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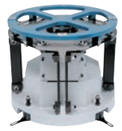
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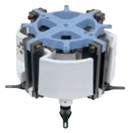
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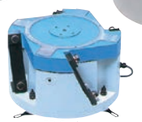
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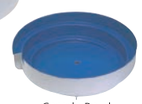
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LFBR Series
Leaf-spring
Vibro-isolating type


LFG Series
Rubber Mount
Vibro-isolating type


LF Series
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LFB Series
Leaf-spring
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MF Series
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Feeder-type Hopper

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ME/HME/HSE Series


C9-03VFTC
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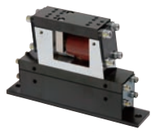
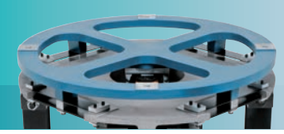

LFB/HLFB Series

DUAL MOTION PARTS FEEDERS
DM/DMS Series



Realizing Fast, Quiet, and Smooth volumetric feeding

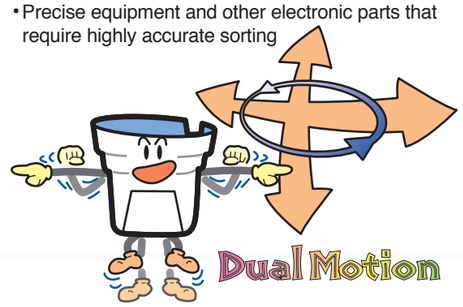
Features

- Handling components are transported without bouncing while it is operating by adjusting as lowest vertical amplitude as possible.
- Very quiet operation noise because of smooth transportation without bouncing on bowl surface.
- Capable to replace with EA/ER series driving part.

DMS Series	Interchangeable with EA/ER series parts feeders or those of other manufacturers.
DM Series	Accommodates high-speed delivery requirements.

Applications

- Plastic, easily damaged workpieces for medical and electronic equipment
- For low-noise handling of auto automobile parts or other metal parts
- Precise equipment and other electronic parts that require highly accurate sorting



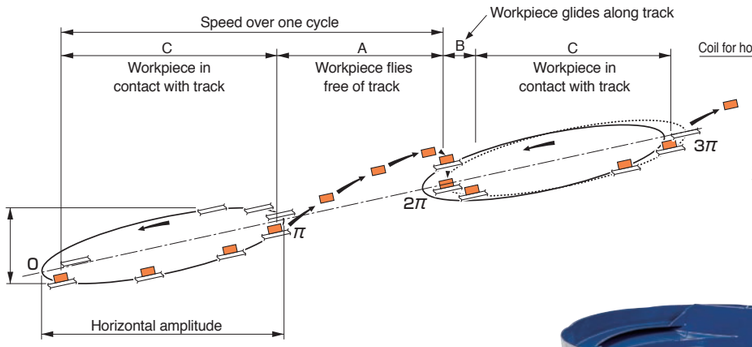
Dual Motion Principle

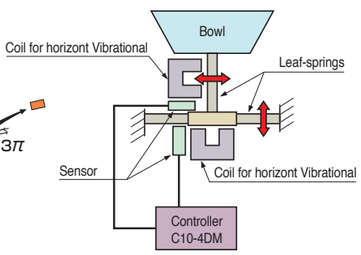
Friction (transport) controlled through elliptical vibration

Elliptical vibration is achieved by controlling optimal phase difference to the horizontal and vertical amplitudes of bowl vibration. Conveyance using elliptical vibration results from controlling friction, and workpieces thus travel as though gliding along the track.

Applied Dual Motion Structure

Dual motion is generated in these parts feeders through feedback of vibration in the horizontal and vertical directions, as shown in the diagram. Sensors detect horizontal and vertical amplitude, thereby allowing separate control.

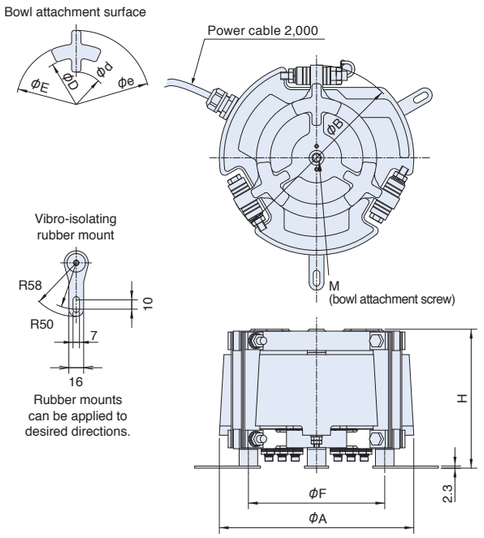




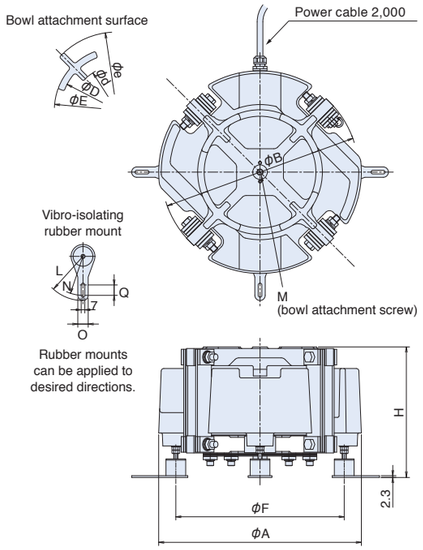
Dimensions Accommodates bowls designed for EA and ER and DMS series (see P.11-12)

Unit: mm

DMS-15C / 20C



DMS-25C ～ 45C



Drive Unit Specifications

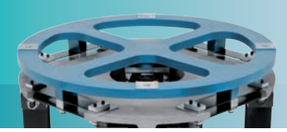
Model		DMS-15C	DMS-20C	DMS-25C	DMS-30C	DMS-38C	DMS-45C
Drive unit outer diameter	mm	ϕ160	ϕ210	ϕ260	ϕ310	ϕ390	ϕ460
Drive unit height	mm	130	150	185	220	250	265
Drive unit weight	kg	7	14	25	40	70	110
Rated voltage	V	200					
Rated current	A Horizontal	0.18	0.3	0.6	2.0	2.0	2.0
	A Vertical	0.18	0.3	0.3	0.8	0.8	2.0
Vibration frequency	Hz	100～180		70～110			
Unprocessed bowl diameter (cylindrical)	mm	ϕ150	ϕ200	ϕ250	ϕ300	ϕ375	ϕ450
Max. bowl diameter (cylindrical)	mm	ϕ250	ϕ320	ϕ400	ϕ500	ϕ600	ϕ700
Max. amplitude (Unprocessed cylindrical bowl periphery)	mm Horizontal	0.6		1.0			
	mm Vertical	0.13		0.3			
Max. loaded weight (workpieces + bowl weight)	kg	2.3	4	8	12.5	17	26
Cross section area of power cable	mm²	0.75 x 5 cores					
Applicable controller		C10-4DM					

Dimensions Chart

Unit: mm

Model	H	ϕA	ϕB	M	ϕD	ϕE	ϕF	ϕd	ϕe
DMS-15C	127～130～133	160	150	M8	72	94	130	50	120
DMS-20C	147～150～153	210	200	M10	100	130	170	70	160

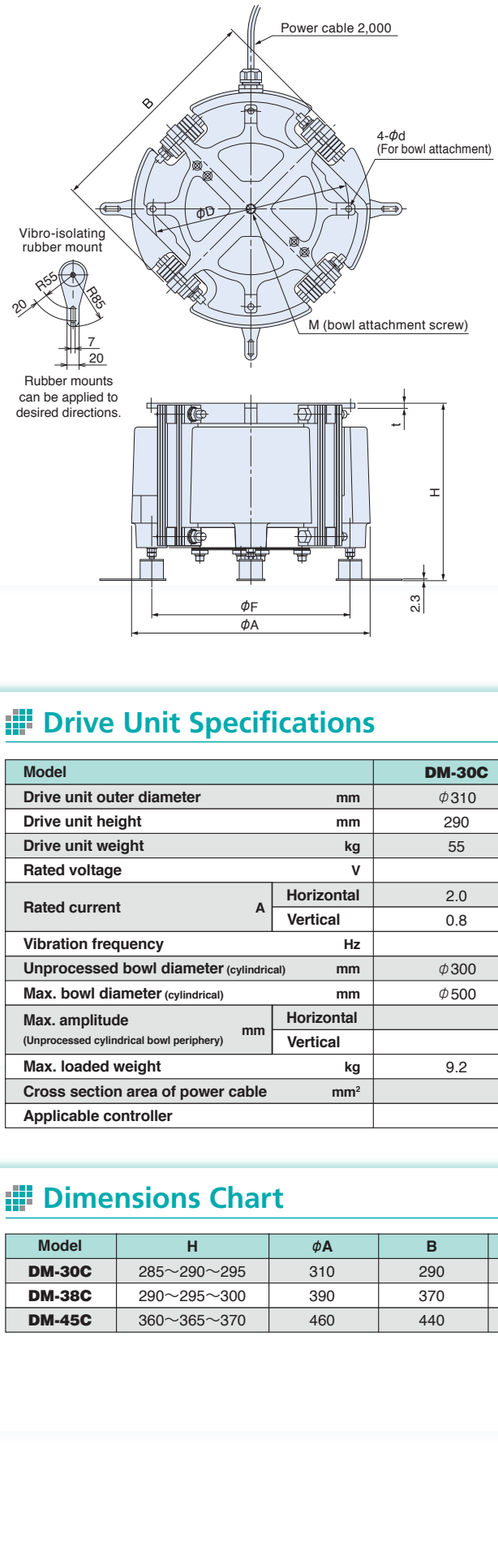
Model	H	ϕA	ϕB	M	ϕF	L	N	O	Q	ϕD	ϕE	ϕd	ϕe
DMS-25C	182～185～188	260	250	M12	216	58	50	16	10	140	160	100	200
DMS-30C	215～220～225	310	300	M12	252	85	75	20	20	172	192	140	240
DMS-38C	245～250～255	390	380	M16	324	85	75	20	20	215	240	170	300
DMS-45C	260～265～270	460	450	M16	390	85	75	20	20	270	300	210	350



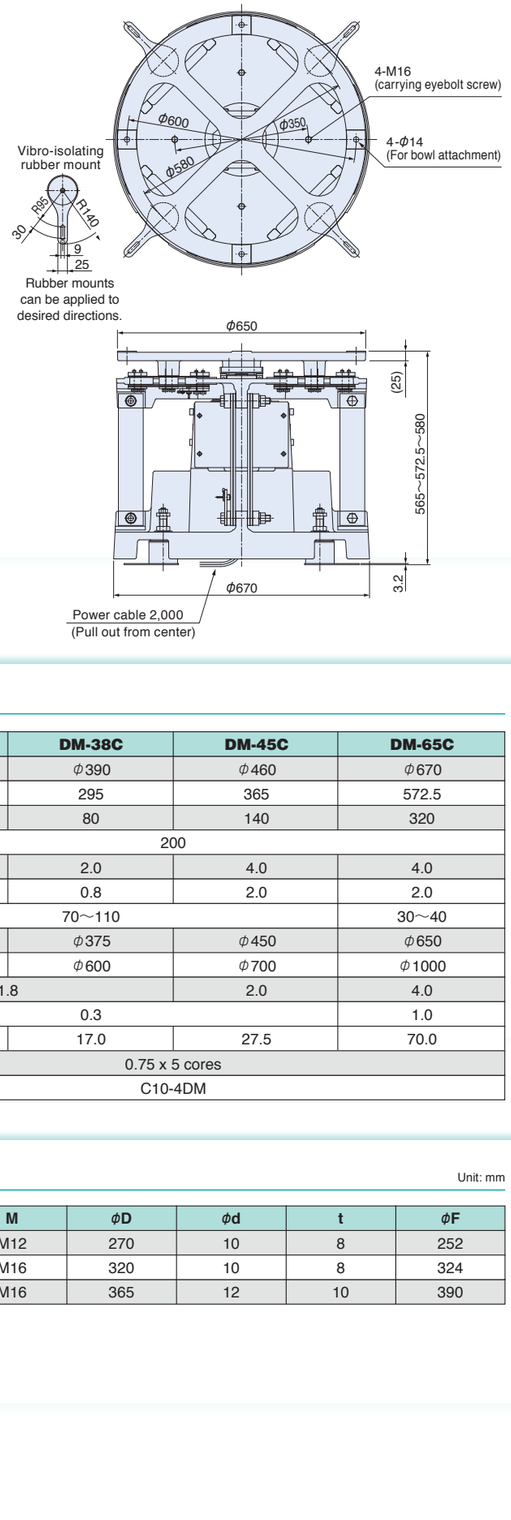
Dimensions Can be used with DM series bowls only (see P.5)

Unit: mm

DM-30C ～ 45C



DM-65C



Drive Unit Specifications

Model		DM-30C	DM-38C	DM-45C	DM-65C
Drive unit outer diameter	mm	ϕ310	ϕ390	ϕ460	ϕ670
Drive unit height	mm	290	295	365	572.5
Drive unit weight	kg	55	80	140	320
Rated voltage	V	200			
Rated current	A Horizontal	2.0	2.0	4.0	4.0
	A Vertical	0.8	0.8	2.0	2.0
Vibration frequency	Hz	70～110			30～40
Unprocessed bowl diameter (cylindrical)	mm	ϕ300	ϕ375	ϕ450	ϕ650
Max. bowl diameter (cylindrical)	mm	ϕ500	ϕ600	ϕ700	ϕ1000
Max. amplitude (Unprocessed cylindrical bowl periphery)	mm Horizontal	1.8		2.0	4.0
	mm Vertical	0.3			1.0
Max. loaded weight	kg	9.2	17.0	27.5	70.0
Cross section area of power cable	mm²	0.75 x 5 cores			
Applicable controller		C10-4DM			

Dimensions Chart

Unit: mm

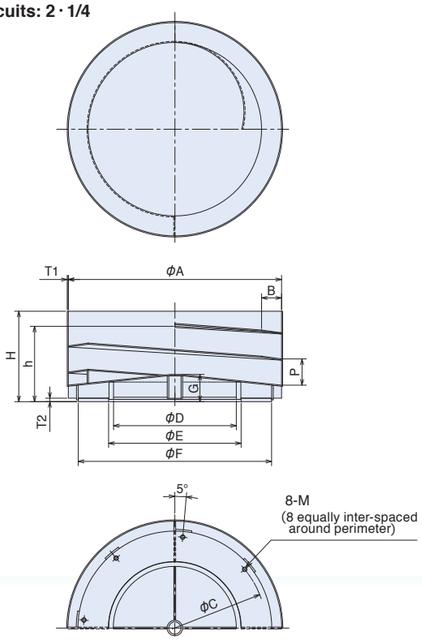
Model	H	ϕA	B	M	ϕD	ϕd	t	ϕF
DM-30C	285～290～295	310	290	M12	270	10	8	252
DM-38C	290～295～300	390	370	M16	320	10	8	324
DM-45C	360～365～370	460	440	M16	365	12	10	390

Diagrams show counter-clockwise orientation

Dimensions

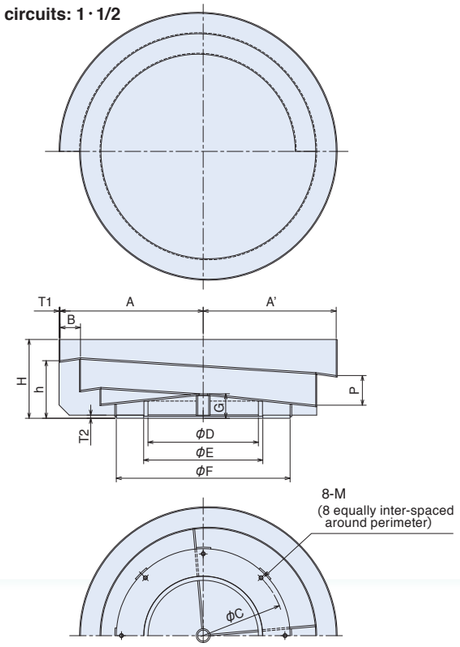
Straight wall Bowl

Track circuits: 2 · 1/4



Cascade Bowl

Track circuits: 1 · 1/2



Dimensions Chart

Unit: mm

Straight wall Bowl

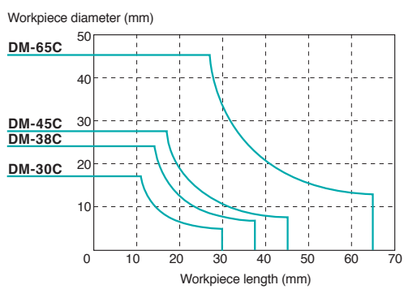
Model	ϕA	B	ϕC	ϕD	ϕE	ϕF	G	H	h	M	P	T1	T2	Approx. weight (kg)	Capacity (ℓ)
DM-30C	300	25	270	174.7	190.7	290	40	129	105	M8	36	2	6	6.5	0.8
DM-38C	375	35	320	216	232	340	48	159	133	M8	46	2	6	10.0	1.7
DM-45C	450	40	365	282.5	298.5	390	60	197	163	M10	56	3	9	18.0	3.0
DM-65C	650	65	600	363.6	406.4	630	—	302	249.5	M12	90	3	12	54.0	10.0

Cascade Bowl

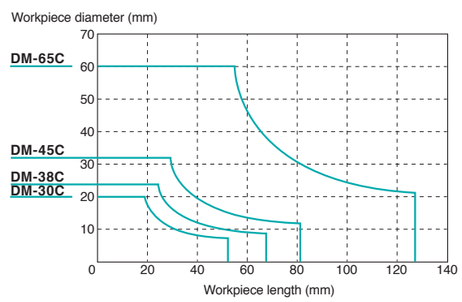
Model	A	A'	B	ϕC	ϕD	ϕE	ϕF	G	H	h	M	P	T1	T2	Approx. weight (kg)	Capacity (ℓ)
DM-30C	180	167.5	25	270	143	159	290	32	99	74	M8	38	2	6	5.5	1.6
DM-38C	230	215	30	320	174.7	190.7	340	40	124	92	M8	48	2	6	8.5	3.5
DM-45C	280	260	40	365	216	232	390	51	157	116	M10	58	2	9	13.5	6.0
DM-65C	445	405	80	600	363.6	406.4	630	—	267	197	M12	100	3	12	52.0	18.0

Notes
*1 Standard bowl material is stainless steel.
*2 Bowls available with clockwise or counter-clockwise orientation.
*3 Charged capacity varies according to the type of workpiece.
*4 When supplied unprocessed, neither inside nor outside has been surface-treated.
*5 When supplying processed, specialized bowls other than standard bowls above can be manufactured.

Straight wall Bowl Selection Guide



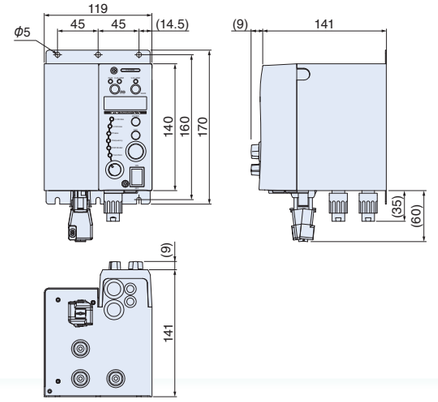
Cascade Bowl Selection Guide



Easy operation !

Dimensions

Unit: mm



Features

- **Simple and easy start up**
  Stroke sensor gain adjustment is not required. Just by selecting a drive unit model at the initial setting stage, necessary parameters are set automatically.
- **Easy operation**
  'Selection Dial' and 'Setting Encoder' allow anyone to operate easily.
- **Save more space**
  This controller has the same dimensions as C10-5VF/5VFEF and the footprint is reduced by 36% from the previous model.
- **Easy wiring**
  Between a driving unit and a controller are connected by connectors.
- **Energy-saving auto-tuning**
  Auto tuning function reduces power consumption by tracking the resonance point and keeping vibration frequency on it continuously.
- **Electronic control gives optimal vibration**
  Electronic control of horizontal/vertical amplitudes and phase difference provides ideal vibration characteristics for any type of workpiece.

Specifications

Model		C10-4DM
Input power		AC200-230V ±10%, 50/60Hz
Control system		PWM system
Output	**Voltage**	0～190V
	Vibration frequency	28～45Hz 65～120Hz 90～180Hz
	Max. current	horizontal: 4A vertical: 2A
Oparating mode	**Standard mode**	With automatic resonant frequency tuning function on horizontal amplitude, the controller controls constant amplitude without frequency setting.
Additional features	**Constant phase control**	Gap of horizontal and vertical amplitude adjusted to constant amplitude.
	Speed selection	Choice of 4 pre-set speeds by external signal
	Start/Stop control	Stops and starts by external signal
	Output signal	Outputs signal synchronized with parts feeder
	Soft start	Start-up time 0.2~4.0 seconds
	On/Off delay timer	Delay time 0.2~60 seconds
	Sensor power source	3P power plug gives DC12V, max. 80mA
Synchronized power source	**Function**	Power source synchronized to parts feeder operation (RUN)
	Control system	On/Off control through a triac
	Output voltage	Same as power source input to controller
	Max. current	2A
Other	**Noise resistant voltage**	Over 1000V
	Ambient temperature range	0～40°C
	Ambient humidity range	10～90% (No condensation)
	Applicable Space	Indoor (Place where no corrosive gas, and dust.)
	Color of case	Japan Paint Industry Association U75-70D
	Weight	2.0kg
Compatible equipment		DM-30C, 38C, 45C, 65C DMS-15C, 20C, 25C, 30C, 38C, 45C