Operating instructions
General safety rules

1. WARNING!
Read and understand all instructions.
Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

SAVE THESE INSTRUCTIONS

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

3. Electrical Safety
3.1 Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adaptor plugs. Check with a qualified electrician to install a polarized outlet. Do not change the plug in any way.
3.2 Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way. Double insulation eliminates the need for the three-wire grounded power cord and grounded power supply system.

Applicable only to Class I (grounded) tools.

3.3 Avoid body contact with grounded surfaces such as pipes, radiators, ranges and refrigerators. There is an increased risk of electric shock if your body is grounded.
3.4 Don’t expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.
3.5 Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.
3.6 When operating a power tool outside, use an outdoor extension cord marked «W-A» or «W». These cords are rated for outdoor use and reduce the risk of electric shock.

4. Personal Safety
4.1 Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.
4.2. Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.
4.3 Avoid accidental starting. Be sure switch is off before plugging in. Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.
4.4 Remove adjusting keys or wrenches before turning the tool on. A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
4.5 Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.
4.6 Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat or hearing protection must be used for appropriate conditions.

5. Tool Use and Care
5.1 Use clamps or other practical way to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.

6. Service
6.1 Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.
6.2When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.

Additional Specific Safety Rules:
101 Hold tools by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a «live» wire will make exposed metal parts of the tool «live» and shock the operator.
102 Wear ear protectors when using the tool for extended periods. Prolonged exposure to high intensity noise can cause hearing loss.
Hilti TE 104 Scaler

Kit supplied with the machine:
Plastic case, cleaning cloth, Hilti connection end grease, operating instructions

Technical data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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<tbody>
<tr>
<td>Input power</td>
<td>550 W</td>
</tr>
<tr>
<td>Voltage</td>
<td>115 V</td>
</tr>
<tr>
<td>Input current</td>
<td>4.8 A</td>
</tr>
<tr>
<td>Frequency</td>
<td>50 – 60 Hz</td>
</tr>
<tr>
<td>Machine weight</td>
<td>3.5 kg (7.7 lbs)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>365 × 190 × 85 (14.4” × 7.5” × 3.3”)</td>
</tr>
<tr>
<td>Hammering under load</td>
<td>0 – 3800 blows/min.</td>
</tr>
<tr>
<td>Single impact energy</td>
<td>2.2 Joules</td>
</tr>
<tr>
<td>Front section designed to be held</td>
<td></td>
</tr>
<tr>
<td>Permanent lubrication</td>
<td></td>
</tr>
<tr>
<td>Variable speed control switch</td>
<td></td>
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<tr>
<td>Automatic cut-out brushes</td>
<td></td>
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<tr>
<td>Quick-release chuck for set of scaling needles</td>
<td></td>
</tr>
<tr>
<td>Quick-release chuck</td>
<td>for TE-C chisels</td>
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<tr>
<td>Chisel blade adjustment to 8 positions</td>
<td></td>
</tr>
<tr>
<td>Chisels with extended TE-C connection end:</td>
<td>Pointed, narrow, flat, wide flat/scaper, flexible, channel, mortar and joint chisels</td>
</tr>
<tr>
<td>Needle protector with round and oval opening for the sets of needles</td>
<td></td>
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<tr>
<td>Double insulation construction, class II</td>
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</table>

Please note before starting to work

Read the enclosed General Safety rules.

When working with the machine, it must be held with two hands. Always make sure that you have a safe stance/fothold.

1. The electric supply must be the same as given on the TE 104 nameplate.
2. The TE 104 is double insulated and must not be grounded.
3. Wear protective gloves, safety glasses and ear protectors.

Do not use this product in any way other than as directed by these operating instructions.

The respective regulations of your trade association and the enclosed General safety rules must be observed.

The operating instructions should always be kept with the machine!
Pointed and narrow flat chisels:
Forge chisels at about 900°C to 1000°C (bright red to bright yellow red). Afterwards, quench in oil. On forging and quenching the chisel in this way, it will be given optimal treatment. No further hardening and tempering is necessary.

Wide-flat chisel:
As the cross-section of a worn wide-flat chisel is not large enough for forging, this chisel should not be reforged but only resharpened. The blade is long enough to be resharpened several times.

Resharpening:

- **Pointed chisel**
- **Narrow flat chisel**
- **Wide flat chisel**

**Chisel reforging and resharpening**

When resharpening wide-flat, narrow-flat and pointed chisels which are not badly worn, take care to avoid overheating (no discoloration). Resharpening limit: to a remaining length of 130 mm from connection end.