

# **USE AND MAINTENANCE INSTRUCTION MANUAL**

# **NOIL**

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## 1.0 INTRODUCTION

This manual contains information for correct use of the machine. Users are asked to carefully read the entire manual and follow the instruction it contains. Keep the manual in a suitable place to protect it from damage. This manual can be changed without notice to include variations and improvements to previously delivered units.

## 2.0 FUNCTIONAL DESCRIPTION

NOIL filters are designed to extract and filter oily mist from mechanical machine tool processing. The range is modular to ensure maximum flexibility of use and respond to various filtering needs. Compact and cost-effective, NOIL filters extract pollutants and return the filtered air into the environment thanks to the combined action of the pre-filter that condenses the oily mist into liquid form and the high-efficiency cartridge filter which finishes the filtering process. The condensed oil is recovered by connecting the drainage to the customer's recovery system.



**Dwg. 1**

### 3.0 PRELIMINARY INSPECTION AND ASSEMBLY

**NOIL filters are fully assembled before being delivered to customers and protected in suitable packaging.**



**USE SUITABLE LIFTING MEANS FOR HANDING THE MATERIAL. ADOPT ALL THE NECESSARY SAFETY PRECAUTIONS SPECIFIED FOR CONSTRUCTION SITE ACTIVITIES.**

Remove the material from the packaging and check that it was not damaged during transportation. Check completeness of the supply against the list of materials. Please inform our retailer as soon as possible if problems are found, in any case no later than 10 (days) after delivery.

### 4.0 USE AND RESTRICTIONS

**The specific versions of NOIL filters are designed for filtering whole or emulsified oily mist containing low amounts of dust produced by industrial mechanical processes, particularly by turning, milling and grinding operations.**



**The filter is designed to process flammable and/or explosive vapours by nature or reaction.**



**The filter is not suitable for extracting fumes from hardening and tempering treatments or high temperature fumes.**



**Cartridge or electrostatic post-filtering is mandatory in the presence of fumes, micro-mist and oil vapours which may be generated by demanding processes (large material removal, high cutting speed, insert mills, etc.).**



**CONNECT THE UNIT ELECTRICALLY TO EARTH. CONNECT THE CONTACT POINTS WITH A SUITABLE CROSS-SECTION BRAID (A CROSS-SECTION AREA OF 2.5 mm<sup>2</sup> IS RECOMMENDED) FASTENED TO THE UNIT. MAKE SURE CONTINUITY IS ENSURED.**



**HIGH CARTRIDGE FILTER SEPARATION (RESIDUE < 5%) IS ONLY ENSURED AT FILTERING SPEEDS SLOWER THAN 0.1 M/S AND INPUT PARTICLE GRANULOMETRY FROM 1 TO 5 µm.**



**HIGH POST-FILTER SEPARATION (RESIDUE < 1%), WHERE FITTED, IS ONLY ENSURED AT FILTERING SPEEDS SLOWER THAN 0.05 M/S AND INPUT PARTICLE GRANULOMETRY FROM 0.5 TO 1 µm.**



**THE CROSS-SECTION OF THE OIL DRAINING TUBE MUST BE THE SAME AS THAT OF THE DRAIN FITTING (1"1/2). THIS MUST BE CONNECTED TO A COLLECTION RESERVOIR, TO THE OIL RECOVERY SYSTEM OF THE MACHINE OR TO THE CENTRALISED DISTRIBUTION SYSTEM. REMEMBER THAT IT IS FORBIDDEN TO DISPERSE OIL INTO THE ENVIRONMENT.**

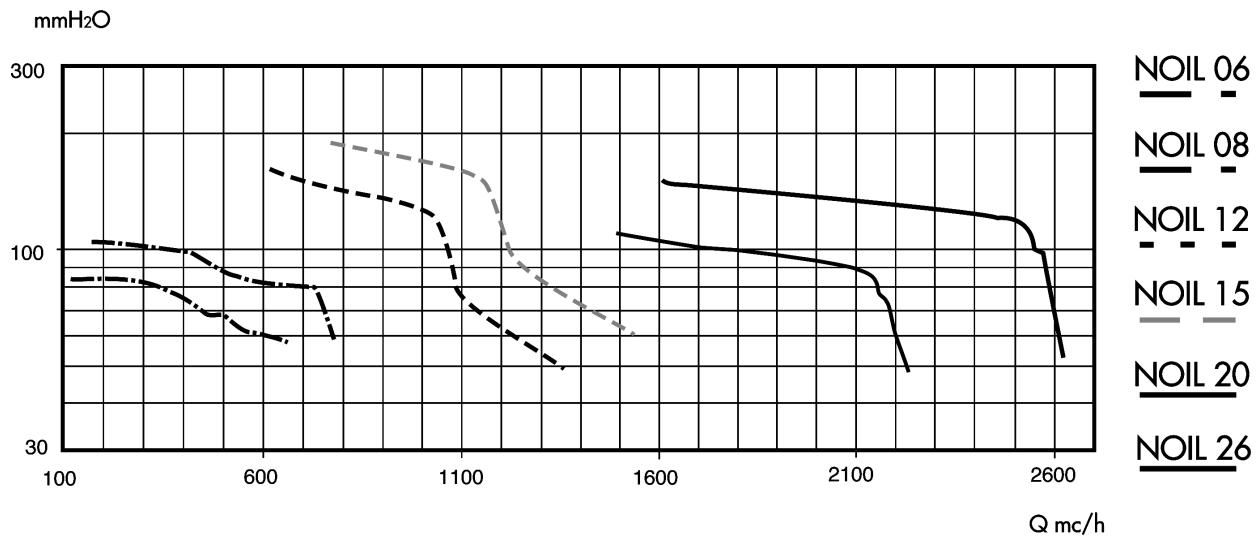
<b>Dimensions of the particles [ µm ]</b>	<b>0.1</b>	<b>0.5</b>	<b>1</b>	<b>5</b>	<b>10</b>
<b>Filtered material</b>	Oil fumes and micro-mist		Oily mist		

**Improper use includes actions which effect functionality, integrity and safety of the machine structure, the internal electrical and mechanical apparatuses and the control and connection elements. Coral is at your service for additional information on product use.**

## 5.0 TECHNICAL SPECIFICATIONS

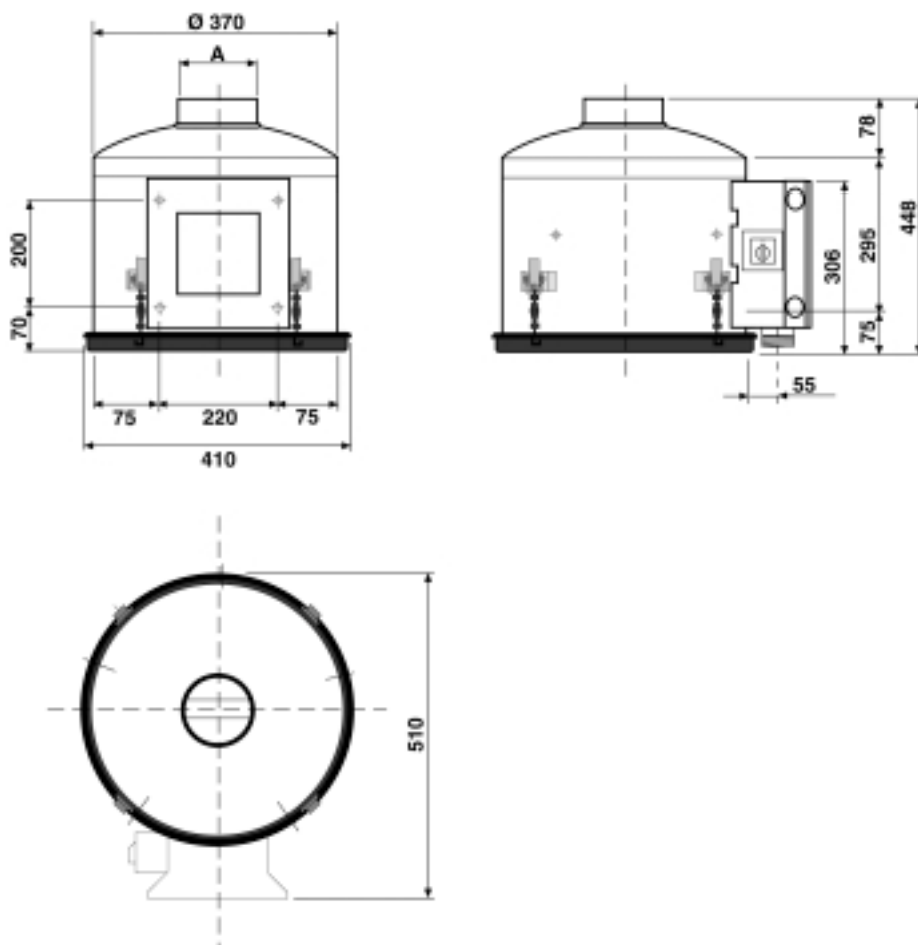
	<b>NOIL 06</b>	<b>NOIL 08</b>	<b>NOIL 12</b>
<b>Power</b>	0.75 kW	0.75 kW	1.5 kW
<b>Electrical connection</b>	230/400V 50 Hz 230/400V 60 Hz	230/400V 50 Hz 230/400V 60 Hz	230/400V 50 Hz 230/400V 60 Hz
<b>Rpm</b>	2800 at 50Hz	2800 at 50Hz 3400 at 60 Hz	2800 at 50Hz
<b>Noise level</b>	68 dB(A)	72 dB(A)	74 dB(A)
<b>Weight</b>	28 kg	29 kg	55 kg
<b>Flow</b>	600 m3/h	800 m3/h	1200 m3/h
<b>Static pressure</b>	50 mmH2O	50 mmH2O	50 mmH2O
<b>Draining</b>	1"1/2	1"1/2	1"1/2
<b>Assembly</b>	Horizontal	Horizontal	Horizontal
<b>Pre-filter cartridge</b>	Cellulose	Cellulose	Cellulose
<b>Filtering cartridge</b>	Polyester	Polyester	Polyester
<b>Filtering surface</b>	1.58 m2	1.58 m2	6.85m2
<b>BIA classification</b>	C	C	C
<b>Post-filtering</b>	Available	Available	Available

	<b>NOIL 15</b>	<b>NOIL 20</b>	<b>NOIL 26</b>
<b>Power</b>	1.5 kW	1.5 kW	1.5 kW
<b>Electrical connection</b>	230/400V 50 Hz 230/400V 60 Hz	230/400V 50 Hz 230/400V 60 Hz	230/400V 50 Hz 230/400V 60 Hz
<b>Rpm</b>	2800 at 50Hz 3400 at 60 Hz	2800 at 50Hz 3400 at 60 Hz	2800 at 50Hz 3400 at 60 Hz
<b>Noise level</b>	75 dB(A)	75 dB(A)	76 dB(A)
<b>Weight</b>	56 kg	55 kg	56 kg
<b>Flow</b>	1500 m3/h	2200 m3/h	2600 m3/h
<b>Static pressure</b>	50 mmH2O	50 mmH2O	50 mmH2O
<b>Draining</b>	1"1/2	1"1/2	1"1/2
<b>Assembly</b>	Horizontal	Horizontal	Horizontal
<b>Pre-filter cartridge</b>	Cellulose	Cellulose	Cellulose
<b>Filtering cartridge</b>	Polyester	Polyester	Polyester
<b>Filtering surface</b>	6.85m2	6.85m2	6.85m2
<b>BIA classification</b>	C	C	C
<b>Post-filtering</b>	Available	Available	Available

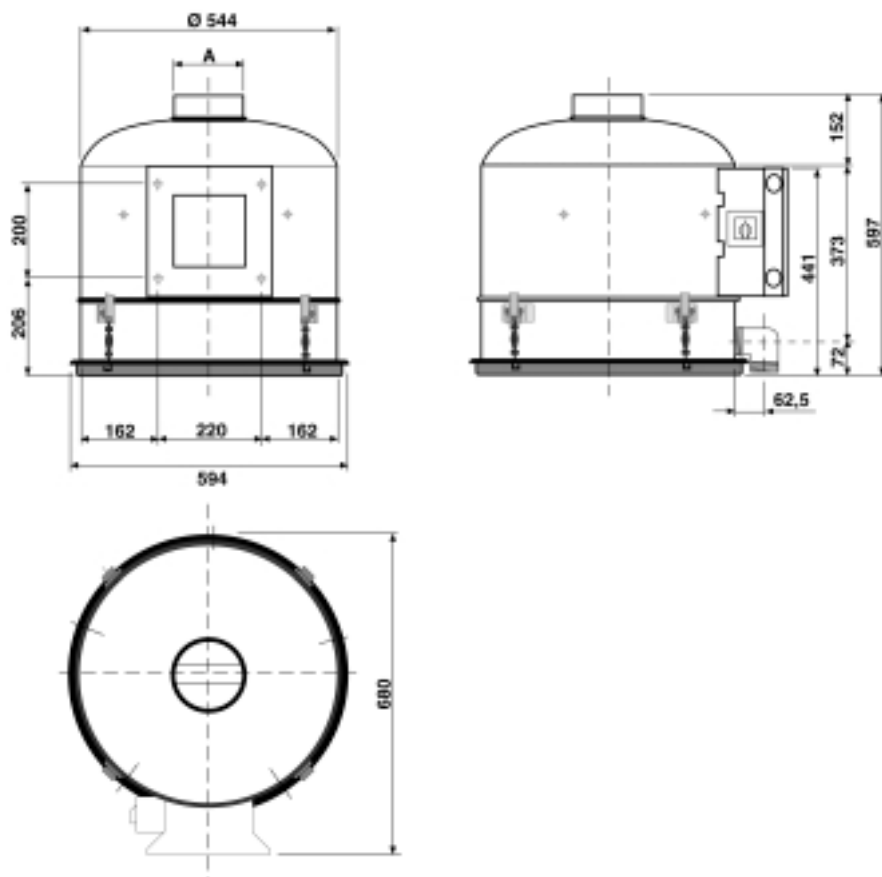


Characteristic curve  
noil 1 reduced  
noil 2 reduced  
noil 2 reduced mouth 200

**Diagram 1**



**Dwg. 2 (NOIL 06-08)**



**Dwg. 3 (NOIL 12-26)**

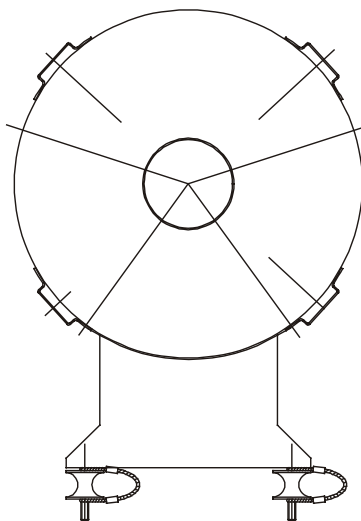
## 6.0 INSTALLATION

Install the NOIL filter in the immediate proximity of the utilities. Connect by means of stiff or flexible piping to the collection system by means of clips. Do not exceed a recommended radius of 4-5 m surrounding the machine. You are advised to arrange the filter in a protected place to avoid knocks by handling systems.

**The unit must be fitted horizontally** and fastened with the specific feet on the stand onto a shelf directly over the machine tool.

Vibration damping supports code 7057000011 (optional) can be used to dampen vibrations induced by rotating parts. In this case, secure the NOIL filter with two steel wires so that it will not drop if the damping support breaks.





**Dwg. 4**

## 7.0 MAINTENANCE



**Do not perform maintenance operations while the machine is either running or connected to the electrical mains. Unplug the machine to avoid undesired start-up.**

Proceed as follows to keep the machine perfectly efficient:

- Check the electrical power wire conditions.
- Clean the various components forming the filtering device. To access the filter loosen the fastening levers and remove the cover (see drawings).

*Cellulose pre-filter:* remove the filter for condensing oily mist and withholding the largest impurities. This is an accumulation filter and for this reason duration is variable and depends on the processing type and intensity.

**The pre-filter cannot be regenerated and should be replaced.**

*Polyester filter:* remove the high-efficiency filter and inspect to check conditions. Clean using a soapy solution and a low pressure washing machine at approximately 40°C. Dry carefully before reinstalling. Careful filter maintenance will ensure a longer life of the post-filter (where fitted).

On the basis of our experience, the estimated filter life is 12 months.



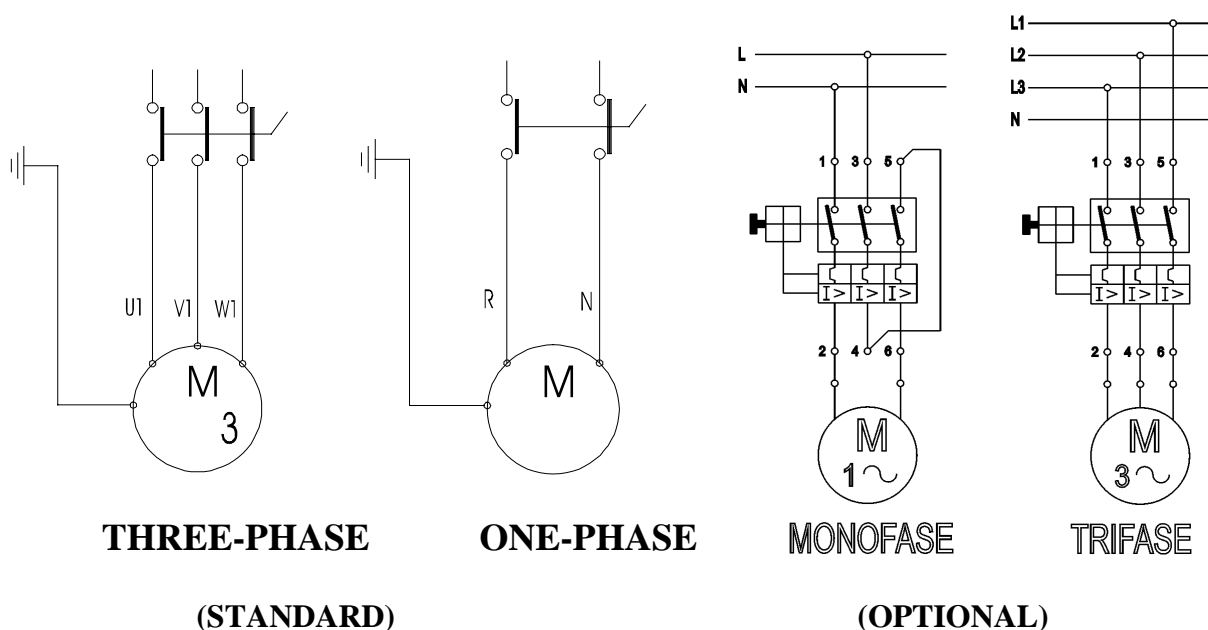
**Dispose of filters properly. Send waste material to specialised disposal companies according to the regulations in force.**

## 8.0 WIRING DIAGRAMS



**Connect to the mains according to the safety laws in force.**

Make sure that the electrical motor is turning in the correct direction (shown by the arrow on the fan) before starting the machine.





**Dwg. 5**

## 9.0 MARKINGS AND CERTIFICATIONS

This NOIL model was examined according to the Machinery Directive EEC 89/392 and amendments. Compliance is certified by the CE marking on the machine and the declaration of conformity which accompanies this manual.

## 10.0 SYMBOLS

These symbols   and the accompanying text indicate potential risks deriving from disrespect of the respective instructions, specifically:



**Sticker indicating that the control panel contains live parts powered at 220 - 380 V.**

**220 V - 380V**

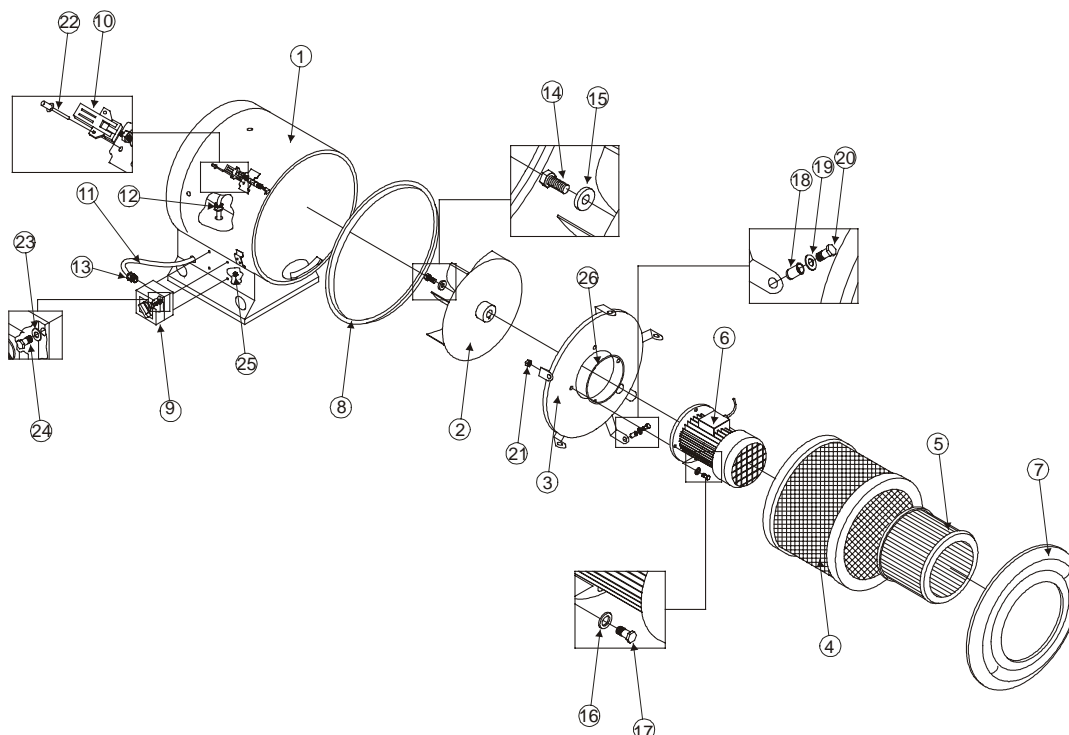


**Sticker indicating the correct direction of rotation of the fan.**

## 11.0 TROUBLESHOOTING

No.	Problem	Cause	Possible solution
1	The machine does not start	Wrong power connection	Check correct electrical power connection on terminal board
2	The output air is not sufficiently purified	Inefficient filter action	Check cleanness; remove and replace if required
3	Not enough air is taken in	Inefficient filter action	Check cleanness; remove and replace if required
		The fan is turning the wrong way	Reverse the polarity of the two power wires

## 12.0 LIST OF MATERIALS



No.	NOIL 06	NOIL 08	NOIL 12	NOIL 15	NOIL 20	NOIL 26	Description	UM	Qty.
1	300002191		3000002205		3000002216	3000002215	Welded unit structure	PZ	1
2	300000752	3000000670	3000000751	3000000669	3000000751	3000000669	Fan with reversed open blades RD	PZ	1
3	300000146			3000001983			Motor flange supp. comp.	PZ	1
4	7041060794			7041060796			Cellulose cartridge (prefilter)	PZ	1
5	7041060795			7041060797			USGC/NP cartridge	PZ	1
6	7000000005			7000000007			Electric motor	PZ	1
7	3000000127			3000001982			Cover	PZ	1
8	1002000188			1002000188			Armored gasket	MT	1,2/1,8
9			7058110096				Tripolar switch	PZ	1
10			1004000055				Closing spring	PZ	4
11			7058100018				Three phase cable	MT	0,4
12			7058060040				Brass cable guide	PZ	1
13			7058060018				Plastic cable guide	PZ	1
14			8013000022				Screw M6x80	PZ	1
15	8010000030			3000001291			Fan fixing washer	PZ	1
16			8010000017				Split washer 10,5x17	PZ	4
17			8013000046				Screw TE M10x30	PZ	4
18			8006000023				Insert M8	PZ	5
19			8010000005				Washer 8,4x17	PZ	5
20			8013000029				Screw TE M8x16	PZ	5
21			8003000004				Nut M10	PZ	4
22			8009000034				Aluminium rivet 4x11	PZ	8
23			8010000001				Plain washer	PZ	4
24			8013000012				Screw M5x25	PZ	4
25			8003000002				Nut M5	PZ	4
26			1020000015				Plastic drawn dope	KG	0,02
27			7058060028				Grommet PG. 13,5	PZ	1