

# Use and Maintenance Manual



## Dust separator **EGO-2** **EGO-4**

Manufacturer:

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### Contents:

1.	Introductory Remarks .....	2
2.	Application.....	2
3.	Reservations of Producer .....	2
4.	Technical Data.....	3
5.	Structure and Function .....	4
6.	Assembly and Start-up .....	5
7.	Operational Use.....	6
8.	Troubleshooting Guide .....	6
9.	Maintenance .....	7
10.	Occupational Health and Safety.....	7
11.	Transport and Storage.....	7
12.	Terms of warranty .....	8
13.	Sample of the Declaration of Conformity .....	8

## 1. Introductory Remarks

The purpose of the present Use and Maintenance Manual is to supply User with directions within the range of application, installation, start-up and the use of the **EGO-2; EGO-4 dust separator**.

**Installing, start up and operational use are exclusively admissible after getting acquainted with the contents of the Use and Maintenance Manual.**

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 the **EGO-2; EGO-4** dust separator meets the requirements of the current state of technology as well as the safety and health assurances included in:

- **2006/42/EC Machinery Directive** of the European Parliament and of the Council of May 17<sup>th</sup>, 2006 on machinery – amending the 95/16/EC (recast) /*Journal of Laws EC L157 of 09.06.2006, page 24*/
- **2014/35/EC Directive** of the European Parliament and of the Council of 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. /*Journal of Laws EC L96 of 29.03.2014*/

The appliance meets the requirements included in:

- **2009/125/EC (ErP) Directive** of the European Parliament and of the Council of October 21<sup>th</sup>, 2009 establishing a framework for the setting of ecodesign requirements for energy-related products / *Journal of Laws L 285 of 31.10.2009* /

**327/2011 (EU) Regulation** of March 30<sup>th</sup>, 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  
/ *Journal of Laws L No. 90 of 06.04.2011* /

Additionally, the appliance meets following harmonized standard:

- **EN ISO-12100:2012** – “Safety of machinery – Basic concepts, general principles for design. Risk assessment and risk reduction”
- **EN 60204-1:2018-12** – “Safety of machinery – Electrical equipment of machines Part 1: General requirements”
- **EN ISO 13857:2010** – “Safety of machinery – Safe distances to prevent hazard zones being reached by upper and lower limbs”
- **EN 60529:2003/A2:2014-07** – “Degrees of protection provided by enclosures (IP Code)”

## 2. Application

**EGO** dust separators are appropriate for wood dust removal direct from wood processing machines, pollution capture while grinding the **non-sparking materials**, cast iron processing, powder painting, packing/repacking the powdery materials etc.

**EGO** dust separators cannot work in rooms and neither in areas of explosion risk and should not be used for removal the compounds that are creating explosive mixtures with the air. The appliance is inappropriate for filtering the humid dusts that could adhere to the filter surface (filter clogging) and for extraction of production waste causing fire hazard.

## 3. Reservations of Producer

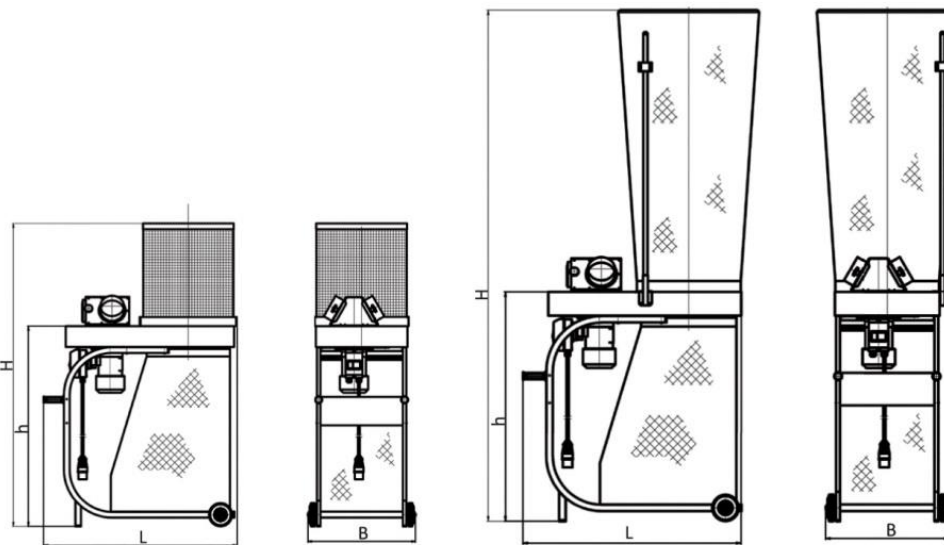
1. Manufacturer accepts no liability for any consequences following from the operational use that is in contradiction to the purpose of application.
2. Installing of any additional elements that are not belonging to the normal device structure (or accessory set) is not acceptable.
3. Do not undertake any structural changes or constructional modifications on the device on one's own.
4. Protect the waste bag, the bag filter (cartridge filter) and the flexible elements from mechanical damage.
5. Maintenance and any repair should be performed by an authorised person.

## 4. Technical Data

Table No.1

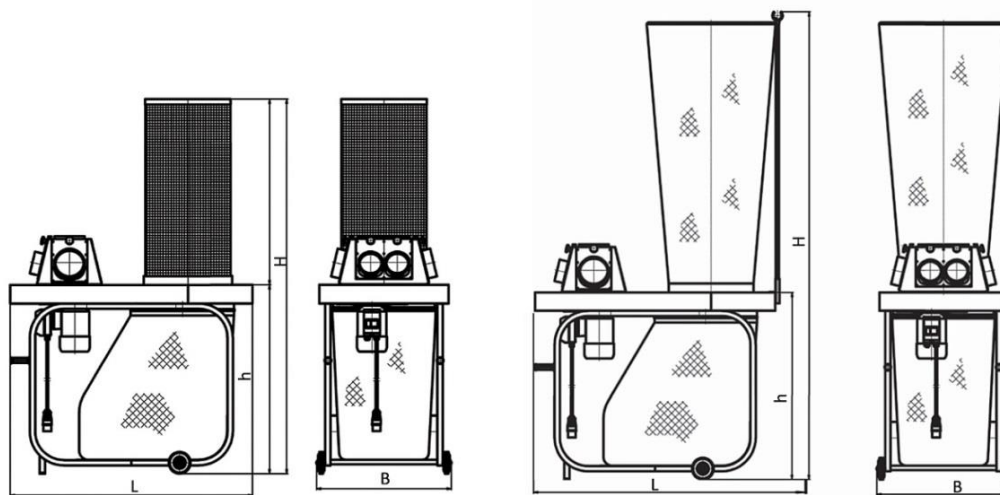
Type	Maximum volume flow [m <sup>3</sup> /h]	Maximum vacuum [Pa]	Supply voltage [V]	Motor rate [kW]	Filtration surface [m <sup>2</sup> ]	Acoustic pressure level [dB(A)]	Weight [kg]
EGO-2W/M	2950	1650	3 x 400	1,1	2,5	83	49
EGO-2N/M	3150	1850	3 x 400	1,1	10	83	60
EGO-4W/M	3950	2000	3 x 400	1,5	5	85	80
EGO-4N/M	4300	1950	3 x 400	1,5	15	85	94

**Markings:** EGO-2W/M, EGO-4W/M – equipped with a bag filter  
 EGO-2N/M, EGO-4N/M – equipped with a cartridge filter



EGO-2N/M

EGO-2W/M

**Fig. No.1 – EGO-2 – Dimensions**






EGO-4N/M

EGO-4W/M




**Fig. No.2 – EGO-4 – Dimensions**
**Table No.2 – EGO – Dimensions**

Type of the separator	L [mm]	B [mm]	h [mm]	H [mm]
EGO-2-W/M	1008	568	1058	2380
EGO-2N/M	1024	568	1058	1630
EGO4-W/M	1382	756	1062	2570
EGO-4-N/M	1360	756	1062	2120


**Table No.3**

Sort of the connection fitting piece		Type	Connections		Application	Remarks
			Quantity [pieces]	Diameter [mm]		
	connection head	G-2	2	125	EGO-2	Each fitting piece can be equipped with a suitable reducer (see catalogue card "INSTALLATION ELEMENTS")
	connection head	G-4	2 2	125 160	EGO-4	
	connection T-piece	TR-2 TR-4	2 2	160 200	EGO-2 EGO-4	
	connection bend	K-2 K-4	1 1	160 200	EGO-2 EGO-4	

Spare parts**Table No.4**

Sort	Type	Weight [kg]	Application	
	cartridge filter	CP-2	7,85	EGO-2-N/M
		CP-4	9	EGO-4-N/M
	filtration bag	WF-2	0,4	EGO-2-W/M
		WF-4	0,5	EGO-4-W/M
	collective waste bag	T2	0,1	EGO-2
		T4	0,1	EGO-4

**Table No.5**

Dust collecting nozzle	Type	Connection diameter [mm]	slot length [mm]
	S-100/L	100	300
	S-125/L	125	500

## 5. Structure and Function

Dust separator consists of a housing based on a trolley for a convenient displacement. To the housing is fastened a motor with impeller (conveying the air with impurities). On the motor is placed a motor protective switch with short-circuit- and overload protection and a power lead cord ended with a plug.

Underneath the housing is located a waste bag, whereas above the housing is installed a bag filter of filtration fabric (EGO-2 W/M, EGO-4 W/M) or cartridge filter (EGO-2 N/M, EGO-4 N/M) Fig. No.1; Fig. No.2. Nearby, on the housing is placed a head with connections equipped with slide dampers.

Instead of the connection head can be installed an elbow Ø200 mm (EGO-4), elbow Ø160 mm (EGO-2), or a T-piece 2x Ø200 mm (EGO-4) a T-piece 2x Ø160 mm (EGO-2).

Elbows and T-pieces are not equipped with slide dampers.

The suction-inlets on the processing machines (or workplaces) have to be connected by hose with the connections of the EGO dust separator.

To the terminations of hoses can be fastened a dust collecting nozzle to clean the workplace after the finished work.

In the EGO dust separator proceeds separation of the impurities: heavy particles drop into the waste bag, whereas light fraction deposit on the filter walls.

The cleaned air remains in the process room (recirculation), to avoid the temperature loss in winter. When the lower waste bag is filled-up it has to be emptied, whereas the filters are periodically regenerated. To regenerate the filter, shake it by striking around, subsequently the impurities will drop into the waste bag. Fig. No.3 illustrates examples of applications.



Fig. No.3 – Example of the application

## 6. Assembly and Start-up

The appliance is designed for operation in closed rooms. Simply, the device has to be placed stably on the even floor surface, whereby important is free access to the motor protective switch and to the waste bag. Additionally, there should be unrestricted access of cooling air flow to the motor.

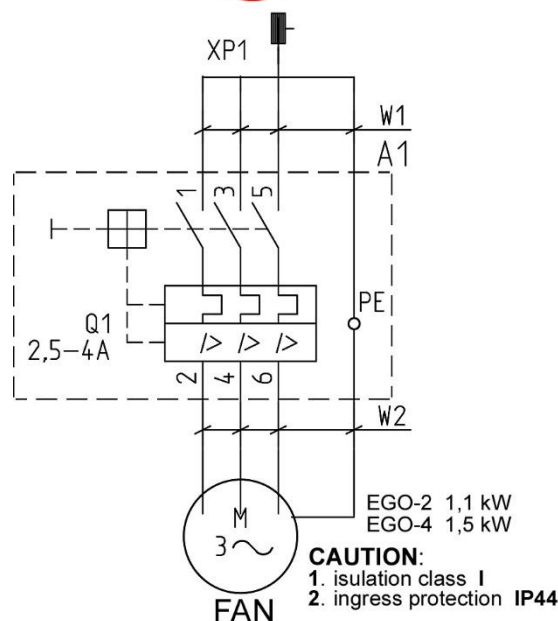
### **WARNING**

**For safety reason, the fan inlet is protected with a cover, to avoid accidental inserting of the operators hands and to protect the inlet from foreign objects / debris that would be drawn into the impeller chamber.** Prior to the start-up – remove the protective cover and install the connection head, (elbow or T-piece). **Do not start the motor at the open (unprotected) inlet.**

In case of EGO-4 N/M, (before the operation), first install the cartridge filter because it was disassembled for the transport. Remember to fasten the clamping hoop and to tighten up the four clasp locks on the filter flange.

Connect the suction nozzles on the processing machine (or of the local exhausts) by means of hoses with the connections of the EGO dust separator. EGO separator is energized through the power lead cord with a plug. The supply voltage is 3x400V/50Hz.

The motor is started and stopped by means of a motor protective switch with short-circuit- and overload protection.



**Fig. No.4 – EGO – Connection Diagram**

## 7. Operational Use

Within the scope of maintenance, systematically empty the lower waste bag when it is filled up, whereas, the bag filter needs shaking after certain time - to discard the dusts deposited on the internal surface of the filter. The cartridge is cleaned by striking it around from outside.

The impurities (deposited on the internal filter surface) fall into the waste bag. The waste bag must be emptied when the content of impurities reaches the level 20 cm below the bag fastening fitting piece.

In case the hose got clogged (jammed) – lift the stretched hose above the head of connections and shake.

When to one EGO separator are connected several processing machines – shut the slide dampers at hoses of the not used machines. This provides a better extraction effect from the other (active) processing machines.

## 8. Troubleshooting Guide

**Table No.6**

Problem	Possible reason	Corrective action
1. Sudden noise and vibrations are occurring	A larger piece of wood, knot clipping got jammed between the impeller blades and the housing	Disconnect the device from the power system, remove the head of connections and take out the obstacle by hand. If difficulty, unscrew the motor flange, take off the motor and impeller and remove the object
2. Extraction efficiency is regularly dropping.	A thick layer of dust deposited on the internal surface of the filter	Shake, strike manually the bag filter to remove the impurities
3. Lack of suction in one of the hose branches (connections), is occurring.	Jam (clogging) in the hose	Stretch the hose, lift it above the connection head and shake slightly
4. Lowered extraction efficiency along with the increased noise	Opposite motor rotation sense	Change the phase connection sequence in the power supply
5. Impurities emerged outside the device	1. The bag filter or waste bag is damaged	1. Replace the bag filter or the waste bag
	2. The connection clamp/hoop got released	2. Tighten up the clamp or replace it for a new

## 9. Maintenance

Periodically, every 12 months, carry out a technical revision. Check periodically the state of following elements: the bag filter, (cartridge filter), waste bag and the fan. Take off the bag filter, release the clamp (hoop) and then remove the dust with a dry soft brush.

Similarly, in case of the cartridge filter, the dust must be removed from inside the pleats and check if there are no damages.

Here, it is recommended to use the industrial vacuum cleaner. Check the technical state of the fan according to the principles of operational use of electrical drive devices. During the maintenance activities check the mechanical and electrical connections.

### **WARNING**

**Any checks and technical revisions must be carried out after disconnection from the power supply system.** The bag filter has to be replaced after a period, depending on the technical conditions of operation.

## 10. Occupational Health and Safety

Both, start up and the operational use are exclusively admissible after getting acquainted with with the contents of the present Use and Maintenance Manual.

The fan motor has to be connected to the power mains, according the valid regulations within the range of personnel protection from electrical shock and from short-circuit- and overload effects in accordance with the standard of electrical installations in buildings.

After the completed work, leave the separator in the ultimately used position, if this does not cause barrier to User/personnel and hazard the other people being in the process room.

### **WARNING**

**Do not start the EGO separator when the protective grill is removed from the fan inlet and when the head with connections (or elbow, T-piece) is not installed.**

**While the fan motor is running – do not approach your hand near the unprotected inlet, when the suction hose is not fastened there.**

**As the impeller is still rotating – this could cause hazard and drag your hand into the impeller chamber.**

### **NOTE**

- In case of power supply interruption, the WS motor protective switch will not disconnect the device.
- The device restarts automatically upon power supply regain.

## 11. Transport and Storage

Storage is only possible in dry rooms and in areas of efficient ventilation, free from aggressive substances.

As the **EGO-4 N/W** separator is significantly large – the cartridge filter is transported separately (disassembled). The cartridge filter is placed in a cardboard.

For the time of transport, protect the device from slide and overturn. Do not place one device on top of another.

During the transport, loading/reloading protect the device from scratching, indents. Important is that the markings on the package surface would not get detached or obliterated.

## 12. Terms of warranty

The period of warranty for the purchased device is indicated in the “Card of Warranty”. The warranty does not comprise:

- device failures caused during the use which is in contradiction with the purpose of application and with the present Use and Maintenance Manual,
- mechanical damage and malfunctions caused by User,
- structural changes or modifications carried out on the device by User on One’s own,
- malfunctions resulting from the improper transport, storage or incorrect maintenance,
- inefficiencies and wear out following from the normal routine operational use.

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.

## 13. Sample of the Declaration of Conformity

Declaration of conformity EC No. ....

Manufacturer (eventually the authorized representative / importer):

name: **KLIMAWENT S.A.**

address: **81-571 Gdynia, Chwaszczyńska 194**

A person, authorized for issuing the technical documentation: Teodor Świrbutowicz, KLIMAWENT S.A. hereby declares that the appliance:

name: **dust separator**

type/model: **EGO-2; EGO-4**

serial number: ..... year of production: .....

meets the requirements of the subsequent European Directives:

- **2006/42/EC Machinery Directive** of the European Parliament and of the Council of May 17<sup>th</sup>, 2006 on machinery – amending the 95/16/EC (recast) */Journal of Laws EC L157 of 09.06.2006, page 24/*
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.....  
place, date

.....  
signature of authorised person

.....  
name, surname, function  
of the signatory

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