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02.2008	

**Internal vibrator**

**IREN**

**38, 40, 45, 57, 65**



**Operator's manual**



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## 1 Foreword

This operator's manual contains information and procedures for the safe operation and maintenance of your WACKER 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 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 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 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 or damage to equipment or improper service.



---

#### **DANGER**

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

- ▶ Danger can be avoided by the following the actions mentioned.
- 



---

#### **WARNING**

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

- ▶ Danger can be avoided by the following the actions mentioned.
- 



---

#### **CAUTION**

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

- ▶ Danger can be avoided by the following the actions mentioned.
- 

---

#### **NOTICE**

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

- ▶ Danger can be avoided by the following the actions mentioned.
- 

#### 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 representative

Depending on your country, your WACKER representative is your WACKER Service, your WACKER affiliate or your WACKER dealer.

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

The addresses of the WACKER main locations are located at the end of this operator's manual.

## 2.3 Described machine parts

This operator's manual is valid for different machine parts 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*.

## 3 Safety information

### 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.

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. Failure to do so will endanger your safety! In addition, this will void the warranty and the liability on behalf of the manufacturer.

#### 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 is required in order for the machine to operate properly and reliably over time. Neglected maintenance work can make the machine dangerous to use.

- 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**

Only use spare parts and accessories from WACKER. Non-compliance will exempt the manufacturer from all liability.

**Exclusion of liability**

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

- Structural modifications.
- Improper use.
- Improper handling.
- Use of spare parts and accessories not produced by WACKER.

**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 representative or download it from the Internet ([www.wackergroup.com](http://www.wackergroup.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.

The function of the operator's controls must not be manipulated or rendered ineffective.

**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!

**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 start 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 use 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.
- You have been assigned to work on the machine by your company.

**Incorrect operation**

Incorrect operation or misuse by untrained personnel can endanger the health and safety of the operator 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.

## 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.

### 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.
- Hardhat.
- 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*.

WACKER 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.

#### 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

#### 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-carrying capacity of the ground.
- The measures needed to cordon off the construction site from public traffic.
- 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.

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

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

Avoid body contact with grounded components.

#### Vertical stability

Always make sure that you maintain a safe distance when working with the machine. This applies particularly when working on scaffoldings, ladders, etc.

#### Switching off the machine

Switch the machine off and pull the plug out of the plug receptacle: Before taking a break or if the machine will not be used.

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

Set or place the machine in such a way that it cannot tilt, fall or slip.

**Storage location**

Store the machine after operation at a sealed off and dry location inaccessible to children.

**3.6 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.

**Extension cable**

The machine may only be operated with undamaged extension cables!

Only use extension cables with grounded conductor and correct connection of the grounded conductor to the plug and coupling (not for 42 V machines).

Only use extension cables which are suitable for use at construction sites: Average rubber hose H05RR-F or better – WACKER recommends H07RN-F or a country-specific equivalent design.

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

**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 representative.

**3.7 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 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.

## **4 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.
- Parts book.
- General safety instructions.

## 5 Description

### 5.1 Application

The machine is designed to compact fresh concrete in formworks and on even surfaces.

#### **IREN GV**

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

#### **IREN ...k**

The machine is especially suited for compacting fresh concrete on even surfaces with low layer thickness. The short construction (...k) enables the complete immersion of the vibrator head, which results in a more efficient cooling of the vibrator head.

#### **IREN ST**

The machine is especially suited for better guidance and positioning in areas of the formwork which are difficult to reach.

#### **IREN lifting point**

The machine is especially suited for compacting fresh concrete in work areas which are inaccessible.

The machine is equipped with an additional steel cable to increase the safety (higher traction force).

### 5.2 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.

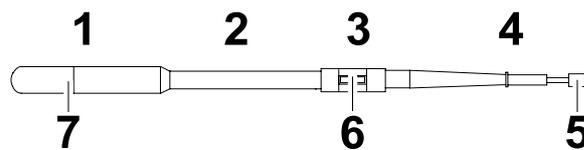
**Vibrator head**

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.

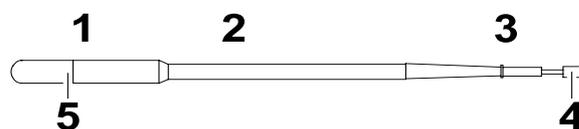
**5.3 Components and operator's controls**

**IREN**



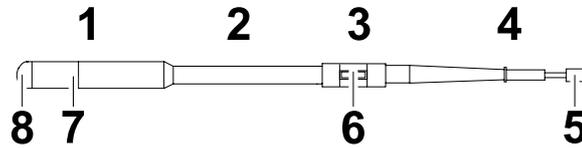
Item	Description	Item	Description
1	Vibrator head	5	Plug
2	Protective hose	6	ON/OFF switch
3	Switch housing	7	Lower tube
4	Power cable		

**IREN without ON/OFF switch**



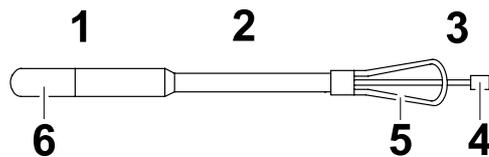
Item	Description	Item	Description
1	Vibrator head	4	Plug
2	Protective hose	5	Lower tube
3	Power cable		

**IREN GV**



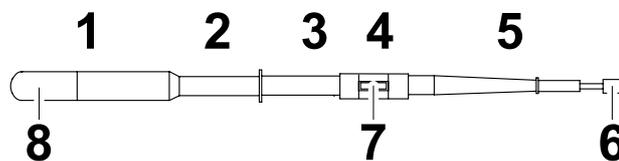
Item	Description	Item	Description
1	Vibrator head	5	Plug
2	Protective hose	6	ON/OFF switch
3	Switch housing	7	Lower tube
4	Power cable	8	Rubber seal cap

**IREN with lifting point**



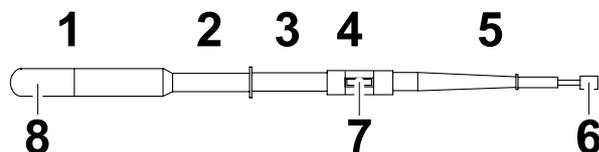
Item	Description	Item	Description
1	Vibrator head	4	Plug
2	Protective hose	5	Lifting point
3	Power cable	6	Lower tube

**IREN ST1**



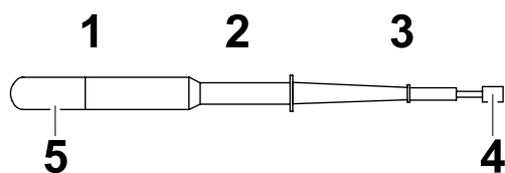
Item	Description	Item	Description
1	Vibrator head	5	Power cable
2	Pipe	6	Plug
3	Protective hose	7	ON/OFF switch
4	Switch housing	8	Lower tube

IREN ST2



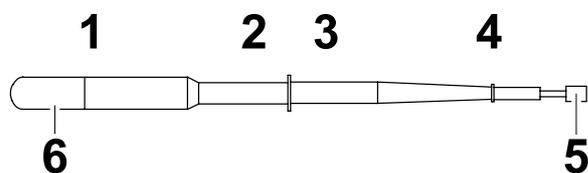
Item	Description	Item	Description
1	Vibrator head	5	Power cable
2	Pipe	6	Plug
3	Connecting cable	7	ON/OFF switch
4	Switch housing	8	Lower tube

IREN ST3



Item	Description	Item	Description
1	Vibrator head	4	Plug
2	Pipe	5	Lower tube
3	Power cable		

IREN ST4



Item	Description	Item	Description
1	Vibrator head	4	Power cable
2	Pipe	5	Plug
3	Protective hose	6	Lower tube

## 6 Transport



---

**WARNING**

Hot vibrator head!

Touching it can cause burns.

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

**Transporting the machine**

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

**Note:** If there is no ON/OFF switch on the machine, switch off the machine via the ON/OFF switch of the inverter.

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.
- 

**Note:** Due to its length, IREN ST may protrude over the means of transport. Observe the valid road traffic regulations and secure the machine with a mandatory warning sign, if required.

---

## 7 Operation



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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*.
- 

### 7.1 Prior to starting the machine

After unpacking, the machine is ready for operation.

#### Plug

The machine comes with a country-specific plug as a standard equipment.

#### Carrying out checks

- ▶ 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.
- ▶ Check protective hose and power cable for damage.

## 7.2 Starting up

### Connecting the machine to the 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

Electrical voltage.

Danger of electrocution!

- ▶ Only use extension cables for which grounded conductors are connected to the plug and the coupling (only for machines of class rating I).
- 

1. Turn off ON/OFF switch.

**Note:** When the ON/OFF switch is pressed, the machine starts to run immediately at the connection. The machine can strike out and may injure persons or be damaged.

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. Connect the power cable or extension cable to the inverter.

### Switching IREN on

1. Use the protective hose to hold the machine near the vibrator head.
2. Switch on the machine via the ON/OFF switch.

### Switching IREN with lifting point on

1. Use lifting point to attach machine to the safety load hook of the crane.
2. Switch on the machine via the ON/OFF switch of the inverter.

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

### Switching IREN ST 1/2 on

1. Use the pipe to hold the machine near the vibrator head.
2. Switch on the machine via the ON/OFF switch.

**Switching IREN ST 3/4 on**

1. Use the pipe to hold the machine near the vibrator head.
2. Switch on the machine via the ON/OFF switch of the inverter.  
**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 corner areas and the formwork because of the high reinforcement.
- Make sure that the vibrator head does not touch the reinforcement. Damages can occur both on the vibrator head and also on the concrete, if it is already in the curing process.
- The holding time of the vibrator head in the concrete depends on the diameter of the vibrator head, the consistency of the concrete and the layer thickness.
- 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.

### 7.3 Decommissioning

#### Switching off the machine

---

**NOTICE**

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.
- 

---

**NOTICE**

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.  
**Note:** If there is no ON/OFF switch on the machine, switch off the machine via the ON/OFF switch of the inverter.
3. Turn off the inverter.
4. Wait until the machine has come to a complete standstill.
5. Put down the machine slowly.  
Do not kink the protective hose and power cable!
6. Disconnect the machine from the inverter.

### 7.4 Cleaning

#### Cleaning the machine

- ▶ Clean the machine with water after each use.

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

## 8 Maintenance



**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*.

### 8.1 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.		■

Notify your WACKER contact in case of maintenance work which you cannot or may not complete yourself.

### 8.2 Maintenance work

#### Visual inspection for damage



**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.

### Checking the machine

- ▶ Check all machine parts for damage.

Machines with ON/OFF switch:

- ▶ Check the tightness of the switch diaphragm.

### 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... 57k		<b>320</b> (330)	<b>54</b> (58)	213
IR... 65	<b>52</b> (65)	<b>475</b> (490)	<b>58</b> (65)	322

\* Vibrator head does not comprise 2 parts.

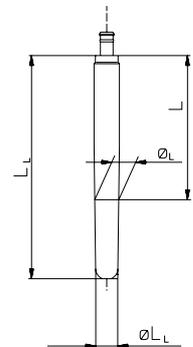
Dimensions in bold are wear dimensions.

Dimensions in brackets are original dimensions of new machines.

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

### Changing the oil in the vibrator head

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



## 9 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>- Inverter 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.

Notify your WACKER contact in case of malfunctions you cannot or may not remedy yourself.

## 10 Disposal

### 10.1 Disposal of the machine

Your machine contains many valuable raw materials which should be disposed and recycled in an environmentally friendly manner.

During disposal of the machine observe the country-specific rules and regulations, e.g. the European Directive for obsolete electrical and electronic devices.



Do not dispose of the machine in household rubbish. It must be disposed at a recycling facility.

## 11 Technical data

### 11.1 IREN 38

Designation	Unit	IREN 38	IREN 38/115	IREN 38/250
Item no.		0007895 0008513 0008514 0008515 0008433 0008578 0008665 0008671 0008676	0008469	0008470 0008627
Rated voltage	V	42	115	250
Rated frequency	Hz	200		
Rated power consumption	kW	0.41		
Rated current consumption	A	7	3.1	1.4
Diameter of vibrator head	mm (in)	38 (1.5)		
Length of vibrator head	mm (in)	345 (13.6)		
Vibration range	mm (in)	1.9 (0.07)		
Class rating		III	I	
Protection class *		IP67		
Oil specification		SAE 0W-30 (API SF or superior)		
Oil quantity	cm <sup>3</sup> (in <sup>3</sup> )	8 (0.49)		
Sound pressure level at operator's station	dB(A)	79		
Total vibration value of the acceleration $a_{hv}$ **	m/s <sup>2</sup>	0.7		

\* According to DIN EN 60529.

\*\* Determined according to DIN EN ISO 5349, measured at a distance of 2 m (6.6 ft) from the lower tube, freely suspended in the air, at nominal speed.

## 11.2 IREN 40

Designation	Unit	IREN 40/048/240
Item no.		0610221
Rated voltage	V	48
Rated frequency	Hz	240
Rated power consumption	kW	0.41
Rated current consumption	A	6.2
Diameter of vibrator head	mm (in)	38 (1.5)
Length of vibrator head	mm (in)	345 (13.6)
Vibration range	mm (in)	1.9 (0.07)
Class rating		III
Protection class *		IP67
Oil specification		SAE 0W-30 (API SF or superior)
Oil quantity	cm <sup>3</sup> (in <sup>3</sup> )	8 (0.49)
Sound pressure level at operator's station	dB(A)	79
Total vibration value of the acceleration $a_{hv}$ **	m/s <sup>2</sup>	0.7

\* According to DIN EN 60529.

\*\* Determined according to DIN EN ISO 5349, measured at a distance of 2 m (6.6 ft) from the lower tube, freely suspended in the air, at nominal speed.

**11.3 IREN 45**

Designation	Unit	IREN 45	IREN 45/ 048/240	IREN 45/115	IREN 45/250
Item no.		0007896 0008510 0008511 0008512 0008474 0008434 0008664 0008670 0008675	0008592	0008471	0008472 0008626
Rated voltage	V	42	48	115	250
Rated frequency	Hz	200	240	200	
Rated power consumption	kW	0.58			
Rated current consumption	A	10	8.8	4	1.85
Diameter of vibrator head	mm (in)	45 (1.8)			
Length of vibrator head	mm (in)	382 (15)			
Vibration range	mm (in)	2.3 (0.09)			
Class rating		III		I	
Protection class *		IP67			
Oil specification		SAE 0W-30 (API SF or superior)			
Oil quantity	cm <sup>3</sup> (in <sup>3</sup> )	8 (0.49)			
Sound pressure level at operator's station	dB(A)	79			
Total vibration value of the acceleration $a_{hv}$ **	m/s <sup>2</sup>	1.7			

\* According to DIN EN 60529.

\*\* Determined according to DIN EN ISO 5349, measured at a distance of 2 m (6.6 ft) from the lower tube, freely suspended in the air, at nominal speed.

## 11.4 IREN 57

Designation	Unit	IREN 57	IREN 57k	IREN 57/ 048/240	IREN 57k/ 048/240
Item no.		0007820 0008346 0008430 0008435 0008504 0008505 0008506 0008662 0008668 0008673 0008903 0008904 0008905	0007821 0008437 0008507 0008508 0008509 0008663 0008669 0008674	0008591	0008590
Rated voltage	V	42		48	
Rated frequency	Hz	200		240	
Rated power consumption	kW	1.05	0.76	1.05	0.76
Rated current consumption	A	17.3	13	15.2	11.4
Diameter of vibrator head	mm (in)	58 (2.3)			
Length of vibrator head	mm (in)	400 (15.8)	330 (13)	400 (15.8)	330 (13)
Vibration range	mm (in)	2.1 (0.083)	1.9 (0.075)	1.8 (0.070)	1.4 (0.055)
Class rating		III			
Protection class *		IP67			
Oil specification		SAE 0W-30 (API SF or superior)			
Oil quantity	cm <sup>3</sup> (in <sup>3</sup> )	12 (0.73)			
Sound pressure level at operator's station	dB(A)	79			
Total vibration value of the acceleration $a_{hv}$ **	m/s <sup>2</sup>	2.2			

\* According to DIN EN 60529.

\*\* Determined according to DIN EN ISO 5349, measured at a distance of 2 m (6.6 ft) from the lower tube, freely suspended in the air, at nominal speed.

Designation	Unit	IREN 57/ 115	IREN 57k/115	IREN 57/ 240/180	IREN 57/ 250	IREN 57k/250
Item no.		0008465	0008460	0008479	0008466 0008624	0008461 0008625
Rated voltage	V	115		240	250	
Rated frequency	Hz	200		180	200	
Rated power consumption	kW	1.05	0.76	1.05	1.05	0.76
Rated current consumption	A	6.5	4.8	3.1	3.0	2.2
Diameter of vibrator head	mm (in)	58 (2.3)				
Length of vibrator head	mm (in)	400 (15.8)	330 (13)	400 (15.8)	400 (15.8)	330 (13)
Vibration range	mm (in)	2.1 (0.083)	1.9 (0.075)	2.1 (0.083)	2.1 (0.083)	1.9 (0.075)
Class rating		I				
Protection class *		IP67				
Oil specification		SAE 0W-30 (API SF or superior)				
Oil quantity	cm <sup>3</sup> (in <sup>3</sup> )	12 (0.73)				
Sound pressure level at operator's station	dB(A)	79				
Total vibration value of the acceleration $a_{hv}$ **	m/s <sup>2</sup>	2.2				

\* According to DIN EN 60529.

\*\* Determined according to DIN EN ISO 5349, measured at a distance of 2 m (6.6 ft) from the lower tube, freely suspended in the air, at nominal speed.

## 11.5 IREN 65

Designation	Unit	IREN 65	IREN 65/048/ 240	IREN 65/115
Item no.		0007847 0008498 0008443 0008436 0008660	0008747	0008467
Rated voltage	V	42	48	115
Rated frequency	Hz	200	240	200
Rated power consumption	kW	1.6		1.6
Rated current consumption	A	25	22	9.5
Diameter of vibrator head	mm (in)	65 (2.6)		
Length of vibrator head	mm (in)	590 (23.2)		
Vibration range	mm (in)	2.5 (0.1)		
Class rating		III		I
Protection class *		IP67		
Oil specification		SAE 0W-30 (API SF or superior)		
Oil quantity	cm <sup>3</sup> (in <sup>3</sup> )	12 (0.73)		
Sound pressure level at operator's station	dB(A)	79		
Total vibration value of the acceleration $a_{hv}$ **	m/s <sup>2</sup>	3.4		

\* According to DIN EN 60529.

\*\* Determined according to DIN EN ISO 5349, measured at a distance of 2 m (6.6 ft) from the lower tube, freely suspended in the air, at nominal speed.

Designation	Unit	IREN 65/240/180	IREN 65/250
Item no.		0008480	0008468 0008622
Rated voltage	V	240	250
Rated frequency	Hz	180	200
Rated power consumption	kW	1.6	
Rated current consumption	A	4.4	4.2
Diameter of vibrator head	mm (in)	65 (2.6)	
Length of vibrator head	mm (in)	490 (19.2)	
Vibration range	mm (in)	2.5 (0.1)	
Class rating		I	
Protection class *		IP67	
Oil specification		SAE 0W-30 (API SF or superior)	
Oil quantity	cm <sup>3</sup> (in <sup>3</sup> )	12 (0.73)	
Sound pressure level at operator's station	dB(A)	79	
Total vibration value of the acceleration $a_{hv}$ **	m/s <sup>2</sup>	3.4	

\* According to DIN EN 60529.

\*\* Determined according to DIN EN ISO 5349, measured at a distance of 2 m (6.6 ft) from the lower tube, freely suspended in the air, at nominal speed.

## 11.6 Extension cable

**WARNING**

Electrical voltage.  
Danger of electrocution!

- ▶ Only use extension cables for which grounded conductors are connected to the plug and the coupling (only for machines of class rating I).

Please refer to the following table for the required cross-section area of cable for a designated extension.

**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> ]
IREN 38	42	< 29	2.5
		< 45	4
	48	< 37	2.5
		< 58	4
	115	< 109	1.5
		< 150	2.5
250	< 150	1.5	
IREN 40	48	< 37	2.5
		< 58	4.0
IREN 45	42	< 20	2.5
		< 31	4
		< 46	6
	48	< 26	2.5
		< 41	4
	115	< 85	1.5
		< 139	2.5
	250	< 150	1.5

Machine	Voltage [V]	Extension [m]	Cross-section area of cable [mm <sup>2</sup> ]	
IREN 57	42	< 11	2.5	
		< 18	4	
		< 26	6	
		< 42	10	
	48	< 15	2.5	
		< 23	4	
		< 34	6	
	115	< 52	1.5	
		< 85	2.5	
	240	< 150	1.5	
	250	< 150	1.5	
	IREN 57k	42	< 15	2.5
			< 24	4
			< 35	6
< 56			10	
48		< 20	2.5	
		< 31	4	
		< 45	6	
115		< 70	1.5	
		< 116	2.5	
240		< 150	1.5	
250		< 150	1.5	

Machine	Voltage [V]	Extension [m]	Cross-section area of cable [mm <sup>2</sup> ]
IREN 65	42	< 8	2.5
		< 12	4
		< 18	6
		< 29	10
	48	< 16	4
		< 23	6
	115	< 35	1.5
		< 58	2.5
	240	< 150	1.5
	250	< 150	1.5

**Extension cable for the US market:**

Machine	Voltage [V]	Extension [ft]	Cross-section area of cable [AWG]
IREN 38	42	< 49	16
		< 79	14
		< 125	12
		< 194	10
	48	< 66	16
		< 102	14
		< 157	12
		< 243	10
	115	< 315	16
		< 492	14
250	< 492	16	

Machine	Voltage [V]	Extension [ft]	Cross-section area of cable [AWG]	
IREN 40	48	< 66	16	
		< 102	14	
		< 157	12	
		< 243	10	
IREN 45	42	< 36	16	
		< 56	14	
		< 85	12	
		< 135	10	
	48	< 46	16	
		< 72	14	
		< 112	12	
		< 171	10	
	115	< 243	16	
		< 384	14	
		< 492	12	
	250	< 492	16	
	IREN 57	42	< 33	14
			< 49	12
			< 79	10
		48	< 43	14
< 66			12	
< 98			10	
115		< 151	16	
		< 236	14	
		< 367	12	
		< 492	10	
240		< 492	16	
250		< 492	16	

Machine	Voltage [V]	Extension [ft]	Cross-section area of cable [AWG]
IREN 57K	42	< 43	14
		< 66	12
		< 105	10
	48	< 56	14
		< 85	12
		< 132	10
	115	< 203	16
		< 318	14
		< 492	12
	240	< 492	16
	250	< 492	16
	IREN 65	42	< 36
< 52			10
48		< 46	12
		< 69	10
115		< 102	16
		< 161	14
		< 249	12
		< 387	10
240		< 466	16
250		< 492	16

**Example**

You utilize an IREN 57/115 and want to use an extension cable with a length of 80 m (262 ft).

The machine has an input voltage of 115 V.

According to the table, the extension cable must feature a cross-section area of 2.5 mm<sup>2</sup> (AWG 12).



## EC Declaration of Conformity

Wacker Construction Equipment AG, Preußenstraße 41, 80809 München certifies that the construction machines:

Category

### Internal vibrator

Type	IREN 30	IREN 38	IREN 40	IREN 45	IREN 57		IREN 65
Machine type num- ber	0008958	0007895	0610221	0007896	0007820	0008508	0007847
	0610004	0008433		0008434	0007821	0008509	0008436
	0610016	0008469		0008471	0008346	0008590	0008443
	0610017	0008470		0008472	0008430	0008591	0008467
	0610018	0008513		0008474	0008435	0008624	0008468
	0610065	0008514		0008510	0008437	0008625	0008480
	0610066	0008515		0008511	0008460	0008662	0008498
	0610067	0008578		0008512	0008461	0008663	0008622
	0610068	0008627		0008592	0008465	0008668	0008660
		0008665		0008626	0008466	0008669	0008747
		0008671		0008664	0008479	0008673	
		0008676		0008670	0008504	0008674	
				0008675	0008505	0008903	
					0008506	0008904	
					0008507	0008905	

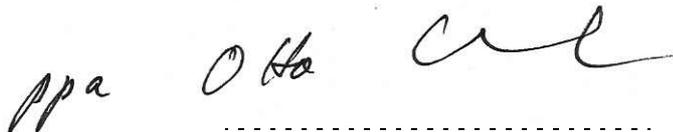
fulfill the requirements of the following directives:

**98/37/EC**

**2004/108/EC**

**EN 61000**

**2006/95/EC**



Dr. Stenzel

Head of Research and Development





# VDE Prüf- und Zertifizierungsinstitut

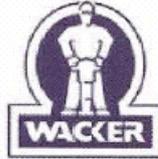
VDE VERBAND DER ELEKTROTECHNIK  
ELEKTRONIK INFORMATIONSTECHNIK e.V.

## CERTIFICATE

Registration-Number: 6236/QM/06.97

This is to certify that the company

**WACKER**



**Wacker Construction Equipment AG  
Wacker-Werke GmbH & Co. KG**

at the following locations

**Head Office Munich  
Preußenstraße 41  
80809 Munich**

**Production plant Reichertshofen  
Karlsfeld logistics centre  
Sales regions with all branches all over Germany**

has implemented and maintains a  
Quality Management System for the following scope:

**Machine manufacture  
Construction machines**

This Q System complies with the requirements of

**DIN EN ISO 9001:2000**

**and the requirements of the German and international Road Traffic Act.**

This Certificate is valid until 2009-06-05.

**VDE Testing and Certification Institute**  
Certification

Date: 2006-05-30

63069 Offenbach, Merianstraße 28  
Telefon: +49 (0) 69 83 06-0, Telefax: +49 (0) 69 83 06-555  
E-Mail: [vde-institut@vde.com](mailto:vde-institut@vde.com), <http://www.vde-institut.com>



The VDE Testing and Certification Institute is accredited by DAR Accreditation  
Bodies according to DIN EN ISO 17020 and DIN EN ISO 45012 and notified in the EU  
under ID.No. 0366.

TGA-ZM-09-92-00  
KBA-ZM-A 00021-97





