We have a new slogan in Japan; “ECOing” 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.

SINFONIA TECHNOLOGY CO., LTD.

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 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 +65-6223-6122 FAX +65-6225-2729

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

CODE
E90-200

Content of this catalogue may change due to product improvement without notice.
URL http://www.sinfo-t.jp/eng

1405

VIBRATING EQUIPMENT

FOR FOUNDRY

SINFONIA
SINFONIA TECHNOLOGY CO., LTD.

For Rationalizing Foundry Plant - Vibrating Equipment for Foundry

To achieve improvement of production, cost reduction, rationalization of facility, and avoid labor scarcity, applying suitable vibrating equipment will be the starting point. As a leading manufacturer of vibrating equipment, Sinfonia Technology has been supplying vibrating equipment and related systems for various industrial fields. Moreover, every product is applied high vibrating technologies, accumulated from rich experiences.
Our vibrating equipment for foundry are manufactured with those the best technology, and realizing the most suitable, and cost effective application for entire production line.
Various vibrating equipment are taking active role in those lines.
Such as feeding and measuring of molding sand, melted material forming, melting, sand processing, and stock / transport line,

Applicable Vibrating Equipment

Feeding and measuring lines of molding sand / melted material

- Electromagnetic feeder-Feeding for pig iron, machine chips, cokes, limestone.
- Feeding of melted material, and measurement and composition equipment Feeding and measuring of scrap from hopper.

Melting line

- Electromagnetic feeder input additive.

Forming line

- Jolt molding machine
- Parts feeder for cooled metal sorting

Molding sand processing line

- Shakeout machine
- Louver conveyor
- Vibrating sand cooler
- Vibrating screen
- Breaker screen
- Vibrating conveyor
- Electromagnetic feeder
- Vibrator

Product processing line

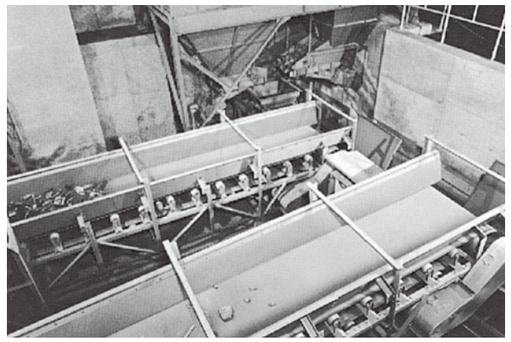
- Vibrating conveyor Cooling transportation, braking gate, shot, sand, transportation and screening of mold.

Store / transportation line and others

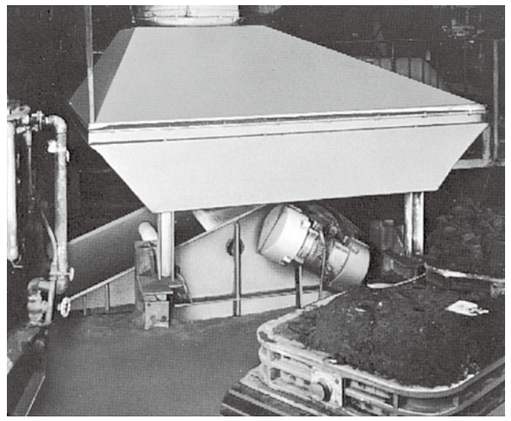
- Vibrating motor
- Vibrator
- Electromagnetic feeder

Application example of plant

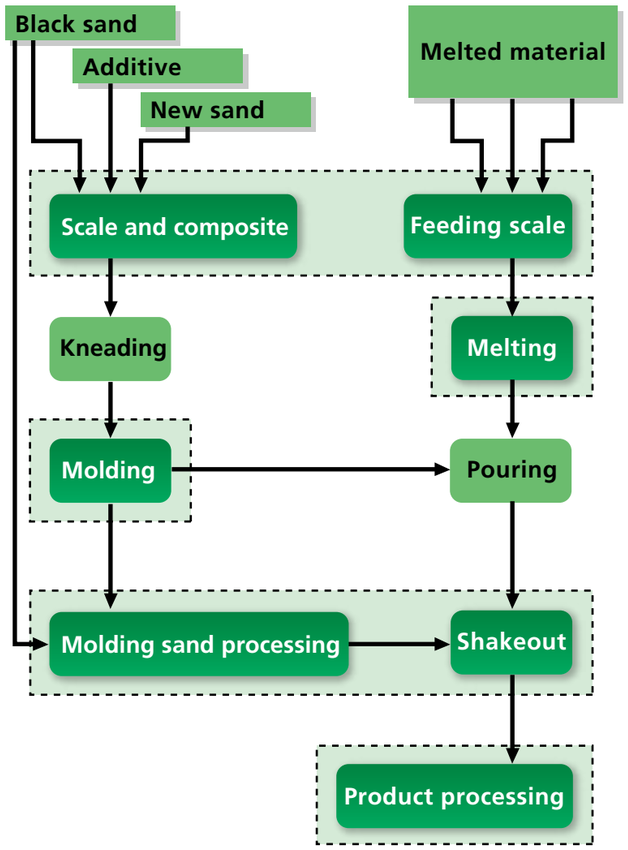
Feeding of melted material / scale and composite device
(Hopper, vibrating conveyor, electromagnetic feeder)



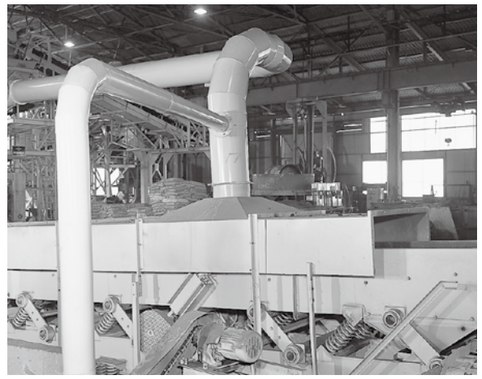
Feeding of melted material / scale and composite device
(Belt scale)



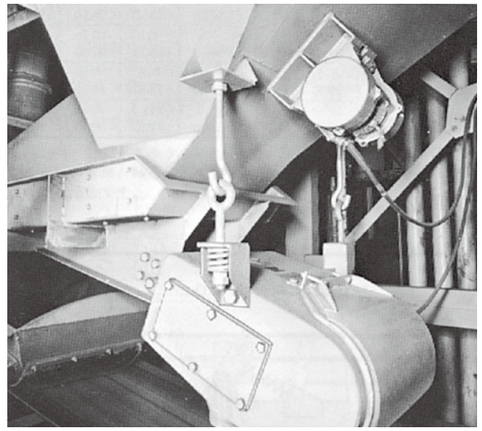
Shakeout machine



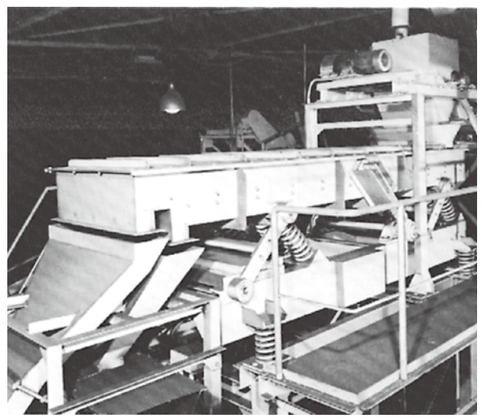
Vibrating Conveyor



Vibrating Sand Cooler



Vibrator



Vibrating Screen

Wide variety of vibrating equipment are taking active role in foundry processing line

For transportation from cast metal and sand to any material
VIBRATING CONVEYOR

For transporting cast metal and sand to upstairs
SLOPE CONVEYOR

For removing lumps of molding sand
VIBRATING SCREEN

For continuous cooling of molding sand
VIBRATING SAND COOLER

For improvement of working environment about casting metal and sand shakeout
DRUM SHAKER

For separating molding flask from casting metal and sand
SHAKEOUT MACHINE

Transporting while separating casting metal and sand
LOUVER CONVEYOR

Vibrating molding table with running roller
JOLT MACHINE

To prevent clogging of hopper and chute
VIBRATOR

Quantitative supply of sand and additives
VIBRATING FEEDER

This catalogue only listed representative type of products.
Please feel free to contact us to for more products.

VIBRATING SCREEN

Vibrating screen is the most representative equipment for removing sand lumps, or dusts at foundry plants. The screen is powerful and efficient by using vibrating motor driving.

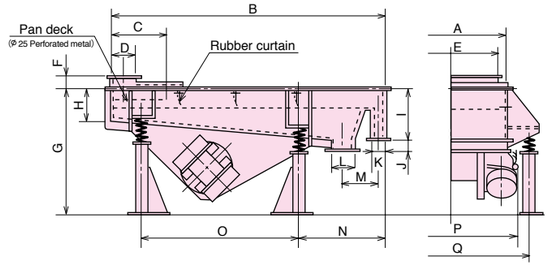
Standard specifications

Type	Effective Screening area (m^2)	Trough size	Motor type (2 motors)	Motor type (kW)	Frequency (Hz) 50Hz / 60Hz	Weight (kg)	Applicable controllers
RVS- 600-1.8	0.75	600x1800	RV-78B	0.75x2	12.0 / 14.2	400	ORV- 7x2R
RVS- 900-1.8	1.12	900x1800	RV-158B	1.5x2	12.0 / 14.2	850	ORV-15x2R
RVS- 900-2.4	1.6	900x2400	RV-158B	1.5x2	12.0 / 14.2	1100	ORV-15x2R
RVS-1200-2.4	2.2	1200x2400	RV-228B	2.2x2	12.0 / 14.2	1450	ORV-22x2R
RVS-1200-3	2.9	1200x3000	RV-378B	3.7x2	12.0 / 14.2	1650	ORV-37x2R
RVS-1500-3	3.7	1500x3000	RV-378B	3.7x2	12.0 / 14.2	2300	ORV-37x2R

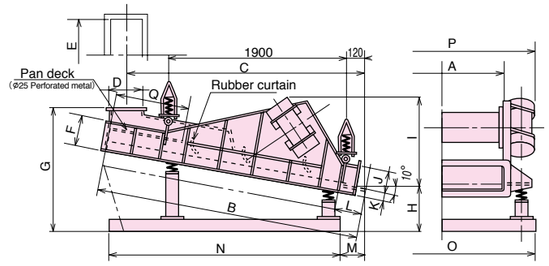
Outer dimensions

Unit : mm

Below-deck drive type



Above-deck drive type



Standard specifications / dimension table (Below-deck drive type)

Unit : mm

Type	Motor type (2 motors)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	Rubber curtain (quantity)
RVS- 600-1.8	RV- 78B	600	1800	500	300	500	150	1050	200	300	150	100	150	250	600	1000	1200	800	3
RVS- 900-1.8	RV-158B	900	1800	500	300	700	150	1200	250	350	150	100	150	250	600	1100	1300	1200	3
RVS- 900-2.4	RV-158B	900	2400	600	300	700	150	1250	250	400	150	150	200	350	800	1450	1300	1200	3
RVS-1200-2.4	RV-228B	1200	2400	600	350	1000	200	1300	250	400	150	150	200	350	800	1450	1150	1500	3
RVS-1200-3	RV-378B	1200	3000	800	350	1000	200	1650	250	450	200	150	250	400	950	1700	1750	1500	4

Standard specifications / dimension table (Above-deck drive type)

Unit : mm

Type	Motor type (2 motors)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	Rubber curtain (quantity)
RVS- 600-1.8	RV- 78B	600	1800	1590	300	500	250	950	350	850	170	80	200	100	1750	1300	1460	500	3
RVS- 900-1.8	RV-158B	900	1800	1590	300	700	250	950	350	900	170	80	200	100	1750	1650	1700	500	3
RVS- 900-2.4	RV-158B	900	2400	2150	300	700	250	1200	450	1100	170	80	200	150	2300	1650	1700	600	3
RVS-1200-2.4	RV-228B	1200	2400	2150	350	1000	300	1200	450	1150	200	100	200	150	2300	2000	2050	600	3
RVS-1200-3	RV-378B	1200	3000	2750	350	1000	300	1350	450	1300	200	100	200	150	3000	2000	2100	800	4

SHAKEOUT MACHINE

High efficiency casting shakeout machine driven by vibrating motor. By its broad utility, we have been suppling for various kinds of foundry plants.

Standard specifications/ dimension table (Below-deck drive type)

Unit : mm

Type	Motor (kW)	Frequency (Hz) 50Hz 60Hz	Weight (kg)	Applicable controllers	A	B	C	D	E max	F
RVSO- 800-1.2	0.75x2	12.0 / 14.2	600	ORV- 7x2R	800	1200	300	1200	1700	1000
RVSO- 800-1.5	0.75x2	12.0 / 14.2	600	ORV- 7x2R	800	1500	300	1200	1700	1000
RVSO- 800-2	1.5x2	12.0 / 14.2	1000	ORV-15x2R	800	2000	300	1200	1850	1000
RVSO- 900-1.5	1.5x2	12.0 / 14.2	1000	ORV-15x2R	900	1500	300	1300	1950	1100
RVSO- 900-2	1.5x2	12.0 / 14.2	1200	ORV-15x2R	900	2000	300	1300	1950	1100
RVSO- 900-2.5	2.2x2	12.0 / 14.2	1800	ORV-22x2R	900	2500	300	1300	2000	1100
RVSO-1000-1.5	1.5x2	12.0 / 14.2	1200	ORV-15x2R	1000	1500	300	1400	2000	1200
RVSO-1000-2	2.2x2	12.0 / 14.2	1800	ORV-22x2R	1000	2000	300	1400	2000	1200
RVSO-1000-2.5	3.7x2	12.0 / 14.2	3000	ORV-37x2R	1000	2500	300	1400	2100	1200
RVSO-1200-2	3.7x2	12.0 / 14.2	3000	ORV-37x2R	1200	2000	350	1600	2200	1300
RVSO-1200-2.5	3.7x2	12.0 / 14.2	3000	ORV-37x2R	1200	2500	350	1600	2200	1300
RVSO-1200-3	3.7x2	12.0 / 14.2	3300	ORV-37x2R	1200	3000	350	1600	2200	1300
RVSO-1200-3.5	5.5x2	12.0 / 14.2	4400	ORV-55x2R	1200	3500	350	1600	2500	1300
RVSO-1200-4	5.5x2	12.0 / 14.2	4600	ORV-55x2R	1200	4000	350	1600	2500	1300
RVSO-1500-2.5	3.7x2	12.0 / 14.2	3300	ORV-37x2R	1500	2500	350	2000	2600	1400
RVSO-1500-3	5.5x2	12.0 / 14.2	4600	ORV-55x2R	1500	3000	350	2000	2900	1400
RVSO-1500-3.5	5.5x2	12.0 / 14.2	4800	ORV-55x2R	1500	3500	350	2000	2900	1400
RVSO-1500-4	5.5x2	12.0 / 14.2	5000	ORV-55x2R	1500	4000	350	2000	2900	1400
RVSO-2000-3	5.5x2	12.0 / 14.2	5000	ORV-55x2R	2000	3000	350	2800	3500	1500
RVSO-2000-3.5	7.5x2	12.0 / 14.2	6000	ORV-75x2R	2000	3500	350	2800	3650	1500
RVSO-2000-4	7.5x2	12.0 / 14.2	6500	ORV-75x2R	2000	4000	350	2800	3650	1500

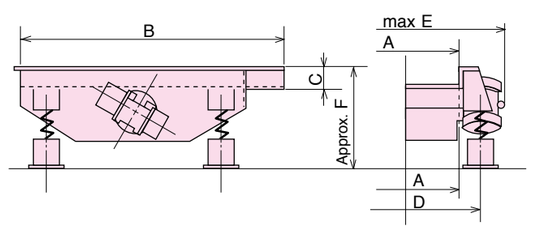
Standard specifications/ dimension table (Above-deck drive type)

Unit : mm

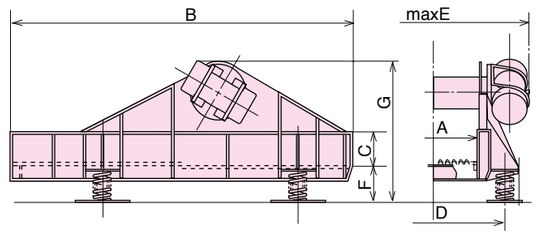
Type	Motor (kW)	Frequency (Hz) 50Hz 60Hz	Weight (kg)	Applicable controllers	A	B	C	D	E	F	G
RVSO- 800-3.5	3.7x2	12.0 / 14.2	2500	ORV-37x2R	800	3500	300	1200	1700	400	1500
RVSO- 800-4	3.7x2	12.0 / 14.2	2800	ORV-37x2R	800	4000	300	1200	1700	400	1500
RVSO- 900-3.5	3.7x2	12.0 / 14.2	2800	ORV-37x2R	900	3500	300	1300	1800	400	1600
RVSO- 900-4	3.7x2	12.0 / 14.2	3000	ORV-37x2R	900	4000	300	1300	1800	400	1600
RVSO-1000-3.5	3.7x2	12.0 / 14.2	3000	ORV-37x2R	1000	3500	300	1500	1900	400	1700
RVSO-1000-4	3.7x2	12.0 / 14.2	3300	ORV-37x2R	1000	4000	300	1500	1900	400	1700
RVSO-1200-3.5	3.7x2	12.0 / 14.2	3300	ORV-37x2R	1200	3500	350	1700	2500	400	1800
RVSO-1200-4	5.5x2	12.0 / 14.2	4600	ORV-55x2R	1200	4000	350	1700	2500	400	1800
RVSO-1500-3.5	5.5x2	12.0 / 14.2	4800	ORV-55x2R	1500	3500	350	2000	2900	400	1900
RVSO-1500-4	5.5x2	12.0 / 14.2	5000	ORV-55x2R	1500	4000	350	2000	2900	400	1900

Outer dimensions

Below-deck drive type



Above-deck drive type



LOUVER CONVEYOR

This conveyor separates casting metal and sand while transporting materials. Various kinds of screens which are suitable for every transporting materials and needs are available.

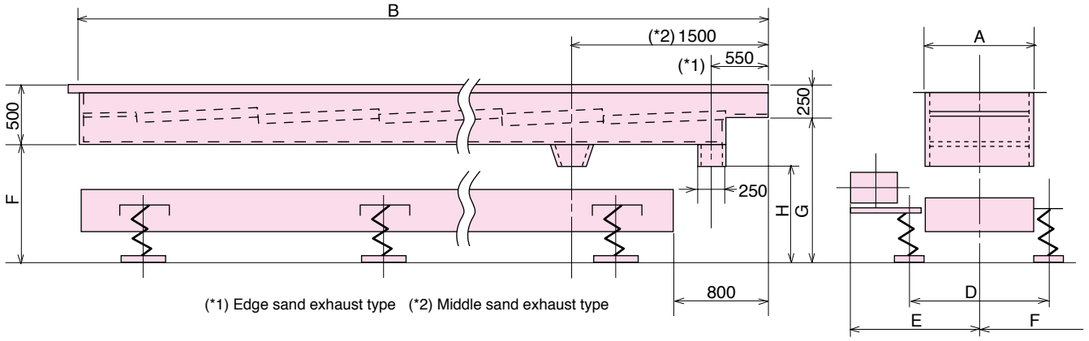
Basic Specifications

Type	Stroke (mm)	Frequency (Hz)	Trough length(m)						Anchor bolt (Hole in anchor)
				5	6	8	10	12	
GMVCB- 600	10-18	7.5-10	Motor (kW)	3.7	3.7	3.7	2.2×2	3.7×2	M16
			Weight (kg)	2700	3200	4200	5100	6100	
GMVCB- 750	10-18	7.5-10	Motor (kW)	3.7	3.7	2.2×2	2.2×2	3.7×2	M16
			Weight (kg)	3200	3800	5000	6100	7300	
GMVCB- 900	10-18	7.5-10	Motor (kW)	3.7	3.7	2.2×2	3.7×2	3.7×2	M16
			Weight (kg)	3700	4300	5700	7300	8400	
GMVCB-1050	10-18	7.5-10	Motor (kW)	3.7	2.2×2	3.7×2	3.7×2	5.5×2	M16
			Weight (kg)	4200	5000	6400	7900	9500	
GMVCB-1200	10-18	7.5-10	Motor (kW)	2.2×2	2.2×2	3.7×2	3.7×2	5.5×2	M16
			Weight (kg)	4600	5500	7200	9000	10800	
GMVCB-1500	10-18	7.5-10	Motor (kW)	2.2×2	2.2×2	3.7×2	5.5×2	5.5×2	M16
			Weight (kg)	4900	5900	7800	9700	11600	

*Motor type : TEFC type.
*When using punching out, make sure not to input material directly, but absorb shock once.

Outer dimensions (Totally Enclosed Fan Cooled type) Insulation class : E

Unit : mm



Dimensions table

Unit : mm

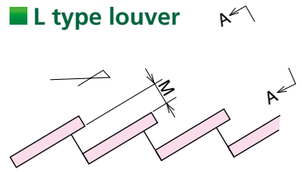
Type	A	B (Trough length(m))					D	EMAX	F	G	H
		5	6	8	10	12					
GMVCB- 600	600	5000	6000	8000	10000	12000	850	950	850	1100	650
GMVCB- 750	750	5000	6000	8000	10000	12000	1000	1100	900	1150	700
GMVCB- 900	900	5000	6000	8000	10000	12000	1150	1250	900	1150	700
GMVCB-1050	1050	5000	6000	8000	10000	12000	1300	1350	900	1150	700
GMVCB-1200	1200	5000	6000	8000	10000	12000	1450	1400	950	1200	750
GMVCB-1500	1500	5000	6000	8000	10000	12000	1750	1550	950	1200	750

*Select a trough length from upper chart
*BM type driving part available

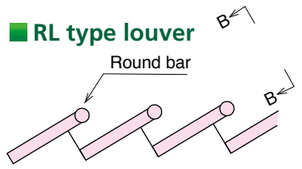
Examples of various screens

Louver

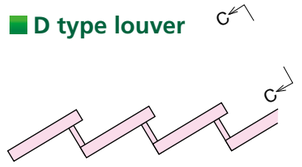
L type louver



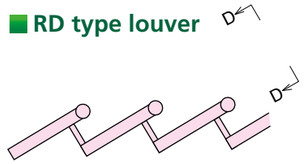
RL type louver



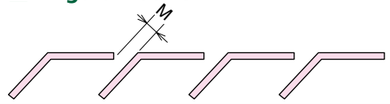
D type louver



RD type louver

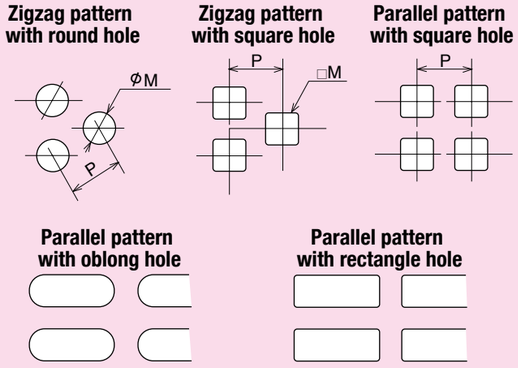


Angular louver

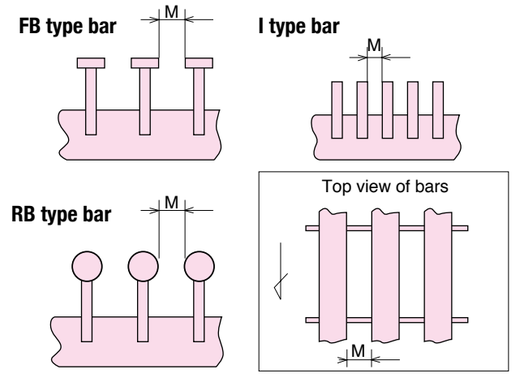


M : Aparture P : Pitch

Punching



Bar



About an installation space

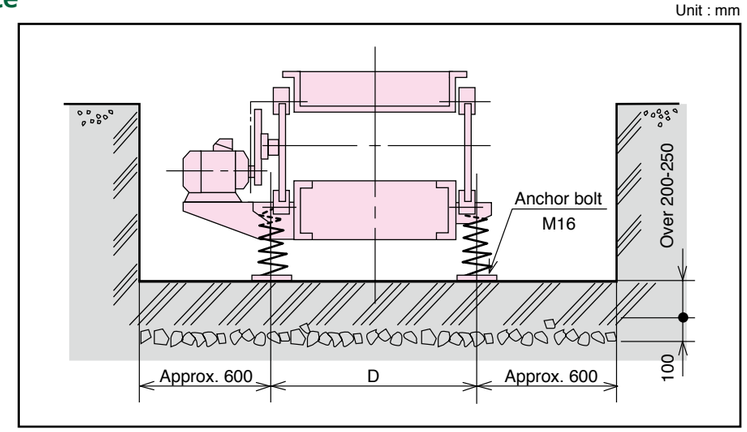
When installing MVCB type balanced conveyor or GMVCB type louver conveyor at narrow space such as a pit, you have to consider whether maintenance and checking out can be possible or not.

- Consult with us if there is risk of vibration pollution.
- When you install a machine on a table or upstairs, consider dynamic load.
- Thickness of concrete

  Below GMVCB-1050 Over 200mm

  Over GMVCB-1200 Over 250mm

Unit : mm

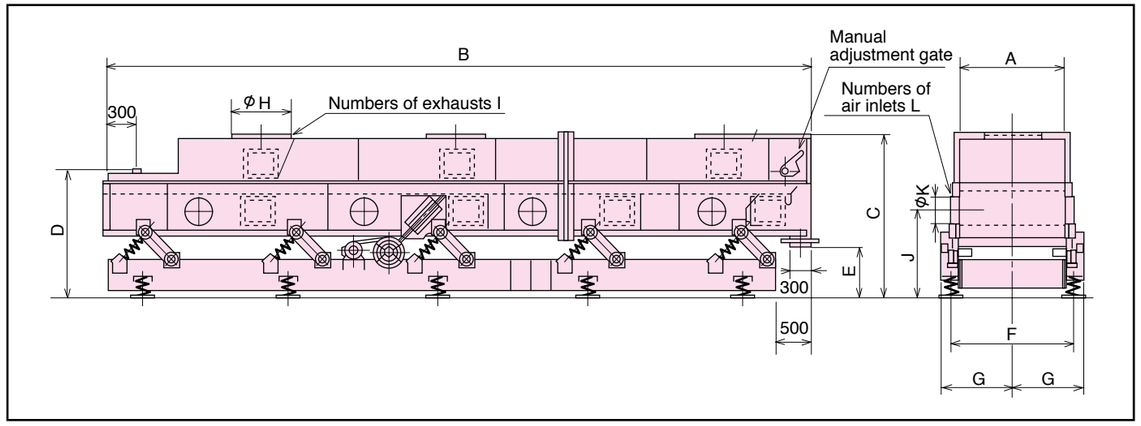


VIBRATING SAND COOLER

Original vibrating conveyor which efficiently and continuously cool down hot molding sand while transporting.

Outer dimensions

Unit : mm



Standard Specifications

Unit : mm

Type		Effective area (t/Hr)m	Required air volume (Nm³/min)	Motor (kW)	Weight (kg)	A	B	C	D	E	F	G	H	I	J	K	L
CMVCB- 450- 5	3.2	1.5	55	0.75×1	2000	450	5000	1900	1550	550	700	580	430	2	1000	215	2
CMVCB- 600- 7	6.7	3.2	115	1.5×1	3100	600	7000	1900	1550	550	850	680	430	3	1000	215	3
CMVCB- 750- 9	11.4	5.4	200	2.2×1	4900	750	9000	2000	1550	550	1000	680	573	3	1000	318	4
CMVCB- 900-10	15.7	7.5	270	2.2×1	5100	900	10000	2000	1550	550	1150	750	573	4	1000	318	4
CMVCB-1200 -9	19.3	9.2	335	3.7×1	6500	1200	9000	2100	1650	650	1450	900	700	3	1100	318	4
CMVCB-1500-10	29.5	14.0	510	3.7×2	10200	1500	10000	2250	1800	700	1750	1050	840	4	1200	382	4
CMVCB-1200-12	26.3	12.5	450	3.7×1	8300	1200	12000	2100	1650	650	1450	900	700	4	1100	318	5
CMVCB-1500-12	33.4	15.9	575	3.7×2	12100	1500	12000	2250	1800	700	1750	1050	840	4	1200	382	5
CMVCB-1500-14	39.3	18.7	675	3.7×2	14100	1500	14000	2250	1800	700	1750	1050	840	5	1200	382	7
CMVCB-1800-14	46.3	22.0	800	3.7×2	15500	1800	14000	2400	1950	850	2050	1200	995	5	1350	382	7
CMVCB-1800-16	53.4	25.4	920	3.7×2	17900	1800	16000	2400	1950	850	2050	1400	995	6	1350	382	8
CMVCB-2000-16	58.3	27.3	1000	3.7×2	26000	2000	16000	2400	1950	850	2250	1500	995	6	1350	382	8
CMVCB-2000-18	65.8	31.3	1130	3.7×2	29200	2000	18000	2400	1900	850	2250	1500	995	—	—	—	—

・Capacity in upper chart is applicable when molding sand is 0.15㎜~0.84㎜, inlet temperature 120°C, outlet temperature 40°C, inlet moisture 3%WB, outlet moisture 0.6%WB, cooling air atmosphere 30°C, relative humidity of cooling air 80%, and punching holeφ2.2 with hole area 2.5% of perforated plate.
・Adjust cooling time with adjusting a gate.
・Equipment which have more high capacity than upper charts is available when required.
・Material should be input continuously, and evenly to this conveyor.

DRUM SHAKER

By solving dust problem of separating process of casting metal and molding sand, this shaker contributes significant improvement of working environment. This shaker improves yield ratio without damaging product with original ellipsoidal vibrating method. Moreover, it has remarkable advance about product cooling.

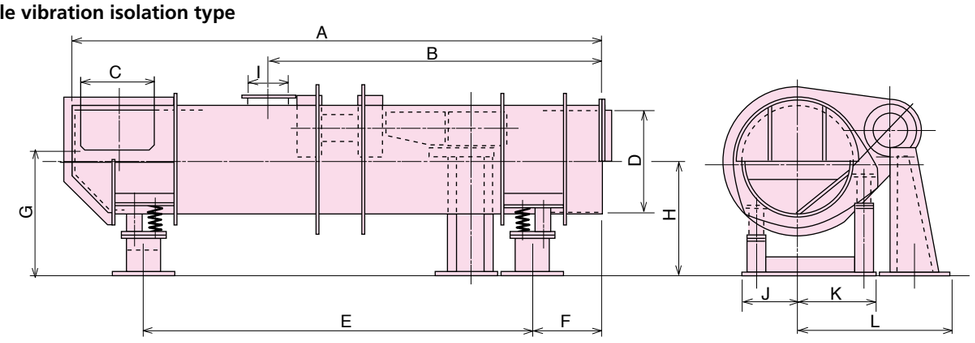
Standard Specifications

Type	Capacity (t/Hr)	Motor (kW)	Weight (kg)	Air volume of dust collection (kg)	Vibration insulation method
RDSO-1200- 4	20	22	4200	150	Single
RDSO-1200- 6	30	22	5200	150	Single
RDSO-1400- 6	40	22	5500	250	Single
RDSO-1600- 6	50	37	10300	300	Double
RDSO-1800- 7	70	45	14200	350	Double
RDSO-2000- 8	90	45	21800	450	Double
RDSO-2500-10	110	45×2	33800	550	Double
RDSO-2500-10	140	45×2	37100	700	Double

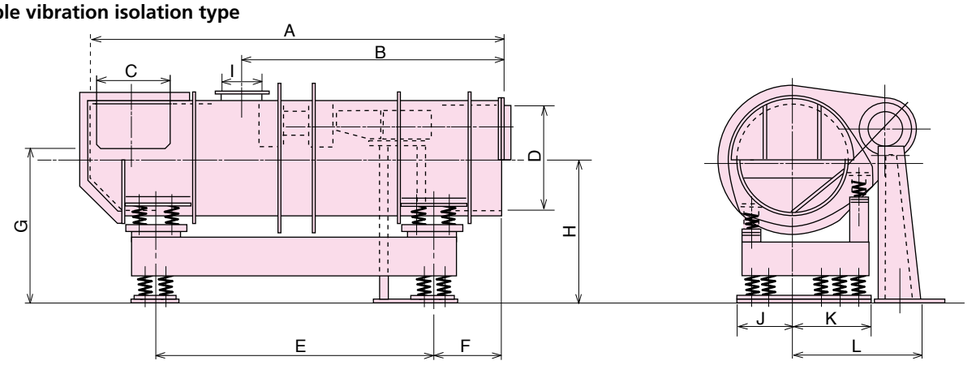
・Transportation speed can be adjustable by adjusting angle (0-2°) of a drum.
・Liner is SUS304 for inlet, and SS-41 for other parts.
・Sound isolation is required because this machine generate ultra-low frequency air vibration.
・An exclusive use control board is available.

Outer dimensions

Single vibration isolation type



Double vibration isolation type



Dimensions table

Unit : mm

Type	A	B	C	D	E	F	G	H	I	J	K	L
RDSO-1200- 4	4000	800	850	φ1219.2	2300	800	1470	1230	φ450	600	900	1750
RDSO-1200- 6	6000	3800	850	φ1219.2	4400	800	1500	1200	φ450	600	900	1750
RDSO-1400- 6	6000	3800	1000	φ1400	4400	800	1500	1400	φ500	650	1000	1540
RDSO-1600- 6	6000	3800	1100	φ1600	4000	1000	2300	2000	φ550	700	1100	2000
RDSO-1800- 7	7000	4500	1350	φ1800	5000	1000	2770	2080	φ650	750	1200	2100
RDSO-2000- 8	8000	4000	1500	φ2000	5600	1200	2940	2160	φ700	850	1300	2200
RDSO-2200-10	10000	5800	1650	φ2200	7400	1300	3220	2330	φ750	950	1450	2500
RDSO-2500-10	10000	4200	1900	φ2500	7200	1400	3370	2430	φ650x2	1050	2500	2600

SLOPE CONVEYOR

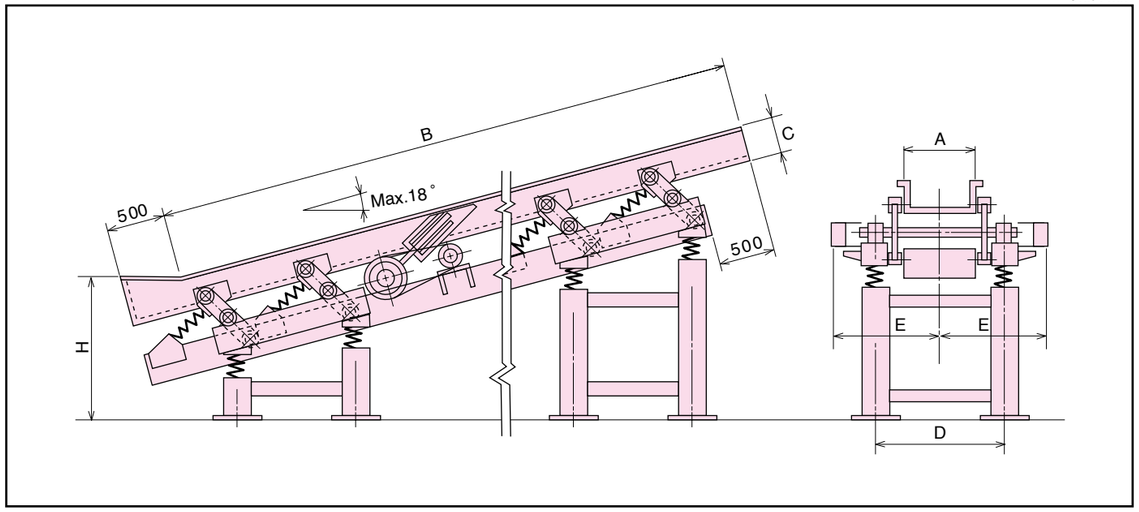
This revolutionary conveyor transport material from downstairs to upstairs, which conventional vibrating conveyors are not capable. Moreover, slope conveyor has more characteristics such as, sealed structure, high durability, and easy jointing to post-process.

Transportation capacity Tilt angle: 18°

Type	Capacity (t/Hr)
BM- 450	12
BM- 600	16
BM- 750	20
BM- 900	24
BM-1050	28

*Capacity of upper chart is when apparent specific gravity is 1.5, and humidity is 3%.

Outer dimensions Unit : mm



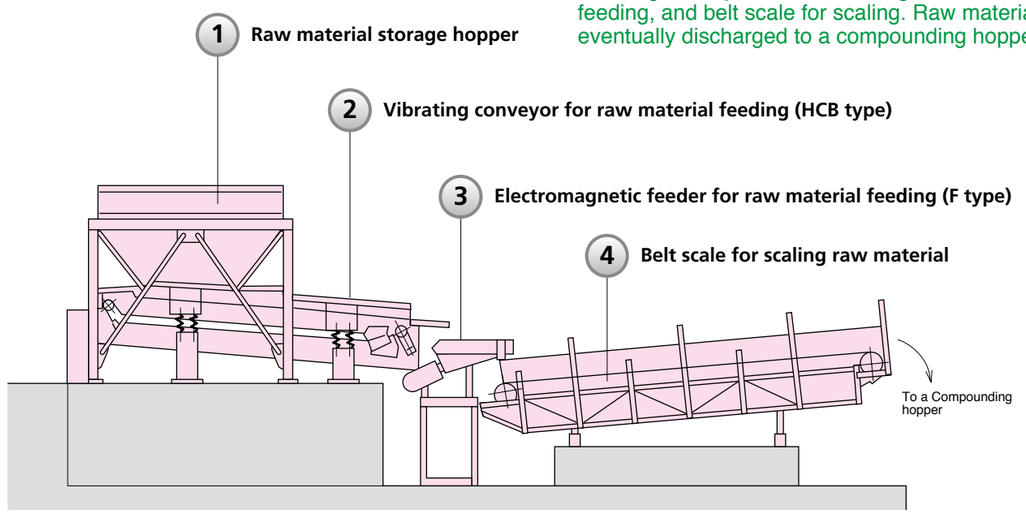
Dimensions table Unit : mm

Type	A		Length B and motor capacity				C	D	H	E(Max)
BM- 450	450	Length	5000	10000	15000	20000	200	950	1300	950
		Motor(kW)	5.5	3.7x2	5.5x2	5.5x2				
BM- 600	600	Length	5000	10000	15000	20000	250	1100	1350	1100
		Motor(kW)	5.5	5.5x2	5.5x2	7.5x2				
BM- 750	750	Length	5000	10000	15000	20000	250	1250	1350	1250
		Motor(kW)	3.7x2	5.5x2	7.5x2	11x2				
BM- 900	900	Length	5000	10000	15000	20000	250	1400	1350	1300
		Motor(kW)	3.7x2	5.5x2	7.5x2	11x2				
BM-1050	1050	Length	5000	10000	15000	—	250	1550	1350	1400
		Motor(kW)	5.5x2	7.5x2	11x2	—				

*An inverter panel could be used because the conveyor should be arranged according to slope angle, transporting material shape, and metal/sand ratio.

RAW MATERIAL FEEDING, SCALING, AND COMPOUNDING DEVICE EXAMPLE

This device is combined hopper for storage raw material, vibrating conveyor and electromagnetic feeder for feeding, and belt scale for scaling. Raw material will be eventually discharged to a compounding hopper.



SEPARATING AND RETURNING OF MOLDING SAND BY DRUM SHAKER EXAMPLE

After pouring molten metal, separated casting metal and sands are transported to upstairs by a slope conveyor, and discharged into a drum shaker. Drum shaker transport casting and sand while cooling and braking lumps, and discharge for vibrating screen. Castings are separated by molding sands, and transported to further processes. At this point, sand lumps are crushed again. Separated sand will be send back to a sand returning line by using a vibrating conveyor, which located under a screen.

Unit : mm