High-speed, high-precision handling of micro-sized parts and electronic chips. Compact design and versatility to handle a wide range of small parts.

Designed for the automatic conveyance and stable delivery of delicate components that are easily scratched or damaged, these feeders provide high-speed, high-precision parts handling. With the fine vibration of full wave drive and a soft start function, all types of tiny parts for cameras, watches etc. can be handled. Compact design takes up minimal space.

ME-08C

ME-14C

HME-08C

Features

- **Smooth, reliable, orderly presentation of tiny, thin parts**
  High vibration frequency and small amplitude allow for the orderly delivery of micro-sized, thin and complex-shaped parts, which is hard to achieve with conventional feeder vibration characteristics.
- **Highly accurate sorting and conveyance**
  Bouncing of workpieces during conveyance is reduced, and even slight variations in shape and weight distribution of small parts can be detected for accurate sorting.
- **No problems at connecting points**
  With little vibration displacement, there is no damage to workpieces caused by gaps between bowl and chute or chute and non-vibrating parts.
- **High vibration frequency gives high speed delivery**
  High vibration frequency conveys workpieces smoothly, speedily and with no resistance, to supply a stable quantity with little variation, for a significant improvement in efficiency.
- **No readjustment of leaf-spring necessary**
  Once set, leaf-spring requires no further adjustment. With feedback control for amplitude, c hanges over time in voltage or load do not cause fluctuations in vibration.
- **Compact design, with a height adjustment function**
  Down-sized design for maximum space-saving, with a vibro-isolating base. Bowl height can be adjusted within 3 mm range to simplify positioning.

Specifications

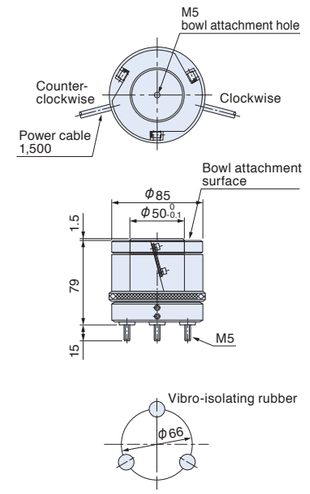
Model	Rated Voltage (V)	Rated Current (A)	Vibration frequency (Hz)	Weight (kg)	Loaded weight (kg)	Max. bowl diameter (mm)	Compatible standard controller
ME-08C	100/110	0.30	100～180	2.5	0.6	ϕ140	C10-1VF C10-1VFEF C9-03VFTC
ME-14C		0.55		7.8	2.0	ϕ230	
HME-08C		0.15	220～360	2.5	0.6	ϕ140	
HME-14C		0.30		7.8	2.0	ϕ230	
HSE-14		0.30		9.3	2.0	ϕ230	

Note: Loaded weight is permissible weight of bowl and work.

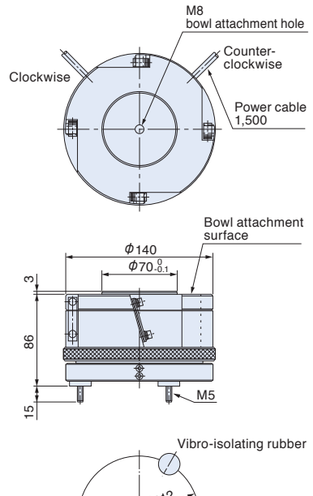
Dimensions

Unit: mm

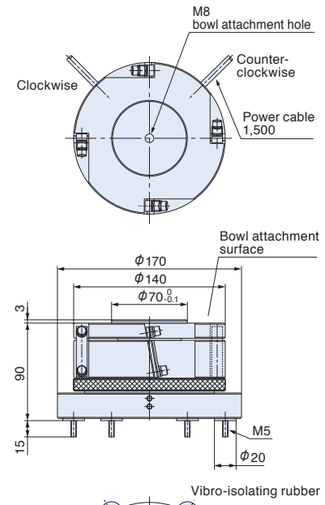
ME-08C



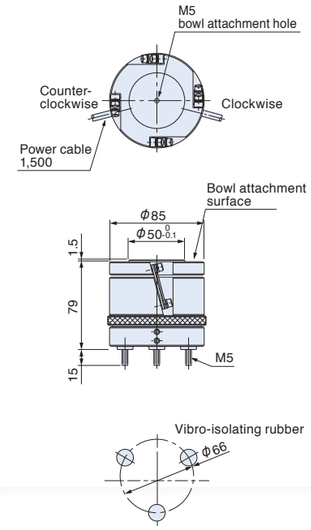
ME-14C / HME-14C



HSE-14

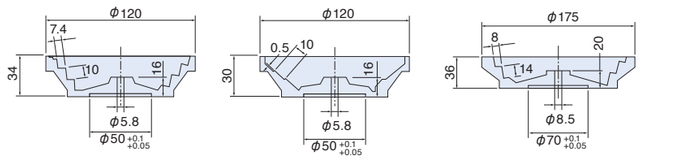


HME-08C



ME/HME/HSE Bowl

Unit: mm



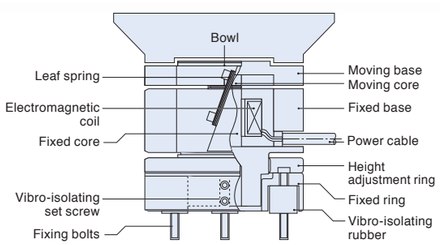
ME-08C / HME-08C Track-stepped bowl (Bowl weight 0.3kg)

ME-08C / HME-08C Dish bowl (Bowl weight 0.3kg)

ME-14C/HME-14C/HSE-14 Track-stepped bowl (Bowl weight 1.1kg)

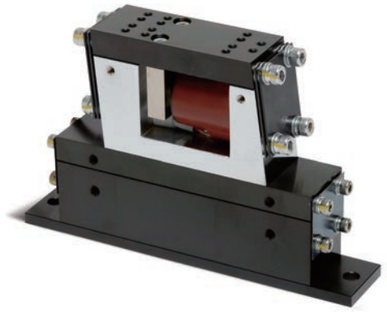
Notes: Bowls are made of aluminum.
HSE Series bowls without surface treatment are not available.
Clockwise and counter-clockwise orientations are available.

Structual Diagram



Ideal vibration characteristics to reduce bouncing

A high-precision electromagnetic drive unit ideal for use with chutes for precision parts, to meet present-day requirements for rapid processing of micro-sized workpieces. Vibro-isolating leaf-springs are installed front and rear to absorb rebound, and vibration characteristics can be adjusted to match the workpiece. Giving uniform vibration the whole length of the trough, this series provides smooth delivery of the most delicate, easily damaged parts with minimal bouncing.



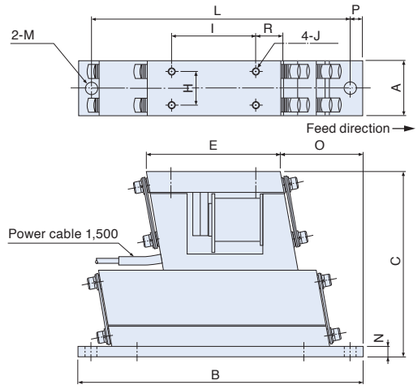
Features

- **Leaf-spring vibro-isolating type ideal for precision parts**
  This leaf-spring vibro-isolating series is ideal for micro-sized, flat and precision parts.
- **Minimizes bouncing**
  Adjustable vibration characteristics give increased delivery efficiency while minimizing workpiece bouncing.
- **Compact and high precision**
  Compact unit accommodates demands for rapid processing, providing high precision conveyance of micro-sized and precision parts.
- **Reduce Vibration Reaction Force to 1/3** (HLFB-04C)
  By revising weight balances of movable base and fixed base, it reduced vibration reaction force to 1/3 compared from conventional model.
- **Realized consistent handling speed of works** (HLFB-04C)
  It is able to realize stable supply of work piece with equalize handling speed from chute to outlet by improving degree of leaf springs.
- **14 tapped holes for chute installation** (HLFB-04C)
  By gaining number of tapped hole for chute installation on movable base from 4 to14, it is suitable for many working conditions.

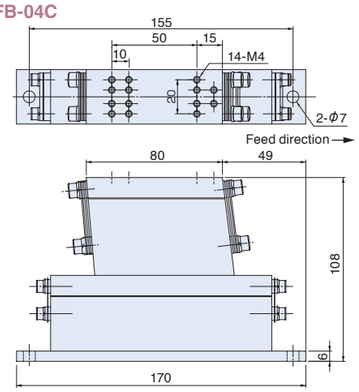
Dimensions

Unit: mm

LFB-02/04・HLFB-02



HLFB-04C



Specifications

Model	Rated Voltage (V)	Rated Current (A)	Vibration frequency (Hz)	Weight (kg)	Standard compatible controllers
LFB-02	100/110	0.12	100～180	1.2	C10-1VF C10-1VFEF C9-03VFTC
LFB-04	100/110 200/220	0.16 0.08	100～180	2.7	
HLFB-02	100/110	0.25	220～360	1.2	
HLFB-04C	100/110	0.30	220～360	2.7	

Dimensions Chart

Unit: mm

Model	A	B	C	E	H	I	J	L	M	N	O	P	R
LFB/HLFB-02	22	130	86	65	15	40	M3	120	ϕ6	4.5	45	5	13
LFB-04	32	170	108	80	20	50	M4	155	ϕ7	6	49	7.5	15

Chute Specifications

Unit: mm

Compatible linear feeder	Max.length	Max.width	Max.weight(kg)
LFB/HLFB-02	180	20	0.2
LFB-04	240	30	0.4
HLFB-04C	240	30	0.4

Note: Chute must straddle drive unit to distribute weight.

Digital Control for Revolutionary Delivery of Micro-sized Parts

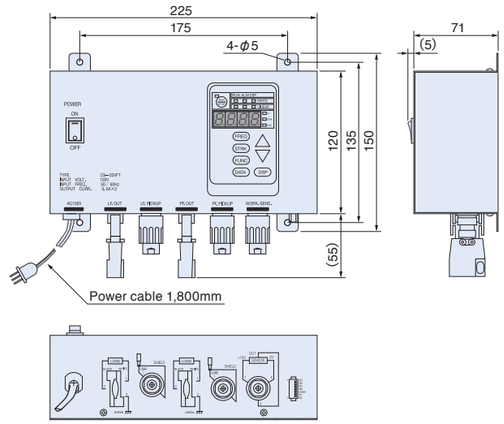
This new digital controller represents a major advance in the control of high frequency mini parts feeders for delivery of electronic chips and other micro-sized parts. Auto-tuning makes frequency adjustment unnecessary, and with its convenient digital settings and display it enables high frequency mini parts feeders to be operated to their full potential.

Features

- **Auto-tuning function eliminates frequency adjustments**
  This digital equipment has an advanced vibration frequency auto-tuning function. It automatically tracks resonance point changes not only from variations in workpiece input volume, but also from mechanical changes over time, to deliver optimal vibration at all times. No leaf-spring adjustment or even frequency adjustment is necessary, thereby boosting operating efficiency and saving energy.
- **Digital setting and display makes settings easy to manage**
  Amplitude, drive frequency, output voltage notches are all set and displayed digitally, for easy management.
- **Constant amplitude control matched to workpieces**
  Amplitude can be set digitally, and an amplitude sensor keeps drive at a uniform amplitude suited to the workpieces under conveyance.
- **One controller for all**
  One controller can control both parts feeders or linear feeders.
- **Computerized control delivers optimal drive**

Dimensions

Unit: mm



Specifications

Model		C9-03VFTC
Input Power source		AC100~230±10%, 50/60Hz
Control system		PWM system
Output	**Voltage**	0～95V
	Vibration frequency	Full wave: 100~180Hz High frequency: 220~360Hz
	Max. current	0.6A
Operating modes	**Auto-tuning mode**	Automatically senses particular vibration frequencies of parts feeder or linear feeder and controls drive at that frequency
	Constant amplitude mode	Constant frequency control based on frequency setting
Additional features	**Speed adjustment**	Amplitude adjustable with outer signal (Max. 4 settings)
	Start/Stop control	Start/stop control by external signal
	Overflow control	Sensor allows parts feeder overflow control On/off delay: Variable, 0.2~60 secs
	Sensor power source	DC12V, Max. 80mA for 3 phase socket plug.
	Output signal	Output signal synchronized to operation of parts feeder
	Soft start	Variable, 0.2~0.4 secs
Others	**Noise tolerant voltage**	Above 1,000V
	Ambient temperature	0~40°C
	Ambient humidity	10~90% (no condensation)
	Case color	Gray(Japan Paint Manufacturer association S-2-1006)
	Weight	1.6kg
Our compatible Parts feeders		ME-08C, ME-14C, HME-08C, HME-14C,HSE14
Our compatible Linear feeders		LFB-02,04, HLFB-02,04C