

Sauer Maxi-Heat X16380

Art. 70 1 00800

Professional induction heating unit with increased output for heavy-duty applications. The integrated liquid cooling system guarantees high performance even during continuous operation. Induction handle and ferrite core are also available separately.

- Heat output: 16.0 kW
- Current consumption: 32 A
- Power supply: 380
- Liquid cooling system, 25 ltr.
- Induction cable: 3 m
- Weight: 140 kg



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1. Warranty

The buyer must check on delivery that the machine is complete. Missing parts or anomalies must be reported within the legally prescribed period. Any attempt to make forcible modifications to any component of the machine and/or to any signage shall invalidate the warranty, the CE marking (if it has been affixed by the manufacturer), the declaration of conformity or the manufacturer's declaration.

The manufacturer shall also not be liable in the following cases:

- Incorrect installation
- Improper use of the machine by insufficiently trained personnel.
- Non-compliance with applicable safety regulations
- Insufficient maintenance
- Use of non-original or unsuitable replacement parts

The product is only approved for industrial applications.

2. Machine characteristics

The machine is supplied with a type plate on which the CE marking as well as the following data can be found:

- Name and address of the manufacturer
- Year of construction
- Model
- Machine type
- Weight
- Voltage

This data must be specified whenever interventions by customer service or replacement parts are requested.

3. Technical Data

Induction heating system type: Sauer

Mod.: Maxi-Heat X16380 Output: 16 kW

Voltage: 400 V; (3P + T)

Mains frequency: 50 Hz

Frequency of the heating system: 20 – 26 kHz

Insulation class: I

Liquid cooling: 25 ltr.

Power cable: 9 m

Inductor cable: 3 m

Current consumption: 32 A

4. Dimensions and weight

Weight: 140 kg

Height: 1100 mm + wheels 96 mm

Width: 500 mm

Depth: 600 mm

5. Reference standards

Directive 2004/40/EC on electromagnetic fields at the workplace

Low voltage directive 2014/35/EU

Machinery Directive 2006/42/EC

EMC Directive 2014/30/EU

RoHS Directive 2011/65/EU

WEEE Directive 2012/19/EC

6. Use of the manual

It is very important that this manual is always kept alongside the machine for possible consultation, since it is intended to provide the user with general knowledge about the machine as well as the instructions for use and maintenance necessary for smooth operation.

The manual forms an integral part of the machine pursuant to the law and must accompany it until it is scrapped. The information contained therein must be read carefully for safety reasons before installation and use.

Under no circumstances must any changes be made to the instructions without the prior written approval of the manufacturer or authorised dealer.

7. General safety information

- The machine has been professionally designed. Its service life and reliability depend on the correct use and regular maintenance of the machine.
- Always read the ATTENTION notes in this manual since they are important for safety.

Attention:

- The machine must only be used by adult and appropriately trained personnel who adhere to the applicable regulations and the instructions in this manual.
- Strictly observe the instructions as well as the mandatory and danger signs on the machine.
- The machine must be electrically insulated before any maintenance work to prevent accidental start-up.
- Damaged, broken or torn connecting hoses or electrical cables must be replaced immediately.
- If the device loses liquid, the leak must be immediately eliminated.
- Always protect the device from weather influences.
- Always keep the device out of the reach of children.
- Should the device no longer be in use, it must be rendered ineffective and all disposal procedures in accordance with the standards must be followed.

8. Intended operating conditions

This machine must only be used for the purpose for which it was explicitly designed, i.e. to generate heat inside ferrous materials

Any other use not explicitly described in this manual is considered to be improper and harmful and as such is strictly prohibited. The machine is semi-automatic and requires the operator to be present.

Attention:

The operator bears personal responsibility for compliance with all safety regulations applicable to the machine, not only by themselves but also by all persons who may be exposed to risks from the machine.

It is therefore important to read this manual carefully before carrying out any work on the machine, since it contains the instructions and procedures for correct and safe operation. Retain this manual for future reference.

9. Design characteristics

The machine has been planned and designed in compliance with the fundamental safety and hygiene regulations of the Machinery Directive 89/392/EEC and its later supplements.

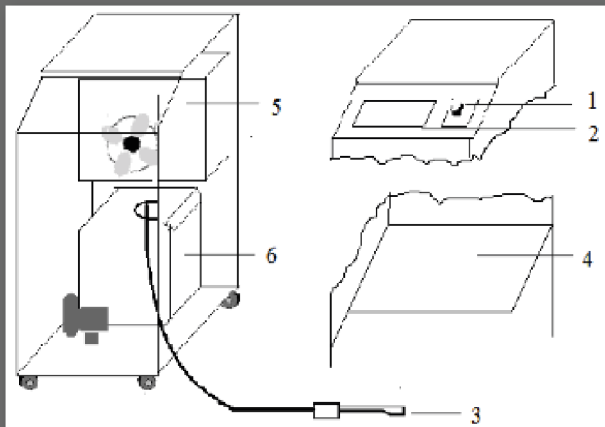
Due to the fact that the operator comes into direct contact with the machine, the following was particularly important:

- Elimination of sharp and pointed parts; avoidance of unstable conditions that could lead to tipping and falling hazards and inappropriate movements
 - Avoidance of the operator coming into direct contact with parts that could cause electric shock or injury during machining;
- As well as anything else that is necessary for safe use.

10. Main parts

The main parts of the MAXI-HEAT X16380 are the following:

- 1) Power switch
- 2) Control panel
- 3) Induction head
- 4) Printed circuit board
- 5) Heat exchanger
- 6) Cooling group



11. Protective devices

The machine guarantees safety when used correctly. Despite this, the utmost vigilance is required because the heated materials can cause burns long after passing the induction head, and although the induction head is constantly cooled, it can heat up through contact with glowing parts and consequently lead to the risk of burns.

The machine is equipped with a number of devices for protection against thermal and electrical overload of the induction head. If you want to restart it, simply release the command and press it again.



For all other protective devices, switch off the machine using the main switch.

A series of 32 A fuses is also present on the input line which can be activated in the event of a fault in the electronic protective devices. These fuses may only be replaced once the fault has been rectified.

12. Residual risks

Attention:

The machine has been designed to guarantee maximum safety. There is nevertheless a risk of burns for the operator.

Attention:

The machine must not be used near particularly sensitive, hazardous or explosive materials, compressed gases, flammable liquids or electro-medical devices. It is prohibited to carry metallic objects when using this machine, since these may heat up near the induction head.

This machine must not be used by those wearing pacemakers or biomechanical devices.

13. Noise and vibrations

The machine generates a sound pressure level below 60dB (A) in continuous operation.

The machine does not generate any significant vibrations that could pose a hazard.

14. Dismantling and disposal

Some of the materials that make up the machine can be recycled, which is why the machine has to be dismantled with separate disposal in accordance with current standards.

15. Unpacking and installation

The machine is delivered ready for operation. Before starting to use the machine, all packaging material must be removed and the machine carefully placed in a suitable place (level substrate, dry and ventilated place).

Attention:

Installation must be carried out as such that all parts of the machine are easily accessible. A minimum distance must also be maintained around the machine so that operation and maintenance can be carried out easily and without any risk to the operator.

16. Connections

The mains voltage and frequency must correspond to the data on the nameplate. The machine is supplied complete with electrical connections, meaning that only the plug needs to be connected to a suitable socket.

Attention:

The plug must only be connected to a socket with a RCD switch.

17. Machine usage

Switch on the machine using the main switch and the electronics with the appropriate button, and regulate the power according to the requirements.

Place the induction head on the part to be heated, switch on the power using the button on the handle, and move the induction head according to the requirements.

Switch off the electronics by pressing the button on the control panel after use and then switch off the pump and the blower using the main switch so that everything can cool down together.

18. How to use the machine

Turn on the main switch and the machine will be immediately operational. If necessary, press button 4 for 10 seconds to restart. All LED's will switch off and will switch on again after a short time. This time is necessary so that the coolant can circulate in the unit and the lines. If the LEDs of buttons 1, 2 and 3 flash, a fault is present. In this case, the device must first be restarted. If the problem continues, contact our customer service.



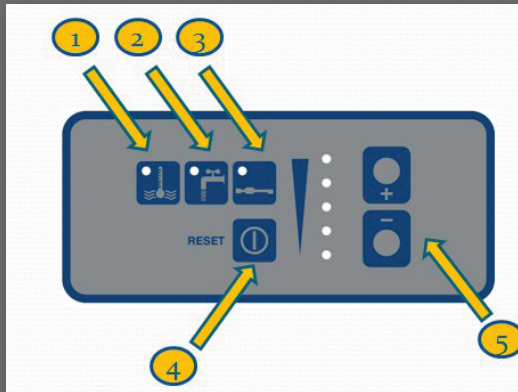
The display makes it easy to check what power is set. Press button 5+ to increase power and button 5- to decrease power.

Button number 1: Check of the water cooling system

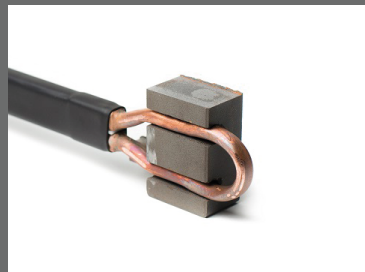
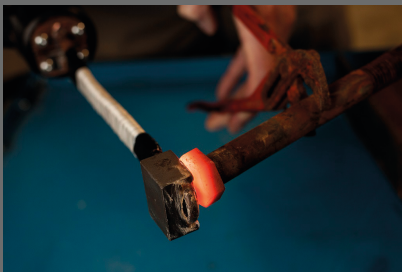
Button number 2: Display in case of malfunction of the water pump

Button number 3: Display in case of malfunction of the induction head

Button number 4: Restart

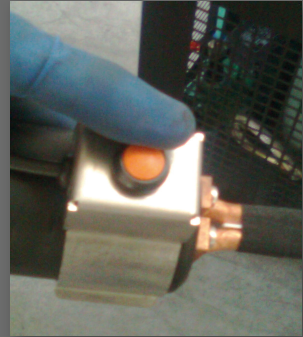


Place the coil on the component you want to heat.



Press the button on the handle to activate the heating. Then move the induction head back and forth as required

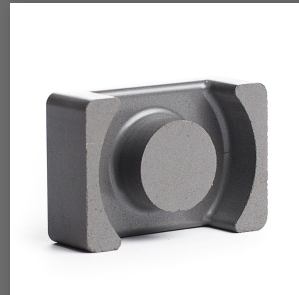
Switch off the machine at the main switch after finishing the work.



19. Replacement of the ferrite core

The ferrite core must be replaced if it is worn out.

Remove the screw connection and remove the ferrite core. Clean the copper lines, replace the ferrite core and screw it tight.



Attention:

The induction head must only be replaced by personnel explicitly authorised to do so and only after the power supply to the machine has been disconnected.



Attention:

Wear protective gloves during maintenance and/or repair work. Disconnect the machine from the power supply to isolate it electrically

Attention:

It is forbidden to start the machine if not all protective devices are installed.

20. Maintenance - general regulations

- It is essential that all work on the machine is performed by qualified and authorised personnel who are familiar with its operating procedures.
- Never perform cleaning, lubrication or maintenance work while the machine is in operation.
- Set the main switch to "0" before each maintenance operation to disconnect the power supply, then remove the plug from the socket to avoid electric shocks or other hazards arising from incorrect manoeuvres.
- Do not wear rings, watches, other jewellery, dangling or sagging garments such as ties, torn clothing, open shoes or jackets or open zippered ones which may get caught during work.
- We recommend wearing suitable protective equipment such as non-slip shoes, noise-protection headphones, protective goggles, suitable gloves, etc.
- Never use petrol or flammable solvents when cleaning the machine. Use water and, if necessary, commercially available, non-toxic solvents.

21. Preventive maintenance

Only thorough checks at regular intervals can identify and eliminate any faults in good time before they can cause major damage.

Attention:

The functionality of the protective devices, the condition of the connections and the presence of other anomalies must be checked before each use of the MAXI-HEAT X16380 by performing some test manoeuvres first without materia and then with separated ferrous material. Check the information signs for wear and legibility on a daily basis.

22. Ordinary maintenance

The operational safety of the machine can only be ensured if repairs are carried out solely using original or at least approved replacement parts and if the maintenance instructions are followed correctly.

- Disconnect the power supply at the end of each use and perform a thorough cleaning of the machine; remove dust deposits or contaminants as they may affect the ventilation, the functioning and the life of the machine.
- Check the functionality of the operating elements and safety devices as well as the intactness of the power cables before each use.

Attention:

Regularly inspect the induction head visually to ensure that there are no leaks and that the ventilation openings are clear.

23. Extraordinary maintenance

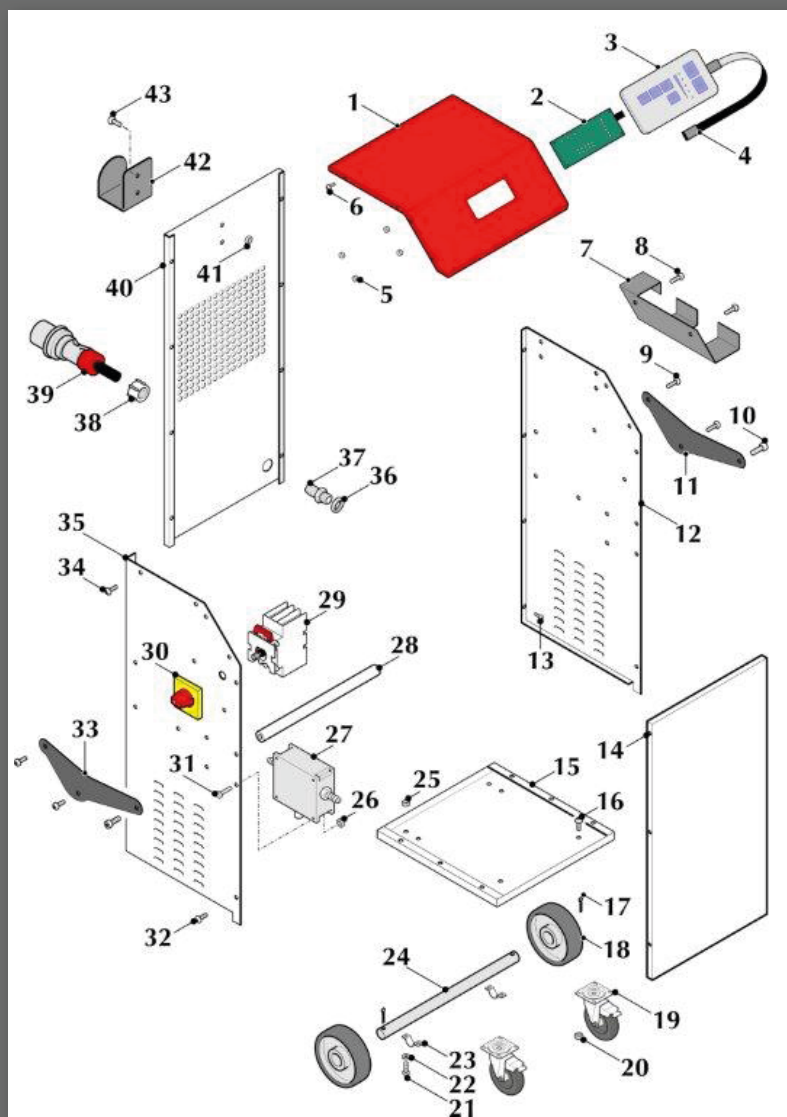
Always get in touch with the manufacturer or an authorised dealer for damage that requires parts of the machine to be removed.

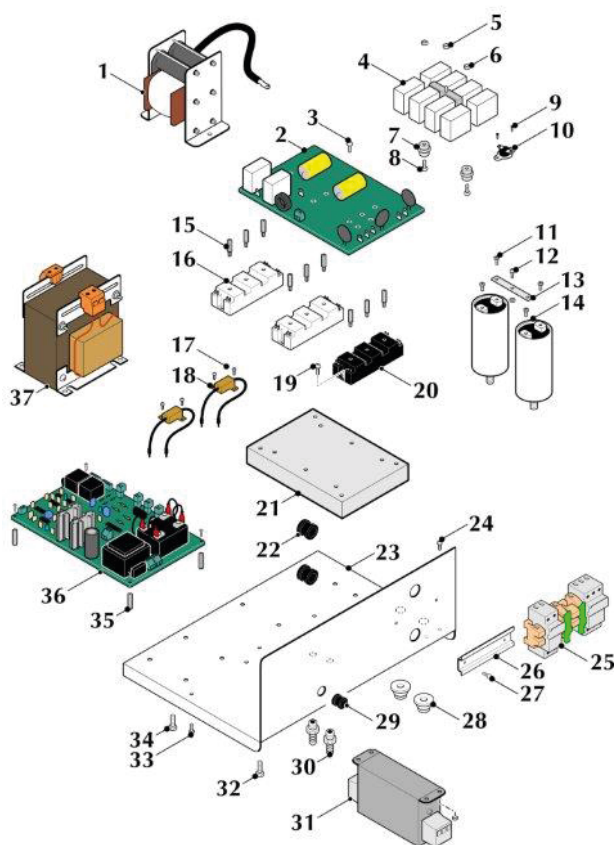
24. Components and replacement parts

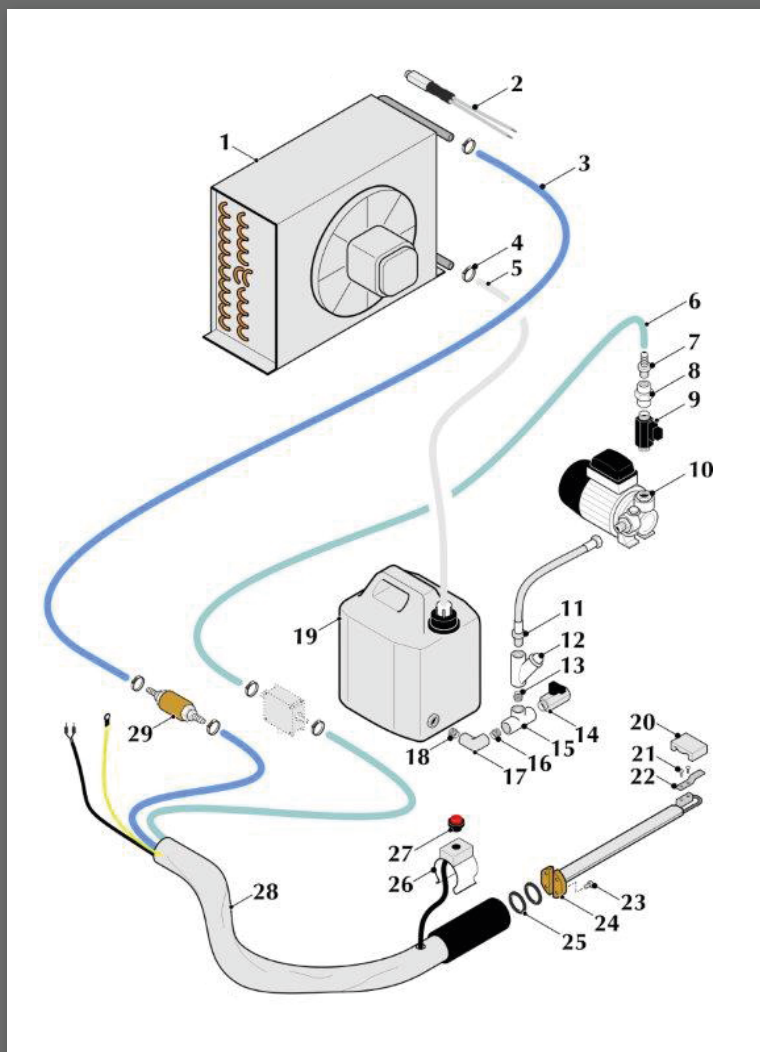
This section contains the list of machine components covered by this manual. It can be used to technically determine replacement parts, since it lists them in detail and provides corresponding descriptive data as well as characteristic data.

Please specify the following data on your order for prompt delivery of replacement parts:

1. Item number
2. Code (drawing or article number)
3. Part name
4. Quantity
5. Code number of the machine
6. Year of construction







25. Machine diary

We recommend using the following schematic to record the maintenance work performed on the MAXI-HEAT X16380 and any work performed on the unit over time. This ensures that all the necessary information about the machine's working cycle is available at all times.

MACHINE DIARY Maxi-Heat **MAXI-HEAT X16380**

Serial number

Year of construction

Date	INSPECTIONS AND MAINTENANCE WORK	ANY EXCHANGES	SIGNATURE OF THE OPERATOR

NOTE: The proper entry of inspections and maintenance work in the machine diary is explicitly stipulated by the manufacturer and constitutes a duty of the user in addition to normal practice.

26. RoHS declaration of conformity

Directive 2011/65/EU of the European Parliament and of the Council restricting the use of certain hazardous substances in electrical and electronic equipment

SW-Stahl GmbH declares that since July 1, 2006, every product launched on the market by SW-Stahl GmbH has been in compliance with the RoHS Directive and therefore does not contain any concentrations of the following substances exceeding the permissible limits

- Lead (Pb)
- Mercury (Hg)
- Cadmium (Cd)
- Chromium 6 (Cr(VI))
- Polybrominated biphenyls (PBB)
- Polybrominated diphenyl ethers (PBDE)

SW-Stahl GmbH hereby informs that the RoHS Directive does not apply to lead-acid batteries and accumulators in accordance with Point 9 of the premises of the RoHS Directive. These batteries and accumulators are the subject of a separate directive. This is Directive 91/157/EEC, which was subsequently updated by Directives 93/86/EEC and 89/101/EC.

27. DECLARATION OF CONFORMITY CE

CE - KONFORMITÄTSERKLÄRUNG DECLARATION OF CONFORMITY CE

(gemäß der Maschinenrichtlinie 2006/42/EG und ihrer folgenden Änderungen und Ergänzungen, Anhang II / A) /
(in accordance with the Machinery Directive 2006/42/EC and its subsequent amendments and supplements, Annex II / A)

Der Hersteller / The Manufacturer

SW Stahl GmbH
An der Hasenjagd 3
42897 Remscheid
GERMANY

erklärt, dass die Maschine/declares that the machine

Sauer Maxi-Heat	U16380 (70100800)
Handelsname/Commercial name	Modell/model
Serien- Nr.
Seriennr./Serial nr.	Baujahr/Construction year

Hochleistungs-Induktionsheizgerät für den Automobilmarkt
High performance Induction Heating system for automotive market
Handelsbezeichnung/commercial description

mit den folgenden Richtlinien konform ist/complies with the following directives

Richtlinie 2004/40/EG über elektromagnetische Felder am Arbeitsplatz / Directive 2004/40/EC on electromagnetic fields at the workplace	
Niederspannungsrichtlinie 2014/35/EU /	Low voltage directive 2014/35/EU
Maschinenrichtlinie 2006/42/EG /	Machinery Directive 2006/42/EC
EMV-Richtlinie 2014/30/EU /	EMC Directive 2014/30/EU
RoHS-Richtlinie 2011/65/EU /	RoHS Directive 2011/65/EU
WEEE-Richtlinie 2012/19/EC /	WEEE Directive 2012/19/EC

Angewendete Normen / Used standards

CEI EN 55011:2017 Group 2 Class A
CEI EN 61000-6-2:2006
CEI EN 61010-1:2013

Angaben zur Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen/
Reference person authorized to compile the technical file

SW-Stahl GmbH
Adresse: An der Hasenjagd 3 PLZ 42897
Ort: Remscheid, GERMANY Remscheid, den 18.02.2019


Heiner Tilly

28. Contact

Please contact us for questions and technical support:

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