



Instructions for use

Class

TEKA-LMD 517

TEKA Absaug- und Entsorgungstechnologie GmbH

Industriestraße 13 D-46342 Velen
Postfach 1137 D-46334 Velen

Tel.: +49 (0) 2863 9282-0

Fax: +49 (0) 2863 9282-72

E-Mail: sales@tekanet.de

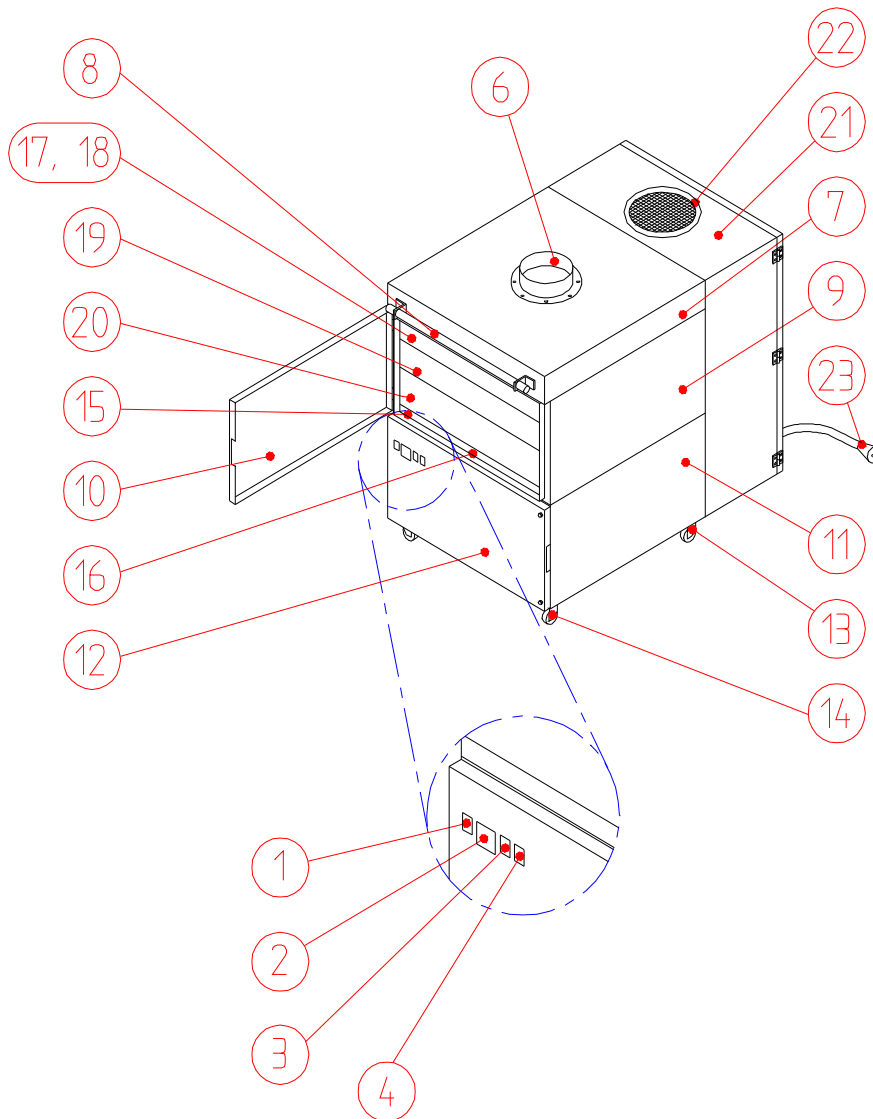
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1 Diagram/description of the parts



Pos.1	Main switch	Pos.13	Guiding roller
Pos.2	Counter for working hours	Pos.14	Guiding roller with brake
Pos.3	Power on illuminated indicator: green	Pos.15	Lifting device
Pos.4	Illuminated indicator to control the volume flow: red	Pos.16	Regulating screw for the lifting device
Pos.6	Extraction pipes	Pos.17	Pre-filter connector
Pos.7	Casing cover	Pos.18	Pre-filter pad
Pos.8	Grip	Pos.19	Particle filter
Pos.9	Filter casing	Pos.20	Activated carbon cartridge
Pos.10	Filter door	Pos.21	Soundproofing module
Pos.11	Blower casing	Pos.22	Exit grille
Pos.12	Blower door	Pos.23	Power supply cable with power supply plug and control Light for rotation direction



2 Introduction

Over the last few years, there has been an increase in the importance in the specific area of extractor equipment: the filtering of harmful extracted substances and the return of this filtered air to work areas.

This fact is an unmistakable sign that peoples' consciences towards the environment have been changing significantly in favour of the environment, because for a long time nobody has argued that toxic substances are generated in production. However, the kinds of toxic substances vary according to the processes applied. To start with we can differentiate between gases and smoke. Smoke can also be called dust. If you look at smoke under a microscope, you can see that it is made up of tiny particles that are able to penetrate the lungs and often only reach a size of 0.001mm or less.

The classic attempt to improve working conditions in workplaces with toxic loads consists in general ventilation, enforcing a change of air in the plant, generally several times. This means that all the air in the plant is renewed. However, this method only slightly reduces the concentration of harmful substances in the user's breathing area.

A similar situation occurs with overhead extractors, i.e. the installation of large extractor hoods above the workstations. In this situation, with extremely bad air control, the harmful substances pass through the user's breathing area to be later collected and extracted. That is not what we are trying to achieve either. The extraction of harmful substances directly in the place they are generated by means of precise extraction is much more effective than volumetric extraction or overhead extraction. Both the initial investment and the operating costs in precise extraction are much lower.

The pre condition for the successful use of technology, besides optimising the technology in the work process, is especially the application of steps to protect the environment and the workplace. Against an undercurrent of an ever-increasing sensitivity and increasingly severe legal regulations we are presented with the task of prematurely evaluating the potential level of danger to the environment and in the workplace and being able to minimise it.



3 How the TEKA – LMD 517 works

The TEKA – UPF-HV-K filtering device is used predominantly for the precise extraction of dust and fumes. In order to carry this out the devices must have one or two flexible extraction tubes or a collection device that is suitable for the application.

Limitations of use:

Soldering fumes containing oils, aluminium dust, gases, water, etc.
(If in doubt, please contact the manufacturer!)

The air containing the harmful substances goes to the filtering device through the outlet tube or a pipe. Here, the large particles are filtered in the pre-filter (Pos. 18). The particle filter (Pos. 19) separates the fine particles from the fumes with a level of effectiveness of over 99%. In a later filtering level, the activated carbon cartridges (Pos. 20) absorb the harmful gaseous substances. The now purified air is taken in by the blower and goes up to the exit grille where the air returns to the environment.

Caution:

The filters must be changed as soon as the resistance caused by the filtered dust particles reaches a level which reduces the power of extraction.
(See section 7.1; “Changing the filter”, Section 7.2 ” Changing the particle filter” and section 7.3 ”Changing the activated carbon cartridge”)

4 Safety instructions

When using electrical appliances the following basic safety instructions have to be followed as protection against electric shocks and to avoid the risk of injuries or fires:

- Please read and follow these instructions, before using the device!
- Keep the instructions and maintenance manual in a safe place!
- Do not use the device for extracting highly inflammable or explosive gases!
- Do not employ the unit for setting it in explosive zones, e.g. zone 0, zone 1, zone 2, zone 20, zone 21, zone 22!
- Do not employ the unit for sucking off burning or glowing materials, e.g. cigarettes, matches, metallic types of dust and/or splinters, paper, cleaning cloths, etc.!
- Do not employ the unit for sucking off burning and/or inflammatory materials, e.g. oils and/or oil mist, fats, parting agent (e.g. silicone spray), cleaning agent, etc.!
- Do not use the device for extracting aggressive elements!
- Do not use the device for extracting burning or incandescent substances!
- Do not use the device for extracting liquids of any type!
- Do not use the device for extracting organic substances without obtaining written consent from the manufacturer!
- Protect the mains plug from heat, humidity, oil and sharp edges!
- Respect the correct connection voltage! (Check the indications on the identification plate!)
- Only use TEKA spare parts!
- Never operate the device without a filter cartridge!
- Before opening the device, disconnect it from the power supply!



- The air outlet should never be covered or blocked
- Always check that the device is in a safe place and that the guiding roller's brakes are on!
- When you are about to clean or carry out maintenance on the device, change parts or modify the device for a different operation you must disconnect it from the power supply!
- The filter cartridges cannot be reused!
- Remove the filters in accordance with the legal norms
- If you use an automatic stop/start energy saving system, check the earth lead before each soldering job.
- Do not use the device if the earth lead is not in perfect condition
- If you use an external filter control, check the control before each job.
- Do not use the device if the control lead is not in perfect condition.
- Periodically check if there are signs of damage on the power supply lead
- Do not use the device if the mains lead is not in perfect condition
- Do not use the filtering device if one or various parts are found to be faulty, missing or damaged. Under these circumstances you must contact the TEKA service department on the telephone number 0049-28 63 / 92 82 - 0
- If extracting carcinogenic substances, like materials containing nickel or chrome, for example, you must comply by the technical ventilation requirements stated in TRGS 560 "Air return when working with hazardous carcinogenic substances"! The TEKA-UPF2110/4110 extracting device has been checked by the Institute of Safety in the Workplace (BIA) and has received the licence number xxxxxx. This licence is part of this instruction manual.
- Further information regarding the TRGS 560 can be requested from the Institute of Safety in the Workplace (BIA) at 53754 Sankt Augustin.

5 **Start-up**

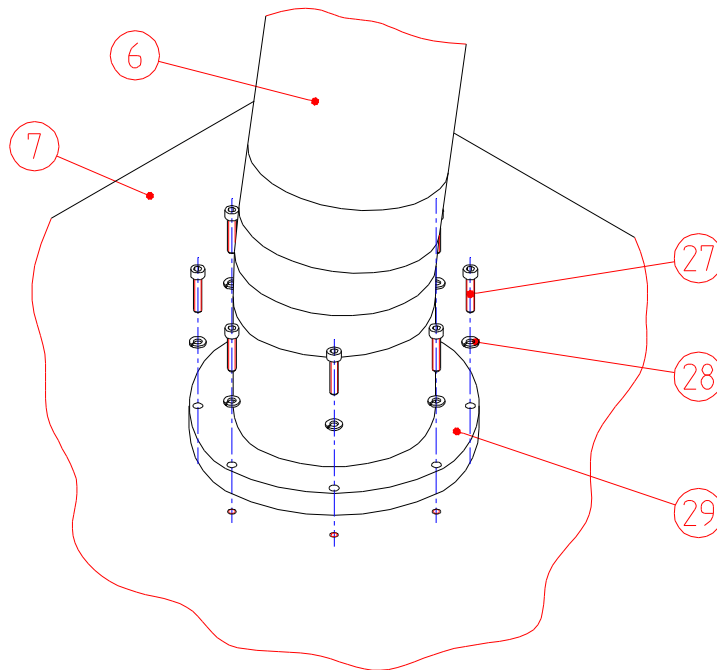
The filtering device is supplied ready for connection.

The collection parts, e.g. extraction arm and, if necessary, further accessories have to be mounted or installed on the devices before starting-up.

5.1 **Connecting the collection parts**

Fix the collection part e.g. an extraction tube or extraction arm, on the extraction pipe and/or the casing cover.

If you use an extraction arm, fix it with the clamp washer (Pos. 29), screws (Pos. 27) and spring washer (Pos. 28).



Caution:
Check that the pipe is able to turn



5.2 Connecting the device

- Connect the filtering device to the power supply. (Check the indications on the identification plate!)
- If the illuminated indicator for rotation direction (Pos. 23) lights up on the device, immediately disconnect the filtering device from the power supply and change the phases of the connection base according to the VDE 0105 norm, section 1. (In the case of an extraction device with 230 V, mono-phasic operation, there is no need to control the rotation field.)
- Connect the filtering device to the power supply. (Check the indications on the identification plate!)

Caution:

Any work with the electrical installation should be carried out by specialised electricians.
Check the indications on the identification plate!

6 Explanation of the control parts

Pos.1 The device switch turns the filtering device on or off.

Pos.2 The counter for working hours counts the hours of operation, in the case of manual control as soon as the main switch is activated, in the case of automatic control, as soon as one or both turbines are working.

Pos.3 The illuminated Power on indicator shows if the filtering device is turned on.

Pos.4 The illuminated indicator to control the volume flow - indicates whether the power of extraction is sufficient. If it lights up the filter cartridge must be changed.



7 **Maintenance**

When filtering dust particles the degree of saturation of the filter cartridge is increased and the extraction power is reduced.

It is guaranteed that more than 99% of the substances extracted remain in the filter, This is also true when the filter is either totally or partially saturated. Nevertheless, the higher the level of extraction the lower the extraction power of the filtering device.

The level of saturation of the filter cartridge is controlled electronically. In order to obtain an acceptable extraction performance from the device you must clean the filter cartridge as soon as the red illuminate indicator to control the volume flow lights up (Pos.4).

The pre-filter (Pos. 18) must be changed regularly. (See section 7.1: "Changing the filter")

The particle filter (Pos. 19) must be changed as soon as the resistance caused by the filtered dust particles reaches a level which reduces the power of extraction. (See section 7.2 "Changing the particle filter")

Change the activated carbon cartridge (Pos. 20) when the gases enter the clean air part. At the latest, it must be changed when the particle filter is changed. (See section 7.3: "Changing the activated carbon cartridges")

The working life of the pre-filter pad, the particle filter and the activated carbon depend on the conditions of use. It cannot be determined beforehand.

Caution:

Whilst changing the filter cartridge the filtering device must be stopped. The changing of the filter cartridge and its disposal must only be carried out in a well-ventilated area with the use of an appropriate protective mask!

We recommend: Protective half-mask DIN EN 141/143-protection level P3.

Only someone with appropriate training should change the filter cartridge!

Dispose of the dust according to legal regulations

If the filter is cleaned by hand, it could cause the destruction of the filtering material. The harmful substances could reach the air.



7.1 Changing the pre-filter pad

The pre-filter pad (Pos. 18) must be changed after a certain number of working hours. Resulting from the amount of dust filtered. Nevertheless, at the latest, it must be changed when the particle filter is changed (Pos. 19).

Proceed as follows:

- Disconnect the filtering device from the mains.
- Open the filter door (Pos. 10).
- Using the fitting screw (Pos. 16) lower the lifting device (Pos. 15)
- Take the pre-filter connector out (Pos. 17).
- Take the pre-filter pad out (Pos. 18)
- Put the new pad in.

Caution:
Only use TEKA pads

- Introduce the pre-filter connector (Pos. 17).
- Using the fitting screw (Pos. 16) raise the lifting device (Pos. 15) so that the pre-filter connector (Pos. 17) fits exactly below the casing cover (Pos. 7). (check the join on the casing cover (Pos. 7)).
- Close the filter door (Pos. 10).
- Connect the filtering device to the mains. (See information on the identification plate

7.2 Changing the particle filter

When the extraction power is reduced, change the particle filter (Pos. 19) as follows:

- Disconnect the filtering device from the mains.
- Open the filter door (Pos. 10).
- Using the fitting screw (Pos. 16) lower the lifting device (Pos. 15)
- Take the particle filter out (Pos. 20).
- Put the new particle filter in.

Caution:
Only use TEKA particle filter

- Using the fitting screw (Pos. 16) raise the lifting device (Pos. 15) so that the pre-filter connector (Pos. 17) fits exactly below the casing cover (Pos. 7). (check the join on the casing cover (Pos. 7)).
- Close the filter door (Pos. 10).
- Connect the filtering device to the mains. (See information on the identification plate)



7.3 Changing the activated carbon cartridge

Change the activated carbon cartridge (Pos. 20) as follows when gases enter in the clean air part o when the particle filter is changed (Pos. 19):

- Disconnect the filtering device from the mains.
- Open the filter door (Pos. 10).
- Using the fitting screw (Pos. 16) lower the lifting device (Pos. 15)
- Take the activated carbon cartridge out (Pos. 20).
- Put the new activated carbon cartridge in.

<p>Caution: Only use TEKA activated carbon cartridge</p>

Using the fitting screw (Pos. 16) raise the lifting device (Pos. 15) so that the pre-filter connector (Pos. 17) fits exactly below the casing cover (Pos. 7). (check the join on the casing cover (Pos. 7)).

- Close the filter door (Pos. 10).
- Connect the filtering device to the mains. (See information on the identification plate)

8 Waste disposal

To facilitate the impeccable performance of your TEKA-PP extraction device, along with the disposal of the extracted dust, we are pleased to offer you the following services:

- Help in finding a residue disposal company situated near you.
- A list of all the residue disposal companies in Germany is available free of charge.
- Maintenance contract
- Telephone advice service

Contact our Service Department at your disposal 24 hours every day.

Telephone: ++ 49 (0) 28 63 / 92 82 - 0

Fax: ++ 49 (0)28 63 / 92 82 72



9 Technical information

Caution:

Check the indications on the identification plate!

Filtering device		TEKA – LMD 517
Connection voltage	V	400
Type of current	Ph	1
Frequency	Hz	50
Motor performance	kW	1,1
Max. air flow	m ³ /h	2200
Max. negative pressure	Pa	2500
Protection type		IP 54
ISO class		F
Control voltage	V	24
Power up time	%	100
Width x depth x height	mm	665 x 1007 x 964
Weight	kg	140
Filters		Pre-filter, particle filter, activated carbon
Filter surface of the particle filter	m ²	11,5
Separation performance	%	>99
Noise level (measured according to DIN 45635 T1 at a distance of 1m from the machine surfaces in a free area with max. Volume flow.)	dB(A)	65



10 List of extras

Name:	Art No:
Turbine 1,1 kW 400 V 3 Ph 50 Hz	951009
Main switch ON / OFF (Pos.1)	96354
Counter for working hours (Pos.2)	96350
Power on control light (Pos.3)	96352
Illuminated indicators for volume flow (Pos.4)	96351
Grip (Pos.8)	10505
Blower door (Pos.12)	66619
Pre-filter pad (Pos.18)	10032
Particle filter (Pos.19)	10029
Activated carbon cartridge (Pos.20)	97053
Guiding roller with brake (Pos.14)	10022
Guiding roller (Pos.13)	10025



11 Declaration of conformity TEKA-LMD 517



TEKA

Absaug - und Entsorgungstechnologie GmbH

Industriestraße 13

D - 46342 Velen

Phone.:+49 2863 92820

Fax:+49 2863 928272

e-Mail: sales@tekanet.de

Internet: <http://www.tekanet.de>

We herewith declare in sole responsibility that the before mentioned product, starting from machine No.: 110000000, conforms to the following standards:

Directives on machine building:	2006/42/EG
Electromagnetic compatibility:	2004/108/EG
Directives on printing device:	97/23/EG
Directives on low voltage:	2006/95/EG

Applied harmonised standards:

- DIN EN 349
- DIN EN 983
- DIN EN 12100 Teil 1 und Teil 2
- DIN EN 60204 Teil 1
- DIN EN ISO 13857
- DIN EN ISO 14121

plus further national standards and specifications:

- DIN 45635 Teil 1

This declaration will become void if changes are effected to the suction and filter systems which were not agreed upon in writing by the manufacturer.

Velen, the 16.December 2009 ,

TEKA Absaug - und Entsorgungstechnologie GmbH
(Extraction and Waste Handling Technology)