

## EN Operating instructions



# ABICOOLER 1300

EN Cooling unit

**EN Translation of the original operating instructions**

<b>1</b>	<b>Identification</b> .....	EN-3
1.1	Marking .....	EN-3
1.2	Nameplate.....	EN-3
1.3	Signs and symbols used .....	EN-3
1.4	Classification of the warnings .....	EN-3
<b>2</b>	<b>Safety</b> .....	EN-4
2.1	Designated use.....	EN-4
2.2	Obligations of the operator .....	EN-4
2.3	Warning and notice signs .....	EN-4
2.4	Basic safety instructions .....	EN-5
2.5	Safety instructions for the power supply .....	EN-6
2.6	Personal protective equipment (PPE) .....	EN-6
2.7	Emergency information.....	EN-6
<b>3</b>	<b>Scope of delivery</b> .....	EN-6
<b>4</b>	<b>Product description</b> .....	EN-7
4.1	Assembly and use .....	EN-7
4.2	Technical data.....	EN-8
<b>5</b>	<b>Transport and installation</b> .....	EN-9
<b>6</b>	<b>Commissioning</b> .....	EN-10
6.1	Fuse protection for the device .....	EN-10
6.2	Initial commissioning .....	EN-11
6.2.1	Bleed the device.....	EN-11
6.2.2	Bleeding the cable assembly .....	EN-13
6.2.3	Commissioning the flow control .....	EN-13
<b>7</b>	<b>Operation</b> .....	EN-14
7.1	Prior to initial commissioning and after a longer standstill .....	EN-14
<b>8</b>	<b>Decommissioning</b> .....	EN-14
<b>9</b>	<b>Maintenance and cleaning</b> .....	EN-15
9.1	Maintenance and cleaning intervals.....	EN-15
9.2	Change the coolant .....	EN-16
9.3	Replacing the fuse.....	EN-16
9.4	Replacing the handles .....	EN-17
<b>10</b>	<b>Troubleshooting</b> .....	EN-18
<b>11</b>	<b>Disassembly</b> .....	EN-19
<b>12</b>	<b>Disposal</b> .....	EN-19
12.1	Disposing of materials .....	EN-19
12.2	Disposing of consumables.....	EN-20
12.3	Packaging .....	EN-20
<b>13</b>	<b>Appendix</b> .....	EN-20
13.1	Connecting diagram for flow control .....	EN-20
13.2	ABICOOLER 1300 circuit diagram for 115 V.....	EN-21
13.3	ABICOOLER 1300 circuit diagram for 230 V.....	EN-22
13.4	Spare parts.....	EN-23
<b>14</b>	<b>Warranty</b> .....	EN-23

## 1 Identification

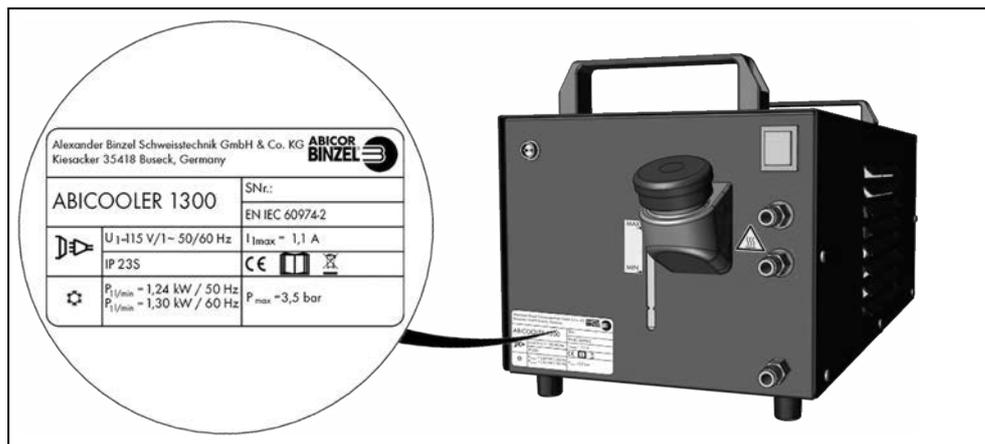
The ABICOOLER 1300 cooling unit is used by industry and the trade sector exclusively for the cooling of liquid-cooled welding torches. These operating instructions only describe the ABICOOLER 1300 cooling unit. When used in these operating instructions, the terms “device”, “product”, and “cooling unit” always refer to the ABICOOLER 1300 cooling unit. The device may be used only with original ABICOR BINZEL spare parts. The device is available in 230 V and 115 V versions.

### 1.1 Marking

This product fulfills the requirements that apply to the market to which it has been introduced. A corresponding marking has been affixed to the product, if required.

### 1.2 Nameplate

**Fig. 1** Nameplate



The device is labeled by means of a nameplate on the housing.

- ▶ You will need the device type, device number and serial number as indicated on the nameplate for inquiries.

### 1.3 Signs and symbols used

The following signs and symbols are used in the operating instructions:

- ▶ General instructions.
- 1 Action(s) to be carried out in succession.
- Lists.
- ⇒ Cross-reference symbol refers to detailed, supplementary or further information.
- A Caption, item description.

### 1.4 Classification of the warnings

The warnings used in the operating instructions are divided into four different levels and shown prior to potentially dangerous work steps. The following signal words are used depending on the type of hazard:

#### **⚠ DANGER**

Describes an imminent threatening danger. If not avoided, it may cause severe injuries or death.

#### **⚠ WARNING**

Describes a potentially dangerous situation. If not avoided, this may result in death or serious injuries.

**⚠ CAUTION**

Describes a potentially harmful situation. If not avoided, this may result in slight or minor injuries.

**NOTICE**

Describes the risk of impairing work results or material damage and indicates irreparable damage to the device or equipment.

**2 Safety**

This chapter describes the essential safety requirements and warns of residual hazards that should be kept in mind to operate the product safely. Non-observance of the safety instructions may result in risks to the life and health of personnel, and environmental damage or material damage.

**2.1 Designated use**

The device described in these operating instructions may be used only for the purpose and in the manner described in these operating instructions. The device is used in industry and in the trade only for cooling liquid-cooled welding torches. Any other use is considered improper. Unauthorized modifications or changes to enhance the performance are not permitted.

- ▶ Do not exceed the maximum load data as defined by the documentation supplied. Excessive loads lead to irreparable damage.
- ▶ Do not make any constructive changes to this product.
- ▶ Do not use or store the device outdoors where it is wet.

**2.2 Obligations of the operator**

- ▶ Ensure that only qualified personnel are permitted to perform work on the device or system.

Authorized personnel are:

- those who are familiar with the basic regulations on occupational safety and accident prevention;
  - those who have been instructed on how to handle the device;
  - those who have read and understood these operating instructions;
  - those who have been trained accordingly;
  - those who are able to recognize possible risks because of their special training, knowledge, and experience.
- ▶ Keep untrained persons out of the work area.

**2.3 Warning and notice signs**

The following warning, notice and mandatory signs can be found on the product:



- ▶ Wear eye protection.



Warning against hot surfaces. Risk of burns.

- ▶ Do not touch hot surfaces.



Electrical voltage caution. Danger of electric shock.

- ▶ Only a trained electrician should open the device.
- ▶ Interrupt the electrical power supply before opening the device.

These markings must always be legible. They may not be covered, obscured, painted over, or removed.

## 2.4 Basic safety instructions

The product has been developed and manufactured in accordance with state-of-the-art technology and the recognized safety standards and regulations. Inevitable technical residual risks to the user, third parties, devices, or other material property are posed by the product. The manufacturer will accept no liability for damage caused by non-observance of the documentation.

- ▶ Before using the system for the first time, please read the provided documentation carefully.
- ▶ Do not operate the product unless it is functioning properly and ensure compliance with all documents.
- ▶ Before carrying out specific work, for example, commissioning, operation, transport and maintenance, read the documentation carefully.
- ▶ Use suitable means to protect yourself and bystanders from the hazards listed in the documentation.
- ▶ Store the documentation within easy reach of the device for reference and enclose all documents when passing on the product.
- ▶ Consult the documentation for additional welding components.
- ▶ Information about how to handle gas cylinders can be found in the instructions provided by the gas manufacturer and the relevant local regulations, e.g., regulations that apply to compressed air.
- ▶ Observe the local accident prevention regulations.
- ▶ Only trained specialists should commission, operate, and service the device. Qualified personnel are persons who, based on their special training, knowledge, experience and due to their knowledge of the relevant standards, are able to assess the tasks assigned to them and identify possible dangers.
- ▶ Keep the work area in order. Ensure good lighting of the work area.
- ▶ Switch off the power supply, gas supply, and compressed air and unplug the power plug for the entire duration of maintenance, commissioning, and repair activities.
- ▶ For disposal, observe the local regulations, laws, provisions, standards and guidelines.
- ▶ Do not open reservoir cap while unit is powered on. Wait a few seconds until pump stops running before opening.

### Safety instructions for electrical components

- ▶ Check electric tools for damage and for its proper functioning in accordance with its designated use.
- ▶ Do not expose electric tools to rain and avoid a moist or wet environment.
- ▶ Protect yourself from electric shock by using insulating mats and wearing dry clothing.
- ▶ Do not use the electric tools in areas subject to fire or explosion hazards.

### Safety instructions for welding

- ▶ Arc welding may cause damage to the eyes, skin and hearing. Note that other hazards may arise when the device is used with other welding components. Therefore, always wear the prescribed personal protective equipment as defined by local regulations.
- ▶ Any metal vapors, especially lead, cadmium, copper and beryllium are harmful. Ensure sufficient ventilation or extraction. Do not exceed the current threshold limit values (TLV).
- ▶ To prevent the formation of phosgene gas, rinse workpieces that have been degreased with chlorinated solvents using clean water. Do not place degreasing baths containing chlorine in the vicinity of the welding area.
- ▶ Adhere to the general fire protection regulations and remove flammable materials from the vicinity of the welding work area prior to starting work. Provide appropriate fire extinguishing equipment in the workplace.

### Safety instructions for personal protective equipment

- ▶ Do not wear loose fitting clothing or jewelry.
- ▶ Use a hair net for long hair.
- ▶ Wear safety goggles, protective gloves, and a respiratory mask, if necessary.

### 2.5 Safety instructions for the power supply

- ▶ Ensure that the mains connecting cable is not damaged, for example, by being driven over, crushed or torn.
- ▶ Check the mains connecting cable for damage and wear at regular intervals.
- ▶ If it is necessary to replace the mains connecting cable, only models indicated by the manufacturer may be used.
- ▶ Only a trained electrician should replace the mains connecting cable and the mains plug.
- ▶ Splash-water protection and mechanical stability must be ensured when replacing the mains plug of the mains connecting cable.

### 2.6 Personal protective equipment (PPE)

- ▶ Wear your personal protective equipment (PPE).
- ▶ Ensure that others in close proximity are also wearing personal protective equipment.

Personal protective equipment consists of protective clothing, safety goggles, a class P3 respiratory mask, protective gloves, and safety shoes.

### 2.7 Emergency information

In the event of an emergency, immediately disconnect the following supplies: Electrical power supply.

## 3 Scope of delivery

The unit is delivered empty, without coolant. The coolant must be ordered separately. The following components are included in the scope of supply:

- 1 × ABICOOLER 1300 cooling unit
- 1 × control lead for flow control
- 1 × discharge hose
- 1 × operating instructions
- 1 × priming tool
- ▶ Order the equipment parts and wear parts separately.
- ▶ The order data and ID numbers for the equipment parts and wear parts can be found in the current product catalog.
- ▶ For more information about points of contact, consultation, and orders, visit [www.binzel-abicor.com](http://www.binzel-abicor.com).

Although the items delivered are carefully checked and packaged, it is not possible to fully rule out the risk of transport damage.

### Goods-in inspection

- ▶ Check for order completeness by checking the delivery note.
- ▶ Check the delivered goods for damage (visual inspection).

### Claim process

- ▶ If goods are damaged, contact the final carrier.
- ▶ Keep the packaging for possible checks by the carrier.

### Returns

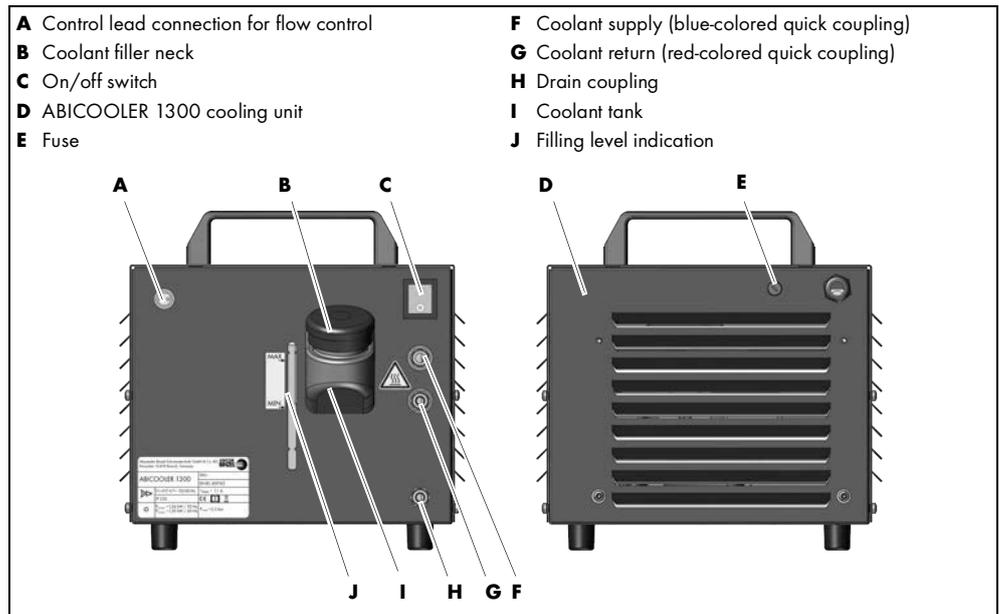
- ▶ Use original packaging and packing material for returns.

If you have questions concerning the packaging or how to secure the device, contact your supplier, carrier or transport company.

4 Product description

4.1 Assembly and use

Fig. 2 Assembly and use

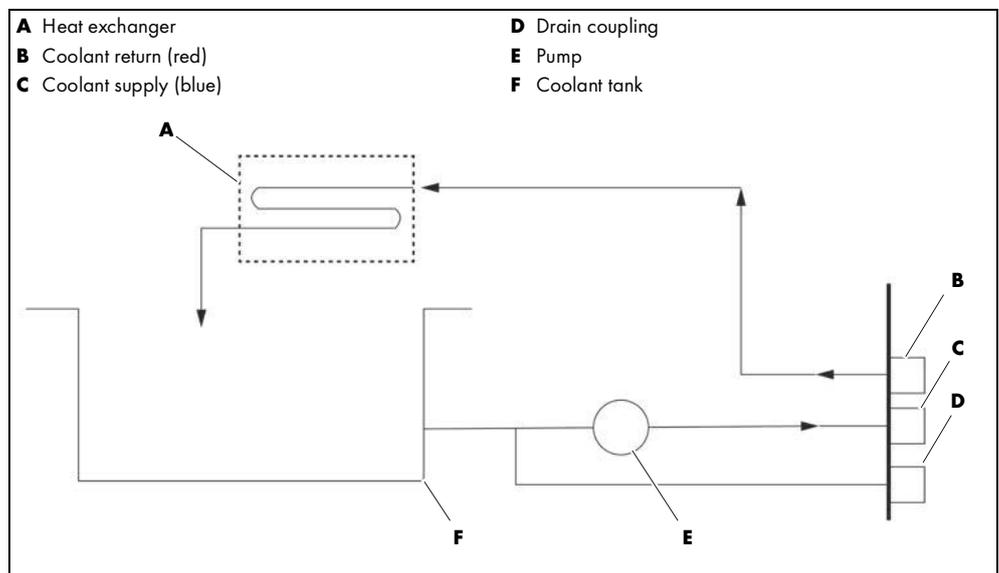


The device is used for cooling liquid-cooled welding torches. The device supplies and monitors the coolant. All required components and connections have been installed in the housing. The coolant is pumped via a closed cooling circuit through the welding torch and cooled down via an integrated air heat exchanger. We recommend the use of a coolant filter as well. A flow control is integrated as standard in the device, however, it must be connected via the supplied flow control line.

⇒ 6.2.3 Commissioning the flow control on page EN-12

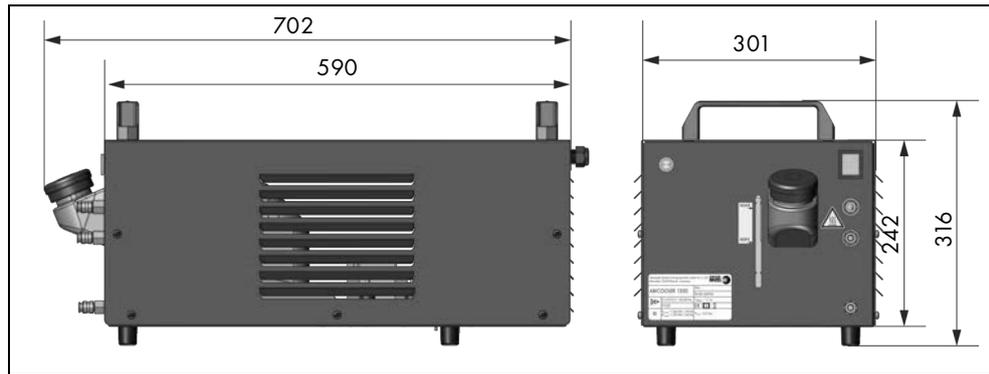
⇒ 13.1 Connecting diagram for flow control on page EN-19

Fig. 3 Overview of the coolant circuit



## 4.2 Technical data

Fig. 4 Dimensions



Tab. 1 General information

	50 Hz	60 Hz
<b>Cooling capacity (H2O) Q = 1 l/min</b>	1.24 kW	1.30 kW
<b>Cooling capacity (BTC-15*) Q = 1 l/min</b>	1.14 kW	1.19 kW
<b>Cooling capacity (BTC-20 NF*) Q = 1 l/min</b>	1.09 kW	1.14 kW
<b>Cooling capacity (BTC-50 NF*) Q = 1 l/min</b>	0.98 kW	1.02 kW
<b>Heat exchanger</b>	3-row	
<b>Supply voltage</b>	115/230 V AC	
<b>Q = 1 l/min at +25 °C</b>	1050 W with BTC	
<b>Max. delivery height of pump head</b>	35 m	
<b>Max. flow rate of pump head</b>	10 l/min	
<b>Max. coolant outlet pressure/pump pressure</b>	3.9 bar	
<b>Pump type</b>	Centrifugal pump	
<b>Coolant tank capacity</b>	8.0 l	
<b>Coolant</b>	BTC series or other ABICOR BINZEL coolant	
<b>Max. conductivity of coolant</b>	MIG/MAG: 0–350 µS/cm, TIG: 0–250 µS/cm, plasma: 0–30 µS/cm (observe manufacturer's specifications if necessary).	
<b>Sound level</b>	58.5 dB(A)	
<b>Protection type</b>	IP 23 (suitable for indoor use only)	
<b>Dimensions (L×W×H)</b>	670 × 300 × 320 mm	
<b>Weight</b>	22 kg	
<b>Weight (including coolant)</b>	30 kg	

\*Mathematical approximate values.

Tab. 2 Ambient conditions for transport, storage and operation

<b>Ambient temperature (operation, storage in a closed environment)</b>	-10 °C to +40 °C
<b>Ambient temperature (transport)</b>	-25 °C to +55 °C
<b>Relative humidity</b>	Up to 90% at 20 °C

## 5 Transport and installation

**⚠ WARNING****Risk of injury due to improper transport and installation**

Improper transport and installation can cause the device to tip or fall over. This may result in serious injuries.

- ▶ Check and wear your personal protective equipment.
- ▶ Ensure that all supply lines and cables do not encroach into the area in which employees are working.
- ▶ Place the device on a suitable base (flat, solid, dry) on which it will not topple over.
- ▶ Note the weight of the device when lifting it.  
⇒ 4.2 Technical data on page EN-7
- ▶ Use an appropriate lifting tool with load handling attachment for transporting and installing the device.
- ▶ Avoid abrupt lifting and setting down.
- ▶ Do not lift the device over persons or other devices.

**⚠ WARNING****Health risk caused by inhaling harmful dust**

Cooled air is blown out of the device. This can lead to dust that has collected on the floor during the welding process to be stirred up. Inhaling harmful dust can damage the respiratory tract.

- ▶ Check and wear your personal protective equipment.
- ▶ Place the device on a clean, dust-free surface.

**NOTICE****Risk of material damage due to improper transport and installation**

Improper transport or installation can cause the device to tip or fall over. This can result in material damage and irreparable damage to the device.

- ▶ Protect the device against weather conditions, such as rain and direct sunlight.
- ▶ Use the device only in dry, clean and well-ventilated rooms.
- ▶ Ensure a clearance of 50 cm around the device when installing it to ensure optimal circulation of cooled air.
- ▶ Prevent dust and other foreign substances from entering the device.
- ▶ Note the maximum angle of tilt of 10°.



**1** Place the handles on the device.



**2** Fix them with (4) screws and install the device in a suitable place.

⇒ Tab. 2 Ambient conditions for transport, storage and operation on page EN-7

## 6 Commissioning

### **⚠ WARNING**

#### **Electric shock due to defective cables**

Damaged or improperly installed cables can lead to fatal electric shock.

- ▶ Check all live cables and connections for proper installation and damage.
- ▶ Damaged, deformed or worn parts should only be replaced by a qualified electrician.

### **NOTICE**

#### **Material damage due to contaminated coolant**

Contamination in the coolant can lead to damage and increased wear in the device.

- ▶ Keep the coolant tank cap closed.
- ▶ We recommend that you use a coolant filter (not included in the scope of supply).

### **NOTICE**

#### **Material damage due to a lack of coolant**

If there is insufficient coolant, the device's pump can overheat and cause irreparable damage.

- ▶ Ensure that coolant is added to the device before commissioning it.
- ▶ Ensure that the device is bled during commissioning.
- ▶ Ensure that the coolant pump does not run dry.
- ▶ Observe the fill level indicator on the device.
- ▶ Use the flow control to continuously monitor the proper function of the entire cooling system. If the flow rate is too low, the flow control instigates the immediate switch-off of the connected devices and prevents thermal overload.

### **NOTICE**

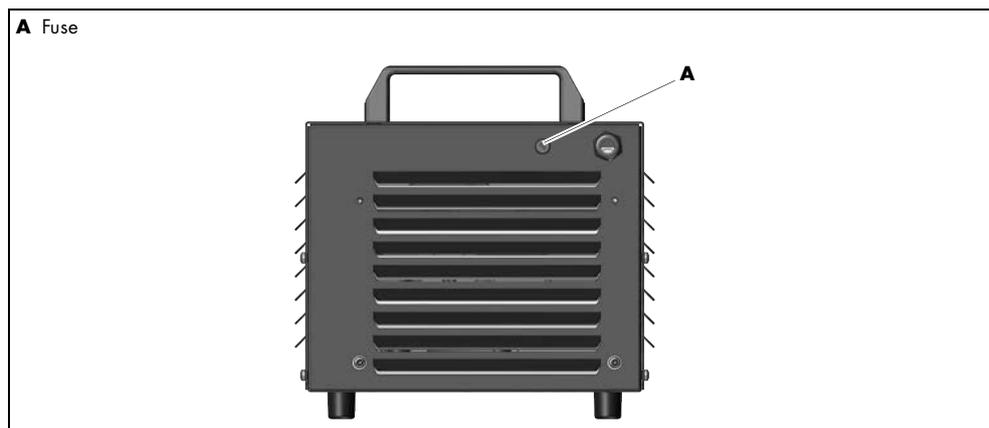
#### **Material damage when bridging multiple devices**

The use of several devices (in sequence or in parallel) can result in material damage.

- ▶ Do not bridge the device with other cooling units.

## 6.1 Fuse protection for the device

**Fig. 5** Fuse protection



- ▶ Device (115 V and 230 V) with a T2A fuse (5 × 20 mm).

## 6.2 Initial commissioning

### NOTICE

#### Material damage due to unsuitable coolant

The use of unsuitable coolant can result in a limited cooling capacity and increased device wear. The warranty does not cover damage to the device.

- ▶ Use BTC series coolant or a different ABICOR BINZEL coolant.
- ▶ When using a different coolant, ensure that it does not include aggressive, abrasive or resinous components.
- ▶ Use only demineralized water (permitted operating temperature +5 °C to +40 °C) or, after cleaning the device, a mixture of 25% monoethylenglycol and 75% demineralized water (permitted operating temperature –10 °C to +40 °C), if ABICOR BINZEL BTC coolant or other ABICOR BINZEL coolant is not available.

### NOTICE

#### Material damage due to contaminated or conductive coolant

The use of contaminated or conductive coolant can lead to damage and increased wear in the device.

- ▶ Keep the coolant tank cap closed.
- ▶ Flush the cooling system before refilling with BTC coolant or other ABICOR BINZEL coolant with clean water to remove any deposits and contaminations.
- ▶ We recommend that you use a coolant filter (not included in the scope of supply).
- ▶ Regularly check the state of the coolant.
- ▶ Observe the recommended maximum conductivity of the coolant.
  - ⇒ 4.2 Technical data on page EN-7
- ▶ Ensure that the coolant supply and return hoses have been correctly installed.  
Coolant supply = blue-colored quick coupling, coolant return = red-colored quick coupling.



- 1 Switch off the device.
- 2 Plug in the power plug to establish power supply.

### 6.2.1 Bleed the device

Proper cooling is ensured only if the entire cooling system has been bled. The device must be bled at the time of initial commissioning and every time the device is emptied.



- 1 Remove the coolant tank cap and keep the coolant tank open until the bleeding process is complete.



- 2 Fill the coolant tank to the maximum fill level mark with ABICOR BINZEL coolant.



- 3 Connect the priming tool at the blue-colored quick coupling.



4 Pull the plunger the full length to withdraw fluid from the port.

5 Disconnect the priming tool from the blue-colored quick-disconnect and eject the contents of the plunger back into the tank through the filler neck.

6 Repeat steps 3 - 5 a total of three times



7 Connect the supplied discharge hose to the blue-colored quick-disconnect



8 Insert the free end of the discharge hose in the device's filler neck and fix by hand

9 Switch on the device. Coolant should flow into the filler neck



**10** Remove the discharge hose and store it for subsequent maintenance work.

**11** Check the coolant level and fill as needed.



**12** Seal the coolant tank.

### 6.2.2 Bleeding the cable assembly

Proper cooling is ensured only if the entire cooling system has been bled. The cable assembly must be bled at the time of initial commissioning and every time the device is fully bled.

- 1** Connect the cable assembly's coolant hoses to the device, ensuring that the cooling circuit is closed.
- 2** Remove the coolant tank cap and keep the coolant tank open until the bleeding process is complete.
- 3** Remove the coolant return hose from the red-colored quick coupling and hold it over the coolant tank's opening.
- 4** Switch on the device.
- 5** Seal the coolant hose or kink it and then open it abruptly. Repeat this process until coolant flows continuously and without bubbles.
- 6** Switch off the device.
- 7** Connect the coolant return hose to the red-colored quick coupling.
- 8** Check the coolant level and fill as needed.
- 9** Seal the coolant tank.

### 6.2.3 Commissioning the flow control

A flow control is integrated as standard in the device, however, it must be connected via the supplied flow control line. The available connection is suitable only for two-step operation. If a flow control is used, the device switches off the welding current if the coolant level is low and the torch button is pressed. The flow control is pre-set to 0.6–0.8 l/min.

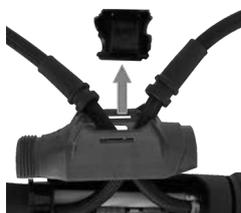
⇒ 13.1 Connecting diagram for flow control on page EN-19



**1** Open the device connection housing.



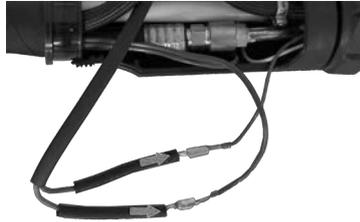
**2** Disassemble one button line.



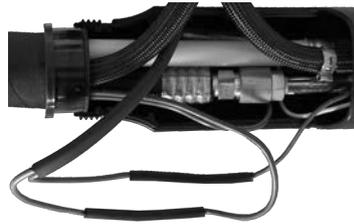
**3** Disassemble the cap from the connection housing.



4 Guide the flow control with the line ends through the opening.



5 Pull the heat-shrinking tube over both line ends and connect the button line to the flow control.



6 Warm the heat-shrinking tube and insulate the connection point.



7 Place the lines in the connection housing and assemble the connection housing.



8 Insert the flow control's plug in the connection on the device.

## 7 Operation

- ▶ Switch the device on and off with the ON/OFF switch.

### 7.1 Prior to initial commissioning and after a longer standstill

- 1 Bleed the device and cable assembly.
  - ⇒ 6.2.1 Bleed the device on page EN-10
  - ⇒ 6.2.2 Bleeding the cable assembly on page EN-12
- 2 Check the tightness of the coolant connections.

## 8 Decommissioning

- ▶ Observe the documentation for the welding components.



- 1 Switch off the device.
- 2 Pull out the mains plug to disconnect from the power supply.

## 9 Maintenance and cleaning

Scheduled maintenance and cleaning are prerequisites for a long service life and trouble-free operation.

### **⚠ WARNING**

#### **Electric shock due to defective cables**

Damaged or improperly installed cables can lead to fatal electric shock.

- ▶ Check all live cables and connections for proper installation and damage.
- ▶ Damaged, deformed or worn parts should only be replaced by a qualified electrician.

### **⚠ CAUTION**

#### **Risk of injury due to unexpected start**

If power is supplied during maintenance, cleaning or disassembly, rotating parts can start running unexpectedly and lead to injuries from cuts.

- ▶ Switch off the device.
- ▶ Disconnect all electrical connections.
- ▶ Leave the device switched off throughout the entire bleeding process.

### 9.1 Maintenance and cleaning intervals

The specified intervals are standard values and refer to single-shift operation. When using arc welding equipment, always observe the provisions of EN 60974-4 Inspection and testing, as well as any national laws and regulations.

#### **Daily**

- ▶ Check coolant level and top up, if necessary.
- ▶ Check couplings and grommets for leaks and adjust or replace as needed.

#### **Monthly**

- ▶ Blow out the air head exchanger with compressed air from the outside and remove all dust.
- ▶ Check the coolant supply and return hoses for dirt and debris and replace if necessary.

#### **Every six months**

- ▶ Change the coolant.
  - ⇒ 9.2 Change the coolant on page EN-15
- ▶ Flush the supply/return lines against the flow direction.
- ▶ Rinse the coolant tank.
- ▶ Flush the coolant circuit with clean water.
- ▶ Check external connections for leaks and tighten hose clamps using pliers as needed.
- ▶ Check coolant hoses for damage.

## 9.2 Change the coolant



- 1 Open the screw cap at the filler neck and keep it open during the procedure.



- 2 Place a receptacle below the device. It must be able to hold at least 8 liters.
- 3 Connect the discharge hose to the drain coupling.
- 4 Hang the other end of the drain coupling in the receptacle and wait until no more coolant flows out.
- 5 Remove the discharge hose and store it in a safe place.



- 6 Fill the new coolant only up to the MAX line.  
⇒ 6.2 Initial commissioning on page EN-10



- 7 Seal the filler neck with the screw cap.

## 9.3 Replacing the fuse



- 1 Loosen the fuse holder on the back side of the device using a suitable flathead screwdriver.



- 2 Remove the fuse holder and fuse.



- 3 Remove the fuse from the fuse holder.



- 4 Insert the new T2A fuse (5 × 20 mm).

- 5 Mount the fuse holder with the new fuse in the device.

### 9.4 Replacing the handles



1 Loosen the screws (4) from the handles and remove them.



2 Remove both handles.



3 Place the new handles on the device.



4 Fix the handles with the screws (4).

## 10 Troubleshooting

- ▶ Observe the documentation for the welding components.
- ▶ Note the warranty documentation provided.
- ▶ Contact your retailer or ABICOR BINZEL in the event of questions or problems.

Tab. 3 Troubleshooting

Fault	Cause	Troubleshooting
<b>Device does not function</b>	Power supply is interrupted.	<ul style="list-style-type: none"> <li>▶ Switch on the power supply.</li> <li>▶ Check the electrical system and contact customer service as needed.</li> </ul>
	Motor/coolant pump is defective.	<ul style="list-style-type: none"> <li>▶ Replace the motor/coolant pump.</li> <li>▶ Contact the service team.</li> <li>▶ Replace the fuse.</li> <li>⇒ 6.2 Initial commissioning on page EN-10</li> </ul>
<b>Too little or insufficient coolant flow</b>	No coolant in the coolant tank.	▶ Add coolant.
	Coolant level is too low.	▶ Top up coolant.
	Bottleneck or foreign object in the cooling circuit.	▶ Check the coolant hoses and connections.
		▶ Flush the cooling circuit.
	Coolant pump fuse is defective.	<ul style="list-style-type: none"> <li>▶ Replace the fuse.</li> <li>⇒ 9.3 Replacing the fuse on page EN-15</li> </ul>
	Coolant pump is defective.	▶ Check the coolant circuit connections and contact customer service as needed.
	Coolant circuit is interrupted.	▶ Check the coolant hoses for damage and replace them as needed.
Air in the coolant circuit.	<ul style="list-style-type: none"> <li>▶ Bleed.</li> <li>⇒ 6.2.1 Bleed the device on page EN-10</li> </ul>	
<b>Cooling capacity too low</b>	Ventilator is defective.	▶ Contact the service team.
	Coolant pump is defective.	▶ Contact the service team.
	Cooling unit is dirty.	▶ Blow out the cooling unit with dry compressed air.
	Surrounding objects prevent the flow of air.	▶ Install the device so there is sufficient distance from other objects.
<b>High running noise level</b>	Coolant level is too low.	▶ Top up coolant.
	Coolant pump is defective.	▶ Contact the service team.
<b>Leakage</b>	The connections have leaks.	▶ Check for dirt and clean as needed.
	Inner hoses have leaks.	▶ Contact the service team.
	Coolant pump is defective.	▶ Contact the service team.
	Coolant temperature is too high.	▶ Replace the hoses.
		▶ Contact the service team.
▶ Clean the cooling unit.		
	▶ Check the fan for proper function.	

## 11 Disassembly

### ⚠ WARNING

#### Electric shock

Dangerous voltage due to defective cables.

- ▶ Check all live cables and connections for proper installation and damage.
- ▶ Replace any damaged, deformed or worn parts.

### ⚠ CAUTION

#### Risk of injury due to unexpected start

If power is supplied during maintenance, cleaning or disassembly, rotating parts can start running unexpectedly and lead to injuries from cuts.

- ▶ Switch off the device.
- ▶ Disconnect all electrical connections.

### NOTICE

- ▶ Only qualified personnel are permitted to perform work on the device or system.
- ▶ Please also consult the operating instructions for the welding components and welding torch.
- ▶ Observe the information provided in the following section:
  - ⇒ 8 Decommissioning on page EN-13.

## 12 Disposal



Equipment marked with this symbol is covered by European Directive 2012/19/EU on waste electrical and electronic equipment (WEEE).

- Electrical and electronic equipment must not be disposed of with household waste.
- Electrical equipment must be disassembled prior to proper disposal.
  - ⇒ 11 Disassembly on page EN-18
- Components of electrical equipment must be collected separately and recycled in an environmentally friendly manner.
  - ▶ Observe the local regulations, laws, provisions, standards and guidelines.
  - ▶ Contact your local authority for information about the collection and return of electrical and electronic equipment.

### Dispose of BTC coolant

The coolant must not be disposed of with normal household waste. Do not allow the product to enter the sewage system.

- ▶ Please take note of the following information in the safety data sheet:
  - 14 06 03\*: Other solvent and solvent mixtures
  - 15 01 10\*: Packaging containing residues of or contaminated by dangerous substances.
  - 15 01 02: Plastic packaging.

Contaminated packaging: Disposal in accordance with official regulations.

### 12.1 Disposing of materials

This product is mainly made of metallic materials that can be melted in steel and iron works and are thus almost infinitely recyclable. The plastic materials used are labeled in preparation for their sorting and separation for later recycling.

## 12.2 Disposing of consumables

Oil, greases and cleaning agents must not contaminate the ground or enter the sewage system. These substances must be stored, transported and disposed of in suitable containers. Contaminated cleaning tools (brushes, rags, etc.) must also be disposed of in accordance with the information provided by the consumables' manufacturer.

- ▶ Please observe the relevant local regulations and disposal instructions in the safety data sheets specified by the manufacturer of the consumables.

The disposal of dust collecting bags and disposal bags is subject to special waste regulations. The dust must not enter sewage systems or be disposed of together with normal household waste.

- ▶ Observe the local and official regulations.

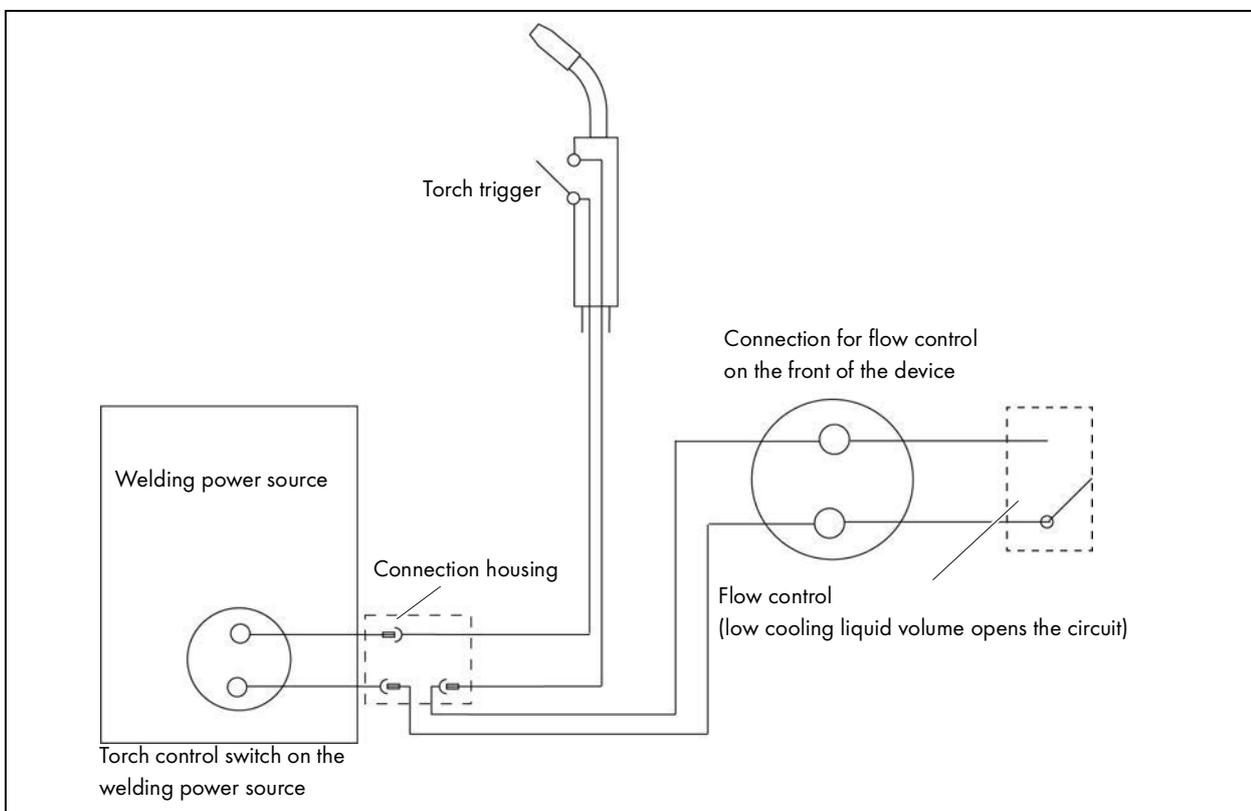
## 12.3 Packaging

ABICOR BINZEL has reduced the transport packaging to the necessary minimum. The ability to recycle packaging materials is always considered during their selection.

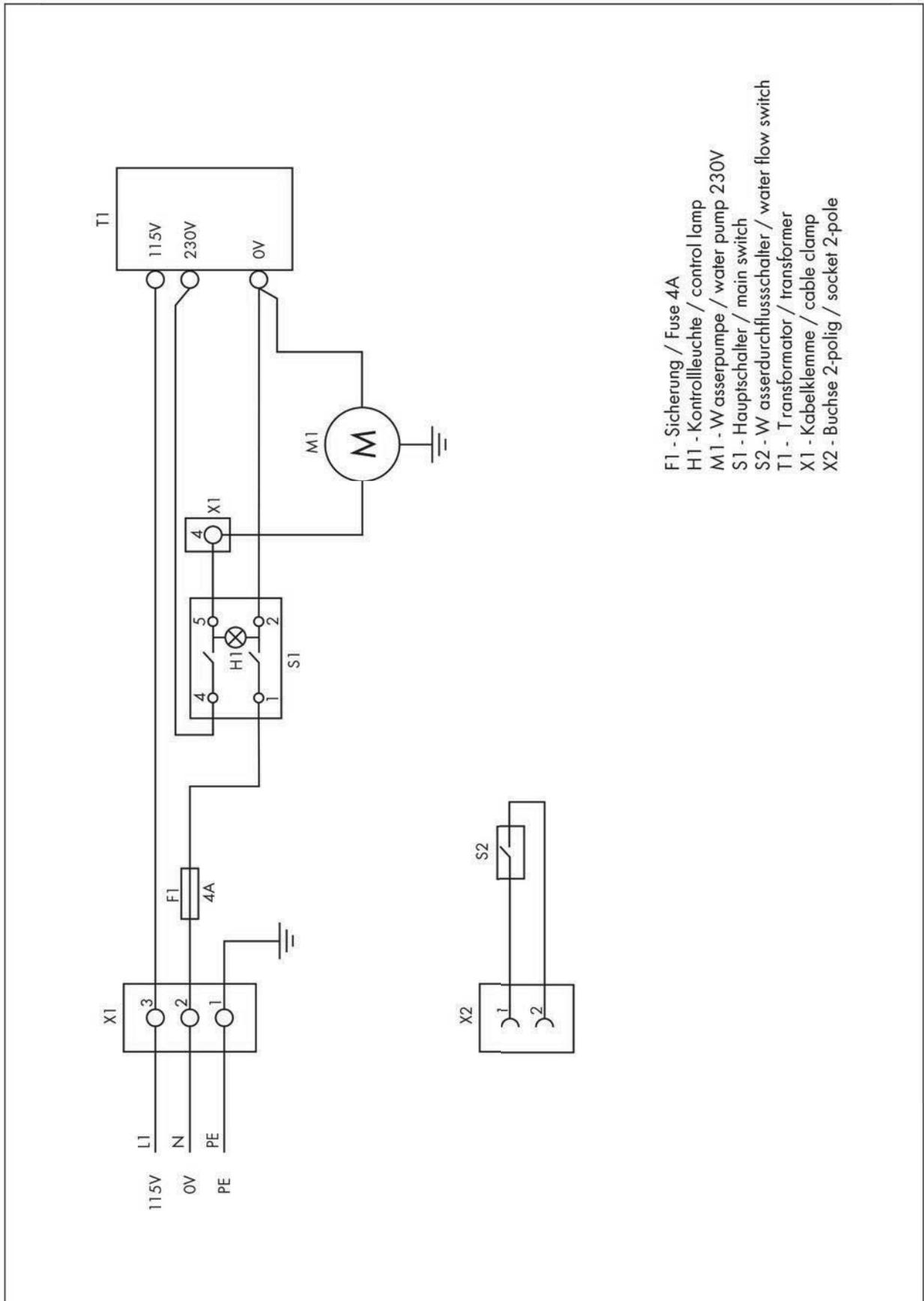
## 13 Appendix

### 13.1 Connecting diagram for flow control

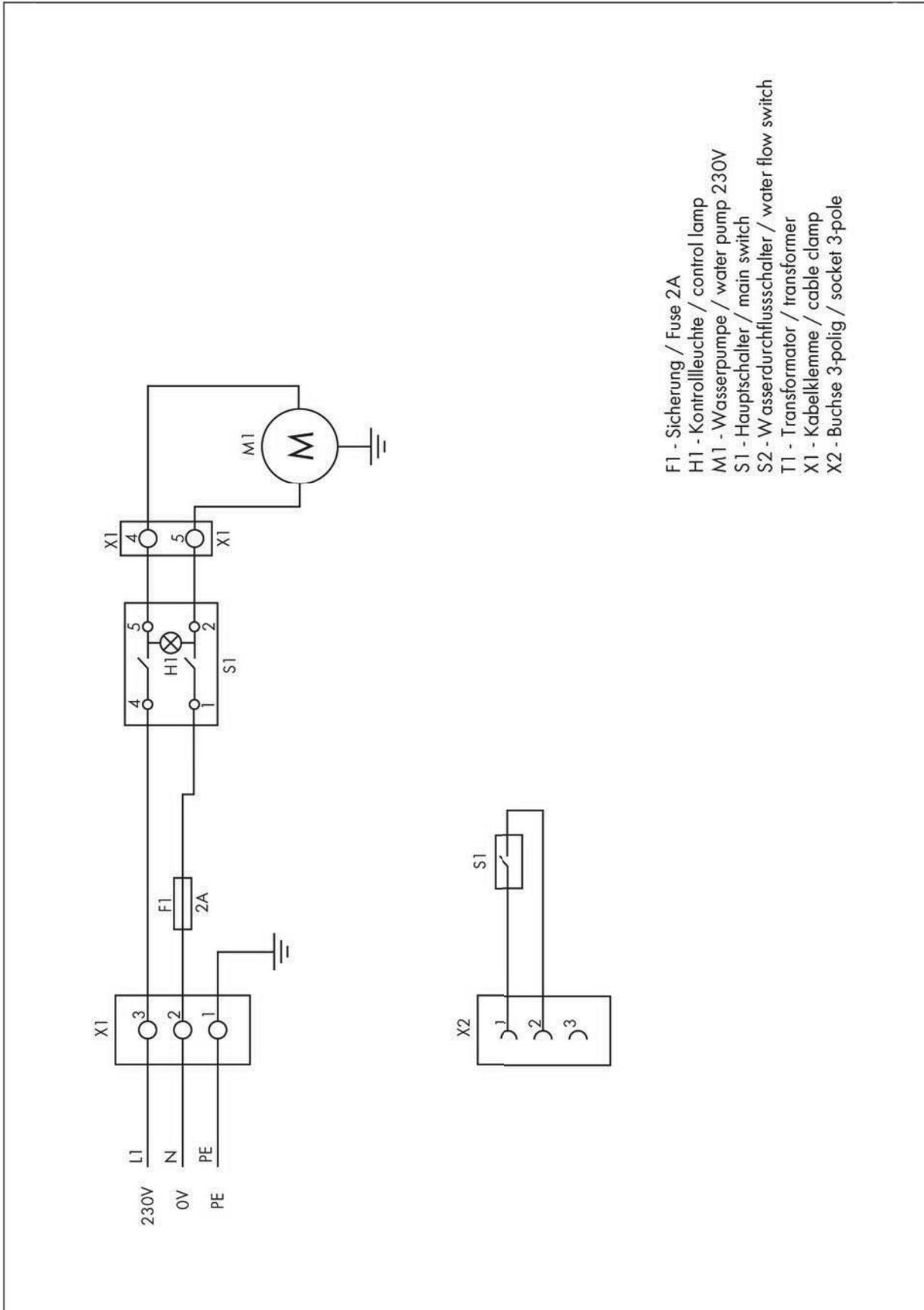
**Fig. 6** Connecting diagram for flow control



13.2 ABICOOLER 1300 circuit diagram for 115 V



13.3 ABICOOLER 1300 circuit diagram for 230 V



- F1 - Sicherung / Fuse 2A
- H1 - Kontrollleuchte / control lamp
- M1 - Wasserpumpe / water pump 230V
- S1 - Hauptschalter / main switch
- S2 - Wasserdurchflussschalter / water flow switch
- T1 - Transformator / transformer
- X1 - Kabelklemme / cable clamp
- X2 - Buchse 3-polig / socket 3-pole

## 13.4 Spare parts

Tab. 4 Spare parts

Item description
Coolant tank
Coolant tank cap
Quick coupling DN5 G1/4I female
Quick coupling DN5-1/8A male
Quick coupling sleeve DN5-9 male
Mains connecting cable 4 m with plug USA 115 V
M5 × 12 screw, self-tapping
Mains switch illuminates 250 V
Fuse holder with bayonet catch
Fine wire fuse T2A 5 × 20 mm
Rubber feet D25 × 24
Handle
Control lead for flow control
Flow control CR1250
Discharge hose
Heat exchanger KG10
Air head exchanger
Pump 230 V incl. fan
Priming Tool

## 14 Warranty

This product is an original ABICOR BINZEL product. Alexander Binzel Schweisstechnik GmbH & Co. KG guarantees correct manufacture and assumes a factory production and function warranty for this product upon delivery, which is in line with the most current technology and the regulations in force. If ABICOR BINZEL is responsible for a defect that is present, ABICOR BINZEL is obliged to remedy the defect or deliver a replacement at its own cost and its own discretion. The warranty covers manufacturing faults, but not damage resulting from natural wear and tear, overloading or improper use. The warranty period is defined in the General Terms and Conditions. Exceptions in the case of specific products are regulated separately. Warranty will also be rendered invalid if spare parts and wear parts are used that are not original ABICOR BINZEL parts and if the product has been repaired improperly by the user or a third party. Wearing parts are excluded in general from the warranty. In addition, ABICOR BINZEL is not liable for damage caused by using our products. Questions about warranty and service can be addressed to the manufacturer or our distributors. For more information, visit [www.binzel-abicor.com](http://www.binzel-abicor.com).



Alexander Binzel Schweisstechnik GmbH & Co.KG  
Kiesacker • 35418 Buseck • GERMANY  
T +49 64 08 / 59-0  
F +49 64 08 / 59-191  
info@binzel-abicor.com

[www.binzel-abicor.com](http://www.binzel-abicor.com)