

# Instruction manual

Translation of the original German instruction manual



---

## Mobile heating unit





## MHZ 150 to 950kW

---

### Documentation

---

Edition	04/2015	<b>Hotmobil Deutschland GmbH</b> Mobile Energiezentralen Industriepark 322 D-78244 Gottmadingen
Print date:	2015-07-06	
Language:	EN	

 +49.77 31.94 60-0  
 +49.77 31.94 60-999  
 [www.hotmobil.com](http://www.hotmobil.com)  
 [info@hotmobil.de](mailto:info@hotmobil.de)

Read and observe the instruction manual.  
Keep the instruction manual in the unit for future use.

Subject to technical modifications and amendments.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 1 of 67

## Table of contents

<b>1.</b>	<b>PREFACE .....</b>	<b>6</b>
1.1.	TARGET GROUP OF THE INSTRUCTION MANUAL.....	6
1.2.	INSTRUCTION.....	7
<b>2.</b>	<b>INTRODUCTION.....</b>	<b>8</b>
2.1.	DOCUMENTATION .....	8
2.2.	TECHNICAL PRODUCT DESCRIPTION.....	8
2.3.	RESPONSIBILITY LIST .....	8
2.3.1.	UNIT MANUFACTURER .....	8
2.3.2.	OTHER MANUFACTURERS .....	8
<b>3.</b>	<b>SAFETY REGULATIONS.....</b>	<b>9</b>
3.1.	NOTES AND EXPLANATIONS OF TERMS.....	9
3.2.	SYMBOLS AND WARNINGS ON THE UNIT.....	10
3.3.	OBLIGATION, LIABILITY AND DANGERS .....	13
3.3.1.	OBSERVING THE INFORMATION IN THE INSTRUCTION MANUAL .....	13
3.3.2.	GENERAL OBLIGATIONS.....	13
3.3.3.	OBLIGATION OF THE OPERATOR .....	13
3.3.4.	OBLIGATION OF THE PERSONNEL.....	14
3.3.5.	ORGANIZATIONAL MEASURES.....	14
3.3.6.	PROTECTIVE DEVICES.....	14
3.3.7.	TRAINING OF THE PERSONNEL .....	14
3.3.8.	REQUIRED QUALIFICATIONS OF OPERATING PERSONNEL .....	15
3.3.9.	SAFETY MEASURES DURING NORMAL OPERATION .....	16
3.3.10.	SAFETY REGULATIONS FOR TRANSPORT / INSTALLATION .....	16
3.3.11.	SAFETY REGULATIONS FOR OPERATION.....	17
3.3.12.	SAFETY REGULATIONS FOR MAINTENANCE .....	18
3.3.13.	SAFETY REGULATIONS FOR SERVICING .....	18
3.3.14.	SAFETY REGULATIONS FOR REPAIR .....	19
3.3.15.	SAFETY REGULATIONS FOR DISPOSAL .....	19
3.3.16.	SAFETY REGULATIONS FOR FAULTS.....	19
3.3.17.	UNIT CONTROL .....	20
3.3.18.	POWER SUPPLY, OPERATING MEDIA.....	20

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 2 of 67

3.3.19.	MAINTENANCE, SERVICING, TROUBLESHOOTING.....	21
3.3.20.	MODIFICATIONS TO THE UNIT .....	21
3.3.21.	OPERATING MATERIALS.....	22
3.3.22.	CLEANING AND DISPOSAL OF THE UNIT .....	22
3.3.23.	UNIT NOISE EMISSION .....	22
3.3.24.	FIRE FIGHTING .....	23
3.3.25.	WARRANTY AND LIABILITY .....	23
<b>3.4.</b>	<b>RISKS IN HANDLING THE UNIT .....</b>	<b>24</b>
3.4.1.	DANGERS CAUSED BY ELECTRICAL ENERGY .....	24
3.4.2.	PARTICULAR HAZARDOUS AREAS.....	24
3.4.3.	HAZARDOUS AREAS .....	25
3.4.4.	RESIDUAL RISKS .....	26
<b>4.</b>	<b>PRODUCT DESCRIPTION .....</b>	<b>26</b>
4.1.	ENTIRETY, DESIGNATION OF THE SUBASSEMBLIES.....	27
4.2.	DESCRIPTION OF THE OPERATING ELEMENTS.....	35
4.2.1.	SWITCH CABINET .....	35
4.2.2.	OPERATING ELEMENTS.....	36
4.2.3.	EMERGENCY STOP AND MAIN SWITCH.....	37
4.2.3.1.	CHECKING THE EMERGENCY STOP .....	38
4.2.3.2.	RESETTING THE EMERGENCY STOP .....	38
4.3.	INDICATING ELEMENTS.....	38
4.4.	WORKPLACE.....	39
4.5.	DESIGNATED USE.....	40
4.6.	NON-DESIGNATED USE .....	41
4.7.	SERVICE LIFE.....	41
4.8.	LIABILITY .....	42
4.9.	CONFORMITY .....	42
4.10.	LABELING .....	42
<b>5.</b>	<b>TRANSPORT / INSTALLATION.....</b>	<b>43</b>
5.1.	TRANSPORT.....	43
5.1.1.	PREREQUISITE .....	43
5.1.2.	ATTACHING TO A TOW VEHICLE .....	44
5.2.	INSTALLATION AT THE PLACE OF USE.....	44
5.2.1.	PREREQUISITE .....	44

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 3 of 67

5.2.2.	INSTALLATION.....	44
5.2.2.1.	TRAILER WITH SLIDING SUPPORTS .....	45
5.2.2.2.	TRAILER WITH CRANK SUPPORTS.....	45
<b>6.</b>	<b>HANDLING THE CONNECTING LINES.....</b>	<b>46</b>
<b>7.</b>	<b>START-UP/OPERATION.....</b>	<b>47</b>
7.1.	START-UP .....	47
7.1.1.	PREPARATION OF START-UP.....	47
7.1.1.1.	MECHANICAL CHECK.....	47
7.1.1.2.	ELECTRICAL CHECK.....	48
7.1.1.3.	STARTING THE UNIT.....	48
7.1.1.4.	HARDWARE SETUP.....	48
7.1.1.5.	SOFTWARE SETUP.....	48
7.2.	CARRYING OUT A TEST RUN .....	48
7.3.	ACCEPTANCE.....	48
7.4.	SETUP AND RETROFITTING .....	49
7.4.1.	FILLING AND VENTING THE MHZ .....	49
7.4.2.	FUELING THE MHZ .....	49
7.5.	OPERATION.....	50
7.5.1.	CHECKING BEFORE OPERATION.....	50
7.5.2.	SWITCHING ON THE OPERATING MODE HEATING.....	50
7.5.3.	SWITCHING ON THE OPERATING MODE HOT WATER.....	50
7.5.4.	SWITCHING THE MHZ OFF .....	51
7.5.5.	THERMAL DISINFECTION (LEGIONELLA BACTERIA) .....	51
<b>8.</b>	<b>MAINTENANCE .....</b>	<b>52</b>
8.1.	TERMS.....	52
8.2.	MAINTENANCE AND INSPECTION LIST .....	53
8.3.	MAINTENANCE AND INSPECTION WORK .....	54
8.3.1.	LUBRICANTS.....	54
8.4.	CLEANING WORK .....	54
8.5.	CHECKING THE HEATING SYSTEM PRESSURE .....	54
8.6.	EMPTYING THE CONDENSATE CONTAINER .....	55
8.7.	CUSTOMER SERVICE INFORMATION .....	55
<b>9.</b>	<b>FAULTS .....</b>	<b>56</b>
9.1.	TROUBLESHOOTING .....	56

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 4 of 67

<b>10.</b>	<b>SERVICING/REPAIR.....</b>	<b>57</b>
10.1.	RETURN MATERIAL AUTHORISATION FORM .....	57
<b>11.</b>	<b>DECOMMISSIONING.....</b>	<b>58</b>
11.1.	EMPTYING THE MHZ.....	58
<b>12.</b>	<b>STORAGE .....</b>	<b>59</b>
12.1.	STORAGE AND PACKAGING .....	59
12.2.	PREPARATION FOR STORAGE .....	59
12.3.	STORAGE CONDITIONS .....	59
12.4.	MAINTENANCE DURING STORAGE .....	59
12.5.	START-UP AFTER STORAGE.....	60
12.6.	TEMPORARY STORAGE .....	60
<b>13.</b>	<b>DISPOSAL.....</b>	<b>61</b>
13.1.	DISPOSAL PROCEDURE .....	61
<b>14.</b>	<b>ACCESSORIES .....</b>	<b>62</b>
<b>15.</b>	<b>APPENDIX.....</b>	<b>63</b>
15.1.	EC DECLARATION OF CONFORMITY.....	63
15.2.	LIST OF FIGURES AND TABLES.....	64
15.2.1.	LIST OF FIGURES.....	64
15.2.2.	LIST OF TABLES.....	64
15.3.	SPARE PARTS LIST .....	65
15.4.	LIST OF DOCUMENTS .....	65
15.5.	DIAGRAMS .....	65
15.5.1.	HYDRAULIC DIAGRAM .....	65
15.5.2.	WIRING DIAGRAM .....	65
15.5.3.	APPLICABLE DOCUMENTS .....	65
15.6.	PERSONNEL INSTRUCTION FORM.....	66
15.7.	WE KINDLY ASK FOR YOUR SUPPORT .....	67

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 5 of 67

# 1. PREFACE

---

## 1.1. Target group of the instruction manual

---

**This instruction manual is intended both for the operator and the persons entrusted by the operator to handle the unit.**

In this document, attention is paid to a neutral gender form.

Where this is not possible, the original grammatical gender is used in order to facilitate legibility.

Here, we expressly point out that in such cases the other sex is also addressed.

Drawings and visualizations in this document are used to explain the unit. To simplify the perception of the contents for the reader, some components are highlighted in color, displaced or hidden. Details and coloring may fundamentally differ from the components installed.

An overview of the qualifications required for handling the unit can be found in **chapter 3.3.8.**

All operators of this unit must be instructed in handling this unit.

### **For your safety:**

Prior to start-up or mounting the unit, you must familiarize yourself with the contents of this instruction manual. Thus, you will achieve the optimum work results and work safely. This will allow you to:

- avoid accidents,
- observe the warranty regulations,
- always have a functioning unit in the operational condition.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 6 of 67

## 1.2. Instruction

You will receive an instruction by the unit manufacturer

**Hotmobil Deutschland GmbH**  
Mobile Energiezentralen  
Industriepark 322  
D-78244 Gottmadingen  
☎ +49.77 31.94 60-0  
📠 +49.77 31.94 60-999

in the operation of the unit.

### **Information for the employer:**

The personnel must be instructed regularly, at least once a year, according to the regulations of the national organization for work safety.

Untrained persons and persons not instructed according to the instruction manual use are not allowed to use the unit.

It must be ensured that unauthorized persons do not have access to the unit.  
As operator you are responsible only for the safe operation and the safe maintenance of the unit.

Make sure that third parties that operate, maintain or work in the immediate vicinity of the unit are familiar with the operating and maintenance instructions, and the corresponding safety instructions of this instruction manual.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 7 of 67

## 2. Introduction

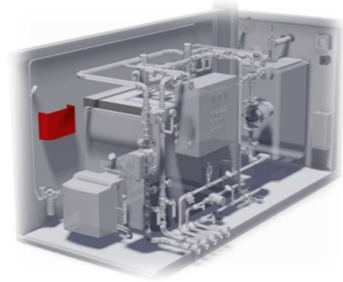
---

### 2.1. Documentation

---

This instruction manual is part of the unit documentation and an inherent part of the described mobile heating unit, hereafter referred to as **MHZ**.

The unit documentation must be permanently kept at the place of application of the MHZ. A document holder in the unit is provided for this. *(on the right in the figure)*



If the unit is sold, disposed, leased or rented, the instruction manual must be supplied with unit.

### 2.2. Technical product description

---

The technical product description can be found in the applicable document:  
"UE General description of the machine"

### 2.3. Responsibility list

---

#### 2.3.1. Unit manufacturer

---

**Hotmobil Deutschland GmbH**

Mobile Energiezentralen  
Industriepark 322  
D-78244 Gottmadingen

☎ +49.77 31.94 60-0

📠 +49.77 31.94 60-999

#### 2.3.2. Other manufacturers

---

Documentation of other manufacturers is enclosed with the unit documentation.

For required information, refer to the corresponding instruction manuals enclosed with the unit documentation.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 8 of 67



## 3. Safety regulations

Take note of the differences between rental units and units for sale!

### 3.1. Notes and explanations of terms



**Danger!**

**For a hazard which can lead to severe bodily injuries or to death.**  
(Representation: bold)



**For a situation which can lead to damage to the unit or an object in its environment.**



For operating instructions and other useful information.



The wrench indicates information on mounting and adjustment work.

25 / [25]

The numbers on figures refer to the component in the table. The figures are located in the corresponding chapter.

Parts which are not specified later any more are assumed as known.

- The bullet and the dash indicate lists.

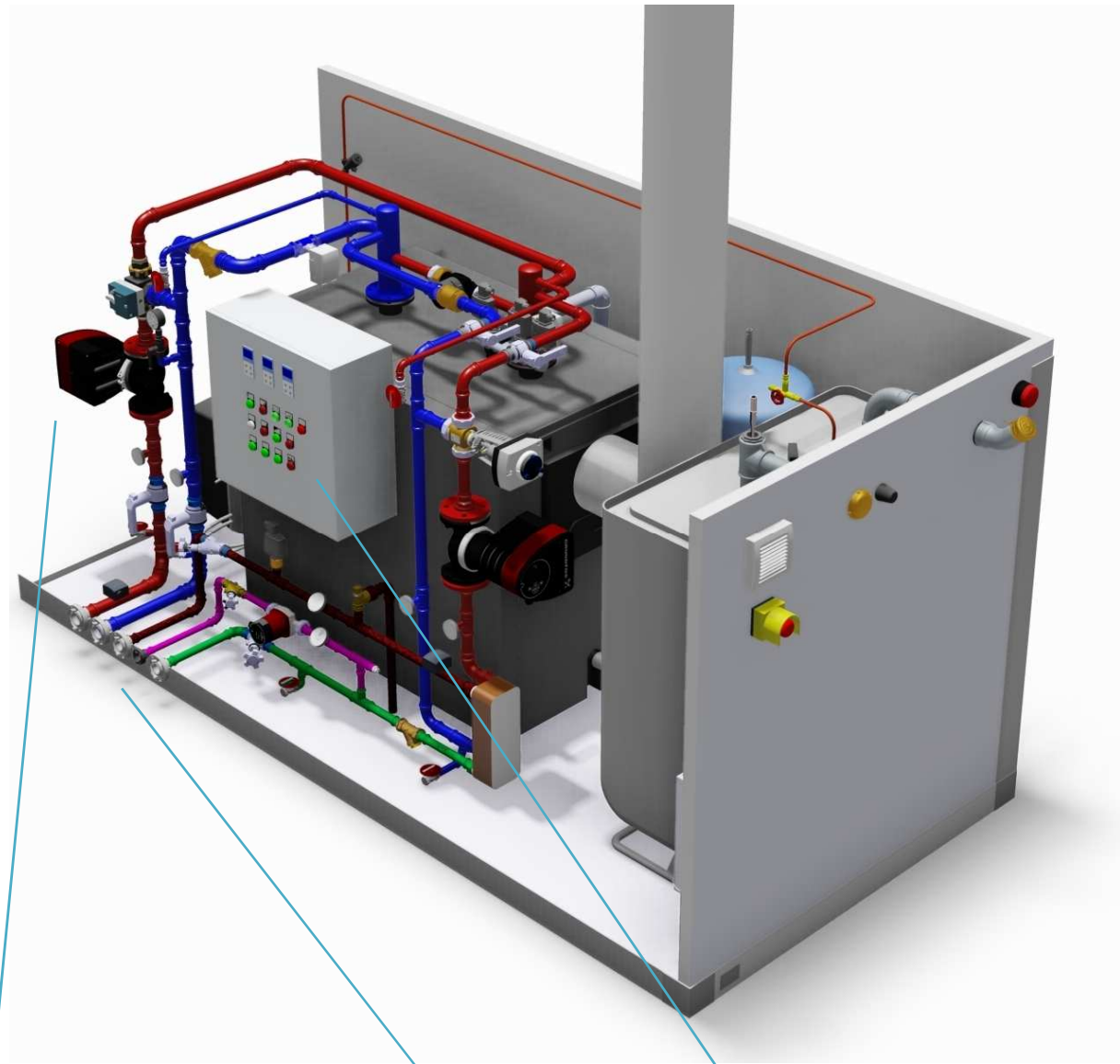
- This symbol is used to describe actions.

#### Orientation

The indications "on the left" and "on the right", and "at the front" and "at the back" refer to a person looking in the direction of motion.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active		
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 9 of 67

### 3.2. Symbols and warnings on the unit



On the inner side of the rear door:



Outer connections



On the switch cabinet



Figure 1: Safety symbols on the unit

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 10 of 67

The following safety symbols have been attached to the unit:



Prior to start-up, read the instruction manual and the safety notes, especially notes on the residual risks and observe them.



Heating room No fire, open light or smoking



Warning against electric current



Warning against a risk of stumbling



Warning against hot media



Warning against a risk of falling down



Warning against hot surfaces



Warning against explosion danger



Attention danger



Warning against concussion injuries

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active		
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 11 of 67



Instruction: Prior to opening, pull the mains plug.



Instruction: Wear safety shoes.



Instruction: Wear a safety helmet.



Instruction: Wear eye protection.



Instruction: Wear gloves.



No entry for unauthorized persons.



Taking drinking water prohibited.



No fire, open light or smoking

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 12 of 67

### 3.3. Obligation, liability and dangers

---



**Danger!**

**Severe injuries or death and destruction of the unit.**

**Observe the following points!**

**They are the basic prerequisite for a safe operation of the unit.**



The manufacturer does not assume any responsibility or payment of damage claims if the unit has been handled improperly. In this case, the operator is solely liable for injuries or damage.

#### 3.3.1. Observing the information in the instruction manual

---

Hotmobil is not liable for damage if:

- instruction was not carried out
- the unit was operated contrary to what is specified in this instruction manual

The instruction is documented using the form in the appendix.

See "Personnel instruction form".

The basic prerequisite of safe handling and faultless operation of this unit is the knowledge of the safety regulations.

This instruction manual contains the most important information on safe operation of the unit. This instruction manual, especially the safety regulations must be observed by all persons working on the unit.

Moreover, the rules and regulations for accident prevention applicable to the place of use must be observed as well as the manufacturer's instruction manual which is referred to.

#### 3.3.2. General obligations

---

The operator is obliged to ensure that work on the unit is carried out only by persons who

- are not under the influence of drugs, alcohol or medicines
- are not under the influence of other intoxicating substances
- are mentally and physically capable of safe operation of the MHZ.

#### 3.3.3. Obligation of the operator

---

The operator is obliged to ensure that work on the unit is carried out only by persons who

- are familiar with the basic work safety regulations and have been instructed in the handling of the unit,
- have read and understood the safety regulations and warnings in this instruction manual and have confirmed that by their signature. It is necessary to check at regular intervals whether the personnel works according to the safety instruc-

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 13 of 67

tions.

### 3.3.4. Obligation of the personnel

---

Before carrying out work for the first time, all persons entrusted with work on the unit are obliged:

- to observe the basic work safety and accident prevention regulations.
- to read the instruction manual, especially the safety regulations and to confirm by their signature that they have understood it.

### 3.3.5. Organizational measures

---

All existing safety devices must be checked at regular intervals.

### 3.3.6. Protective devices

---

Before each start-up of the MHZ, all protective devices must be installed properly and be functional. Protective devices may be removed only after standstill **and** provided that the unit is secured against unintended start-up.

When individual components are delivered, the protective devices must be attached by the operator in accordance with regulations.

**The unit must be integrated in the lightning protection system of the operator on-site in accordance with regulations. Therefore, we recommend to attach a suitable ground stake.**

Work on the open unit must not be carried out during heavy rain etc. Only in emergency cases (not for maintenance,...), work on the unit may be carried out during such weather! Protective measure to be taken by the operator (e.g. protective roof, awning,...)

In addition to this instruction manual, all other generally applicable and local regulations relevant for accident prevention and environmental protection must be provided and observed.

We would like to point out that the operator must ensure that the "Technical guidelines for noise reduction" (TA-Lärm) are observed and applied.

**Safety and warning signs on the unit must be legible.**

### 3.3.7. Training of the personnel

---

Only trained and instructed personnel may work on the unit.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 14 of 67

The responsibilities of the personnel for the mounting, start-up, operation, setup, maintenance and repair must be clearly defined.

### 3.3.8. Required qualifications of operating personnel



**Danger due to insufficiently instructed personnel!**

**Severe injuries and destruction of the unit.**

Note: The unit must be operated by trained personnel only.

**Prior to any work in and on the unit, the applicable sections in the instruction manual must be read again, observed and applied.**

<b>User group</b> <b>Phase of life</b>	Instructed, semiskilled persons  Minimum age: 16 years	Instructed skilled personnel with technical training	Skilled electrician	Supervisor with corresponding professional competence / expert knowledge, safety inspector	(*) With rental units ONLY Hotmobil Deutschland GmbH employee / skilled person
Transport		× (*)			×
Storage		×			
Mounting		×			
Start-up, mechanical		×			
Start-up, electrical			×		
Operation Normal operation	×	×	×	×	
Maintenance, mechanical		× (*)			×
Maintenance, electrical			×		
Elimination of faults caused by products		×			
Troubleshooting, mechanical		×			
Troubleshooting, electrical			×		
Repair, mechanical		× (*)			×
Repair, electrical			×		
Decommissioning Dismounting		×	×		
Packaging, subsequent transport		× (*)			×
Disposal		×		×	
Inspection, responsibility, observing the safety regulations				×	

Table 1: Qualifications of the operating personnel

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 15 of 67

### 3.3.9. Safety measures during normal operation

---

The unit must be operated only outside closed rooms. All safety devices must be fully functional. Before operating the unit, make sure that nobody can be endangered by the starting unit.

The unit must be checked at least once a month and before each start-up for signs of visible damage and proper functioning of the safety devices.

### 3.3.10. Safety regulations for transport / installation

---



**Risk of death or severe injuries!**

**Danger due to insufficient personnel qualification!**

Activities specified in this chapter must be carried out only by the following persons:

- Skilled electrician,
- Qualified personnel with technical training,
- Instructed, semiskilled persons older than 18 years.

**Only qualified personnel must be entrusted with the transport of the unit. Crushing may result in serious injuries or death.**

**Carry out all activities in compliance with the "Safety regulations" specified in *chapter 3*.**

**Danger due to suspended load!**

**Never stay under suspended load. Means of transportation and lifting equipment are the source of danger! Do not use means of transportation (forklift trucks, ropes, chains, etc.) which are not designed for the load. The unit must be never filled during transportation. Observe the pick-up points for lifting arms. Use a crane or a forklift truck.**

**Danger of death! Danger caused by tipping the unit components during transport!**

**Check before transportation whether all unit components are fastened and secured correctly. Do not transport any loose parts or components in the MHZ. Use only suitable and approved lifting gear for transport! Make sure that no supply lines are connected to the unit or are located in it.**

**The unit must be secured against rolling away! Apply the handbrake!**

**Do not install on sloping terrain.**

**Use chocks under tires to ensure stable position.**

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active		
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 16 of 67





**Danger of death! Danger due to transportation or driving with trailer supports which are not put up or are put up not completely!**  
**Before transportation, make sure that the trailer supports are put up completely and fixed using the corresponding fastening.**

**Danger of death! Danger due to transportation or driving with trailer supports which are not put up or are put up not completely!**  
**Before transportation, make sure that the trailer supports are put up completely and fixed using the corresponding fastening.**

**Danger of death! Danger due to incorrect handling of the trailer supports!**  
**Prior to each handling of the trailer supports, make sure that you have understood how to handle the trailer supports.**  
**Before the MHZ is supported by means of the trailer supports, ensure a correct support position. Before changing the position of a trailer support, hold it firmly with one hand. This will prevent accidents caused, for example by unintentional extending of the support caused initiated, for example by its own weight.**  
**Pay attention to the differences between crank supports and sliding supports!**

**Danger of death! Danger due to careless opening and closing of the trailer side panel. The trailer side panel must be opened and closed only by the operator who is standing firmly.**  
**Before opening and closing the side panel, make sure that you are standing firmly. This will prevent you from being pushed away by the swinging side panel.**  
**When closing the side panel, the position of the operator must be also sufficiently stable to counteract the counter pressure of the side panel by the gas-filled shock absorber.**

### 3.3.11. Safety regulations for operation



**Danger of death or severe injuries!**  
**Danger due to insufficient personnel qualification!**  
**Activities specified in this chapter must be carried out only by instructed, semi-skilled persons older than 16 years.**  
**Actions of third parties may lead to a setting error. Therefore, check all settings before each start-up.**

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active		
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 17 of 67

### 3.3.12. Safety regulations for maintenance

---



**Danger of death or severe injuries!**

**Danger due to insufficient personnel qualification!**

**Non-compliance can result in damage to the unit!**

**Activities specified in this chapter must be carried out only by the following persons:**

- Qualified personnel with technical training.

**There is an increased risk of injury during repair, maintenance and elimination of malfunctions on the unit.**

**Non-compliance, especially in case of accidental start-up may result in damage to the unit or life-threatening injuries to persons.**

- Do not carry out work under the unit without safe and suitable protection.
- Use only original spare parts of "Hotmobil Deutschland GmbH".
- Never work without protection devices.
- During a stay in the unit, the doors of the unit must be open.

### 3.3.13. Safety regulations for servicing

---



**Danger of death or severe injuries!**

**Danger due to insufficient personnel qualification!**

**Non-compliance can result in damage to the unit.**

**Activities specified in this chapter must be carried out only by the following persons:**

- Qualified personnel with corresponding technical training.

**The unit must be always kept dry.**

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 18 of 67

### 3.3.14. Safety regulations for repair

---



**Danger of death or severe injuries!**

**Danger due to insufficient personnel qualification!**

**Non-compliance can result in damage to the unit.**

**Activities specified in this chapter must be carried out only by the following persons:**

- Qualified personnel with technical training.

**There is an increased risk of injury during repair, maintenance and elimination of malfunctions.**

**Non-compliance, especially in case of accidental start-up may result in damage to the unit or life-threatening injuries to persons.**

- Carry out work on the unit only with safe and suitable protection.
- Use only original spare parts of "Hotmobil Deutschland GmbH".
- Never work without protection devices.
- During a stay in the unit, the doors of the unit must be open.

### 3.3.15. Safety regulations for disposal

---



**Danger of death or severe injuries!**

**Danger due to insufficient personnel qualification!**

### 3.3.16. Safety regulations for faults

---



**Danger of death or severe injuries!**

**Danger due to insufficient personnel qualification!**

**Non-compliance can result in damage to the unit.**

**Activities specified in this chapter must be carried out only by the following persons:**

- In case of product faults:  
Instructed, semiskilled persons at least 16 years old.
- In case of mechanical and electrical faults:  
The corresponding qualified personnel with technical training.

**There is an increased risk of injury during repair, maintenance and elimination of malfunctions. Hence:**

- **Stop the operation immediately.**
- **Eliminate the error before continuing the work.**

**Non-compliance, especially in case of accidental start-up may result in damage to the unit or life-threatening injuries to persons.**

**This may result in serious and life-threatening injuries.**

- Carry out work on the unit only with safe and suitable protection.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active		
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 19 of 67

### 3.3.17. Unit control

---

Never modify programs of the software!

Only personnel instructed by "Hotmobil Deutschland GmbH" is allowed to operate the control.

The unit must not be operated when it is influenced by potential electromagnetic sources of interference (e.g. welding equipment, erosion machines, cell phones). The software of the unit is ready for operation.



**Danger of death or severe injuries!**

**Modification is not allowed.**

**This may result in fatal injuries.**

### 3.3.18. Power supply, operating media

---



**Danger due to explosive media!**

**Personnel qualification!**

**The unit is connected to the local oil supply.**

**If the unit has been previously converted to gas operation by Hotmobil Deutschland GmbH, then it can be connected to the local gas supply.**

**If it is done improperly, there are risks of explosion and dangers due to leaking heating oil or gas.**

**This may result in serious and fatal injuries.**

**Only persons with corresponding training may connect the unit.**

**If required, the unit must be checked and approved according to the local regulations.**

**Risk of fatal electric shock!**

**The mains supply must be connected only by a skilled electrician.**

**Risk of falling!**

**There is a risk of falling while carrying out work on the roof of the MHZ.**

**Secure the work by taking appropriate measures.**

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 20 of 67

### 3.3.19. Maintenance, servicing, troubleshooting

---

Setting, maintenance and inspection work must be performed by the due date.  
Inform operating personnel before starting maintenance and servicing work.  
For all maintenance, inspection and repair work, disconnect the unit from the power supply and wait for the standstill of the unit.  
Ensure that an unauthorized, erroneous or unexpected start is prevented. All unit parts connected up and downstream of the unit as well as operating media, such as compressed air must be secured against unintended starting.  
Make sure that saved energies (e.g. media under pressure) pose no danger.  
During all maintenance, inspection and repair work, the unit must be de-energized and the main switch must be protected against being switched on unexpectedly:

- Lock main switch and remove the key,
- attach a warning sign against restart.

If some work can be done only with power supply switched on, the corresponding substitute measures must be taken.

On the basis of the legal regulations, we point out that a DGUV V3 inspection must be carried out at regular intervals.  
The intervals can be found in "**Table 5: Maintenance and inspection list**".  
Check screw connections for tight seat and tighten loosened screw connections. After maintenance work is complete, check the function of all safety devices.

### 3.3.20. Modifications to the unit

---

Components which are not in perfect condition must be replaced immediately. Use only original spare parts and wearing parts.  
It cannot be guaranteed that components supplied by third-parties are designed and manufactured such that they meet the stress and safety requirements.

The following applies only to rental units from the "Hotmobil Deutschland GmbH" unit park:

All modification measures require a written approval of the manufacturer.

The following applies to all "Hotmobil Deutschland GmbH" units:  
Observe the "Warranty and liability" section in this instruction manual!

**Danger due to modifications to the unit.**

**Do not carry out any modifications to the unit without previous written approval of "Hotmobil Deutschland GmbH".**

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 21 of 67

### 3.3.21. Operating materials

---



Additives in oils and lubricants may have adverse effects on health. Since labeling of dangerous substances according to the danger regulation is not required, please observe the following principles:

- Avoid any skin contact with these media. Protect your skin with skin protection creams or oil-resistant gloves.
- Contact with skin can lead to skin damage.
- Do not use oils for cleaning the unit.
- Never use oils and lubricants to clean hands!
- Oils can cause health damage.
- Chips and solid particles in these substances can also result in injuries.
- Change contaminated clothing.
- Change clothing heavily contaminated with oil as soon as possible.

**NOTE:**

- Used oils must be collect and disposed of according to regulations.
- If oils or lubricants cause skin damage, consult immediately a physician.

Before using antifreeze agents, contact "Hotmobil Deutschland GmbH" as different antifreeze agents are used depending on the manufacturer.

### 3.3.22. Cleaning and disposal of the unit

---

Used substances and materials must be properly handled and disposed of. For further information, please refer to **chapter 13**.

### 3.3.23. Unit noise emission

---

For the value of the sound pressure level, please refer to **chapter 2.2**.

Depending on the local conditions, a higher sound pressure level may occur. In this case, the operating personnel must be protected with corresponding protective equipment or protective measures.

We would like to point out that the operator must ensure that the "**Technical instructions on protection against noise**" (TA-Lärm) are observed and applied.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 22 of 67

### 3.3.24. Fire fighting

---



**Notes on fire and damage.**

**Danger of death or severe injuries!**

**WARNING! If unsuitable fire extinguishing equipment is used:**

- gases / vapors harmful to health may be produced.
- the electrical unit constitutes a hazard.

**Danger of death due to electric shock!**

**Fight the unit fire only with fire extinguishers of the class ABC.**

Inform yourself about the handling and location of the fire extinguishing equipment.  
Consider the options of firefighting.

### 3.3.25. Warranty and liability

---

Warranty and liability claims for personal and material damage are void if they are due to one or several of the following causes:

- use of the unit contrary to its designated use:
  - use of non-approved media in the heating circuit and in the hot water preparation
  - use of unsuitable fuels
  - operation when sufficient stability is not provided
- improper mounting, start-up, operation and maintenance of the unit,
- operation of the unit with defective safety devices or if the safety and protective devices are attached incorrectly or not functioning properly,
- non-compliance with notes in the instruction manual regarding transport, storage, mounting, start-up, operation, maintenance and retrofitting of the unit,
- unauthorized modification of the unit,
- insufficient monitoring of parts which are subject to wear,
- repairs carried out improperly,
- disasters caused by foreign objects and force majeure.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 23 of 67

## 3.4. Risks in handling the unit



**Danger of death or severe injuries!**

**Observe the following points. They are the basic prerequisite for a safe operation of the unit.**

The unit has been built in accordance with the state-of-the-art standards and the recognized safety rules. Nevertheless, its use may constitute a risk to life and limb of the user or of third parties, or cause damage to the unit or to other material property. The unit is to be used only:

- for the designated use,
- in perfectly safe condition, especially faults affecting safety must be eliminated immediately after they have been detected, however, at the latest before the next start-up of the unit.

### 3.4.1. Dangers caused by electrical energy

Any work on the electrical power supply must be carried out only by a skilled electrician.

Regularly check the electrical equipment of the unit.

Immediately remove loose connections and scorched cables.

The switch cabinet must be kept locked at all times.

Access is only allowed for authorized personnel via a key or tool.

Necessary work on live parts must be carried out only in the presence of a second person who can switch off the main switch in case of emergency.

For EMV reasons, the unit must not be modified.

### 3.4.2. Particular hazardous areas

Particular hazards are present in the following areas:

- Electrical equipment, danger due to electric current,
- Piping, thermal hazards, risk of stumbling, danger of impact,
- Roof, risk of stumbling and falling,
- Water supply, biological and microbiological hazards,
- Oil pipe connection,
- Transport,
- Operational environment, for example temperature, accumulation of water, scalding caused by escaping hot media.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 24 of 67



### 3.4.3. Hazardous areas

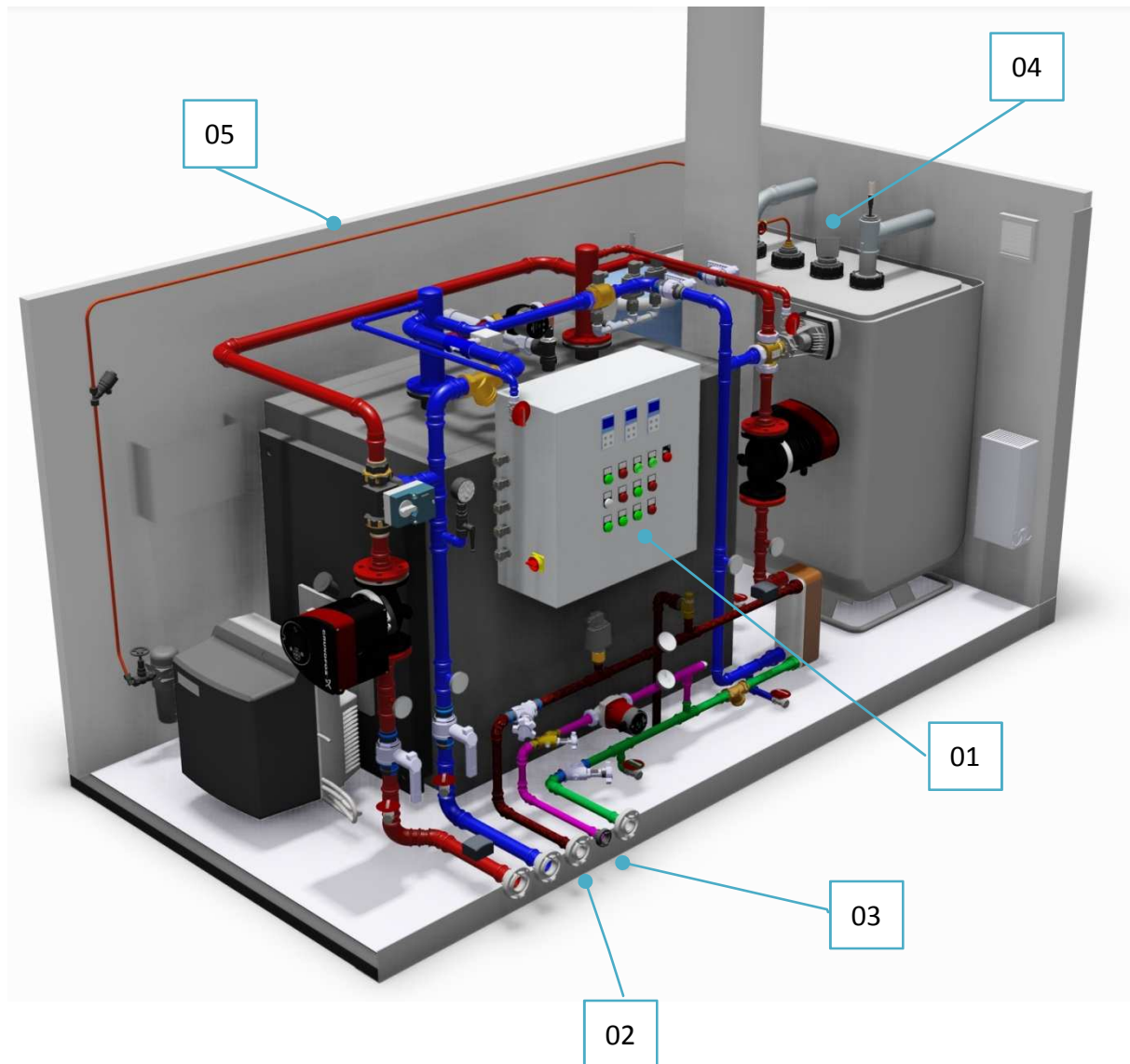


Figure 2: Hazardous areas

- 01 – Electrical equipment – danger due to electric current
- 02 – Thermal hazards
- 03 – Biological and microbiological hazards
- 04 – Oil pipe connection
- 05 – Roof – risk of stumbling and falling

### 3.4.4. Residual risks



**Danger of death or severe injuries!**

The electrical equipment poses the risk of fatal injury. The equipment must be regularly checked for damage. Any work must be carried out only by skilled electricians.

In the piping area, there is a risk of injury caused by impact, stumbling and hot surfaces.

In the roof area, there is a risk of fatal injury caused by stumbling and falling.

In the piping area, there is a risk of fatal injury due to biological and microbiological hazards. Legionella bacteria poses a special risk.

During the transport of the MHZ, there is a risk of fatal injury in the entire interior and outer area.

The operating conditions of the MHZ pose a risk of injury, for example due to high temperatures or accumulation of water.

In the entire interior area of the MHZ, there is a risk of serious injury by scalding caused by escaping hot media.

It is not recommended to store objects on the unit.

In case of power failure and during darkness, particular care is required, and it is recommended to enter the unit only with sufficient light.

These hazardous areas pose permanent and unexpected risks. Any work in the hazardous area must be carried out with special care.

## 4. Product description

A heating system is installed in a trailer.

The MHZ is designed as heat generator for closed heating systems and for hot water preparation.

The MHZ is intended only for heating and circulation of water up to 95°C in households, commercial and industrial businesses, and public institutions.

Heating of domestic water is possible via the separate domestic water circuit.

The heating circuit is filled with water. The MHZ, depending on the design, is operated with heating oil, natural gas or liquefied gas.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 26 of 67

## 4.1. Entirety, designation of the subassemblies

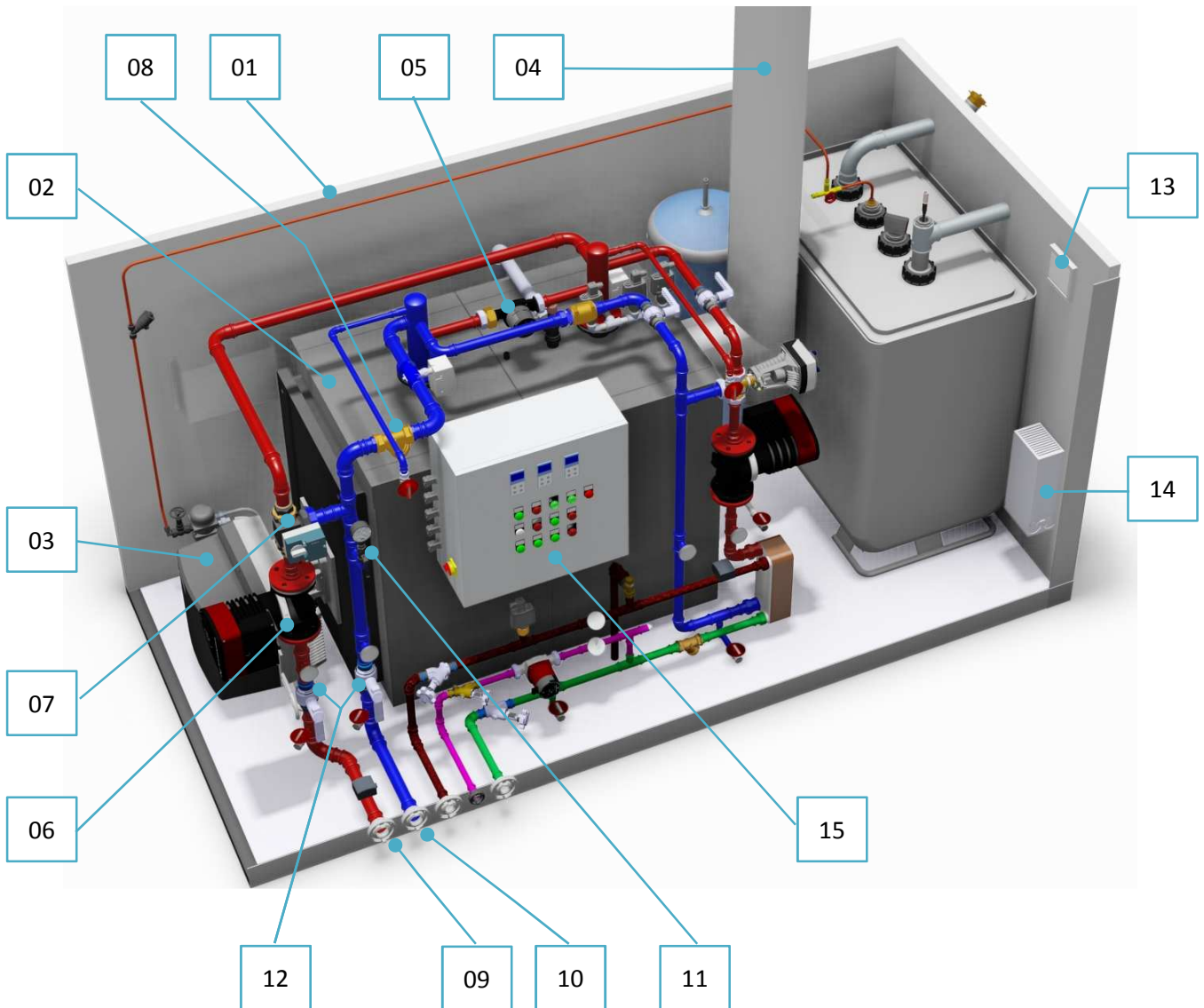


Figure 3: Perspective of the unit (heating installation)

01 – Trailer	02 – Boiler
03 – Oil burner	04 – Chimney
05 – Boiler circuit pump	06 – Heating circuit pump
07 – Mixing valve of heating circuit	08 – Contamination filter of heating circuit
09 – Heating supply connection	10 – Heating return connection
11 – Pressure gauge	12 – Shut-off device of heating circuit
13 – Exhaust air fan	14 – Fan heater
15 – Switch cabinet	

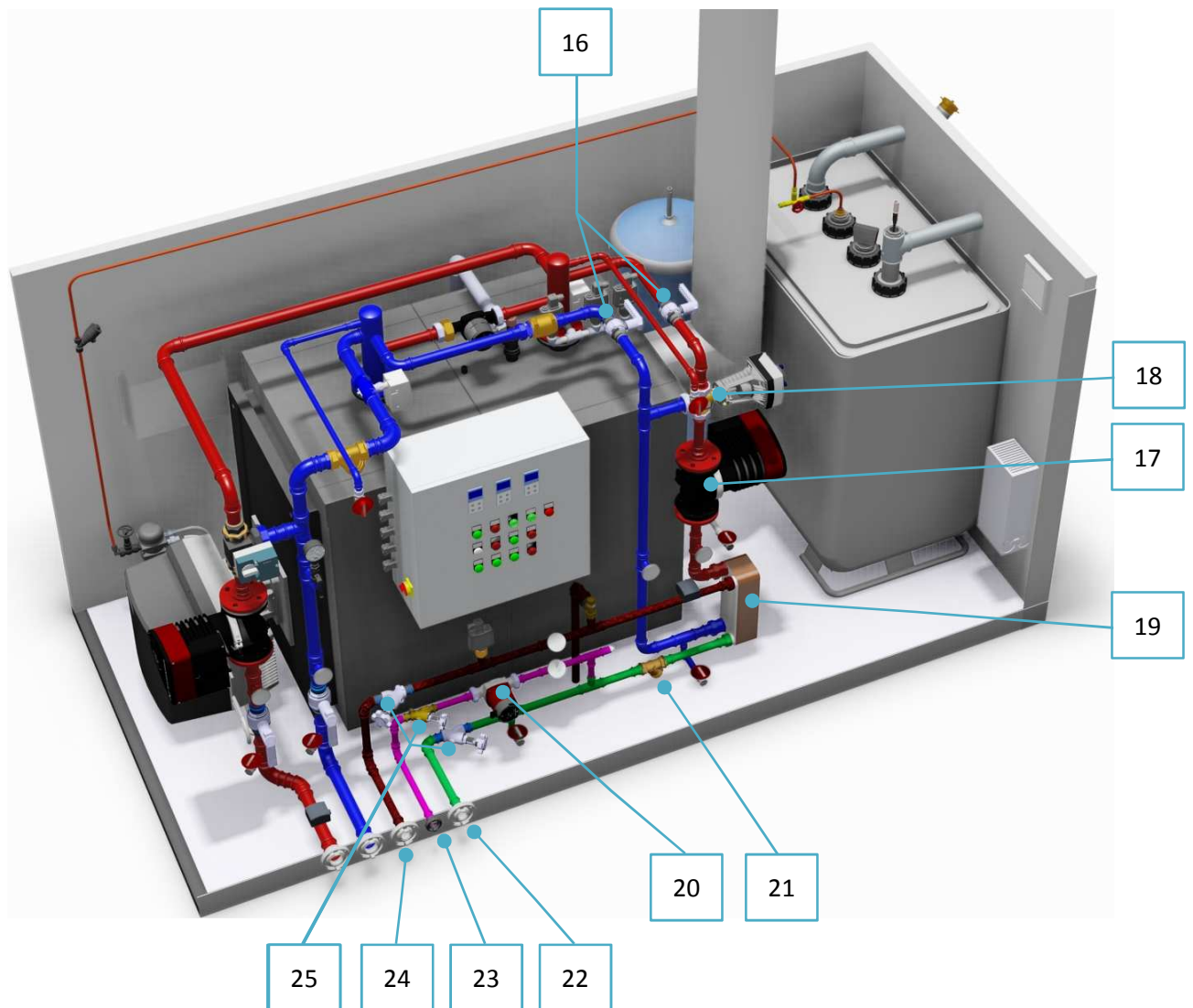


Figure 4: Perspective of the unit (domestic water installation)

16 – Shut-off device of loading circuit	17 – Loading pump
18 – Mixing valve of loading circuit	19 – Heat exchanger
20 – Circulation pump	21 – Contamination filter of cold domestic water
22 – Connection of cold domestic water	23 – Connection of domestic water circulation
24 – Connection of hot domestic water	25 – Shut-off device of domestic water

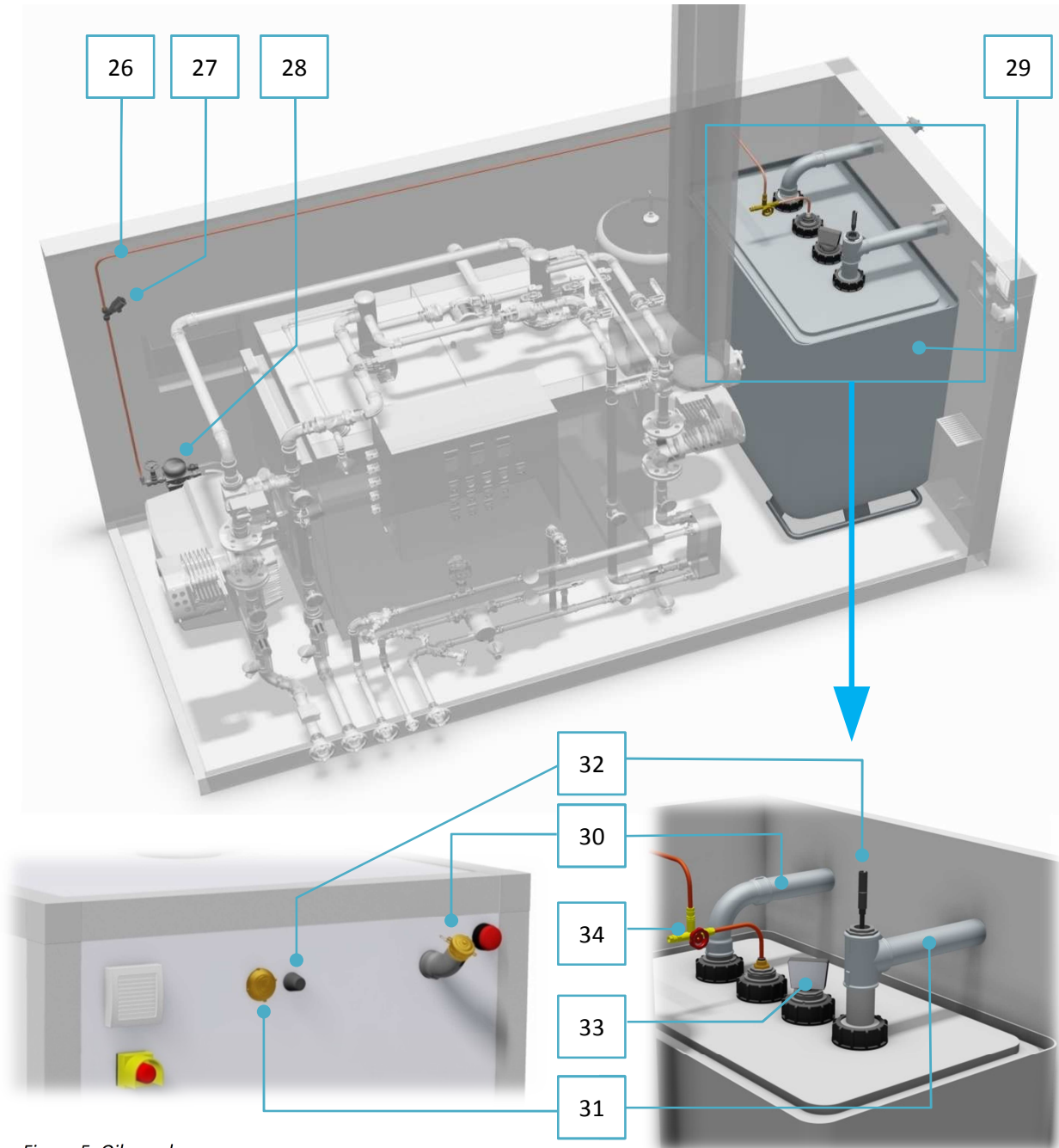


Figure 5: Oil supply

26 – Oil supply line	27 – Oil solenoid valve
28 – Oil filter	29 – Oil tank
30 – Oil tank filling	31 – Oil tank ventilation
32 – Oil tank limit indicator	33 – Tank content indicator
34 – Oil switch valve	

The MHZ is fueled via the connection of the **heating oil filling tank (30)**.  
During fueling process, the **limit indicator (32)** gives a signal to the filling attendant when the maximum filling level in the heating oil tank is reached.  
The heating oil tank is permanently vented via the **forced ventilation (31)**.  
In addition, the MHZ can be operated via an **external heating oil supply (34)**.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx		Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06 Page 29 of 67

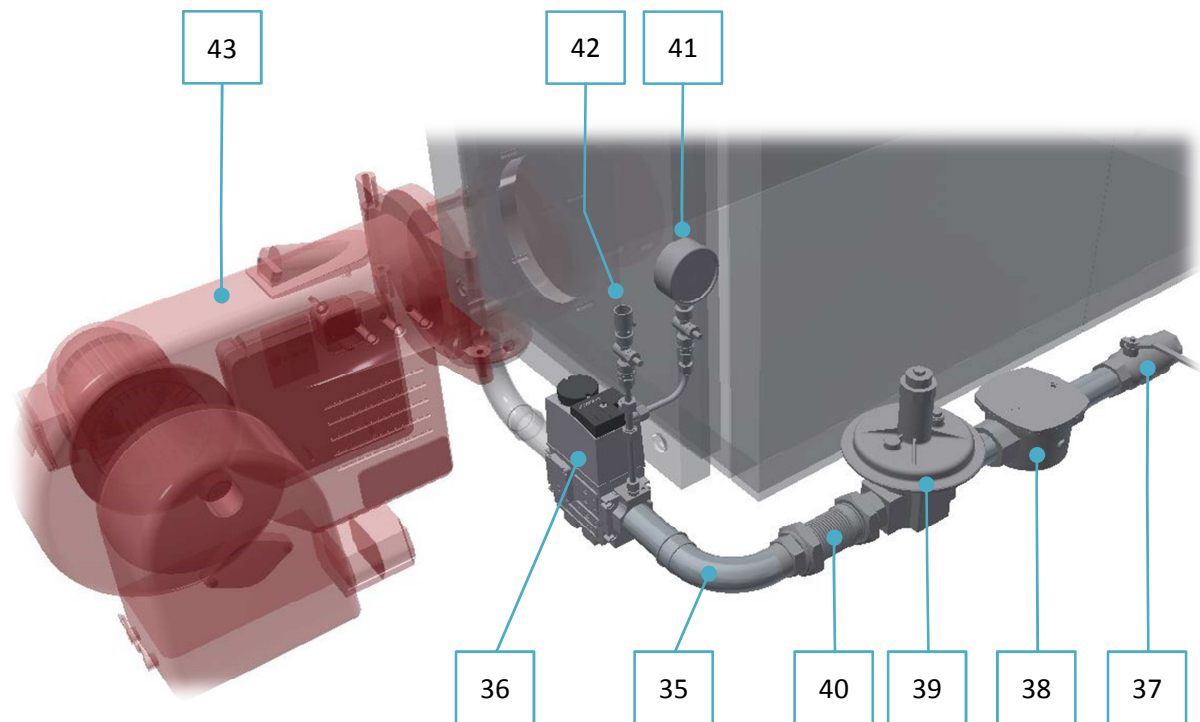


Figure 6: Gas supply\*

35 – Gas supply line	36 – Gas solenoid valve
37 – Ball valve and thermal shut-off device	38 – Gas filter
39 – Gas pressure regulator	40 – Compensator
41 - Pressure gauge	42 – Testing burner
43 - Gas burner	

\* As a matter of principle, the mobile heating unit MHZ is operated with oil. Some units can be converted to natural gas or liquefied gas as required. A conversion may be carried out only by Hotmobil Deutschland GmbH. Moreover, only control trains and components defined by Hotmobil Deutschland GmbH for the gas operation may be used!

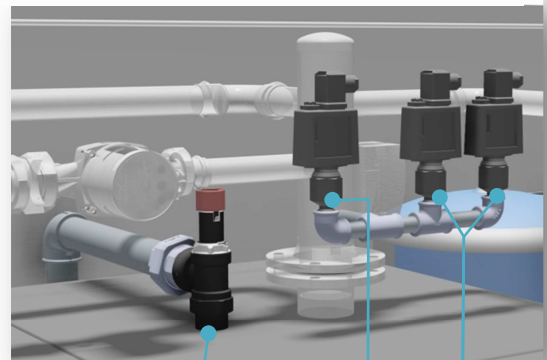
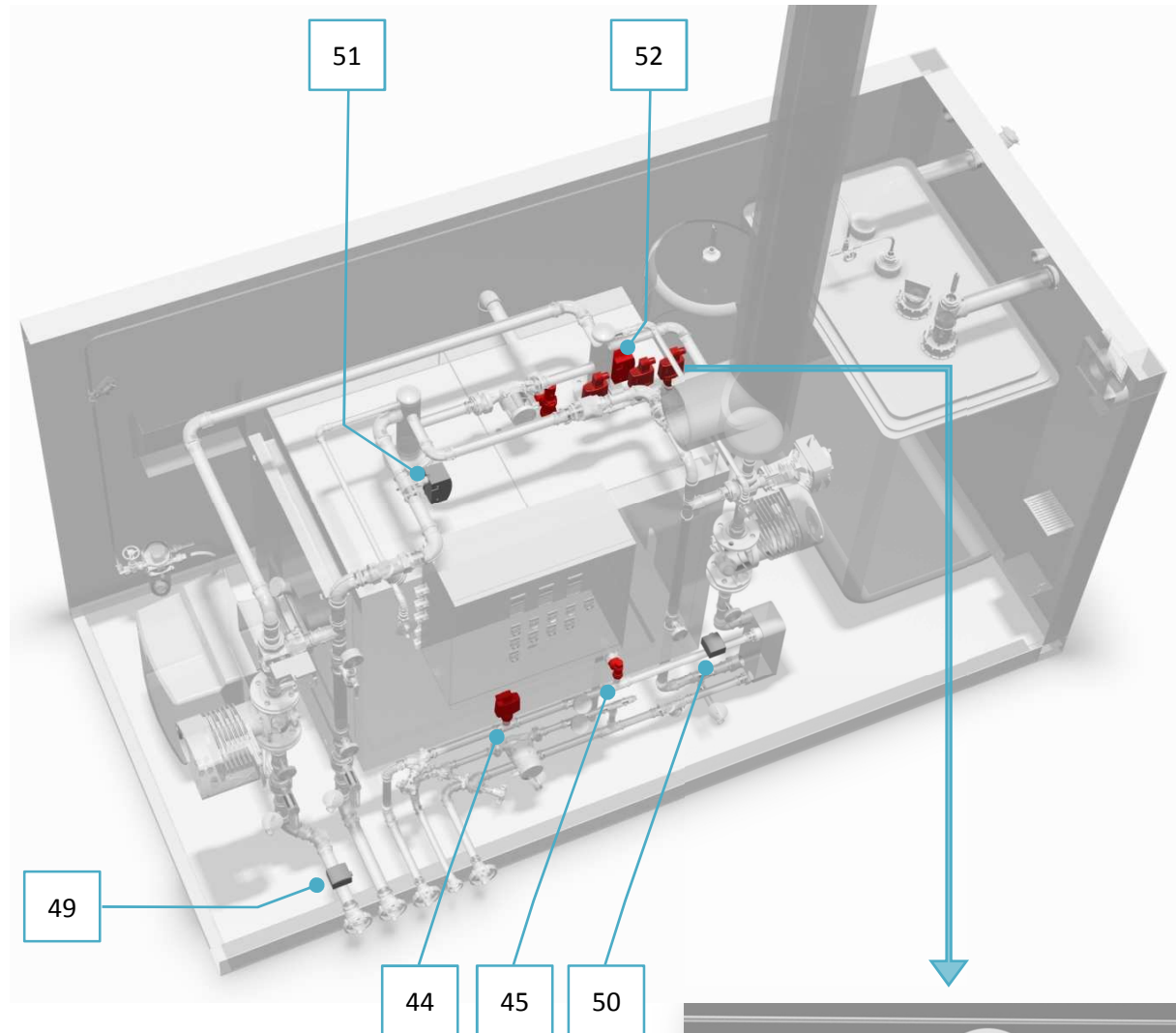


Figure 7: Safety and regulating devices

**Safety devices**

- 44 – Minimum pressure limiter for domestic hot water
- 45 – Safety valve for domestic hot water
- 46 – Heating safety valve
- 47 – Minimum pressure limiter of heating
- 48 – Maximum pressure limiter \*

\* with units from 300kW

**Regulating devices**

- 49 – Heating supply temperature sensor
- 50 – Domestic water temperature sensor
- 51 – Heating return temperature sensor
- 52 – Safety temperature limiter \*

\* with units from 300kW

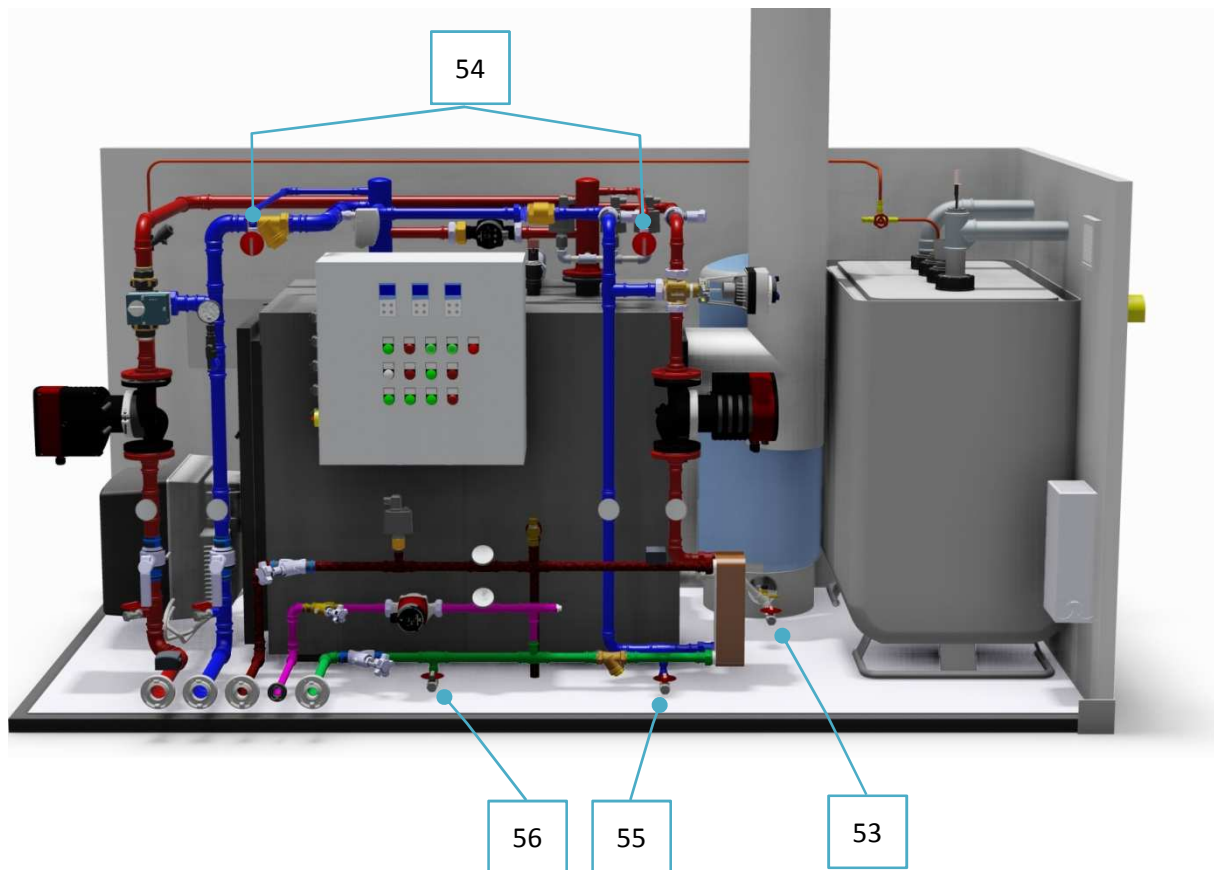


Figure 8: Filling/emptying/ventilation devices

53 – Boiler filling and emptying	54 – Boiler ventilation
55 – Filling/emptying of loading circuit	56 – Emptying of domestic water



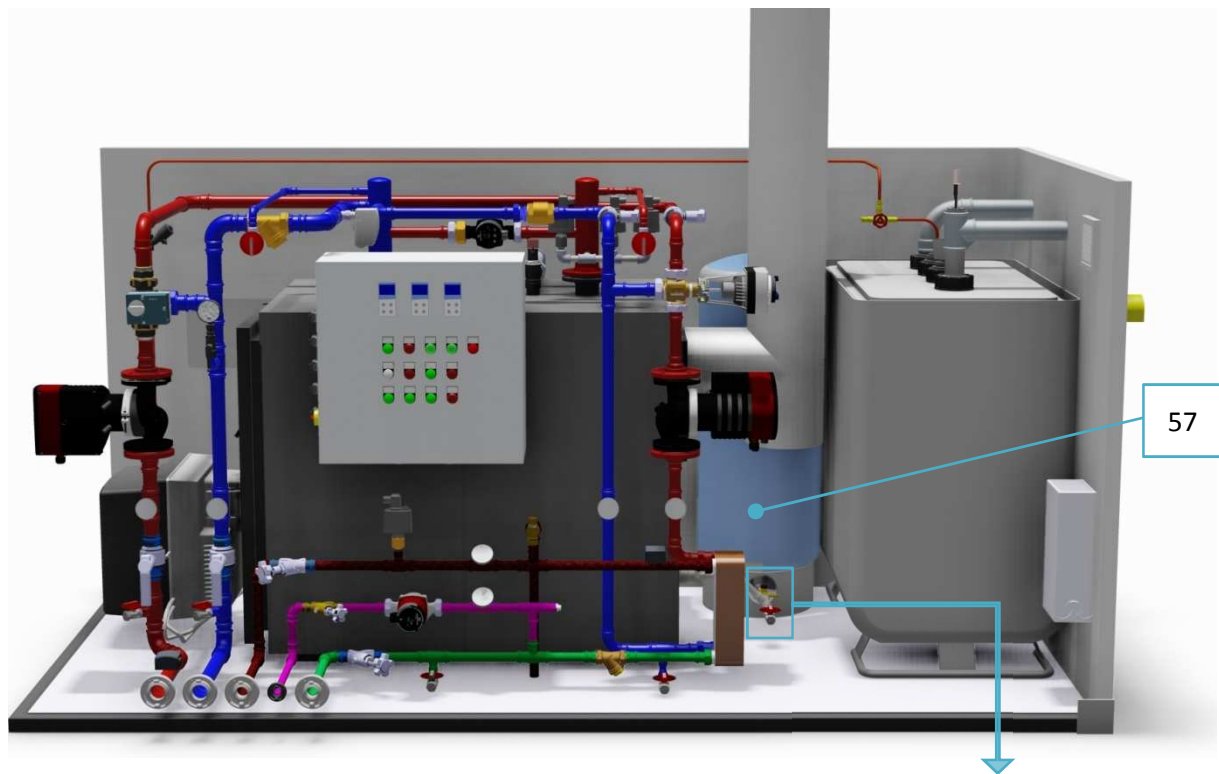
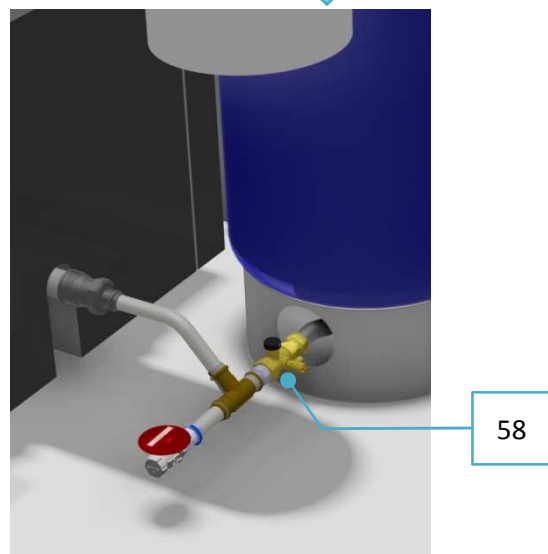


Figure 9: Expansion device

- 57 – Expansion tank\*
- 58 – Cap valve

*\* with units from 950kW compressor controlled*



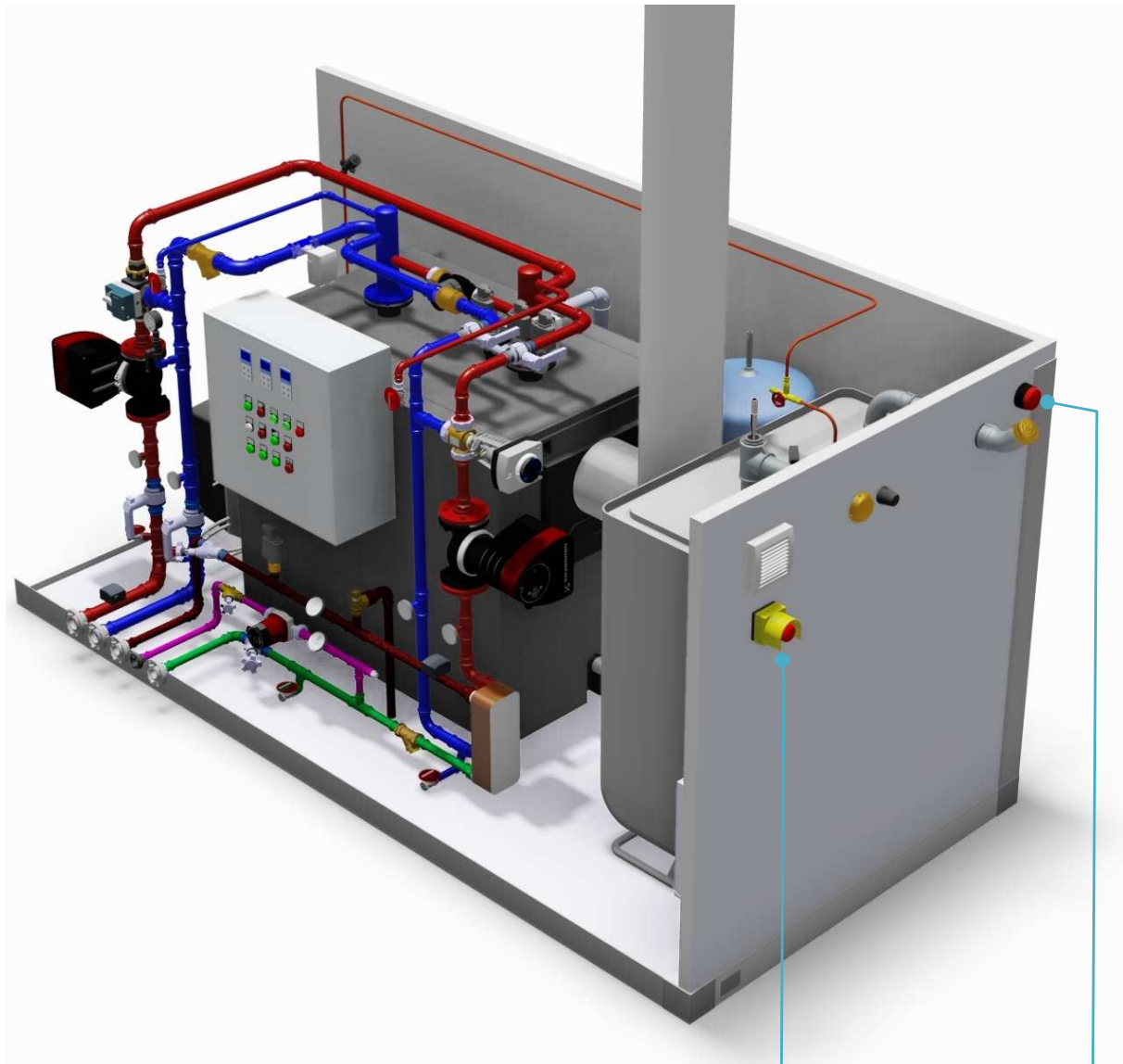


Figure 10: Emergency stop button

- 59 – Emergency stop button
- 60 – Flashing beacon

If the **Emergency stop** button is pressed, the MHZ is shut down immediately - Current is still available, but the control is de-energized. If the Emergency stop is switched on again, the Emergency stop must be additionally unlocked in the control.

A fault inside the unit is indicated by the **flashing lamp**. It can be acknowledged on the switch cabinet.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 34 of 67

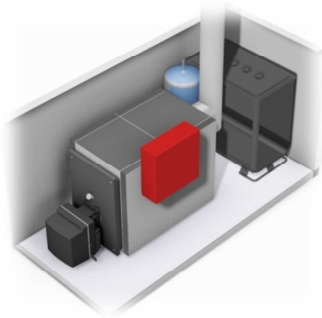
## 4.2. Description of the operating elements

### Objective:

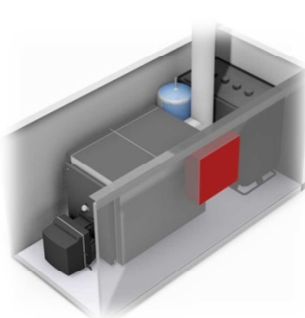
To familiarize the user with all elements required for proper operation and start-up.

### 4.2.1. Switch cabinet

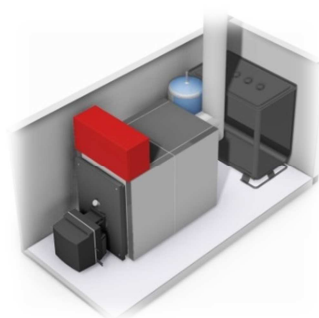
Depending on the unit design, the switch cabinet is mounted on the **side wall of the boiler** [1], on the **inner side wall of the trailer** [2] or **at the front on the boiler** [3].



[1]



[2]



[3]



Descriptions of the burner and boiler controls contained in the unit documentation are part of the operating elements description in this instruction manual.

All other operating elements are located on the switch cabinet.  
The **switch cabinet layout** may vary depending on the unit design.

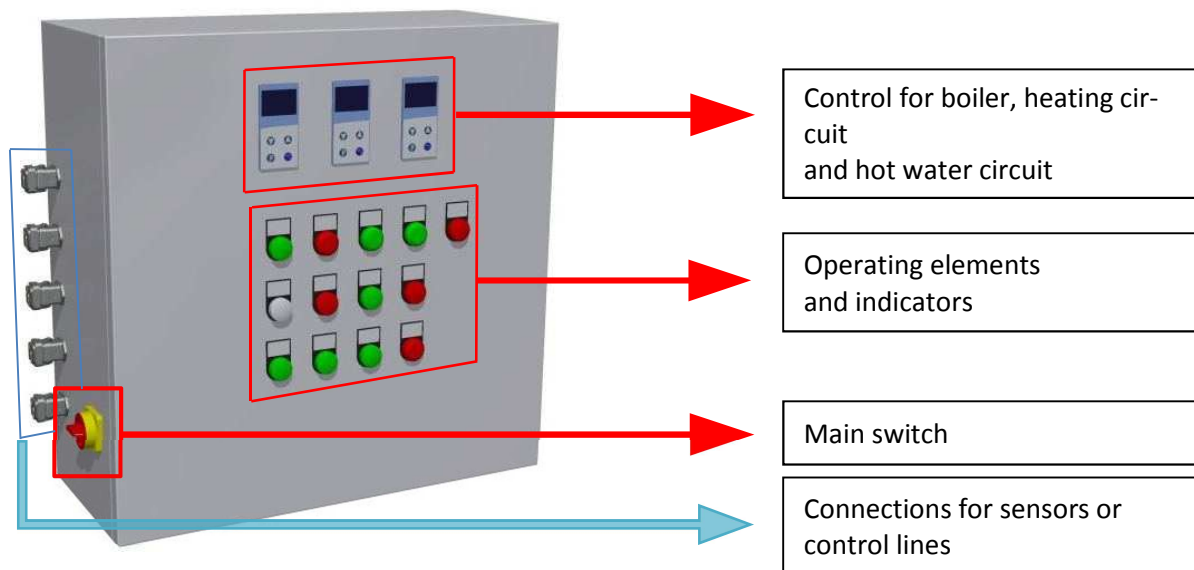


Figure 11: Switch cabinet (example of layout)

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09
	Version: 2015-07-06	Page 35 of 67

## 4.2.2. Operating elements

Depending on the design, the MHZ can be operated using the following **operating elements**:











"Unlocking and acknowledgement" buttons	
	Unlocking Emergency stop, acknowledgement collective alarm flash lamp, phase test
	Acknowledgement collective alarm flash lamp, fueling On
	Unlocking
	Unlocking internal safety temperature limiter
"Release" button	
	Loading pump, external control module, heating circuit pump, circulation pump, burner, fueling
	Acknowledgement collective alarm flash lamp, fueling On
"Operation" rotary switch	
	Main switch
	Heating circuit pump ON, DHW loading pump ON, circulation pump ON, control ON, outside temperature controlled, switching off HKP normal temperature, normal decrease mode
	Temperature setting level 1
	Temperature setting level 2

Figure 12: Operating elements


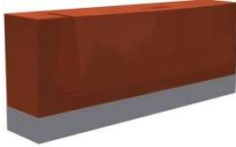





Boiler control		
		
Type A	Type B (boiler front side)	
Heating circuit control		
		
Type A	Type B	Type C
Domestic water circuit control		
		
Type A	Type B	

Figure 13: Operating elements of regulation

### 4.2.3. Emergency stop and main switch



**Danger!**

The Emergency stop is not a switch for repairs; for this, the main switch must be switched off and secured. Otherwise dangerous situations may occur which can lead to serious bodily injuries or to death.

The Emergency stop is not intended for switching the unit off during normal operation. The switches must be actuated to prevent danger.

Designation	Function	Place / location
Operating element	What is triggered / displayed	
Emergency stop	After the Emergency stop button has been pressed, the unit is de-energized. Emergency systems remain energized!	<i>Outside on the trail</i>
Main switch	Disconnects the entire unit from the power supply and switches the MHZ on or off.	<i>On the switch cabinet</i>

Table 2: Emergency stop and main switch

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx		Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06
			Page 37 of 67

### 4.2.3.1. Checking the Emergency stop

The function of the Emergency stop must be checked at least once a month as follows:

- Press the Emergency stop button.
- The unit will be de-energized. **With the exception of emergency systems!**
- Unlock and acknowledge the Emergency stop.

### 4.2.3.2. Resetting the Emergency stop



To put the unit into operation after the Emergency stop button has been pressed, unlock the Emergency stop button manually and acknowledge by pressing the "Emergency stop acknowledgement" button.

## 4.3. Indicating elements



The indicators are combinations of lamps – buttons and switches. The corresponding operating state of the unit is indicated by means of indicating lights.

If a button is pressed, it is indicated by means of button lighting.

The phase testing diode indicates whether the poles of unit supply line have been connected correctly. If the corresponding diode does not light up, the polarity of the supply line must be reversed to avoid possible faults.

(by turning the two-pin grounded plug or phase inverter in case of 3-phase operation)





"Fault" indication	
	Motor circuit breaker, safety temperature limiter, burner, minimum pressure limiter, maximum pressure limiter, lack of water
"Ready" indication	
	Burner, boiler circuit pump, clockwise rotating field
	Burner ready
"Boiler temperature" indication	
	Indication of boiler temperature

Figure 14: Indicating elements

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09
	Version: 2015-07-06	Page 38 of 67

## 4.4. Workplace

During operation, the operator must make settings on the unit.  
The workplaces of the operator are shown on the following figure:

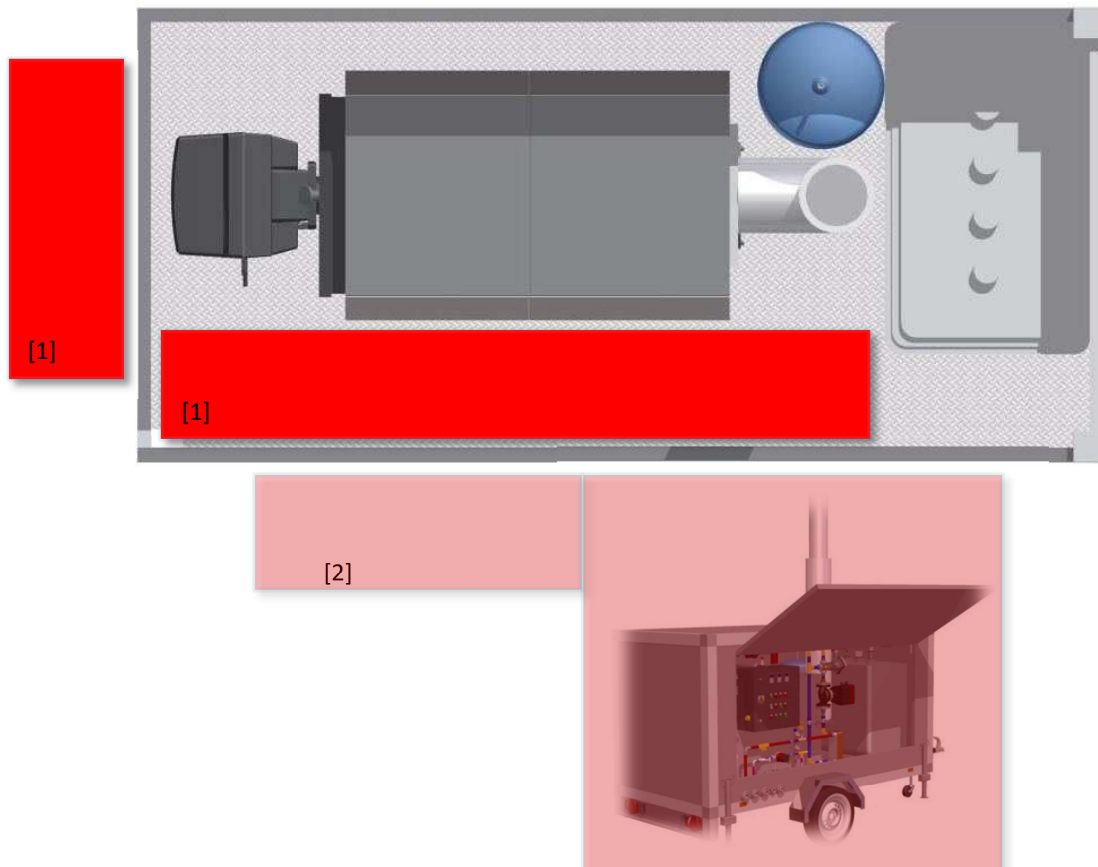


Figure 15: Workplaces

[1] Setting work

[2] Setting work on trailers with side panel

Workplaces for maintenance and servicing of the unit can be also within and around the unit.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active		
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 39 of 67

## 4.5. Designated use

The MHZ is designed as heat generator for closed heating systems and for hot water preparation.

The MHZ is intended only for heating and circulation of water up to 95°C in households, commercial and industrial businesses, and public institutions.

Heating of domestic water is possible via the separate domestic water circuit.

The heating circuit is filled with water. The MHZ, depending on the design, is operated with heating oil, natural gas or liquefied gas.

Designated use also includes:

- the use within the performance limits indicated in the technical data.
- observing the maintenance and repair work prescribed by the manufacturer.
- the use in the mode described in this instruction manual.
- Functional principle: Heating and circulation of water 95/75°C
- Operating states:
  - Setup
  - Normal operation
  - Maintenance

Using the unit for purposes other than those described above is considered contrary to its designated use.

The MHZ can be used in the following operating modes:

Operating mode	Primary mode	Secondary mode
Only heating mode	Heating circuit	-
Heating mode and domestic hot water mode	Heating circuit and DHW circuit	Circulation
Only domestic hot water mode	DHW circuit	Circulation

Table 3: MHZ operating modes



## 4.6. Non-designated use

---

The following is considered as non-designated use in terms of foreseeable incorrect use:

- operation in closed rooms
- operation when sufficient stability is not provided
- use of unsuitable fuels
- use of non-approved media in the heating circuit
- use of non-approved media in the hot water preparation
- use of MHZs with too low power or connection to a consumer whose power requirements are not suitable for the MHZ

## 4.7. Service life

---

The unit is designed for a maximum service life of:

**20 years in continuous operation.**

Once the maximum service life is reached, the unit must be taken out of operation or a general overhaul must be carried out.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 41 of 67

## 4.8. Liability



### Damage to the unit!

If used incorrectly, the unit and/or products in the vicinity of it can be damaged or destroyed. Persons in the danger zone may suffer bodily injuries which in extreme cases can lead to death.



### If the unit is:

- used contrary to its designated use,
- maintained and repaired incorrectly,
- operated incorrectly,
- modified without permission,

the manufacturer does not assume any liability for damage that occurs because of it. Such use is at the sole risk of the unit operator.

## 4.9. Conformity

The unit complies with the following directives:

- Product Safety Regulation (ProdSG)
- Machinery Directive 2006/42/EC or 9. ProdSV
- EMC Directive 2004/108/EC or EMC Act
- Directive on low voltage 2006/95/EC or 1. ProdSV

## 4.10. Labeling



Figure 16: Unit rating plate (example)

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 42 of 67

## 5. Transport / installation

### Objective:

To instruct the user and the authorized personnel in proper transport and installation.

### 5.1. Transport

#### 5.1.1. Prerequisite



For the MHZ transport, ensure that:

- the MHZ has been completely emptied
- the chimney cover has been mounted
- the connection lines have been dismantled
- electrical connection lines have been dismantled
- the trailer supports have been put up and fixed
- the supporting wheel has been wound up
- the wheel chocks under the tires have been removed
- the chimney has been dismantled and secured for transport
- there are no loose objects in the trailer
- the trailer doors and side panels have been firmly closed
- you use a suitable tow vehicle
- the MHZ has been attached and connected to the tow vehicle according to chapter "Attaching to a tow vehicle"
- the illumination of the MHZ and the tow vehicle functions correctly

A special-purpose vehicle, a crane or a forklift truck, must be used for loading on a truck.

Observe the carrying capacity!

Use only suitable and approved lifting gear.

Dimensions and weights can be found in **chapter 2.2** "Technical product description".

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 43 of 67

## 5.1.2. Attaching to a tow vehicle



To safely attach the MHZ to a suitable tow vehicle, we recommend to observe the following order:

- Apply the handbrake of the trailer
- Approach the trailer with the tow vehicle
- Lower supporting wheel until the coupling dog is located above the coupling ball
- Position the coupling ball under the coupling ball
- Switch off the motor and apply the handbrake
- Fix the breakaway cable to the coupling ball
- Wind up the supporting wheel until the coupling dog encloses the coupling ball
- Press the coupling dog on the coupling ball and simultaneously pull the coupling lever upward. The downward movement of the coupling lever indicates that the coupling has engaged correctly.
- Correctly connect the power cable of the trailer to the socket provided for this purpose on the tow vehicle
- Check whether the MHZ has been coupled to the tow vehicle correctly and safely

## 5.2. Installation at the place of use

The chapter covers the installation of the unit at the place of use

### 5.2.1. Prerequisite



Install the unit according to the instructions in **chapter 2.2** and the safety regulations in **chapter 3.3.10**.

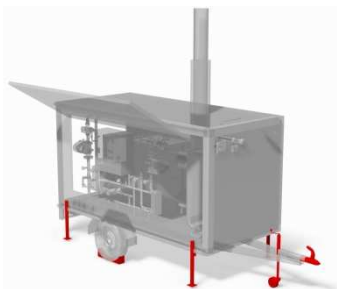
Observe the information in the corresponding trailer instruction manual which is attached to the unit documentation.

### 5.2.2. Installation



When installing the unit, ensure correct handling of the trailer components and accessories, and follow the instructions in **chapter 4**.

Level the unit using the corresponding auxiliary tools.



Before work on the trailer supports, make sure that the trailer has been coupled, the handbrake has been applied and the wheel chocks have been placed under the tires.

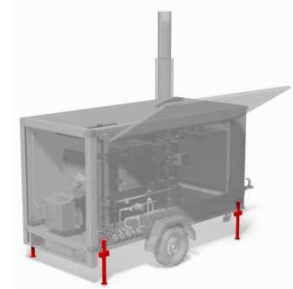
For soft ground, use suitable support plates (e.g. wooden plates) under the trailer supports to prevent sinking.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active		
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 44 of 67

### 5.2.2.1. Trailer with sliding supports

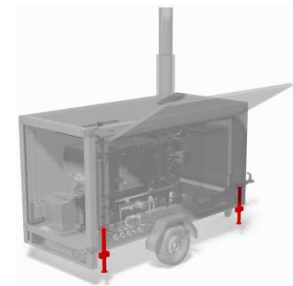
To use the sliding supports, proceed as follows:

- Firmly hold the sliding support at the handle
- Loosen the T-screw
- Lower the sliding support until it touches the ground
- Tighten the T-screw
- Check the T-screw for tightness



To raise the sliding supports, proceed as follows:

- Firmly hold the sliding support at the handle
- Loosen the T-screw
- Pull the sliding support completely upward
- Tighten the T-screw
- Check the T-screw for tightness before releasing the handle

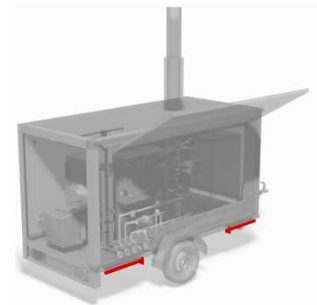


### 5.2.2.2. Trailer with crank supports

For transport, the crank supports are mounted horizontally, for supporting the trailer, they are turned by 90° downward via a safety bolt.

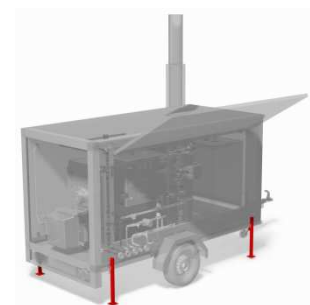
To use the **crank supports**, proceed as follows:

- Firmly hold the crank support
- Pull out the safety bolt
- Turn the support by 90° to a vertical position (support foot points downward)
- Insert the safety bolt again
- Insert the crank into the crank entry
- Lower the support to the ground using the crank



To raise the crank supports, proceed as follows:

- Insert the crank into the crank entry
- Lift the support upward to the stop using the crank
- Firmly hold the crank support
- Pull out the safety bolt
- Turn the support by 90° to a horizontal position (support foot points toward wheel axle)
- Insert the safety bolt again



Cables and hoses connected to the unit must be installed such that stumbling / falling is avoided. Label the connecting lines or use ramps / hose bridges.  
**Observe the chapter "Handling the connecting lines"!**

## 6. Handling the connecting lines

---

For connecting and handling the connecting lines and all types of hoses, refer to the instruction manual of the hose manufacturer.

When using hoses of Hotmobil Deutschland GmbH, refer to the instruction manual of the HOTFLEX MVL mobile connecting lines.

It is part of the unit documentation.

All operators must be instructed in handling the connecting lines.

If there is visible external damage to the hose, the hose and the unit must not be put into operation.

Check whether the hoses used have been properly installed.  
There must be no risk to persons of stumbling or falling caused by installed hoses.

Hotmobil Deutschland GmbH recommends the use of hose bridges (HOTRAMP MÜR) and installation of suitable barriers (e.g. building site fence).

**Hoses connected to the MHZ must NOT be insulated.**

The instruction manual of the Hotflex MVL connecting lines of Hotmobil Deutschland GmbH must not be used for other connecting lines.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 46 of 67

## 7. Start-up/operation

---

### Objective:

To instruct the user in operation of the unit. This includes:

- safe operation of the unit,
- use of all technical options of the unit,
- efficient operation of the unit.

### 7.1. Start-up

---



In addition to the following start-up steps, the start-up report must be observed. The start-up report is created according to the place of use by a customer service employee of "Hotmobil Deutschland GmbH".

It is handed over to the operator and is part of this documentation.

If the place of use is changed, contact the customer service of "Hotmobil Deutschland GmbH".

#### 7.1.1. Preparation of start-up

---



**Danger of death or severe injuries!**

**Safety regulations.**

**Danger due to insufficient personnel qualification!**

**Activities specified in this chapter must be carried out only by the following persons:**

- Skilled electrician,
- Qualified personnel with technical training.

##### 7.1.1.1. Mechanical check

---

Check the entire unit, all mechanical components (e.g. screw connections, attached parts, etc.) and all safety devices for functional reliability.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 47 of 67

### 7.1.1.2. Electrical check

---

Check whether the electrical installation carried out by the customer is correct and complies with the local regulations.

The phase conductors (L1, L2 and L3), the neutral conductor (N) and the protective conductor (PE) must be checked at the connecting plug of the MHZ by means of a suitable measuring device.

Settings of the protective devices, rotating directions of electric motors and the electrical connection must be checked for function and correctness.

### 7.1.1.3. Starting the unit

---

After completion of all checks, the unit is ready for operation.

Now, all unit functions are checked in manual mode by instructed and trained qualified personnel. After finishing this work, the test run of the unit can be started.

### 7.1.1.4. Hardware setup

---

The hardware has been set up. No actions are required.

### 7.1.1.5. Software setup

---

The software has been installed at factory. The software of the unit is ready for operation.

## 7.2. Carrying out a test run

---

The test run of the unit is carried out by at least two persons.

Possible errors and faults can be better detected.

Observe **chapter 9**.

## 7.3. Acceptance

---



Check the safety devices before operation.

**Defect safety devices!**

**Danger of death!**

**Repair defective safety devices before operating the unit.**

### Emergency stop

Press the Emergency stop button. The unit must be immediately de-energized.

With the exception of emergency systems!

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 48 of 67



## 7.4. Setup and retrofitting

---

The unit does not need to be retrofitted for operation.

### 7.4.1. Filling and venting the MHZ

---



The heating system must be filled only with heating water according to VDI 2035. The heating system is filled by emptying the boiler.



- Fill the system until the system pressure is between 1.5 and 2 bar.
- After you have filled the system via one of the filling devices, remove the filling hose used and close the filling device using the closure provided for this purpose.
- Some days after the start-up, check the system pressure in the heating system.

#### **Caution!**

#### **Damage to device due to improper venting!**

Improper venting may lead to the generation of vapor bubbles in the heating system, which may cause an overpressure. Moreover, hot water may escape from the vent valves.

Vent the heating system once again until the pressure indicator displays a constant value.

### 7.4.2. Fueling the MHZ

---



Use only low-sulphur heating oil EL according to DIN 51603-1.

After the unit has been filled for the first time, wait at least half an hour before switching on the MHZ to allow turbidities to settle in the heating oil.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 49 of 67

## 7.5. Operation

---

The operating and indicating elements of the unit are described in **chapter 4.2**.

### 7.5.1. Checking before operation

---



#### **Danger of death or severe injuries!**

The MHZ can be exposed to tough conditions caused by external influences. (e.g. in building shells, in agricultural or horticultural buildings)

- Visually check the unit and the supply lines in particular for damage and changes to the settings.
- Make sure that supply lines located outside the unit have ramps or bridges for vehicles or similar.
- The trailer must be secured against rolling away.

### 7.5.2. Switching on the operating mode Heating

---



- Switch on main switch.
- Set heating regulator to the desired temperature.
- Switch on heating circuit pump.
- Set boiler regulator to the desired boiler temperature using the heating regulator.
- Release and switch on burner.

Information on the temperature setting and extended unit control can be found in the enclosed instruction manual of the installed regulator.

### 7.5.3. Switching on the operating mode Hot water

---



- Switch on main switch.
- Set hot water regulator to the desired temperature.
- Switch on loading pump.
- Switch on circulation pump (if required).
- Set boiler regulator to the desired boiler temperature using the heating regulator.
- Release and switch on burner.

Information on the temperature setting and extended unit control can be found in the enclosed instruction manual of the installed regulator.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active		
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 50 of 67

## 7.5.4. Switching the MHZ off



If domestic hot water is prepared inside the unit, provide sufficient circulation in case of standstill lasting several days to ensure protection against legionella bacteria!

Switching burner off:

- Press the Switch on the burner button.

Switching pumps off with Only heating mode:

- Press the Switch on heating circuit pump button.
- Switch off main switch.

Switching pumps off with Only domestic hot water mode:

- Press the Switch on heating circuit pump button.
- Press the Switch on loading pump button.
- Press the Switch on circulation pump button (if required).
- Switch off main switch.

### **Attention! Possibility of damaging the device!**

If the MHZ is temporarily switched off, the heating circuit pump does not operate. At outside temperatures below 5°C, there is a risk that the remaining water in the heating circuits freezes and causes bursts in the water pipe.

### **Also, there is a risk of freezing after a failure of the supply voltage! (e.g. in the event of a power failure)**

In such cases, the unit must be completely emptied for the duration of the standstill period!

If the unit cannot be emptied during standstill:

Operate the unit with a water glycol mixture as antifreeze protection.

**Before using antifreeze agents, contact "Hotmobil Deutschland GmbH" as different antifreeze agents can be used depending on the manufacturer.**

## 7.5.5. Thermal disinfection (legionella bacteria)

If domestic hot water preparation is connected to the heat generator, thermal disinfection must be carried out once a month.

- Inform the inhabitants of the supplied object about risk of scalding.
- Set hot water regulator to at least 71°C.
- Once the water is at least 71°C, open all armatures for hot water abstraction for at least three minutes. After that, rinse with cold water.
- Set the heat generator again to the power and temperature which were set before the thermal disinfection.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 51 of 67

## 8. Maintenance

### Objective:

- Maintaining the target state and the availability for use of the unit.
- Increasing the degree of utilization by avoiding unscheduled standstill times.
- Efficient planning of the maintenance work and maintenance material.

### 8.1. Terms

Work	Execution
Greasing	Apply grease to sliding surfaces using a brush.
Lubrication	Lubricate with one or two ejections from the grease gun unless specified otherwise.
Oiling	Apply oil to the specified surfaces. Use only oils specified in chapter "Operating materials" unless specified otherwise.
Replacement	Replace the component according to the information in the instruction manual or manufacturer instructions.
Check	<ul style="list-style-type: none"> <li>• Check protective devices for damage.</li> <li>• Check setting dimensions.</li> <li>• Replace lost parts (e.g. screws).</li> <li>• Perform leak test on media-carrying parts.</li> <li>• Readjust or replace components, if required.</li> </ul>
Maintenance intervals	The information is based on experience made with average use. In case of more intensive use or disadvantageous operating conditions, shorter maintenance intervals are required.

Table 4: Terms of maintenance work

## 8.2. Maintenance and inspection list

Maintenance intervals	No.	Inspection point / maintenance instructions
After the first three days of operation:	1.0	Check the proper venting and the system pressure, refill water if required.
Before operation:	2.0	Check the entire unit.
After operation:	3.0	Check the entire unit.
Once a day:	4.0	Check safety parts.
Once a week:	5.1	Remove corrosion traces if required.
	5.2	Check Emergency stop.
Once a month:	6.1	Clean the unit according to the instructions in chapter "Cleaning work".
	6.2	Check the hoses used for tight seat and intactness
As required:	7.1	Clean the unit, check the contamination filter.
According to statutory regulations:	8.1	Check the insulation and voltage according to DIN EN 60204-1. The inspection periods are set according to the current standards and regulations (repeated inspection).
	8.2	Check oil pipes and devices using oil according to statutory regulations.
	8.3	Carry out DGUV V3 inspection: - with mobile units every 6 months - with immobile units every 4 years
According to manufacturer's specifications:	9.0	See manufacturer's documentation in the additional unit documentation folder

Table 5: Maintenance and inspection list

## 8.3. Maintenance and inspection work

This chapter describes all maintenance and inspection work which must be carried out by the operator.

Apart from the actions specified in the "Maintenance and inspection list" table, no further work is required.

### 8.3.1. Lubricants



**Use only lubricants recommended by the corresponding manufacturers.  
Only they have been tested and guarantee safe operation.**

Use	Lubricant
Lubricating oil	see specifications of the component manufacturer
Lubricating grease	lithium soap grease of the consistency class NGLI2 (DIN 51818)

Table 6: Definition of the lubricating oil/lubricating grease

## 8.4. Cleaning work



**Do not clean the unit with:**

- compressed air,
- a steam cleaner,
- a high-pressure cleaner,
- solvents, even in a low concentration.

Clean the unit according to the degree of soiling.

## 8.5. Checking the heating system pressure



The heating system pressure must be at least 1.5 bar.

It must be regularly checked by the operator.



If the heating system pressure exceeds 3 bar:  
The maximum pressure limiter trips and the unit reports a fault.



If the pressure continues to increase:  
The safety valve opens and water can escape from the heating system.



If the heating system pressure falls below 1.0 bar:  
The minimum pressure limiter trips and the unit reports a fault.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active		
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 54 of 67

## 8.6. Emptying the condensate container

The condensate container is located in the front part of the MHZ.

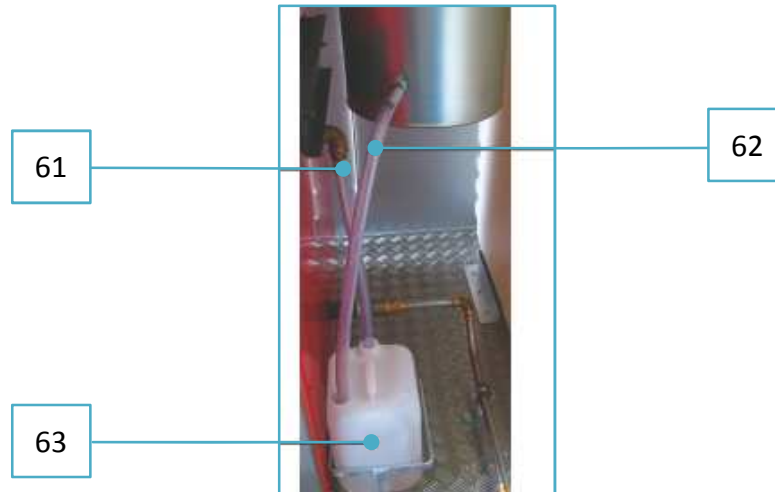


Figure 17: Condensate container (picture shows an example)

61 – Boiler condensate hose	62 – Chimney condensate hose
63 – Condensate container	

The filling level of the container must be checked at least once a week.

**Caution!**

Put on protective gloves before emptying the condensate container.

Dispose of the generated condensate according to the local standards and regulations. Wipe off dripped condensate on the floor using a cloth and thoroughly rinse it with running water.

## 8.7. Customer service information

**Hotmobil Deutschland GmbH**  
Mobile Energiezentralen  
Industriepark 322  
D-78244 Gottmadingen



+49.77 31.94 60-0  
+49.77 31.94 60-999  
www.hotmobil.com  
info@hotmobil.com

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 55 of 67

## 9. Faults

### Objective:

- To detect and evaluate the cause of the fault.
- To initiate fault elimination.

You can often eliminate the faults yourself.

To eliminate the faults, check whether you can eliminate the fault yourself using the "Troubleshooting" table.

### 9.1. Troubleshooting

The following table contains possible faults, their causes and instructions for solving the problem:

Problem	Cause	Solution
Burner fault	<ol style="list-style-type: none"> <li>1. Oil supply interrupted.</li> <li>2. Firing manager fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check oil supply.</li> <li>2. Error code on the burner manager?</li> <li>3. Acknowledge burner. If this is not possible, inform "Hotmobil Deutschland GmbH".</li> </ol>
Burner fault with motor circuit breaker	<ol style="list-style-type: none"> <li>1. A phase is missing.</li> <li>2. Motor circuit breaker of the burner was tripped.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check phase indicator lamp.</li> <li>2. Acknowledge motor circuit breaker. If this is not possible, inform "Hotmobil Deutschland GmbH".</li> </ol>
Heating circuit pump fault	<ol style="list-style-type: none"> <li>1. Free wheel of the pump is blocked.</li> <li>2. A phase is missing.</li> </ol>	<ol style="list-style-type: none"> <li>1. If yes, inform "Hotmobil Deutschland GmbH"</li> <li>2. Check phase indicator lamp.</li> </ol>
Safety temperature limiter was tripped	<ol style="list-style-type: none"> <li>1. STB on.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check whether the burner switches off at the set temperature. If not, inform "Hotmobil Deutschland GmbH".</li> </ol>

Table 7: Troubleshooting



## 10. Servicing/repair



### Objective:

- To retain the target state according to the current laws, regulations and directives.

According to the directive 2009/104/EC concerning the minimum requirements for the use of work equipment, the operator in particular is responsible for procurement and use of work equipment which conforms to the regulations of all relevant directives.

It is the sole responsibility of the operator to monitor servicing measures. The "Hotmobil Deutschland GmbH" customer service will be pleased to help you with the fulfilment of this task.

- Tasks for restoring the target state.

All components of the unit listed in the "Unit documentation" must be replaced by unqualified personnel only.

(see table "Qualification of the operating personnel")

For dismounting or mounting of spare parts / purchased parts, information in the corresponding mounting instructions is sufficient; no additional information is required. The training of the qualified personnel enables them to dismount and mount all spare parts.



**All further work must be carried out by the customer service of "Hotmobil Deutschland GmbH".**

### 10.1. Return Material Authorisation form

Our Internet presence allows you to register a warranty claim using an interactive RMA form. To do so, go to the service area at <http://www.hotmobil.de> and obtain the form under the DOWNLOADS category which will allow you to assert your claim. It can be sent directly if specific system conditions are provided. Further details can be found in the form.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 57 of 67

## 11. Decommissioning

---

**Objective:**

- Proper preparation for storage.
- Maintaining the target state of the unit during storage.

Decommissioning is required every time the location is changed and every time the unit is stored.

### 11.1. Emptying the MHZ

---

Before draining the water from the system, the water temperature must fall below 30 °C.



If anti-freeze agents or other inhibitors have been added to the water, it must be disposed of according to the applicable environmental laws.  
If the water in the system is the so-called "backwater", the water can be disposed of together with the normal wastewater.

Make sure that the unit has been completely emptied.  
No liquid remains must remain in the unit as this can lead to frost damage to the unit.



- Connect drain pipe to the boiler emptying connection.
- Open the vent taps.
- Open the ball tap on the boiler emptying connection.
- Wait until the unit is completely emptied.
- Make sure that the tank and the pipelines have been completely emptied.
- Close the connections with caps.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 58 of 67

## 12. Storage

**Objective:**

- Proper preparation for storage.

### 12.1. Storage and packaging

It is not necessary to pack the unit.

### 12.2. Preparation for storage

Period of storage	Measures
> 2 weeks	→ Take measures for protection against corrosion → Apply corrosion protection (oil) to bare parts → Close connecting flanges with caps
3 – 36 months	→ Clean the unit → Apply corrosion protection (oil) to bare parts → Lubricate all lubricating points → Close connecting flanges with caps
> 36 months	Contact the manufacturer.

Table 8: Preparation for storage

### 12.3. Storage conditions



The storage location must comply with the specifications in **chapter 2.2**.  
Observe chapter "Technical product description".

The storage location must be frost-free!

If frost-free storage is not possible, connect the MHZ to a corresponding power supply and operate only the fan heater.

### 12.4. Maintenance during storage

No maintenance work should be carried out during storage.

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active		
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 59 of 67

## 12.5. Start-up after storage

---

Before start-up, remove the preservation using a dry, fluff-free cloth

Perform all further steps as described in **chapter 7**.

## 12.6. Temporary storage

---



If the unit must be stored temporarily, observe **chapter 12**.



**Danger due to insufficient personnel qualification!  
Non-compliance can result in damage to the unit or  
life-threatening injuries.**

**Activities specified in this chapter must be carried out only by the following persons:**

- Qualified personnel with technical training

The following points always apply to the storage room:

Store the units only on suitable surfaces.



Observe chapter "Technical product description"  
and the table "Qualifications of the operating personnel".

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx			Status: Active
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 60 of 67

## 13. Disposal

**Objective:**

Preparation for proper and environmentally sound disposal.

### 13.1. Disposal procedure



Pay attention to environmental safety, health risks, disposal regulations and your local options for disposal according to regulations, especially disposal of special waste according to regulations.

Disposal	Measures
Draining dry	Drain and dispose of lubricants. Drain oil, collect separately according to the type and dispose of.
Electronic waste	Divide electronic waste into main groups (PCBs, cables, ...) and dispose of according to the regional regulations.
Materials	Sort metals, non-metals, composite materials and auxiliary materials by type and dispose of in an environmentally-friendly manner.
Hazardous materials	For disposal of hazardous materials, observe the instructions of manufacturers of individual components

Table 9: Disposal procedure

## 14. Accessories

Our wide choice of accessories allows you to specify our standard products according to your requirements and tailor them specifically to your application case.

For our **mobile heating units** (HOTMOBIL MHZ), we recommend the following accessories:

	<b>Mobile air heaters (HOTAIR MLE)</b> For the temperature control of warehouses and assembly halls, and for building shell heating
	<b>Mobile tank systems (HOTTANK MHT)</b> As backup supply tanks during extended periods of operation
	<b>Mobile silencers (HOTSILENCE MSD)</b> For reduction of sound emissions, f. ex. for residential areas, hotels, old people's homes, etc.
	<b>Mobile connection lines (HOTFLEX MVL)</b> Flexible, universal multi-purpose hoses for the connection of domestic, circulation and heating water as well as cooling
	<b>Mobile ramps (HOTRAMP MÜR)</b> For flexible cable routing
	<b>Mobile control unit (HOTCONTROL MRE)</b> For function heating and for the heating of floor coverings according to DIN EN 1264 / SN EN 1264-4 using permanently stored or your own temperature profiles
	<b>Mobile fault indicators (HOTCHECK MSM)</b> For remote monitoring of mobile power units
	<b>Mobile water preparation (HOTAQUA MWA)</b> For water preparation of steam units or for filling heating systems according to VDI 2035
	<b>Mobile ventilation units (COOLAIR MLG)</b> For cooling and heating of storage halls, heating of building sites, air conditioning of events, special IT solutions available
	<b>Mobile heat exchangers (HOTFLOW MST)</b> System separators with different power outputs for various applications.
	<b>Mobile water reservoirs (HOT THERM MWS)</b> Hot water reservoirs for events or conversion work
	<b>Mobile heating pumps (HOT PUMP MHP)</b> For circulation of the heat carrier medium <b>Mobile refrigeration pumps (COOL PUMP MKP)</b> Circular pumps for the refrigeration area <b>Mobile special pumps (SONDERPUMPE MSP)</b> Special pumps for all applications
	<b>Mobile expansion containers (HOT VOLUME MAG)</b> For example for pressure maintenance during separation of the system

## 15. Appendix

### 15.1. EC Declaration of Conformity




	
<b>EG-Konformitätserklärung</b> <b>nach Maschinenrichtlinie 2006/42/EG Anhang II 1.A</b>	
Der Hersteller	HOTMOBIL DEUTSCHLAND GMBH Mobile Energiezentralen Industriepark 322 / 205 D-78244 Gottmadingen
erklärt hiermit, dass folgendes Produkt	
Produktbezeichnung:	Mobile Heizzentrale MHZ
Serien-Nummer:	Siehe Typenschild
Fabrikat:	Hotmobil Deutschland GmbH
den Bestimmungen der (den) oben gekennzeichneten Richtlinie(n) - einschließlich deren zum Zeitpunkt der Erklärung geltenden Änderungen - entspricht.	
Folgende weitere EU-Richtlinien wurden angewandt: Niederspannungsrichtlinie 2006/95/EG EMV-Richtlinie 2004/108/EG	
Für das Produkt wurden die technischen Unterlagen gemäß Anhang VII Teil A erstellt. Auf begründetes Verlangen können diese Unterlagen einer einzelstaatlichen Stelle per Post oder E-Mail übermittelt werden.	
Genehmigung des Qualitätssicherungssystems nach ISO 9001:2008: TÜV SÜD Management Service GmbH Bericht-Nr. 70757275	
Für die Zusammenstellung der technischen Unterlagen zuständig: Herr Thomas Herrmann HOTMOBIL DEUTSCHLAND GMBH Industriepark 322 / 205 D-78244 Gottmadingen	
Ort:	Gottmadingen
Datum:	30.04.2015
	
Reto Brütsch Geschäftsführer	

Figure 18: EC Declaration of Conformity of the unit

Filename:	2015-07-06_UE - Gebrauchsanleitung MHZ_EN.docx	Status: Active		
Responsibility:	Hotmobil Deutschland GmbH	Revision: 09	Version: 2015-07-06	Page 63 of 67

## 15.2. List of figures and tables

### 15.2.1. List of figures

Figure no.	: Figure caption	page
Figure 1:	Safety symbols on the unit _____	10
Figure 2:	Hazardous areas _____	25
Figure 3:	Perspective of the unit (heating installation) _____	27
Figure 4:	Perspective of the unit (domestic water installation) _____	28
Figure 5:	Oil supply _____	29
Figure 6:	Gas supply* _____	30
Figure 7:	Safety and regulating devices _____	31
Figure 8:	Filling/emptying/ventilation devices _____	32
Figure 9:	Expansion device _____	33
Figure 10:	Emergency stop button _____	34
Figure 11:	Switch cabinet (example of layout) _____	35
Figure 12:	Operating elements _____	36
Figure 13:	Operating elements of regulation _____	37
Figure 14:	Indicating elements _____	38
Figure 15:	Workplaces _____	39
Figure 16:	Unit rating plate (example) _____	42
Figure 17:	Condensate container (picture shows an example) _____	55
Figure 18:	EC Declaration of Conformity of the unit _____	63

### 15.2.2. List of tables

Table no.:	Table caption	page
Table 1:	Qualifications of the operating personnel _____	15
Table 2:	Emergency stop and main switch _____	37
Table 3:	MHZ operating modes _____	40
Table 4:	Terms of maintenance work _____	52
Table 5:	Maintenance and inspection list _____	53
Table 6:	Definition of the lubricating oil/lubricating grease _____	54
Table 7:	Troubleshooting _____	56
Table 8:	Preparation for storage _____	59
Table 9:	Disposal procedure _____	61
Table 10:	List of documents _____	65



## 15.3. Spare parts list

---

For spare parts, refer to the symbol coding of the corresponding unit.  
It is part of the unit documentation.

## 15.4. List of documents

---

Table 10: List of documents

No.	Designation	Media / number	Storage location:
1	Unit folder	1 folder	Document holder
1	Documentation	1 CD or 1 folder	Handover to the customer

## 15.5. Diagrams

---

### 15.5.1. Hydraulic diagram

---

The hydraulic diagram is stored in the unit folder.

### 15.5.2. Wiring diagram

---

The wiring diagram is stored in the unit folder.

### 15.5.3. Applicable documents

---

The "Hydraulic diagram legend" serves for the identification of the corresponding components according to symbols on the hydraulic diagram.

The "symbol coding" also contains information on manufacturer, types, dimensions and connection sizes of the components.



## 15.7. We kindly ask for your support

We are interested in constant quality improvement of our instruction manual, and we would be pleased if you would share your opinion with us. Please use the fax or letter form prepared for this purpose.

Address: **Hotmobil Deutschland GmbH**  
Mobile Energiezentralen  
Industriepark 322  
D-78244 Gottmadingen

☎ +49.77 31.94 60-0

☎ +49.77 31.94 60-999

Please enter your own address if you wish:

Instruction manual for: \_\_\_\_\_

- |                                      |                                   |                                      |  |
|--------------------------------------|-----------------------------------|--------------------------------------|--|
| <input type="checkbox"/> Suggestions | <input type="checkbox"/> Critique | <input type="checkbox"/> Opinions    | <input type="checkbox"/> Wishes                      |
| <input type="checkbox"/> Safety      | <input type="checkbox"/> Errors   | <input type="checkbox"/> Ambiguities | <input type="checkbox"/> Suggestions for improvement |

No.	Description	Page
General evaluation:		General comment:
<input type="checkbox"/> very good <input type="checkbox"/> good <input type="checkbox"/> satisfactory <input type="checkbox"/> sufficient <input type="checkbox"/> faulty <input type="checkbox"/> unsatisfactory <input type="checkbox"/> .....		