ROTHENBERGER

SOCKET WELDER P63-S6

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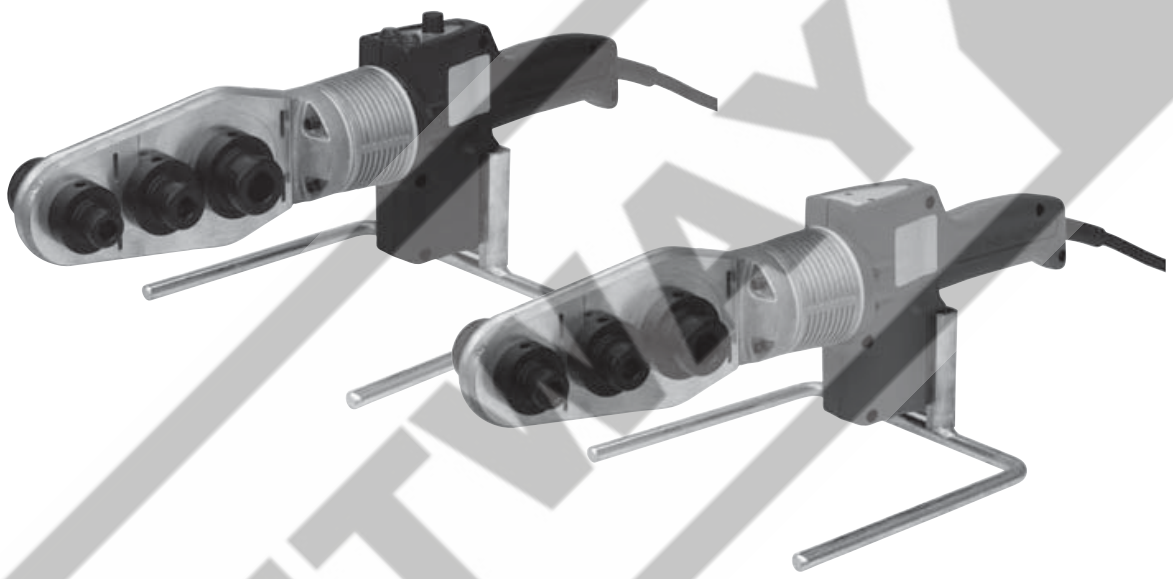

Gebrauchsanweisung
Instruction Manual
Manuel d'instructions
Manual de instrucciones
Manual de instruções
Manuale delle istruzioni

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GB INSTRUCTION MANUAL

IMPORTANT

This manual contains information required for safe use of this equipment.

- Ensure that the user receives a copy of this manual.
- Keep this manual in a location where the operator can easily consult it whenever necessary.
- Before using the socket welding device, read this manual carefully and follow the instructions and advice it contains.
- Take care to comply with the Safety Measures described in this manual, to avoid accidents such as fires, electric shock and other injuries. It is essential that the personnel that use this equipment read and understand this manual.
- Ensure that the persons that use this equipment have the necessary attitudes and aptitudes.
- Do not use the socket welding device in any way except that described in this instruction manual.

SAFETY PRECAUTIONS

The equipment that you are about to use has been designed according to the latest techniques and complies with applicable safety regulations. Nevertheless, given its nature, its use is potentially dangerous. To avoid accidents, observe the safety instructions given in this manual.

These safety instructions are indicated in this manual by the following icons.

⚠ DANGER

Indicates situations that can lead to death or severe injury for the user.

PRECAUTION

Indicates risk situations that can lead to injuries or damage to property.

NOTE

Indicates advice that can help to produce the best results, and other information.

- Please pay attention to these warnings, since they are important for safe use of the equipment.
- If this instruction manual is lost or damaged, request a replacement immediately from our representative.
- Components and specifications are subject to change without prior notice, in order to improve the quality or operation of the equipment or to comply with safety regulations. In this case, the photographs and illustrations, etc., in this manual may not correspond to the product supplied.

SAFETY ADVICE

⚠ DANGER

1) Ensure that the voltage supply is correct. The correct voltage is indicated on the name plate of the main unit or in the instruction manual. If the wrong voltage is used, this may cause overheating, smoke or fire.

2) The unit should only be connected to the mains supply and used for welding once the unit is attached to the workbench using the G-Clamp. The legs of the unit should only be used to handle the unit when cold until it is held firmly in place with the G-clamp and connected to the mains supply.

3) Never touch the mains plug with wet hands.

4) Ensure that the unit is installed in a suitable location.
Do not use this equipment in the rain, in damp or wet locations, or in locations where water could easily enter the unit. Never use it in the vicinity of inflammable liquids or gases, such as petrol or turpentine. This could cause fires or explosions.

5) Only use the specified accessories and attachments.
Never use accessories or attachments other than those specified in the instruction manual or in our catalogue, otherwise, accidents or injuries could be produced.

6) If any anomaly is detected, such as strange smells, vibrations or noises, turn the unit off immediately.

   Do not attempt to disassemble the unit. In case of problems, contact our local representative or distributor.

7) Keep the workplace clean and tidy.
   Ensure that the workbench and the work area are kept in perfect condition and well lit. Untidy work areas or workbenches cause accidents.

8) Do not allow unauthorised personnel to have access to this equipment.
   Do not allow unauthorised persons to handle the unit or to have access to the power lead. Do not allow unauthorised persons into the workplace, especially children.

9) Do not overload the equipment.
   Use it only according to its design conditions.

10) Use proper clothing.
    Do not work wearing a tie, loose or "floppy" clothing, accessories such as necklaces, etc.

11) Do not work in uncomfortable positions.
    Keep well balanced with firm footing, to avoid falls and injuries.

12) Take great care when using this equipment.
    Always pay attention while working. Carelessness can cause accidents and injuries.
    Never use this equipment when you cannot concentrate properly, such as when you are tired, under the influence of alcohol, ill, affected by medication, etc.

13) Do not mishandle the power lead.
    Do not carry the unit by the power lead, nor unplug it by pulling on the lead.
    Do not leave the power lead close to hot objects, grease or oil, or near blades or other objects with sharp edges.
    Take care not to step on the cable, and avoid pulling or straining it, to avoid damage. Failure to observe this precaution could lead to electric shock or short circuits that could cause a fire.

14) Inspect the electric power lead and the plug regularly. If they are damaged, ask our local representative or distributor to repair it.
    If an extension lead is used, this should be inspected periodically and replaced if it is damaged. If extension leads are used in the open, they should be suitable for outdoor use to avoid the risks of electric shock, short-circuits and fires. Keep the unit's handles, etc., dry, clean and grease- and oil-free, to ensure safe handling. If the unit is dropped, this could lead to injury.

15) When you are not using the equipment, store it carefully.
    Keep it locked in a dry place out of the reach of children.

16) Always ask for assistance from an authorised ROTHENBERGER agent if the equipment must be disassembled for repair.
    Our products comply with applicable safety regulations. Do not modify them.
    All repairs should be carried out by our local representative or distributor. Repairs carried out by unprofessional or unqualified personnel could affect the operation of the equipment and could cause accidents or injuries.

DESCRIPTION OF THE EQUIPMENT

APPLICATIONS

The SOCKET WELDER P63-S6 has been designed to weld tubes and accessories made of PE, PP, PB and PVDF, both in the workshop and on worksites.

IDENTIFICATION OF PARTS

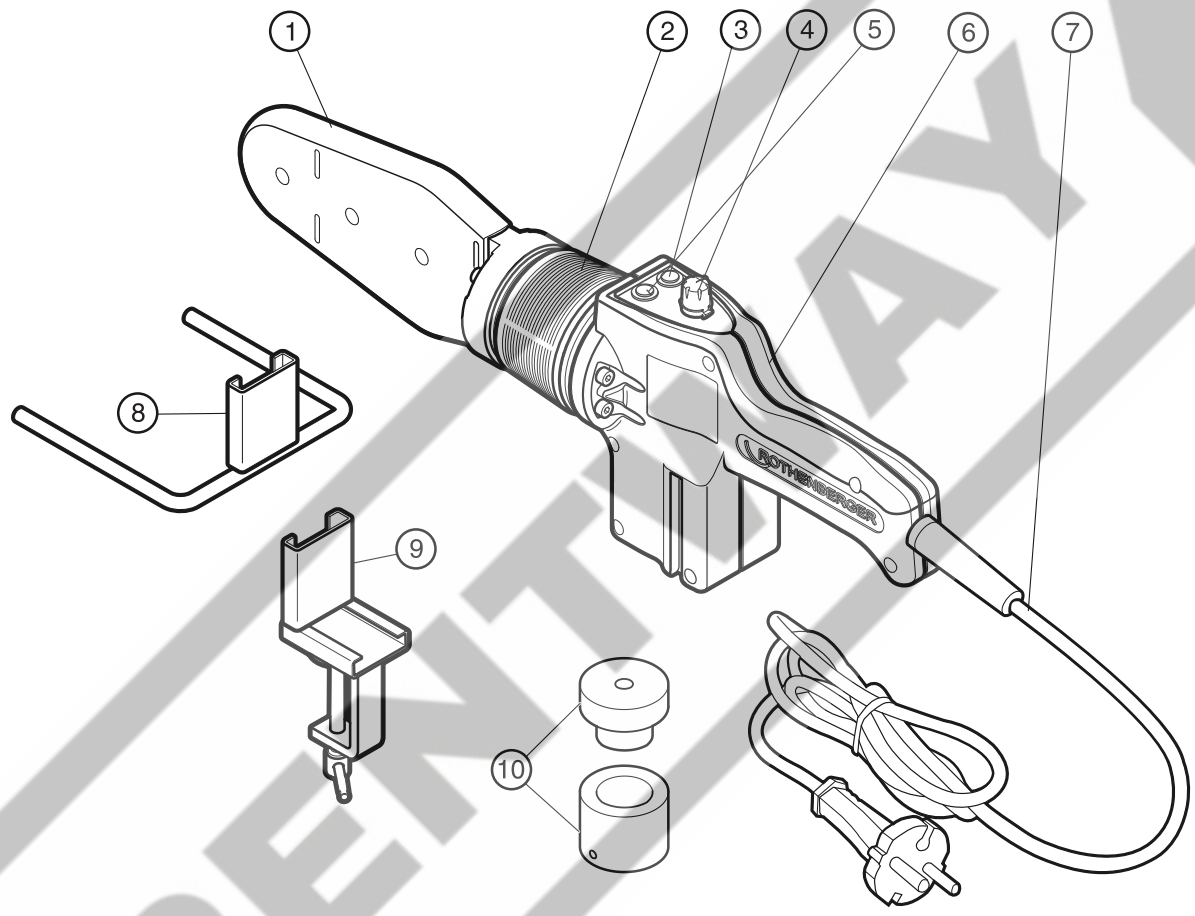


Fig. 1 General view

The main parts that constitute the SOCKET WELDER P63-S6 are shown in Fig. 1:

1. Heating plate
2. Cooling plate
3. Power LED (red)
4. Regulator knob
5. Temperature-control LED (green)
6. Body
7. Cable and plug, with earth connection
8. Legs
9. G-clamp
10. Adapters

TECHNICAL CHARACTERISTICS

Voltage: 230 V AC / 115 V AC

Power/ Current:

Nominal power = 800 W

Frequency: 50/60 Hz

Working range: ∅ 20-63 mm

Temperature range: max.. 330 °C

Dimensions: 475 x 359 x 110 mm

Weights:

- SOCKET WELDER P63-S6 Thermostatic = 1.5 Kg
- SOCKET WELDER P63-S6 Electronic = 1.4 Kg
- G-clamp = 0.4 Kg.

PREPARATION FOR USE

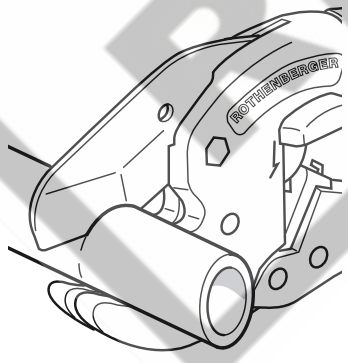
This equipment leaves the factory completely finished and ready to use; it needs no adjustment or preparation for use.

OPERATING INSTRUCTIONS

Welding with this unit consists of three phases:

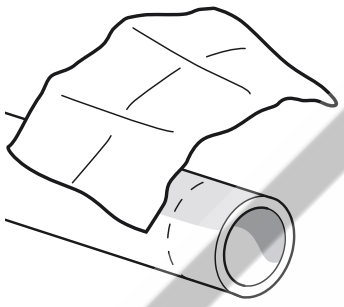
- **preparing the tube**
- **preparing the socket welding device**
- **the welding process.**

A) PREPARING THE TUBE

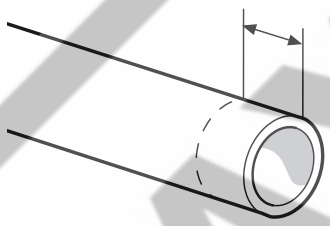


- Cut the tube straight across using a suitable tool (pipe cutter or cropper)

NOTE



- Clean the surface to be welded and the adapters with cellulose tissue dampened with isopropanol



- Mark the length of the weld on the tube

The surfaces to be welded must be cleaned immediately before welding.

Protect the surfaces from weather conditions.

B) PREPARING THE SOCKET WELDING DEVICE

1) Mount the socket welding device

Mounting using the G-clamp

The socket welding device is supplied with a G-clamp that can be used to attach it firmly to a workbench.

- Introduce the top section of the G-clamp into the slot in the bottom of the unit

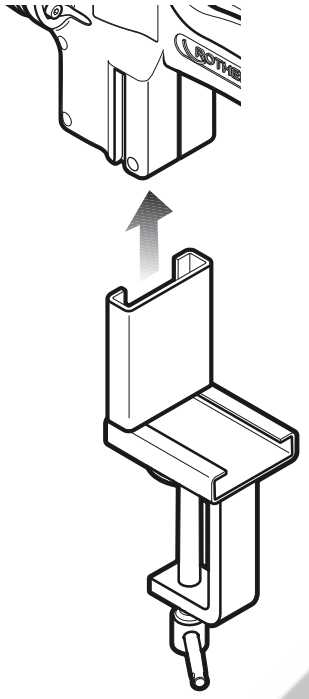


Fig. 2 Insert the adapter(s)

- Mount the unit on the edge of the workbench and tighten the screw of the G-clamp until the unit is firmly held in place

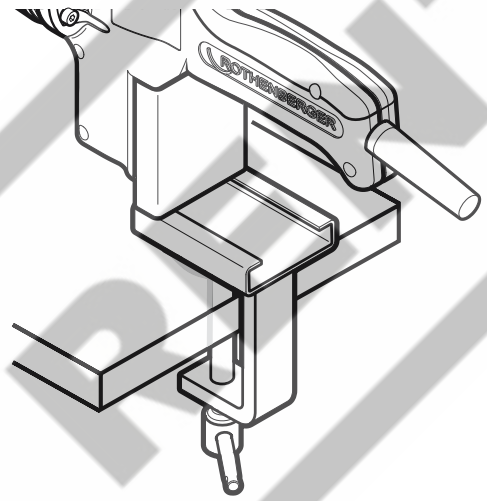


Fig. 3 Mounting using the G-clamp

Mounting without the G-clamp

- Spread out the legs and rest the socket welding device on a flat surface, ensuring that it is stable

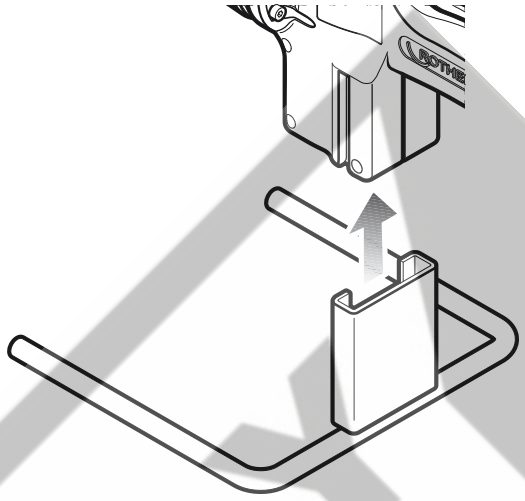


Fig. 4 Using the unit on its legs

PRECAUTION

The unit must not be connected to the mains supply and used for welding whilst the G-clamp has not been mounted. The legs can be used to position the unit once it has been removed from the case, to mount the adapters when cold, etc.

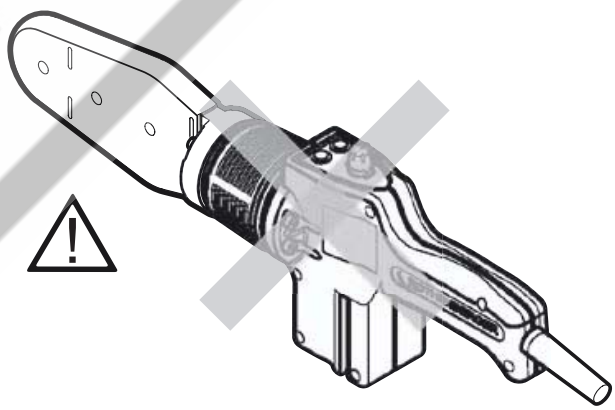


Fig. 5 Safety

2) Mount the correct adapters for the diameter of the tube to be welded onto the heating plate

- Locate the male and female adapter halves on each side of the heating plate and bolt them to it using the allen key supplied with the equipment

PRECAUTION

In order to mount the adapters onto the heating plate, make sure that the plate is cold and that the unit is unplugged

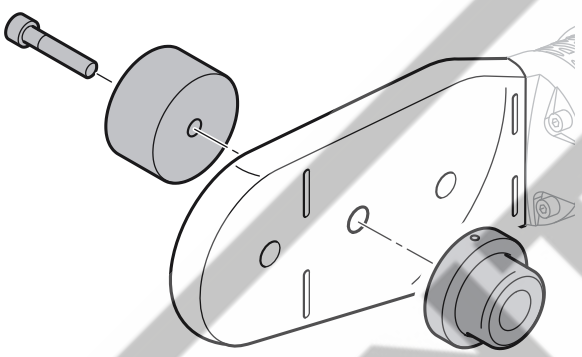


Fig. 6 Mounting the adapters

3) Connect the unit to the power source (230 V / 110 V)

Check that the red power LED lights when the unit is plugged in.

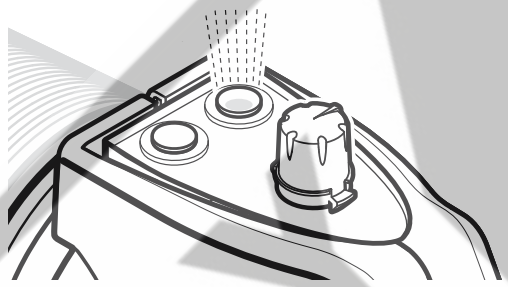


Fig. 7 Power LED

4) Select the working temperature with the regulator knob

- Turn the regulator knob to the working position

SOCKET WELDER P63-S6 Thermostatic Model

The thermostat-controlled model has 6 position for the regulator knob (See Fig. 8).

0 Off

6 Working position

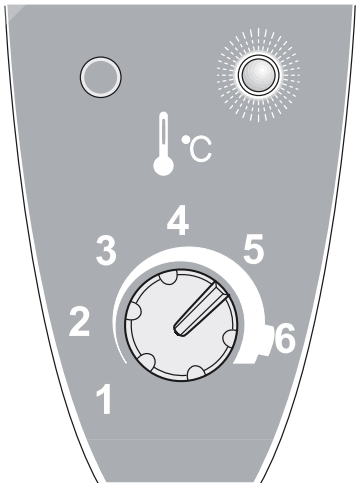


Fig. 8 Thermostatic model regulator knob

SOCKET WELDER P63-S6 Electronic Model

The SOCKET WELDER P63-S6 Electronic Model has a temperature scale marked from 200 °C to 300 °C

260 °C - 280 °C Working position

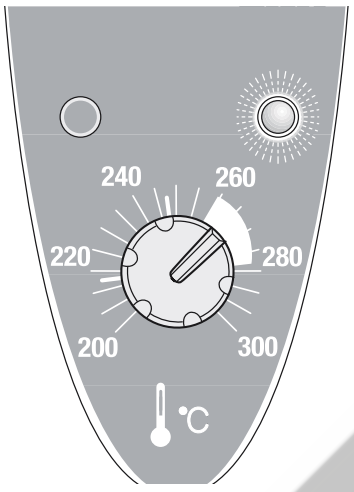


Fig. 9 Electronic model regulator knob

5) Wait until the socket welding device reaches its working temperature

SOCKET WELDER P63-S6 Thermostatic Model

When the socket welding device has reached its optimum working temperature, the green temperature-control LED will light.

Welding can now start. The temperature control LED will turn on and off as the thermostat operates.

SOCKET WELDER P63-S6 Electronic Model

When the socket welding device has reached its optimum working temperature, the green temperature-control LED will start to blink.

Fig. 10 Temperature-control LED

The time required to reach working temperature is approximately 5 to 7 min.

PRECAUTION

The parts of the equipment indicated in Fig. 14 can reach temperatures between 100 and 300 °C. Never handle the heating plate while the unit is hot.
Never attach or remove adapters while the heating plate is hot.
Only handle items that could be hot when it is safe to do so.

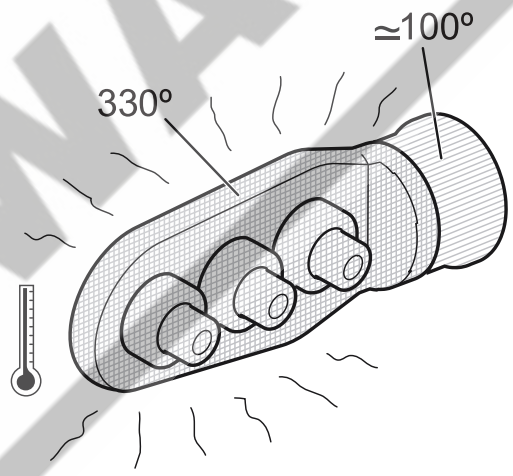


Fig. 11 Hot areas (burn risk)

NOTE

The socket welder is equipped with two safety thermostats which disconnect the unit if the temperature reaches 330 °C and reconnects it when the temperature has fallen to 265 °C.

C) THE WELDING PROCESS

This consists of four steps: heating, assembly, setting and cooling.

1) Heating

- Using light pressure, insert the tube and the accessory simultaneously onto the corresponding adapters (tube in the female adapter, accessory on the male adapter)

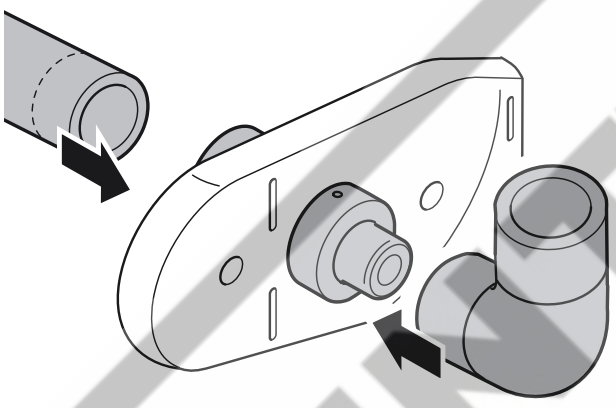


Fig. 12 Inserting the tubes

- Maintain the tube and the accessory on the adapters during the time indicated under HEATING TIME in table 2 (page 23)

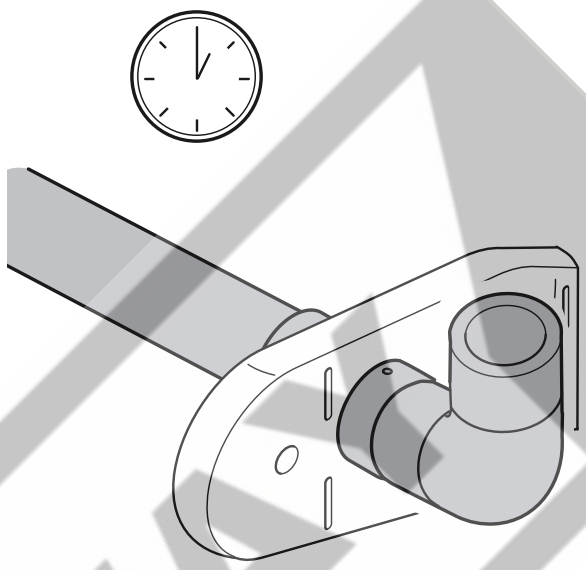


Fig. 13 Heating the tubes

2) Assembly

- Remove the tube and the accessory from the adapters

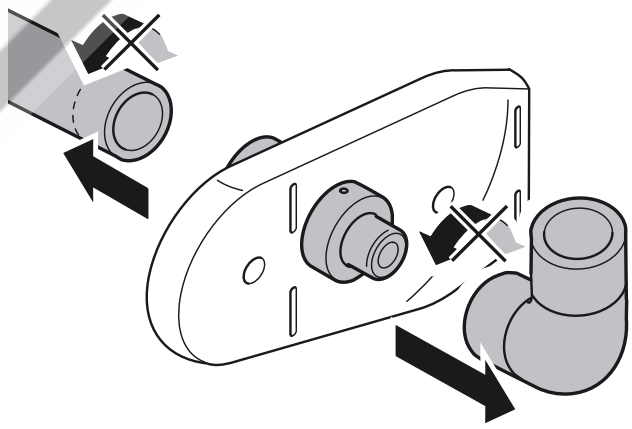


Fig. 14 Removing the tubes

- Without rotating them, introduce the tube into the accessory until the weld-length mark is reached. This operation should be carried out as quickly and carefully as possible, within the time (MAX ASSEMBLY TIME) shown in Table 2 (page 23)

3) Setting

- Hold the two parts together during the time indicated under SETTING TIME in Table 2 (page 23)

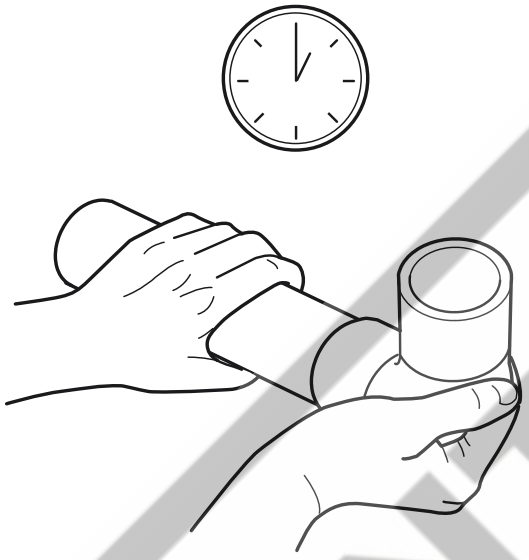


Fig. 15 Setting time

NOTE

Ensure that the region of the weld is not subjected to any force during this time.

4) Cooling

- Allow the tube to cool for the time recommended in Table 2 (COOLING TIME)

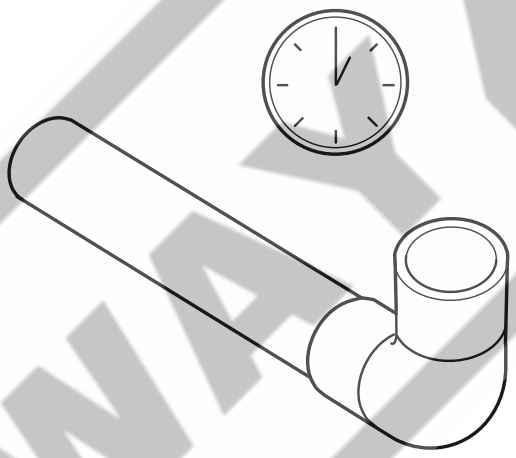


Fig. 16 Cooling time

After the cooling time has finished, the welded tubes and accessories can be used as recommended by the tube manufacturer.

TUBE		Heating time (sec)	Max assembly time (sec)	Setting time (sec)	Cooling time (min)
DIAMETER (mm)	**WALL THICKNESS (mm)**				
16	2,0	5	4	5	2
20	2,5	5	4	5	2
25	2,7	7	4	7	2
32	3,0	8	6	8	4
40	3,7	12	6	12	4
50	4,6	18	6	18	4
63	3,6	24	8	24	6
75	4,3	30	8	30	6
90	5,1	40	8	40	6
110	6,3	50	10	50	8

Table 2 Process times for welding PP tubing

TROUBLE-SHOOTING

If the socket welding device does not operate correctly, check the following points:

- Check that the unit is connected to a functioning power source of the correct voltage (230 V / 110 V)
- Check that the temperature regulator is in the correct position.

If the unit still does not work properly, contact our local representative or distributor.

STORAGE

When the equipment is no longer going to be used, you are recommended to turn it off and allow it to cool in order to store it.

Store it carefully in a locked, dry place out of reach of children.

PRECAUTION

If the socket welding device is packed into its storage case while it is still hot, take care to place it in the correct position.
Incorrect storage could damage the equipment and the storage case.

Fig. 17 Storing the socket welding device

CARE AND MAINTENANCE

Inspect the adapters before using them.

Carefully remove any material remaining from previous welding operations.

PRECAUTION

Do not use metallic items or solvents to remove residues, as these could damage the surface of the adapter.

NOTE

Check the condition of the adapters from time to time, to ensure correct welding.

GB When its useful life is over, do not dipose or the machine into the domestic waste, please send it to auhorised places for recycling.