Vibrating Conveyors

For safe and reliable operation, it is essential to read the user’s manual carefully before using this equipment.

Matters of inquiry

Please fill in the form below for inquiry

<table>
<thead>
<tr>
<th>Handling material</th>
<th>a Name</th>
<th></th>
<th>b Apparent specific gravity</th>
<th>t/m³</th>
<th>True density</th>
<th>t/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>c granulometry</td>
<td></td>
<td>Max mm</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Max mm</td>
<td>%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>d Temperature</td>
<td></td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>e Humidity</td>
<td></td>
<td>%</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>f Other characteristics</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Process capacity

- Max t/h
- Average t/h

Power source

- Voltage V
- Frequency Hz

Controller (if needed)

- Manual ON-OFF
- Manual amplitude control
- Remote amplitude control

Trough structure

<table>
<thead>
<tr>
<th>Materials</th>
<th>Buff finishing on SUS</th>
<th>Yes / No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>W : mm</td>
<td>D : mm</td>
</tr>
</tbody>
</table>

Shape

- Open
- Covered

Air proof

- Required (mmAq)
- Unnecessary

Lineair

- Required (Material : )
- Unnecessary

Motor specification

- Covered • Dust proof • Rainproof • Increased safety explosion protection • Pressure resistance explosion protection

Installation method

- Floor mounted • Upstairs • Suspension • On substructure

Before and after processes

- True density t/m³
- Frequency
- Average
- Max

Content of this catalogue may change due to product improvement without notice.

URL  http://www.sinfo-t.jp/eng

Shiba NBF Tower, 1-30, Shibadaimon 1-chome, Minato-ku, Tokyo, 105-8564, Japan
TEL +81-3-5473-1864  FAX +81-3-5473-1845

SINFONIA TECHNOLOGY (THAILAND) CO., LTD.  Bangkok Sales Office
12th Floor Room 1205, 319 Chamchuri Square Building, Phayathai Road, Pathumwan Bangkok 10330
TEL +66-2160-5068  FAX +66-2160-5069

SINFONIA TECHNOLOGY (SINGAPORE) PTE. LTD.
96 Robinson Road, #13-02 SIF Building, Singapore 068899
TEL +65-6203-6122  FAX +65-6205-2769

PT. SINFONIA TECHNOLOGY INDONESIA
Graha Paramita 8th Floor Suite E Jl. Denpasar Raya Block D2 KAV. 8 Kuningan, Jakarta 12940 Indonesia
TEL +62-21-252-3606  FAX +62-21-252-3608

We have a new slogan in Japan; “ECOi” a combination of “eco” and “ing”. This is to promote eco-friendly technological development and manufacturing.

Our ecological activities are of course not limited to Japan and practiced in many countries around the world.
Vibrating Conveyors

Multiple processing during transit. Smooth, streamlined efficiency.

The sophisticated demands of the modern age require upgraded processing of particulate materials. Materials are getting finer, new substances are appearing, processing is increasingly computer-controlled, and consumers’ needs are more diversified. For advanced processing, more and more attention is being focused on vibrating conveyors, which are ideally suited for transporting particulate materials.

Features

1. Simple construction: The trough itself stays in place and transmits vibration by means of the shock of stops with an electrical motor, unbalanced springs and the RV Conveyor absorbs the shock of stops with an electrical motor.
2. Reduces costs: Selecting the appropriate vibration frequency for the process in hand can lead to large savings in electricity consumption.
3. Maintains clean environment: The equipment can be sealed through the simple attachment of an anti-dust cover, eliminating the spread of even the finest particles and maintaining a clean and comfortable working environment.
4. Smooth starts and stops: The drive systems of the MVB and BM Conveyors have unique rubber springs and the RV Conveyor absorbs the shock of stops with an electrical system for tremendously smooth operations.
5. Minimum downtime: Very few parts rotate, or are subject to friction or wear, or require lubrication, thus eliminating breakdowns and making servicing and maintenance very straightforward.
6. Standard steel plate trough: A stainless steel trough or special plate. Conveyors are therefore suitable for light weight and low specific gravity materials or installation environment are.

Vibrating Conveyors

Table of models

<table>
<thead>
<tr>
<th>Type</th>
<th>Model</th>
<th>Features &amp; applications</th>
<th>Drive method</th>
<th>Vibration amplitude (μm)</th>
<th>Vibration frequency (Hz)</th>
<th>Max. trough weight (kg)</th>
<th>Height adjustment (mm)</th>
<th>Installation method</th>
</tr>
</thead>
<tbody>
<tr>
<td>BM Conveyors</td>
<td>BM</td>
<td>Full balanced type making no vibration pollution, handles all materials from fine to heavy.</td>
<td>3-phase induction motor, resonant draft action, spring resonators.</td>
<td>15 – 20</td>
<td>1 – 20</td>
<td>120</td>
<td>–</td>
<td>Base mounted</td>
</tr>
<tr>
<td>Balanced</td>
<td>MVB</td>
<td>Low profile type, minimal sound level, ideal for mating up with other equipment, high load installation.</td>
<td>3-phase induction motor, resonant draft action, spring resonators.</td>
<td>15 – 20</td>
<td>1 – 20</td>
<td>120</td>
<td>–</td>
<td>Base mounted</td>
</tr>
<tr>
<td>RV Conveyors</td>
<td>MVR</td>
<td>Simple, low cost version. Suited to long distance, medium weight conveyors. Accommodates drying, cooling, etc.</td>
<td>3-phase induction motor, resonant draft action, spring resonators.</td>
<td>15 – 20</td>
<td>1 – 20</td>
<td>120</td>
<td>–</td>
<td>Base mounted</td>
</tr>
<tr>
<td>RV Elevators</td>
<td>MVE</td>
<td>Tubular trough for fully sealed conveyors. Ideal for airtight installations, or for dust creating materials.</td>
<td>Forced vibration generated by rotary vibration (vibration motor)</td>
<td>15 – 15</td>
<td>15.8 – 21.2</td>
<td>6</td>
<td>–</td>
<td>Base mounted, suspended</td>
</tr>
<tr>
<td>Spiral Elevators</td>
<td>MVE</td>
<td>Vertical lifting, spiral trough type. Can accommodate high density, dusting, etc.</td>
<td>Forced vibration generated by rotary vibration (vibration motor)</td>
<td>15 – 15</td>
<td>15.8 – 21.2</td>
<td>6</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Electromagnetic vibrating Conveyors</td>
<td>MVE</td>
<td>High frequency vibration type, which uses electromagnet. Suitable for food, chemical, pharmaceutical and chemical industry.</td>
<td>Resonant vibration type with electromagnetic amplifying system</td>
<td>5 – 10</td>
<td>4 – 4</td>
<td>20 – 20</td>
<td>5</td>
<td>Base mounted</td>
</tr>
<tr>
<td>Slide Conveyors</td>
<td>HOC</td>
<td>Lifting material with horizontal vibration, Suitable for conveying abrasive materials such as food-stuffs.</td>
<td>Resonant vibration type with high thrust HD linear motor</td>
<td>5 – 10</td>
<td>4 – 4</td>
<td>20 – 20</td>
<td>5</td>
<td>Base mounted</td>
</tr>
<tr>
<td>Rubber Spring Conveyors</td>
<td>HOC</td>
<td>Variable vibrational load type, ideal for high load and load specific materials</td>
<td>Resonant induction motor, unplanned weight, rubber spring mechanism</td>
<td>5 – 10</td>
<td>11.8 – 17.8</td>
<td>6</td>
<td>–</td>
<td>Base mounted</td>
</tr>
</tbody>
</table>

Note: 1. Vibration-reducing effect of MVR Conveyors takes no account of 1/10, and indices for other models based on comparisons with BM Conveyors. Index of (1) for BM model applies when conveyor is mounted on vibration damping springs.
2. Max. trough length may vary with different trough widths. More information available on request.
3. ○ indicates approved explosion proof equipment. △ indicates equipment of equivalent explosion-proof standard.
BM Balanced Conveyors

High efficiency/Fully balanced

BM conveyors use the fully balanced Binder system. The upper and lower troughs are coupled together by springs, and mounted at the central point of the coupling on a fixed frame. Both troughs are vibrated by means of motor-driven eccentric crank action and spring-generated resonant vibration.

Features

Safe, vibration-neutralizing construction
The fully balanced design means that no vibration is transmitted to the floor or base. The conveyor is therefore suitable for off-the-floor, or high level installation. When installed on a rigid base such as a concrete floor, the overall height can be reduced by omitting the vibration-damping springs.

Outlets with dumpers
Outlets with dumpers are positioned at various points along the trough to discharge the material as required. Dumpers can be opened and closed automatically or manually.

Adjustment of flow
Flow can be adjusted during transport with a speed control mechanism.

Sealed or long distance transport
A cylindrical trough can be used for sealed or long distance conveyance. Sections are connected every 5 or 8 meters to extend trough length.

Upper and lower troughs can be used simultaneously
The lower trough can also be used for conveyance, with the convenience of a lower level inlet and outlet, thus, the efficiency can be boosted by using the two troughs simultaneously.

Construction

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity (t/h)</th>
<th>Vibration frequency (Hz)</th>
<th>Trough length (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BM-150</td>
<td>5</td>
<td>6.7</td>
<td>10.8</td>
</tr>
<tr>
<td>BM-300</td>
<td>20</td>
<td>6.7</td>
<td>10.8</td>
</tr>
<tr>
<td>BM-450</td>
<td>35</td>
<td>6.7</td>
<td>10.8</td>
</tr>
<tr>
<td>BM-600</td>
<td>50</td>
<td>6.7</td>
<td>10.8</td>
</tr>
<tr>
<td>BM-750</td>
<td>65</td>
<td>6.7</td>
<td>10.8</td>
</tr>
<tr>
<td>BM-800</td>
<td>80</td>
<td>6.7</td>
<td>10.8</td>
</tr>
<tr>
<td>BM-1050</td>
<td>95</td>
<td>6.7</td>
<td>10.8</td>
</tr>
<tr>
<td>BM-1200</td>
<td>110</td>
<td>6.7</td>
<td>10.8</td>
</tr>
<tr>
<td>BM-1500</td>
<td>125</td>
<td>6.7</td>
<td>10.8</td>
</tr>
<tr>
<td>BM-1600</td>
<td>150</td>
<td>6.7</td>
<td>10.8</td>
</tr>
<tr>
<td>BM-1800</td>
<td>175</td>
<td>6.7</td>
<td>10.8</td>
</tr>
<tr>
<td>BM-2000</td>
<td>200</td>
<td>6.7</td>
<td>10.8</td>
</tr>
</tbody>
</table>

Notes:
1. Capacity is for conveying sand with a specific gravity of 1.5, moisture content of 4-6% in a horizontal trough.
2. Motor capacity and overall mass may vary depending on type of material transported, and use of cover.
3. Motor capacity and overall mass assume use of cover.

Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>BM-150</td>
<td>150</td>
<td>800</td>
<td>1000</td>
<td>1500</td>
<td>2000</td>
</tr>
<tr>
<td>BM-300</td>
<td>300</td>
<td>1500</td>
<td>1800</td>
<td>2500</td>
<td>3000</td>
</tr>
<tr>
<td>BM-450</td>
<td>450</td>
<td>2000</td>
<td>2250</td>
<td>3000</td>
<td>3500</td>
</tr>
<tr>
<td>BM-600</td>
<td>600</td>
<td>2500</td>
<td>2850</td>
<td>3750</td>
<td>4500</td>
</tr>
<tr>
<td>BM-750</td>
<td>750</td>
<td>3000</td>
<td>3350</td>
<td>4000</td>
<td>4800</td>
</tr>
<tr>
<td>BM-900</td>
<td>900</td>
<td>3500</td>
<td>3850</td>
<td>4500</td>
<td>5250</td>
</tr>
<tr>
<td>BM-1050</td>
<td>1050</td>
<td>4000</td>
<td>4350</td>
<td>5000</td>
<td>5800</td>
</tr>
<tr>
<td>BM-1200</td>
<td>1200</td>
<td>4500</td>
<td>4850</td>
<td>5500</td>
<td>6300</td>
</tr>
<tr>
<td>BM-1500</td>
<td>1500</td>
<td>5000</td>
<td>5350</td>
<td>6000</td>
<td>6800</td>
</tr>
<tr>
<td>BM-1650</td>
<td>1650</td>
<td>5500</td>
<td>5850</td>
<td>6500</td>
<td>7300</td>
</tr>
<tr>
<td>BM-1800</td>
<td>1800</td>
<td>6000</td>
<td>6350</td>
<td>7000</td>
<td>7800</td>
</tr>
<tr>
<td>BM-2000</td>
<td>2000</td>
<td>6500</td>
<td>6850</td>
<td>7500</td>
<td>8300</td>
</tr>
</tbody>
</table>

Notes:
Simple construction/Anti-vibration
Balanced conveyors are designed to prevent environmental vibration by using a simple structure to prevent vibration from being transmitted to the floor. An effective balance of trough and counterweight neutralizes vibration, and the equipment is also mounted on vibration-damping springs, minimizing the degree of vibration transmitted to the floor or base.

Features
No vibration is transmitted to base or floor
A stable, vibration-neutralizing action prevents vibration from being transmitted to the base or floor, eliminating the need for a special base for installation.

Low consumption of electricity
The vibration generated by the eccentric crank action is amplified by resonating springs, therefore the consumption of electricity is very low.

Minimal downtime and straightforward servicing and maintenance
The simple structure contains only a few rotating parts, or parts subject to wear. Therefore, servicing and maintenance are straightforward. Basically, however, it’s hardly breakdowns anyway.

Easily adapted for fully sealed conveyance
The trough can be easily adapted to a fully sealed type, to prevent finely powdered material from dispersal in the air, thus keeping the working environment clean and wholesome.

Numerous applications
Processes such as screening, draining, drying and cooling, can be efficiently undertaken during conveyance, making the conveyor suitable for a wide range of applications.

Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity (t/h)</th>
<th>Trough length (m)</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>8</th>
<th>10</th>
<th>12</th>
<th>15</th>
<th>18</th>
<th>20</th>
<th>25</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVCB-150</td>
<td>5</td>
<td>6.7 ~ 10.8</td>
<td>Material weight</td>
<td>42.5</td>
<td>45.0</td>
<td>47.5</td>
<td>50.0</td>
<td>52.5</td>
<td>55.0</td>
<td>57.5</td>
<td>60.0</td>
<td>62.5</td>
<td>65.0</td>
<td>67.5</td>
</tr>
<tr>
<td>MVCB-300</td>
<td>20</td>
<td>6.7 ~ 10.8</td>
<td>Material weight</td>
<td>92.5</td>
<td>95.0</td>
<td>97.5</td>
<td>100.0</td>
<td>102.5</td>
<td>105.0</td>
<td>107.5</td>
<td>110.0</td>
<td>112.5</td>
<td>115.0</td>
<td>117.5</td>
</tr>
<tr>
<td>MVCB-450</td>
<td>35</td>
<td>6.7 ~ 10.8</td>
<td>Material weight</td>
<td>142.5</td>
<td>145.0</td>
<td>147.5</td>
<td>150.0</td>
<td>152.5</td>
<td>155.0</td>
<td>157.5</td>
<td>160.0</td>
<td>162.5</td>
<td>165.0</td>
<td>167.5</td>
</tr>
<tr>
<td>MVCB-600</td>
<td>50</td>
<td>6.7 ~ 10.8</td>
<td>Material weight</td>
<td>202.5</td>
<td>205.0</td>
<td>207.5</td>
<td>210.0</td>
<td>212.5</td>
<td>215.0</td>
<td>217.5</td>
<td>220.0</td>
<td>222.5</td>
<td>225.0</td>
<td>227.5</td>
</tr>
<tr>
<td>MVCB-750</td>
<td>65</td>
<td>6.7 ~ 10.8</td>
<td>Material weight</td>
<td>262.5</td>
<td>265.0</td>
<td>267.5</td>
<td>270.0</td>
<td>272.5</td>
<td>275.0</td>
<td>277.5</td>
<td>280.0</td>
<td>282.5</td>
<td>285.0</td>
<td>287.5</td>
</tr>
<tr>
<td>MVCB-900</td>
<td>80</td>
<td>6.7 ~ 10.8</td>
<td>Material weight</td>
<td>322.5</td>
<td>325.0</td>
<td>327.5</td>
<td>330.0</td>
<td>332.5</td>
<td>335.0</td>
<td>337.5</td>
<td>340.0</td>
<td>342.5</td>
<td>345.0</td>
<td>347.5</td>
</tr>
<tr>
<td>MVCB-1050</td>
<td>96</td>
<td>6.7 ~ 10.8</td>
<td>Material weight</td>
<td>382.5</td>
<td>385.0</td>
<td>387.5</td>
<td>390.0</td>
<td>392.5</td>
<td>395.0</td>
<td>397.5</td>
<td>400.0</td>
<td>402.5</td>
<td>405.0</td>
<td>407.5</td>
</tr>
<tr>
<td>MVCB-1200</td>
<td>110</td>
<td>6.7 ~ 10.8</td>
<td>Material weight</td>
<td>442.5</td>
<td>445.0</td>
<td>447.5</td>
<td>450.0</td>
<td>452.5</td>
<td>455.0</td>
<td>457.5</td>
<td>460.0</td>
<td>462.5</td>
<td>465.0</td>
<td>467.5</td>
</tr>
<tr>
<td>MVCB-1500</td>
<td>140</td>
<td>6.7 ~ 10.8</td>
<td>Material weight</td>
<td>582.5</td>
<td>585.0</td>
<td>587.5</td>
<td>590.0</td>
<td>592.5</td>
<td>595.0</td>
<td>597.5</td>
<td>600.0</td>
<td>602.5</td>
<td>605.0</td>
<td>607.5</td>
</tr>
<tr>
<td>MVCB-1650</td>
<td>165</td>
<td>6.7 ~ 10.8</td>
<td>Material weight</td>
<td>722.5</td>
<td>725.0</td>
<td>727.5</td>
<td>730.0</td>
<td>732.5</td>
<td>735.0</td>
<td>737.5</td>
<td>740.0</td>
<td>742.5</td>
<td>745.0</td>
<td>747.5</td>
</tr>
<tr>
<td>MVCB-1800</td>
<td>180</td>
<td>6.7 ~ 10.8</td>
<td>Material weight</td>
<td>862.5</td>
<td>865.0</td>
<td>867.5</td>
<td>870.0</td>
<td>872.5</td>
<td>875.0</td>
<td>877.5</td>
<td>880.0</td>
<td>882.5</td>
<td>885.0</td>
<td>887.5</td>
</tr>
</tbody>
</table>

Notes: 1. Capacity is for conveying sand/sandstone specific gravity 1.5, moisture content 5-6% in a horizontal trough.
2. Motor capacity and overall mass may vary depending on type of material transported, and use of cover.
3. Motor capacity and overall mass assume use of cover.

Dimensions

<table>
<thead>
<tr>
<th>Model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E max</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVCB-150</td>
<td>150</td>
<td>300</td>
<td>400</td>
<td>500</td>
<td>600</td>
</tr>
<tr>
<td>MVCB-300</td>
<td>300</td>
<td>600</td>
<td>800</td>
<td>1000</td>
<td>1200</td>
</tr>
<tr>
<td>MVCB-450</td>
<td>450</td>
<td>900</td>
<td>1200</td>
<td>1500</td>
<td>2000</td>
</tr>
<tr>
<td>MVCB-600</td>
<td>600</td>
<td>1200</td>
<td>1800</td>
<td>2400</td>
<td></td>
</tr>
<tr>
<td>MVCB-750</td>
<td>750</td>
<td>1500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVCB-900</td>
<td>900</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVCB-1050</td>
<td>1050</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVCB-1200</td>
<td>1200</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVCB-1500</td>
<td>1500</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVCB-1650</td>
<td>1650</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVCB-1800</td>
<td>1800</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MVCB-2000</td>
<td>2000</td>
<td>4000</td>
<td>6000</td>
<td>8000</td>
<td>10000</td>
</tr>
</tbody>
</table>

Notes: Measure L is reference.
MVC Type MV Conveyors

Tough construction/Low cost
MVC conveyors are simple in structure, consisting of a spring-mounted trough vibrated by means of a motor-driven eccentric crank action. Being simple and sturdy, they are ideal for special purposes, such as drying or cooling during conveyance.

Features

Ideal for specialized applications
The perfect equipment for adding processing, such as cooling, drying, draining or selecting, during conveyance.

Simple structure
The simple structure makes installation, after servicing and maintenance very easy.

Suitable for long distance conveyance
Assembled in sections that are connected every 5 or 8 meters, this equipment is suited to long distance conveyance.

Two versions to suit different applications
To reduce impact on the base on which the equipment is mounted, two different systems are available: straight balanced type and parallel balanced type.

Construction

Specifications

<table>
<thead>
<tr>
<th>Models</th>
<th>Capacity (kh)</th>
<th>Vibration Frequency (Hz)</th>
<th>Trough length(m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVC-150</td>
<td>9</td>
<td>6.7~10.8</td>
<td></td>
</tr>
<tr>
<td>MVC-300</td>
<td>20</td>
<td>6.7~10.8</td>
<td></td>
</tr>
<tr>
<td>MVC-450</td>
<td>35</td>
<td>6.7~10.8</td>
<td></td>
</tr>
<tr>
<td>MVC-600</td>
<td>50</td>
<td>6.7~10.8</td>
<td></td>
</tr>
<tr>
<td>MVC-750</td>
<td>65</td>
<td>6.7~10.8</td>
<td></td>
</tr>
</tbody>
</table>

Dimensions

<table>
<thead>
<tr>
<th>Models</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVC-150</td>
<td>150</td>
<td>3000</td>
<td>4000</td>
<td>5000</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-300</td>
<td>300</td>
<td>3000</td>
<td>4000</td>
<td>5000</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-450</td>
<td>450</td>
<td>3000</td>
<td>4000</td>
<td>5000</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-600</td>
<td>600</td>
<td>3000</td>
<td>4000</td>
<td>5000</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-750</td>
<td>750</td>
<td>—</td>
<td>4000</td>
<td>5000</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-900</td>
<td>900</td>
<td>—</td>
<td>4000</td>
<td>5000</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-1050</td>
<td>1050</td>
<td>—</td>
<td>4000</td>
<td>5000</td>
<td>6000</td>
</tr>
</tbody>
</table>

Notes:
1. Capacity is for conveying sand (apparent specific gravity 1.5, moisture content 4-6%) in a horizontal trough.
2. Special configurations may require a different motor model.
3. Must be mounted on a firm base as vibration is transmitted to the floor.

Trough length(mm)

<table>
<thead>
<tr>
<th>Models</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>10</th>
<th>12</th>
<th>15</th>
<th>18</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVC-150</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>2.2</td>
</tr>
<tr>
<td>MVC-300</td>
<td>0.75</td>
<td>0.75</td>
<td>0.75</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>2.2</td>
<td>2.2</td>
<td>3.7</td>
</tr>
<tr>
<td>MVC-450</td>
<td>0.75</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>2.2</td>
<td>2.2</td>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
</tr>
<tr>
<td>MVC-600</td>
<td>0.75</td>
<td>1.5</td>
<td>1.5</td>
<td>1.5</td>
<td>2.2</td>
<td>2.2</td>
<td>3.7</td>
<td>3.7</td>
<td>3.7</td>
</tr>
</tbody>
</table>

Motor(kW)

<table>
<thead>
<tr>
<th>Models</th>
<th>6000</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVC-150</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-300</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-450</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-600</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-750</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-900</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-1050</td>
<td>6000</td>
</tr>
</tbody>
</table>

Overall weight(kg)

<table>
<thead>
<tr>
<th>Models</th>
<th>5000</th>
<th>5000</th>
<th>5000</th>
<th>5000</th>
<th>5000</th>
<th>5000</th>
<th>5000</th>
<th>5000</th>
<th>5000</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVC-150</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
</tr>
<tr>
<td>MVC-300</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
</tr>
<tr>
<td>MVC-450</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
</tr>
<tr>
<td>MVC-600</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
</tr>
<tr>
<td>MVC-750</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
</tr>
<tr>
<td>MVC-900</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
</tr>
<tr>
<td>MVC-1050</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
<td>5000</td>
</tr>
</tbody>
</table>

Motor(kW)

<table>
<thead>
<tr>
<th>Models</th>
<th>6000</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVC-150</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-300</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-450</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-600</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-750</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-900</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-1050</td>
<td>6000</td>
</tr>
</tbody>
</table>

Motor(kW)

<table>
<thead>
<tr>
<th>Models</th>
<th>6000</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVC-150</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-300</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-450</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-600</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-750</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-900</td>
<td>6000</td>
</tr>
<tr>
<td>MVC-1050</td>
<td>6000</td>
</tr>
</tbody>
</table>
Vibrating Conveyors

RVF Type RV Conveyors

Forced-vibration type that can move sticky materials smoothly

RV conveyors, with forced-vibration system, is driven by a RV motor directly attached to the trough. The powerful vibration produced by the motor with unbalanced weight attached to its shaft is directly transferred to the trough.

Features

Smooth conveyance of sticky materials
Forced vibration eliminates material adhesion and the resulting over swing, providing stable operation.

Adjustable flow rate
Flow rate is easily adjusted by the angle of unbalanced weight at the vibration motor (Adjust the angle when the conveyor is stopped).

Best suited for short distance carriage
The conveyor is suitable for short distance carriage up to five meters, such as between equipments.

Variety of installing options
The conveyor is commonly installable by suspension, but floor-mounting option and other various installation methods are possible.

Construction

Suspension hook
Trough
Wing board
Fixing bolt
Rotary vibrator
Wire lead

RVF Type RV Conveyors

Dimensions/Specifications Table

| Models | Capacity (t/h) | Vibration Frequency (Hz) | Height (mm) | Rotary vibrator model | A | B | C | D | E | F | G | H | I | J | K | L | W | Recommended controller |
|--------|----------------|--------------------------|-------------|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------------|
| RVF-160 | 12             | 24/29                       | 105         | RV-140               | 150| 100| 300| 850| 248| 280| 280| 400| 13| 13| 550| ORV-14×2P |
| RVF-160 | 18             | 24/29                       | 105         | RV-140               | 150| 100| 300| 850| 248| 280| 280| 400| 13| 13| 550| ORV-14×2P |
| RVF-160 | 24             | 24/29                       | 105         | RV-140               | 150| 100| 300| 850| 248| 280| 280| 400| 13| 13| 550| ORV-14×2P |
| RVF-160 | 24             | 24/29                       | 105         | RV-140               | 150| 100| 300| 850| 248| 280| 280| 400| 13| 13| 550| ORV-14×2P |
| RVF-160 | 24             | 24/29                       | 105         | RV-140               | 150| 100| 300| 850| 248| 280| 280| 400| 13| 13| 550| ORV-14×2P |

Notes:
1. Capacity is for conveying solid material specifically 15 mm diameter corn 440 kg in horizontal trough.
2. Vibration motor model may vary for special trough.
3. Controller is required for vibration motor to avoid counter swing when stopping.
4. Floor-mount type can be also manufactured.
5. Trough weight is based on an open top, flat bed trough with liner.
6. Please refer to small vibrating equipment catalogue (E90-103) for more details of vibrating motor.
RVF Type RV Conveyors

Tubular Trough

The Tubular Trough is ideally suited to materials which require airtight conveyance, or are inclined to generate dust.

Specifications/Dimensions Table

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity (t/h)</th>
<th>Vibration frequency (Hz)</th>
<th>Weight (kg)</th>
<th>Rotary vibrating model</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G approx</th>
<th>W approx</th>
<th>K</th>
<th>Recommended controller</th>
</tr>
</thead>
<tbody>
<tr>
<td>RVF-φ150-L1-18</td>
<td>7</td>
<td>24.2/29.2</td>
<td>90</td>
<td>RVF-4V-D3</td>
<td>185</td>
<td>1800</td>
<td>150</td>
<td>250</td>
<td>1100</td>
<td>400</td>
<td>580</td>
<td>580</td>
<td>13</td>
<td>ORV-14×4×2</td>
</tr>
<tr>
<td>RVF-φ150-L2-24</td>
<td>7</td>
<td>24.2/29.2</td>
<td>150</td>
<td>RVF-4V-D4</td>
<td>185</td>
<td>2200</td>
<td>150</td>
<td>250</td>
<td>1700</td>
<td>400</td>
<td>580</td>
<td>880</td>
<td>13</td>
<td>ORV-24×4×2</td>
</tr>
<tr>
<td>RVF-φ200-L1-18</td>
<td>12</td>
<td>24.2/29.2</td>
<td>180</td>
<td>RVF-4V-D3</td>
<td>210</td>
<td>1500</td>
<td>200</td>
<td>250</td>
<td>1000</td>
<td>450</td>
<td>810</td>
<td>850</td>
<td>13</td>
<td>ORV-24×4×2</td>
</tr>
<tr>
<td>RVF-φ200-L2-24</td>
<td>12</td>
<td>24.2/29.2</td>
<td>240</td>
<td>RVF-4V-D4</td>
<td>210</td>
<td>2100</td>
<td>200</td>
<td>250</td>
<td>1700</td>
<td>450</td>
<td>820</td>
<td>990</td>
<td>13</td>
<td>ORV-44×4×2</td>
</tr>
<tr>
<td>RVF-φ200-L3-30</td>
<td>12</td>
<td>24.2/29.2</td>
<td>270</td>
<td>RVF-4V-D4</td>
<td>210</td>
<td>2700</td>
<td>200</td>
<td>300</td>
<td>2300</td>
<td>650</td>
<td>820</td>
<td>990</td>
<td>13</td>
<td>ORV-44×4×2</td>
</tr>
<tr>
<td>RVF-φ200-L4-30</td>
<td>12</td>
<td>24.2/29.2</td>
<td>270</td>
<td>RVF-4V-D4</td>
<td>210</td>
<td>2700</td>
<td>200</td>
<td>300</td>
<td>2300</td>
<td>650</td>
<td>820</td>
<td>990</td>
<td>13</td>
<td>ORV-44×4×2</td>
</tr>
<tr>
<td>RVF-φ250-L1-25</td>
<td>25</td>
<td>24.2/29.2</td>
<td>380</td>
<td>RVF-4V-D3</td>
<td>318</td>
<td>2600</td>
<td>250</td>
<td>350</td>
<td>1900</td>
<td>650</td>
<td>740</td>
<td>1150</td>
<td>13</td>
<td>ORV-44×4×2</td>
</tr>
<tr>
<td>RVF-φ250-L2-24</td>
<td>25</td>
<td>24.2/29.2</td>
<td>450</td>
<td>RVF-4V-D4</td>
<td>318</td>
<td>3600</td>
<td>250</td>
<td>450</td>
<td>2300</td>
<td>650</td>
<td>740</td>
<td>1150</td>
<td>13</td>
<td>ORV-44×4×2</td>
</tr>
<tr>
<td>RVF-φ250-L3-30</td>
<td>25</td>
<td>12.1/14.6</td>
<td>550</td>
<td>RVF-78</td>
<td>318</td>
<td>4600</td>
<td>250</td>
<td>550</td>
<td>3000</td>
<td>650</td>
<td>750</td>
<td>1200</td>
<td>13</td>
<td>ORV-44×4×2</td>
</tr>
<tr>
<td>RVF-φ250-L3-45</td>
<td>40</td>
<td>24.2/29.2</td>
<td>410</td>
<td>RVF-4V-D4</td>
<td>406</td>
<td>1900</td>
<td>300</td>
<td>350</td>
<td>2500</td>
<td>800</td>
<td>840</td>
<td>1250</td>
<td>13</td>
<td>ORV-44×4×2</td>
</tr>
<tr>
<td>RVF-φ300-L1-25</td>
<td>40</td>
<td>24.2/29.2</td>
<td>450</td>
<td>RVF-4V-D4</td>
<td>406</td>
<td>2500</td>
<td>300</td>
<td>400</td>
<td>1700</td>
<td>800</td>
<td>840</td>
<td>1250</td>
<td>13</td>
<td>ORV-44×4×2</td>
</tr>
<tr>
<td>RVF-φ300-L2-24</td>
<td>40</td>
<td>24.2/29.2</td>
<td>450</td>
<td>RVF-4V-D4</td>
<td>406</td>
<td>2500</td>
<td>300</td>
<td>400</td>
<td>1700</td>
<td>800</td>
<td>840</td>
<td>1250</td>
<td>13</td>
<td>ORV-44×4×2</td>
</tr>
<tr>
<td>RVF-φ300-L3-30</td>
<td>40</td>
<td>24.2/29.2</td>
<td>450</td>
<td>RVF-4V-D4</td>
<td>406</td>
<td>2500</td>
<td>300</td>
<td>400</td>
<td>1700</td>
<td>800</td>
<td>840</td>
<td>1250</td>
<td>13</td>
<td>ORV-44×4×2</td>
</tr>
<tr>
<td>RVF-φ300-L4-45</td>
<td>40</td>
<td>12.1/14.6</td>
<td>820</td>
<td>RVF-158</td>
<td>406</td>
<td>4500</td>
<td>300</td>
<td>550</td>
<td>3500</td>
<td>900</td>
<td>950</td>
<td>1500</td>
<td>13</td>
<td>ORV-58×4×2</td>
</tr>
</tbody>
</table>

Notes:
1. Capacity is for conveying sand (specific gravity 1.5, moisture content 4-6%) in a horizontal trough.
2. Troughs with specialized specifications may require a different vibration motor model.
3. Controller is required for vibration motor (B) to avoid counter swing when stopping.
4. Please refer to small vibrating equipment catalogue (EVS-10) for more details of vibrating motor.

Dimensions/Specifications

RVES Type Spiral Elevators

Space saving/Vertical lift

SINFONIA’s Spiral Elevators combine a drive mechanism and a vertically aligned, spiral-shaped trough, which vibrates to drive particulate materials to the top. Suitable for all types of materials, it can also be used for downward conveyance. Simultaneous drying and cooling processes can be accommodated.

Economical on space

Because of its vertical orientation, very little floor area is taken up, and the spiral trough is compact in shape. Trough surface area is relatively large, and can be fully utilized.

Can be used for cooling and drying

Cooling or drying can be accomplished by means of natural air flow created by temperature gradient, an applied flow of air, or alternatively by natural drying over time in the trough.

Smooth conveyance

Ideal for materials difficult to handle with a bucket or belt conveyor, as well as spherical particles.

Provides conveyance at a fixed rate

The conveyance speed is constant and so standardized quantities can be continuously transported.

Flow easily adjustable

The flow of material can be easily controlled by adjusting the unbalanced weight of the rotary vibrator.

Creates no dust

Conveyor creates minimal dust, even with materials of extremely low apparent specific gravity.

Features

Special structure

For a fully sealed, anti-dust conveyor, a transparent cover can be fitted which allows inspection during transport.

Easy maintenance

The drive mechanism is compact and the trough is not subject to wear. Maintenance is therefore straightforward and fast.

Dimensions

Specifications/Dimensions Table

<table>
<thead>
<tr>
<th>Models</th>
<th>Capacity (t/h)</th>
<th>Vibration motor (kW)</th>
<th>Lift (m)</th>
<th>Weight (kg)</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G-2</th>
<th>K</th>
<th>Recommended controller</th>
</tr>
</thead>
<tbody>
<tr>
<td>RVF-E300-1.5</td>
<td>2.5</td>
<td>0.4/4×2</td>
<td>1.5</td>
<td>100</td>
<td>500</td>
<td>280</td>
<td>80</td>
<td>120</td>
<td>200</td>
<td>1100</td>
<td>ORV-4×4×2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RVF-E300-4</td>
<td>4</td>
<td>0.75/2×2</td>
<td>2</td>
<td>180</td>
<td>600</td>
<td>150</td>
<td>80</td>
<td>170</td>
<td>250</td>
<td>1100</td>
<td>ORV-4×4×2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RVF-ES-300-5</td>
<td>5</td>
<td>1.5</td>
<td>2.5</td>
<td>220</td>
<td>800</td>
<td>150</td>
<td>80</td>
<td>170</td>
<td>250</td>
<td>1100</td>
<td>ORV-4×4×2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RVF-ES-400-6</td>
<td>6</td>
<td>2.2</td>
<td>2.5</td>
<td>220</td>
<td>800</td>
<td>150</td>
<td>80</td>
<td>170</td>
<td>250</td>
<td>1100</td>
<td>ORV-4×4×2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RVF-ES-1000-7.5</td>
<td>8</td>
<td>9.7</td>
<td>7.5</td>
<td>300</td>
<td>1000</td>
<td>1400</td>
<td>150</td>
<td>1600</td>
<td>1500</td>
<td>1100</td>
<td>ORV-15×4×2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RVF-ES-1200-8.5</td>
<td>10</td>
<td>9.5</td>
<td>8.5</td>
<td>300</td>
<td>1200</td>
<td>1600</td>
<td>150</td>
<td>1600</td>
<td>1400</td>
<td>1300</td>
<td>ORV-15×4×2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RVF-ES-1500-10</td>
<td>12</td>
<td>7.5</td>
<td>10</td>
<td>400</td>
<td>1500</td>
<td>2000</td>
<td>160</td>
<td>200</td>
<td>1500</td>
<td>1400</td>
<td>ORV-15×4×2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RVF-2000-12</td>
<td>20</td>
<td>5.5</td>
<td>12</td>
<td>600</td>
<td>3000</td>
<td>2600</td>
<td>180</td>
<td>300</td>
<td>1800</td>
<td>1500</td>
<td>ORV-15×4×2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Capacity is for conveying sand (specific gravity 1.5, moisture content 4-6%) in a horizontal trough.
2. Please refer to small vibrating equipment catalogue (EVS-10) for more details of vibrating motor.

A. Controller
B. Vibration motor
C. Trough
D. Frame
E. Vibration motor controller
Controllers

For RV and RVES

Starts and stops at the touch of a button. When stopping, the rotary vibrating automatically switches into negative phase and the conveyor comes to an immediate stop. This prevents shaking and overflow of the material. Negative phase timing can be controlled with a timer, for perfect stops with the ideal duration of negative phase.

Dimensions/Specifications

<table>
<thead>
<tr>
<th>Models</th>
<th>Dimensions(mm)</th>
<th>Typical rating (Hz/Hz)</th>
<th>Weight (kg)</th>
<th>Compatible motor size</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORV-14×2R</td>
<td>400 500 220 300 540 15 11 26 26 5/2</td>
<td>200-220 400-440</td>
<td>10</td>
<td>RV-14D</td>
</tr>
<tr>
<td>ORV-24×2R</td>
<td>400 500 220 300 540 15 11 26 26 5/3</td>
<td>200-220 400-440</td>
<td>10</td>
<td>RV-24D</td>
</tr>
<tr>
<td>ORV-44×2R</td>
<td>400 500 220 300 540 15 11 26 26 6/4</td>
<td>200-220 400-440</td>
<td>10</td>
<td>RV-44D</td>
</tr>
<tr>
<td>ORV-74×2R</td>
<td>400 500 220 300 540 15 11 26 26 9/5</td>
<td>200-220 400-440</td>
<td>10</td>
<td>RV-74D</td>
</tr>
<tr>
<td>ORV-154×2R</td>
<td>400 500 220 300 540 15 11 26 26 15/8</td>
<td>200-220 400-440</td>
<td>30</td>
<td>RV-154B</td>
</tr>
<tr>
<td>ORV-224×2R</td>
<td>400 500 220 300 540 15 11 26 26 21/11</td>
<td>200-220 400-440</td>
<td>30</td>
<td>RV-224B</td>
</tr>
<tr>
<td>ORV-378×2R</td>
<td>500 800 270 400 840 20 14 26 26 17/9</td>
<td>200-220 400-440</td>
<td>30</td>
<td>RV-378B</td>
</tr>
<tr>
<td>ORV-558×2R</td>
<td>500 800 270 400 840 20 14 26 26 15/8</td>
<td>200-220 400-440</td>
<td>30</td>
<td>RV-558B</td>
</tr>
<tr>
<td>ORV-758×2R</td>
<td>500 800 270 400 840 20 14 26 26 21/11</td>
<td>200-220 400-440</td>
<td>30</td>
<td>RV-758B</td>
</tr>
</tbody>
</table>

Notes: 1. Rating overall continues. 2. Dust-resistant casing, for mounting on interior wall. 3. Painted inside and out in Munsell 5Y7/1.

MDC Type Electromagnetic Vibrating Conveyors

High-amplitude conveyors driven by electromagnet

MDC type conveyors is a revolutionary vibration conveyor which is driven by electromagnetic force designed by SINFONIA, which realizes high-amplitude conveyance without vibration generators like conventional vibrating conveyors. The compact, low noise, and maintenance-free conveyor, with purpose-built controller that can easily adjust amplitude, suits best for applications in food, pharmaceutical, and chemical processing.

Features

No vibration motor required
Electromagnetic drive uses electromagnetic force to generate vibration and does not require conventional motors.

Easy maintenance
Electromagnetic drive decreases the number of wearing and degrading components required for maintenance and maintenance is easy.

Purpose-built controller
Multi-function controller is included as a standard, enabling selection of operating mode, control of vibration amplitude, and realization of efficient conveyance.

Simple body
Low-height and simple structure offers installation versatility at factories.

Low noise, low reaction force
Maximum of 60dB (no load) noise from the system, much lower than conventional conveyors. Low reaction force to floor provides better working condition.

Specifications

- Amplitude: 4 – 6mm
- Vibration frequency: 20 – 25Hz
- Controller: C10-150VFEF
- Voltage: AC200 – 220V/10%
- Frequency: 50 / 60Hz
- Current: Maximum 15A
### Dimensions Table

<table>
<thead>
<tr>
<th>Models</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>Weight(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDC-300-3</td>
<td>300</td>
<td>3000</td>
<td>800</td>
<td>380</td>
<td>200</td>
<td>500</td>
<td>400</td>
<td>700</td>
<td>2100</td>
<td>300</td>
</tr>
<tr>
<td>MDC-300-4</td>
<td>300</td>
<td>4000</td>
<td>800</td>
<td>380</td>
<td>200</td>
<td>500</td>
<td>400</td>
<td>700</td>
<td>3100</td>
<td>400</td>
</tr>
<tr>
<td>MDC-300-6</td>
<td>300</td>
<td>6000</td>
<td>800</td>
<td>380</td>
<td>200</td>
<td>500</td>
<td>400</td>
<td>700</td>
<td>5100</td>
<td>600</td>
</tr>
<tr>
<td>MDC-450-3</td>
<td>450</td>
<td>3000</td>
<td>800</td>
<td>540</td>
<td>350</td>
<td>500</td>
<td>400</td>
<td>700</td>
<td>2100</td>
<td>340</td>
</tr>
<tr>
<td>MDC-450-4</td>
<td>450</td>
<td>4000</td>
<td>800</td>
<td>540</td>
<td>350</td>
<td>500</td>
<td>400</td>
<td>700</td>
<td>3100</td>
<td>440</td>
</tr>
<tr>
<td>MDC-450-6</td>
<td>450</td>
<td>6000</td>
<td>800</td>
<td>540</td>
<td>350</td>
<td>500</td>
<td>400</td>
<td>700</td>
<td>5100</td>
<td>540</td>
</tr>
<tr>
<td>MDC-600-3</td>
<td>600</td>
<td>3000</td>
<td>800</td>
<td>690</td>
<td>500</td>
<td>500</td>
<td>400</td>
<td>700</td>
<td>2100</td>
<td>380</td>
</tr>
<tr>
<td>MDC-600-4</td>
<td>600</td>
<td>4000</td>
<td>800</td>
<td>690</td>
<td>500</td>
<td>500</td>
<td>400</td>
<td>700</td>
<td>3100</td>
<td>480</td>
</tr>
<tr>
<td>MDC-600-6</td>
<td>600</td>
<td>6000</td>
<td>800</td>
<td>690</td>
<td>500</td>
<td>500</td>
<td>400</td>
<td>700</td>
<td>5100</td>
<td>580</td>
</tr>
<tr>
<td>MDC-750-3</td>
<td>750</td>
<td>3000</td>
<td>800</td>
<td>840</td>
<td>650</td>
<td>650</td>
<td>500</td>
<td>400</td>
<td>700</td>
<td>2100</td>
</tr>
<tr>
<td>MDC-750-4</td>
<td>750</td>
<td>4000</td>
<td>800</td>
<td>840</td>
<td>650</td>
<td>650</td>
<td>500</td>
<td>400</td>
<td>3100</td>
<td>500</td>
</tr>
<tr>
<td>MDC-750-6</td>
<td>750</td>
<td>6000</td>
<td>800</td>
<td>840</td>
<td>650</td>
<td>650</td>
<td>500</td>
<td>400</td>
<td>5100</td>
<td>600</td>
</tr>
</tbody>
</table>

### Specifications

- **Input power supply**: AC200 / 250V ±10% 50 / 60Hz
- **Control**: PWM method
- **Output**: Voltage: 0 - 95%, Vibration frequency: Half-wave drive 45 - 65Hz (Half drive 18 - 30Hz), Max. current: 15A
- **Operation mode**: Auto-tuning: Constant amplitude control without frequency setting by resonance point-following function, Constant amplitude: Constant amplitude control by frequency setting, Constant voltage: Constant voltage control by frequency setting
- **ON/OFF control**: ON/OFF control by external signal
- **Dual control**: Amplitude setting switch over by external signal
- **Remote signal input**: Amplitude adjustment (output voltage adjustment by DC4 - 20mA input)
- **External volume connection**: Maximum of 2 amplitude adjuster volume are connectable
- **Output signal**: Relay output of operating signal and alarm signal
- **Meter output**: Signal output to amplitude indicator
- **Soft start**: Rising time 0.2 - 3.0 second
- **Protection function**: Overcurrent detection: Prevention of device damage caused by overcurrent, Overvoltage detection: Monitoring of excess and deficiency of input voltage, Sensor disconnection detection: Detection of wire disconnection during amplitude sensor in operation
- **Structure**: Indoor, dust-proof, wall-mount
- **Weight**: 45kg

---

**MDC Controller C10-15VFEF**

Multi-function controller for optimum control of electromagnetic conveyors

Purpose-built controller for electromagnetic conveyor has multiple functions including auto-tuning, constant amplitude control, constant voltage control, external volume connection, etc. Optimum operating mode is selectable according to the varying factors of material properties and feeding volume. Output frequency is adjustable to match driving system, eliminating the need for delicate adjustment of leaf springs.
HDC Type Slide Conveyors

Linear motor driven horizontal vibrating conveyor

The world first conveyor with horizontal vibration, driven by HD linear motor, a revolutionary drive source, realizes excellent conveying performance with delicate, silent, low pollution motion. The innovative system may totally change the conventional powder and particle conveyance including food and chemical applications.

Features

- Soft, delicate transport of materials
- Unlike conventional up-down vibration, the conveyor slides materials on the trough surface by repeated horizontal movement. Its delicate handling is widely applicable to fragile, light-weight, or thin materials. The system carries materials evenly with less segregation, an advantage in food processing to avoid seasoning loss.

- Low impact noise conveyance
- Materials move as if sliding on trough surface, creating quiet low impact and noise between them. Vibrating frequency and amplitude are adjustable according to materials.

- Easy switchover of forward and backward movement
- Linear motor provides free forward and backward conveyance of materials during processing and can be freely switched between them when required.

- Low reactive force to floor
- Horizontal vibration with low vertical reactive force eliminates vibratory problems to floor and surrounding equipment.

- Adjustable capacity (speed)
- Conveyor speed is freely adjustable in a range from zero to maximum continuously, enabling the selection of best timing for each material and process.

- Large over-hung installable
- Larger over-hung in front and back of the trough than conventional vibration conveyor is installable.

Specifications/Dimensions Table

<table>
<thead>
<tr>
<th>Models</th>
<th>Weight(kg)</th>
<th>Dimension(mm)</th>
<th>Power supply capacity/ Power consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>SUS/SS</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>HDC-300-3</td>
<td>300</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>HDC-300-4</td>
<td>310</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>HDC-300-5</td>
<td>330</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>HDC-300-6</td>
<td>345</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>HDC-450-3</td>
<td>315</td>
<td>450</td>
<td>300</td>
</tr>
<tr>
<td>HDC-450-4</td>
<td>335</td>
<td>450</td>
<td>300</td>
</tr>
<tr>
<td>HDC-450-5</td>
<td>355</td>
<td>450</td>
<td>300</td>
</tr>
<tr>
<td>HDC-450-6</td>
<td>375</td>
<td>450</td>
<td>300</td>
</tr>
<tr>
<td>HDC-450-7</td>
<td>395</td>
<td>450</td>
<td>300</td>
</tr>
<tr>
<td>HDC-450-8</td>
<td>415</td>
<td>450</td>
<td>300</td>
</tr>
<tr>
<td>HDC-450-9</td>
<td>435</td>
<td>450</td>
<td>300</td>
</tr>
<tr>
<td>HDC-450-10</td>
<td>455</td>
<td>450</td>
<td>300</td>
</tr>
</tbody>
</table>

- Specification/Dimensions

<table>
<thead>
<tr>
<th>Models</th>
<th>Weight(kg)</th>
<th>Dimension(mm)</th>
<th>Power supply capacity/ Power consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDC-900-3</td>
<td>570</td>
<td>900</td>
<td>900</td>
</tr>
<tr>
<td>HDC-900-4</td>
<td>590</td>
<td>900</td>
<td>900</td>
</tr>
<tr>
<td>HDC-900-5</td>
<td>610</td>
<td>900</td>
<td>900</td>
</tr>
</tbody>
</table>

Note: Provide power supply of 200/220V.
Vibrating Conveyors

Variable vibration angle/low bed

Rubber spring conveyors are low-bed conveyors in which the trough angle of vibration can be freely adjusted to match the material and its conveyance requirements, which was difficult for conventional vibrators.

Circular vibration is generated by an unbalanced weight driven by a motor, and is amplified by means of resonating rubber springs. Resonating rubber springs with variable angles of vibration, to provide uniform, stable vibration throughout the trough.

Feasibility

Vibration angle can be adapted to match material

In contrast to former conveyors, the angle of the vibration-resonating rubber springs can be easily adjusted to provide the ideal vibration for the type of material to be transported.

Small size but large capacity

With increased vibration frequency (max. 17.5Hz/sec) and a variable angle of vibration, the HRC model offers greater vibration magnitude (max. 12mm), and therefore has double the conveyance capacity of former vibration conveyors. This high performance conveyor is therefore able to move volumes never previously possible with such small-sized equipment.

Features

Variable vibration angle/low bed

Rubber spring conveyors are low-bed conveyors in which the trough angle of vibration can be freely adjusted to match the material and its conveyance requirements, which was difficult for conventional vibrators.

Circular vibration is generated by an unbalanced weight driven by a motor, and is amplified by means of resonating rubber springs with variable angles of vibration, to provide uniform, stable vibration throughout the trough.

Vibration angle can be adapted to match material

In contrast to former conveyors, the angle of the vibration-resonating rubber springs can be easily adjusted to provide the ideal vibration for the type of material to be transported.

Small size but large capacity

With increased vibration frequency (max. 17.5Hz/sec) and a variable angle of vibration, the HRC model offers greater vibration magnitude (max. 12mm), and therefore has double the conveyance capacity of former vibration conveyors. This high performance conveyor is therefore able to move volumes never previously possible with such small-sized equipment.

Facilitates manual selecting work

For manual selecting work, the trough vibration magnitude and the conveyance speed can be easily adjusted to provide a level of vibration that minimizes bouncing, and thus reduces strain on the eyes.

Low height/low bed type

The light-weight steel base frame and trough are coupled together by specially designed rubber springs for a lower bed and lower overall height.

Vibration dampers reduce noise

The use of vibration resonators means that a small vibration source can produce a large vibrating effect. Vibration of the frame is minimal, and the frame is itself mounted on vibration-absorbing springs. Thus, only the tiniest degree of vibration is transmitted to the floor or base, and operation of the conveyor creates very little noise.

Straightforward servicing and maintenance

Construction is simple and parts such as rubber springs, bearings etc. are all attached separately from the outside, for straightforward servicing, maintenance and parts replacement.

Fully adaptable for low or high speed conveyance

A special control mechanism allows free adjustment of trough vibration frequency, giving an unlimited choice within a wide range of conveyance speeds.

Specifications

<table>
<thead>
<tr>
<th>Models</th>
<th>Capacity (t/h)</th>
<th>Vibration frequency (Hz)</th>
<th>Motor (kW)</th>
<th>Overall weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRC 300</td>
<td>15</td>
<td>15.6~17.5</td>
<td>0.75</td>
<td>900</td>
</tr>
<tr>
<td>HRC 300</td>
<td>15</td>
<td>15.6~17.5</td>
<td>0.75</td>
<td>400</td>
</tr>
<tr>
<td>HRC 450</td>
<td>20</td>
<td>15.6~17.5</td>
<td>1.5</td>
<td>900</td>
</tr>
<tr>
<td>HRC 450</td>
<td>20</td>
<td>15.6~17.5</td>
<td>1.5</td>
<td>500</td>
</tr>
<tr>
<td>HRC 600</td>
<td>30</td>
<td>15.6~17.5</td>
<td>1.5</td>
<td>500</td>
</tr>
<tr>
<td>HRC 750</td>
<td>40</td>
<td>15.6~17.5</td>
<td>2.2</td>
<td>500</td>
</tr>
<tr>
<td>HRC 800</td>
<td>50</td>
<td>15.6~17.5</td>
<td>2.2</td>
<td>500</td>
</tr>
</tbody>
</table>

Notes:
1. Standard trough is open, without cover or liner.
2. Capacity is for conveying granulated sugar (apparent specific gravity 0.8, moisture content 0.05%) in a horizontal trough.
3. Motor capacity and overall weight may vary depending on type of material conveyed, and use of cover or liner.

Dimensions

<table>
<thead>
<tr>
<th>Models</th>
<th>A (mm)</th>
<th>B (mm)</th>
<th>C (mm)</th>
<th>D (mm)</th>
<th>E (mm)</th>
<th>F (mm)</th>
<th>G (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRC 300</td>
<td>300</td>
<td>300</td>
<td>1050</td>
<td>650</td>
<td>350</td>
<td>200</td>
<td>1350</td>
</tr>
<tr>
<td>HRC 300</td>
<td>300</td>
<td>300</td>
<td>1050</td>
<td>650</td>
<td>350</td>
<td>200</td>
<td>1350</td>
</tr>
<tr>
<td>HRC 450</td>
<td>450</td>
<td>450</td>
<td>1350</td>
<td>850</td>
<td>550</td>
<td>300</td>
<td>1200</td>
</tr>
<tr>
<td>HRC 450</td>
<td>450</td>
<td>450</td>
<td>1350</td>
<td>850</td>
<td>550</td>
<td>300</td>
<td>1200</td>
</tr>
<tr>
<td>HRC 600</td>
<td>600</td>
<td>600</td>
<td>1650</td>
<td>1050</td>
<td>650</td>
<td>400</td>
<td>1500</td>
</tr>
<tr>
<td>HRC 600</td>
<td>600</td>
<td>600</td>
<td>1650</td>
<td>1050</td>
<td>650</td>
<td>400</td>
<td>1500</td>
</tr>
<tr>
<td>HRC 750</td>
<td>750</td>
<td>750</td>
<td>1950</td>
<td>1350</td>
<td>900</td>
<td>550</td>
<td>1800</td>
</tr>
<tr>
<td>HRC 750</td>
<td>750</td>
<td>750</td>
<td>1950</td>
<td>1350</td>
<td>900</td>
<td>550</td>
<td>1800</td>
</tr>
</tbody>
</table>

Notes:
1. Standard trough is open, without cover or liner.
2. Capacity is for conveying granulated sugar (apparent specific gravity 0.8, moisture content 0.05%) in a horizontal trough.
3. Motor capacity and overall weight may vary depending on type of material conveyed, and use of cover or liner.

Construction

Vibration angle adjuster

Vibration spring

Resonating rubber

Motor

V-belt

Vibration-generating unbalanced weight

Trough Vibration

Resonating Rubber Springs

Motor V-belt

Dimensions Table

<table>
<thead>
<tr>
<th>Models</th>
<th>A (mm)</th>
<th>B (mm)</th>
<th>C (mm)</th>
<th>D (mm)</th>
<th>E (mm)</th>
<th>F (mm)</th>
<th>G (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRC 300</td>
<td>300</td>
<td>300</td>
<td>1050</td>
<td>650</td>
<td>350</td>
<td>200</td>
<td>1350</td>
</tr>
<tr>
<td>HRC 300</td>
<td>300</td>
<td>300</td>
<td>1050</td>
<td>650</td>
<td>350</td>
<td>200</td>
<td>1350</td>
</tr>
<tr>
<td>HRC 450</td>
<td>450</td>
<td>450</td>
<td>1350</td>
<td>850</td>
<td>550</td>
<td>300</td>
<td>1200</td>
</tr>
<tr>
<td>HRC 450</td>
<td>450</td>
<td>450</td>
<td>1350</td>
<td>850</td>
<td>550</td>
<td>300</td>
<td>1200</td>
</tr>
<tr>
<td>HRC 600</td>
<td>600</td>
<td>600</td>
<td>1650</td>
<td>1050</td>
<td>650</td>
<td>400</td>
<td>1500</td>
</tr>
<tr>
<td>HRC 600</td>
<td>600</td>
<td>600</td>
<td>1650</td>
<td>1050</td>
<td>650</td>
<td>400</td>
<td>1500</td>
</tr>
<tr>
<td>HRC 750</td>
<td>750</td>
<td>750</td>
<td>1950</td>
<td>1350</td>
<td>900</td>
<td>550</td>
<td>1800</td>
</tr>
<tr>
<td>HRC 750</td>
<td>750</td>
<td>750</td>
<td>1950</td>
<td>1350</td>
<td>900</td>
<td>550</td>
<td>1800</td>
</tr>
</tbody>
</table>

Notes:
1. Standard trough is open, without cover or liner.
2. Capacity is for conveying granulated sugar (apparent specific gravity 0.8, moisture content 0.05%) in a horizontal trough.
3. Motor capacity and overall weight may vary depending on type of material conveyed, and use of cover or liner.
Installation

When installing Vibrating Conveyors, especially MVCB and BM models, in restricted spaces such as in pits, it is necessary to allow room for servicing and maintenance requirements. The diagram shows suggested installation of an MVCB Balanced Conveyor.

- Please consult us on any concerns about vibration pollution.
- When installing on an elevated base or at high level, allowance must be made for dynamic load.
- Recommended thickness of concrete:
  - Up to MVCB-1050: at least 200mm
  - Over MVCB-1200: at least 250mm

<table>
<thead>
<tr>
<th>Anchor bolts:</th>
</tr>
</thead>
<tbody>
<tr>
<td>M16 240 63 60</td>
</tr>
<tr>
<td>M20 300 90 60</td>
</tr>
</tbody>
</table>

*For dimension D, please refer to p6.

Suspending devices

- **Wire**
  - In case of long suspending distance
    - Hex nuts (2 pieces)
    - Lock washer (1 piece)
  - (placed in between 2 nuts)

- **Turn buckle**
  - Adjustable of little extent
    - Hex nuts (2 pieces)
    - Lock washer (1 piece)
  - (placed in between 2 nuts)

Caution
Never tighten the bracket as shown in the illustration figure.

- **Suspension hook**
  - In case of short suspension distance
    - Hex nuts (2 pieces)
    - Lock washer (1 piece)
    - Suspension kit (Vibration proof)

- **Special suspension tools**
  - When the feeder is especially large and turn buckles & suspension hooks are not available in the market.
    - Hex nuts (2 pieces)
    - Lock washer (1 piece)
  - (placed in between 2 nuts)

Troughs

In general, troughs are made of standard steel plate. To meet special conveyance needs, stainless steel troughs, linings of rubber or wear-resistant steel, or troughs coated with Teflon etc. can be supplied. Alternatively, the trough surface can be buffed for use with foodstuffs, drugs and other materials requiring conveyance under hygienic conditions.

All conveyor models have an open flat-based trough supplied as standard, but the following troughs are available for special requirements.

- **Open, flat-based trough** (standard)
- **Double-based trough** (For cooling hot materials)
- **Covered flat-based trough** (Anti-dust; anti-moisture)

- **Cooling water jacket trough** (For cooling; high temperature materials)
- **Tubular trough** (Anti-dust; anti-moisture)
- **Special Flat-based trough** (Surface-buffed)