

Working Instructions Translation

Heating element butt welding machine

WIDOS 4900
(110 V)



Keep for further use!

Version:	Heating element butt welding machine
Type:	WIDOS 4900
Serial number / year of construction:	see type lable

Customer's entries

Inventory- No.:

Place of working:

Address of manufacturer

WIDOS

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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 advisers 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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Any changes prior to technical innovations.

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1. Description of product

This 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. Application and prescribed use

The WIDOS 4900 is made for heating element butt welding of pipes and fittings with a diameter range of $\varnothing = 90 - 315$ mm.

It is a building site machine and is designed especially for the use on site as well as in the workshop.

For this reason, the frame is kept small such that it can also be used in constrained positions (e.g. building ditches).

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.

Prescribed use also means:

taking notice of all remarks in this manual
performing of repair works.

1.2. Machine overview



1	Planer
2	Heating element
3	Protective box
4	Hydraulic aggregate
5	Basic machine with clamping tools

1.3 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 be necessary adhered to.

1.4 Conformity

The machine corresponds in its construction to the valid recommendations of the European Community as well as to the European standard specifications.

The development, manufacturing and mounting of the machine were made very carefully.

1.5 Designation of product

The product is designated by two signs at the frame.

The type-labels are fixed on the control unit and on the basic machine.

They contain the type of the machine, the serial number, and the year of construction.

1.5.1 Technical Data

1.5.1.1 WIDOS 4900 General data

Material:	PP, PE 80, PVDF, PE 100
Pipe diameter range:	outside- \varnothing = 90 – 315 mm
Transport box (l x w x h) / weight:	approx. 1230 x 980 x 670 mm / approx. 67 kg
Partition boxes for reduction inserts:	
4- partition:	appr. 680 x 410 x 310 weight: appr. 10 kg
7- partition:	appr. 1160 x 410 x 310 weight: appr. 16 kg
9- partition:	appr. 1470 x 410 x 310 weight: appr. 21 kg
Total weight (without packing):	approx. 130 kg
Feeding:	110 V / 16 A / 50 - 60 Hz
Wire cross section:	1,5 mm ²
Emissions	<ul style="list-style-type: none"> - Noises exceeding 80 dB (A) may occur; during planing it is obligatory to wear ear protection! - when using the named pipe materials and when welding below 260° C no toxicant damp arises.
Environment:	<ul style="list-style-type: none"> - keep the workshop clean (especially the welding area must be clean) - 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. - avoid humidity, if necessary put up a tent - avoid strong sun beams - if it is windy shut the pipe endings.

1.5.1.2 Planer

Motor:	monophase-alternating current-motor
Power:	1050 Watt
Voltage:	110 V ($\pm 10\%$)
Current:	9,6 A
Frequency:	50 - 60 Hz ($\pm 10\%$)
RPM n2 of planer	approx. 90 revs/min.
Elements:	Switch on / off with fixing device Connecting cable and plug with earthing contact
Weight:	approx. 14 kg

1.5.1.3 Heating element

Power:	1650 Watt
Voltage:	110 V ($\pm 10\%$)
Current:	15,0 A ($\pm 10\%$)
Frequency:	50 - 60 Hz
Outside- \varnothing :	350 mm
Surface:	Antistick-coated
Elements:	Electronic temperature control Control lamps, switch on / off Connecting cable and plug with earthing contact
Weight:	approx. 13 kg

1.5.1.4 Hydraulic aggregate

Power:	0,3 kW
Voltage:	110 V ($\pm 10\%$)
Current:	5,6 A
Frequency:	50 - 60 Hz
Hydraulic oil tank:	approx. 1 l
Electromotor and pump:	
RPM:	1670 (revs/min.)
max. pressure of pump:	approx. 115 bar
Working pressure:	100 bar
Volume velocity:	2,1 l/min
Weight :	approx. 23 kg

1.5.1.5 Basic frame

Dimensions (l x w x h):	800 x 460 x 500 mm
Reduction insert :	Dimensions can be selected
Material frame:	Machine steel
Material reduction inserts:	Aluminium
Weight:	approx. 60 kg
Cylinder-Ø:	40 mm
Piston rod-Ø:	35 mm
Length of stroke of cylinder:	175 mm
max. force: (F=P*A)	5900 N (at 100 bar)
Velocity of piston rod:	5,4 cm/s

Stock numbers for component parts see spare parts list

1.6. Equipment and accessories:

The following accessories are part of the first delivery:

1	Tool bag for 10 parts
1	Socket spanner size 27
1 each	Allan key angulate size 3 / 6 / 7 / 8
1 each	Allan key with T-grip size 4 / 5 / 7
optional	Reduction inserts, roller brackets for the pipes
1	Torx-screw driver T10

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.

The security notices of this chapter represent the general part.

Particular information is listed directly before the corresponding actions.

These working instructions provide you with the most important information to run the machine safely.

The safety information must be read by all persons who work on the machine.

2.1. Explanation of the different symbols

The working instructions contain the following signs for certain situations:



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 crushings of parts of the body resp. damages of parts of the machine.



This symbol means a possible risk of injury by noises exceeding 80 dB (A).

- Ear protection is obligatory



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 on the machine, who

- know about basic safety and accident prevention rules and are instructed in the handling of the machine.
- The workers also must have read and understood the safety chapter of this manual and certify this with their signature.

The safety-conscious working of the staff should 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 take care of the basic safety and accident protection rules.
- To have read and understood the safety chapter and the warnings in this manual and to certify this with their signature.
- To inform themselves about the functions of the machine before using it.

2.4. Organizational measures

- All equipment required for personal safety is to be provided by the owner.
- All available safety equipment is to be inspected regularly.

2.5. Informal security measures

- The manual has to be permanently kept at the place of use of the machine. It is to be at the operator's disposal at any time and without effort.
- As a supplement to the working instructions, the generally valid and also the local regulations for the prevention of accidents and the protection of the environment are to be provided and adhered to.
- All security and danger notices on the machine have to be kept in a readable state.
- Every time the machine changes hands or is being rented to third persons, the working instructions are to be sent along with and their importance is to be emphasized.

2.6. Instruction of the staff

- Only skilled and instructed persons are allowed to work at the machine.
- The responsibilities of the staff are to be determined clearly concerning transport, mounting and dismounting, starting, adjusting and tooling, operating, maintenance and inspection, repairs.
- Workers who are to be trained are only allowed to work at the machine under control of an experienced worker.

2.7. Dangers while handling the machine

The machine WIDOS 4900 is constructed according to the actual technical standard and the acknowledged technical safety rules.

However, dangers for the operator or other persons standing nearby may occur.

Also damages to the machine itself or to other things are possible.

The machine must only be used:

- according to the prescription
- in safety technical impeccable status

Disturbances, which may affect the safety of the machine must be eliminated immediately.

2.8. Maintenance and inspection, repair



All maintenance and repair works have to be basically performed with the machine in off position.

During this the machine has to be secured against unauthorized switching on.



Prescribed maintenance and inspection works should be performed in time.

The DVS gives the advice of inspection works after 1 year.

For machines with a specially high usage percentage the testing cycle should be shortened.

The works should be performed at the WIDOS GmbH company or by an authorized partner.

2.9. Dangers caused by electric energy



Only skilled workers are allowed to work at electrical appliances!

The electrical equipment of the machine has to be checked regularly.

- Loose connections and damaged cables have to be replaced immediately.
- If works at alive parts are necessary, a second person has to assist who can disconnect the machine from the mains if necessary.
- All electric tools (heating element, planer and aggregate) have to be protected from rain and dropping water (if need be use a welding tent).
- According to VDE 0100, the use on construction sites is only allowed with a power distributor with a FI-safety switch.

2.10. Dangers caused by the hydraulics



System parts and pressure hoses should be made pressureless before beginning of any repair works. Even if the machine is switched off, pressure may be in the hydraulic accumulator!

There is a danger of injuring the eyes by hydraulic oil squirting out.

- Damaged hydraulic hoses have to be immediately replaced.
- Make a visual inspection of the hydraulic hoses before each work beginning.
- The hydraulic oil is inedible!

2.11. Special dangers

2.11.1 Danger of catching clothes by the planer



There is the danger of cutting yourself or even breaking bones!

- Wear only tight clothes.
- Do not wear rings or jewellery during work.
- If necessary wear a hair-net.
- Always put the planer back into the reception case after and before each use.
- Only transport the planer at the handle.
- Do not touch the planer surfaces.
- Switch on the planer only for use. Otherwise the planer will start every time when the security microswitch is pressed.

2.11.2 Danger of noise



Noises exceeding 80 dB (A) may occur; during planing it is obligatory to wear ear protection!

2.11.3 Danger of burning at heating element, heat protective box and welding area



You can burn yourself, inflammable materials can be ignited!
The heating element is heated up to more than **200 °C / 392 °F!**

- Do not touch the surface of the heating element.
- Do not leave the heating element unattended.
- Take enough safety distance to materials which might be ignited.
- Wear safety gloves.
- Insert the heating element into the heat protective box after use.
- Only transport the heating element at the handle.

2.11.4 Danger of stumbling over hydraulic and electric wires

- Make sure that no person has to step over the wires.
- Make sure that the cables lie in such a way that the danger is maintained at a minimum.

2.11.5 Danger of squeezing by clamping tool and guideways



There is a possibility of serious injury:

On the one hand between the inner clamping tools and on the other hand between the outside clamping tool and the end of the guideway.

- Do not put hands or foot between clamped pipe ends.
- Do not step or grab between the inner clamping tools with not yet clamped pipes.
- Do not block opening and closing of the machine.

2.12. Structural modifications on the machine

- No modifications, extensions or reconstructions may be performed 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.
- In case of purchase orders please always note the machine and version number.

2.13. Cleaning the machine

- The used materials and cloths are to be handled properly and to be disposed of, especially
 - during cleaning with solvents
 - when lubricating with oil and grease

2.14. Guarantee and liability

Fundamentally our "general sales and delivery conditions" are in force.

They are at the buyer's disposal latest before making the contract.

Guarantee and liability demands referring to damages of persons or things are excluded if they are caused by one or several of the following reasons:

- Not using the machine according to the prescription.
- Unprofessional transport, building-up, starting , operating and maintenance of the machine.
- Running the machine with defective or not properly mounted safety equipment.
- Ignoring the information given in this manual.
- Structural changes on the machine without permission.
- Unsatisfactory checkings of parts of the machine, which are worn out.
- Unprofessionally performed repairs.
- In case of catastrophes and acts of God.

3. Functional description

Basically the international and national standard specifications are to be fulfilled.

The plastic pipes are clamped by means of the clamping tools.

Then the foreparts are planed parallel by means of the **planer**, and mismatch is checked.

Now the heating element is inserted and the pipes are pressed against the heating element with the defined adjusting pressure. This operation is called "**adjusting**".

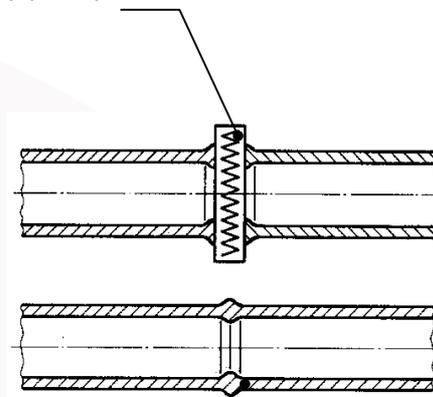
After the prescribed bead height is reached, the pressure is relieved and the **heat-up time** is starting. Now the pipes are heated up to welding temperature.

After expiration of the heat-up time, the slide has to be opened, the heating element is removed quickly and the pipes are rejoined. The time between removing the heating element and rejoining the pipes is called **change-over time**.

The pipes are joined with the prescribed welding pressure and then cool down under pressure (**cooling time**).

The weld joint can be unclamped, the welding process is finished.

Heating element heats the pipes up to welding temperature



Finished weld joint with internal and external bead

4. Operating and indicating elements

4.1. Elements on the hydraulic aggregate



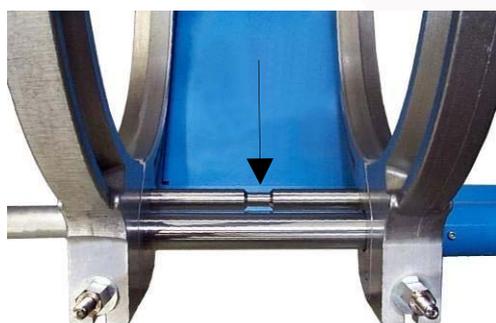
No.	Denomination	Function
7	Pressure gauge	Digital display of the hydraulic pressure
8	Valve lever	Opening/closing the slide. There are 4 different positions: - to the left side : slide closes - in the middle (usual position): the pressure is currently achieved is kept (also by means of the hydraulic accumulator) - slightly to the right side (position pressureless): a possibly existing pressure is released without moving the slide. Due to the hydraulic accumulator it takes about 10 s until the pressure is completely released. - to the right side : slide opens
9	Adjusting screw for pressure relief valve	- For the limitation of the hydraulic pressure to the desired value
10	Hydraulic connection for closing	- Non-dropping quick-action hose coupling
11	Hydraulic connection for opening	- Non-dropping quick-action hose coupling
12	Screw with oil level stick	- Checking the oil-level - Filling in oil

4.2. Elements at the heating element



No.	Denomination	Function
16	Control lamp green	- There are three different states: <ul style="list-style-type: none"> • off: signalizes that the heating element is not heated up at the moment or that it cools down • blinking: the heating element temperature is maintained by a certain pulse-position ratio • on: signalizes that the heating element is heated up at the moment. It has not yet reached the desired temperature
17	Setting screw	- For setting the temperature of the heating element
18	On/off-switch with red lamp	- As soon as the heating element is switched on, the red control lamp lightens

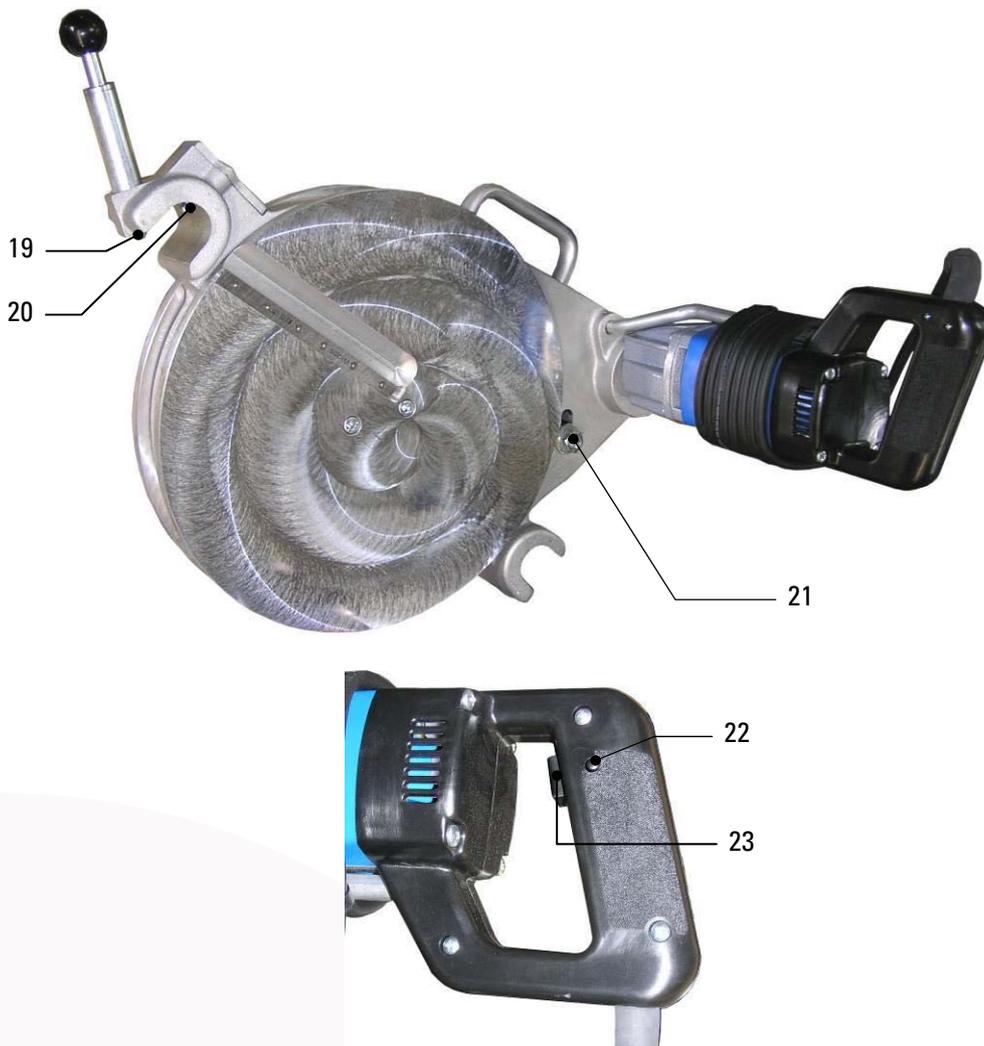
4.3. Separating device for heating element



There is a tear-off bar mounted between the movable and the fixed clamping shells on the basic machine. It prevents the heating element from sticking to the heated-up pipe ends.

When inserting the heating element take care that it lies in the zone of the throat of the tear-off bar (see arrow).

4.4. Elements at the planer



No.	Denomination	Function
19	Locking lever	- protection against unintentional running. - to lock the planer, thus avoiding a falling out.
20	Protection switch	- planer can only start when switch is pressed
21	Chain tightening bolt	- in order to tighten the chain, disassemble the cap at the rear of the planer, then tighten the chain sturdily
22	Locking button	- if the switch is activated you may press the locking button, thus the activation is maintained as long as the switch is deactivated.
23	Switch on / off for planer	- to switch on the planer. - the planer has to be switched off before and after use.

5. Starting and operating

The instructions of this chapter are supposed to instruct you in the operation of the machine and to lead you during the appropriate starting of the machine.

This includes:

- the safe operation of the machine
- using all the possibilities
- running the machine economically

5.1 Starting



The machine should only be operated by trained and authorized people. For the qualification a plastic welding exam can be taken according to DVS and DVGW.

In case of danger unplug the machine immediately.

In case of power failure, the hydraulic system can still be under pressure.

For this reason, release pressure when required.

After completion of the welding work and during breaks the machine has to be switched off. Further be sure that no unauthorized persons have access.

Protect the machine from wetness and moisture!

Operating the machine on construction sites is only allowed with an in-coming power distributor with a FI safety switch according to VDE 0100.



Check the oil level of the hydraulic system before each starting in order to avoid damages on the pump.

The oil-level must be between the two markers.

Connect the power line plug of the hydraulic aggregate to the mains, and be sure to have a correct mains voltage (110 V / 50 - 60 Hz).

Connect the heating element and planer to the corresponding plug box of the aggregate.

Connect the hydraulic hoses of the basic machine to the aggregate.



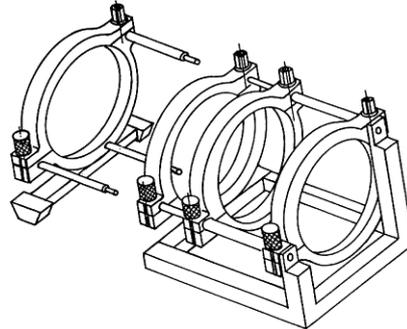
Lay hydraulic and electric lines carefully (danger of stumbling) !

Take into consideration the environmental conditions:

- Welding should not be carried out in direct sunlight.
- If necessary put up a welding tent.
- In case of ambient temperatures below 5°C the following measures have to be taken: If need be, put up a welding tent and heat up the pipe ends.
- Take measures against rain, wind and dust.

5.1.1 Replacing the reduction inserts

- Unscrew the already mounted reduction inserts.
- Screw on the reduction inserts with the corresponding diameter.
- If necessary (e.g. T-pieces), the fixed outside clamping tool can be dismantled by unscrewing the three allen screws.



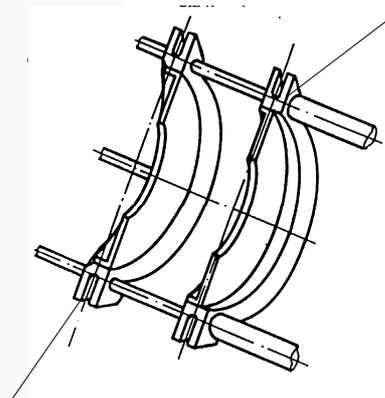
Dismantling of the fixed outside clamping tool

5.1.2 Using small and large reduction inserts

Small reduction inserts:

- Pipe fittings often only have a short straight surface area on which they can be clamped.
- Fittings often need to be clamped in the inside clamping tools with the narrow reduction inserts.
- In case of welding fittings (elbows, T-pieces etc.) the inside narrow reduction insert can also be used flush with the outside.

The picture shows both internal clamping tools.



Reduction insert, axial (for pipes)

Reduction insert narrow, flush with the outside (for elbows, T-pieces)

Large reduction inserts:

They are mainly used for a good tightening and are generally mounted on the inside clamping tools.

Super large reduction inserts have a specially high guidance quality and are mainly used during the welding of fittings with long legs which can only be clamped with a single clamping tool.

5.2. Welding process

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



There is the danger of serious bruising.

On the one hand between the inner clamping tools, on the other hand between the outer clamping tool and the end of the guide bar.

- Do wear safety gloves as a protection against burning !
- A stop-watch should be available for recording the actual times for the heating and cooling.
- In the same way a table should be available from which the parameters for the pipe dimensions to be welded prescribed by the welding prescriptions may be taken from.
- The heating element 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. The anti-adhesive coating of the heating element has to remain undamaged in the working area.
- Switch on the heating element and adjust the required welding temperature at the adjusting screw.
 - The adjusted temperature is obtained when the control light is blinking.
 Screw in the reduction inserts according to the outside diameter of the pipes to be welded.
- Put the workpieces into the clamping tools, tighten the clamping nuts tightly and align the workpieces with respect to one another.

In case of long pipe ends, use WIDOS rollerstands for alignment.

- Close the slide, thereby reading the **movement pressure** on the manometer.

The movement pressure is displayed exactly when the slide with the clamped-pipe passes over into its movement.
- Subsequently, open slide again such that the planer fits therebetween.
- Put the planer between the pipe ends, allow handle to lock with the security micro switch and switch on. Switch on the on/off-switch (chapter: 4.4, no. 22) and press the locking button (23) as needed



There is the danger that the planer pulls in clothes !

In case planer is switched on it will run immediately when the security microswitch has been pressed.

Do not hold the planer on its front sides in any case.

- Move the pipe ends towards one another by means of the valve lever and plane same with a planing pressure between 1 and 15 bar above the movement pressure.
Planing must be carried out until a revolving cutting has been formed on both sides.
- Open the slide again by means of the valve lever, switch off planer motor, remove planer and put it into the heat protective box.
- Remove the produced cuttings without contacting the worked surfaces.
- Close slide.
- 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 via further tightening or releasing of the clamping nuts.

In case of a mismatch compensation, planing must be carried out again afterwards.

- The adjustment pressure for the pipe dimension to be welded can be gathered from the table. Add the movement pressure.

Set the resulting pressure value at the pressure limiter valve and check by actuating the valve lever.

- Open slide again slightly.
- Take heating up time, maximum change-over time, cooling down time and bead height for the pipe dimension to be welded from the table.
- Move the heating element, which has been cleaned and brought to nominal temperature, by means of the handle upwards between the pipes, if necessary wait until the control lamp on the heating element flashes in regular intervals.

Take care that it lies in the zone of the throat of the tear-off bar (see point 4.3).

- Close slide smoothly to the set adjustment pressure.

When the prescribed revolving bead height has been reached, reduce pressure. For this purpose, move the valve lever to the position „pressure-less“ until until heating up pressure has built up has reduced almost to zero ($\leq 0,01 \text{ N/mm}^2$).

- The heating up time starts now. Press the stop watch and compare the actual time with the nominal time taken from the table.
- After expiration of the heating up time, open the slide, remove the heating element as quickly as possible, put it into the heat protective box and close the slide smoothly.

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

- When the welding pressure has been built up, press the stop-watch and keep the control lever for approximately 10s on the position „pressure“ so that the hydraulic accumulator can be filled.
During the cooling down period re-adjust pressure, if necessary (the pressure for cooling down is the same as the set adjustment pressure).
- After expiration of the cooling down period, release pressure, remove the welded parts and open the slide.

6. Welding logs and tables



You can access our website and select our welding tables via the qr code shown here. Select "WIDOS 4900 " and the corresponding material (PE / PP /PVDF).

7. Maintenance and repair

Goal of the chapter is:

- Keeping of the nominal state and the operation capacity of the machine.
- Increasing of the efficiency by avoiding non-planned outage.
- Efficient planning of the maintenance works and the maintenance tools.

7.1. 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.

7.2. Planer

- Check the stress of the linkage in the planer and grease it regularly. Dismount the cover to get to the linkage.
- Do not lay the planer on its blades.
- The blades of the planer must be checked for sharpness. Wrong blades must be either turned over (double sided) or replaced (max. thickness of the shavings: 0.2 mm !).
- Check the working of the safety micro switch.

7.3. Storing

- The cylindrical waves of the basic machine are to be kept free from dirtiness and need to be covered with a thin oil film if they are not being used.
- Store dry.

7.4. Used hydraulic oil

Only use **HLPD 32**.

Features: protection against corrosion, resistance to ageing, abrasion-reducing additives, high carrying capacity and particulary water retending.

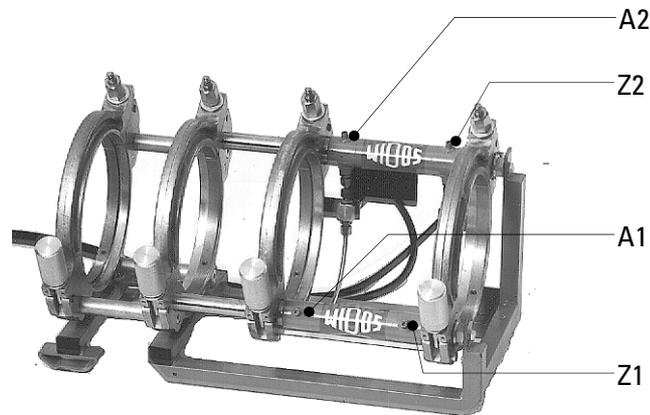


The hydraulic oil has to be handled properly and to be disposed of.

7.5. Checking the hydraulic oil level

- Remove the red screw at the top of the aggregate.
- Take out the oil dip rod, clean it and insert it again.
- The oil-level must be between the two markers.

7.6. Venting the hydraulic cylinders



Venting the hydraulic cylinder is not required, if

- the hoses have been disconnected from the connection at the control unit because the remaining oil in the hose is being kept by valves and for this reason no air can enter.

Venting of the hydraulic cylinder is necessary, if

- there has been too little oil in the tank and air has been attracted.
- there were leaky parts in the hoses or connections.
- the hoses were unscrewed from the basic machine.
- Eliminate the cause of the air entrance.
- Open the machine completely.
- First loosen the lower venting screw (A1) for closing (lefthand side).
- Connect the transparent venting hose and insert into the collecting vessel.
- Close until there is no air in the venting hose, then screw on the venting screw.
- Repeat the same process at the upper venting screw (A2) for closing (left).
- Close the machine completely.
- First loosen lower venting screw (Z1) for opening (righthand side).
- Connect the transparent venting hose and insert into the collecting vessel.
- Open until there is no air in the venting hose, then screw on the venting screw.
- Repeat the same process at the upper venting screw (Z2) for opening (right).



The lower venting screws have always to be vented in the first position because there is a direct link between the upper and the lower cylinder.

- If there is still air in the lower cylinder this will ascent in the upper cylinder under pressure.

8. Transport

The machine can be transported either by means of two transport boxes or by one packing box.

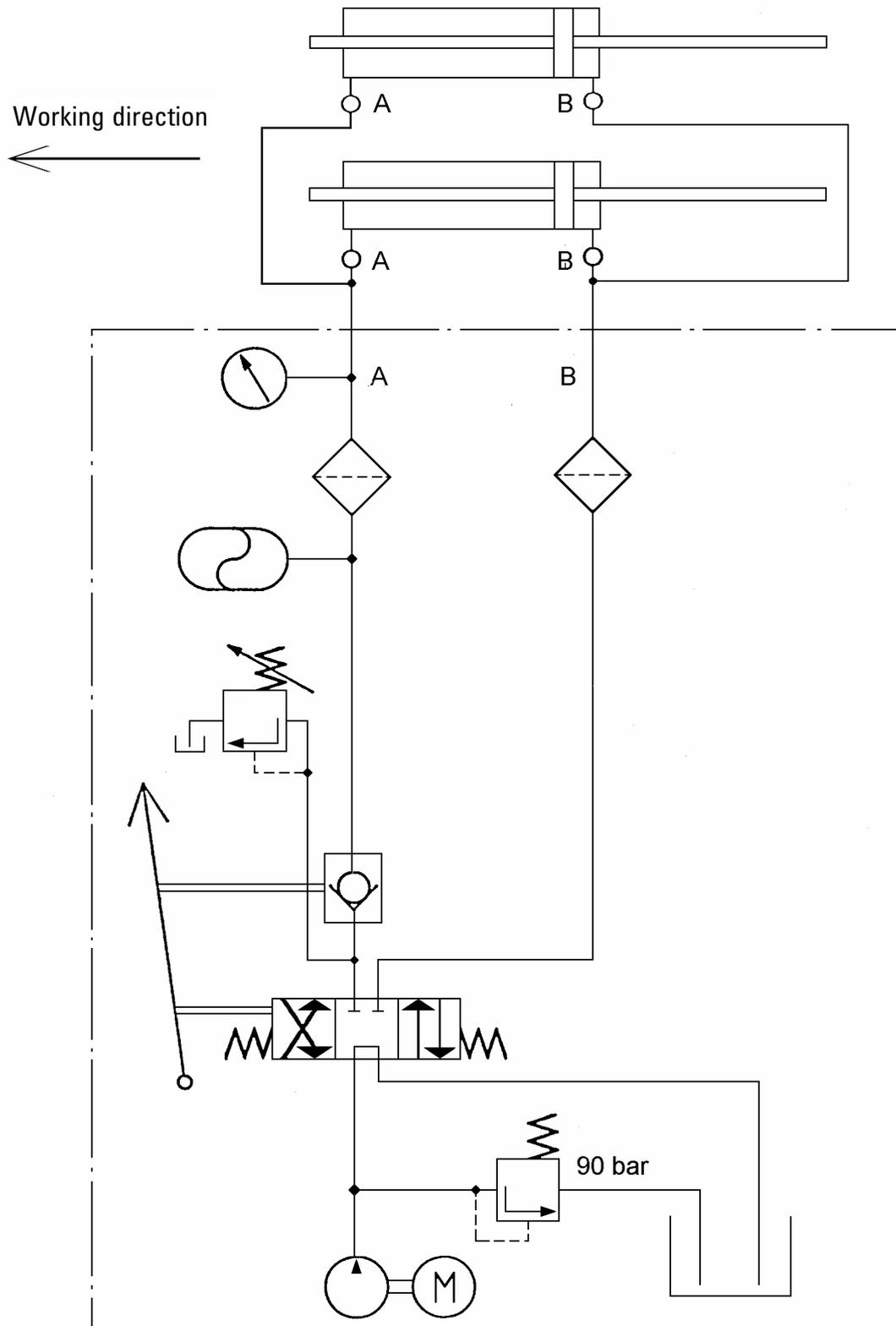
- In each box holders are included which are suitable for each single element of the machine in order to avoid slipping.
- In both of the boxes there are partitions in which the component elements of the machine fit in such a way that they cannot be moved.
- Put the elements into the box in such a way that they are fitting in the holders.
- The hydraulic hoses at the basic machine should not be unscrewed (air penetration).
- Make sure that they are not being squeezed.
- Handle the machine with care.
- Do not tilt the hydraulic aggregate because oil may come out.
- Protect from heavy shocks and impacts.
- Make sure that the box cover is well closed.
- Care was taken to build the transport boxes according to lightweight construction.
- Be always careful while using automatic handling and carrying machines.



During the transport of the machine there may be cold weldings between the piston rod and the eyes of the planer shell. These spots on the piston rod may damage the sealing.

- Therefore the eyes must be lubricated with PTFE-spray before transport !

9. Electric and hydraulik diagrams



Hydraulic diagram

WIDOS GmbH
Kunststoffschweißtechnik
Plastic Welding Technology

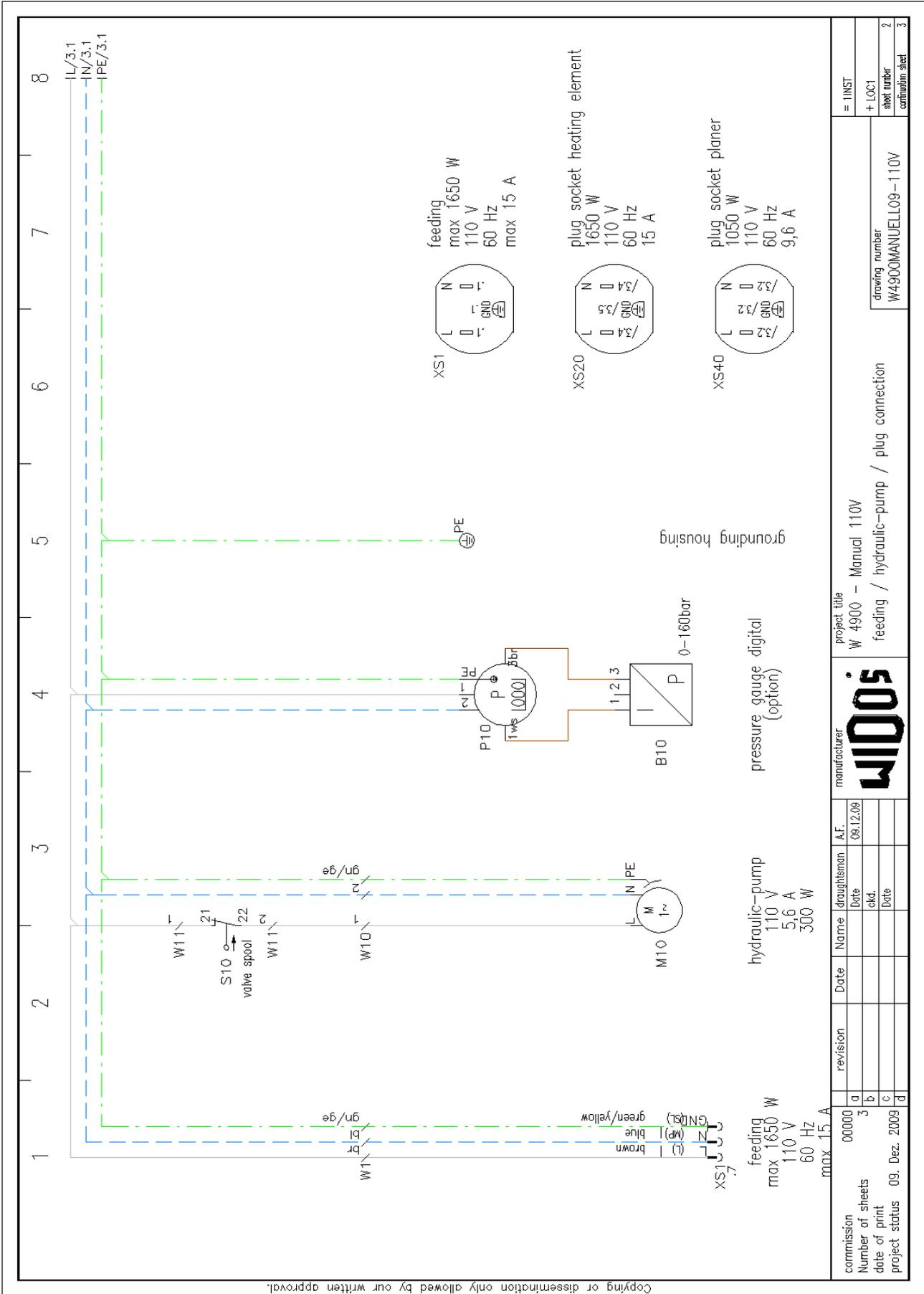
Einsteinstrasse 5
D-71254 Ditzingen
Tel.: +49 (0) 7152 / 9939-0
Fax: +49 (0) 7152 / 9939-40
<http://www.widos.de>

Circuit diagram

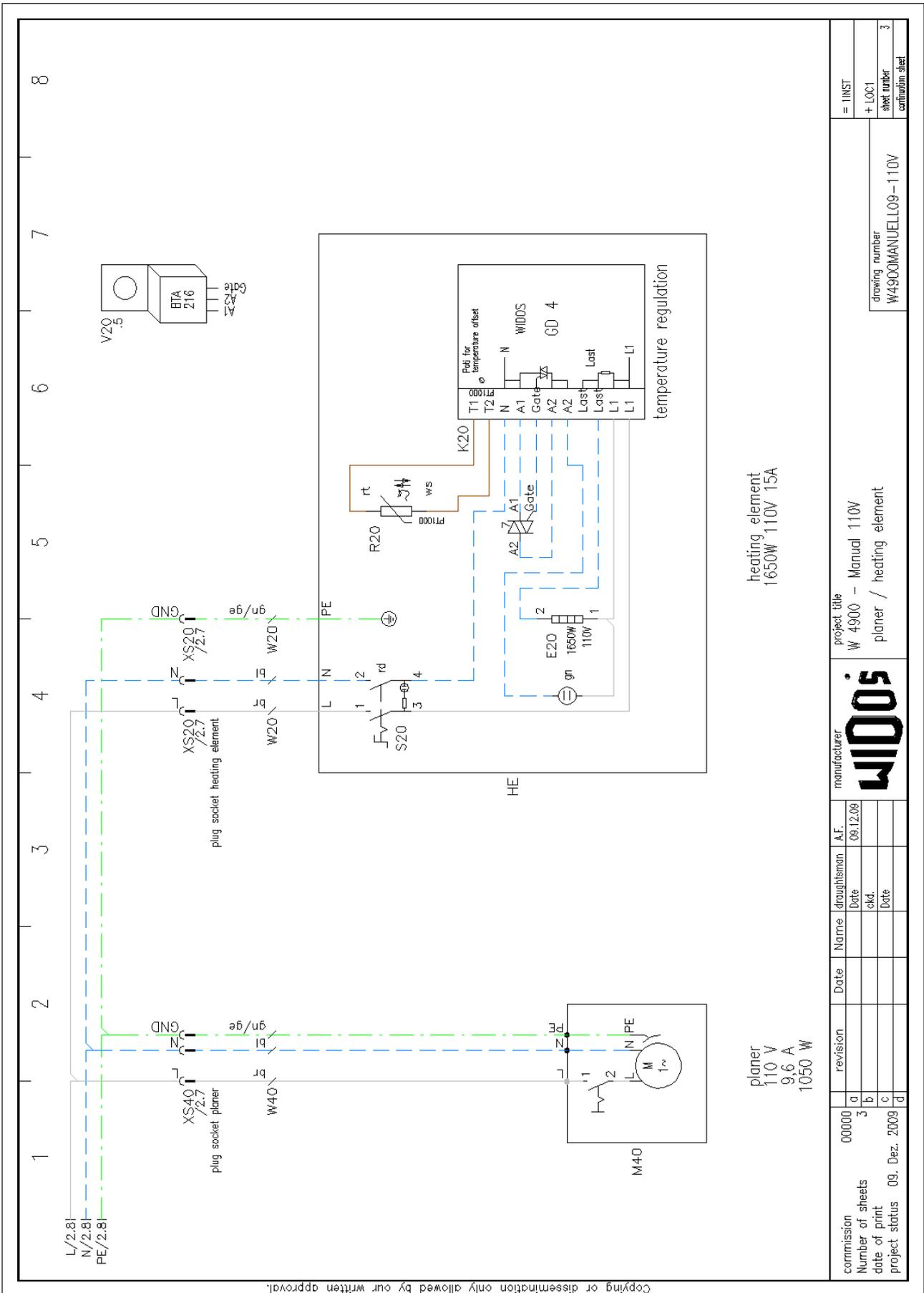
project title W 4900 – Manual 110V
 machine type W 4900 – Manual 110V ab 2009
 Number of sheets 3
 Date 09.12.09

commission Number of sheets	00000	Date	09.12.09	W 4900 – Manual 110V ab 2009 cover sheet	manufacturer 	project title W 4900 – Manual 110V Job number 00000	= 100KU	
	date of print	09. Dez. 2009	draughtsman				A.F.	drawing number
project status		Date					sheet number	0
		ckd.					continuation sheet	
							Number of sheets	3

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heating element
1650W 110V 15A

planer
110 V
9,6 A
1050 W

commission	00000	revision		Name		Date		draughtsman		A.F.		project title	
Number of sheets	3	a								09.12.09		W 4900 - Manual 110V	
date of print		b										planer / heating element	
project status	09. Dez. 2009	c										drawing number	W4900MANUELLO9-110V
		d										sheet number	3
												continuation sheet	

10. Spare parts list



You can access our website and select our spare parts lists via the qr code shown here. Select "4900"

11. 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:	
Manufacturer / Installation company:	WIDOS Wilhelm Dommer Söhne GmbH
Address:	WIDOS GmbH Einsteinstr. 5 D-71254 Ditzingen

Subject of the present declaration is the following device:	
<i>Product name:</i>	Heating element butt welding machine
<i>Model name:</i>	WIDOS 4900
<i>Machine number:</i>	
<i>Year of construction:</i>	

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
--

Statement of the relevant harmonizing standards referred to, or indication of the specifications that the conformity is declared for:	
Standard	Title
DIN EN ISO 12100	Safety of machines, basic concepts, general layout guidelines
DIN EN 1037	Safety of machines, prevention of unexpected starting
DIN EN 614-1	Safety of machines, ergonomic layout principles
DIN EN 60204.1	Electrical equipment of industrial machinery
DIN EN 1005-2	Human physical performance – manual handling of objects
DIN EN ISO 4413	Fluid technology, general regulations and safety-related requirements of hydraulic appliances
DVS 2208	Machines for the heating element butt welding of pipes, pipe fittings and sheets
ISO 12176-1	Pipes and fittings out of plastic- equipment for PE weld connections

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



Ditzingen, 20.05.2019

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.