

USE AND MAINTENANCE MANUAL



SMOKE ABSORBER SA-1

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1. INTRODUCTION

The purpose of the present Use and Maintenance Manual is to supply User with directions within the range of application, assembly, start-up and operational use of the **SMOKE ABSORBER SA-1**.



Prior to assembly at the place of operation and use, it is important to get thoroughly acquainted with the contents of the present instruction.



With regard to continuity of work carried on improvement of our products, we reserve for ourselves the revision possibility of the draft and technological changes improving their functional features and safety.

Construction of **SMOKE ABSORBER SA-1** meets the requirements of the current state of technology as well as the safety and health assurances included in:

2006/42/EC Directive of the European Parliament and of the Council of the 17 May, 2006 on machinery, amending the 95/16/EC Directive (recast) / Official Journal EC L157 of the 09.06.2006, page 24);

2014/35/EC Directive of the European Parliament and of the Council of the 26 February, 2014 on the harmonisation of the laws of the Member States, relating to the making available on the market of electrical equipment designed for use within certain voltage limits / Official Journal EC L96 of the 29.03.2014;

2009/125/WE(ErP) Directive of the European Parliament and of the Council of the 21 October, 2009 establishing a framework for the setting of ecodesign requirements for energy-related products / Official Journal L 285 of the 31.10.2009;

327/2011 (EU) Regulation of the Commission of 30 March 2011 on implementing the **2009/125/EC Directive** of the European Parliament and of the Council with regard to ecodesign requirements for fans driven by motors with an electric input power between 125W and 500 kW / Official Journal L No.90 of the 06.04.2011.

Additionally, the system is in accordance with the subsequent harmonised standards:

EN ISO-12100:2012 Safety of machinery – General principles of design – Assessment and reduction of hazard

EN 60204-1:2018-12 Safety of machinery – Electrical equipment of machines – Part 1: General requirements

2. PURPOSE

SMOKE ABSORBER SA-1 has been engineered for people who enjoy smoking in specially arranged rooms and they provide perfect conditions in these areas. Filtration efficiency and their aesthetic modern design provide perfect equipment for enterprises, schools, academies, restaurants, entertainment facilities for tourists, etc.

3. RESERVATIONS OF MANUFACTURER

- Manufacturer accepts no liability for any consequences following from the operational use that is in contradiction to the purpose of application.
- Installing of any additional elements that are not belonging to the normal structure of the system (or accessory set) is not acceptable.
- Do not introduce any structural or constructional modifications on the system on one's own.
- Protect the housing of the system from mechanical damage.
- Any repair and maintenance activities ought to be performed by an authorised person.

4. TECHNICAL DATA

Table No.1

Type of the system	Volume flow [m ³ /h]	Supply voltage [V / Hz]	Power of the fan motor [kW]	Acoustic pressure level from distance		Weight of the activated carbon [kg]	Weight [kg]
				1 m	5 m		
				[dB(A)]			
SMOKE ABSORBER SA-1	2100	230 / 50	550	51,5	47,2	35	430

CAUTION: Manufacturer provides a year of servicing, technical supervision, filters replacement, on demand of Customer

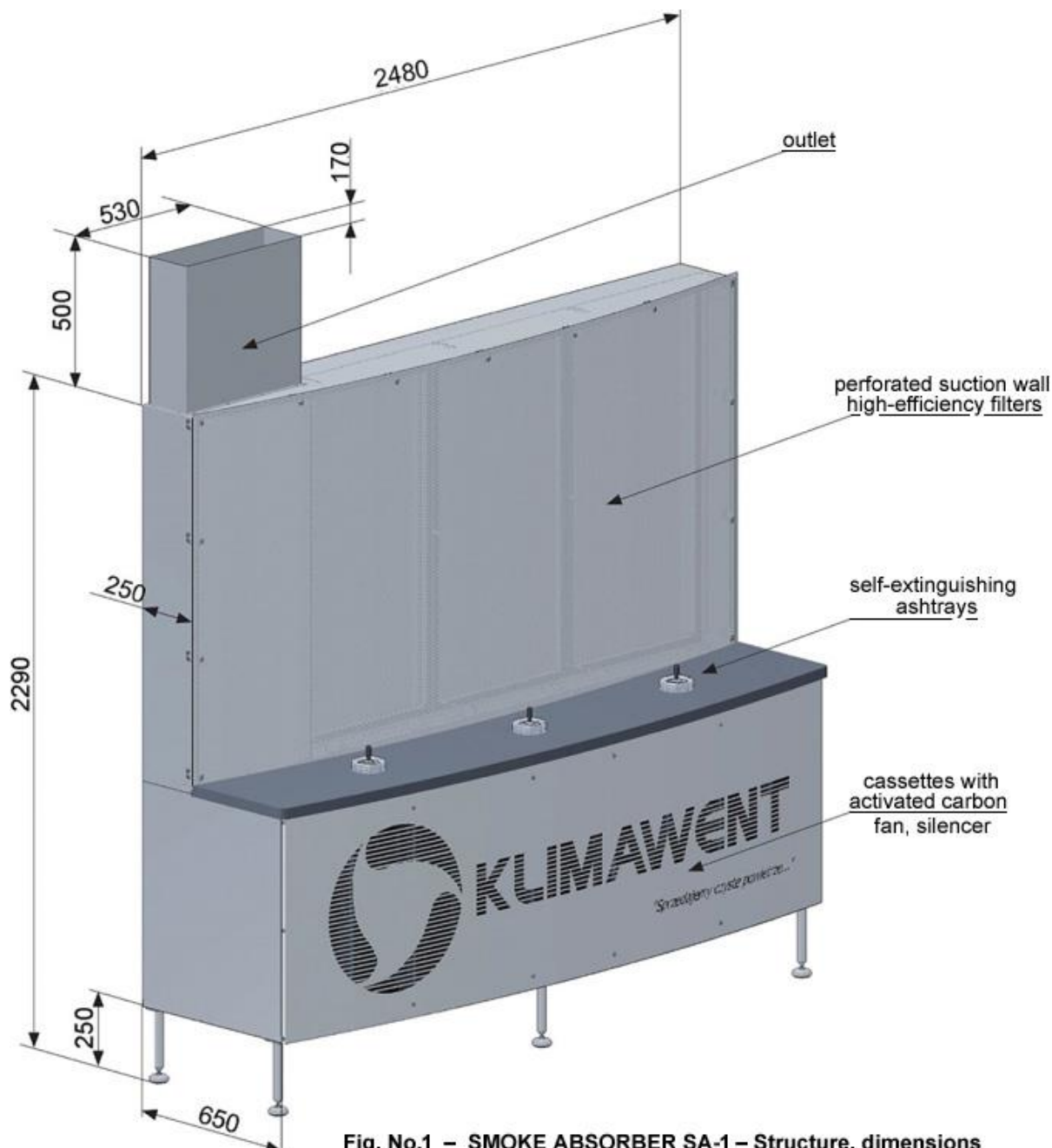
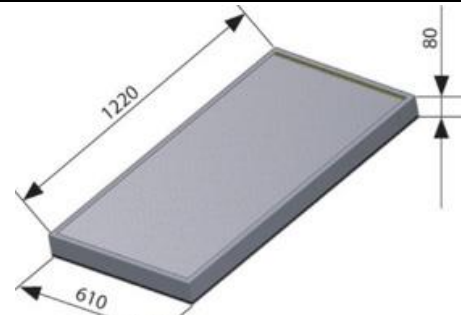



Fig. No.1 – SMOKE ABSORBER SA-1 – Structure, dimensions

Table No.2 – Replaceable parts

High-efficiency filter

	Type	Part No.	Filtration efficiency	Class of the filter
	FA-SMOKE-ABSORBER	818F85	99,95%	H13

Granulated activated carbon

	Type	Part No.	Weight [kg]	Remarks
	ORGANOSORB 10CO4X8	474W04	35	For replacement, the activated carbon is delivered in bulk – in bags 25 kg

5. STRUCTURE AND FUNCTION

The absorber consists of:

- filtration chamber
- fan chamber

The upper filtration chamber is covered with perforated sheet that forms a vertical suction wall absorbing the tobacco fume. Filtration chamber is equipped with 3 high-efficiency dust-stop filters type HEPA, class H13 that capture tarry particles at efficiency of 99,95%. In the lower chamber are located 3 cassettes with activated carbon, that absorb the gaseous contamination, such as: nicotine, carbon monoxide and many others.

Under the activated carbon cassettes is located a radial fan equipped with a silencer. At the outlet (from the fan chamber) is installed a vertical outlet that has to be connected to the discharge ducting above the ceiling of the smoking room. The returning air is guided through special openings in the walls of the room.

Cubature of the smoking room should be 50 up to 200 m³. Thus, volume flow efficiency of the system 2100 m³/h provides from 10 up to 40 air exchanges per hour.

As standard, the absorber is painted in RAL 9007 silver, whereas the chipboard countertop (thickness 38 mm) is in oak colour. Ashtrays are installed in the countertop. As standard, the lower front finishing of the fan chamber is decorated with KLIMAWENT logo. The front inscription, as well as the colour of the system housing (and of the countertop) can be changed, according to the Customer's requirements.

6. ASSEMBLY AND STARTUP

SMOKE ABSORBER SA-1 is installed by the KLIMAWENT S.A. assembly team in the appointed and specially arranged room. In case when the absorption system is installed by user on one's own – manufacturer delivers Assembly Instruction providing essential explanations of the steps of assembly of the subsequent parts of the system and the way of its startup.



Photo No.1 – Layout example of the SMOKE ABSORBER SA-1 in a specially arranged room

The area is separated by walls with glass panes in aluminium frames. In one of them is the door. The system is energised by cable lead, ended with a power plug with a protective contact. The supply switch is on the side wall.

7. OPERATIONAL USE

Maintenance of the absorber system consists in periodical replacement of the filtration cartridges. High-efficiency HEPA filters ought to be replaced not more frequently than after one year of use.

To replace the filters, unscrew the perforated front cover of the suction wall, remove the worn out filters and put new ones into the system. Granulated activated carbon should be replaced at the moment when unpleasant smell of nicotine is perceptible outside. Here, replacement frequency is the same as in case of the HEPA filters. To replace the activated carbon – unscrew the walls: cover wall and front wall of the fan chamber. Subsequently, slide out three cassettes with activated carbon, remove the worn out carbon and put in new, distributing it evenly within the whole space of the cassette. Everyday maintenance consists in emptying of the ashtrays and cleaning the smoking room. **CAUTION: Activated carbon should be disposed by a specialised team according the utilization law of the country.**

8. TROUBLESHOOTING GUIDE

Table No.3

	Problem	Possible reason	Corrective action
1.	Absorption efficiency of the smoke and smells decreases	Absorptivity of the filters is exceeded	Replace the worn out filters
2.	Suction capacity drops along with the increased noise level	The extraction fan is faulty	Replace the fan

9. MAINTENANCE

Construction of the absorption system provides its operational use without the continuous routine technical supervision. In case when any malfunction is by noise or visually spotted – proceed the instructions given in Section 8 or contact the manufacturer. Any repair, technical revisions ought to be carried out after the system is disconnected from the power supply.

10. OCCUPATIONAL HEALTH AND SAFETY

Start up and the operational use of the absorption system are admissible after getting acquainted with the contents of the present Use and Maintenance Manual. Connection to the power system ought to be carried out according to the enclosed Connection Diagram. **This ought to be carried out by a person of electrical qualifications. Any repair, maintenance must be performed after the system is disconnected from the power supply.** Replacement of filters – approx. after 12 months of use.

11. TRANSPORT AND STORAGE

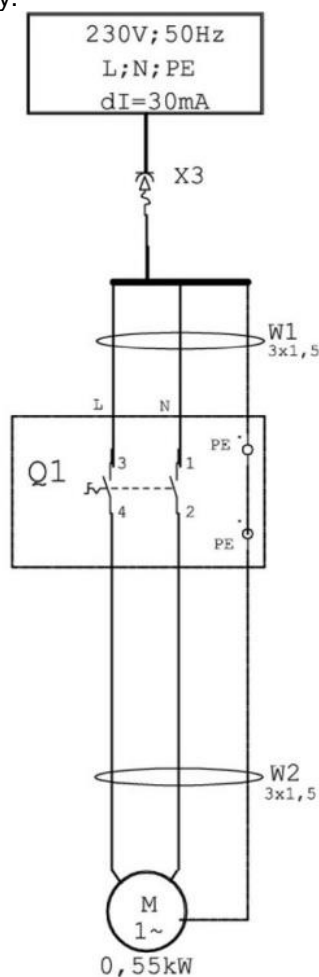
The system is delivered in two parts: upper assembly with HEPA filters, lower assembly with the cassettes with activated carbon and with the outlet. Both parts are placed on pallets and in foil. If Customer choses installing by one's own – transport should be arranged by the Customer.

12. TERMS OF WARRANTY

The period of warranty for the purchased system is indicated in the **Card of Warranty**. The warranty does not comprise:

- mechanical damage and malfunctions caused by User,
- system failures caused during the use which is in contradiction with the purpose of application and with the present Use and Maintenance Manual,
- malfunctions resulting from the improper transport, storage or incorrect maintenance.

Infringement of the Section 3 "Reservations of Producer" of the present Use and Maintenance Manual and, especially modifications undertaken by User on one's own or use in contradiction with the purpose of application – shall result in the loss of warranty validity.



CAUTION: insulation class I
ingress protection IP44

Fig. No.2 – SMOKE ABSORBER SA-1 – Connection Diagram

13. DECLARATION OF CONFORMITY



DECLARATION OF CONFORMITY EC No. _____

Manufacturer (eventually also the authorised representative / importer):

name: KLIMAWENT S.A.

address: 81-571 GDYNIA, ul. Chwaszczyńska 194

A person, authorised for issuing the technical documentation:

name and address: Teodor Świrbutowicz, KLIMAWENT S.A.

hereby declares that the product:

type / model: **SMOKE ABSORBER SA-1**

serial number: _____

year of production: _____

Meets the requirements of the subsequent European Directives:

2006/42/EC Directive of the European Parliament and of the Council of the 17 May, 2006 on machinery, amending the 95/16/EC Directive (recast) / Official Journal EC L157 of the 09.06.2006, page 24);

2014/35/EC Directive of the European Parliament and of the Council of the 26 February, 2014 on the harmonisation of the laws of the Member States, relating to the making available on the market of electrical equipment designed for use within certain voltage limits / Official Journal EC L96 of the 29.03.2014;

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The system is compatible the requirements of the following harmonised standards:

EN ISO-12100:2012 Safety of machinery – General principles of design – Assessment and reduction of hazard

EN 60204-1:2018-12 Safety of machinery – Electrical equipment of machines – Part 1: General requirements

place, date

*signature of the
authorised person*

*name, surname,
function of the signatory*

NOTICE:

NOTICE: