

# User Manual

## NX-1000 with Fan for Coolant/Oil Mist.

### Coolant or Oil Mist

NX mechanical oil mist filter is designed to eliminate coolant or oil mist from lathing, milling, drilling, sawing, water cutting etc.

### Filter Cassettes

NX-1000 oil mist filters are equipped with a self-draining Filter Cassette of Nailed Glass-Fiber and a HEPA H13 Filter. Each filter has a separate pressure gauge (manometer). Over 99,95% filter efficiency is achieved. The cleaned air can be re-circulated into the premises. Keeps heating costs down.

### Application

NX-1000 for 1-2 machines.

### Complete Unit

NX-1000 is a complete unit of powdercoated steel sheet with Nailed Glass-Fiber Filter cassette, HEPA H13 Filter and Fan. Inlet from left or right with inlet flange with inside measure D.160 mm and cover for the not used inlet. Oil return pipe with 1 inch outside thread.

### Accessories

As accessory you can get 0.5 m Extension Legs.

### 40 Years Experience

40 years experience of design and manufacturing at your service.

The Plymoth products are a combination of well proven technique and progressive new ideas.



	Art.Nr.
<b>NX-1000 Filter with Fan 3-phase/1.1kW/400V/50Hz for Coolant and Oilmist</b> incl. filterbox and legs of powder painted steel sheet, oil return pipe with 1" outside thread, inlet from the right or left with 160mm inlet flange ( inside measure) and cover plate for the not used inlet side, Fan 3-phase/1.1 kW/400V/50Hz, Filter Cassette 8m <sup>2</sup> (8+8+8m <sup>2</sup> ) of Nailed Glass-Fiber with Alu Separators, HEPA H13 Filter 22m <sup>2</sup> and 2 pcs Pressure Gauges (Manometers). <b>Measurements: 1800x640x750mm.</b>	P-259
<b>Extension Legs 0.5 m (4 pcs.) for NX-1000/2000/4000</b>	P-322
<b>Replacement Filter Cassette of Nailed Glass-Fiber (8m<sup>2</sup>). Second from the bottom for NX-2000/6000( For NX-6000 3 pcs). This Cassette is the only needed for NX-1000.</b>	P-319
<b>Replacement HEPA H13 Filter 22m<sup>2</sup> (99,95%) for NX-1000/2000/6000 (NX-6000 3 pcs).</b>	P-264

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## 1.0 General Information

NX-1000 Filter is mechanical Emulsion/Coolant Mist and Light Oil Mist separator with a degree of separation of 99,95 % for particles down to 0.1 micron.

The device is made of powder coated steel sheet with 4 integrated legs. As extra equipment there are 0.5m high legs.

The NX-1000 equipped with an Expansion Camber, a Fiberglass Flies Filter Cassette with aluminium separators (E5+EU9), a HEPA H13 Filter, 2xPressure Gauges and a 3-phase built in fan.

### 1.1 Safety Note!

**Always disconnect the supply voltage before opening or servicing the device.**

**Don't exhaust sparks or other objects which can cause fire.**



### 1.2 Range of application

Indoors for separation of emulsion/coolant mist and light oil mist from Lathes, Milling Machines, Drilling Machines and other works with the same problems.

## 1.3 Unit Description NX-1000/Fan.

### Fan with 3-Phase Motor.

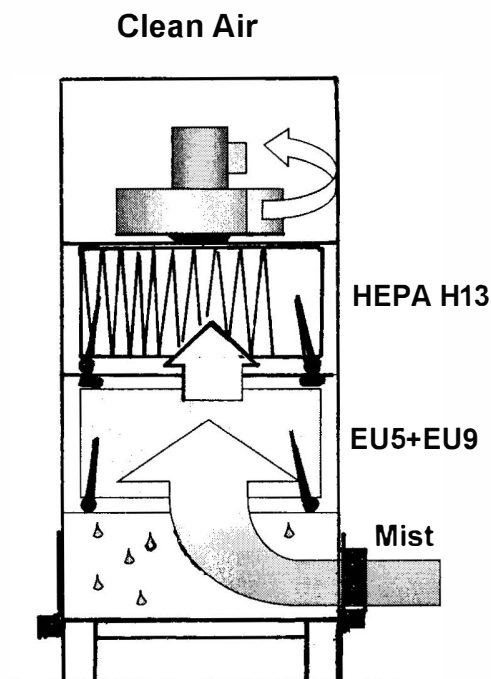
HEPA H13 Filter Box with Exenter Locks to press the Filter Box upwards. Door with 2 Pressure Gauges. One for HEPA Filter and one for Glass Fiber Filter.

Glass Fiber Filter with Aluminium Separators. Eu5/Eu9. Exenter Locks to press the Filter upwards. Door with 2 Pressure Gauges for Glass-Fiber and HEPA Filters.

Air Inlet Flange: Alternatively left or right. Cover Lid.

Expansion Chamber.

Drainage: Alternatively left or right with one Lid.



## 1.4 Installation.

The installation site is to be selected in such a way that the tubing distance is as short as possible. If possible mount the unit on a bracket on a wall or on a Stanchion to get the ducting leaning slightly downwards to the machine/machines. It makes liquid, which can condense in the ducting, go back to the machine/machines. It makes the filters last longer. The filtered liquid can be fed back to the machine/machines by it self. However a "Water trap" type Siphon has to be used at the drainage outlet of the NX unit to avoid air to be sucked through the drainage hose/pipe.

If you install the NX filter on the floor you need to equip it with 0.5m high legs (Extra equipment P-322). This to get enough height for having a collecting container for the filtered liquid on the floor.

In addition it is to be made certain that the accesibility for maintenance work is ensured.

The Machine/Machines normally have a connection tube to be used for the mist extraction.

The connection of the dia. 160mm ducting from the machine/machines to the NX Filter can take place alternatively to the left or to the right of the unit. The side which is not used shall be covered with the included lid. Only use oil/water tight and resistant tubes, bends and connections for the ducting.

The 1" draining pipes for the filtered liquid are at the bottom of the unit, on the left and on the right side. Only one drainage pipe must be used. The other side shall be covered with the included lid.

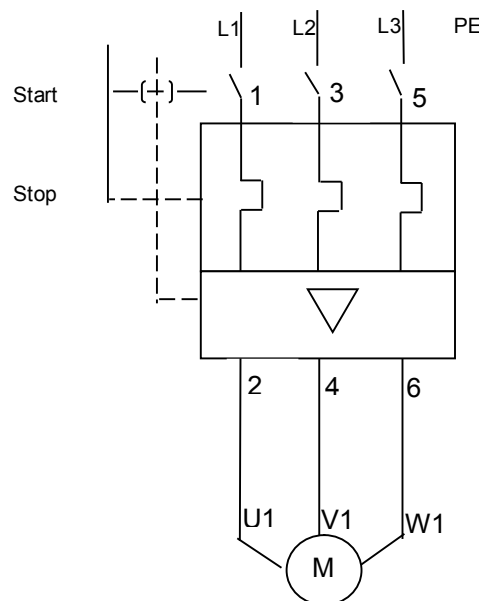
The ducting system from the machine/machines shall be equipped with a lockable damper close to the NX filter's inlet. The damper is to be adjusted so only mist is extracted. No drops!  
Normally 0.5m/sec. is needed in the door opening to avoid that mist will come out when the door of the machine is open.

## 1.5 Electrical

The NX Filters with fan come with a 3-phase motor and a connection box on the outside.

The electrical installation is only to be done by a qualified and licensed electrician.

Check that the motor is rotating in the direction showed on the motor.



## 1.6 Start-Up

Before start-up, please read this manual and be familiar with the operation of the unit.

Determine that the Cassette filter box and the HEPA Filter are correctly mounted in the unit. The gasket shall be upwards and the exenter buckles upwards to make them sit tight.

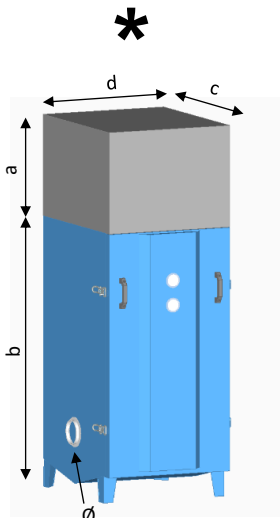
When in use, adjust the Damper in the inlet so only mist will be extracted. No liquid drops. Lock the damper in this position. It will make the HEPA filter last longer.

Clean air will be blown out of the top of the NX Unit. Don't cover the top of the unit!

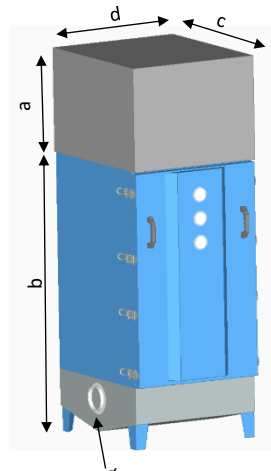
After some time (depending on how much used) the Glassfiber Filter will be saturated and clean coolant will drop down to the bottom of the NX unit. It will then go out through the drainage pipe.

# 1.7 Technical Data NX-1000/2000/4000/6000/8000 with Fan.

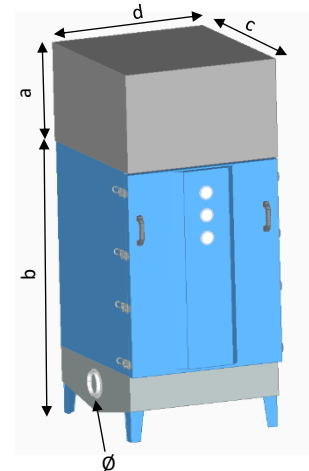
NX



**NX-1000**

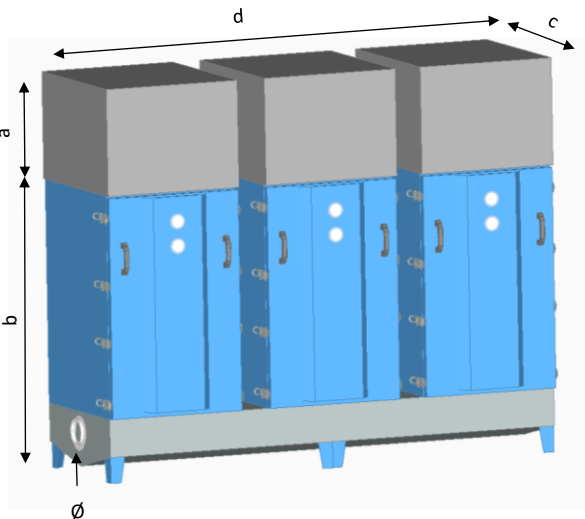


**NX-2000**

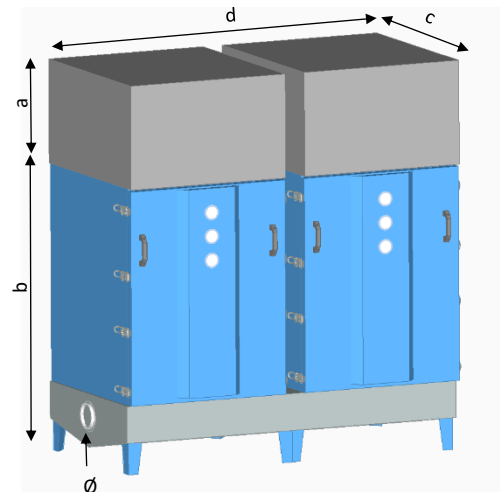


**NX-4000**

	a (mm)	b (mm)	c (mm)	d (mm)	∅ (mm)	Motor (kW)	Luftleistung (m³/h)	Gewicht (kg)
<b>NX-1000</b>	500	1.300	<b>750</b>	640	160	1,1	1.000	134
<b>NX-2000</b>	500	1.600	750	640	200	2,2	2.000	176
<b>NX-4000</b>	500	1.600	900	800	315	4	4.000	248



**NX-6000**



**NX-8000**

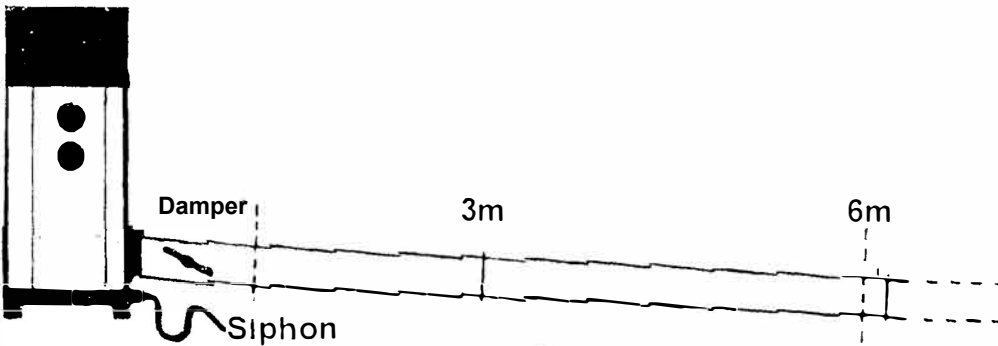
	a (mm)	b (mm)	c (mm)	d (mm)	∅ (mm)	Motor (kW)	Luftleistung (m³/h)	Gewicht (kg)
<b>NX-6000</b>	500	1.600	750	2.200	400	3x 2,2	6.000	522
<b>NX-8000</b>	500	1.600	900	1.700	400	2 x 4	8.000	496

- \* **Filter Area NX-1000: Nailed Glass-Fiber EU5+EU9 (8m2) and HEPA H13 (22m2).**
- Filter Area NX-2000: Nailed Glass-Fiber EU5 (10m2), EU5+EU9 (8m2) and HEPA H13 (22m2).**
- Filter Area NX-4000: Nailed Glass-Fiber EU5 (21m2), EU9 (15m2) and HEPA H13 (44m2).**
- Filter Area NX-6000: Nailed Glass-Fiber EU5 (30m2), EU9 (24m2) and HEPA H13 (66m2).**
- Filter Area NX-8000: Nailed Glass-Fiber EU5 (42m2), EU9 (30m2) and HEPA H13 (88m2).**

## 1.8 Ducting NX-1000.

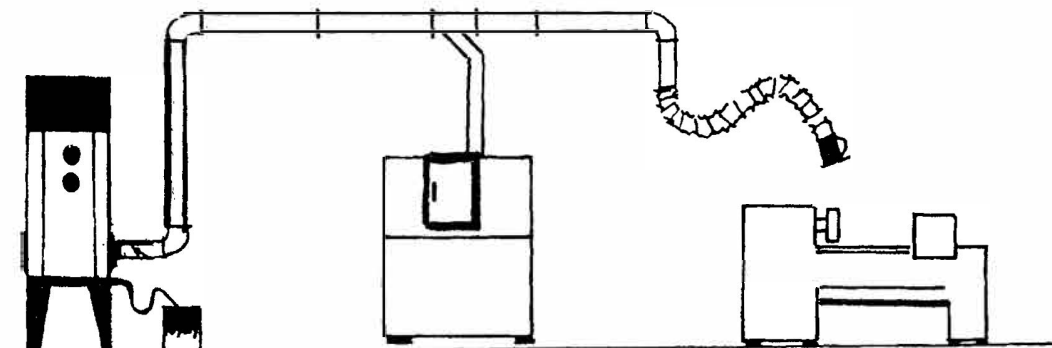
Pressure Drop is measured over each Filter. Meter/Sec and Airvolume are measured at the end of the ducting system. Noise level in dB(A) is at a 2m distance from the NX unit. The values bellow are measured with Clean Filters and the Damper horizontal (Full open). The Air Velocity and Airvolume have been measured at the end of a ducting system without bends. Depending on number of bends the figures become lower. Over time the measured values will become lower.

NX-1000 mounted high (Wall, Stanchion or Ceiling).



Ducting	Pressure Drop		Initial at end of Duct		dB(A)
	HEPA	F5+F9	m/sec	m3/h	
3m	105 Pa	190 Pa	27	1950	67.5
6m	100 Pa	175 Pa	26.5	1900	67.5
12m	95 Pa	165 Pa	25.5	1840	66.5
18m	85 Pa	160 Pa	24	1730	65
24m	75 Pa	135 Pa	21.5	1550	65
30m	70 Pa	125 Pa	20	1440	64

NX Filter mounted on the floor with 0.5m legs.



## 2.0 Maintenance

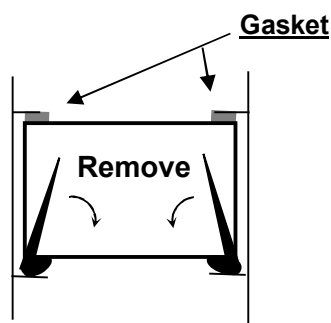
### 2.1 General Information

The filter cassette is self cleaning and service life is normally around 2 years or more.

The HEPA-Filter should be changed after around 18 months or when the extraction is not good enough.

### 2.2 Filter Changes.

1. Turn unit off and loosen the quick-locking of the door. Remove the door from the device.
2. To remove the Filter Cassette, turn the exenter buckles down horizontally. Draw it out.
3. To remove the HEPA Filter, turn the exenter buckles down horizontally. Draw it out.



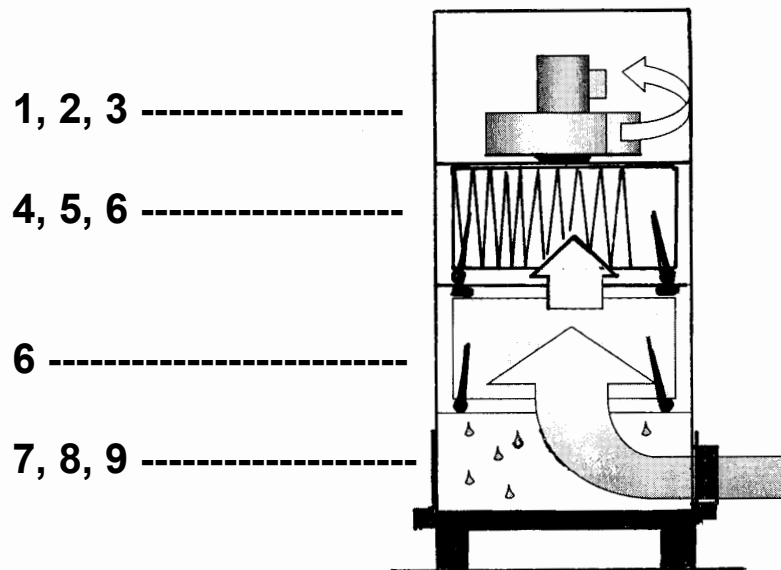
4. Install the new Filter/Filters with GASKET UPWARDS. Turn the exenter BUCKELS UPWARDS.

### 2.3 Replacement Filters

PRODUCT	NX-1000	NX-2000	NX-4000	NX-6000	NX-8000
Glass-fiber EU5/9	P-319	P-319	-----	3xP-319	-----
Glass-fiber EU5	-----	P-318	P-320	3xP-318	2xP-320
Glass-fiber EU9	-----	-----	P-321	-----	2xP-321
HEPA Filter	P-264	P-264	P-266	3xP-264	2xP-266



## 2.4 NX-1000 Spare Parts



**When ordering Spare Parts:  
Specify Name of the Product.  
Number and Name from below.  
Quantity of each Part.**

- 1. Complete Fan 1.1 kW/400V/3-Phase/2900r/50-60Hz.**
- 2. Electric Motor 1.1 kW/400V/3-Phase/2900r/50-60Hz.**
- 3. Impeller.**
- 4. Complete Door without Pressure Gauges.**
- 5. Pressure Gauge 1 pc.**
- 6. Exenter Lock/Buckel 1 pc.**
- 7. Inlet Lid for Air.**
- 8. Outlet Lid for Drainage.**
- 9. Inlet Flange for Duct System.**



### Declaration of conformity

We, J. Plymoth AB, declare under our sole responsibility that the product lines **WF-Eco, MF-F9/HEPA, MF-Active Carbon, MF-HEPA/W3 18M2, MF-Eco/F9, MF-Eco/HEPA, MF-Filter-Tables, MF-Eco Filter-Tables, FK-Mesa Backdraft Filter-Tables, MKF Filter-Tables, Labbe, MF-Lab, MF-Eco Lab, CF Central Filters, Mobo-Oil, NX Filters, Denta-Flex, Fica-Flex and VBF-Office** to which this declaration relates are in conformity with Directives 2006/42/EC, 2014/30/EU, 2011/65/EU and Standards EN 60204-1:2006, EN ISO 12100:2010, EN ISO 15012-1:2013, EN 61000-6-2:2005, EN 61000-6-3:2007, EN ISO 20607:2019.

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