

Filter-Cell XL



1. Application and Mode of Operation	2
2. Safety Instructions	2
3. Placing into Operation	2
4. Operation Elements and Function	3
5. Maintenance	3
5.1 Emptying of the dust container	3
5.2 Drain of condensate out of the compressed air vessel	4
6. Technical Specification	4
7. Spare parts list	4
8. Inspection	4
9. Storage	5
10. Operation Scheme	5
11. Measurements in case of emergency	5
12. Datasheet	6
13. European Community Declaration of Conformity	7
14. Wiring diagram	8

1. Application and Mode of Operation

The *KEMPER* Filter-Master XL is designed for the extraction of hazardous substances, which are produced by different welding works. Basically the machine can be used for all operations where particles of hazardous substances, i.e. fumes and dusts will be discharged. You have to observe that no sparks (e.g. during grinding) may be absorbed into the filter unit.

The released hazardous substances are collected by an detection device and are led into the filter unit with the extracted airflow. Here the particles of hazardous substances are intercepted at the surface of the installed filter cartridges. The particles, which are collected at the filter cartridges, are discharged by automatic compressed-air impetus. They drop into a dust collection container and can be taken out for disposal. The cleaned air will be extracted by a fan and led back into the working room via a silencer.

- For extraction of carcinogenic welding dusts (e.g. materials containing nickel or chromates) you have to observe the regulations of TRGS 560 (Technical regulations for hazardous substances).

2. Safety Instructions

Caution:

When using electrical equipment you have to take notice of basic safety instructions for the protection against electro shock, injury- and fire danger!

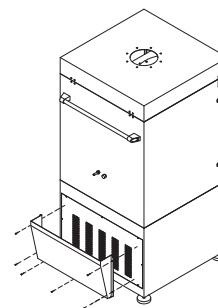
Please read through and take notice of the following instructions before operating the unit!

- Keep the operation and maintenance manual handy so that the user can read it if necessary.
- Please read through this manual before operating the unit and make sure that you have comprehended all information.
- The unit may only be transported upright and has to be secured against tipping, shocks and water.
- Don't use the unit for extracting easy flammable or explosive gases or dusts as e.g. aluminium dust and wood dust.
- Do not extract aqueous steam with this filter unit.
- The machine always has to be installed safely.
- Check the filter unit regularly for any damages.
- Always use original replacement filters and other spare parts.
- Never operate the machine without filter cartridges. Air contaminations lead to damages to s.o.'s health or faulty function of the filter unit!
- Pull the power plug before opening the filter unit.
- Protect the machine against moistness and humidity.
- Protect the machine against any item (e.g. welding rod) getting into the suction and insufflations slot.
- Always read the specifications on the type plate.
- Don't use the unit to extract oil mist containing welding fumes, as well as during the WIG welding procedure of stainless steel.
- Protect the connecting cable against heat, oil and damages by sharp edges.

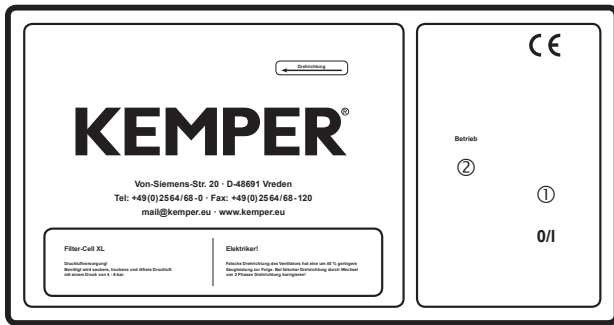
3. Placing into Operation

- **Before use, ensure that the blowout shield is fitted to this unit using the screws supplied.** Install with the blowout direction upwards. See illustration.

- Read the instructions on the type plate.
- Connect the filter unit to the power supply via the CEE plug.
- Switch the filter unit on and off. In the display in the lower part of the filter unit you can check the sense of direction of the impeller wheel. The sense of direction of the impeller wheel has to be the same as indicated by the arrow direction on the housing. If the sense of rotation is incorrect please get an authorized electrician to change two phases in the CEE plug of the unit.
- Connect the unit to the compressed air supply via an air hose with a coupler. The compressed air connection plug is located at the back side of the unit. You have to provide clean, dry and oilfree compressed air at a pressure of 4 - 6 bar.
- Please observe that the extracted air can pour out of the unit without barriers.
- The filter unit can be switched on by the motor protection switch.



4. Operation Elements and Function



- ① ON/OFF – switch
(Motor protection switch)
- ② Monitoring light for operation mode

The filter unit has been equipped with an automatic cleaning system, which controls the air volume and starts a cleaning cycle of the filter cartridges.

5. Maintenance

5.1 Emptying of the dust container

The dust container has to be emptied regularly. The time period between two emptyings is dependent on the kind and the volume of the captured dusts.

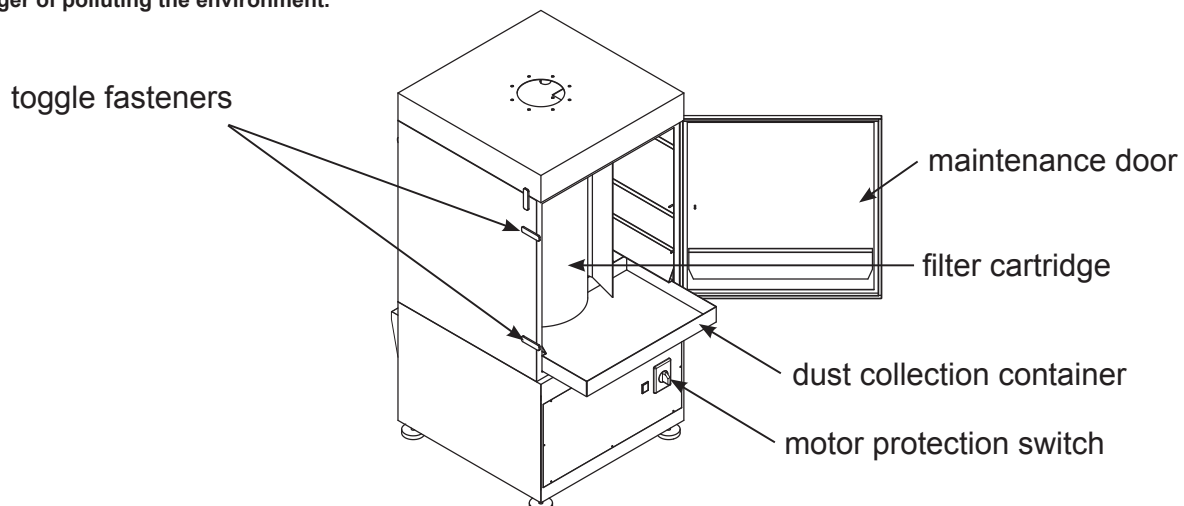
- Please avoid any contact with the dust. Use the disposable dust protection mask, the disposable protection gloves, the dust bin liner (for dust collection container) and the lacing cord.
- Ensure the unit is not in operation when removing or replacing the dust collection container.

Warning:

Your health can be affected if you inhale the particles in the welding dust, in particular the dusts generated during processing of galvanised steel are very harmful. Human skin can be irritated by the particles in the welding smoke (in particular for people who are sensitive against these harmful substances).

- Switch the unit off by using the motor protection switch
- Disconnect the unit from the power supply
- Wait a few minutes until the raised particles in the dust collecting bin are settled
- Loosen the toggle fasteners and open the maintenance door carefully in order to prevent the dust from raising
- Draw the dust collection bin outside the filter housing
- Carefully pull the disposal bag without rising dust over the bin and remove it from the unit
- Empty the dust collecting bin
- Close the disposal bag with a cable tie
- If the dust collecting bin is damaged replace it and dispose it according to the legal regulations.
- Replace the empty bin or place a new one into the filter unit
- Close the maintenance door and secure it with toggle tip fasteners
- Connect the unit to the power supply
- Switch the unit on by using the motor protection switch
- The unit is ready for operation again

The dusts have to be stored and disposed according to the law for disposal and secured against any danger of polluting the environment.



5.2 Drain of condensate out of the compressed air vessel

Condensate will be collected inside the compressed air vessel. This condensate should be drained during emptying of the dust collection container. The drain valve is located on the back side of the filter unit. You can put a suitable container below the drain valve and open the valve. Close the valve after all moisture has been drained and only air is purging out of the valve.

6. Technical Specification

Capacity:	1.000 m³/h
Max. pressure:	2.900 Pa
Effective filter surface:	10 m²
Power supply:	see type plate
Motor performance:	1,5 kW
Amperage:	see type plate
Operation period:	100 %
Voltage:	24 V
Dimensions (W x D x H):	655 x 655 x 1.460 mm
Weight:	135 kg
Allowed surrounding temperature:	- 10 °C up to + 35 °C
Noise level at a distance of 1 m at maximum air volume	69 dB (A) measured on an open air test side according to DIN EN ISO 3744

7. Spare parts list

Item	Description	Part No.
1	<i>KemTex</i> ® ePTFE-Membran-Filterpatrone (Der Einbau darf nur durch den <i>KEMPER</i> - Service erfolgen)	109 0300

8. Inspection

The inspection of the filter unit has to be undertaken according to TRGS 560 chapter 5, paragraph 9. You have to record the results of the inspections in an inspect and test log book. This log book has to be handed out to the inspection authority if this is required.

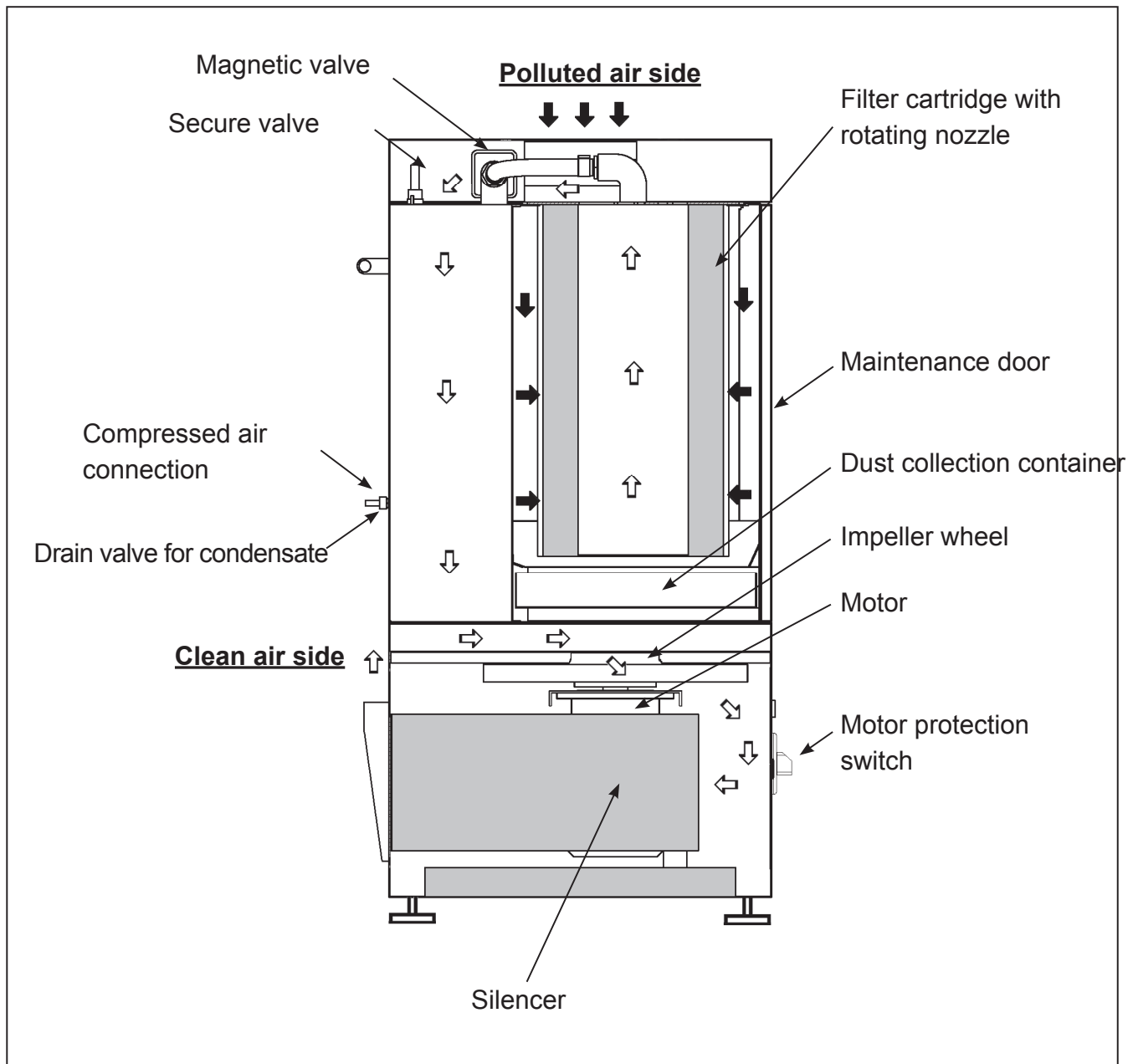
Daily inspections	
Type of inspection	Troubleshooting / Measurements
<ul style="list-style-type: none"> • heck the filling level of the dust extraction container. • Drain the condensate from the compressed air vessel. • Check if the connection cable and the CEE plug are not damaged. • Check the sense of rotation of the fan if the position of the unit has been changed. • Check if the filter material of the filter cartridge is not damaged. 	<ul style="list-style-type: none"> • See chapter „Emptying of the dust collection container“. • See chapter „Drain of condensate from the compressed air vessel“. • Visual inspection, it might be necessary to get the connection cable or the CEE plug replaced by an authorized electrician. • See „Placing into operation“. • Check at the blow out grid on the back side of the filter unit if smoke is released or dust is layered on the grid during operation of the unit. This might be an indication of a filter damage. Particles will only be held back insufficient. Please do not use the filter unit in this case as the polluted air can get into the working environment of the user and affect the health of people near the machine. Please contact <i>KEMPER</i> service department and ask for a service and repair of the filter unit.

The user does not have to carry out further inspections. The annual main service or any repairs have to be undertaken by *KEMPER* service engineers. Please have a look at the test badge on the unit for getting the next service date. Maintenance work may only be undertaken in a well air circulated and suitable place to ensure that no people will be affected by any released dust. The engineer should wear protection equipment as protective gloves, disposal gloves etc. to avoid any contact with hazardous substances. The working station has to be cleaned after carrying out the maintenance work.

9. Storage

The separate components as filter unit and accessories should be stored in original packaging. You have to observe during the storage that the components will not be damaged by any items laid on to of them. The storage place has to be dustfree and protected against moisture. The storage temperature should not undergo $- 10\text{ }^{\circ}\text{C}$ or exceed $+ 50\text{ }^{\circ}\text{C}$ constantly.

10. Operation Scheme



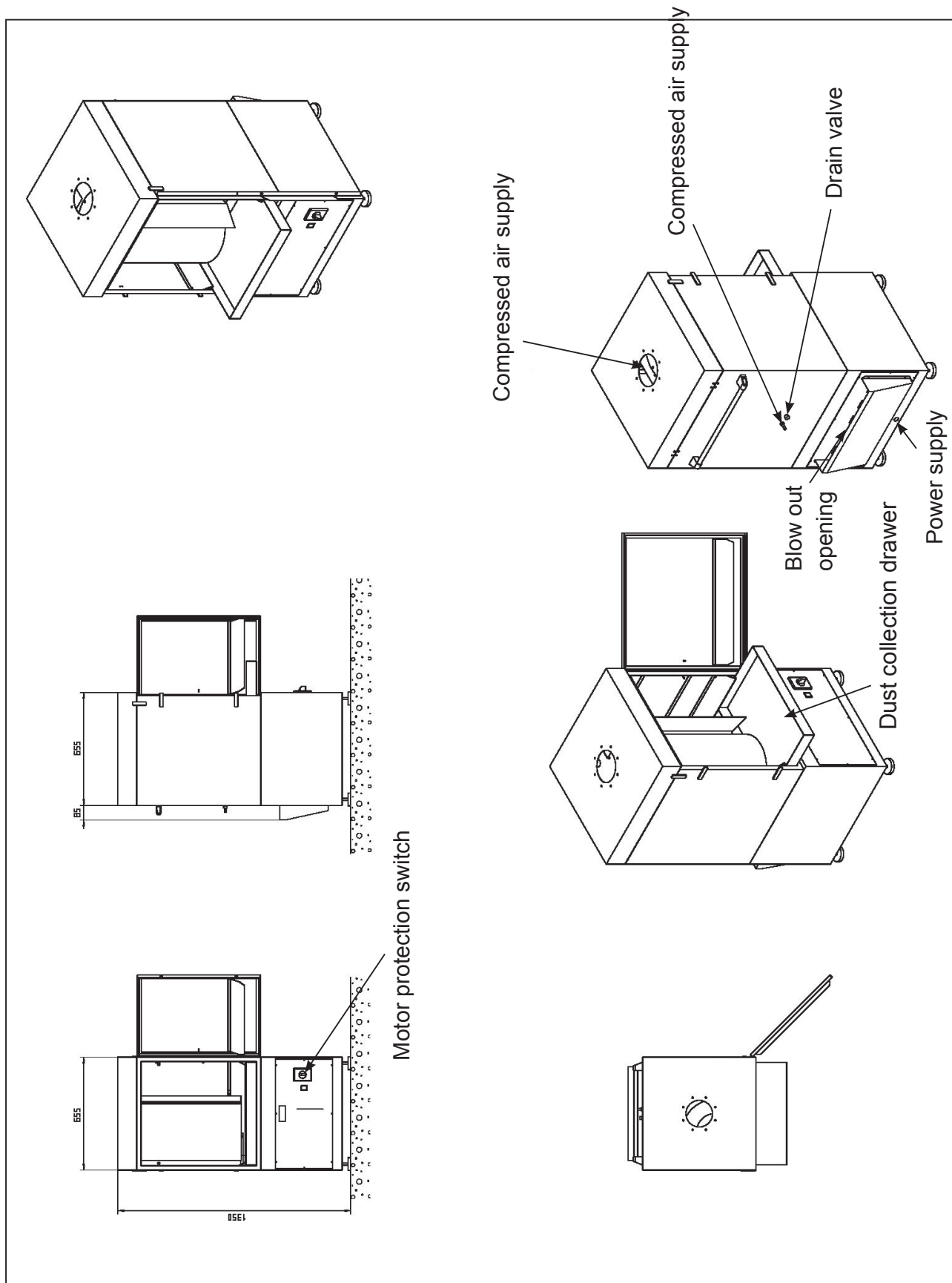
11. Measurements in case of emergency

During a fire inside the filter unit resp. at its capturing devices you have to follow the following steps:

- Switch off the filter unit at the motor protection switch, if possible.
- Disconnect the filter unit from the power supply by taking off the CEE plug.
- Extinguish the fire with a standard fire extinguisher.
- If necessary contact the local fire brigade to extinguish the fire.

Keep in mind: Do not open the maintenance door in case of any fire. Danger of an explosive flame.

12. Datasheet



13. European Community Declaration of Conformity

According to the European community machine standard 2006/42/EC

Manufacturer: *KEMPER GmbH*
Von-Siemens-Str. 20
D-48691 Vreden

Mr. Manfred Könning is authorized to compile the technical documentation.

We hereby declare that the following machine with all relevant provisions of the EC Machinery Directive 2006/42/EC in accordance.

Part No. 60 200

Description: *KEMPER Filter-Cell XL*

The machine is also in accordance with all relevant provisions of the following EC-guidelines:

2006/42/EC	Machine safety guideline
2004/108/EC	Electromagnetic compatibility
2006/95/EC	Low-voltage - guideline

The following harmonized standards (or parts of these standards) were used:

EN ISO 12100 part 1+2, EN 294,	Security of machines
EN 349, EN 418, EN 983	Security of machines - guiding principles for risk evaluation
EN 1050	Electrical equipment of machines
EN 60204 -1	Law referring to the electromagnetic compatibility of machines
EMVG	Specialized basic standard noise immunity
EN 610000-6 part 3	Specialized basic standard noise emissions
EN 610000-6 part 2	

The following technical specifications (or parts of these standards) were used:

VDE 0100	Construction of low-voltage plants
VDE 0113	Electrical equipment of machines - complies to EN 60204-1
UVV BGV A1	Regulations for the prevention of accidents: Principles of prevention
BGR 500 2.26	Weld, cuts and related procedures
DIN 45635	Noise levels at machines

The Annex VIII of Directive 2006/42/EC has been observed. Compliance with the requirements of Low Voltage Directive has been ensured in accordance with Annex I, point 1.5.1 of Directive 2006/42/EC.

Additional information

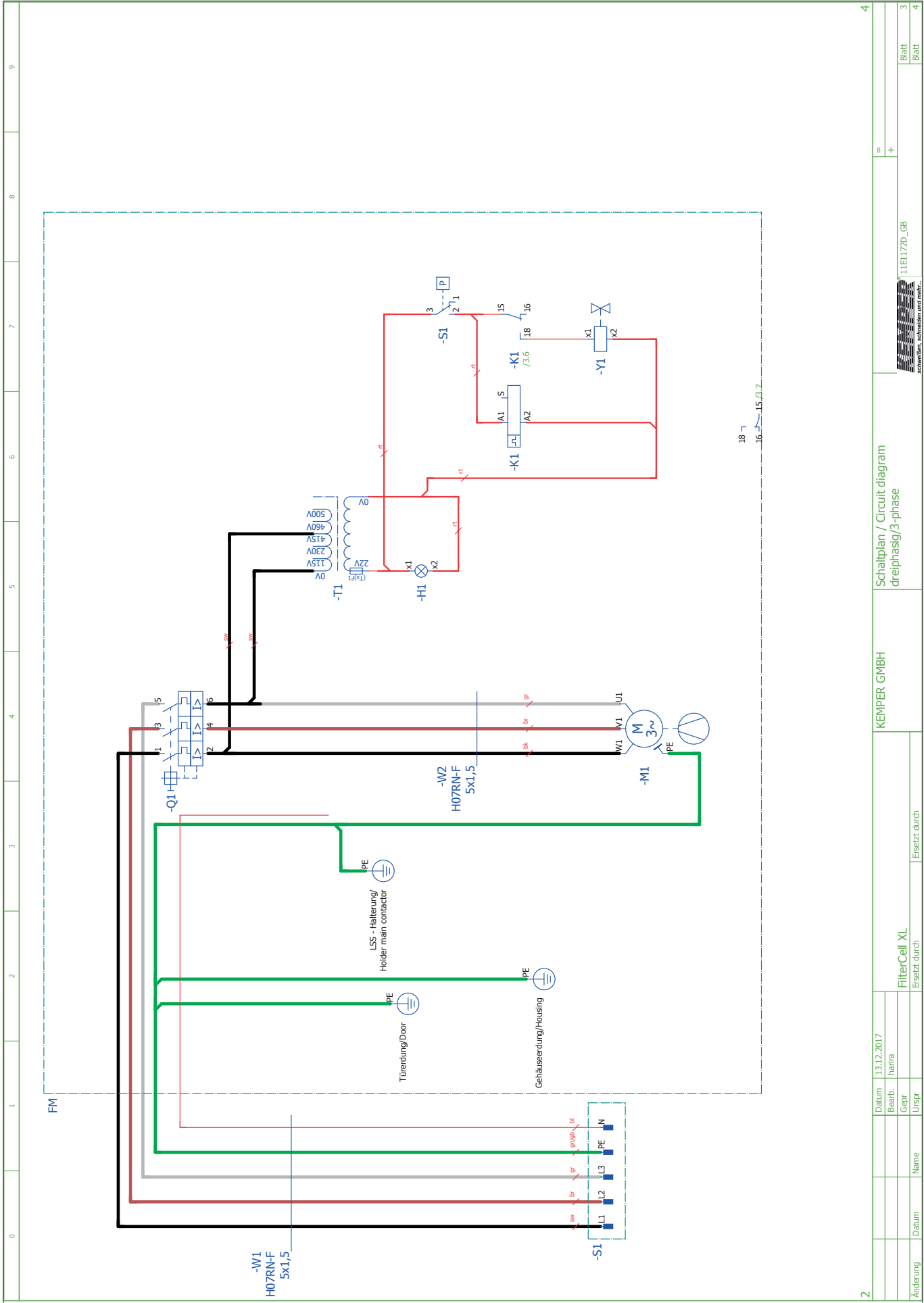
This explanation loses its validity, if the machine is not used in proper use and if a change not co-ordinated with the manufacturer in written form is made.

Vreden, 01.12.2009
KEMPER GmbH

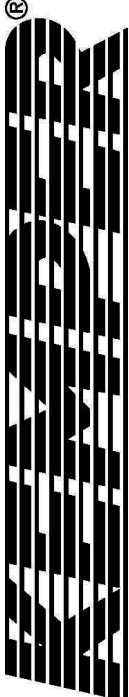


Dipl.-Ing.M. Könning
(Chief Technical Engineer)

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