



# SCAN DUST 9000 WORLD SERIES

MANUAL



**SCANMASKIN**  
MACHINES-MINERALS-KNOW-HOW

## Introduction

Dear Customer,

Thank you for choosing Scanmaskin Sweden AB as your supplier.

We hope that the SCAN DUST 9000 WORLD SERIES dust extractor will be to your satisfaction and meet your expectations.

Please feel free to browse information about our product program on our web site [www.scanmaskin.com](http://www.scanmaskin.com)



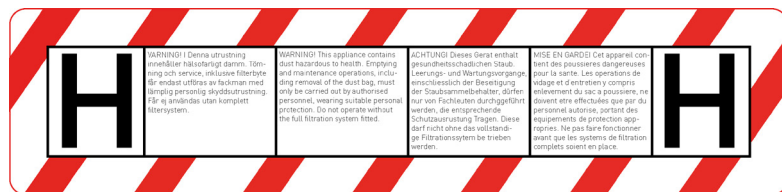
### Notice!

This instruction manual is only for the SD 9000 WS extractor.

Read the complete instruction manual before using the SD 9000 WS dust extractor.



The SD 9000 WS dust extractor can only be used with dry, non-explosive dust and it's suitable for suction and removal of hazardous dust in Class H (IEC 60335-2-69).



The safety label on the machine warns:



The manufacture or a trained person must carry out an inspection at least once a year. Check, for example, if the filters are damaged, the dust extractor's air tightness and the operation of the control unit, and inspect the electrical components, seals and cables for equalization so that they are not damaged.



Scanmaskin Sweden AB will not be held responsible if the dust extractor is used for other applications or been used in ways other than those explained in this instruction manual.

### WARNING:

This machine contains dust hazardous to health. Emptying and maintenance operations, including removal of the dust collection means, must only be carried out by authorised personnel wearing suitable personal protection. Do not operate without the full filtration system fitted.

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## Unpacking

When unpacking the machine, please check for damage and that the following accessories are included:

- Hose with end fittings / Camlock 3" (76mm) x 10 meter and 2" (50mm) x 10 meter
- Steel tube
- Floor nozzle

If any of above-mentioned parts are missing, please contact your local distributor or our sales representative.

## Safety Instructions

### Handling



Make sure the working area is firm, so the dust extractor does not tip over. Risk of personal and material injury.



Risk of pinching when handling the toggle fastener.



The machine must not be used in environments where explosive gases may be present. Serious risk of explosions.

### Service



Dust can be spread when the coarse filter and the HEPA filter are replaced that can be hazardous to health. Accordingly, the user should wear protective glasses, protective gloves, and a breathing mask conforming to protection class FFP3.



Do not puncture the HEPA filter. Risk of dust dispersion.

## Electrical safety



The power source must be equipped with fuses according to the table in "Electrical specifications". All cables used must be marked and rated according to the fuses used.

Never connect the machine to a power source that does not provide protective earth!



Cables damaged through crushing or splitting can be dangerous if used and should be replaced immediately. Risk of personal injury.

Work on electrical equipment may only be undertaken by a skilled electrician or by trained persons under the supervision of a skilled electrician as well as in accordance with the local electrical engineering regulations.

Use only extension cables, that are used for extending the main cable, that are sized and marked in accordance with the overall power consumption of the machine and the valid VDE guidelines.

The electrical equipment for the plant must be inspected regularly. Defects such as loose connections or scorched cables must be rectified immediately. Call a skilled electrician or out customer services.

A second person must be in attendance whilst the electrical engineer is working on the equipment.

The work area must be secured against any third party entering the work area. Follow local electrical engineering regulations while working on the machine. Never leave a machine unattended. Use only tools that are insulated against electricity.

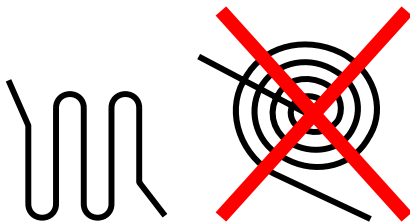
Only start work after you are familiar with the electrical engineering regulations that apply to the local area.

Only use voltage seekers that comply with the regulations when troubleshooting. From time to time check voltage seekers to ensure that they are operationally efficient.

## Cables



Only use cables that are marked and rated according to the specifications in Electrical specifications”. Don’t use excessive length of the cables. If a very long cable is needed, we recommend that you use a cable rated for more current and connect it to a distribution central near the machine. Never lay the cable in a loop when operating the machine, this will cause the cable to heat up and may cause fire. See “Figure 21” for explanation.



**Figure 1** Recommended way to handle excessive cable length.

## Using a generator



*The generator must be equipped with protective earth and operated in accordance with the current EN-VDE directives (this applies to the protective earth conductor in particular) in order to ensure that all safety devices are functioning and eliminate possible damage to electrical components.*



*Always disconnect the main power at the machine end to be able to prevent other persons from accidentally reconnect the main power while working on the machine.*



## Electrical specifications



To find the specifications that apply to your machine, check the information plate on the electrical cabinet door.



Never connect the SD 9000 WS to any other voltage than described in this specification.



The power source must be fused according to “External fuse” in this specification; also, the cables used must be marked and rated in accordance with the fuse used. Failure to comply with the correct fuses may cause fire or injuries.

Power choice <sup>0F1</sup>	400 V 3~	230 V 3~
Power	7.5 kW (10 hp)	7.5 kW (10 hp)
Current consumption	16 A	32 A
Voltage	380 – 480 V 3~	200 – 240 V 3~
Frequency	50/60 Hz ± 5%	50/60 Hz ± 5%
External fuse <sup>1F2</sup>	16 A / 20Amp US version	50 A
Power inlet	IEC 60309 3P+N+E 400V 32A / CS8175 AC Flanged Inlet CA STD 50A 3X480V M	CS8375 AC Flanged Inlet CA STD 50a 3X250V M
Partnumber Inlet	Eu 910842 US 910911	US 910912

Table 11 Electrical specifications

All models are CE-marked.

Ambient temperature range during operation

-10°C to +50°C (14°F to 122°F)

Ambient temperature range during storage

-40°C to +70°C (-40°F to 158°F)

1 This refers to different power choices. Note that a SD 9000 WS made for one choice of power must be used with that particular choice.

2 Maximum current for the fuses used in the power source (*i.e. the distribution box*).

## Function

The machine is for sucking and separating dry, non-combustible dust with an explosion limit value of 0.1mg/m<sup>3</sup>

Dust-laden air is sucked through the inlet valve at high speed via the suction hose. The air is first getting into a pre-separator where the air is forced in a cyclone and then slowed down to be able to separate as much as 90% of coarse dust particles, partly by centrifugal force and partly by gravity. Air and finer particles are then pass through the double filter system where they are separated. The machine is designed for reverse air pulse filter cleaning. The separated dust accumulates in the cyclone until the machine is switched off, when it drops through the bottom flap into the plastic bag “Longopac”.

## Control panel



Item	Text	Description
1	Speed option Low / High	Possible speed positions.
2	USB Charger	USB Charger
3	Pressure meter	Shows the pressure in kPA
4	Start / Stop	Starts and stops the motor
5	Nameplate	Information about the machine.

Figure 2 -Control Panel 9000 WS

## Working Position

There are three possible positions on the 9000 WS machine, the lower position is only for transportation. To change the height there is two index plungers that can be pulled out and turned to stay in its outer position. When the cyclone is set in a new position make sure that both Index plungers are firmly set.



**Working position**



**Indexing  
Plungers x2**



**Transport position**

## Starting the machine

Before start the user must be trained in handling the dust extractor and the hazardous dust. Connect the power plug to an outlet with the correct voltage. Connect the hose too the Camlock 3" inlet. Make sure that the machine in its working position with the wheels locked and that the dust inlet is open. Start the machine by pressing the green start button (4), the machine is equipped with a motor controller, frequency drive that makes sure it always runs with the correct direction and with optimal speed.

## Stopping the machine

To stop the machine, press the red stop button (4)

## Clean the main filter

The filter must be cleaned from time to time. This must be done before changing the “Longopac” plastic bag system. It must also be done when the work is complete or when the suction is poor.

Procedure: Start the machine, cover the inlet and let the machine build up vacuum for a few seconds and then quickly pull up the handle and release it slowly. Repeat the procedures 5-10 times and turn of the machine. If suction remains poor, the filter should be replaced. The plastic bag may only be replaced after cleaning the filter. The plastic bag must be tied up after removal. Only use original parts.



Cover the inlet



Filter cleaning inlet

## Pull out a new plastic bag, Longopac® Midi

1. Clean the filters as described
2. Turn off the machine
3. Pull down the Longopac® so there is some room between the filled bag and the holder of the Longopac® system.
4. Put on two stripes directly above the filled bag.
5. Cut the Longopac® between the two stripes.
6. Get carefully rid of the filled bag.
7. Pull down the Longopac® further down so that there is room for new dust.



**Risk of dust dispersion -Use of personal safety equipment Unhealthy dust can be spread during filter change. Accordingly, the user should wear protective glasses, protective gloves, and a breathing mask conforming to protection class FFP3.**

Use only original Longopac® bag system



Change Longopac® bag-system



## Filter change



Risk of dust dispersion -Use of personal safety equipment Unhealthy dust can be spread during filter change. Accordingly, the user should wear protective glasses, protective gloves, and a breathing mask conforming to protection class FFP3.



Turn the machine off and pull the plug out of the socket.

Main filter



Loosen the clamp between the upper and lower housing. Remove the hose connections, lift out the filter holder and place it carefully on a table. Remove the filter that is secured by spring loaded metal ring. Place them in a plastic bag. Insert new filters in reverse order. Only original filters may be used.

## HEPA H14 filters

The HEPA filters are located behind the electric cabinet and are connected to the motor pump at the lower end. At the upper end two hoses connects the HEPA filters to the main filter chamber.

To reach and change the HEPA filter remove the hoses and release the M10 set screw that is placed in the middle of the hose connection pipe. Remove the M4 nut and screw that secures the latches. Carefully open the top cover on the filter tank. Place a plastic bag over the filter tank and carefully lift out the filter from the tank. This bag must be sealed properly. Clean the camber with a wet cloth and insert the new filters in reverse order. When changing the filters check and change defective seals. Only original filters may be used.



Remove the hose and  
Release M10 set screw

Remove the M4 nut  
and screw

Open top cover

Make sure the new HEPA  
filter matches the fitting in  
the bottom



**Important!** The HEPA filters should not be cleaned, but rather replaced once they have been used. **Important!** The operability of the HEPA filters can be reduced or even totally compromised if exposed to water.

## Service



When cleaning and servicing the machine, you must switch off the machine and remove the plug from the outlet.

Avoid cleaning with a high-pressure cleaner. If necessary, do not direct at the openings on the machine, especially the inlet/outlet for the cooling air.

Before moving the machine from the work area, the machine must first be cleaned.

All other equipment must be regarded as contaminated and be treated thereafter.

If possible, use a special suitable room.

Proper personnel protective equipment must be used.

All parts which are contaminated after service must be carefully disposed of in plastic bags according to local regulations.

If the machine has to be used for other purposes, it is extremely important that the machine is cleaned, to avoid the spread of hazardous dust.

## Consumables

Part No.	Qty.	Description
788553	1	Main filter – Complete filter cassette
788091	32	Main filter – Sock filter
788016	1	Main filter – Rubber seal
788632	2	HEPA Filter H14
788572-4	2	HEPA filtercover – Rubber seal
788619	1	Longopac® MIDI plastic dust bag system

## Warranty

This product from Scanmaskin Sweden AB comes with a 24-month warranty or 1000 hours, whichever comes first. Scanmaskin Sweden AB warrants to the original end user, each new machine, new accessories and genuine replacement parts against defects in material and workmanship under normal use and service. Warranty coverage shall begin on the date of purchase by the original end user (as evidenced by your invoice from the factory or Authorized Dealer) or six (6) months from the date the machine was shipped from the factory, whichever comes first. The warranty registration form must be completed within 30 days of purchase visit [www.scanmaskin.com/register-your-product/](http://www.scanmaskin.com/register-your-product/) to fill in the form. Our obligation under this warranty is limited to repair or replacement of the defective item at our factory or by an Authorized Service Center according to the following conditions:

1. The warranty only applies to persons that have legal right to the equipment during the warranty period.
2. The manufacturer's undertaking is limited to the repair of defective parts or the replacement of these according to the manufacturer's assessment. Costs and risks for transport as well as dismantling and reinstallation of the product / products and other direct or indirect costs, associated with the repair in question, are not covered by this warranty.
3. Periodic inspections, adjustments, maintenance work and changes are not covered by the warranty.
4. Scanmaskin is not liable for any damages to filters, hoses, floor nozzles or other similar equipment.
5. The warranty only applies to material and design deficiencies and does not apply in the following cases:
  - a. Damage caused through accidents, carelessness, changes, use of spare parts that are not original components, or incorrect use and installation.
  - b. Damage caused by lightning, water, fire, vandalism, incorrect mains voltage, incorrect ventilation or other causes that lie outside of the manufacturer's control.
6. Scanmaskin reserves the right to modify the design – or make improvements without obligation to change previously manufactured products.
7. Costs for repairs, carried out by an unauthorized workshop, will not be reimbursed by Scanmaskin. If such repairs damage this product these are not covered by the warranty agreement.

## Problem solving

The SD 9000 WS dust extractor is designed and manufactured for severe environments and tasks, but the user should note that the machine components must be protected from knocks and blows. Filter, seals, attachments, and connections are carefully adapted and selected with regard to the operator's work environment. Therefore, the machine must be treated with care if it is to work correctly for many years.

Problem	Cause	Procedure
Motor does not start	No power	Connect the machine
	Switch defective	Change
Motor stops immediately after starting	Wrong fuse	Connect the right fuse
Motor runs, but there is no suction	Hose not connected	Connect the hose
	Hose blocked	Clean the hose
	No plastic bag	Fit plastic bag
Motor runs but suction is poor	Damage to the hose	Change hose
	Filter blocked	Change filter
	Top cover loose	Adjust
	Dirt in the cleaning system	Clean
	Sealing defective	Use protective equipment
Dust blows from motor	Filter defective or loose	Change current seal
Abnormal noise		Adjust or change
		Order service

## TECHNICAL DATA

### ScanDust SD 9000 WS

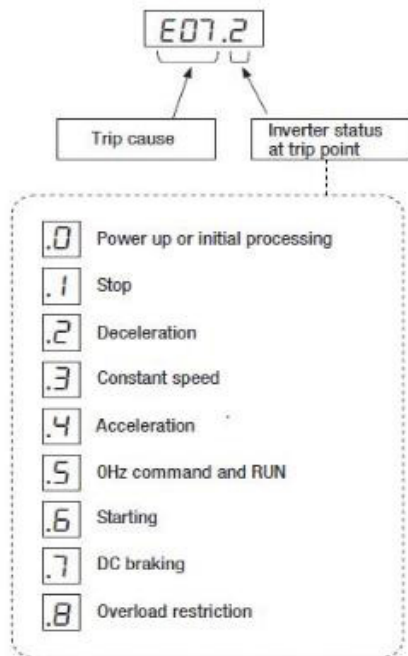
	400 V 3~	230 V 3~
Voltage	380-480 VAC, 3~	230VAC 3~
Power	7.5 kW / 10 Hp	
Current consumption	16 Amp	32 Amp
Max airflow	782 m <sup>3</sup> /h / 460 CFM	
Max vacuum	90 in / 225 mbar	
Hose	10m x Ø76mm & 10m x Ø50mm / 33ft x Ø3" & 33ft x Ø2"	
Inlet	Ø3" Camlock / Ø76 mm	
Primary filter	32 Polyester sock filters in total 4.2 m <sup>2</sup> / 45ft <sup>2</sup> 99.5%	
Filter area, HEPA filter	7.8 m <sup>2</sup> (2x3.9 m <sup>2</sup> ) / 84 ft <sup>2</sup> (2x42ft <sup>2</sup> )	
Dust Class (IEC 60335-2-69)	H	
Filter classification, (IEC 60335-2-69)	HEPA H14	
Efficiency, HEPA filter, (EN 60335-2-69)	99,995%	
Sound level	85 dB(A)	
Dimensions	1500 x 750 x 1880mm (alternative height 1590-1990mm) 59" x 29" x 70" (alternative height 62" – 74")	
Weight	340 kg / 750 lbs	



## Error codes, frequency drive

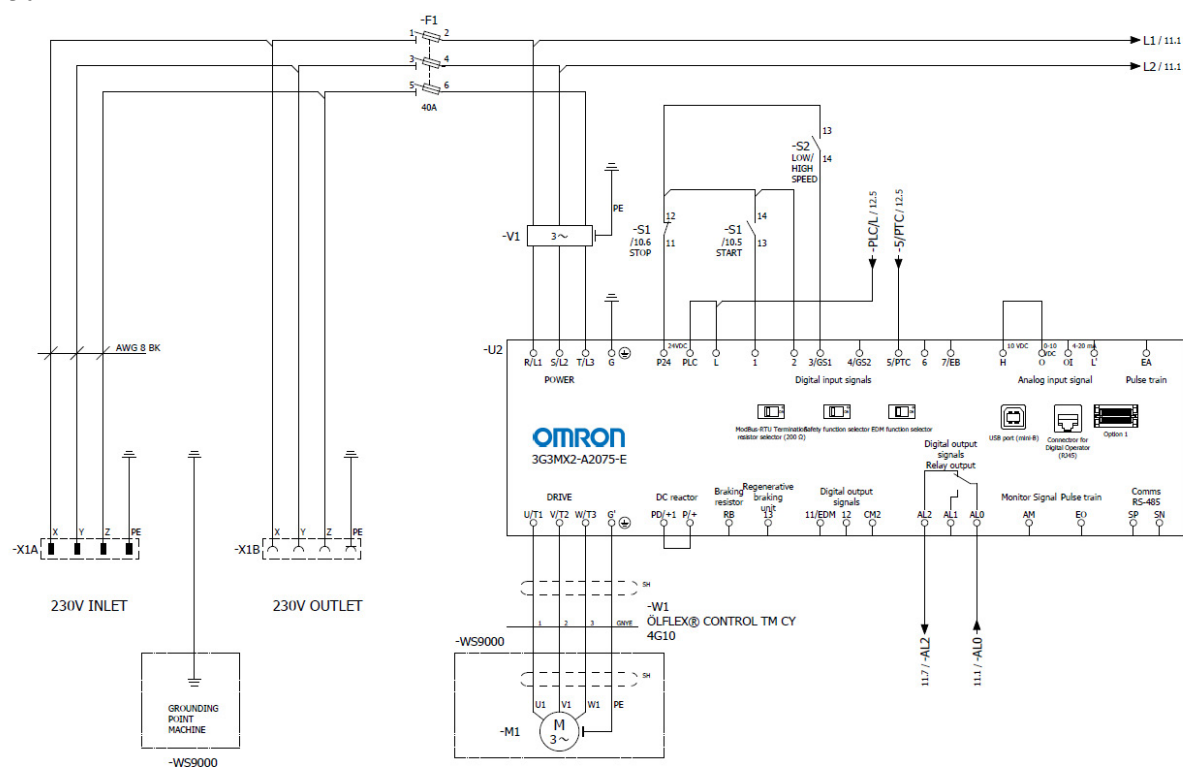
Code	Description	Cause	Correction
E01	Over current *OC	One of the three phases is missing from the power supply There is a voltage drop at the power supply  The environmental temperature is too high. When the temperature is above 40°C (104°F) the inverter will decrease its maximum output current	Inspect the fuses in the worksites fuse box Inspect cables Measure that all three phases are present and at full voltage at the cable end near the machine Make sure that the cable is not too long. If the cable should be too long, use a cable with higher rating to a distribution box nearer the machine
E02	“OC” during deceleration		
E03	“OC” during acceleration		
E04	“OC” during other conditions		
E05	Overload protection		
E07	Over voltage protection	DC bus voltage exceed a threshold	Inspect the power source
E08	EEPROM error	Built in EEPROM has problems due to noise or excessive temperature.	Check the fans/ let the motor drive cool down Contact Scanmaskin service centre
E09	Under voltage	One of the three phases is missing from the power supply There is a voltage drop at the power supply	See E01-E05
E10	Internal error current detection	Contact Scanmaskin service centre	
E11	Internal error CPU		
E13	Unattended Start Protection	Unattended Start Protection active	Reset the drive by pressing “STOP/ RESET”
E14	Protective earth failure	The cable to the motor has been damaged The motor has been damaged Water have entered the motor	Inspect the motor cable Inspect the motor connection Contact Scanmaskin service centre
E15	Input over voltage	The power supply has got voltage transients	Inspect the power source
E21	Over temperature	The internal temperature in the inverter is above 120°C (248°F). This could be caused by faulty ventilation in the electrical cabinet.	Inspect the ventilation fans Inspect the filters to the fans Contact Scanmaskin service centre
E25	Short circuit in motor	The cable to the motor has been damaged The motor has been damaged	Inspect the motor cable Inspect the motor connection Contact Scanmaskin service centre
E37	Safe Stop	Emergency is active	Reset the Emergency stop
E038	Overload during low speed		Increase the speed
E41	Communication Error	Communication fails between motor drive and PLC (DSP machines)	Check the RJ45/Ethernet cable
E81	Speed reference error	The potentiometer on the control panel is damaged	Inspect the potentiometer Replace if necessary

We strongly recommend that you first find the cause of the fault before clearing it

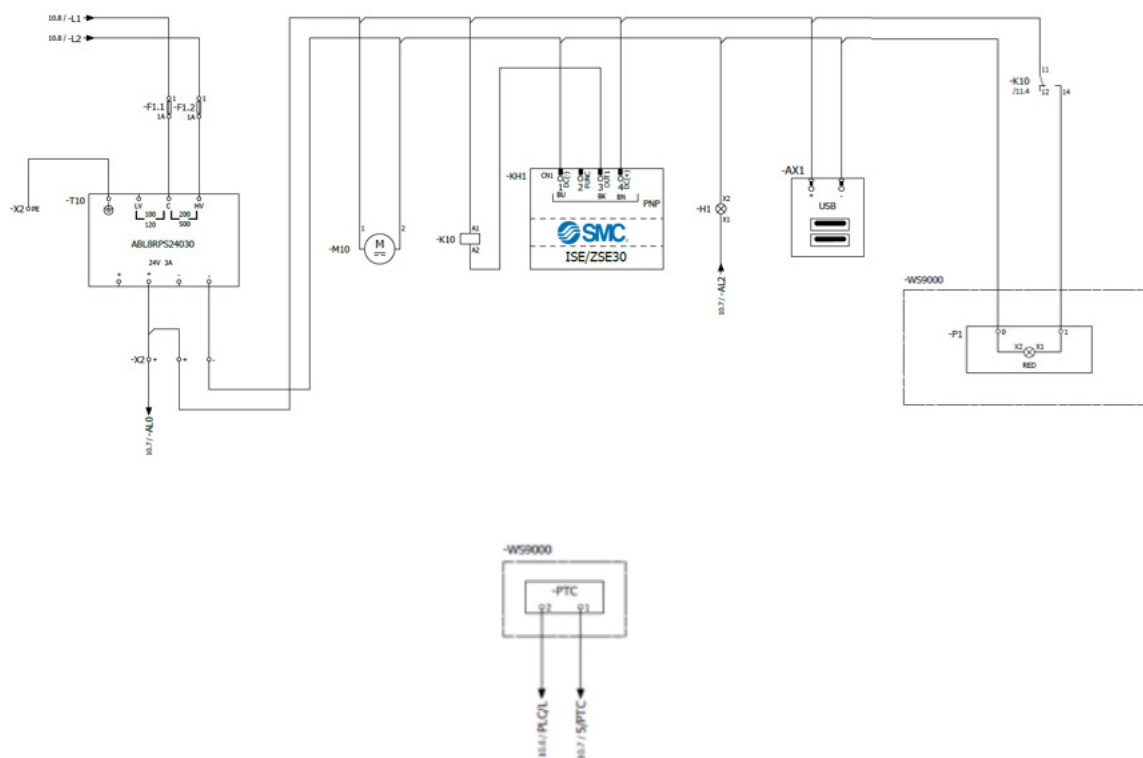




## 230V US version



## General 24VDC system



# EC Declaration

Declaration of conformity CE

Manufacturer	Scanmaskin Sweden AB
Address	Heljesvägen 10 437 36Lindome Sweden
Product	Dust extractor
Name	ScanDust 9000 World Series
Serialnumber	_____

Standards used including number

Machine directives	2006/42/EG
EMC	2014/30/EU
LVD	2014/35/EU

Harmonized standards

Safety of machinery	EN ISO 12100:2010
Safety of machinery	EN ISO 60204-1
Particular requirements	SS-EN 60335-2-69
	SS-EN 60335-2-69 & A1

Place of issue	Lindome / Gothenburg / Sweden
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Name of authorized representative	Per-Anders Bardh
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Position	CEO
Declaration	

We declare that as the authorized representative, the above information in relation to the supply / manufacture of this product is in conformity with the stated standards and other related documents following the provisions of EEC directives.

Signature of authorized representative:





## Contact information

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