



HANDY-VIB SERIES
SURFACE FINISH VIBRATOR
INSTRUCTION MANUAL



E32DP • 32DPS • 32DH

EXEN CORPORATION

☆ SAFETY PRECAUTIONS

- ☆ This product is the vibrator for slope finish, such as concrete secondary product, tetrapod, erosion control dam, and retaining wall. Please do not use it other than the purpose of finishing slope.
- ☆ Care has been taken to ensure the safety of the vibrator. Be sure to read this instruction manual and take note of the warning and caution messages before using the vibrator.
- ☆ The following symbols represent warning and caution messages to be observed when using the vibrator to prevent injury or damages to users or other persons.



WARNING: **【WARNING】** refers to a hazard that may cause death or serious injury.



CAUTION: **【CAUTION】** refers to a hazard that may cause slight or medium injury.

WARNING

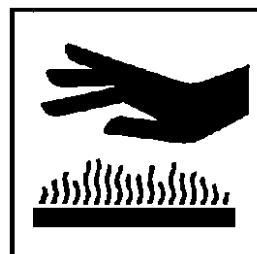
(To prevent death)

-  Please use power supply equipment that installs earth leakage circuit breaker. It possibly causes electric shock although this product adopts double insulation structure.
-  Do not use the vibrator where rain or water may get into the motor. If rain or water gets into the motor, the user may suffer an electric shock.

CAUTION

(To prevent injury or damages)

-  Contractors using the concrete vibrator should strive to promote the items for preventing injury due to vibration set by the Ministry of Labor.
- ※ Refer to the publication, "Managing Work Using Vibration Tools" (published by the Construction Labor Accident Prevention Society) which was compiled under the supervision of the Health Department of the Labor Standards Bureau of the Ministry of Labor.
-  During work, hold a part with low vibration. Holding a part with high vibration for a long time (30 minutes or more) may cause injury due to vibration.
-  Use the vibrator only with the voltage specified on the nameplate. Supplying a higher voltage will burn the motor. If the motor burns, the insulating material will be destroyed and the user may suffer an electric shock.
-  Do not swing around the vibrating shaft by holding the motor or cable. Otherwise, people around may be injured or surrounding objects may be damaged.
-  The vibrator shaft and head becomes hot during operation. After use, be careful not to touch it. There is a possibility of being burned.



○ INTRODUCTION

Thank you for purchasing the surface finish vibrator of the Handy-VIB Series.

Be sure to read this instruction manual before using the vibrator.

Handle the vibrator appropriately and inspect it to maintain its performance. Always use the vibrator efficiently and carefully. Keep this manual for future reference.

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○ SAFETY



(For personal protection during operation)

- Put on safety equipment such as a safety helmet, anti-vibration gloves, safety shoes, face protector (safety glasses, mask) and a safety belt before using the vibrator.



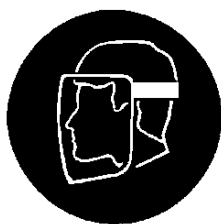
Safety helmet



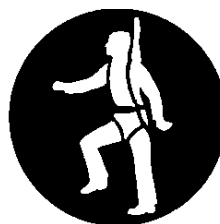
Safety shoes



Anti-vibration gloves



Face protector



Safety belt

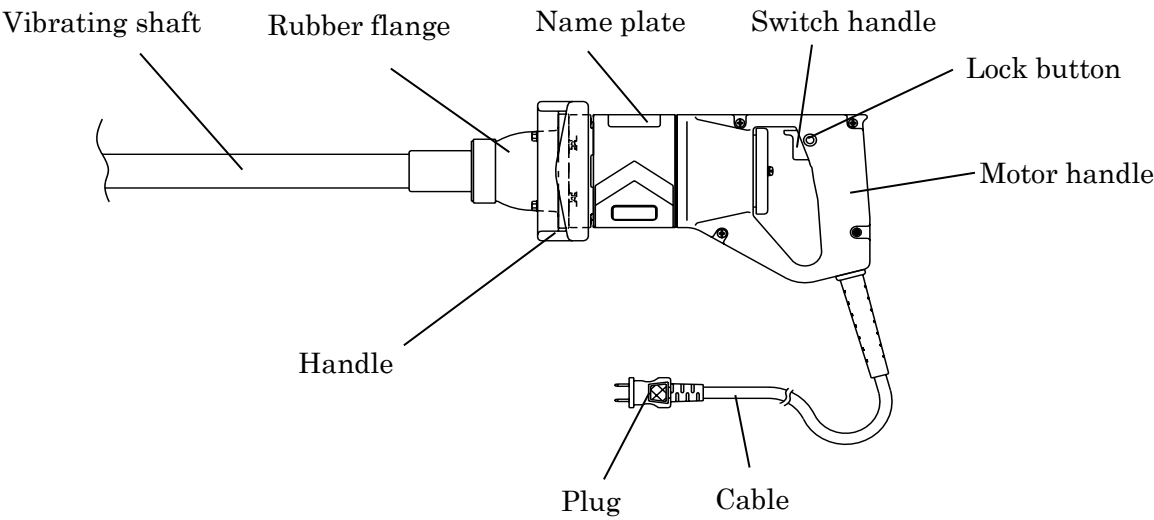
- If the work place is hard to stand in, such as reinforcing steel, put down a plate for walking to firm up the footing.
- If the machine stops suddenly, turn OFF the switch and unplug the machine from the power supply. Otherwise, the motor may burn or electric shock may occur.
- If this is used near the step or applied shallowly, ready mix concrete may disperse. Please put face protector (protective glasses and mask), and protect eyes and mouth.



(For longer service life)

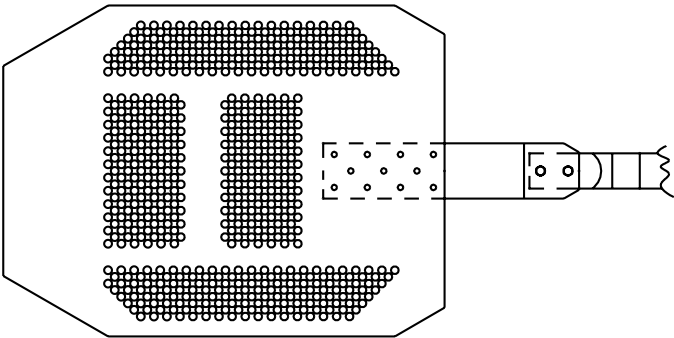
- In order that the plug makes good contact, remove any dirt or rust from the plug terminal before plugging it securely into a power outlet.
- Do not use the vibrating shaft to pry reinforcing steel or formwork. The vibrating shaft may be worn or the motor may burn.
- When using or transporting the vibrator, do not pull or drag the cable. Otherwise, the plug may come off or the cable may be damaged, causing malfunction.
- Do not operate the vibrating shaft of this product on hard objects such as on top of concrete or on a metal plate, as the bearings may be damaged.
- Do not place or drop any heavy objects on top of the cable or hose. This may damage the cable and cause malfunction.
- If the vibrator is used at a location far from the power-supply equipment, use an extension cable. The maximum length of the extension cable should be 30 m when a 2-mm² cable is used.
- When turning the power switch ON or OFF, make sure that the vibrator head is not inserted into the concrete. If the power is turned OFF while the vibrator head is still inserted into the concrete, the vibrator head may become unable to be removed.

ONAMES OF PARTS

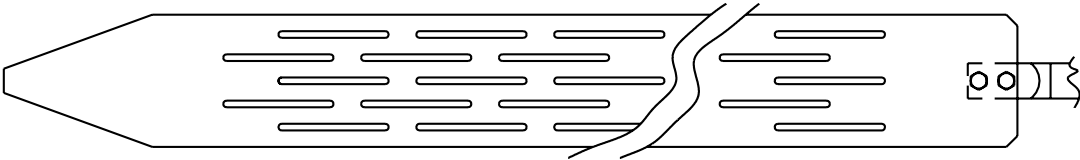


Head

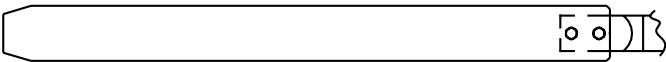
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E32DPS



E32DH



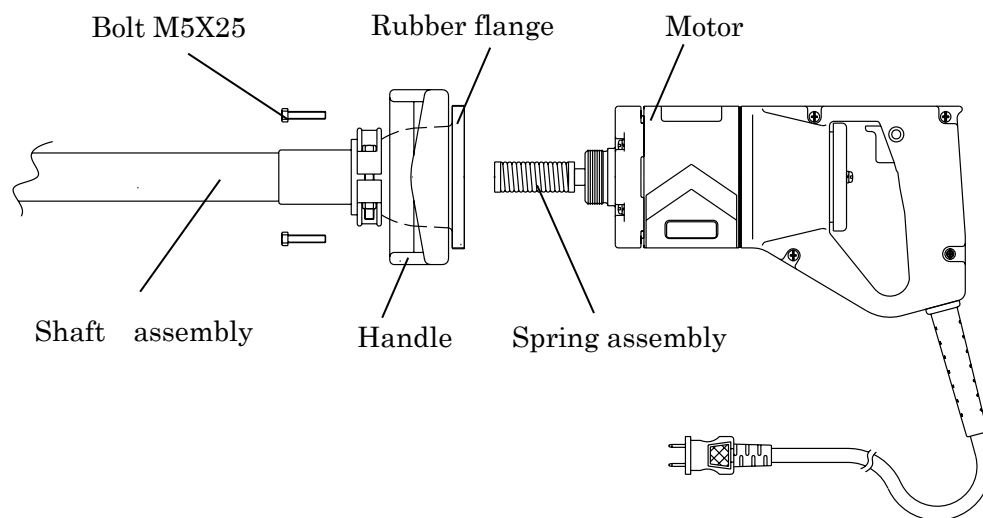
○ CONNECTING THE MOTOR AND SHAFT, SHAFT AND HEAD

⚠ When connect the shaft with motor and the head with shaft, please turn "OFF" the switch of the motor and pull out the plug from power supply.

Motor and shaft

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1. Screw spring assembly into motor
2. Press the rubber flange onto the motor and certainly fix it with four bolts M5 after connecting the hexagon joint (female) of the spring assembly and the hexagon joint (male) of the shaft assembly.

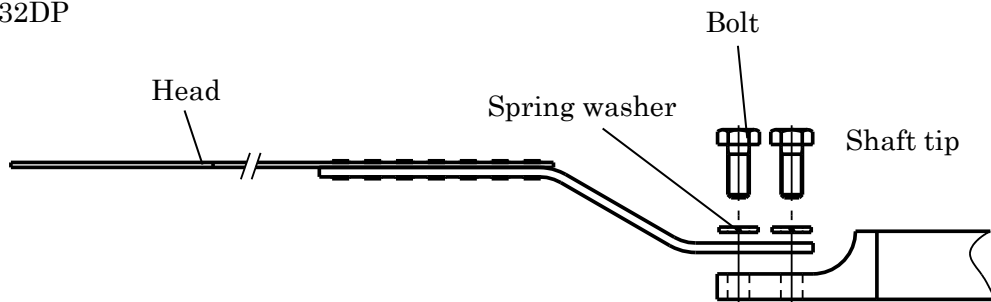


Shaft and head

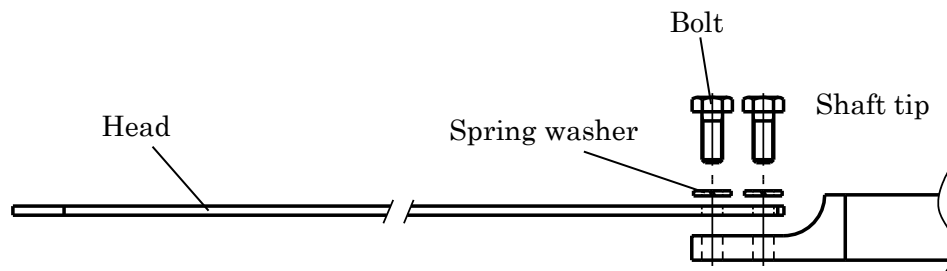
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1. Adjust the holes position of the head with the screw holes of the shaft tip.
2. Certainly fix the head with spring washers and bolts M10.

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○ OPERATIONS

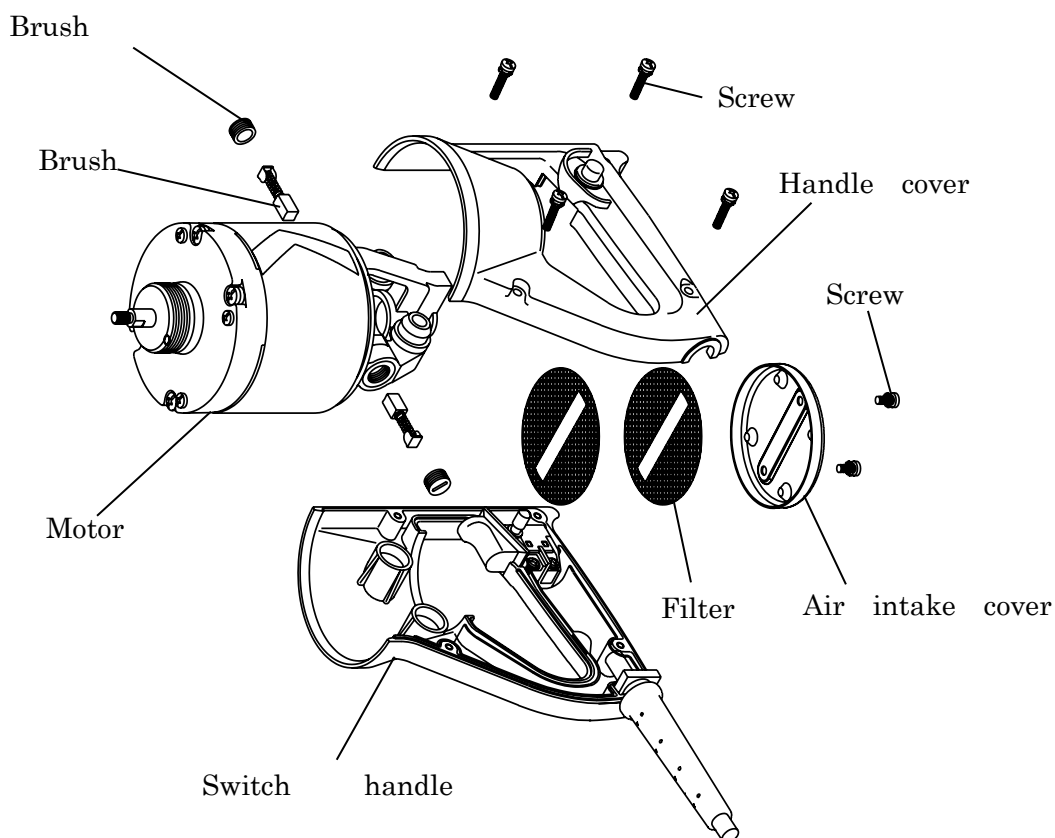
1. Make sure that the power switch on the motor is OFF.
2. Confirm that the shaft is certainly connected with the motor.
3. Plug in the plug from the motor into a power-supply outlet.
4. Hold the motor and flexible shaft letting the vibrating shaft hang down.
5. Turn ON the power switch on the motor
- ※ Push switch lock button when use continuously.
6. Insert the head of vibrator along with the mold.
7. Make the head go up and down several times along with the mold.
8. Pull up slowly and insert into the next spot so that it may not leave air bubbles.
9. After work has been completed, turn OFF the power switch on the motor.
10. Unplug the plug from the power-supply.

○ REPLACING THE BRUSH

⚠ Before replacing the brush, make sure that the power switch on the motor is OFF and that the plug has been unplugged from the power supply.

1. Remove the screws that secure the air intake cover, and remove the air intake cover and filter.
2. Remove the screws of the motor handle, and remove the handle cover.
3. Remove brush holder cap.
4. Pull the brush out of the brush holder and replace the brush.

* Because it becomes the cause of breakage of the brushes when replacing armatures, please be sure to do it, where the brushes are removed.



○ CLEANING AND TRANSPORTATION AFTER USE

○ Clean the vibrator after use.

1. Clean off all of the concrete from the vibrator shaft and head before it becomes hard.
2. Remove any dust or concrete from the motor and cable.
3. When transporting the vibrator, hold the motor or vibrator. Do not pull the cable.

○ INSPECTION

○ Before carrying the vibrator to the site and also after use, be sure to check the following items. This is to prevent as much as possible any trouble during use.

1. Is there neither breakage nor a crack in the head?
2. Is there any slack of the fixed bolts of the head?
3. Looseness of the fix bolt on the vibration portion?
4. Are there any wear or cracks on the cable?
5. Is there any dirt or rust on the plug terminals?
6. Can the switch be turn ON and OFF properly? (During shipment the switch should always be turned OFF.)
7. Switch lock structure (Lock/Release)
8. Is the sound from the vibrator normal during operation?
(It is normal if there is a regular, continuous sound.)
9. Is the insulation resistance value proper?
(10M ohms or more)

○ REPLACEMENT PERIOD FOR CONSUMABLES

- Replace consumables as set out in the following table.

Part	How to determine the replacement period from visual and audible signs	Replacement period (standard) (hours)
Vibrating shaft	Determine according to the amount of wear (visual)	300 to 500
Lubricating oil	Determine from noise during operations (audible)	100 to 200
Bearing	Determine from noise during Operations (audible)	100 to 300
Brush	Determine according to the amount of wear (visual)	200

○ TROUBLESHOOTING

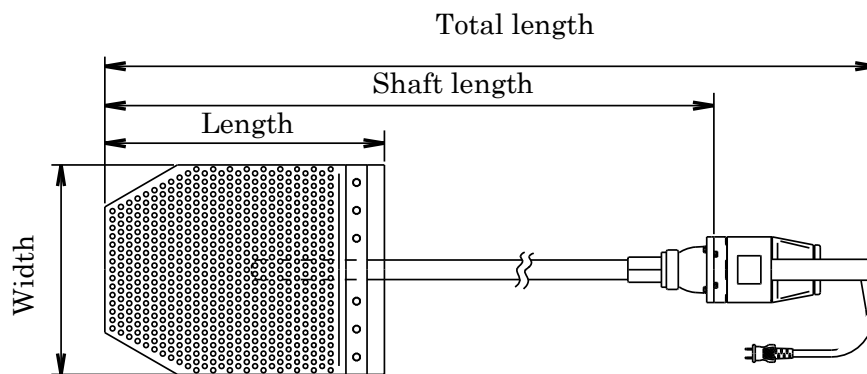
- Simple diagnosis by checking audible and visual signs and signs detectable by touch

Phenomenon	Sign	Cause	Action
Operations possible	Noise (metallic or other noise)	Abnormality, maloperation or wear of the bearing	Replace the bearing
		Deterioration of the grease	Replace the grease
		Abrasion of the shaft (bearing attachment)	Replace the shaft
		Fracture of head	Replace the head
	Low vibration	Field coil abnormality	Replace the field coil
		Armature abnormality	Replace the armature
	No vibration	Breakage of spring	Replacement of spring
Operations impossible	Humming noise	Abnormality, locking or splitting of the bearing	Replace the bearing
		Field coil abnormality	Replace the field coil
		Armature abnormality	Replace the armature
	No sound	Wire breakage in the field coil	Replace the field coil
		Wire breakage in the armature	Replace the armature
		Wire breakage in the input cable	Repair or
		Worn brush	Replace the brush

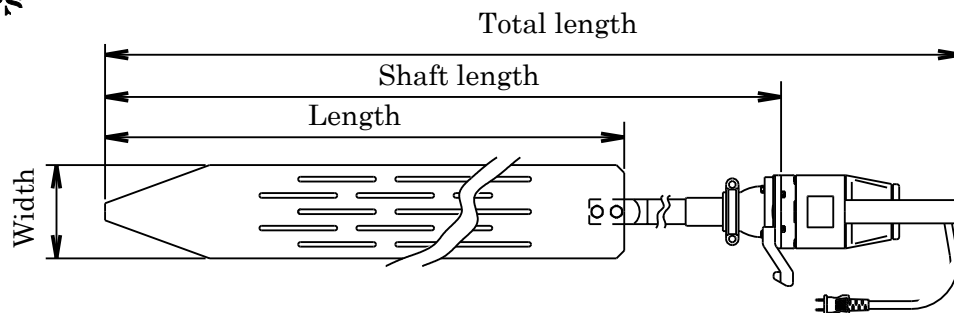
○ SPECIFICATIONS

Model	Output (W)	Input (V)	Input (A)	frequency (Hz)	Total length (mm)	Head (dia.×length)	Length Hose/ Shaft Assembly (mm)	MASS (kg)
E32DP	280	220	2.3	225~275	1,138	300X400	829	7.5
E32DPS				205~280	1,739	120×1,219	1,430	7.8
E32DH				225~275	1,070	50×550	761	5.6

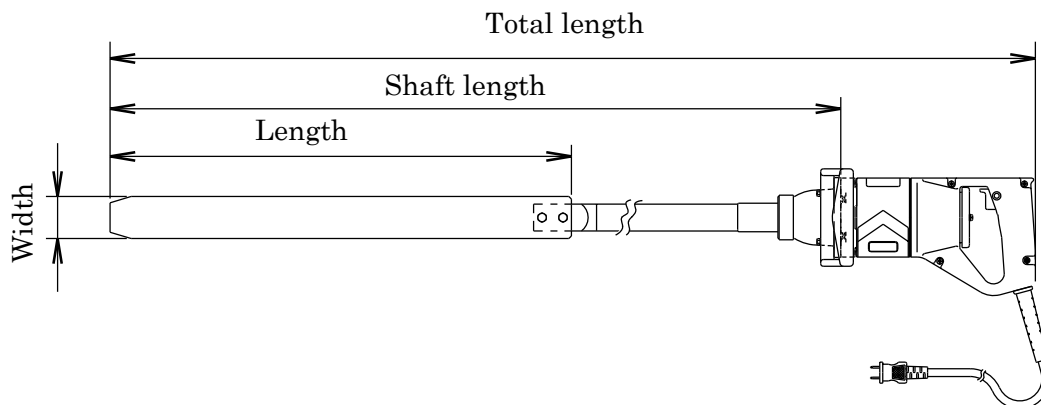
E32DP



E32DPS



E32DH



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