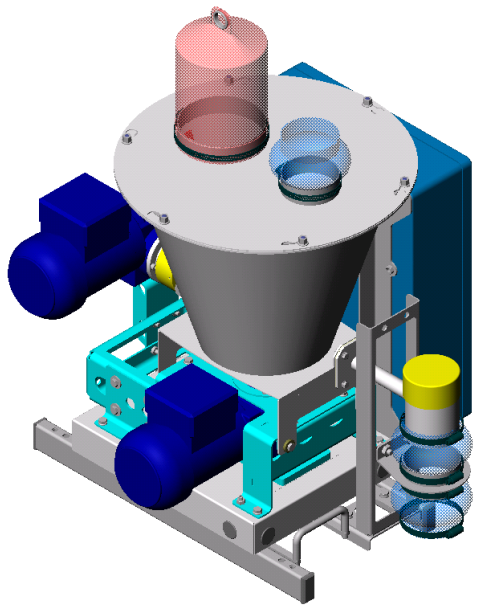
# MechaTron® Feed System, Series S - Coni-Steel® Microfeeder



- **Designed for the gravimetric feeding of bulk solids**
- **Agitation system with internal agitator**
- **Feed hopper of stainless and acid-resistant steel**
- **Quick and easy dismounting for cleaning and material change due to the modular design**
- **Integrated measuring, control and supervisory electronics**
- **High feed accuracy and constancy better than +/- 0.5%**

## Application

The MechaTron feed system is used for continuous gravimetric feeding of bulk solids like powders and grits.

Typical scenarios are the plastics, chemical, food, detergent, and pharmaceutical industries.

## Construction

MechaTron-S Microfeeder consists of a feed hopper, internal agitator, discharge unit and a platform scale.
The internal agitator moves the material in the hopper and ensures a consistent material flow into the discharge unit. As discharge units, spirals and screws of single and twin-unit type are employed.
The platform scale is equipped with a hermetically sealed precision strain-gauge load cell protected from damage by integral overload and anti-rotation protections and hold-downs.
The weighing electronics is integrated into the mechanical feeder system, but can also be installed separately.

## Operating Principle

The gravimetric MechaTron-S Microfeeder variant operates on the loss-in-weight principle.
The actual feed rate is determined from the loss in weight per unit time. A controller compares the actual feed rate with the setpoint and controls the discharge unit.
The hopper design with steep walls and internal agitator ensures safe feeding with high accuracy and constancy also of sluggish materials.

The MechaTron-S Microfeeder excels through easy and quick removal and installation of the contact parts.

**Technical Data**

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|---|---|
| Contact parts | Stainless steel 1.4404 (316L), |
| Material temperature | -30°C to 100°C |
| Ambient temperature | -30°C to 50°C |
| Bulk density | 0.1 to 1.2 kg/dm³ |
| Design pressure | -5 to 95 mbar |
| Operating pressure | -0.5 to 2 mbar |
| Feed rate | 0.16 to 21.8 dm³/hr |
| Feed accuracy | +/- 0.5% |
| Feed constancy | +/- 0.5% |
| Drives | AC motor for discharge unit and agitator |

**Variants:**

| | |
|---|---|
| **Feed principle:** | Gravimetric (loss-in-weight feeder) |
| **Feed hopper:** | Stainless and acid-resistant steel, 1.4404 (316L) |
| **Discharge units:** | Single discharge screws and spirals,<br>9 and 13 mm diameters<br><br>Twin discharge screws and spirals,<br>14.5 mm diameter |
| **Hopper cover:** | Manual filling or installation in production line |
| **Agitation system:** | Internal vertical agitator |

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