Working Instructions
Translation

Heating element butt welding machine

WIDOS 2500 / OD 250

Keep for further use!
### Product identification

<table>
<thead>
<tr>
<th>Type:</th>
<th>WIDOS 2500 / OD 250</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serial number: / year of construction:</td>
<td>see type plate</td>
</tr>
</tbody>
</table>

### Customer entries

<table>
<thead>
<tr>
<th>Inventory-no.:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of working:</td>
<td></td>
</tr>
</tbody>
</table>

### Order of spare parts and after sales service:

**Address of manufacturer**

WIDOS  
Wilhelm Dommer Söhne GmbH  
Einsteinstrasse 5  
D-71254  Ditzingen  

Phone: ++49 7152  9939  0  
Fax: ++49 7152  99 39  40  
[info@widos.de](mailto:info@widos.de)  
[http://www.widos.de](http://www.widos.de)
Introduction

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 machine.

Just as we are, you are obliged to engage in these working instructions, as well.

Not only to run your machine 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 machine.
Therefore the searched information can be easily found.
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1. Description of product

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

### 1.1. Usage and purpose-oriented use

The WIDOS 2500 / OD 250 is made for the heating element butt welding of pipes and fittings out of PE, PP and PVDF with a diameter range of Ø = 50 - 250 mm (optional Ø = 20 – 40 mm). (Standard diameters: 50 / 63 / 75 / 90 / 110 / 125 / 140 / 160 / 180 / 200 / 225 / 250 mm).

The following pipes are weldable:

<table>
<thead>
<tr>
<th>Pipe size</th>
<th>PE</th>
<th>PP</th>
</tr>
</thead>
<tbody>
<tr>
<td>OD 50 up to OD 180</td>
<td>SDR 11</td>
<td>SDR 6</td>
</tr>
<tr>
<td>up to OD 250</td>
<td>SDR 21</td>
<td>SDR 17,6</td>
</tr>
</tbody>
</table>

All use going beyond is not prescribed.
The manufacturer is not responsible for damages caused by misuse.
The risk is held only by the user.

Also part of the purpose-oriented use is

- respecting all the indications of the working instructions and
- performing the inspection and maintenance work.

### 1.2. Safety measures

In case of wrong use, wrong operation or wrong maintenance the machine 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 machine 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 machine 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 machine.

1.4.1. Technical data

1.4.1.1. WIDOS 2500 / OD 250 General data

<table>
<thead>
<tr>
<th>Dimensions of pipes:</th>
<th>outside-Ø = 50 - 250 mm (optional, outside-Ø = 20 - 40 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material:</td>
<td>PP, PE, PVDF</td>
</tr>
<tr>
<td>Fuse protection:</td>
<td>16 A</td>
</tr>
<tr>
<td>Wire cross section:</td>
<td>1.5 mm²</td>
</tr>
<tr>
<td>Packing case:</td>
<td>960 x 690 x 710 mm</td>
</tr>
<tr>
<td>Emissions</td>
<td>- Noise exceeding 80 dB (A) may occur; during planing it is obligatory to wear ear protection!</td>
</tr>
<tr>
<td></td>
<td>- When using the named pipe materials and when welding below 260°C / 500°F no toxicant damp arises</td>
</tr>
<tr>
<td>Ambient conditions in the welding area</td>
<td>- take care for cleanliness (no dust at the welding area)</td>
</tr>
<tr>
<td></td>
<td>- If secured by an appropriate measurement that allowed conditions for welding are indicated, it is possible to work in any outside temperature condition as far as the welder is not constrained in its manual skill.</td>
</tr>
<tr>
<td></td>
<td>- avoid humidity, if necessary use a welding tent</td>
</tr>
<tr>
<td></td>
<td>- avoid strong sun rays influence</td>
</tr>
<tr>
<td></td>
<td>- protect from wind, shut the pipe ends</td>
</tr>
</tbody>
</table>

1.4.1.2. Heating element

<table>
<thead>
<tr>
<th>Power:</th>
<th>1500 Watt</th>
<th>1500 Watt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current:</td>
<td>6.5 A (± 10 %)</td>
<td>13.6 A (± 10 %)</td>
</tr>
<tr>
<td>Voltage:</td>
<td>230 V (± 10 %)</td>
<td>110 V (± 10 %)</td>
</tr>
<tr>
<td>Frequency:</td>
<td>50 Hz</td>
<td>60 Hz</td>
</tr>
<tr>
<td>Surface:</td>
<td>nonstick coated</td>
<td></td>
</tr>
<tr>
<td>Attached elements:</td>
<td>- electronic temperature control</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- control lamp</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- connection cable with plug</td>
<td></td>
</tr>
</tbody>
</table>

1.4.1.3. Planer

<table>
<thead>
<tr>
<th>Power:</th>
<th>1150 Watt</th>
<th>1150 Watt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current:</td>
<td>4.5 A (± 10 %)</td>
<td>9.5 A (± 10 %)</td>
</tr>
<tr>
<td>Voltage:</td>
<td>230 V (± 10 %)</td>
<td>110 V (± 10 %)</td>
</tr>
<tr>
<td>Frequency:</td>
<td>50 Hz</td>
<td>60 Hz</td>
</tr>
<tr>
<td>Attached elements:</td>
<td>- connecting cable with plug</td>
<td></td>
</tr>
</tbody>
</table>
1.4.2. Equipment and accessories

The following tools and accessories are part of the first delivery:

<table>
<thead>
<tr>
<th>1 each</th>
<th>Hexagonal socket screw key size 4 / 5 / 6 with T-grip for mounting / dismounting the reduction inserts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 each</td>
<td>Hexagonal socket screw key size 5 / 6 / 8</td>
</tr>
<tr>
<td>1</td>
<td>Annular fork wrench size 13 (for clamping device)</td>
</tr>
<tr>
<td>1</td>
<td>Torx-screw driver T10</td>
</tr>
<tr>
<td>1</td>
<td>Tool bag for 10 parts</td>
</tr>
</tbody>
</table>

See spare parts list for order numbers and single parts. In case of an order please always give the machine number!
2. Safety rules

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

2.1. Explanation of the symbols and indications

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

- 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.
  - The disrespect of these indications may cause slight injuries or damages on goods.

- 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.

- This symbol means a possible dangerous situation by moving parts of the machine
  - The disrespect of these indications may cause heavy crushing’s of parts of the body resp. damages of parts of the machine.

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

- Under this symbol you get user tips and particularly useful information.
  - It is a help for using all the functions on your machine in an optimal way and helps you to make the job easier.

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 at the machine who
- know about basic safety and accident prevention rules and are instructed in the handling of the
  machine, 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 at the machine 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 machine before using it.

2.4. Measures of organization

- 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 machine. 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 machine have to be in a clear readable condition.
- Every time the machine 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 at the machine.
- It must be clearly defined who is responsible for transport, mounting and dismounting, and starting
  the operation, setting, tooling, operation, maintenance, inspection and repair.
- A person who is being trained may only work at the machine under supervision of an experienced
  person.
2.7. Specific dangers

2.7.1. Danger of combustion by heating element and welding area

You can burn yourself, inflammable materials may ignite!
The heating element is heated up to more than 250°C / 482°F!

- Do not leave the heating element unsupervised.
- Do not leave the heating element unsupervised.
- Do not touch the surfaces of the heating element.
- Take enough safety distance to inflammable materials.
- Do wear safety gloves.
- Make sure that no person is in the swinging area of the heating element.
- When cleaning the hot heating element 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 heating element.
- Do not bring any fire sources (e.g. cigarettes) close thereto.

2.7.2. Danger of stumbling over electric wires

- Make sure that no person must step over the wires of heating element and planer.

2.7.3. Danger of injury, crushing by turret

You may crush your fingers resp. be beaten by the turret upon releasing the clamping lever during which the machine is under pressure.

- Hold the turret with one hand and only then release the clamping lever.
- Do not grip between clamped pipe endings.

2.7.4. Danger of cutting and catching clothes by the planer, danger of crushing at the guide rods

You can cut yourself or even get bones broken.

- Only wear clothes tight to the body.
- Do not wear jewellery during the work.
- If necessary, wear hair-net.
- Do not touch the faces of the planer.
- Take care that no person is standing in the swiveling area of the planer.
2.8. **Structural modifications on the machine**

- No modifications, extensions or reconstructions may be made on the machine without permission of the manufacturer.
- Machine 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 machine according to the prescriptions
- inexpert transport, mounting, starting, operating, and maintenance of the machine
- ignoring the information given in this manual
- structural modifications on the machine without permission
- unsatisfactory checking of parts of the machine which are worn out
- repairs performed in an inexpert way
- in case of catastrophes and force majeure.
3. Functional description

_Basically, the international and national guidelines are to be followed._

The plastic pipes are clamped by means of clamping devices. Then the front sides of the pipes are cut plane and parallel by means of the _planer_ and the misalignment of the pipes is checked.

The cleaned and heated heating element is inserted and the pipes are pressed against the heating element under defined adjusting force. This process is called _adjusting_.

The applied force can be read on the scale. After the prescribed bead height being reached, the force is reduced, the _heating time_ begins. The function of this time is to heat up the pipe ends.

After expiration of the heating time, the slide is opened, the heating element is removed quickly and the pipes are driven together again. The time gap from the removal of the heating element to joining the pipes is called _change over time_.

The pipes are joined under prescribed welding force and then cool down under pressure (_cooling time_).

The welded pipes can be unclamped, the welding process is finished.

---

**Heating element heats the pipes up to welding temperature**

**Finished welding with internal and external bead**
4. Operating and indicating elements

4.1. Elements on the basic machine

<table>
<thead>
<tr>
<th>No.</th>
<th>Denomination</th>
<th>Function</th>
</tr>
</thead>
</table>
| 1   | Heating element               | - Heating up the pipes.  
- Can be swiveled in and out. |
| 2   | Scale                         | - Display of the applied welding force.  
- max. display: 150 daN (kp) |
| 3   | Tension lever                 | - to arrest the support.                                                 |
| 4   | Planer                        | - to plane the pipes.  
- Can be swiveled in and out. |
| 5   | Clamping device, right- / left-hand | - to clamp the pipes |
| 6   | Support for pipes, right- / left-hand | - Support the pipes |
| 7   | Cross handle                  | - Opening / shutting of the support.  
- Application of the adjusting force and of the jointing force |
4.2. Elements at the planer and heating element

<table>
<thead>
<tr>
<th>No.</th>
<th>Denomination</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Switch on/off</td>
<td>- For switching on / off the planer</td>
</tr>
<tr>
<td>9</td>
<td>Button</td>
<td>- As soon as the planer is switched on and the button is pressed, the planer turns round</td>
</tr>
<tr>
<td>10</td>
<td>Switch on/off with lamp</td>
<td>- As soon as the heating element is switched on, it is heated up.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- The red lamp lightens when the heating element is connected to the mains.</td>
</tr>
<tr>
<td>11</td>
<td>Adjusting screw</td>
<td>- Adjusting the temperature of the heating element.</td>
</tr>
<tr>
<td>12</td>
<td>Control lamp, green</td>
<td>There are three different states:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <strong>Off</strong>: signalizes that the heating element is not heated up at the moment or that it cools down.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <strong>Blinking</strong>: the heating element temperature is maintained by a certain pulse-position ratio.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- <strong>On</strong>: signalizes that the heating element is heated up at the moment. The desired temperature has not been reached yet.</td>
</tr>
</tbody>
</table>
5. Starting and operating

The instructions of this chapter are supposed to initiate in the operation of the machine and lead during the appropriate starting of the machine. This includes:

- the safe operation of the machine
- using all the possible options of the machine
- economic operation of the machine.

5.1. Starting

The machine 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 machine, the mains plug has to be unplugged immediately.
- After completion of the welding work and during breaks the machine has to be switched off.
- Further take care that no unauthorized person has access.
- Protect the machine from wetness and humidity!
- According to VDE 0100, the use on construction sites is only allowed with a power distributor with a FI-security protective switch.
- Connect the heating element and planer to the mains supply (230 V / 50 Hz) / (110 V / 60 Hz).

Lay electro wires carefully (danger of stumbling!)

- 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 / 41°F, measures have to be taken:
  - Preheat the pipe ends if necessary.
- In addition, take measures against rain, wind and dust.

5.1.1. Assembly of the machine

- Detach the clamping handles of the transport case and lift off the case in an upward direction.
- Turn the case upside down with the open space on top and put it on the floor.
- Put the case floor together with the machine onto the open case.
- Refit the screwed-off heating element handle.
- Connect the planer to the local power supply (230 V / 16 A / 50 Hz) / (110 V / 16 A / 50-60 Hz).
- Connect the heating element to the local power supply (230 V / 16 A / 50 Hz) / (110 V / 16 A / 50-60 Hz).

The machine can be operated now.
5.2. How to mount the pipe supports

For pipes with OD 50 – 160 mm, the small adjustable pipe supports out of sheet steel are provided.
For pipes with OD 180 – 250, the large adjustable pipe supports out of sheet steel are provided.
The required outside diameter of the pipe is adjusted by briefly lifting and displacing both supports (2). The sizes are engraved on the frontal and on the rear piece (3 + 4).

In order to change the pipe supports, release the knurled screws (4), remove the supports with the sliding blocks sideward out of the machine tables, and mount the required pipe supports in reverse order.

5.3. Aluminum pipe supports (optional)

You will need the optional pipe supports (5) for pipes with OD 20 – 40 mm.
Put the necessary pipe supports (5) onto the pipe bracket (7).
Align the pipes to each other.
Align the pipe bracket to the pipe (arrow) in horizontal direction.
Fix the pipe bracket (7) by the knurled screw (6).

5.4. How to set the heating element temperature

Switch on the heating element with the switch (no. 8) and set the necessary welding temperature at the adjusting screw (no. 9) at the handle, you can see the adjusting temperature on scale (10).
If the control lamp (no. 11) blinks, the nominal temperature has been reached and is maintained by means of a defined pulse-pause ratio.
5.5. Welding process

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

- Wear safety gloves as protection against combustion!
- A stop-watch must be available for recording the actual times for heating and cooling.
- A welding table must be available from which the parameters for the pipe dimensions to be welded prescribed by the welding prescriptions may be taken.
- The heating element surfaces must be clean, especially non greasy, therefore they need to be cleaned shortly before each welding or in case of dirtiness by means of a fiber-free paper and a cleaning agent.

The anti-stick coating of the heating element is to be undamaged in the working area.

5.5.1. How to align and clamp the pipes

- Screw the reduction inserts according to the pipe outside diameter to be welded.
- Align the pipe brackets according to the pipe outside diameter (chapter: 5.2).
- Open the clamping tools. Put the pipes with the same overhang to the inside of the clamping tools.
- Close them and clamp pipes.

5.5.2. How to plane the pipes

- Switch on the planer (chapter: 4.2, Nr. 8).
- Keep the button (no. 9) at the planer handle pressed.
- Drive workpieces to the planer with the cross handle and plane with low pressing force.
- You will have to carry out planing as long as a bilateral rotating chip has been produced.
- Open the support again, release button and swivel out the planer.
- Remove the produced cuttings without touching the worked surfaces.
- Close the support.

5.5.3. Mismatch compensation

- Check pipe mismatch and gap on the joining pipe ends. According to DVS 2207, the mismatch on the pipe outer side must not exceed 0.1 x pipe wall thickness, the admissible gap must not exceed 0.5 mm.
- The mismatch compensation is carried out by further tightening or releasing of the clamping nuts. In case mismatch compensation was carried out, planing must be repeated afterwards.
5.5.4. **Adjusting**

- The adjusting pressure for the pipe dimension to be welded can be gathered from the welding table.
- Open support again slightly.
- Gather heating time, maximum change over time, cooling time and bead height for the pipe dimension to be welded from the table.
- Check the heating temperature. If the control lamp blinks, the nominal temperature has been reached and is kept constant by means of a defined pulse-position ratio.
- Swivel in the heating element which has been cleaned and brought to desired temperature. If necessary wait until the control lamp at the heating element is blinking in regular intervals.
- Drive the slides together by the hand wheel (chapter: 4.1 no. 7), shock-free under the determined aligning force.
  
  Read the applied force from the scale (no. 2).
- Fix the slide by the lever (no. 3) and maintain the force.

\[ \text{Necessarily hold tight to the turnstile before you release the clamping lever and if the slides have been driven together with force!} \]

- As soon as the prescribed bead height is reached, reduce the force (heating force = appr.10 % of adjusting force).

**Important!** Do not open the slide.

5.5.5. **Heating**

- Now the heating time starts.
- Press the stop-watch and compare the actual time with the nominal time taken from the welding table.

5.5.6. **Change over**

- Quickly drive the slide apart after the heating time has elapsed, release the clamping lever; \textit{necessarily} hold tight to the turnstile.
- Swivel the heating element as quickly as possible back and close the support smoothly.

  The maximum time frame for this process is predetermined by the value for the change over time taken from the table.

5.5.7. **Cooling**

- Built up the welding force, arrest the support by the lever and press the stop-watch.
- If necessary, re-adjust the force during the cooling time (cooling force = adjusting force).
5.5.8. End of welding

**Necessarily hold tight** to the turnstile before you release the clamping lever and if the slides have been driven together with force!

- Release the clamping lever after the cooling time has elapsed and reduce the force by the turnstile.
- Open the clamping tools and remove the welded piece.
- Afterwards open the support.

Now the welding part is completed.

5.6. Welding of angles

When welding angles, the welding surface of the pipe and thus the necessary pressure changes. Calculate the necessary pressure as follows:

- Take the prescribed value for adjusting or cooling from the table.
- Multiply the pressure value with factor /cos (angle).

This will give the following factors:

- Welding 15° (chamfered pipe with 7,5°): 1,01
- Welding 22,5° (chamfered pipe with 11,25°): 1,02
- Welding 30° (chamfered pipe with 15°): 1,04

- Add the motional pressure as usual.

*All the other welding parameters remain as usual.*

5.7. Welding of segmented bends

Calculate the sawing angle to be set (corresponding to the required angle at the clamping tools or clamping inserts) as follows:

\[
\text{Sawing angle} = \frac{\text{Angle of the bend}}{\text{number of all welding surfaces}}
\]

**Example:** 1 bend of 90°, 4 segments (6 welding surfaces)

\[
\text{Sawing angle} = \frac{90°}{6} = 15°
\]

**Example:** 2 bend of 45°, 3 segments (4 welding surfaces)

\[
\text{Sawing angle} = \frac{45°}{4} = 11,25°
\]
6. **Welding log and tables**

You can access our website and select our welding tables via the qr code shown here. Select “2500-ASM 160-315” and the corresponding material (PE / PP / PVDF).
### Report for heated plate welding of tubular components

<table>
<thead>
<tr>
<th>Weld no.</th>
<th>Date</th>
<th>Pipe size Ø d x s mm</th>
<th>Heating element temperature 1) °C min / max</th>
<th>Movement pressure bar</th>
<th>Joining pressure bar</th>
<th>adjusted values 2)</th>
<th>heat-up time 3) s</th>
<th>time to complete joining pressure 3) s</th>
<th>Change-over time 3) s</th>
<th>Cooling time under joining pressure 3) s</th>
<th>Ambient temperature °C</th>
<th>Code no.</th>
<th>Weather</th>
<th>Code no. protect measures</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
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**Signature of welder:**

**Date and signature of the welder inspector:**

1. From normal internal, frequency according to 4.2.
2. The settings are the sum of the movement pressure and the indications of the manufacturer of the welding machine concerning equalization and joining pressure.
3. The measured values must be entered.

---

**Welding log and tables**

**Chapter 6**

06.05.2019 Working Instructions WIDOS Z250 / OD 250
7. Maintenance / Storage / Transport

7.1. 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 work should be performed in time. The DVS gives the advice of inspection work after 1 year.
For machines with a specially high usage percentage the testing cycle should be shortened.
The work should be performed at the WIDOS GmbH company or by an authorized partner.

7.2. Clamping elements

- For a long service life clean and grease regularly the threaded spindles and the joint parts which are used for clamping the pipes.

7.3. Planer

- Never lay the planer on its blades.
- Check the blades of the planer for sharpness, turn them if necessary (grinded on both sides, max. thickness of the cuttings: 0.2 mm!).
- Check the stress of the drive chain in the planer and grease it regularly. The cover of the planer can be screwed off for this purpose.

7.4. Storage

Do not grease the guide rods when using the machine in order to avoid damages by adhering dust.
- Keep the guiding and the gear rod of the basic machine free from dirt and make sure that they must be covered with a slight oil film if not in use.
- Store the machine dry.

7.5. Transport

- Handle the machine carefully.
- Protect it from heavy vibrations and shocks.

7.6. Disposal

At the end of their life time, the machine and the wear parts have to be disposed of properly and non-polluting, and in accordance with the national laws of waste disposal.
8. Electric diagram

8.1. Electric diagram 230 V
8.2. Electric diagram 110 V
9. Spare parts list

You can access our website and select our spare parts lists via the qr code shown here. Select “2500 – OD 250”
## 10. Declaration of conformity

Issuing the declaration of conformity with regard to complying with the basic requirements and assembling the technical documentation is in the sole responsibility of:

<table>
<thead>
<tr>
<th>Manufacturer / Installation company</th>
<th>WIDOS Wilhelm Dommer Söhne GmbH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address:</td>
<td>WIDOS GmbH</td>
</tr>
<tr>
<td></td>
<td>Einsteinstr. 5</td>
</tr>
<tr>
<td></td>
<td>D-71254 Ditzingen</td>
</tr>
</tbody>
</table>

Subject of the present declaration is the following device:

<table>
<thead>
<tr>
<th>Product name:</th>
<th>Heating element butt welding machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model name:</td>
<td>WIDOS 2500 / OD 250</td>
</tr>
<tr>
<td>Machine number:</td>
<td></td>
</tr>
<tr>
<td>Year of construction:</td>
<td></td>
</tr>
</tbody>
</table>

For the stated device we herewith declare that it complies with the **basic requirements** stipulated in the following designated harmonizing regulations:

**in the sense of the EC guideline EC-Machinery Directive 2006/42/EC**

<table>
<thead>
<tr>
<th>Standard</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIN EN ISO 12100</td>
<td>Safety of machines, basic concepts, general layout guidelines</td>
</tr>
<tr>
<td>DIN EN 60204.1</td>
<td>Electric equipment of industrial machines</td>
</tr>
<tr>
<td>DIN EN 60555, DIN EN 50082,</td>
<td>Electro-magnetic resistance</td>
</tr>
<tr>
<td>DIN EN 55014,</td>
<td></td>
</tr>
</tbody>
</table>

Entitled to compile the technical documentation:

| Name:                         | WIDOS Wilhelm Dommer Söhne GmbH                                      |
| Address:                      | Einsteinstr. 5                                                        |
| D-71254 Ditzingen             |                                                                      |

Signed on behalf of the company:

| Name, first name:            | Dommer, Martin                                                        |
| Function:                    | Technical director                                                    |

Heimerdingen, 06.05.2019  
Place / Date  
Legally binding signature

This declaration is to certify the compliance with the mentioned harmonizing regulations, however does not include any assurance of properties.