

Micro-quantitative powder feeder

Feedcon- μ

Compact, yet micro feeding with high accuracy

<https://www.nisshineng.co.jp>

Nisshin Engineering Inc.

Powder Business Department
5-3-77 Tsurugaoka, Fujimino-City, Saitama, Japan 356-0045
Tel: +81-49-264-3049 Fax: +81-49-264-9367



Feedcon- μ M type(Normal)

Feedcon-μ can accurately feed small amount of powder constantly and quantitatively. It meets variety of needs for experimental and industrial uses.

Important role of Feedcon-μ

- Micro feeding of powder
- Feeding of highly flushable powder
- Feeding of highly adhesive powder
- Feeding under inert gas replacement conditions
- Feeding of highly cohesive powder

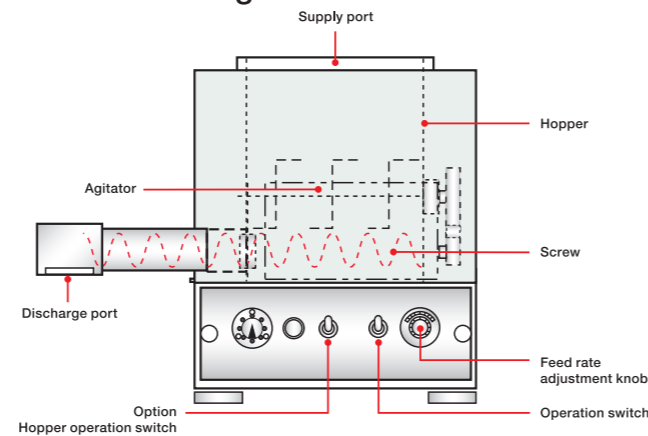
Overview

Feedcon-μ is a screw feeder with compact body capable of easily micro feeding powder from standard powder to highly cohesive and highly adhesive fine powder, and is available in two models. The <M type (manual type)> is capable of micro feeding at the desired feed speed by manually adjusting the screw rotation speed. On the other hand, the <N type (feedback type)> is capable of fully-automatic and continuously stable feeding by constantly monitoring the amount of powder discharged with an electronic balance, and controlling powder flow rate feedback.

Structure and features - M type (manual type) -

- The unique screw feed mechanism eliminates vibration, and fluctuations in feed quantity caused by screw rotation and variations in powder level, enabling stable powder feeding.
- Weight has been reduced, and disassembly and cleaning have been made easier using plastic for the powder contact area.
- The feed rate can be changed linearly by changing the screw rotation speed.
- The manual type is inexpensive and can be delivered quickly.

Structural drawing

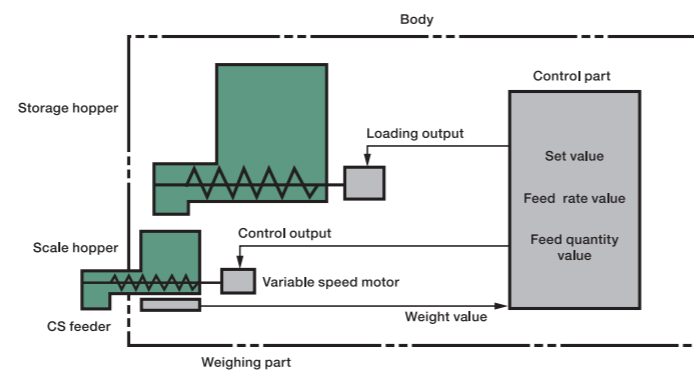


Micro feeding	Feeding under inert gas replacement conditions
Compact	Feeding under pressurized/reduced pressure conditions
Inexpensive	Dispersed spray feed
Quick delivery	Easy disassembly and cleaning
Feeding of highly adhesive and highly cohesive powder	

Structure and features - N type (feedback type) -

- The amount of powder discharged is constantly measured, and powder feed quantity/rate feedback is controlled with an electronic balance.
- By simply entering a value for the set quantity/rate, the feeder can be resupplied with raw material, and the feed quantity/rate can be adjusted automatically.
- A selection can be made from an allotter type for batch feeding, or a feeder type for continuous stable feeding.

Structural drawing

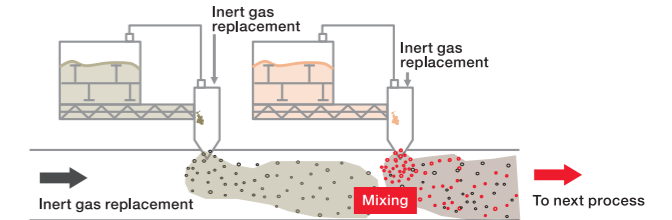


Micro feeding	Feeding under inert gas replacement conditions
High feed accuracy	Feeding under pressurized/reduced pressure conditions
Stable feeding	Dispersed spray feed
Feeding of highly adhesive and highly cohesive powder	
Easy disassembly and cleaning	

Adoption example (withstand pressure/inert gas replacement type)

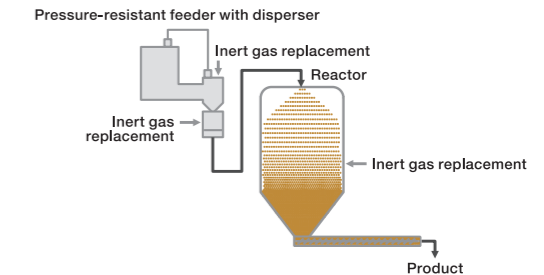
Case 1 Quantitative feeding of powder into pneumatic conveying pipes

Quantitative feeding of powder into pneumatic conveying pipes is possible under pressurized/reduced pressure conditions.



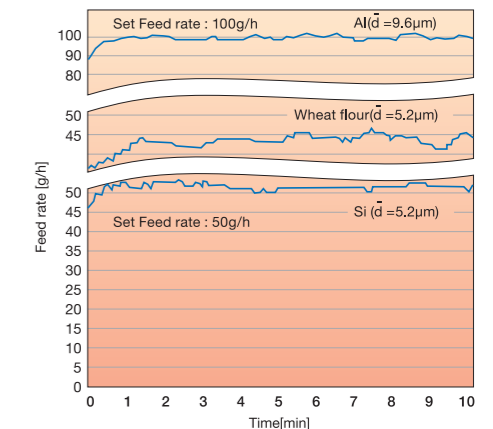
Case 2 Dispersed feeding into the reactor under inert gas replacement conditions

Powder is fed into the reactor, making it possible to disperse powder up to a single particle, and to ensure a uniform, efficient reaction.



Powder feed example (N type Feedcon-μ)

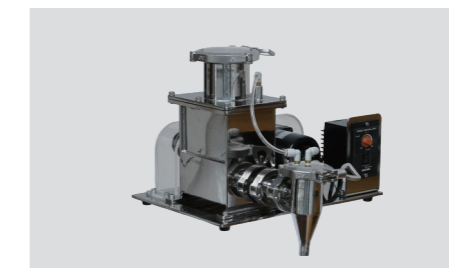
The above chart shows the result of feeding multiple types of powder using the N type Feedcon-μ. Each type of the powder is a fine powder with relatively strong adhesiveness and cohesiveness, but this feeder has achieved high feed accuracy and stable feeding by adopting a unique screw hopper agitator, and through the constant monitoring and feedback control of the amount of powder discharged with an electronic balance. The N type is also capable of inert gas replacement. Material such as fine powder, which is sensitive to oxidation and moisture absorption, can be fed continuously (several mg to several tens g/h). Following discharge from the feeder, gas can be conveyed and powder sprayed using compressed inert gas.



Equipment Photos



Feedcon-μ M type (Normal)



Feedcon-μ M type (Pressure resistant, Inert gas replacement type)



Feedcon-μ N type (Inert gas replacement type)

Lineup

Models	Type	Feed rate [mℓ/h]	Weight [kg]	Dimensions W×L×H [mm]	Power consumption	Hopper capacity [ℓ]
Feedcon-μ M type (Manual type)	μM030 type	50 ~ 600	12	240 × 290 × 260	Single-phase AC100V 25W	1
	μM200 type	500 ~ 6,000				
Feedcon-μ N type (feedback type)	μN030 type	50 ~ 600	25 (Mechanical part)	400 × 300 × 415 (Mechanical part)	Single-phase AC100V 300W	0.8 (Supply feeder)
	μN200 type	500 ~ 6,000	25 (Control part)	430 × 450 × 200 (Control part)		0.5 (Constant feeder)

* Optional additional material hoppers (5 liter, 10 liter) are also available.