

Operator's manual

**Internal vibrator**

**IRSEN**

**30, 38, 45, 57**



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**Translation of the original operator's manual in German**



**WACKER  
NEUSON**

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# **1 Foreword**

This operator's manual contains information and procedures for the safe operation and maintenance of your Wacker Neuson machine. In the interest of your own safety and to prevent accidents, you should carefully read through the safety information, familiarize yourself with it and observe it at all times.

This operator's manual is not a manual for extensive maintenance and repair work. Such work should be carried out by Wacker Neuson service or authorized specialists.

The safety of the operator was one of the most important aspects taken into consideration when this machine was designed. Nevertheless, improper use or incorrect maintenance can pose a risk. Please operate and maintain your Wacker Neuson machine in accordance with the instructions in this operator's manual. Your reward will be troublefree operation and a high degree of availability.

Defective machine parts must be replaced immediately!

Please contact your Wacker Neuson representative if you have any questions concerning operation or maintenance.

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We expressly reserve the right to make technical modifications – even without special notice – which aim at further improving our machines or their safety standards.

## 2 Introduction

### 2.1 Means of representation for this operator's manual

#### Warning symbols

This operator's manual contains safety information of the categories: DANGER, WARNING, CAUTION, NOTICE.

They should be followed to prevent danger to life and limb of the operator or damage to equipment and exclude improper service.



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#### **DANGER**

This warning notice indicates immediate hazards that result in serious injury or even death.

► Danger can be avoided by the following the actions mentioned.

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#### **WARNING**

This warning notice indicates possible hazards that can result in serious injury or even death.

► Danger can be avoided by the following the actions mentioned.

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#### **CAUTION**

This warning notice indicates possible hazards that can result in minor injury.

► Danger can be avoided by the following the actions mentioned.

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#### **NOTICE**

This warning notice indicates possible hazards that can result in material damage.

► Danger can be avoided by the following the actions mentioned.

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#### Notes

**Note:** Complementary information will be displayed here.

### Instructions

- ▶ This symbol indicates there is something for you to do.
- 1. Numbered instructions indicate that you have to carry out something in a defined sequence.
- This symbol is used for lists.

## 2.2 Wacker Neuson representative

Depending on your country, your Wacker Neuson representative is your Wacker Neuson service, your Wacker Neuson affiliate or your Wacker Neuson dealer.

You can find the addresses in the Internet at [www.wackerneuson.com](http://www.wackerneuson.com).

The address of the manufacturer is located at the beginning of this operator's manual.

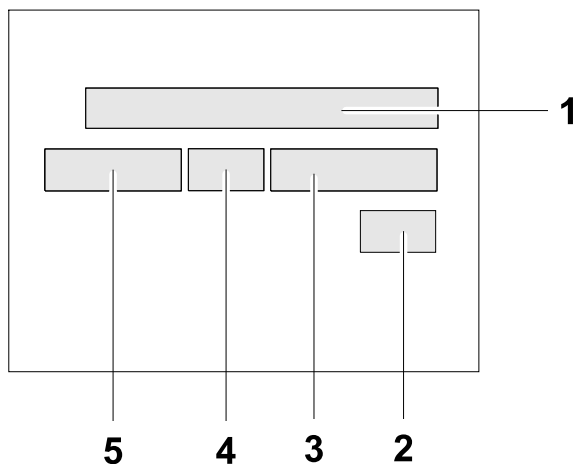
## 2.3 Described machine types

This operator's manual is valid for different machine types from a product range. Therefore some figures can differ from the actual appearance of your machine. It is also possible that the descriptions include components which are not a part of your machine.

Details for the described machine types can be found in the chapter *Technical data*.

### 2.4 Identification of the machine

#### Nameplate data



The nameplate lists information that uniquely identifies your machine. This information is needed to order spare parts and when requesting additional technical information.

► Enter the information of your machine into the following table:

Item	Designation	Your information
1	Group and type	
2	Construction year	
3	Machine no.	
4	Version no.	
5	Item no.	



## **3 Safety**

### **3.1 Principle**

#### **State of the art**

This machine has been constructed with state-of-the-art technology according to the recognized rules of safety. Nevertheless, when used improperly, dangers to the life and limb of the operator or to third persons or damage to the machine or other materials cannot be excluded.

#### **Proper use**

The machine may only be used for compacting fresh concrete. The vibrator head has to be immersed in the fresh concrete.

The vibrator head may not be immersed into acidic or alkaline liquids.

The vibrator head may not come into contact with or be inserted into parts of the body.

Its proper use also includes the observance of all instructions contained in this operator's manual as well as complying with the required service and maintenance instructions.

Any other use is regarded as improper. Any damage resulting from improper use will void the warranty and the liability on behalf of the manufacturer. The operator assumes full responsibility.

#### **Structural modifications**

Never attempt to modify the machine without the written permission of the manufacturer. To do so will endanger your safety and the safety of other people! In addition, this will void the warranty and the liability on behalf of the manufacturer.

Especially the following are cases of structural modifications:

- Opening the machine and the permanent removal of components from Wacker Neuson.
- Installing new components which are not from Wacker Neuson and not equivalent to the original parts in design and quality.
- Installation of accessories which are not from Wacker Neuson.

It is no problem to install spare parts from Wacker Neuson.

It is no problem to install accessories that are available in the Wacker Neuson product range of your machine. Please refer to the installation regulations in this operator's manual.

Do not drill into the housing, e.g. to install signs. Water could penetrate the housing and damage the machine.

### Requirements for operation

The ability to operate the machine safely requires:

- Proper transport, storage and setup.
- Careful operation.
- Careful service and maintenance.

### Operation

Operate the machine only as intended and only when in proper working condition.

Operate the machine in a safety-conscious manner with all safety devices attached and enabled. Do not modify or disable any safety devices.

Before starting operation, check that all control and safety devices are functioning properly.

Never operate the machine in a potentially explosive environment.

### Supervision

Never leave the machine running unattended!

### Maintenance

Regular maintenance work is required in order for the machine to operate properly and reliably over time. Failure to perform adequate maintenance reduces the safety of the machine.

- Strictly observe the prescribed maintenance intervals.
- Do not use the machine if it requires maintenance or repairs.

### Malfunctions

If you detect a malfunction, you must shut down and secure the machine immediately.

Eliminate the malfunctions that impair safety immediately!

Have damaged or defective components replaced immediately!

For further information, refer to chapter *Troubleshooting*.

### Spare parts, accessories

Use only spare parts from Wacker Neuson or such that are equivalent to the original parts in design and quality.

Only use accessories from Wacker Neuson.

Non-compliance will exempt the manufacturer from all liability.

### Exclusion of liability

Wacker Neuson will refuse to accept liability for injuries to persons or for damage to materials in the following cases:

- Structural modifications.
- Improper use.
- Failure to comply with this operator's manual.
- Improper handling.
- Using of spare parts which are not from Wacker Neuson and not equivalent to the original parts in design and quality.
- Using of accessories which are not from Wacker Neuson.

### Operator's manual

Always keep the operator's manual near the machine or near the worksite for quick reference.

If you have misplaced the operator's manual or require an additional copy, contact your Wacker Neuson representative or download the operator's manual from the Internet ([www.wackerneuson.com](http://www.wackerneuson.com)).

Always hand over this operator's manual to other operators or to the future owner of the machine.

### Country-specific regulations

Observe the country-specific regulations, standards and guidelines in reference to accident prevention and environmental safety, for example those pertaining to hazardous materials and wearing protective gear.

Complement the operator's manual with additional instructions taking into account the operational, regulatory, national or generally applicable safety guidelines.

### Operator's controls

Always keep the operator's controls of the machine dry, clean and free of oil or grease.

Operating elements such as ON/OFF switch, gas handles etc. may not be locked, manipulated or changed without authorization.

### Checking for signs of damage

Inspect the machine when it is switched off for any signs of damage at least once per work shift.

Do not operate the machine if there is visible damage or defects.

Have any damage or defects eliminated immediately.

### 3.2 Qualification of the operating personnel

#### Operator qualifications

Only trained personnel are permitted to start and operate the machine. The following rules also apply:

- You are physically and mentally fit.
- You have received instruction on how to independently operate the machine.
- You have received instruction in the proper use of the machine.
- You are familiar with required safety devices.
- You are authorized to start machines and systems in accordance with the standards governing safety.
- Your company or the operator has assigned you to work independently with this machine.

#### Incorrect operation

Incorrect operation or misuse by untrained personnel can endanger the health and safety of the operator or third persons and also cause machine and material damage.

#### Operating company responsibilities

The operating company must make the operator's manual available to the operator and ensure that the operator has read and understood it.

#### Work recommendations

Please observe the recommendations below:

- Work only if you are in a good physical condition.
- Work attentively, particularly as you finish.
- Do not operate the machine when you are tired.
- Carry out all work calmly, circumspectly and carefully.
- Never operate the machine under the influence of alcohol, drugs or medication. This can impair your vision, reactions and your judgment.
- Work in a manner that does not endanger others.
- Ensure that no persons or animals are within the danger zone.

### **3.3 Protective gear**

#### **Work clothing**

Clothing should be appropriate, i.e. should be close-fitting but not restrict your movement.

When on construction sites, do not wear long hair loosely, loose clothing or jewelry including rings. These objects can easily get caught or be drawn in by moving machine parts.

Only wear clothing made of material that is not easily flammable.

#### **Personal protective gear**

Wear personal protective gear to avoid injuries or health hazards:

- Non-skid, hard-toed shoes.
- Work gloves made of durable material.
- Overalls made of durable material.
- Hard hat.
- Ear protection.

#### **Ear protection**

This machine generates noise that exceeds the country-specific permissible noise levels (individual rating level). It may therefore be necessary to wear ear protection. You can find the exact value in the chapter *Technical Data*.

When wearing ear protection while working, you must pay attention and exercise caution because your hearing is limited, e.g. in case someone screams or a signal tone sounds.

Wacker Neuson recommends that you always wear ear protection.

### **3.4 Transport**

#### **Switching off the machine**

Before you transport the machine, switch it off and pull the plug out of the plug receptacle. Allow the motor to cool down.

#### **Transporting the machine**

Secure the machine on the transport device against tilting, falling or slipping.

### **Lifting the machine**

A falling machine can cause serious injuries.

The machine has no lifting or lashing points.

When lifting the machine, secure it in a closed transport container or similar in order to prevent it from toppling, falling or slipping away.

### **Restarting**

Machines, machine parts, accessories or tools that were detached for transport purposes must be re-mounted and fastened before restarting.

Only operate in accordance with the operating instructions.

## **3.5 Operating safety**

### **Explosible environment**

Never operate the machine in a potentially explosive environment.

### **Work environment**

Familiarize yourself with your work environment before you start work. This includes e.g. the following items:

- Obstacles in the work and traffic area.
- Load-bearing capacity of the ground.
- The measures needed to cordon off the construction site from public traffic in particular.
- The measures needed to secure walls and ceilings.
- Options available in the event of an accident.

### **Starting the machine**

Observe the safety information and warning notices located on the machine and in the operator's manual.

Never attempt to start a machine that requires maintenance or repairs.

Start the machine as described in the operator's manual.

Avoid body contact with grounded components.

### **Vertical stability**

Always make sure that you stand firmly when working with the machine. This applies particularly when working on scaffoldings, ladders, uneven or slippery floors etc.

### Caution with hot parts

Do not touch the hot vibrator head during or shortly after operation. The vibrator head can become very hot and can cause severe burns.

### Caution with movable parts

Keep your hands, feet and loose clothing away from moving or rotating machine parts. Parts of your body being pulled in or crushed can cause serious injuries.

### Do not use components of machine for climbing on or holding onto

Never use the protective hose, power cable or other components of the machine for climbing on or holding onto.

### Switching off the machine

Switch off the machine and pull the plug out of the plug receptacle in the following situations:

- Before breaks.
- If you are not using the machine.

Before storing the machine, wait until it has completely stopped running.

Store the machine or put it down in such a way that it cannot tilt, fall down or slip.

### Storage

Set the machine down or store it securely so that it cannot tilt, fall down or slip.

### Storage location

After operation, allow the machine to cool and then store it in a sealed-off, clean and dry location protected against frost and inaccessible to children.

### Vibrations

When manually operated machines are intensively used, long-term damage caused by vibrations cannot be precluded.

Observe the relevant legal instructions and guidelines to minimize vibration stress.

Details on vibration stress associated with the machine can be found in the chapter *Technical Data*.

### 3.6 Safety during the operation of hand machines

#### Setting the hand machine down properly

Set the machine down carefully. Do not drop the machine to the floor or from greater heights. Dropping the machine can cause injuries to other persons or the machine itself can be damaged.

#### Safe working with hand machines


While working, always hold the machine on the handle provided.

### 3.7 Safety during the operation of electric appliances

#### Specific regulations for electrical appliances

Observe the safety information provided in the brochure *General Safety Rules* which is included in the scope of delivery of your machine.

Also observe the country-specific regulations, standards and guidelines in reference to accident prevention in connection with electrical equipment and machines.

 **WARNING Read all safety information and instructions.** Failure to follow the safety information and instructions may result in electric shock, fire and/or serious injury.

**Save all safety information and instructions for future reference.**

#### Extension cable

The machine may only be operated with undamaged and tested extension cables!

Only use extension cables with grounded conductor and correct connection of the grounded conductor to the plug and coupling (only for machines of class rating I, see chapter *Technical data*).

Only use tested extension cables which are suitable for use at construction sites: Average rubber hose H05RN-F or better – Wacker Neuson recommends H07RN-F, an SOOW cable, or a country-specific equivalent design.

Immediately replace damaged extension cables (e.g. tears in the sheathing) or loose plugs and couplings.

Cable drums and multiple plug receptacles must fulfill the same requirements as the extension cable.

Protect extension cables, multiple plug receptacles, cable drums and connection couplings against rain, snow or any other forms of moisture.



### **Uncoil the cable drum completely**

Danger of fire due to wound cable drum.

Uncoil the cable drum completely before operation.

### **Protecting the power cable**

Do not use the power cable to pull or lift the machine.

Do not unplug the power cable by pulling on the cable.

Protect the power cable from heat, oil and sharp edges.

If the power cable is damaged or the plug is loose, have it replaced immediately by your Wacker Neuson representative.

### **Protecting the protective hose**

- Do not drag the protective hose over sharp edges.
- If the vibrator head jams in the reinforcement, do not pull out the protective hose suddenly or violently. Free the vibrator head by carefully moving it back and forth.

## **3.8 Maintenance**

### **Maintenance work**

Service and maintenance work must only be carried out to the extent described in these operating instructions. All other procedures must be performed by your Wacker Neuson representative.

For further information, refer to chapter *Maintenance*.

### **Disconnecting the machine from the electric power supply**

Before carrying out service or maintenance work, pull the plug out of the plug receptacle in order to disconnect the machine from the electric power supply.

### **Cleaning**

Always keep the machine clean and be sure to clean it each time you have finished using it.

Do not use gasoline or solvents. Danger of explosion!

Do not use high pressure washers. Permeating water can damage the machine. When electrical equipment is present, this can pose a serious injury risk from electric shocks.

### 4 General Power Tool Safety Warnings



**WARNING** Read all safety warning, 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.*

**Save all warnings and instructions for future reference.**

*The term “power tool” in the warning refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.*

#### 1) Work area safety

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

#### 2) Electrical safety

- a) **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.*
- b) **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.*
- c) **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
- d) **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.*
- e) **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.*

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

### 3) Personal safety

- a) **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.*
- b) **Use personal protective equipment. Always wear eye protection.**
- c) *Protective equipment such as dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.*
- d) **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.**
- e) *Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.*
- f) **Remove an adjusting key or wrench before turning the power tool on.**
- g) *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*
- h) **Do not overreach. Keep proper footing and balance at all times.**
- i) *This enables better control of the power tool in unexpected situations.*
- j) **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.**
- k) *Loose clothes, jewellery or long hair can be caught in moving parts.*
- l) **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.**
- m) *Use of dust collection can reduce dust-related hazards.*
- n) **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore, tool safety principles.**
- o) *A careless action can cause severe injury within a fraction of a second.*

### 4) Power tool use and care

- a) **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.*
- b) **Do not use the power tool if the switch does not turn it on and off.**
- c) *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*
- d) **Disconnect the plug from the power source and/or the battery pack from the power tool before making any adjustments, changing accessories, or storing power tools.**
- e) *Such preventive safety measures reduce the risk of starting the power tool accidentally.*
- f) **Store idle power tools out of**
- g) **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.*
- h) **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.**
- i) *Many accidents are caused by poorly maintained power tools.*
- j) **Keep cutting tools sharp and clean.**
- k) *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
- l) **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.**
- m) *Use of the power tool for operations different from those intended could result in a hazardous situation.*
- n) **Keep handles dry, clean and free from oil and grease.**
- o) *Slippery handles do not allow for safe handling and control of the tool in unexpected situations.*

### 5) Service

- a) **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.*



## 5 Structure and function

### 5.1 Scope of delivery

The internal vibrator is delivered completely mounted and will only be ready for operation in combination with a three-phase inverter.

The scope of delivery includes:

- Machine.
- Operator's manual.

### 5.2 Application

Use the machine only as intended, see chapter Safety, Proper use.

**GV:** The machine is protected from damage of the formworks by the rubber seal cap (GV).

**Laser:** The machine has a short protective hose for the individual required work position.

### 5.3 Functionality

#### Principle

The machine is an internal vibrator which creates high-frequency vibrations in the vibrator head.

Concrete is deaerated and compressed in the effective range of the vibrator head when the vibrator head is immersed into the fresh concrete.

The fresh concrete is simultaneously cooling the vibrator head.

**Note:** The concrete is being compressed for as long as bubbles of air arise.

#### Thermal overload switch

The machine is protected against overheating by a thermal overload switch, which will deactivate the machine in the case of overheating.

After cooling, the machine has to be deactivated and activated again.

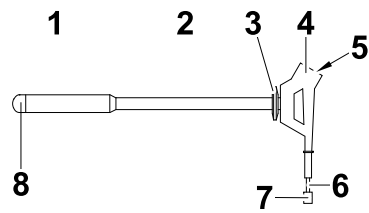
**Note:** If there is no ON/OFF switch on your machine, you need to switch off the inverter and switch it on again.

#### Vibrator head

In the vibrator head, an electric motor turns an eccentric weight at approx. 12,000 rpm (200 Hz) and thus generates vibrations.

These vibrations will cause the vibrator head to execute precessions.

## 6 Components and operator's controls



Item	Description	Item	Description
1	Vibrator head	5	ON/OFF switch
2	Protective hose	6	Power cable
3	Damping	7	Plug
4	Handle	8	Rubber seal cap (optional)

## 7 Transport



---

**WARNING**

Improper handling can result in injury or serious material damage.

- ▶ Read and follow all safety information of this operator's manual, see chapter *Safety*.
- 



---

**WARNING**

Hot vibrator head.

Touching it can cause burns.

- ▶ Only touch the vibrator head once the engine has cooled down.
  - ▶ Wear protective gloves.
- 

### Transporting the machine

1. Switch off the machine via the ON/OFF switch.
2. Wait until the machine has come to a complete standstill.
3. Turn off the inverter.
4. Disconnect the machine from the inverter.
5. Place the machine on or into a suitable means of transport.
6. Roll up the power cable.

**Note:** Do not kink the power cable!

7. Secure the machine against falling or sliding.



## 8 Use and operation



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**WARNING**

Improper handling can result in injury or serious material damage.

- ▶ Read and follow all safety information of this operator's manual, see chapter *Safety*.
- 

### 8.1 Prior to starting the machine

After unpacking, the machine is ready for operation.

**Checking the machine**

- ▶ Check the machine and all components for damages.
- ▶ Damage to the protective hose and the power cable.

**Checking the mains**

- ▶ Check if mains or power distribution on the construction site have the correct operating voltage (see nameplate of the machine or chapter *Technical Data*).
- ▶ Check if mains or power distribution on the constructions site are protected in accordance with current standards and regulations.

### 8.2 Starting up



---

**WARNING**

Damaged insulation.

Danger of electrocution!

- ▶ Do not kink or damage the protective hose and power cable.
-

### Connecting the machine to the electric power supply

The machine may only be connected to a three-phase inverter, connection values see chapter *Technical Data*.

---

#### NOTICE

Electrical voltage.

Incorrect voltage can cause damage on the machine.

- ▶ Check if the voltage of the current source corresponds with the information of the machine, see chapter *Technical Data*.



#### WARNING

Starting of the machine.

Danger of injuries from uncontrolled starting of the machine.

- ▶ Deactivate the machine before connection to the electric power supply.

- 
1. Switch off the machine via the ON/OFF switch.



#### WARNING

Electrical voltage.

Injuries from electrocution.

- ▶ Check power cable and extension cable for signs of damage.
- ▶ Only use extension cables for which grounded conductors are connected to the plug and the coupling (only for machines of class rating I, see chapter *Technical Data*).

- 
2. If required, connect the machine to a permitted extension cable.

**Note:** See chapter *Technical data* for the permitted lengths and cross-section areas of extension cables.

3. Insert the plug into the plug receptacle on the inverter.

### Switching on the machine

1. Use the handle to pick up the machine.
2. Switch on the machine via the ON/OFF switch.

**Note:** Please also refer to the operator's manual of the inverter.

### Compacting fresh concrete

1. Quickly immerse the vibrator head in the fresh concrete, hold it for several seconds and slowly pull it out again.
2. Immerse the vibrator head in all areas of the formwork and compact the fresh concrete.

#### Note:

- Compact especially intensively in the area of formwork corners. In these areas, the reinforcement rate is the highest.
- Avoid contact of the vibrator head with the concrete reinforcement. The following damages are possible if the vibrator head comes into contact with the concrete reinforcement:
  - The connection of the concrete to the reinforcement can be lost.
  - The machine can be damaged.
- The result of the compacting depends on the following points:
  - Holding time of the vibrator head in the concrete.
  - Diameter of the vibrator head.
  - Consistency of the concrete.
  - Reinforcement rate.

If you use a vibrator head with a smaller diameter, the compacting time to achieve the same results as with a vibrator head with a larger diameter will increase.

- Indications that the concrete is sufficiently compacted:
  - The concrete no longer sets.
  - Air bubbles no longer or rarely rise.
  - The sound of the vibrator head is not changing anymore.

### 8.3 Decommissioning

#### Switching off the machine



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**CAUTION**

The vibrator head moves if it is turned on and not immersed in the fresh concrete.

Danger of injury or danger of damage to property by uncontrolled vibrator head.

- Switch the machine off before you put it down.
- 



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**CAUTION**

The vibrator head heats up if it is turned on and not immersed in the fresh concrete.

Hot surface can cause burns.

Damage to the machine with excessive wear.

- Do not operate the machine with the internal vibrator not immersed in the fresh concrete.
- 

1. Slowly remove the machine from the fresh concrete; hold the vibrator head in the air.
2. Switch off the machine via the ON/OFF switch.
3. Wait until the machine has come to a complete standstill.
4. Turn off the inverter.
5. Put down the machine slowly.  
Do not kink the protective hose and power cable!
6. Disconnect the machine from the inverter.

### 8.4 Cleaning

#### Cleaning the machine

- Clean the machine and all components with water after each use.

**Note:** You can remove concrete residuals by immersing the running machine into gravel.

## 9 Maintenance



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**WARNING**

Improper handling can result in injury or serious material damage.

- Read and follow all safety instructions of this operator's manual, see chapter *Safety information*.
- 



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**WARNING**

Improper handling may cause a danger to life by electrocution.

- Only a qualified electrician is permitted to open the machine, perform repairs, and perform a subsequent safety check in accordance with applicable regulations.
- 

### 9.1 Qualifications for maintenance work

#### Qualifications for maintenance work

The maintenance work described in this operator's manual may be performed by any responsible user unless otherwise stated.

Some maintenance work may only be performed by specially trained personnel or by the service staff of your Wacker Neuson contact — these are specifically noted.

### 9.2 Maintenance schedule

**Note:** The time intervals mentioned here are reference values for normal operation. For extreme operation, e.g. continuous use, the service intervals should be halved.

Task	Daily before operation	Every 100 hrs.
Visual inspection of all parts for damage.	■	
Check the wear dimensions.	■	
Change oil in vibrator head (not for IR...30).*		■

\* Have these tasks carried out by the service department of your Wacker Neuson contact person..

### 9.3 Maintenance work

#### Working in the workshop

Perform maintenance work in a workshop on a workbench. This has the following benefits:

- Protection of the machine of contamination on the construction site.
- A level and clean work surface makes work easier.
- There is a better overview over small parts and they are not lost as easily.

#### Visual inspection for damage



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#### **WARNING**

A damaged machine part, protective hose or power cable can result in personal injury caused by electric current.

- ▶ Do not operate a damaged machine!
  - ▶ Have a damaged machine repaired immediately.
- 

- ▶ Check all machine parts for damage.
- ▶ Check the tightness of the switch diaphragm for the ON/OFF switch.

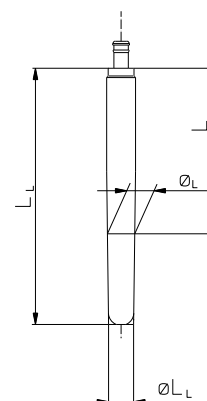
### Check wear dimensions of the vibrator head

Wear dimensions:

- Minimum diameter of lower tube  $\varnothing L_L$
- Minimum diameter of vibrator head  $\varnothing L$
- Length of vibrator head  $L_L$

Wear is highest at the immersed end of the vibrator head.

Machine type	Dimensions for vibrator head and lower tube [mm]			
	$\varnothing L_L$	$L_L$	$\varnothing L$	L
IR... 30	<b>28</b> (30)	<b>347</b> (353)	— *	— *
IR... 38	<b>33</b> (38)	<b>338</b> (345)	<b>36</b> (38)	218
IR... 45	<b>38</b> (45)	<b>372</b> (382)	<b>42</b> (45)	333
IR... 57	<b>50</b> (58)	<b>390</b> (400)	<b>54</b> (58)	253
IR... 65	<b>52</b> (65)	<b>475</b> (490)	<b>58</b> (65)	322



\* Vibrator head does not comprise 2 parts.

Dimensions in bold are wear dimensions.

Dimensions in brackets are original dimensions of new machines.

Let the lower tube be exchanged by your Wacker Neuson contact if the wear dimensions are reached at a certain point.

### Changing the oil in the vibrator head

Take the machine to your Wacker Neuson contact to change the oil in the vibrator head.

**Note:** For the vibrator head of IR...30 the oil cannot be exchanged. The vibrator head must be exchanged from the Wacker Neuson representative.

### 10 Troubleshooting

Potential faults, their causes and remedies can be found in the following table.

Malfunction	Cause	Remedy
Vibrator head does not vibrate.	No line voltage.	<ul style="list-style-type: none"><li>■ Connect the plug to the inverter.</li><li>■ Check power cable for damage, replace if defective.*</li></ul>
	Vibrator head has switched off due to excess temperature.	Deactivate the machine and allow the vibrator head to cool down.
	<ul style="list-style-type: none"><li>■ ON/OFF switch defective.</li><li>■ Mechanical defect in the vibrator head.</li></ul>	Have the machine repaired.*
Noticeable sound, vibrator head runs with reduced power.	One of the thermal overload protections has switched off (two phase operation).	Have the machine repaired.*

\* Have these tasks carried out by the service department of your Wacker Neuson representative person.



## 11 Disposal

### 11.1 Disposal of waste electrical and electronic equipment

#### For customers in EU countries

This device is subject to the European Directive on waste electrical and electronic equipment (WEEE) and the corresponding national legislation. The WEEE directive outlines the procedure for handling electrical waste equipment across the EU.



The device is labelled with the symbol of a crossed out dustbin shown here. This means you may not dispose of it with normal household waste but in a separate environmentally-friendly waste collection.

This device is a professional electrical tool designed for commercial applications only (B2B device according to WEEE directive). Contrary to equipment used in most private households (B2C devices), in some EU countries such as Germany, this device may not be disposed of at a collection point in a public disposal facility (for example at public waste depots). In case of doubt, ask the sales outlet about the proper disposal procedure for B2B electrical equipment in your country and ensure you dispose of the device in accordance with the valid legal guidelines. Please also note any information in the sales contract and the general terms and conditions from the point of sales.

The proper disposal of this device prevents the occurrence of any negative effects on people or the environment, follows the specific procedures for handling harmful substances and enables valuable raw materials to be recycled.

#### For customers in non-EU countries

The proper disposal of this device prevents the occurrence of any negative effects on people or the environment, follows the specific procedures for handling harmful substances and enables valuable raw materials to be recycled. Therefore, we recommend that this device is disposed of in a separate, environmentally-friendly waste collection and not with normal household waste. In some cases, national legislation also stipulates the separate disposal of electric and electronic products. Please ensure you dispose of this device in accordance with the valid regulations in your country.

## 12 Technical data

### 12.1 IRSEN 30, 38

Designation	Unit	IRSEN 30	IRSEN 38
Item no.		0610069	0008598
Rated current	A	3,5	7,0
Rated voltage	V	42	42
Rated frequency	Hz	200	200
Rated input power **	kW	0,20	0,41
Phases	~	3	3
Vibration range in air	mm (in)	2,00 (0.08)	1,90 (0.08)
Vibrations	rpm	12,000	12,000
	Hz	200	200
Vibrator head diameter	mm (in)	30 (1.2)	38 (1.5)
Outer diameter of protective hose	mm (in)	28 (1.1)	31 (1.2)
Length of vibrator head	mm (in)	353 (13.9)	345 (13.6)
Length of protective hose	m (ft)	0,8 (2.6)	0,8 (2.6)
Length of power cable ***	m (ft)	15,0 (49.2)	15,0 (49.2)
Weight	kg (lb)	5,1 (11.2)	5,9 (13.0)
Plug		CEE-3P 32A 42V 4H	CEE-3P 32A 42V 4H
Engine type		Asynchronous motor	Asynchronous motor
Oil specification		4 UH1- 46N	4 UH1- 46N
Oil quantity	l	0,005	0,008
Class rating		III	III
Protection class		IP 67	IP 67
Switch-off temperature	°C (°F)	150	150
Storage temperature range	°C (°F)	-20 – +60 (-4 – +140)	-20 – +60 (-4 – +140)

Designation	Unit	IRSEN 30	IRSEN 38
Operating temperature range	°C (°F)	-10 – +40 (+14 – +104)	-10 – +40 (+14 – +104)
Sound pressure level $L_{pA}$ *	dB(A)	79,0	79,0
Standard		DIN EN ISO 11201	DIN EN ISO 11201
Vibration total value $a_{hv}$ *	$m/s^2$ ( $ft/s^2$ )	0,7 (2.3)	0,7 (2.3)
Standard		DIN EN ISO 20643	DIN EN ISO 20643
Uncertainty of measurement of vibration total value $a_{hv}$ *	$m/s^2$ ( $ft/s^2$ )	0,5 (1.6)	0,5 (1.6)
* These measurements were obtained when the device was operated freely suspended in the air at a distance of 1 meter.			
** The rated power is the active power consumed during nominal operation.			
*** Cable length including plug.			

### 12.2 IRSEN 45

Designation	Unit	IRSEN 45	IRSEN 45/115 Laser
Item no.		0008597	0008648
Rated current	A	10,0	4,0
Rated voltage	V	42	115
Rated frequency	Hz	200	200
Rated input power **	kW	0,58	0,58
Phases	~	3	3
Vibration range in air	mm (in)	2,30 (0.09)	2,30 (0.09)
Vibrations	rpm	12,000	12,000
	Hz	200	200
Vibrator head diameter	mm (in)	45 (1.8)	45 (1.8)
Outer diameter of protective hose	mm (in)	31 (1.2)	31 (1.2)
Length of vibrator head	mm (in)	382 (15.0)	382 (15.0)
Length of protective hose	m (ft)	0,8 (2.6)	0,3 (1.0)
Length of power cable ***	m (ft)	15,0 (49.2)	15,0 (49.2)
Weight	kg (lb)	7,2 (15.9)	9,1 (20.1)
Plug		CEE-3P 32A 42V 4H	CEE-4P 16A 250V 10H
Engine type		Asynchronous motor	Asynchronous motor
Oil specification		4 UH1- 46N	4 UH1- 46N
Oil quantity	l	0,008	0,008
Class rating		III	I
Protection class		IP 67	IP 67
Switch-off temperature	°C (°F)	150	150
Storage temperature range	°C (°F)	-20 – +60 (-4 – +140)	-20 – +60 (-4 – +140)
Operating temperature range	°C (°F)	-10 – +40 (+14 – +104)	-10 – +40 (+14 – +104)
Sound pressure level $L_{pA}$ *	dB(A)	79,0	79,0

Designation	Unit	IRSEN 45	IRSEN 45/115 Laser
Standard		DIN EN ISO 11201	DIN EN ISO 11201
Vibration total value $a_{hv}$ *	$m/s^2$ ( $ft/s^2$ )	1,7 (5.6)	1,7 (5.6)
Standard		DIN EN ISO 20643	DIN EN ISO 20643
Uncertainty of measurement of vibration total value $a_{hv}$ *	$m/s^2$ ( $ft/s^2$ )	0,5 (1.6)	0,5 (1.6)
* These measurements were obtained when the device was operated freely suspended in the air at a distance of 1 meter.			
** The rated power is the active power consumed during nominal operation.			
*** Cable length including plug.			



### 12.3 IRSEN 57

Designation	Unit	IRSEN 57	IRSEN 57 GV	IRSEN 57/250 GV
Item no.		0007901	0008642	5100010373
Rated current	A	17,3	17,3	3,0
Rated voltage	V	42	42	250
Rated frequency	Hz	200	200	200
Rated input power **	kW	1,05	1,05	1,05
Phases	~	3	3	3
Vibration range in air	mm (in)	2,50 (0.10)	2,50 (0.10)	2,50 (0.10)
Vibrations	rpm	12,000	12,000	12000
	Hz	200	200	200
Vibrator head diameter	mm (in)	58 (2.3)	58 (2.3)	58 (2.3)
Outer diameter of protective hose	mm (in)	40 (1.6)	40 (1.6)	40 (1.6)
Length of vibrator head	mm (in)	400 (15.7)	400 (15.7)	400 (15.7)
Length of protective hose	m (ft)	0,8 (2.6)	0,8 (2.6)	0,8 (2.6)
Length of power cable ***	m (ft)	15,0 (49.2)	15,0 (49.2)	15,0 (49.2)
Weight	kg (lb)	11,2 (24.7)	14,5 (32.0)	12,1 (26.7)
Plug		CEE-3P 32A 42V 4H	CEE-3P 32A 42V 4H	CEE-4P 16A 250V 10H
Engine type		Asynchronous motor	Asynchronous motor	Asynchronous motor
Oil specification		4 UH1- 46N	4 UH1- 46N	4 UH1- 46N
Oil quantity	l	0,012	0,012	0,012
Class rating		III	III	I
Protection class		IP 67	IP 67	IP 67
Switch-off temperature	°C (°F)	150	150	150
Storage temperature range	°C (°F)	-20 – +60 (-4 – +140)	-20 – +60 (-4 – +140)	-20 – +60 (-4 – +140)
Operating temperature range	°C (°F)	-10 – +40 (+14 – +104)	-10 – +40 (+14 – +104)	-10 – +40 (+14 – +104)

Designation	Unit	IRSEN 57	IRSEN 57 GV	IRSEN 57/250 GV
Sound pressure level $L_{pA}$ *	dB(A)	79,0	79,0	79,0
Standard		DIN EN ISO 11201	DIN EN ISO 11201	DIN EN ISO 11201
Vibration total value $a_{hv}$ *	$m/s^2$ (ft/s <sup>2</sup> )	1,5 (4.9)	1,5 (4.9)	2,2 (7.2)
Standard		DIN EN ISO 20643	DIN EN ISO 20643	DIN EN ISO 20643
Uncertainty of measurement of vibration total value $a_{hv}$ *	$m/s^2$ (ft/s <sup>2</sup> )	0,5 (1.6)	0,5 (1.6)	0,5 (1.6)
* These measurements were obtained when the device was operated freely suspended in the air at a distance of 1 meter.				
** The rated power is the active power consumed during nominal operation.				
*** Cable length including plug.				



### 12.4 Extension cable



#### WARNING

Electrical voltage.  
Injuries from electrocution.

- ▶ Check power cable and extension cable for signs of damage.
- ▶ Only use extension cables for which grounded conductors are connected to the plug and the coupling (only for machines of class rating I, see chapter *Technical Data*).

- Only use permitted extension cables, see chapter *Safety*.
- Refer to the following table for the required cross-section area of the extension cable:

**Note:** Refer to the nameplate or the chapter *Technical data* (via the item number) for the type designation and voltage rating of your machine.

Machine	Voltage [V]	Extension [m]	Cross-section area of cable [mm <sup>2</sup> ]
IRSEN 30	42 3~	≤ 35	1,5
		≤ 58	2,5
		≤ 91	4,0
IRSEN 38	42 3~	≤ 18	1,5
		≤ 29	2,5
		≤ 45	4,0
IRSEN 45	42 3~	≤ 20	1,5
		≤ 32	2,5
		≤ 46	4,0
	115 3~	≤ 85	1,5
		≤ 139	2,5
IRSEN 57	42 3~	≤ 12	2,5
		≤ 18	4
		≤ 27	6
IRSEN 57	250 3~	≤ 150	1,5



**Example**

You utilize an IRSEN 38 and want to use an extension cable with a length of 25 m.

The machine has an input voltage of 42 V.

According to the table, the extension cable must feature a cross-section area of 2.5 mm<sup>2</sup>.

Machine	Voltage [V]	Extension [ft]	Cross-section area of cable [AWG]
IRSEN 30	42 3~	< 102	16
		< 160	14
		< 249	12
		< 385	10
IRSEN 38	42 3~	< 51	16
		< 80	14
		< 124	12
		< 193	10
IRSEN 45	42 3~	< 36	16
		< 56	14
		< 87	12
		< 135	10
	115 3~	< 244	16
		< 383	14
		< 500	12
IRSEN 57	42 3~	< 32	14
		< 50	12
		< 78	10
IRSEN 57	250 3~	≤ 492	1,5

## 13 Glossary

### Class rating

The class rating according to DIN EN 61140 specifies the safety measures for electrical equipment to avoid electrocution. There are four class ratings:

Class rating	Meaning
0	No special protection apart from the basic insulation. No grounded conductor. Plug connection without grounded conductor contact.
I	Connection of all conductive housing components to the grounded conductor. Plug connection with grounded conductor contact.
II	Reinforced or double insulation (protective insulation). No connection to the grounded conductor. Plug connection without grounded conductor contact.
III	Machines are operated on protective low voltage (< 50 V). Connection to the grounded conductor is not necessary. Plug connection without grounded conductor contact.

### Protection class IP

The protection class according to DIN EN 60529 indicates the suitability of electrical equipment for use in certain ambient conditions as well as the protection against risks.

The protection class is specified by an IP code according to DIN EN 60529.

Code	Meaning 1st number: Protection against touching hazardous parts. Protection against permeating foreign objects.
0	Not protected against contact. Not protected against foreign bodies.
1	Protected against contact with the back of the hand. Protected against large foreign objects with diameter > 50 mm (1.9 in).
2	Protected against contact with one finger. Protected against medium-sized foreign objects (diameter > 12.5 mm (0.5 in)).
3	Protected against touch with a tool (diameter > 2.5 mm (0.01 in)). Protected against small foreign objects with (diameter > 2.5 mm (0.01 in)).
4	Protected against touch with a wire (diameter > 1 mm (0.03 in)). Protected against granular foreign objects (diameter > 1 mm (0.03 in)).
5	Protected against contact. Protected against dust depositing inside.
6	Completely protected against any contact. Protected from dust.

Code	Meaning 2nd number: Protection against permeating water
0	Not protected against permeating water.
1	Protected against water dropping vertically.
2	Protected against diagonally falling water (15° angle).
3	Protected against spray (60° angle).
4	Protected against spraying water from all directions.
5	Protected against water jets (nozzle) from any angle.
6	Protected against strong water jets (overflow).
7	Protected from temporary immersion in water.
8	Protected from ongoing immersion in water.





**WACKER  
NEUSON**

## EC Declaration of Conformity

### Manufacturer

Wacker Neuson Produktion GmbH & Co. KG, Preußenstraße 41, 80809 München

### Product

Product	IRSEN 30	IRSEN 38	IRSEN 45	IRSEN 57
Product category	Internal vibrator			
Product function	Compacting concrete			
Item number	0610069	0008598	0008597, 0008648	0007901, 0008642, 5100010373

### Directives and standards

We hereby declare that this product meets and complies with the relevant regulations and requirements of the following directives and standards:

2006/42/EG, 2006/95/EG, 2004/108/EG, EN 61000, EN 55014, 2011/65/EU

### Authorized person for technical documents

Axel Häret,

Wacker Neuson Produktion GmbH & Co. KG, Preußenstraße 41, 80809 München

München, 01.08.2014

Helmut Bauer  
Managing Director

Translation of the original Declaration of Conformity





