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Part of Absolent Air Care Group



# ***AX*SERIES**

Installation and Maintenance

AX5 | AX10 | AX20 | AX30

# Mounting the unit



## General information

A Filtermist AX unit is an oil mist collector that use centrifugal impaction to remove or reclaim oil mist, coolant, fume and steam from manufacturing operations. This manual describes how to install and maintain your Filtermist AX unit. Please read all instructions before commencing any installation or maintenance work. Original instructions are in English, all other languages are translations of this.

## Warning

1. Isolation from any power supply shall either be visible (visible break in the power supply circuits) or the isolation device is actuated to the off position and physically locked off.
2. The unit must not be operated without the case fitted.
3. At least 120 seconds must be allowed for the inner drum to stop rotating before the case is removed.
4. Oil leaks can be a hazard. The complete Filtermist AX system should be checked regularly for possible oil leaks. Daily visual checks of both unit and extraction duct are recommended.
5. Contact with oils, coolants etc. can cause skin diseases. Avoid contact with skin and eyes and wear PVC, neoprene or nitrile gloves, safety glasses and overalls when cleaning or working on the filter.
6. The unit is to be used on wet applications only, e.g. oil, emulsion, coolant.
7. The unit is not to be used on flammable, explosive, corrosive or dry applications, e.g. dust, smoke, acid.
8. The unit is intended for indoor use only.



# Mounting the unit

## Installation information

Always try to position the Filtermist unit as far as practically possible from the cutting area of the machine so that mist is drawn away from the operator's working area.

### Direct mount to machine tool - vertical

**WARNING!** Always ensure that the machine tool can support the weight of the Filtermist unit (see the table on page 9).



Remove 4 x insert screws in base of unit.



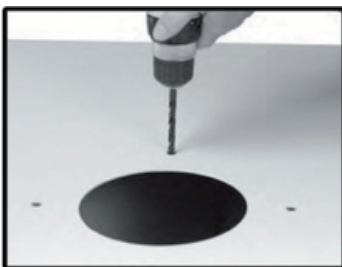
Fit 4 x case studs (supplied with unit 8Nm).



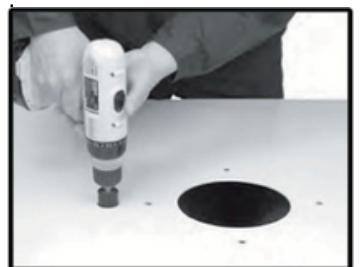
Fit foam collar seal around inlet spigot (supplied with unit).



Cut extraction hole in machine enclosure.



Drill 4 x case stud fixing holes (see table on page 15 for hole size and case stud hole PCD).



Cut hole for oil return tube (if required).

# ■ Mounting the unit



Fit oil return tube and position tube to drain oil back to machine enclosure, sump or collection vessel.



Position unit and secure.

**IMPORTANT!** There must be no kinks or 'U' bends in the return tube. The end of the tube must not be submerged.



# Electrical Connection

Standard Filtermist motors are wound for low & high voltage and operate on 50Hz & 60Hz as shown in the table below. A connection diagram can be found inside the motor terminal box. The motors must be connected via a 3-phase, direct-on-line starter and isolator with suitable thermal overloads or via an independent supply in the machine control panel.

On start-up the motor will draw current in excess of that shown on the motor plate. Ensure that appropriate fuses are used.

**IMPORTANT! The internal drum of the unit must spin in the direction indicated by the red arrow on the warning label and must run continuously. To correct the rotation, swap any two supply wires. It must not be wired to switch on and off with the machine cycle. The Filtermist unit can only be started by using the control device provided for that purpose. This also applies when restarting the machinery after a stoppage.**

**DRUM ROTATION - IMPORTANT!**

**FILTERMIST WARNING**

1. Disconnect from electrical power supply before servicing
2. Do not operate without lower housing
3. Wait for drum to stop rotating before removing lower housing
4. Do not insert hands / objects through foam silencer
5. Safety bolts on housing clips must be fitted at all times
6. If Filtermist unit vibrates during operation, stop immediately and refer to installation and maintenance manual, or contact Filtermist:

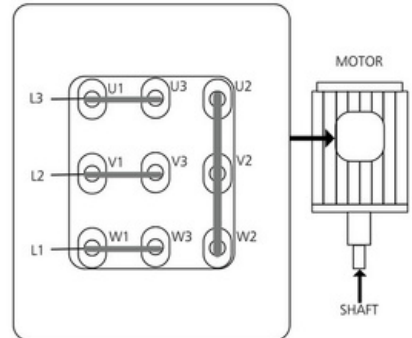
[www.filtermist.com](http://www.filtermist.com)   **A00001**

# Electrical Connection



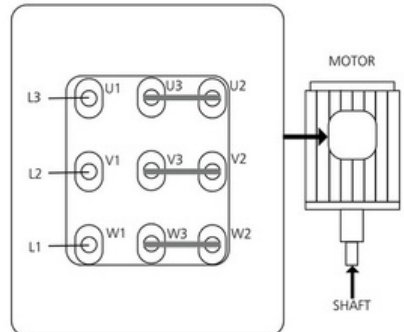
Recommended Overload Setting and Terminal Connection. Overloads to be set no higher than 125% of the motors full load current.

LOW VOLTAGE		Recommended overload settings				
		200v		220v		230v
		50Hz	60Hz	50Hz	60Hz	60Hz
0.55kW	FLC	2.7	2.6	2.7	2.6	2.6
1.1kW	FLC	4.4	4.6	4.4	4.6	4.6
2.2kW	FLC	8.8	NA	8.8	9.4	9.4



IMPORTANT! Please note that for 230/240v, 50Hz applications, special motors are required. For more information, contact your supplier.

HIGH VOLTAGE		Recommended overload settings				
		380v	400v	440v	460v	480v
		50Hz	50Hz	60Hz	60Hz	60Hz
0.55kW	FLC	1.35	1.35	1.3	1.3	1.3
1.1kW	FLC	2.2	2.2	2.3	2.3	2.3
2.2kW	FLC	4.4	4.4	4.7	4.7	4.7





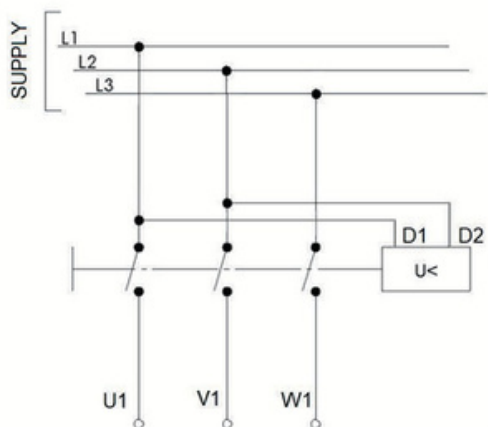
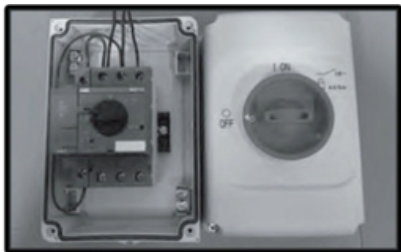
# Electrical Connection

## Isolator

The unit can be supplied with an isolator and switch complete with motor protection overload if requested. The overload starter must be selected to suit different sized units or voltages and current ratings (see table on page 10). Speak to your local Filtermist distributor for more information.



If an isolator is not requested, the motors must be connected via a direct – online starter and isolator with suitable thermal overloads or via an independent supply from control panel with relevant protection. The Filtermist unit must be provided with a clearly identified, readily accessible electrical isolation point providing all-pole disconnection which has the facility for lock-off, and positioned between 0.60 and 1.7m above the working surface.



## ■ Electrical Connection



**IMPORTANT!** Ensure when connecting power to the unit that excess electrical cable is NOT wrapped around the motor.







## Further Installation Data

Model	Extraction hole diameter	Case stud hole PCD	Case stud hole diameter	Unit weight	Unit noise
AX5	155mm	250mm	10mm	14kg	65dB
AX10	155mm	250mm	10mm	15kg	67dB
AX20	155mm	275mm	10mm	23kg	70dB
AX30	205mm	275mm	10mm	37kg	73dB

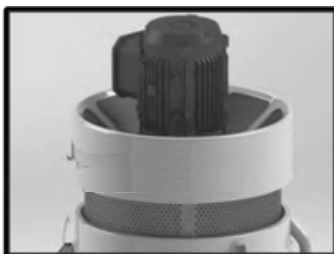
# Maintenance Information



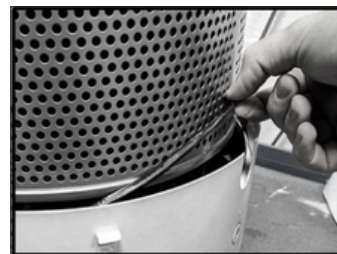
Every 1000 Hours Running Time (Use Filter Kit 4 - see page 14)



Undo safety latch and clips.



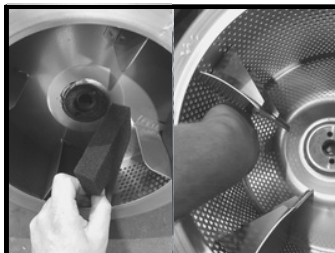
Separate top and bottom of case.



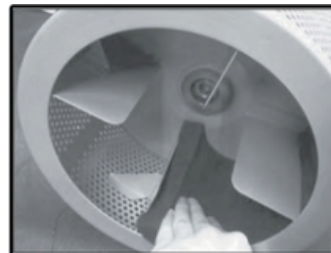
Remove old seal.



Clean area where top and bottom of case join & clean drain hole.



Remove old drum pads, clean inside of drum and inspect drum for signs of damage.

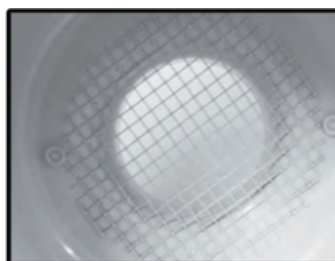


Fit new drum pads

**IMPORTANT! Damaged drums should be replaced**



Fit new seal



Check inlet grille is clear



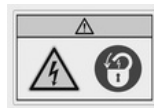
Re-assemble unit.

**IMPORTANT! Ensure safety latch and clip are securely fastened.**

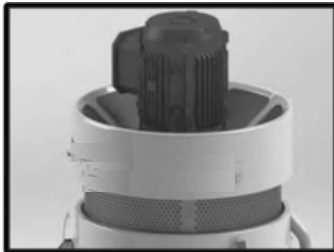


# Maintenance Information

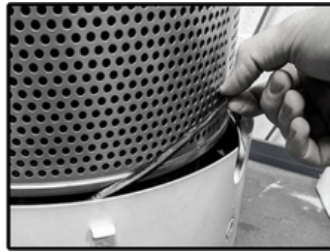
Every 2000 Hours Running Time (Use Spares Kit 5 - see page 14)



Undo safety latch and clips.



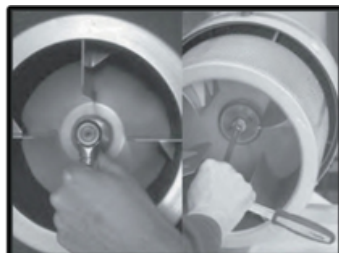
Separate top and



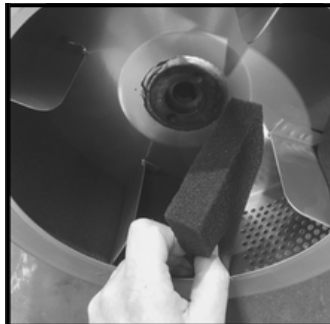
Remove old seal.



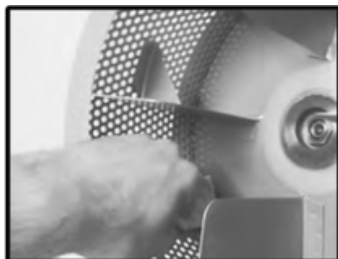
Clean area where top and bottom of case join & clean drain hole.



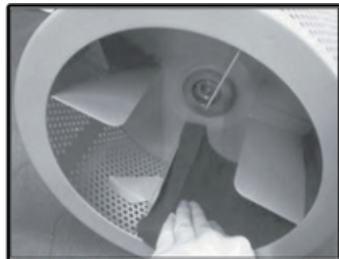
Remove drum.



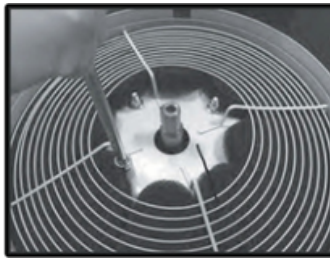
Remove old drum pads.



Clean inside and outside of drum



Fit new drum pads



Remove motor mounting nuts

# Maintenance Information



Withdraw motor from housing



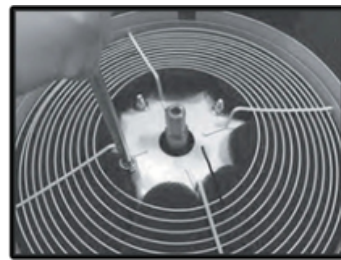
Remove old motor mounts and replace with new motor mounts. Tighten mounts to 8Nm.



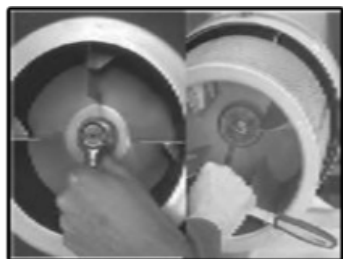
Remove old silencer and fit new silencer.



Refit motor



**IMPORTANT!** Fit new motor mounting nuts & tighten (5Nm AX5 and AX10 or 8Nm AX20 and AX30).



**IMPORTANT!** Ensure shaft and drum hub are clean and free from debris before re-fitting the drum. Tighten taper collar bolt to 8Nm.



Fit new seal



Check inlet grille is clear



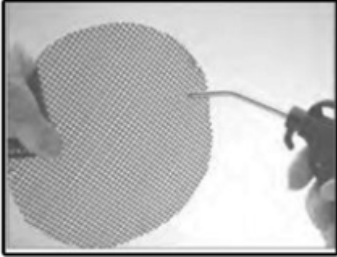
Re-assemble unit

**IMPORTANT!** Ensure safety latch and clip are securely fastened.

**AX SERIES**



# Maintenance Information



Clean the swarf arrestor  
(where fitted)



Check oil return hose for  
damage or blockage

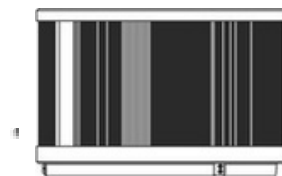
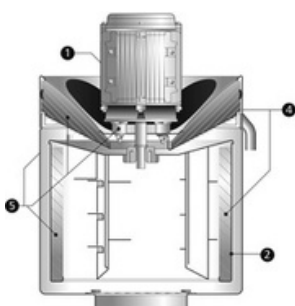
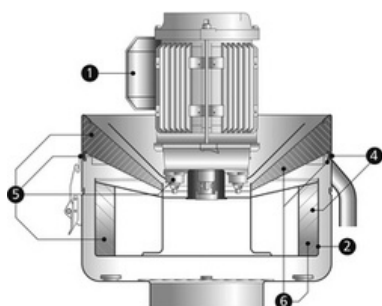
## IMPORTANT NOTE

In more arduous conditions e.g. grinding or cast iron machining; the units should be checked and cleaned on a more frequent basis, according to duty.

Contact your FILTERMIST supplier for details of maintenance plans and spares kits.

**IMPORTANT!** – Use only genuine FILTERMIST spares – use of unauthorised spares will invalidate the warranty.



# Maintenance Information



Number	Item	Model	Part number
<b>1</b>	Motor	AX5	20-213-30-161
		AX10	20-213-30-161
		AX20	20-213-30-162
		AX30	20-213-30-164
<b>2</b>	Drum	AX5	20-213-30-021
		AX10	20-213-30-016
		AX20	20-213-30-015
		AX30	20-213-30-013
<b>3</b>	Afterfilter	AX5	20-206-10-003
		AX10	20-206-10-003
		AX20	20-206-10-002
		AX30	20-206-10-001
<b>4 For every 1000 hour service</b>	Filter kit	AX5	20-213-30-046
		AX10	20-213-30-051
		AX20	20-213-30-047
		AX30	20-213-30-049
<b>5 For every 2000 hour service</b>	Spares kit	AX5	20-213-30-094
		AX10	20-213-30-095
		AX20	20-213-30-090
		AX30	20-213-30-087



# Declaration of Conformity

EC DECLARATION OF CONFORMITY		 <b>FILTERMIST</b>	
<b>Manufacturer's name:</b>	Filtermist Limited	<b>Machinery covered by this declaration:</b>	
<b>Full address:</b>	Filtermist Limited, Telford 54 Business Park, Nedge Hill, Telford, TF3 3AL, England	<b>Description:</b>	Oil Mist Filter
		<b>Function:</b>	To be fitted to machinery to extract oil fumes
		<b>Type:</b>	AX Series
<b>Authorised Representative:</b>	Absolent AB	<b>Model:</b>	AX5, AX10, AX20, AX30
<b>Full address:</b>	Staplaregatan SE-531 40 Lidköping Sweden	<b>Serial No.:</b>	See unit
The machinery conforms to all the requirements of the Machinery Directive 2006/42/EC.			
<b>The machinery also conforms to the following Directives:</b>	EMC Directive 2014/30/EC RoHS Directive 2011/65/EU		
<b>The following standards have been used:</b>	EN12100:2010, EN 60204-1:2018, EN ISO 14120:2015, EN ISO 13857:2019		
The technical file is compiled in accordance with part A of Annex VII of the Machinery Directive 2006/42/EC.			
<b>Person authorised to compile the technical file (based in the European Community):</b>	<b>Name:</b>	Absolent AB	
	<b>Address:</b>	Staplaregatan SE-531 40 Lidköping Sweden	
The relevant authorised person undertakes to transmit, in response to a reasoned request by the national authorities, relevant information on the machinery. This information will be transmitted by: (email, post)			
<b>Person authorised to make this declaration:</b>	<b>Name:</b>	James Stansfield	
	<b>Position in company:</b>	CEO	
	<b>Signature:</b>		
	<b>Place of Declaration:</b>	Filtermist Limited, Telford 54 Business Park, Nedge Hill, Telford TF3 3AL, England	
	<b>Date of Declaration:</b>	January 1st 2024	



**FILTERMIST**

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Certificate Number 232  
ISO 9001  
ISO 14001