

LOSS-IN-WEIGHT FEEDERS

The HB-666 is designed for continuous volumetric and gravimetric feeding systems of bulk solids. Such as, granulates, powders, flakes, chips, pellets, and fibers..... etc.

The system is applied to measuring and feeding bulk solids with high accuracy by control and supervisory systems for continuous weighing and feeding systems. By the way there are available in three configurations of feeder elements which are single screws, twin screws, vibro feeders or Belt feeders to meet any industrial feeding application, particularly in the plastic, chemical, food, detergent, and pharmaceutical industries.

The HB-666 series L.I.W Feeder is designed with feed hopper, agitator, vertical rotary, feed element, extension hopper and supporting structure. Gravimetric feeders are completed by two weighing modules. The vertical rotary agitator moves the material in the hopper and ensures safe material flow into the feed element. Feed elements are designed as single-shaft or dual-shaft spirals and screws.

For adaption to feed rate and application, the extension hopper is available in various sizes. The weighing modules of the gravimetric feeder consist of hermetically sealed precision load cells in strain-gauge technical with integral overload and anti-rotation protections.

AVAILABLE IN TWO CONFIGURATIONS FEEDING WHICH ARE CONTINUOUS CONSTANCY FEEDING OR BATCHING OPERATION

Continuous Constancy Feeding Type

Loss-in-weight feeding involves a continuous flow of dry material into a process. Feed rates are expressed in units over time, such as 100 kilograms per hour rather than batch sizes such as 10 kilograms in 5 minutes. Loss-in-Weight Feeding deviations are better than $\pm 0.25\% \sim 1\%$ for most materials. (depends on material character)

Batching Operating Type

For batching type operating that the feeder delivers the material into a container or down stream equipment. Such as mixer, conveyor or service tank Etc. When Loss-in-Weight Feeder Feeding to be reached previously presettled each batch weight (kg/batch). This is the most accurate operation type of batching with deviations as low as (0.1~0.25% depending on the material and desired batch rate.

Feature

- Various Feeder elements e.g. 1) Single Screws, 2) Twin Screws, 3) Vibro Feeders, 4) Belt Feeders
- Batching or continuous constancy feeding control.
- Blending with a group of feeders (master / slave control).
- Feeder with vertical rotary agitator for breaking bridging.
- High accuracy, better than $\pm 0.5\%$.
- Material of construction made of stainless steel.
- Feed system for volumetric and gravimetric bulk solids feeding.
- Integrated measuring, control, and supervisory performance in controller.
- Heavy duty construction apply in any industrial area.



TECHNICAL SPECIFICATION

Feed Principle	Gravimetric (Loss-in-Weight Feeder) / Volumetric
Feed elements	Single screws / or twin screws / or vibro feeder. ※ Depends on material request to design.
Discharge aid	Vertical rotary agitator
Parts in contact with materials	Stainless steel
Material Temperature	-30°C to 100°C
Ambient Temperature	-10°C to 50°C
Bulk Density	0.1 to 1.2' / dm ³
Feed Rate	2.2kg ~ 10,000kg /hr
Feed Accuracy	$\pm 0.5\%$
Feed Constancy	$\pm 0.5\%$
Drives	1/4 or 1/2HP AC motor with AC inverter / 1/4 or 1/2 HP DC motor with SCR motor speed controller.

HB-666 Series Loss-in-Weight Feeder Theoretical Feed Rates

Model	Base Hopper (L)	Screw Size (mm)	Motor Output (kw)	Min. Speed (r/m)	Max. Speed (r/m)	Min. Rate (l/hr)	Max. Rate (l/hr)	Min. Rate (kg/h)	Max. Rate (kg/h)
HB-666A	7	18	0.04	7	70	3.4	34	2.2	22
HB-666B	18	18	0.04	7	70	3.4	34	2.2	22
		25	0.04	7	70	6.0	60	3.8	38
HB-666C	55	48	0.37	10	100	15.8	158	10	100
HB-666D	112	64	0.37	10	100	42	420	27	270
		77	0.37	10	100	80	800	52	520
HB-666E	500	123	0.75	10	100	300	3000	192	1920
		146.6	0.75	10	100	800	8000	512	5120
HB-666F	750	146.6	0.75	10	100	800	8000	512	5120
		199.5	0.75	10	100	1500	15000	960	9600

Base on S=0.64

- 1) Theoretical feed rates assume 100% efficiency.
- 2) Practical feed rates are 20~30% lower.
- 3) Based on 640 kilograms per cubic meter.
- 4) Customer Design O.E.M. / O.D.M. Service.

Reference Dimensions

MODEL	BASE HOPPER (L)	L (mm)	W (mm)	H (mm)
HB-666A	7	400	440	695
HB-666B	18	400	440	745
HB-666C	55	870	870	1075
HB-666D	112	555	555	1375
HB-666E	500	1120	1120	1910
HB-666F	750	1320	1320	2015