Working Instruction Translation

WIDOS hand-held heating tool
H0120E / H0120T

Keep for further use!

Headquarters: D-71254 Ditzingen-Heimerdingen Country court Stuttgart HRB 200973 Managing director: Jürgen Dommer
**Purpose of the document**

These working instructions give you information about all important questions which refer to the construction and the safe working of your hand-held heating tool. Just as we are, you are obliged to engage in these working instructions, as well. Not only to run your hand-held heating tool economically but also to avoid damages and injuries. Should questions arise, contact our service team in the factory or in our subsidiary companies. We will help you with pleasure.

According to our interest to continuously improve our products and working instructions, we kindly ask you to inform us about problems and defects which occur in exercise. Thank you.

**Structure of the working instructions**

This manual is arranged in chapters, which belong to the different using phases of the hand-held heating tool. Therefore the searched information can be easily found.
# Table of contents

1. DESCRIPTION OF PRODUCT ................................................................. 4  
   1.1. Usage and purpose-oriented use ...................................................... 4  
   1.2. Safety measures ............................................................................. 4  
   1.3. Conformity ..................................................................................... 4  
   1.4. Marking of the product ................................................................. 4  
   1.5. Technical data ............................................................................... 4  
2. SAFETY RULES .................................................................................. 5  
   2.1. Explanation of the symbols and indications ..................................... 5  
   2.2. Obligations of the owner ............................................................... 5  
   2.3. Obligations of the worker ............................................................. 5  
   2.4. Measures of organisation ............................................................. 5  
   2.5. Information about safety precautions .......................................... 6  
   2.6. Instructions for the staff .............................................................. 6  
   2.7. Specific dangers ........................................................................... 6  
      2.7.1. Danger of combustion by hand-held heating tool and welding area 6  
      2.7.2. Danger of the electric energy ................................................ 6  
   2.8. Structural modifications on the hand-held heating tool ................. 7  
   2.9. Warranty and liability ................................................................. 7  
3. ELEMENTS AT THE HAND-HELD HEATING TOOL .......................... 8  
   3.1. Accessories (option) ................................................................. 8  
4. STARTING AND OPERATING ....................................................... 9  
   4.1. Starting ....................................................................................... 9  
   4.2. Preparation of the welding ......................................................... 9  
   4.3. Welding process ......................................................................... 9  
5. MAINTENANCE / STORAGE / TRANSPORT .................................. 10  
   5.1. General ...................................................................................... 10  
   5.2. Storage ...................................................................................... 10  
   5.3. Transport .................................................................................. 10  
   5.4. Disposal ................................................................................... 10  
6. SPARE PART LIST ........................................................................... 11  
   6.1. Hand-held heating tool, electronically controlled ......................... 11  
   6.2. Hand-held heating tool, thermostat-controlled ............................ 13  
7. DECLARATION OF CONFORMITY ................................................... 15
1. Description of product

The chapter gives important basic information about the product and its prescribed use. All technical details of the hand-held heating tool are put together as a general arrangement.

1.1. Usage and purpose-oriented use

The WIDOS hand-held heating element H0120E / H0120T is made for heating element butt welding of pipes and fittings out of PE, PP and PVDF with a diameter range of Ø = 50 - 200 mm.

1.2. Safety measures

In case of wrong use, wrong operation or wrong maintenance the heating element itself or products being in the surrounding can be damaged or destroyed. Persons being in the endangered area may be injured. Therefore these working instructions have to be thoroughly read and the corresponding safety advices must necessarily be adhered to.

1.3. Conformity

The hand-held heating tool corresponds in its construction to the valid recommendations of the European Community as well as to the according European standard specifications. The development, manufacturing and mounting of the hand-held heating tool were made very carefully.

1.4. Marking of the product

The product is marked by a type label. It contains the type, the serial number and the year of construction of the heating element.

1.5. Technical data

<table>
<thead>
<tr>
<th>Power:</th>
<th>500 Watt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current:</td>
<td>2,7 A (± 10 %)</td>
</tr>
<tr>
<td>Voltage:</td>
<td>230 V (± 10 %)</td>
</tr>
<tr>
<td>Frequency:</td>
<td>50 Hz</td>
</tr>
<tr>
<td>Surface:</td>
<td>anti-stick coated</td>
</tr>
<tr>
<td>Attached elements:</td>
<td>- electronic temperature control</td>
</tr>
<tr>
<td></td>
<td>- control lamp</td>
</tr>
<tr>
<td></td>
<td>- connecting cable with plug</td>
</tr>
</tbody>
</table>
2. Safety rules

The base for the safe handling and the fault-free operation of this heating element is the knowledge of the basic safety indications and rules. These working instructions contain the most important indications to run the heating element safely. The safety indications are to be followed by all persons working with the heating element.

2.1. Explanation of the symbols and indications

In the working instructions, following denominations and signs are used for dangers:

- This symbol gives important indications for the proper use of the hand-held heating tool.
  - The disrespect of these indications may conduct to malfunctions and damages on the hand-held heating tool or on goods in the surrounding.

- This symbol means a possibly danger for the life and the health of persons.
  - The disrespect of these indications may have heavy consequences for the health.

- This symbol means a possible dangerous situation due to hot surfaces.
  - The disrespect of these indications may conduct to heavy burns, respectively to self-ignition or even fire.

The regulations for the prevention of accidents are valid (UVV).

2.2. Obligations of the owner

The owner is obliged only to let persons work with the hand-held heating tool who

- know about basic safety and accident prevention rules and are instructed in the handling of the hand-held heating tool, as well as who
- have read and understood the safety chapter of this manual and certify this by their signature.

The safety-conscious working of the staff has to be checked in regular intervals.

2.3. Obligations of the worker

All persons who are to work with the hand-held heating tool are obliged before working:

- to follow the basic safety and accident protection rules.
- to have read and understood the safety chapter and the warnings in this manual and to confirm by their signature that they have well understood them.
- to inform themselves about the functions of the hand-held heating tool before using it.

2.4. Measures of organisation

- All equipment required for personal safety is to be provided by the owner.
- All available safety equipment is to be inspected regularly.
2.5. **Information about safety precautions**

- The working instructions have to be permanently kept at the place of use of the hand-held heating tool.
- They are to be at the operator's disposal at any time and without much effort.
- In addition to the manual, the common valid and the local accident protection rules and regulations for the environmental protection must be available and followed.
- All safety and danger indications on the hand-held heating element have to be in a clear readable condition.
- Every time the hand-held heating element changes hands or is being rent to third persons, the working instructions are to be sent along with and their importance is to be emphasized.

2.6. **Instructions for the staff**

- Only skilled and trained persons are allowed to work with the hand-held heating element.
- It must be clearly defined who is responsible for transport and starting the operation, setting, tooling, operation, maintenance, inspection and repair.
- A person who is being trained may only work with the hand-held heating element under supervision of an experienced person.

2.7. **Specific dangers**

2.7.1. **Danger of combustion by hand-held heating tool and welding area**

You can burn yourself, inflammable materials can be ignited!

The hand-held heating tool is heated up to more than 250° C!

- Do not leave the hand-held heating tool unsupervised.
- Do not touch the surfaces of the hand-held heating tool.
- Take enough safety distance to inflammable materials.
- Do wear safety gloves.
- When cleaning the hot hand-held heating tool with detergents (e.g. with PE cleaner) there is the danger of inflammation. For this reason, please take care that the inflammation point is above the actual temperature of the hand-held heating tool. Do not bring any fire sources (e.g. cigarettes) close thereto.

2.7.2. **Danger of the electric energy**

Only skilled persons are allowed to work at electrical appliances.

- The electrical equipment of the hand-held heating tool has to be checked regularly. Loose connections and damaged cables have to be replaced or repaired immediately
- Make sure that no person must step over the wire of hand-held heating tool.
2.8. **Structural modifications on the hand-held heating tool**

- No modifications, extensions or reconstructions may be made on the hand-held heating tool without permission of the manufacturer.
- Parts that are not in perfect condition are to be replaced immediately.
- Only use original WIDOS spare and wear parts.

2.9. **Warranty and liability**

Fundamentally our "General Sales and Delivery Conditions" are valid. They are at the owner's disposal latest when signing the contract.

Guarantee and liability demands referring to personal injuries or damages on objects are excluded if they are caused by one or several of the following reasons:

- not using the hand-held heating tool according to the prescriptions
- inexpert transport, mounting, starting, operating, and maintenance of the hand-held heating tool
- ignoring the information given in this manual
- structural modifications on the hand-held heating tool without permission
- unsatisfactory checking of parts of the hand-held heating tool which are worn out
- repairs performed in an inexpert way
- in case of catastrophes and force majeure.
3. Elements at the hand-held heating tool

electronic controlled

<table>
<thead>
<tr>
<th>No.</th>
<th>Denomination</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Switch on/off with lamp, red</td>
<td>- As soon as the heating tool is switched on, it is heated up.</td>
</tr>
<tr>
<td>2</td>
<td>Control dial</td>
<td>- Temperature adjustment for the heating element</td>
</tr>
</tbody>
</table>
| 3   | Control lamp, green | - Upon electronic control:
  - **On**: signalizes that the heating tool is heated up at the moment. The desired temperature has not been reached yet.
  - **Blinking**: The heating tool temperature is maintained by a certain pulse-position ratio.
  - **Off**: Signalizes that the heating tool is not heated up at the moment or that it cools down.

- Upon thermostatic control:
  - **On**: signalizes that the heating tool is heated up at the moment. The desired temperature has not been reached yet.
  - **Off**: Signalizes that the heating tool is not heated up at the moment or that it cools down. |

4 Connecting cable with plug - Connection to local power supply

3.1. Accessories (option)

Tischklemmhalter HM002
4. Starting and operating

The instructions of this chapter are supposed to initiate in the operation of the hand-held heating tool and lead during the appropriate starting of the hand-held heating tool. This includes:
- the safe operation of the hand-held heating tool
- using all the possible options of the hand-held heating tool
- economic operation of the hand-held heating tool.

4.1. Starting

The hand-held heating tool may only be operated by initiated and authorized persons. For the qualification, a plastic welding exam can be taken according to DVS and DVGW.

- In situations of danger for persons and the hand-held heating tool, the mains plug has to be unplugged immediately.
- After completion of the welding work and during breaks the hand-held heating tool has to be switched off. Further take care that no unauthorized person has access.
- Protect the hand-held heating tool from wetness and humidity!
- For a safe storage resp. transport you should store the device within a transport case.
- According to VDE 0100, the use on construction sites is only allowed with a power distributor with a FI-security protective switch.
- Necessarily observe the safety regulations!

4.2. Preparation of the welding

- A stop-watch must be available for recording the actual times for heating and cooling.
- The joining surface of the pipes must be treated according to the indications of the manufacturers for semi-finished products.
- The hand-held heating tool surfaces are to be clean and, above all, free from grease.
- Therefore they are to be cleaned with non-fraying paper and detergent (e.g. PE cleaner) before every welding or if they are dirty.
- Take into account the surrounding conditions:
  - the welding may not be performed under direct sun rays influence.
- If the surrounding temperature is under 5°C, measures have to be taken:
  - preheat the pipe ends if necessary.
- In addition, take measures against rain, wind and dust.
- Protect the hand-held heating tool from wetness and humidity!

4.3. Welding process

The respectively valid welding prescriptions (ISO / CEN / DVS...) are to be basically followed.

- Wear safety gloves as protection against combustion!
- Insert the heating element with the handle e.g. into the optional tool holder (chapter: 3.1).
• Connect the mains plug to the power supply (observe voltage). The temperature for both versions is adjusted by the adjusting screw: „T“ (thermostatic) and „E“ (electronic).

• Activate the heating element; as soon as the required temperature has been reached, the green control lamp is showing the following:
  - Upon version „T“ the control lamp extinguishes.
  - Upon version „E“ it will start to blink.

• Press the pipes onto the hand-held heating element and keep fixed there as long as the heating time lasts.
• After the heating time has elapsed, detach the pipes from the heating element and press together without mismatch.
• Keep the compressed pipes fixed and let them cool down afterwards.
• You may only strain the welding connection by further laying works after the cooling time has elapsed.

5. Maintenance / storage / transport

5.1. General

• Replace damaged parts immediately, be particularly careful with electrical parts - dirt and wetness are very good current conductors.
• Only use original WIDOS spare parts.

Prescribed maintenance and inspection works should be performed in time. The DVS gives the advice of inspection works after 1 year. For tools with an especially high usage percentage the testing cycle should be shortened. The works should be performed at the WIDOS GmbH company or by an authorized partner.

• Regularly check the coating of the heating element; it must be undamaged in the welding area.

5.2. Storage

The heating element should be stored in a way that the coating may not be damaged.

5.3. Transport

Pack the heating element for the transport in a way that the coating may not be damaged, or put it into the transport case (option).

5.4. Disposal

At the end of its life time, the hand-held heating tool and the wear parts have to be disposed of properly and non-polluting, and in accordance with the national laws of waste disposal.
6. Spare part list

6.1. Hand-held heating tool, electronically controlled
### Hand-held heating tool, electronically controlled  WIDOS H0120E

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Name</th>
<th>Piece</th>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Heating element complete, 800 W, 230 V</td>
<td>1</td>
<td>H0120E</td>
</tr>
<tr>
<td></td>
<td>Heating plate new</td>
<td>1</td>
<td>HPMINIE</td>
</tr>
<tr>
<td></td>
<td>Heating plate in exchange</td>
<td>1</td>
<td>HPTMINIE</td>
</tr>
<tr>
<td>2</td>
<td>Thread insert M 6</td>
<td>2</td>
<td>GEW-M6</td>
</tr>
<tr>
<td>3</td>
<td>Pan-head screw M 6x55 DIN 912</td>
<td>2</td>
<td>0912F045</td>
</tr>
<tr>
<td>4</td>
<td>Spring washer M6 DIN 128</td>
<td>2</td>
<td>0128F</td>
</tr>
<tr>
<td>5</td>
<td>Insulating piece</td>
<td>1</td>
<td>450503</td>
</tr>
<tr>
<td>6</td>
<td>Connection cable with plug</td>
<td>1</td>
<td>EK3220</td>
</tr>
<tr>
<td>7</td>
<td>Joining piece</td>
<td>1</td>
<td>980531</td>
</tr>
<tr>
<td>8</td>
<td>Insulating washer</td>
<td>1</td>
<td>H09091</td>
</tr>
<tr>
<td>9</td>
<td>Antikink gommet</td>
<td>1</td>
<td>EKT08</td>
</tr>
<tr>
<td>10</td>
<td>Connection cable with plug</td>
<td>1</td>
<td>EK3220</td>
</tr>
<tr>
<td>11</td>
<td>Sensor PT 1000</td>
<td>1</td>
<td>H09082</td>
</tr>
<tr>
<td>12</td>
<td>Triac with heat sink</td>
<td>1</td>
<td>H09081</td>
</tr>
<tr>
<td>13</td>
<td>Oval-head screw M 4x10 DIN 7985</td>
<td>4</td>
<td>7985D010</td>
</tr>
<tr>
<td>14</td>
<td>Tooth lock washer M 4 DIN 6797</td>
<td>3</td>
<td>6797D</td>
</tr>
<tr>
<td>15</td>
<td>Electronic control GZ4, 230 V</td>
<td>1</td>
<td>H0918220</td>
</tr>
<tr>
<td>16</td>
<td>Window for heating element housing, white</td>
<td>1</td>
<td>H09072</td>
</tr>
<tr>
<td>17</td>
<td>Turning knob with slot</td>
<td>1</td>
<td>H2109</td>
</tr>
<tr>
<td>18</td>
<td>Scale 180 - 280° (d 33)</td>
<td>1</td>
<td>H21092</td>
</tr>
<tr>
<td>19</td>
<td>Control lamp, green</td>
<td>1</td>
<td>H2105</td>
</tr>
<tr>
<td>20</td>
<td>Rocker switch, red</td>
<td>1</td>
<td>H0903</td>
</tr>
<tr>
<td>21</td>
<td>Grip housing</td>
<td>1</td>
<td>H0907</td>
</tr>
<tr>
<td>22</td>
<td>Strain relief</td>
<td>1</td>
<td>H09072</td>
</tr>
<tr>
<td>23</td>
<td>Slotted pan head screw 2,9 x 13 DIN 7981</td>
<td>2</td>
<td>7981B013</td>
</tr>
<tr>
<td>24</td>
<td>Antikink gommet</td>
<td>1</td>
<td>EKT08</td>
</tr>
<tr>
<td>25</td>
<td>Pan-head screw M 4x70 DIN 912</td>
<td>3</td>
<td>0912D070</td>
</tr>
<tr>
<td>26</td>
<td>Sheet metall screw C 4,8x16 DIN 7981</td>
<td>3</td>
<td>7981E019</td>
</tr>
</tbody>
</table>
6.2. Hand-held heating tool, thermostat-controlled

Diagram of the hand-held heating tool with labeled parts.
### Hand-held heating tool, thermostat-controlled WIDOS H0120T

<table>
<thead>
<tr>
<th>Pos.</th>
<th>Name</th>
<th>Piece</th>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Heating element 500 W; 230 V</td>
<td>1</td>
<td>H0120T</td>
</tr>
<tr>
<td></td>
<td>Heating plate new</td>
<td>1</td>
<td>HPMINIIE</td>
</tr>
<tr>
<td></td>
<td>Heating plate in exchange</td>
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<tr>
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<td>Pan-head screw M 6x55 DIN 912</td>
<td>2</td>
<td>0912F045</td>
</tr>
<tr>
<td>4</td>
<td>Spring washer M6 DIN 128</td>
<td>2</td>
<td>0128F</td>
</tr>
<tr>
<td>5</td>
<td>Insulating piece</td>
<td>1</td>
<td>450503</td>
</tr>
<tr>
<td>6</td>
<td>Connection cable with plug</td>
<td>1</td>
<td>EK3220</td>
</tr>
<tr>
<td>7</td>
<td>Joining piece</td>
<td>1</td>
<td>980531</td>
</tr>
<tr>
<td>8</td>
<td>Insulating washer</td>
<td>1</td>
<td>H09091</td>
</tr>
<tr>
<td>9</td>
<td>Window for heating element housing, white</td>
<td>1</td>
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<td>10</td>
<td>Turning knob with slot</td>
<td>1</td>
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<td>11</td>
<td>Scale 180 - 280° (d 33)</td>
<td>1</td>
<td>H21092</td>
</tr>
<tr>
<td>12</td>
<td>Thermostat</td>
<td>1</td>
<td>H0904</td>
</tr>
<tr>
<td>13</td>
<td>Oval-head screw M 4x10 DIN 7985</td>
<td>4</td>
<td>7985D010</td>
</tr>
<tr>
<td>14</td>
<td>Tooth lock washer M 4 DIN 6797</td>
<td>3</td>
<td>6797D</td>
</tr>
<tr>
<td>15</td>
<td>Control lamp, green</td>
<td>1</td>
<td>H2105</td>
</tr>
<tr>
<td>16</td>
<td>Rocker switch, red</td>
<td>1</td>
<td>H0903</td>
</tr>
<tr>
<td>17</td>
<td>Grip housing</td>
<td>1</td>
<td>H0907</td>
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<tr>
<td>18</td>
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<td>Pan-head screw M 4x70 DIN 912</td>
<td>3</td>
<td>0912D070</td>
</tr>
<tr>
<td>22</td>
<td>Sheet metall screw C 4,8x16 DIN 7981</td>
<td>3</td>
<td>7981E019</td>
</tr>
</tbody>
</table>
7. Declaration of conformity

In the sense of the EC-guideline EC-Machinery Directive 2006/42/EG

Corporation

WIDOS GmbH
Einsteinstr. 5
D-71254 Ditzingen-Heimerdingen

declares under own responsibility that the product

Hand-held heating tool
WIDOS HE0120E / HE0120T

to which this declaration refers corresponds to the following norms and normative documents:

1. DIN EN ISO 12100 – 1 and 2 (replacement for DIN EN 292 parts 1 and 2)
   Safety of machines, basic terminology, general guidelines for design

2. DIN EN 60204.1
   Electric equipment of industrial machines

3. DIN EN 60555, DIN EN 50082, DIN EN 55014,
   Electro-magnetic resistance

4. DIN EN 60950
   Safety of equipments of the information technology

The complete technical documentation is available.
The working instructions in the national language of the user are available.

Ditzingen-Heimerdingen, the 08.05.2013

______________________________
Martin Dommer (Technical director)