





Vibrastar 40, Vibrastar 50, Vibrastar 60

Contents		
Introduction2	Troubleshooting	8
Safety3	Storage and disposal	ξ
Operation6	Technical data1	C
Maintenance7	EC Declaration of Conformity1	1

# Introduction

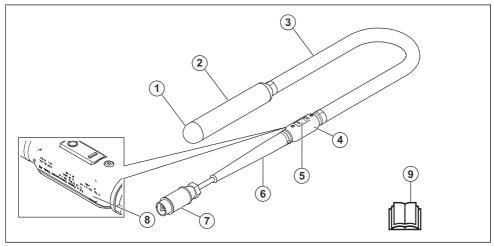
### **Product description**

The product is a concrete vibrator. The product uses a frequency converter or generator as a power source.

#### Intended use

The product is for professional operation only. The product removes air bubbles from wet concrete. Do not use the product for other tasks.

#### Product overview



- 1. End cap
- 2 Vibrator head
- 3. Hose
- 4. Switch box
- 5. ON/OFF switch
- 6. Rubber sleeve
- 7. Electrical cable with power plug
- 8. Rating plate
- 9. Operator's manual

# Symbols on the product



WARNING: This product can be dangerous and cause serious injury or death to the operator or others. Be careful and use the product correctly.



Read the manual carefully and make sure that you understand the instructions before you use the product.



Use approved protective gloves.



Use hearing protection.



The product can be immersed in water for a maximum of 30 minutes at a depth between 15 cm to 1 m.

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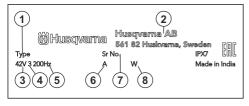
The product or package of the product is not domestic waste.



This product is in compliance with applicable EC directives.

**Note:** Other symbols/decals on the product refer to special certification requirements for some markets.

#### Rating plate



- 1. Product type
- 2. Manufacturer
- Voltage, V
- 4. Phase
- 5. Frequency, Hz
- 6. Current, A
- 7. Serial number
- 8. Rated power

### **Product liability**

As referred to in the product liability laws, we are not liable for damages that our product causes if:

- · the product is incorrectly repaired.
- the product is repaired with parts that are not from the manufacturer or not approved by the manufacturer.
- the product has an accessory that is not from the manufacturer or not approved by the manufacturer.
- the product is not repaired at an approved service center or by an approved authority.

# Safety

## Safety definitions

Warnings, cautions and notes are used to point out specially important parts of the manual.



**WARNING:** Used if there is a risk of injury or death for the operator or bystanders if the instructions in the manual are not obeyed.



**CAUTION:** Used if there is a risk of damage to the product, other materials or the adjacent area if the instructions in the manual are not obeyed.

**Note:** Used to give more information that is necessary in a given situation.

# General power tool safety warnings



WARNING: Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Note: Save all warnings and instructions for future reference. The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

### Work area safety

- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Keep children and bystanders away while operating a power tool. Distractions can cause you to lose control.

## Electrical safety

- Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools. Unmodified plugs and matching outlets will reduce risk of electric shock.
- Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is earthed or grounded.
- Do not expose power tools to rain or wet conditions.
   Water entering a power tool will increase the risk of electric shock.
- Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- When operating a power tool outdoors, use an extension cord suitable for outdoor use. Use of a cord suitable for outdoor use reduces the risk of electric shock.

 If operating a power tool in a damp location is unavoidable, use a residual current device (RCD) protected supply. Use of a RCD reduces the risk of electric shock.

#### Personal safety

- Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating power tools may result in serious personal injury.
- Use personal protective equipment. Always wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
- Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool. Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- Remove any adjusting key or wrench before turning the power tool on. A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- Do not overreach. Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.
- Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts. Loose clothes, jewellery or long hair can be caught in moving parts.
- If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards.
- Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles. A careless action can cause severe injury within a fraction of a second.

#### Power tool use and care

- Do not force the power tool. Use the correct power tool for your application. The correct power tool will do the job better and safer at the rate for which it was designed.
- Do not use the power tool if the switch does not turn it on and off. Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools. Such preventive safety measures reduce the risk of starting the power tool accidentally.

- Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.
   Power tools are dangerous in the hands of untrained users.
- Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use. Many accidents are caused by poorly maintained power tools.
- Keep cutting tools sharp and clean. Properly
  maintained cutting tools with sharp cutting edges are
  less likely to bind and are easier to control.
- Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the power tool for operations different from those intended could result in a hazardous situation.
- Keep handles and grasping surfaces dry, clean and free from oil and grease. Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

#### Service

- Have your power tool serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the power tool is maintained.
- Never service damaged battery packs. Service of battery packs should only be performed by the manufacturer or authorized service providers.

# General safety instructions



**WARNING:** Read the warning instructions that follow before you use the product.

- This product is a dangerous tool if you are not careful or if you use the product incorrectly. This product can cause serious injury or death to the operator or others. Before you use the product, you must read and understand the contents of this operator's manual.
- · Save all warnings and instructions.
- · Comply with all applicable laws and regulations.
- The operator and the employer of the operator must know and prevent the risks during operation of the product.
- Do not let a person operate the product unless they read and understand the contents of the operator's manual.
- Do not operate the product unless you receive training before use. Make sure that all operators receive training.
- Do not let a child operate the product.
- Only let approved persons operate the product.

- The operator is responsible for accidents that occur to other persons or their property.
- Do not use the product if you are tired, ill, or under the influence of alcohol, drugs or medicine.
- · Always be careful and use your common sense.
- This product produces an electromagnetic field during operation. This field can under some circumstances interfere with active or passive medical implants. To decrease the risk of serious injury or death, we recommend persons with medical implants to speak to their physician and the medical implant manufacturer before operating this product.
- Keep the product clean. Make sure that you can clearly read signs and decals.
- · Do not use the product if it is defective.
- · Do not do modifications to this product.
- Do not operate the product if it is possible that other persons have done modifications to the product.

#### Safety instructions for operation



**WARNING:** Read the warning instructions that follow before you use the product.

- Make sure that you know how to stop the product quickly in an emergency.
- The operator must have the physical strength that is necessary to operate the product safely.
- Use personal protective equipment. Refer to Personal protective equipment on page 6.
- Make sure that only approved persons are in the work area
- · Keep the work area clean and bright.
- Make sure that you are in a safe and stable position during operation.
- Make sure that there is no risk that you or the product can fall from a height.
- Make sure that there is no grease or oil on the handle.
- Do not use the product in areas where fire or explosions can occur.
- The product can cause objects to eject at high speed. Make sure that all persons in the work area use approved personal protective equipment. Remove loose objects from the work area.
- Before you go away from the product, stop the product and disconnect the power source.
- Make sure that the power outlet voltage agrees with the voltage that is given on the rating plate of the product.
- Make sure that clothes, long hair and jewelry do not get caught in moving parts.
- · Do not sit on the product.
- · Do not hit the product.
- Make sure that you or other persons cannot get caught in and fall on cables, hoses and shafts in the work area.

 Before you operate the product, find out if there are hidden wires, electrical cables or other sources of electricity. Do not operate the product unless you know that it is in a safe work area.

#### Vibration safety



**WARNING:** Read the warning instructions that follow before you use the product.

- During operation of the product, vibrations go from the product to the operator. Regular and frequent operation of the product can cause or increase the degree of injuries to the operator. Injuries can occur in fingers, hands, wrists, arms, shoulders, and/or nerves and blood supply or other body parts. The injuries can be debilitating and/or permanent, and can increase gradually during weeks, months or years. Possible injuries include damage to the blood circulation system, the nervous system, joints, and other body structures.
- Symptoms can occur during operation of the product or at other times. If you have symptoms and continue to operate the product, the symptoms can increase or become permanent. If these or other symptoms occur, get medical aid:
  - Numbness, loss of feeling, tingling, pricking, pain, burning, throbbing, stiffness, clumsiness, loss of strength, changes in skin color or condition.
- Symptoms can increase in cold temperatures. Use warm clothing and keep your hands warm and dry when you operate the product in cold environments.
- Do maintenance on and operate the product as given in the operator's manual, to keep a correct vibration level.
- The product has a vibration damping system that decreases the vibrations from the handles to the operator. Let the product do the work. Do not push the product with force. Hold the product at the handles lightly, but make sure that you control the product and operate it safely. Do not push the handles into the end stops more than necessary.
- Keep your hands on the handle or handles only.
   Keep all other body parts away from the product.
- Stop the product immediately if strong vibrations suddenly occurs. Do not continue the operation before the cause of the increased vibrations is removed.

#### **Dust safety**



**WARNING:** Read the warning instructions that follow before you use the product.

 Operation of the product can cause dust in the air.
 Dust can cause serious injury and permanent health problems. Silica dust is regulated as harmful by

several authorities. These are examples of such health problems:

- The fatal lung diseases chronic bronchitis, silicosis and pulmonary fibrosis
- Cancer
- Birth defects
- · Skin inflammation
- Use correct equipment to decrease the quantity of dust and fumes in the air and to decrease dust on work equipment, surfaces, clothing and body parts. Examples of controls are dust collection systems and water sprays to bind dust. Decrease dust at the source where possible. Make sure that the equipment is correctly installed and used and that regular maintenance is done.
- Use approved respiratory protection. Make sure that the respiratory protection is applicable for the dangerous materials in the work area.
- Make sure that the airflow is sufficient in the work area.
- If it is possible, point the exhaust of the product where it cannot cause dust to go into the air.

#### Noise safety



**WARNING:** Read the warning instructions that follow before you use the product.

- High noise levels and long-term exposure to noise can cause noise-induced hearing loss.
- To keep the noise level to a minimum, do maintenance on and operate the product as given in the operator's manual.
- Use approved hearing protection while you operate the product.
- Listen for warning signals and voices when you use hearing protection. Remove the hearing protection when the product is stopped, unless hearing protection is necessary for the noise level in the work area.

#### Personal protective equipment



**WARNING:** Read the warning instructions that follow before you use the product.

 Always use approved personal protective equipment when you operate the product. Personal protective

- equipment cannot fully prevent injury but it decreases the degree of injury if an accident does occur. Let your dealer help you select the correct personal protective equipment.
- Regularly do a check of the condition of the personal protective equipment.
- Use an approved protective helmet.
- · Use approved hearing protection.
- Use approved respiratory protection.
- · Use approved eye protection with side protection.
- · Use protective gloves.
- Use boots with steel toe-cap and non-slip sole.
- Use approved work clothing or equivalent closefitting clothing that has long sleeves and long legs.

#### Safety instructions for maintenance



**WARNING:** Read the warning instructions that follow before you use the product.

- If the maintenance is not done correctly and regularly, the risk of injury and damage to the product increases.
- Use personal protective equipment. Refer to Personal protective equipment on page 6.
- Clean the product to remove dangerous material before you do the maintenance.
- Disconnect the product from the power source before you do the maintenance.
- Do not do modifications to the product. Modifications that are not approved by the manufacturer can cause serious injury or death.
- Always use original accessories and spare parts.
   Accessories and spare parts that are not approved by the manufacturer, can cause serious injury or death.
- Replace damaged, worn or broken parts.
- Only do the maintenance as given in this operator's manual. Let an approved service agent do all other servicing.
- After maintenance, do a check of the vibration level in the product. If it is not correct, speak to an approved service agent.
- Let an approved service agent do servicing on the product regularly.

# Operation

#### Introduction



**WARNING:** Read and understand the safety chapter before you use the product.

# To start and stop the product

- 1. Connect the product to a power source.
- 2. Make sure that the ON/OFF switch is set to "OFF".
- 3. Start the power source.

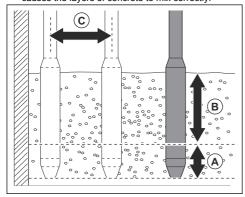
- 4. Set the ON/OFF switch to "ON" to start the product.
- 5. Set the ON/OFF switch to "OFF" to stop the product.
- 6. Stop the power source.

## To operate the product

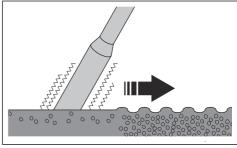


**CAUTION:** Do not use the product to move the concrete to the side.

- Fill concrete in equally thick layers, 30–50 cm / 12– 19 in. (B).
- Put the vibrator head approximately 15 cm / 6 in. (A) down into the nearest lower layer of concrete. This causes the layers of concrete to mix correctly.



Wait approximately 10–20 seconds until the surface around the vibrator head is shiny and no air bubbles come to the surface.



- Remove the vibrator head slowly to let the concrete fill the hole from the vibrator head.
- Put the vibrator head down into the concrete at a distance of 30–50 cm / 12–19 in. (C) from where you put it before.
- Do step 4 and 5 again and again. Continue until the air bubbles are fully removed from the area of concrete.

# Maintenance

#### Introduction



**WARNING:** Read and understand the safety chapter before you do maintenance on the product.

# To clean the product



**CAUTION:** Do not use a high-pressure washer to clean the product.

- · Use running water from a hose to clean the product.
- Remove concrete from the surfaces of the product after each operation before the concrete becomes hard.
- · Remove grease and oil from the handle.

#### To remove the vibrator head

- Put the vibrator head in a tube vise and tighten the tube vise fully.
- Remove the clamp from the hose. Discard the clamp.

- 3. Pull the hose to disconnect it from the hose nipple.
- 4. Move the rubber hose protection from the terminals.
- Cut and discard the thermal insulation and disconnect the terminals.

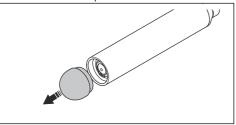
# To examine the wear on the vibrator head

 Replace the end cap and the stator tube if the diameter is smaller than the values in the table.

Concrete vibrator	End cap wear	Stator tube wear
Vibrastar 40, external diameter, mm/in.	37/1.45	37.5/1.47
Vibrastar 50, external diameter, mm/in.	45/1.77	45.5/1.79
Vibrastar 60, external diameter, mm/in.	55/2.16	55.5/2.18

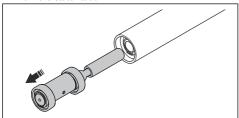
# To disassemble and assemble the vibrator head

1. Remove the end cap from stator tube.

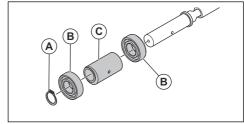


Note: The end cap has a right hand thread.

2. Use rotor extractors to remove the complete rotor from the stator tube.



3. Remove the ring (A), the bearings (B) and the eccentric elements (C) from the rotor.



4. Assemble the vibrator head in the opposite sequence.

#### To install the vibrator head

- Connect the terminals and install new thermal insulation.
- 2. Put the rubber hose protection on the terminals.
- 3. Connect the hose to the hose nipple.
- 4. Install a new clamp on the hose.

# **Troubleshooting**

Problem	Cause	Inspection	Solution
The internal vi- brator does	The power source is not started.	N/A	Start the power source.
not start.	There is no power in the outlet.	Examine the voltage of each phase in the outlet.	Replace or repair the outlet.
	The wires in the hose are damaged.	Examine the resistance of the product.	Replace the damaged wires.
	The wires in the vibrator head are damaged.	Examine the resistance in the vibrator head.	Let an approved Husqvarna service center do a repair of the vibrator head.
	The ON/OFF switch is broken.	Examine the resistance of the product when you put the ON/OFF switch to "ON" and "OFF".	Replace the ON/OFF switch.
The power source stops when the product is started.	The load is too high for the power source.	Examine the information on the rating plate on the product. Make sure that the power source is of the correct type.	Make sure that there is suffi- cient power to the power source and to the product.
	The vibrator head motor is defective.	Examine the ground insulation of the vibrator head.	Replace the stator tube if it is necessary.

Problem	Cause	Inspection	Solution
The product stops after a while.	The vibrator head becomes too hot because the vibration time out of the concrete is too long.	N/A	Remove the vibrator head from the concrete and let it become cool. Do not operate the vibra- tor head for a long time without load.
	The load is too high for the product because the vibrator head is too large.	Examine the space between the product and the rebars.	Make sure that the diameter of the product is adapted to the space between the rebars. The vibrator head must not touch the rebars.
	The product uses too much power. Too low input voltage.	Examine the input voltage of the power source.	Use an applicable extension cable. Change the power source type.
	The product uses too much power because the vibrator	Examine the ground insulation of the vibrator head.	Replace the stator tube if it is necessary.
		Examine the information on the rating plate on the product. Make sure that the power source is of the correct type.	Make sure that there is suffi- cient power to the power source and to the product.
	The product uses too much power because the bearings in the vibrator head are worn.	Measure the input power when you use the product out of the concrete.	Disassemble the vibrator head and replace the bearings.
The product operates at a too low speed.	The load is too high for the power source.	Examine the information on the rating plate on the product. Make sure that the power source is of the correct type.	Make sure that there is suffi- cient power to the power source and to the product.
	The product operates on 2 phases, not 3. 1 of the wires is broken in the hose or switch box.	Examine the resistance of the product.	Examine and replace the damaged wire.
	The product operates on 2 phases, not 3. 1 of the pins in the socket or plug is burned because of sparks.	Examine the product visually for damages.	Replace the power socket or the power plug.
	Use of a 60 Hz power source in a 50 Hz network.	Examine the rating plate on the power source.	Use an applicable power source.
The RCD re- leases.	The power cord or power plug is defective.	N/A	Replace the power cord or power plug.
	The frequency converter is defective.	N/A	Replace the frequency converter.

# Storage and disposal

# Storage

- · Clean the product before storage.
- · Keep the product in a dry and frost-free area.
- Keep the product in a locked area to prevent access for children or persons that are not approved.

# Disposal of the product

- Obey the local recycling requirements and applicable regulations.
- When the product no longer is used, send it to the dealer or discard it at a recycling location.

## Technical data

#### Technical data

	Vibrastar 40	Vibrastar 50	Vibrastar 60
Performance			!
Voltage, V	42	42	42
Phases	3	3	3
Frequency, Hz	200	200	200
Power, W	200	440	640
Amperage, (A) 42V	4.0	8.0	11.0
Speed, rpm	12000	12000	12000
Centrifugal force (no load)	1200	2100	3200
Acceleration, gram/oz	67/2.36	69/2.43	64/2.25
Weighted effective acceleration uncertainty (K) m/s <sup>2</sup> <sup>1</sup>	1.80 <sup>(1)</sup>	3.28 <sup>(2)</sup>	3.23 <sup>(2)</sup>
Uncertainty (K)	0.36	0.38	0.52
Double amplitude, mm/in.	0.84/0.0330	0.86/0.0338	0.78/0.0307
Dimensions			
Diameter, mm/in.	40/1.57	50/1.96	60/2.36
Length, m/ft	255/10.03	284/11.18	330/12.99
Weight of vibrator head, kg/lb	1.84/4.05	3.06/6.74	5.10/11.24
Total weight, kg/lb	8.4/18.51	13.0/28.66	15/33.06
Length of protective hose, m/ft	5/16.4	5/16.4	5/16.4
Cable length, m/ft	10/32.8	10/32.8	10/32.8
Noise emissions <sup>2</sup>	,		
Sound pressure level L <sub>P</sub> at the operators ear, dB(A)	75	76	84
Sound power level L <sub>W</sub> measured, dB(A) rel 1pW	95	95	95

# Noise and vibration declaration statement

These declared values were obtained by laboratory type testing in accordance with the stated directive or standards and are suitable for comparison with the declared values of other products tested in accordance with the same directive or standards. These declared values are not suitable for use in risk assessments and

values measured in individual work places may be higher. The actual exposure values and risk of harm experienced by an individual user are unique and depend upon the way the user works, in what material the product is used, as well as upon the exposure time and the physical condition of the user, and the condition of the product.

Weighted effective acceleration measured in water powered with one CF11M<sup>(1)</sup>, and CF67T<sup>(2)</sup> at 2m from the poker (m/s<sup>2</sup>), according to EN ISO 5349 and EN ISO 20643.

Noise level measured in air at 1m from the product according to EN ISO 3744. Uncertainty: ± 3dB

# **EC Declaration of Conformity**

# **EC Declaration of Conformity**

We, **Husqvarna AB**, SE-561 82 Huskvarna, Sweden, tel: +46-36-146500, declare on our sole responsibility that the product:

Description	Concrete Vibrator Equipment
Brand	Husqvarna
Type/Model	CF 11M, CF 25M, CF 25T, CF 67T, CF 67TCI4P + AX 36, AX 40, AX 48, AX 56, AX 65, AX 90, Vibrastar 40, Vibrastar 50, Vibrastar 60
Identification	Serial numbers dating from 2020 and onwards

complies fully with the following EU directives and regulations:

Directive/Regulation	Description
2006/42/EC	"relating to machinery"
2014/30/EU	"relating to electromagnetic compatibility"

and that the following harmonized standards and/or technical specifications are applied;

EN 60204-1:2006+A1:2009

EN 60034-1:2011

EN 61558-1:2005+A1:2009

EN 12649:2008+A1:2011

Partille, 2020-02-28

Martin Huber

R&D Director, Concrete Surfaces & Floors

Mille

Husqvarna AB, Construction Division

Responsibe for technical documentation

# **EC Declaration of Conformity**

We, **Husqvarna AB**, SE-561 82 Huskvarna, Sweden, tel: +46-36-146500, declare on our sole responsibility that the product:

Description	Concrete Vibrator Equipment
Brand	Husqvarna
Type/Model	CFD 67, CFG 25, CFG 67 + AX 36, AX 40, AX 48, AX 56, AX 65, AX 90, Vibrastar 40, Vibrastar 50, Vibrastar 60
Identification	Serial numbers dating from 2020 and onwards

complies fully with the following EU directives and regulations:

Directive/Regulation	Description
2006/42/EC	"relating to machinery"
2014/30/EU	"relating to electromagnetic compatibility"

and that the following harmonized standards and/or technical specifications are applied;

EN 12649:2008+A1:2011

Partille, 2020-02-28

Martin Huber

R&D Director, Concrete Surfaces & Floors

Mille

Husqvarna AB, Construction Division

Responsibe for technical documentation

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Original instructions

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