

# **Construction Equipment**

2024-2025



# **CONTENTS**











# **ICONS**



- \* In the "Specifications", the background color of model no. is for diesel engines, and for gasoline engines.
- \* Weight includes weight of machine, lubricants, 50% of fuel and 50% of water in case with water tank option. Features and specifications are subject to change without notification.

# "Welcome to MIKASA World!" Contact to www.mikasas.com Mikasa 😭 User ID >> Change >> Forgot Login GUEST LOGIN Globality and a stock of the st Mikasa ID KAIGAIGUEST Parts Marasi Florus GH-285 Searth Clear A 2119-13010 2119-13020 2119-13020 2119-13020 2119-13040 2119-23046 2119-23147 2119-23046 2119-23147 2119-23046 2119-23047 2119-43014 y u-E 0 0 NEWER (D)





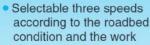
#### e Series

# Tamping Rammer

#### MT-e55 (75kg) WAS 9







 Start and stop can be done with the push of a switch

 VAS Handle reduces hand vibration and protects electronic components

 Protector/fan guard to protect motor/harness

Storage box for quick manual, etc.

dimensions(mm) ··· H:1,040  $\times$  W:350  $\times$  L:715 plate size(mm) ··· W:265 × L:340 jumping stroke(mm)  $\cdots$  30  $\sim$  70 impact force kN(kgf) ··· 10.8(1,100) power source kW(PS) ··· Honda DC Power Unit GXE2.0 1.6(2.2)

※ incl. battery

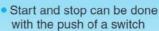
# Plate Compactor

#### MVC-e60 (88kg) (88kg)









 Rugged double compaction baseplate design

Full-coverage belt cover

 VAS Handle to reduce hand-arm vibration

11L Water tank as standard

weight(kg) ··· 88\* dimensions(mm) ··· H:995 × L:915 plate size(mm) ··· W:350 × L:570 vibrating frequency Hz(v.p.m) ... 93(5,600) centrifugal force kN(kgf) ... 10.1(1.030) max.traveling speed(m/min)

power source kW(PS)

··· Honda DC Power Unit GXE2.0 1.6(2.2)

※ incl. battery



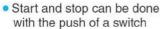
# Reversible Compactor

#### MVH-eR60 (81kg)









 Smooth forward/reverse operation by hand pump with built-in accumulator

- Guard frame for both dustproofing and ease of maintenance
- Height-adjustable handle(3 levels)

weight(kg) ··· 81\* dimensions(mm) ··· H:945 × L:940 plate size(mm) ··· W:350 × L:480 vibrating frequency Hz(v.p.m) ··· 108(6,500) centrifugal force kN(kgf) ··· \* 12(1,225) max.traveling speed(m/min) ··· 24 power source kW(PS) ··· Honda DC Power Unit GXE2.0 1.6(2.2)

\* incl. battery





Cart of Revolving type for MVC-e60



Water Tank(8.5L) for MVH-eR60



#### Battery/Charger



DC Power Unit Battery



DC Power Unit Charger

\* It takes about 1.5 hours from no charge to full charge. Continuous operation time when fully charged is about 30 minutes for rammer and about 40 minutes for plate. (for a new battery)

# e & i series emits no exhaust gas and does not pollute the air

#### i Series

# Tamping Rammer

## NEW

#### MTX-i60 (74kg)





- Safer 2-action Levers
- VAS Handle reduces hand vibration and protects electronic components
- Protector/fan guard to protect motor/harness
- Roller Grip for moving as standard

weight(kg) ··· 74\* dimensions(mm) ··· H:1,040 × W:352 × L:748 plate size(mm) ··· W:265 × L:340 jumping stroke(mm) ··· 40 ~ 70 impact force kN(kgf) ··· 13.6(1,390) power source kW(PS) ··· Brush-less Motor 2.3(3.1)

\* incl. battery

# Plate Compactor

## NEW

#### MVC-i60 (82kg) WAS







- New Self-vibration Motor
- New Casting Base Plate(W:350mm)
- VAS. Folding Handle for operability and storage
- 8.5L Water tank as standard
- Cart of Revolving type as standard

weight(kg) ··· 82\*  $\textbf{dimensions(mm)}\cdots \text{H:1,010} \times \text{L:1,055}$ plate size(mm)  $\cdots$  W:350  $\times$  L:585 max.traveling speed(m/min) ··· 25 vibrating frequency Hz(v.p.m) ··· 98(5,880) centrifugal force kN(kgf) ··· 11(1,122) power source kW(PS) ··· Self-vibration Motor 1.2(1.6)

※ incl. battery



#### Battery/Charger



Battery **BOB10 BOB14** 



Charger **BOC13** 

BATTERYONE

\* It takes approximately 95 minutes (BOB10), and 140 minutes (BOB14) from

no charge to a full charge.

Operation time with a full charge is approximately 30 minutes for Rammer (BOB10), 80 minutes for plate (BOB10), and 110 minutes for Plate (BOB14).









# 4 Stage Air Cleaner System



#### Large Twin Cyclone Air Cleaner

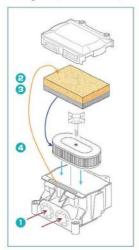
Large twin cyclone air cleaner has 300% the dust holding capacity of our previous designs. (MTXseries)

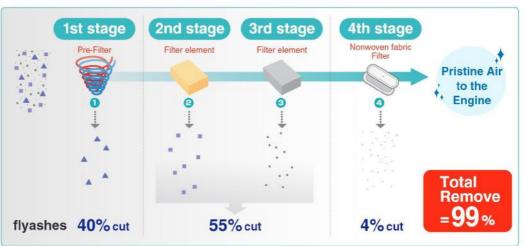


#### Easy maintenance











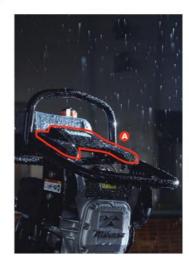


# Zin1) Tacho Hour Meter

① Engine R.P.M. When it is running, it shows R.P.M. and you can check it easily.

② Operating Time When it is stopped, it shows total operating time and managing its runtime is easy.

# 360° Protection



#### ■Engine Protection

Protect the engine from rain and dust. (MT-55.66.77)



#### ■Engine Protection © ⊚

The material of the side guard and engine guard is made of highly durable, superior shock-resistant resin that protects the entire surface of the engine.

# **Power-Packed Rammer**



# **Outstanding Operability**





#### **VAS** Handle

Tamping Rammer utilizes a newly designed Vibration Absorbing System Handle that reduces **30 or 40** % for vibration transferred to your hands (compared to our normal handle models) to work more efficiency.

#### $\mathfrak{B}_{\mathsf{inf}}$

Throttle Lever with fuel cutoff mechanism interlocked kill-switch



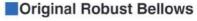
Engine Stop Switch

Fuel Valve

Accelerating for Running / Stopping

# Reliable Responsible Ready to Rental





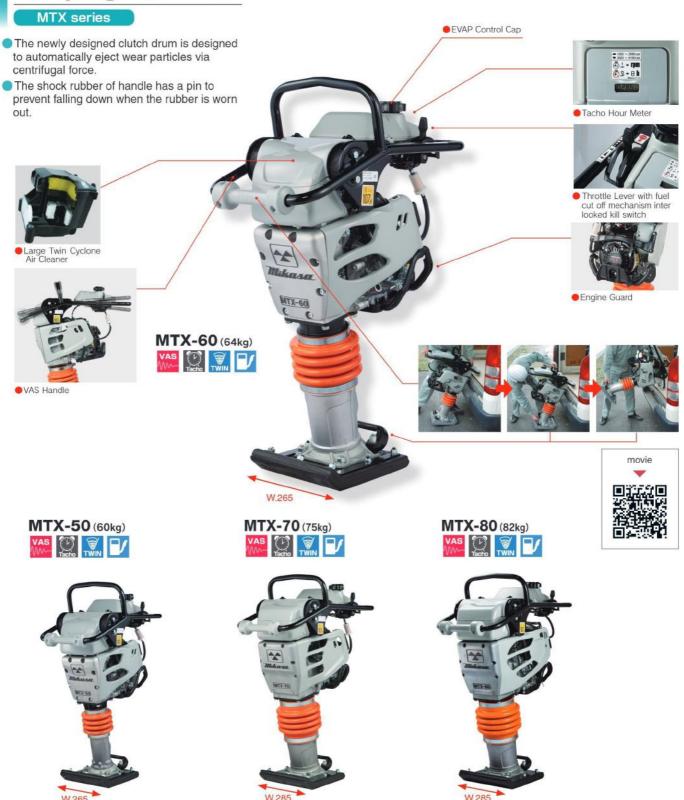
Our bellows designed with meshedpattern inner wall delivers an extremely stable tamping stroke that resists twisting.

#### Original Rugged Foot



Mikasa's original foot is metal sheet assembly made from wear resistant, high tensile strength steel and laminated beech wood.

# Tamping Rammer



#### MTX Specifications

model	weight (kg)	dimensions (mm)	plate size (mm)	jumping stroke (mm)	impact force kN (kgf)	impact number per min.	fuel tank capacity (lits)	power source kW (PS)	
MTX-50	60	H : 1,025	W1 : 265	40-70	10.3 (1,050)			Honda GX100 gasoline max. output 2.1(2.9	
MTX-60	64	W:350 L:713	L1 : 340		13.6 (1,390)	544.605		Honda GX100 gasoline max. output 2.1(2.9	
MTX-70	75	H: 1,027	W1 : 285		50-80	14.9 (1,520)	644-695	2.5	Honda GXR120 gasoline max. output 2.7(3.6
MTX-80	82	W:350 L:788	L1 : 340		15.6 (1,590)			Honda GXR120 gasoline max. output 2.4(3.3	

# Tamping Rammer



model	weight (kg)	dimensions (mm)	plate size (mm)	jumping stroke (mm)	impact force kN (kgf)	impact number per min.	fuel tank capacity (lits)	power source kW (PS)		
MT-55H	62	H:1.035 W:370 L:730	W1: 265 L1 : 340	30-70	9.8 (1,000)	644-695				Honda GX100 gasoline
MT-66HL	70				12.7		2.0	max. output 2.1(2.9)  Honda GXR120		
MT-66HRL	72	H:1,070 W:375	W1:285	50-80 (1,300) 644-69 13.7 (1,400)	(1,300)					
MT-77HRL	77	L :740	L1 :340					gasoline max. output 2.4(3.3		

# Trench Rammer

# Diesel Rammer

#### MTR-40H (47kg)







#### MTR Specifications

model	weight (kg)	dimensions (mm)	plate size (mm)	jumping stroke (mm)	impact force kN (kgf)	impact number per min.	fuel tank capacity (lits)	power source kW (PS)
MTR-40H	47	H:1,110 W:370 L:620	W1:150 L1:270	40-55	5.4 (550)	644-695	2.0	Honda GX100 gasoline max. output 2.1 (2.9)

#### MTX Specifications

model	weight (kg)	dimensions (mm)	plate size (mm)	jumping stroke (mm)	impact force kN (kgf)	impact number per min.	fuel tank capacity (lits)	power source kW (PS)
MTX-85DY	93	H:1,063 W:410 L:740	W1:285 L1:340	50-80	15.7 (1,600)	656-698	2.6	Yanmar L48N diesel max. output 3.5 (4.

# Mikasa Carry

#### CART-RAMMER (11.0kg)

















movie

**Cart Specifications** 

model	weight (kg)	dimensions (mm)	hook width (mm)	loading capacity (kg)
MC-1B	8.0	H : 1,065 W : 588	137 (inside) 243 (outside)	100

model	weight (kg)	dimensions (mm)
CART-RAMMER	11.0	H : 260 W : 490 L : 260

<sup>\*\*</sup> To use "CART-RAMMER", it need to be assembled grip except for MTX-series.





# PLATE COMPACTOR



# **Astonishing Durability**

#### Special Ductile Compaction Base Plate

The base plate made by special ductile realizes significant high durability. (MVC-40 • 50 • T60 • T90 • T100)





Design for Low center of gravity and Increasing the thickness of back part.

# Rugged double compaction baseplate design

The back part of the compaction baseplate where wear is most prominent is a double baseplate design to deliver better durability when patching road surfaces or for other kinds of construction work. (MVC-F70 • F80)



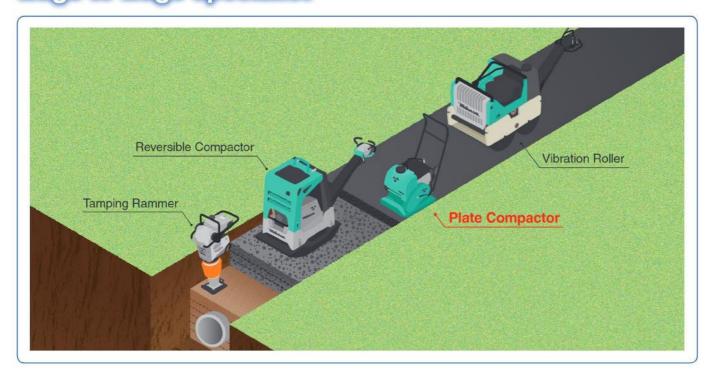
#### Self lubricated vibrator system

Patented

The vibrator which supplies oil in a vibrator case by using the rotation of an eccentric rotator gives a proper lubricating action to the bearings and makes the vibrator more durable.

(MVC-40•50•T90•T100)

# Edge to Edge specialist











For MVC-50·T60



For MVC-40



For MVC-F70



For MVC-F80-T90-T100



# **Standard Handle + 3 Unique Handles**

#### Folding Handle

When store or transport the compactor, Folding handle is useful, and it folds without any tools.

The notch type of grip bolt makes the handle lock into any position.



#### Long Handle

It supports high height operator for reduce stress.



#### **VAS** Handle

Vibration Absorbing System Handle to reduce hand-arm vibration.



#### Cart of Revolving type (MVC-T60 · F70 · F80 · T90 · T100)





Knob to fix handle



Stopper to fix cart (T60 · F70 · F80)



Wire to fix handle (T90 • T100)

#### Lifting Hook

The lifting hook is equipped as standard and makes loading and unloading the compactor easily.



Cart of Revolving type
For MVC-T60-F70-F80-T90-T100



Cart of Standard type



# Plate Compactor

# **Heavy Duty line**

# **NEW** MVC-T60H VAS











Holding VAS handle



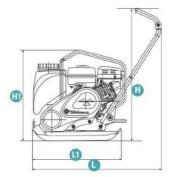
Cart of Revolbing type

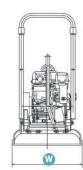
# MVC-F80 VAS



MVC-T (108kg)	90	VAS
VAS NATE		







model	HAV (Hand Arm Vibration) (m/sec²)
MVC-T60H VAS	2.2
MVC-F80H VAS	3.5
MVC-T90H VAS	2.6
MVC-T100D VAS	2.3

Remarks: HAV is measured in comply with EU Directive2002/44/EC. The value is shown as 3 axis min, vibration level, Test course is in comply with EN500-4.

Test course: Crushed gravel



Water Tank









model	weight (kg)	dimensions (mm)	plate size (mm)	vibrating frequency Hz (V.P.M.)	centrifugal force(max) kN (kgf)	max.traveling speed (m/min)	max.limited gradeability (%)	power source kW (PS)	
MVC-T60H VAS	75	H:1,005 H1:540 L:980	W:350 L1:520	93 (5,600)	10.1 (1,030)	25	25	xx	Honda GX120 gasoline max. output 2.4 (3.3)
MVC-F80H VAS	92	H:995 H1:580 L:915	W:450 L1:570	93 (5,600)	13.7 (1,400)			35	Honda GX160
MVC-T90H VAS	108	H :950 H1:560 L :1,050	W:500 L1:525	100 (6,000)	15.0 (1,530)		35	gasoline max. output 3.6 (4.9)	

# Plate Compactor

# Standard line





#### Increased Weight (kg)

model	Water Tank	Cart	Folding Handle	VAS Handle
MVC-40H	+6	nil	standard	nil
MVC-40HR	+6	nil	standard	nil
MVC-50H	+6	nil	+1	nil
MVC-T60H	standard	standard	standard	standard
MVC-F70H	+8	+2	nil	nil
MVC-F80H	+9	+2	nil	+3
MVC-T90H	+10	+4	nil	+3
MVC-T100D	+10	+4	nil	+3

<sup>\*</sup>The weight of tank is 50% of water.







model	weight (kg)	dimensions (mm)	plate size (mm)	vibrating frequency Hz (V.P.M.)	centrifugal force(max) kN (kgf)	max.traveling speed (m/min)	max.limited gradeability (%)	power source kW (PS)	
MVC-40H	50	H :920 H1:610 L :910	W: 298 L1: 420	103 (6,200)	7.2 (730)			Honda GX100 gasoline max. output 2.1 (2.9)	
MVC-40HR	51	H :920 H1:620 L :910	W:298 L1:420	103 (6,200)	7.2 (730)				Honda GXR120 gasoline max. output 2.3 (3.1)
MVC-50H	59	H : 920 H1: 545 L : 915	W:345 L1:460	97 (5,800)	9.8 (1,000)			Honda GX120 gasoline max. output 2.4 (3.3)	
MVC-F70H	73	H :865 H1:580	W:420 L1:510	93 (5,600)	12.0 (1,220)	25 35	25	35	
MVC-F80H	78	L : 925	W:450 L1:570	93 (5,600)	13.7 (1,400)			Honda GX160 gasoline max. output 3.6 (4.9	
МVС-Т90Н	91	H :825 H1:560 L :1,100	W:500	100 // 000	15.0 (1.520)				
MVC-T100D	103	H :825 H1:650 L :1,100	L1:525	100 (6,000)	15.0 (1,530)			Yanmar L48N diesel max. output 3.5 (4.7)	

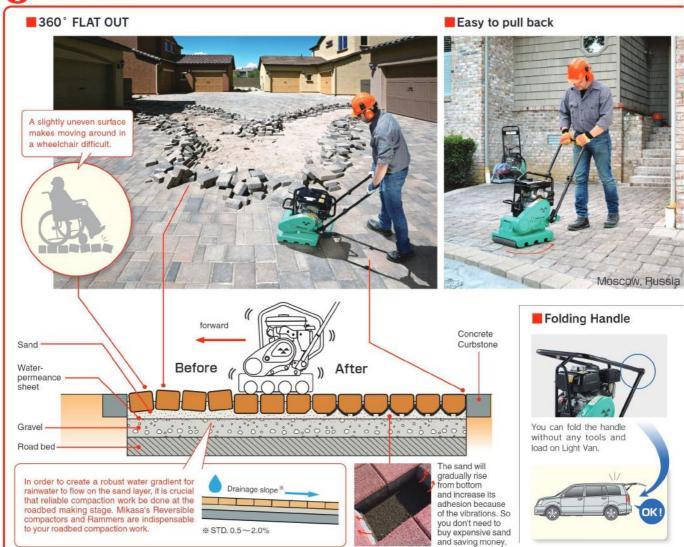
# Inter-Locking Block Plate Give interiocking blocks an even finish. The machine's hard rubber rollers make it virtually impossible to drog corpus phino and small rocks that leave behind.

- Give interlocking blocks an even finish.
- to drag corner chips and small rocks that leave behind scratches along the surface of the blocks.
- MVB-85 is capable of exerting compaction pressure alongside





# Point



model	weight (kg)	dimensions (mm)	rubber roll size (mm)	vibrating frequency Hz (V.P.M.)	centrifugal force (max) kN (kgf)	power source kW (PS)
MVB-85H	90	H :920 H1:645 L :890	W :320 Dia:73	93 (5,600)	10.1 (1,030)	Honda GX120 gasoline max. output 2.4(3.3)
MVB-152H	150	H :950 H1:662 L :1,038	W :556 Dia:86	97 (5,800)	15.2 (1,550)	Honda GX160 gasoline max. output 3.6 (4.9)



Reversible Compactor (Compaction Sensor Models) 21



# Getting you on the job as quickly and absolutely as possible

#### VAS Handle Patented

Vibration Absorbing System handle reduces hand-arm vibration. Even if use long time, the burden for your body is not large.



#### Forward/Reverse control lever Patented

The control lever has been engineered with a built-in actuator that improves the forward/reverse switch over operational response so that you can smoothly switch over between forward and reverse.



# Tough and rugged body, and advanced engineering to prevent damage

#### The compactor is designed monocoque structure integrated with front cover



The light weight and highly rugged front cover protects engine from gravel or external damage, and benefit easy maintenance, and enable to wash by high pressure pump.

(MVH-128~508)

# Low center of gravity Design

#### Travel speed comparison

The compactor's travel speed is 20% faster with the new designed compaction plate.





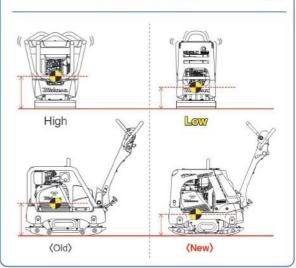
MVH-408 27m/min 23m/min Old model

#### Integrated vibrating plate

Brand-new Vibrating Plate made by advanced Automotive technology.







#### Cyclone pre cleaner equipped as standard has 400% superior dust filtering efficiency. ( compared with our previous models )

We have placed cyclone pre cleaner inside of rear cover which has superior dust filtering efficiency and it improves maintenance efficiency. For MVH-508, a high-powered twin cyclone pre cleaner suited for the large engine is equipped.

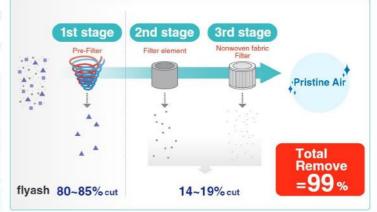


Cyclone pre cleaner



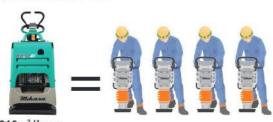
Twin cyclone pre cleaner





# Saving your time

#### Extension Plate



#### Compaction Area/Hour

	MODEL	Operating Weight	Impact Force Centrifugal Force	W	idth	Travel Speed	Travel Distance/ hour	Compaction Area/hour
		kg	kgf	mm	m (A)	m/min	m (B)	m <sup>2</sup> (A X B)
	MT-55H	62	1000	265	0.265	11	660	174.9
	MT-66HL	72	1300	285	0.285	13	780	222.3
0	MT-77HRL	77	1400	285	0.285	12	720	205.2
	MVH- 308DSY	341	4600	445	0.445	27	1620	720.9
0	MVH- 408DSY	407	5100	500	0.500	27	1620	810.0
	MVH- 508DSZ	525	6600	650	0.650	29	1740	1131.0

1) 0.285m (A) x 12m /min. x 60min. /hour = 205.2m2 /hour 2 0.500m (A) x 27m /min. x 60min. /hour = 810m2 /hour

#### 810m<sup>2</sup>/hour











#### Extension Plate

For MVH-308, 408, 508 (75,150mm)

Extension Plate 75 mm as standard.



#### Compaction Sensor "Compas II"



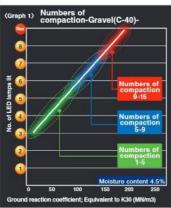


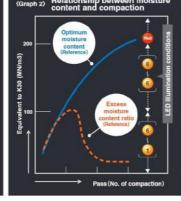
The moisture content is too high, therefore the lamps will not illuminate any further. In some cases, the number of lamps that light up will decrea

ground or soft ground (Yellow lamp: 1-8 Red lamp: Illumination) 

absolute value of the soil rigidity. When using this machine always conduct tests such as the plate load test and dynamic load test (FWD) to determine the correct soil rigidity suitable for the work, and do calibration of the actual measured value and the LED illumination level.







# Relationship between soil rigidity and LED lamps



The number of LED lamps that are lit is proportional with the soil rigidity.

If the moisture content

of the soil is too high, its rigidity may drop even after compactions are repeated, and because of this, the number of illuminated LED lamps

※ Product features: MVH-308DS-PAS















**\*\*Only for 508DS** 





(345kg)







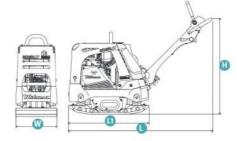












model	weight (kg)	dimensions (mm)	plate size (mm)	vibrating frequency Hz (V.P.M.)	centrifugal force (max) kN (kgf)	max. traveling speed (m/min)	max.limited gradeability (%)	power source kW (PS)
MVH-308DSZ-PAS MVH-308DSY-PAS	345 341	H:1,030 L:1,540	W:445 [595] L1:860	72 (4 400)	45.0 (4,600)	27		Hatz 1B30 diesel (electric start) max. output 4.9 (6.7) Yanmar L70N diesel(electric start) max. output 4.9 (6.7)
MVH-408DSZ-PAS MVH-408DSY-PAS	408 407	H:1,030 L:1,570	W:500 [650] L1:900	73 (4,400)	55.0 (5,600) 50.0 (5,100)	28 27	30	Hatz 1B50 diesel (electric start) max. output 6.7 (9.1) Yanmar L100N diesel (electric start max. output 7.0 (9.5)
MVH-508DSZ-PAS	525	H:1,070 L:1,600	W:650 L1:900	69 (4,150)	65.0 (6,600)			Hatz 1D81 diesel (electric start) max. output 8.9 (12.1)
MVH-508GHS-PAS	440	H:1,030 L:1,570	W:650 L1:900	73 (4,400)	60.0 (6,120)	29		Honda GX390 gasoline (electric start) max. output 8.7 (11.8)

<sup>\*</sup> For plate size, [Figure] shows plate size with standard Extension plate (75mm) on each side.

# Reversible Compactor

- Smooth forward and reverse drivability make it proper for compaction work in trenches.
- Light sizes are ideal for paving asphalt.



model	weight (kg)	dimensions (mm)	plate size (mm)	vibrating frequency Hz (V.P.M.)	centrifugal force (max) kN (kgf)	max. traveling speed (m/min)	max.limited gradeability (%)	power source kW (PS)
MVH-408DSZ MVH-408DSY	408 407	H:1,030 L:1,570	W:500 [650] L1:900	73 (4,400)	55.0 (5,600) 50.0 (5,100)	28 27		Hatz 1B50 diesel (electric start) max. output 6.7 (9.1) Yanmar L100N diesel (electric start max. output 7.0 (9.5)
MVH-508DSZ	525	H:1,070 L:1,600	W:650 L1:900	69 (4,150)	65.0 (6,600)	29	20	Hatz 1D81 diesel (electric start) max. output 8.9 (12.1)
MVH-408GH	364	H:1.030	W:500 [650] L1:900	73 (4 400)	55.0 (5,600)	28	30	Honda GX390 gasoline max. output 8.7 (11.8)
MVH-508GHS	440	L:1,570	W:650 L1:900	73 (4,400)	60.0 (6,120)	29		Honda GX390 gasoline (electric start) max. output 8.7 (11.8)

<sup>\*</sup> For plate size, [Figure] shows plate size with standard Extension plate (75mm) on each side.

# Reversible Compactor









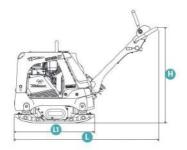
W.500











model	weight (kg)	dimensions (mm)	plate size (mm)	vibrating frequency Hz (V.P.M.)	centrifugal force (max) kN (kgf)	max. traveling speed (m/min)	max.limited gradeability (%)	power source kW (PS)
MVH-208DSZ MVH-208DSY	240 237	H: 1,010	W:500 L1:720	87 (5,200)	37.0 (3,772)	27 26		Hatz 1B30
MVH-209DSZ MVH-209DSY	247 243	L : 1,310	W:600 L1:720	87 (5,200)	35.0 (3,570)	26		diesel (electric start) max. output 4.9 (6.7) Yanmar L70N diesel (electric start)
MVH-308DSZ MVH-308DSY	345 341	H: 1,030 L: 1,540	W : 445 [595] L1 : 860	73 (4,400)	45.0 (4,600)	27	30	max. output 4.9 (6.7)
MVH-208GH	210	H: 1.010	W:500 L1:720	07 (5 000)	27.0 (2.770)			
MVH-209GH	217	L: 1.310	W:600 L1:720	87 (5,200)	37.0 (3,772)	26		Honda GX270 gasoline max. output 6.3 (8.6)
MVH-308GH	310	H: 1,030 L: 1,540	W : 445 [595] L1 : 860	73 (4,400)	45.0 (4,600)	27		

<sup>\*</sup> For plate size, [Figure] shows plate size with standard Extension plate (75mm) on each side.

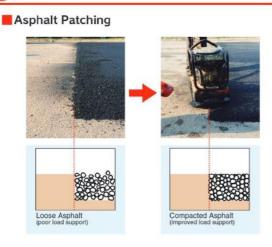








W.430









For MVH-128/158GH



# Option







model	weight (kg)	dimensions (mm)	plate size (mm)	vibrating frequency Hz (V.P.M.)	centrifugal force (max) kN (kgf)	max. traveling speed (m/min)	max.limited gradeability (%)	power source kW (PS)
MVH-R60H	68	H:955 L:870	W: 350 L1: 480	100 (6,000)	15.0 (1,530)	25		Honda GX120 gasoline max. output 2.4 (3.3)
MVH-128GH	122	H: 965 L: 1,030	W:400 L1:590		23.5 (2,400)	27		Honda GX160 gasoline max. output 3.6 (4.9)
MVH-158GH	148			90 (5,400)	27.0 (2,755)	2/	30	Honda GX200 gasoline max. output 4.3 (5.8)
MVH-158DZ MVH-158DY	165 162	H:980 L:1,140	W : 430 L1 : 700		27.0 (2,755) 25.0 (2,551)	27 26		Hatz 1B20 diesel max. output 3.1 (4.2) Yanmar L48N diesel max. output 3.5 (4.7)

#### **ISO Certified Factories**

#### Tatebayashi / Kasukabe / TLIP II, Vietnam

ISO9001, the international standard for quality management systems, is designed to achieve customer satisfaction and continuous improvement of quality management systems through quality assurance.

The ISO14001 international standard for environmental management systems is a management system that aims to reduce environmental risks, contribute to the environment, and achieve compatibility with business management.

Our Tatebayashi and Kasukabe factories have acquired both certifications. In addition, in January 2021, our Vietnam Plant acquired ISO9001 certification.

We will continue to make further improvements to realize customer requirements and reduce environmental impact, and to create better products that will satisfy our customers.







since 2010'

ISO Management System Certificates







Kasukabe (Japan)



# VIBRATION ROLLER

Vibration Roller 29

# **Safety Operation**

#### Deadman Brake

Deadman brake prevents accidents when backing up the machine.



Deadman brake

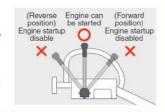
#### Head Light and Rubber Bumper

Head LED Light suited nighttime work is equipped as standard. Rubber Bumper is equipped as standard to protect the machine from the impact of frontal collisions.



#### Self-start safety design

Engine self-start is a safety feature that is designed to prevent the engine from starting if the travel lever is not in the neutral position.



#### Soft Start

Prevent Drummark against surface of paving asphalt.



# **Safety Transportation**

#### To transfer safety by a truck



To prevent slide off, be sure to use **Drum stopper** and **Handbrake**.



Drum stopper



Handbrake

#### Safety design



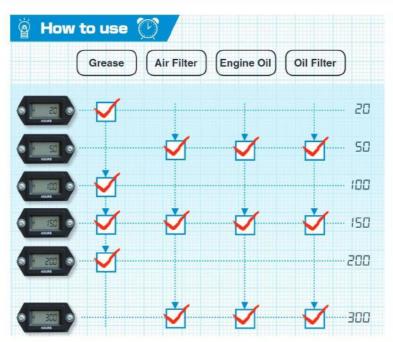
The mechanism is worked to suppress runaway on a hill (when the engine is stopped). Be sure to park the machine on a flat area.

# **Periodically Maintenance**

# Hour Meter is equipped as standard.

Hour meter is equipped as standard. It lets you check work and maintenance time. (MRH-501DS • 601DS • 700GS • 700DSCB)





#### Hydraulic Pipe Guard

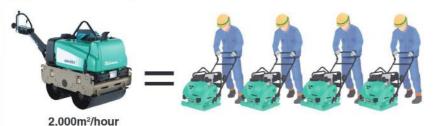


# One-Touch-Open Center Cover



# Saving your time

#### Work efficiency



#### **Compaction Area/Hour**

	MODEL	Width		Speed	traveling distance/hour	Compaction area/hour	
		mm	m(A)	m/min	m	m <sup>2</sup>	
1	MVC-T60	350	0.350	25	1500	525.0	
(2)	MRH-601DS	cec	0.650	50	3000	1950.0	
	MRH-700DS	000	0.650	50	3000	1950.0	

① 0.350m (A) x 25m/min. x 60min/hour =  $525m^2$ /hour ② 0.650m (A) x 50m/min. x 60min/hour =  $1,950m^2$ /hour

#### Design for fine visibility

The design for low-center of gravity lets you see easily in front of the roller.





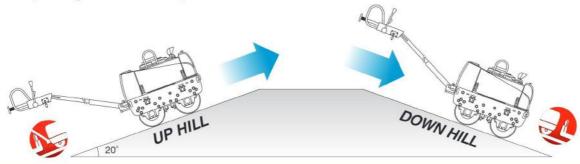
#### Excellent side clearance

The small side clearance between drum and frame makes you align easily.









#### Engine Guard

Engine guard is equipped as standard to prevent damage to engine during working close to a wall.



#### Compact Design

It makes you enable to keep space by handle with upright when storing or transporting.

Nearly 1 m shorter

40 % Save space

# Vibration Roller

- Mikasa's original strainer and plastic water tank prevents the sprinkler pipes from clogging.
- The durability of travel motor have been improved.
- Rubber Bumper is equipped as standard to absorb the impact from frontal collisions lessening the damage to the machine.
- Head LED Light suited nighttime work is equipped as standard.



model	weight (kg)	dimensions (mm)	drum size (mm)	vibrating frequency Hz (V.P.M.)	centrifugal force kN (kgf)	traveling speed (km/h)	max.limited gradeability (%)	water tank (lits)	power source kW (PS)
MRH-601DS (water cooled)	551	H: 1,195 W: 692 L: 2,265	dia : 355 width : 650	55 (3,300)	10.8 (1,100)	0-3	35	30	Kubota EA330 diesel (electric start) max. output 4.6 (6.3)





model	weight (kg)	dimensions (mm)	drum size (mm)	vibrating frequency Hz (V.P.M.)	centrifugal force kN (kgf)	traveling speed (km/h)	max.limited gradeability (%)	water tank (lits)	power source kW (PS)
MRH-501DS (water cooled)	530	H: 1,195 W: 617 L: 2,265	dia : 355 width : 575		10.0 (1,020)			30	Kubota EA330 diesel (electric start) max. output 4.6 (6.3)
MRH-700DSB (water cooled)	728			55 (3,300)		0-3	35		Yanmar TF70V diesel (electric start) max. output 5.5 (7.5)
MRH-700DSCB (air cooled)	700	H:1,170 W:692 L:2,670	dia : 406 width : 650		23.5 (2,400)			40	Yanmar L100N diesel (electric start) max. output 7.4 (10.0)
MRH-700GS	680								Honda GX390 gasoline (electric start) max. output 8.7 (11.8)

# **Product Information**

	Applied engine	Operating E/G speed(rpm)	Fuel tank capacity(liters)	Engine oil capacity(cc)	V-belt size numbers	Spark plug NGK
TAMPING RAMM	ER				10	
MT-55H	Honda GX100	3,800 - 4,100	2.0	280	_	CR5HSB
MTX-60	Honda GX100	3,800 - 4,100	2.5	280	-	CR5HSB
MTX-70	Honda GX100	3,800 - 4,100	2.5	280	-	CR5HSB
MT-66HL	Honda GX100	3,800 - 4,100	2.0	280	-	CR5HSB
MT-77HRL	Honda GXR120	3,800 - 4,100	2.0	280	_	CR5HSB
Plate Compactor	(		***			
MVC-50H	Honda GX120	3,600	2.0	560	RPF-3270 x 1	BPR6ES
MVC-T60H	Honda GX120	3,600	2.0	560	RPF-3310 x 1	BPR6ES
MVC-F80H	Honda GX160	3,600	3.1	580	RPF-3310 x 1	BPR6ES
MVC-T90HC	Honda GX160	3,600	3.1	580	RPF-3330 x 1	BPR6ES
MVC-T100DC	Yanmar L48N	3,600	2.4	800	RPF-3380 x 1	-
Reversible Comp	pactor				<i>h</i>	
MVH-R60H	Honda GX120	3,600	2.0	560	RPF-3320 x1	BPR6ES
MVH-128GH	Honda GX160	3,600	3.1	580	RPF-3330 x1	BPR6ES
MVH-158GH	Honda GX200	3,600	3.1	600	RPF-3350 x 1	BPR6ES
MVH-208DSY	Yanmar L70N	3,100	3.3	1,100	HDPF-5390 x1	-
MVH-308DSZ	Hatz 1B30	3,350	5.0	1,100	HDPF-5430 x1	_
MVH-308DSY	Yanmar L70N	3,600	3.3	1,100	HDPF-5440 x1	-
MVH-408DSZ	Hatz 1B50	2,350	5.0	1,500	HDPF-5460 x 1	
MVH-408DSY	Yanmer L100N	3,200	5.4	1,600	HDPF-5440 x 1	
MVH-508DSZ	Hatz 1D81	2,350	7.0	2,000	HDPF-5480 x 2	-
Vibration Roller						
MRH-601DS	Kubota EA330	2,650	4.8	1,300	A-36 x 1	-
MRH-700DSCBY	Yanmar L100N	2,500	5.4	1,600	A-38 x 2, 3V-300 x 1	-
Concrete Cutter						
MCD-L14H	Honda GX200	3,600	3.1	580	3V-265 x 3	BPR6ES
MCD-218CEH	Honda GX390	3,600	6.1	1,100	A34 x 4	BPR6ES
Other Models			· · · · · · · · · · · · · · · · · · ·			
GE-5LH	Honda GX160	3,200	3.1	600	_	BPR6ES
MPT-36H	Honda GX160	3,300	3.1	600	A30 x 1	BPR6ES
FG-210H	Honda GX120	3,750	2.0	560	-	BPR6ES
FG-310H	Honda GX270	3,600	5.3	1,100	_	BPR6ES

<sup>\*</sup>Specifications are subject to change without notification.

<sup>\*</sup>This information is for the reference purpose only.

# CUTER & BLADE

Concrete Cutter	
Diamond blode	



## Wet type

(MCD-218 · L14 · T18)

# **Equipment for outstanding functionality**



Semi-Auto Drive

Up/Down for blade and Cutting work by handles.



Tacho Hour Meter

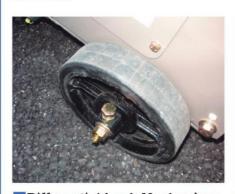
(MCD-218 • T18)



Electric Start
(MCD-218)



Manual brake (MCD-218)



The rear wheels are equipped with a differential lock mechanism for better straight-line stability. (MCD-218)



Drain Water Pipe (MCD-218·L14·T18)



Lifting Hook
(MCD-218 • L14 • T18)

Side

#### High quality unique to genuine products

Mikasa genuine blades for both of wet and dry cutting are engineered to regulate heat so that they deform less when hot.



When the blade heats up the edge of the blade expands in the direction of the arrows.

Genuine blades by Mikasa have a strong resistance to heat that is hard to deform

The cutting edge undulates

# Point Concrete Cutter Easy Blade Setting Easy Blade Setting with Ultra Light Blade Cover Cutting gauge in the panel for comfortable depth adjustment •Large and sleek Water Tank (50L) for easy to check and clean up Cyclone pre cleaner for superior dust filtering and engine maintenance efficiency Easily removable Ultra light Blade Cover with disconnected NEW MCD-T18H-PLUS (133kg) ULTRA LIGHT BLADE COVER Easy access from above **Cutting Depth** 170mm Stepless adjustable anti-vibration handle Water Injected Cut DEPTH 0 Cutting gauge in the panel allows for comfortable depth adjustment Aluminum die-cast Lift handle that automatically locks belt cover that efficiently cools the when the hand is released heat generated by high-strength ribbed belts Stop switch for stopping the engine in a hurry Tacho hour meter essential for managing work and maintenance Large and sleek 50L water tank

#### **MCD Specifications**

model	weight (kg)	dimensions (mm)	blade size mm (inch)	cutting depth (mm)	arbor size (mm)	adjusting for cutting depth	traveling system	water tank capacity (lits)	power source kW (PS)
MCD-T18H-PLUS	133	H:916 W:509 L:1,414	254 (10")~ 457 (18")	70~170	27	manual lifting screw system	Hand-push	50	Honda GX390 gasoline max. output 8.7 (11.8)

Safe foot-operated parking brake

# Concrete Cutter



#### **MCD Specifications**

model	weight (kg)	dimensions (mm)	blade size mm (inch)	cutting depth (mm)	arbor size (mm)	adjusting for cutting depth	traveling system	water tank capacity (lits)	power source kW (PS)
MCD-L14H	100	H:930 W:527 L:1,650	254 (10") ~ 356 (14")	70 ~ 120			hand-push	26	Honda GX200 gasoline max. output 4.3 (5.8
MCD-218CEH	184	H:981 W:585 L:1,990	254 (10") ~ 457 (18")	70 ~ 170	27	manual lifting screw system	semi-auto drive	45	Honda GX390 gasoline (electric start) max. output 8.7 (11.8

## Diamond blade

MW-DA
For Asphalt
MW-DAC
For Asphalt and Concrete
MW-DC
For Concrete



#### Blade MW-DA/DC/DAC: For Cutting Asphalt and /or Concrete (Deluxe)

model	blade size inch	thickness mm	arbor size mm (inch)
12"MW-DA/DC/DAC	12"	3.0	27 (1.06")
14"MW-DA/DC/DAC	14"		
16"MW-DA/DC/DAC	16"		
18"MW-DA/DC/DAC	18"		





#### Blade MW-RAC: For Cutting Asphalt and Concrete (Standard)

model	blade size inch	thickness mm	arbor size mm (inch)
12"MW-RAC	12"	3.0	27 (1.06")
14"MW-RAC	14"		
16"MW-RAC	16"		
18"MW-RAC	18"		





#### Blade MW-HEL: For Cutting Asphalt and Cocrete (Economy)

model	blade size inch	thickness mm	arbor size mm (inch)
12"MW-HEL	12"	3.0	27 (1.06")
14"MW-HEL	14"		
16"MW-HEL	16"		
18"MW-HEL	18"		

# CONCRETE VIBRATOR

High Frequency Concrete Vibrator 39
High Frequency Concrete Vibrator (Steel type) 40
High Frequency Inverter 41
High Frequency Converter 41
High Frequency Engine Generator 42
Power Distribution unit 42
Portable Concrete Vibrator 43
GS Concrete Vibrator 44



# SPECIAL CONSTRUCTION EQUIPMENT

Submersible Pump & Drive unit	4(
Power Trowel ·····	46

#### **High Frequency Inverter**

(FU-162A·FV-302)

# Easy maintenance and High durability



#### Safe design repaired easily in emergency

High frequency inverter utilizes a split structure design that lets you switch between units if damaged. The repair costs are reduced.

#### Memory Function to identify the root of malfunction

High Frequency Inverter displays the error number whenever there is an abnormal condition. It lets you know when and what malfunction was happened.

# Rugged multi-voltage design capable of coping with power fluctuations

FU-162A comes in 100 V and 240 V to accommodate different power generators at construction sites.

#### LED Indicator

It shows the condition by 3 colors and 4 kinds of lighting. When there is an abnormal voltage, vibrator is pulsed and it lets operator notice abnormal voltage by vibrating and sound.







Caution (Orange blinking)



Stop (Red illumination)

#### Dust-proof and Water-proof design to handle at any field (IP56 certified)

IP code is an international standard published by the International Electrotechnical Commission (IEC) that rates the degree of protection provided against intrusion of solid matter such as hands, rods, and dust, and water that enter inside electrical appliances.





# Degree of protection against solid foreign objects

Intrusion of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the operation and safety of the equipment.

# Degree of protection against ingress of water

Level 6

Water projected in powerful jets from any direction shall not intrude.



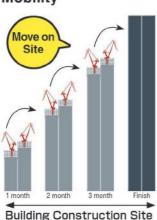
\* IP56 certified devices have been designed to be less susceptible to the effects of dust and water, but this does not guarantee that the device will not malfunction. Do not operate or leave the device in excessively dusty conditions, underwater or in rain.

### Why High-Frequency Solution?

## **Answer 1** Vertical Mobility

- - + FU-162 = only 22.4kg
- □ Pendulous type Vibrator Ø38
  - + Engine 5HP Drive Unit = 45.7kg

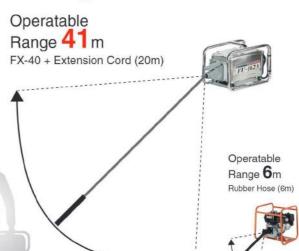
#### Mobility





# **Answer 2** Wide Working Range

- A High-frequency Vibrator = 41m
- Pendulous type Vibrator = 6m



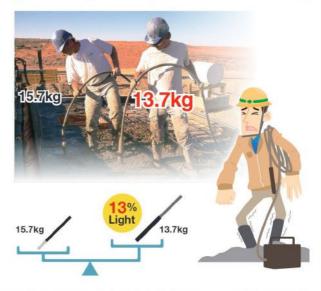
#### Answer 3 Risk Management

- High-frequency Vibrator FU-162A, FV-302, FC-450 are no need any Gasoline for operation.
- Pendulous type Vibrator
- Need Need





#### Answer 4 Foot-hold Stress



#### **Answer 5** Running Cost

Running cost = Electricity consumption or fuel consumption/hour x Working hour/day x Working days/month **▼**Example of trial calculation

- △ High-frequency Vibrator FX-40G x 2shaft + Inverter FU-162 (1P 220V) Running cost
  - $\Rightarrow$  1 hour 0.26USD/1.29KWh x 8hour/day x 25days/month = **52USD**.
- Pendulous type GH-38S + Engine drive unit. GE-5LE (3,600rpm) Running cost
  - $\Rightarrow$  1 hour 1.90USD/1.46L x 8hour/day x 25days/month = **380USD**.

\*\*calculate condition 1KWh=0.20USD Gasoline 1L = 1.30USD



# High Frequency Concrete Vibrator



#### **FX Specifications**

model	vib.head dia. x length (mm)	rubber hose (m)	voltage (V)	cycle (Hz)	amperage (A)	amplitude (mm)	vibration Hz (V.P.M.)	cable length (m)	weight 4m/6m (kg)
FX-30E (FX-30RE)	32 x 396 (32 x 422)	4 or 6	48	200/240	4	1.8	200/240 (12,000/14,000)	15	9.5/11.0
FX-40G (FX-40RG)	43 x 396 (43 x 422)				6	1.5			12.0/13.7
FX-50G (FX-50RG)	52 x 413 (52 x 442)		three phase		9.5	1.9			14.8/16.5
FX-60E (FX-60RE)	61 x 485 (61 x 510)				18	2.0			18.0/19.9

# High Frequency Concrete Vibrator (Steel type)





- Use of special lightweight steel pipe makes it easy-to-handle.
- No tangling with rebar even when pouring concrete into fine structural frameworks of rebar.
- Finishes can be improved since the vibrator can be inserted along slopes (gradients).
- Special tubes contain vibration absorbing rubber to reduce vibrations transmitted to the hands.

#### **FXB • FXS Specifications**

model	vib.head dia. x length (mm)	voltage (V)	cycle (Hz)	amperage (A)	amplitude (mm)	vibration Hz (V.P.M.)	cable length (m)	weight (kg)
FXB-30B	32 x 1,728			4	1.8	200/240 (12,000/14,000)	15	11.2
FXB-40G	43 x 1,792	48	200/240	6	1.5			15.1
FXS-30B	32 x 2,628	three phase		4	1.8			12.0
FXS-40G	43 x 3,412			6	1.5			16.8

# High Frequency Inverter

#### FU-162A (8.7kg)





# FV-302 (12.0kg)



#### Soft start

Soft-start circuit is applied. It makes vibrators start smoothly by control of output, even when overload or startup.

#### Sheet type switch

(FU-162A·FV-302)

Sheet type switch is applied for dust-resistance, water-resistance and visibility.

The output frequency is changeable to make it fit with suitable frequency as per each site.

#### Error display

When Inverter become abnormal condition, it shows error by a number.

# High Frequency Converter



#### FU • FV Specifications

model dimensions (mm)	dimensions		in	put			output				weight
	V	Α	KVA	Hz	V	Α	KVA	Hz	outlets	(kg)	
FU-162A	H : 248 W : 240 L : 324	100/200 single phase	20/14	2.0/2.8	50/60	48	19.2	1.6		2	8.7
FV-302	H : 248 W : 325 L : 324	200 three phase	12	4.1	50/60	three phase	36.0	3.0	100-240	3	12.0

#### FC Specifications

model dimensions (mm)		input			output				number of		
	V three phases	Α	KVA	Hz	v	Α	KVA	Hz	number of outlets	weight (kg)	
FC-450	H : 535 W : 570	380	10.6	50	48	54	4.5	50:200	2	105	
r C-430	L : 665	400	10.1	0.9	50/60	three phase	54	4.5	60:240	3	103

# High Frequency Engine Generator



FG-210H (33kg)





FG-310H (52kg)



#### **FG** Specifications

model	dimensions	CVCIP (HZ)	number of	power source	weight			
model	(mm)	V	Α	KVA	Cycle (Hz)	outlets	kW(PS)	weight (kg)
FG-210H	H : 448 W: 394 L : 475	48	25.2 2.1	240	2	Honda GX120 gasoline max. output 2.4 (3.3)	33	
FG-310H	H : 560 W : 500 L : 560	three phase	37.8	3.14	240	3	Honda GX270 gasoline max. output 6.3 (8.6)	52

# Power Distribution unit





(20m x 3.5mm<sup>2</sup>) (30m x 3.5mm<sup>2</sup>)

Cord Reel



FR-5A (5.5mm<sup>2</sup>) FR-8A (8.0mm<sup>2</sup>)





model	Weight (kg)	Cabtyre cord (mm²x m)	number of outlets
FR-5A	21.4	5.5 × 30	3
FR-8A	24.3	8.0 × 30	3

<sup>\*</sup> Please refer Page 45 - about the length of extension cord.

# Portable Concrete Vibrator

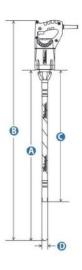




There are Air Vents on the Grip side of UM-motor.

This structure prevents an invasion of concrete.





- Improved hand arm vibration by separate design for motor and handle
- Improved durability for switch cover and switch lock cover
- New Handle Grip lighten the burden
- Easier maintenance by separate design for cord and cord protector

#### **UM Specifications (for STD Length)**

model	vib.head dia. [D] x shaft length [A] (mm)	inner shaft dia. (mm)	rubber casting dia. (mm)	amplitude (mm)	vibration Hz (V.P.M.)	power (W) (single phase)	weight(kg)
UM-F23	23 x 770	_	20	1.2	200-258 (12,000-15,500)	1.2	4.3
UM-F28	28 x 770		24.5	1.8		280	4.7
UM-F32	32 x 770	8		1.9			4.9
UM-F38	38 x 770			2.0			5.2

hose length (m)	0.6 (STD)	1.0	1.5	2.0
shaft length (mm)	770	1,170	1,670	2,170



#### **UM Specifications**

model	vib.head dia. [D] x shaft length [A] (mm)	vib.board size (mm)	amplitude (mm)	vibration Hz (V.P.M.)	power (W) (single phase)	weight(kg)
UM-Z28	28 x 555	-	1.4	200-258 (12,000-15,500)	200	F 2
UM-ZF100A	-	115(W) x 78(T)	355	166-200 (10,000-12,000)	280	5.3

# GS Concrete Vibrator

#### ■ Coupling type





#### **GS Specifications**

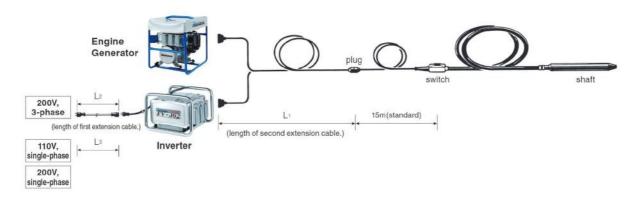
model	vib.head dia. x length (mm)	flexible shaft dia. (mm)	rubber casting dia. (mm)	rubber hose (m)	amplitude (mm)	vibration Hz (V.P.M.)	shaft set weight 4m / 6m (kg)
GS-28	28 x 477	10	30		1.4		10.6 / 14.7
GS-32	32 x 520				1.8		11.2 / 15.1
GS-38	38 x 480	10		30	30 4 or 6	1.8	150-208 (9,000-12,500)
GS-45	45 x 494				2.0		13.3 / 17.4
GS-60	60 x 479	13	32	6	2.4		22.3

## **Utilization Guide for High Frequency Vibrator**

#### **Usable numbers of High Frequency Vibrators**

model	FX/FXS/FXB						
	30E (RE)	40G (RG)	50G(RG)	60E(RE)			
FU-162A	4	3	2	1			
FV-302	9	6	3	2			
FC-450	13	9	5	3			
FG-210H	6	4	2	1			
FG-310H	9	6	3	2			

#### **Cabtyre Cable Selection**



#### The formura of extensionable length

#### The second extension cable (48V,3-phase)

 $L_1 = \frac{100C}{A}$ 

L1: the length of extension cable (m)

C : cross-section area of cabtyre cable (mm²)

A : rated current of the vibrator (A)

cable length and vibrator -	length of the extensible cable L <sub>1</sub> (m)						
cable size (mm²)	FX-30E (RE)	FX-40G (RG)	FX-50G (RG)	FX-60E (RE)			
2.0	50	30	20	-			
3.5	80	50	30	-			
5.5	130	80	50	20			
8	200	120	80	35			
14	350	220	140	70			

#### The first(the side of electric source) extension cable

L<sub>2,3</sub>: length of extension cable (m)

C :cross-section area of cabtyre cable (mm2)

A :rated current of the vibrator (A)

#### (example)

model	length of extension cable	cabtyre cable size	
FX-50G(RG)	50	5.5mm <sup>2</sup>	

#### [200V·3-phase]

$$L_2 = \frac{200C}{A}$$

#### [110V / 200V,single-phase]

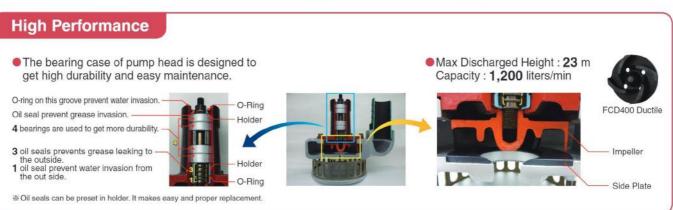
$$L_3 = \frac{140C}{A}$$

Use the cable which allowable current is over the rated output.

cable size	allowable current of standard cable		
1.25mm <sup>2</sup>	12A		
2.0mm <sup>2</sup>	17A		
3.5mm <sup>2</sup>	23A		
5.5mm <sup>2</sup>	30A		
8.0mm <sup>2</sup>	40A		

# Submersible Pump & Drive unit





#### **WP Specifications**

model	discharging port dia. mm (inch)	max discharged height (m)	capacity (liters/ min)	r.p.m	pump head weight (kg)	hose dia. X length (mm x m)	flexible shaft dia (mm x m)	total weight (kg)
WP-3LB		22	1 200	3.000-		32.5 x 5	13 x 5	22.1
	23	1,200	3,400	7.0	32.5 x 7	13 x 7	26.2	
WSP-3LB	76 (3")	18	1,500	3,000- 3,600	7.0	32 x 6	13 x 6	24.0

#### **GE Specifications**

model	dimensions (mm)	power source kW (PS)	weight (kg)	
GE-5LH	L:412 W:442 H:456	Honda GX160	28	
GSE-5LH	L: 430 W: 390 H: 430	gasoline max. output 3.6 (4.9)	26	
GE-5LDY L : 442 W: 492 H : 532		Yanmar L48N diesel max. output 3.5 (4.7)	45	

# **Power Trowel**

This machine makes half-dried concrete even surface.



#### **MPT Specifications**

model	weight (kg)	dimensions (mm)	trowel diameter (mm)	blade dimension (mm)	trowel speed (r.p.m)	power source kW (PS)
МРТ-36Н	81	H: 852 W: 1,010 L: 1,678	910	L : 345 W : 205	50-100	Honda GX160 gasoline max. output 3.6 (4.9)



