Powerful, reliable and user-friendly: WACKER IREN, IRFUN and IRSEN internal vibrators

**Usage tips**
1. Insert vibrator head into concrete at regular intervals and slightly withdraw after a short delay at the deepest point.
2. Distance between immersion points: approx. 10 times the diameter of the internal vibrator.
3. Select distance between immersion points so that the concrete areas that are affected by the vibration overlap.
4. Layer-by-layer concrete compaction (max. layer thickness approx. 25 cm). The vibrator head must be inserted into the previously compacted lower layer (approx. 4 cm).
5. Do not immerse internal vibrator to close to the forms, particularly if the concrete has to meet certain optical requirements.

**Advantages of internal vibrators**
- In-house manufactured top quality components provide a long service life and reliable operation.
- Consistent speed for maximum productivity and compaction performance.
- Internal vibrators for connecting to frequency converters – the economical solution when multiple vibrators are being used.
- Internal vibrators with converters integrated in the cable for flexible deployment (connection to mains power supply or generator).
- Internal vibrators with handle for manufacturing concrete floors and for use in pre-cast concrete plants.

**Technical data**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>IREN 30</th>
<th>IREN 38</th>
<th>IREN 45</th>
<th>IREN 47</th>
<th>IREN 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input current (A)</td>
<td>7.2</td>
<td>7.2</td>
<td>7.2</td>
<td>7.2</td>
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<tr>
<td>Voltage (V)</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
<td>230</td>
</tr>
<tr>
<td>Operating weight (kg)</td>
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<td>16.3</td>
<td>16.3</td>
<td>16.3</td>
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</tr>
<tr>
<td>Vibrations (vpm)</td>
<td>15.8 (40)</td>
<td>15.8 (40)</td>
<td>15.8 (40)</td>
<td>15.8 (40)</td>
<td>15.8 (40)</td>
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<tr>
<td>Standard centrifugal force lb (kN)</td>
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<td>1.2 (30)</td>
<td>1.2 (30)</td>
<td>1.2 (30)</td>
<td>1.2 (30)</td>
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<td>Effective compaction diameter in (cm)</td>
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<td>12,000</td>
<td>12,000</td>
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<tr>
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<td>80 (24.4)</td>
<td>80 (24.4)</td>
<td>80 (24.4)</td>
<td>80 (24.4)</td>
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<tr>
<td>Thickness measurement (mm)</td>
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<td>10-25</td>
<td>10-25</td>
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<td>10-25</td>
</tr>
</tbody>
</table>

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**On-Site Concrete Compaction**

High-Frequency Technology for On-Site Concrete Compaction

Concrete technology with integrated inverters and high-frequency technology.

External Vibrators

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<tr>
<th>Parameter</th>
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**Detailed product information**

can be found on our home page at www.wackergroup.com

WACKER IREN, IRFUN and IRSEN internal vibrators

The tailored range of high-frequency internal vibrators from WACKER contains the right equipment for any application – with maximum performance, reliability and safety.

IRFEN

Thanks to their high-torque, constant-speed motors, machines of the IREN series deliver outstanding compaction performance with any size vibrator head, even in extremely dense concrete.

IRFUN

The internal vibrators in the IRSEN series have a low-vibration handle that reduces the amount of vibration considerably and increases operating comfort.

IRSEN

The outstanding feature of the equipment in the IRSEN series is the integrated, absolutely wear-free frequency converter.
WACKER –
High-Frequency Concrete Compaction System

Innovative and economical: Exposed-concrete vibrators AR 36 and ARFU 36 from WACKER with flexible clamping system

Usage tips
- Check suitability of form for external vibrator
- Standard value for use of forms: Horizontal and vertical clearance approx. 40 in
- Maximum backfill layer depth: 20 in
- Do not switch external vibrators on until first lift layer has been put in
- Compaction time approx. 1-2 minutes... for each new layer of concrete

Advantages of exposed-concrete vibrators AR 36 and ARFU 36
- Small, light, flexible external vibrator for on-site concrete forms and lightweight pre-cast concrete forms
- Quick and easy to attach to form
- Powerful electric motor with vibration-resistant and heat-resistant motor coils
- Vibration-proof connections and power cable
- Easy to fit without special tools
- Accessories: Tension clamps

Portable and powerful: Electronic frequency and voltage converters from WACKER

Usage tip
- The total nominal current of the connected equipment must not exceed the output current of the converter:

<table>
<thead>
<tr>
<th>Voltage converter</th>
<th>FUE 6/042/200US</th>
<th>FUE 2/042/200US</th>
<th>KTU Series with integrated cable drum for connection</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUE 6</td>
<td>6</td>
<td>2</td>
<td>1 or 2 high frequency internal vibrators. Can also be used with cable fully reeled in due to optimum cable diameter.</td>
</tr>
<tr>
<td>FUE 2</td>
<td>2</td>
<td>1</td>
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</tr>
<tr>
<td>KTU Series</td>
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<td>1</td>
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</table>

Always to hand: Portable Generators
- High-performance mobile generators for general use on construction sites.
### Technical data

#### High-Frequency Internal Vibrators

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<tr>
<th>Model</th>
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<th>Effective compaction diameter (cm)</th>
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<th>Operating weight (kg)</th>
<th>Input current (A)</th>
<th>Weight lb (kg)</th>
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<td>1.8 (45)</td>
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<tr>
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<td>2.3 (58)</td>
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<td>IRSEN 57</td>
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<td>120-130</td>
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</tr>
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</tbody>
</table>

#### External Vibrators

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<tr>
<th>Model</th>
<th>Voltage (V)</th>
<th>Effective compaction diameter (cm)</th>
<th>Vibrations (vpm)</th>
<th>Operating weight (kg)</th>
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<tr>
<td>KTU 30</td>
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<td>42 3 ~</td>
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#### Electronic Frequency and Voltage Converters

<table>
<thead>
<tr>
<th>Model</th>
<th>Input voltage (V)</th>
<th>Output voltage (V)</th>
<th>Input frequency (Hz)</th>
<th>Output frequency (Hz)</th>
<th>Input current (A)</th>
<th>Output current (A)</th>
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<tbody>
<tr>
<td>FUE 30</td>
<td>220-240</td>
<td>220-240</td>
<td>50 Hz</td>
<td>50 Hz</td>
<td>2.6 (0.8)</td>
<td>49.6 (22.5)</td>
</tr>
<tr>
<td>FUE 38</td>
<td>220-240</td>
<td>220-240</td>
<td>50 Hz</td>
<td>50 Hz</td>
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<tr>
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<td>220-240</td>
<td>50 Hz</td>
<td>50 Hz</td>
<td>2.6 (0.8)</td>
<td>49.6 (22.5)</td>
</tr>
</tbody>
</table>

#### Inverter with Voltage Inverser/Inverter

<table>
<thead>
<tr>
<th>Model</th>
<th>Input voltage (V)</th>
<th>Output voltage (V)</th>
<th>Input current (A)</th>
<th>Output current (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KTU 30</td>
<td>12,000</td>
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</tbody>
</table>

#### Detailed product information

Detailed product information can be found on our home page at [www.wackergroup.com](http://www.wackergroup.com).
WACKER – High-Frequency Concrete Compaction System

Individual, custom-made solutions for compaction concrete: WACKER provides a flexible and compact plug & play modular system for any job site application requiring concrete consolidation.

The benefits of systems “made by Wacker”

- Concrete compaction optimisation due to the excellent performance and reliability of the equipment
- Stable, reproducible compaction processes equipment
- Versatile system solutions suitable for the entire range of WACKER vibration equipment
- Consistently high performance and productivity with a long service life
- Individual solutions for customer-specific projects and applications

Innovative and economical: Exposed-concrete vibrators AR 36 and ARFU 36 from WACKER with flexible clamping system

Usage tips

1. Check suitability of form for external vibrator
2. Standard value for use of forms: Horizontal and vertical clearance approx. 40 in
3. Maximum backfill layer depth: 20 in
4. Do not switch external vibrators on until first lift layer has been put in
5. Compaction time approx. 1-3 minutes... for each new layer of concrete

Advantages of exposed-concrete vibrators AR 36 and ARFU 36

- Small, light, flexible external vibrator for on-site concrete forms and lightweight pre-cast concrete forms
- Quick and easy to attach to form
- Powerful electric motor with vibration-resistant and heat-resistant motor coils
- Stable characteristic curve ensures that speed is extremely consistent
- Stable, reproducible compaction processes equipment
- Can be used with cable fully reeled in due to optimum safety due to the protective low voltage (< 50 V) and galvanic separation by means of an isolating converter
- Extremely safe to use at constant high power, even at the current limit.
- The overload cut-out makes the equipment extremely robust due to sturdy vibration-proof connections and power cable
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- The overload cut-out makes the equipment extremely robust due to sturdy vibration-proof connections and power cable
- Vibration-proof connections and power cable
- Can be connected to the most popular frequency converters with an output frequency of 200 Hz
- ARFU 36 with integrated converter. Direct connection to mains power supply or generator

The complete WACKER package provides all of the concrete compaction components that you need – from a single source.

The compaction system can also be rented for occasional use – from a single source. Rent or purchase - we will advise you on the best way to use WACKER equipment.

Portable and powerful: Electronic frequency and voltage converters from WACKER

Usage tip

The total nominal current of the connected equipment must not exceed the output current of the converter:

<table>
<thead>
<tr>
<th>Frequent Converter</th>
<th>Nominal Current (A)</th>
<th>Number of Converters</th>
</tr>
</thead>
<tbody>
<tr>
<td>FUE 6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>FUE 5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>FUE 4</td>
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<td>FUE 3</td>
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<td>FUE 2</td>
<td>1</td>
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</tr>
<tr>
<td>FUE 1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AR 20-HBO</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Accessories: Tension clamps

These innovative, vibration-proof clamping systems are in a continuous state of development and are suitable for all of the widely used form systems – worldwide.

- Lightweight tension clamp systems that have been tested on construction sites
- Easy to fit without special tools
- System solutions for load-bearing and frame-type forms
- Safety cable to prevent the equipment from falling over

The advantages of frequency converters

- Small, lightweight, flexible for use on construction sites
- Optimum safety due to the protective low voltage (< 50 V) and galvanic separation by means of an isolating converter
- Maintenance free: No moving parts whatsoever in the converter. Extremely robust due to sturdy vibration-proof connections and power cable
- The overload cut-out makes the equipment extremely safe to use at constant high power, even at the current limit.
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Always to hand: Portable Generators

- High-performance mobile generators for general use on construction sites
- Always to hand: Portable Generators
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System solutions for compact concrete: WACKER provides a flexible and compact plug & play modular system for any job site application requiring concrete consolidation.

High-frequency internal vibrators

For internal and external vibrators. The frequency converter allows the best way to use WACKER equipment. The compaction system can also be rented for occasional use – from a single source.

Rent or purchase - we will advise you on the best way to use WACKER equipment.

Usage tip

The total nominal current of the connected equipment must not exceed the output current of the converter:

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<td>FUE 2</td>
<td>1</td>
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</tr>
<tr>
<td>FUE 1</td>
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<td></td>
</tr>
<tr>
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Accessories: Tension clamps

These innovative, vibration-proof clamping systems are in a continuous state of development and are suitable for all of the widely used form systems – worldwide.

- Lightweight tension clamp systems that have been tested on construction sites
- Easy to fit without special tools
- System solutions for load-bearing and frame-type forms
- Safety cable to prevent the equipment from falling over

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- Can be connected to the most popular frequency converters with an output frequency of 200 Hz
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Always to hand: Portable Generators

- High-performance mobile generators for general use on construction sites
- Always to hand: Portable Generators
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WACKER – High-Frequency Concrete Compaction System

Individually custom-made solutions for compacting concrete: WACKER provides a flexible and compact plug & play modular system for any job site application requiring concrete consolidation.

The complete WACKER package provides all of the concrete compaction components that you need – from a single source.

The compaction system can also be rented for occasional use, of course. Rent or purchase - we will advise you on the best way to use WACKER equipment.

High-frequency internal vibrators
For maximum quality and reliability during concrete consolidation.

- Powerful electric motor with vibration-resistant and heat-resistant motor coils
- Maintenance free: No moving parts whatsoever in the converter. Extremely robust due to sturdy casing and protection frame
- Extremely safe to use at constant high power, even when using 1 or 2 high frequency internal vibrators. Can also be used with cable fully reeled in due to optimum cable diameter.
- Overload cut-out makes the equipment extremely safe in use at constant high power
- 1 NF E 6: The frequency adjusting facility of the FUE 6 ensures that the equipment can be used flexibly in conjunction with external vibrators.
- Always to hand: Portable Generators

- High-performance mobile generators for general use on construction sites
- FUE 6: The frequency adjusting facility of the FUE 6 ensures that the equipment can be used flexibly in conjunction with external vibrators.

- Individual solutions - from customer-specific projects and applications

The advatanges of systems “made by Wacker”

- Concrete compaction optimization due to the excellent performance and reliability of the equipment
- Stable, reproducible compaction processes
- Versatile system solutions
- Completely high-performance and productivity with a long service life
- Easy to fit without special tools

Advantages of exposed-concrete vibrators AR 36 and ARFU 36 from WACKER with flexible clamping system

- Small, light, flexible external vibrator for on-site concrete forms and lightweight pre-cast concrete forms
- Quick and easy to attach to form
- Powerful electric motor with vibration-resistant and heat-resistant motor coils
- Stable characteristic curve ensures that speed is extremely constant
- Completely impervious to dust and water spray
- Vibration-proof connections and power cable
- Can be connected to the most popular frequency converters with an output frequency of 200 Hz
- ARFU 36 with integrated converter. Direct connection to mains power supply or generator

Accessories: Tension clamps

These innovative, vibration-proof clamping systems are in a continuous state of development and are suitable for all of the widely used form systems – worldwide.

- Lightweight tension clamp systems that have been tested on construction sites
- Easy to fit without special tools
- System solutions for load-bearing and frame-type forms
- Safety cable to prevent the equipment from falling over

- Small, lightweight, flexible and portable: Electronic frequency and voltage converters from WACKER

- Usage tip
  - The total nominal current of the connected equipment must not exceed the output current of the converter.

- Usage tip – from WACKER equipment.

- Frequency converters with an output frequency of 200 Hz

- Can be connected to the most popular frequency converters with an output frequency of 200 Hz

- ARFU 36 with integrated converter. Direct connection to mains power supply or generator

- Always to hand: Portable Generators

- High-performance mobile generators for general use on construction sites

- FUE 6: The frequency adjusting facility of the FUE 6 ensures that the equipment can be used flexibly in conjunction with external vibrators.
Powerful, reliable and user-friendly: WACKER IREN, IRFUN and IRSEN internal vibrators

Usage tips
1. Insert vibrator head into concrete at regular intervals and slowly withdraw after a short delay at the deepest point.
2. Distance between immersion points: approx. 10 times the diameter of the internal vibrator.
3. Select distance between immersion points so that the concrete areas that are affected by the vibration overlap.
4. Layer-by-layer concrete compaction (max. layer thickness approx. 20 cm). The vibrator head must be inserted into the previously compacted lower layer (approx. 4 cm).
5. Do not immerse internal vibrator to close to the forms, particularly if the concrete has to meet certain optical requirements.

The tailored range of high-frequency internal vibrators from WACKER contains the right equipment for any application – with maximum performance, reliability and safety.

IREN
Thanks to their high-torque, constant-speed motors, machines of the IREN series deliver outstanding compaction performance with any size vibrators from WACKER contains the right equipment for any application – with maximum performance, reliability and safety.

IREN
The internal vibrators in the IRSEN series have a low-vibration handle that reduces the amount of vibration considerably and increases operating comfort.

IRSEN
The outstanding feature of the equipment in the IRSEN series is the integrated, absolutely wear-free frequency converter.

Advantages of internal vibrators
- In-house manufactured top quality components provide a long service life and reliable operation.
- Consistent speed for maximum productivity and compacting performance.
- Internal vibrators for connecting to frequency converters – the economical solution when multiple vibrators are being used.
- Internal vibrators with converters integrated in the cable for flexible deployment (connection to mains power supply or generator).
- Internal vibrators with handle for manufacturing concrete floors and for use in pre-cast concrete plants.

Technical data

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<th>High-Frequency Internal Vibrator with integrated Inverter</th>
<th>External Vibrators</th>
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**High-Frequency Internal Vibrator**
- **Vibration**
- **Operating weight**
- **Voltage**
- **Frequency**
- **Current**

**External Vibrator**
- **Vibration**
- **Operating weight**
- **Standard centrifugal force**

**Technical data**

**High-Frequency Internal Vibrator**
- **Frequency**
- **Voltage**
- **Operating weight**
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**External Vibrator**
- **Vibration**
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**Technical data**

**Frequency Conversion**
- **Input**
- **Output**

**Technical data**

**Concrete technology**

High-Frequency Technology for On-Site Concrete Compaction

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