

User Manual

NX-1000 Without 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 recirculated into the premises. Keeps heating costs down.

Application.

NX-1000 for 1-2 machines.

Complete Unit without Fan

NX is a complete unit of powdercoated steel sheet with nailed glass-fiber filter cassette and HEPA 13 filter. Inlet from left or right with inlet flange with inside measurement of D.160 mm and cover for the not used inlet. Oil return pipe with 1 inch outside thread.

The NX-1000 oil mist filter without fan shall be connected to a separate fan or central extraction system. The outlet flange has an inside measurement of D.160 mm.



Accessories

As accessory you can get 0.5 m Extension Legs.150

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.
NX-1000 Filter without Fan. For Coolant and Oil Mist 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, outlet flange 160mm (inside measure), filter cassette 8m ² (8+8+8m ²) of nailed glass-fiber, HEPA H13 filter 22m ² and 2 pcs pressure gauges (manometers). Measurements: 1300x640x750mm.	P-624
Extension Legs 0.5 m (4 pcs.) for NX-1000/2000/4000	P-322
Replacement Nailed Glass-Fiber Filter Cassette (8m² EU-5/9) Second from the bottom for NX-2000/6000 (NX-6000 3 pcs). This cassette is the only needed for NX-1000.	P-319
Replacement HEPA H13 Filter 22m² (99,95%) for NX-1000/2000/6000 (NX-6000 3 pcs).	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 Chamber, a Fiberglass Flies Filter Cassette with aluminium separators (E5+EU9), a HEPA H13 Filter and 2xPressure Gauge.

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.

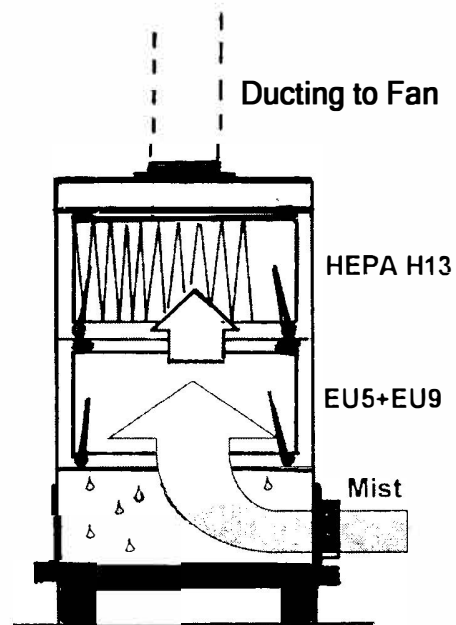
HEPA H13 Filter Box with Exenter Locks to press the Filter Box upwards. Door with 2 Pressure Gauges. One for HEPA Filter and one for Glass Fiber Filter.

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. One cover Lid.

Expansion Chamber.

Drainage Alternatively left or right. One cover 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.

How to choose the right size of NX Filter.

Around 0.5m/sec. in the opening of a lathe or milling machine is needed to stop coolant mist from coming out when the door is opened.

To choose the right NX Filter you just need to measure the width and height of the opening, when the door is open. Multiply the figures with each other. With the measure in m² you can find the right NX Filter in the table below.

If you intend to have several machines on one NX Filter you just add the m² measures and check below.

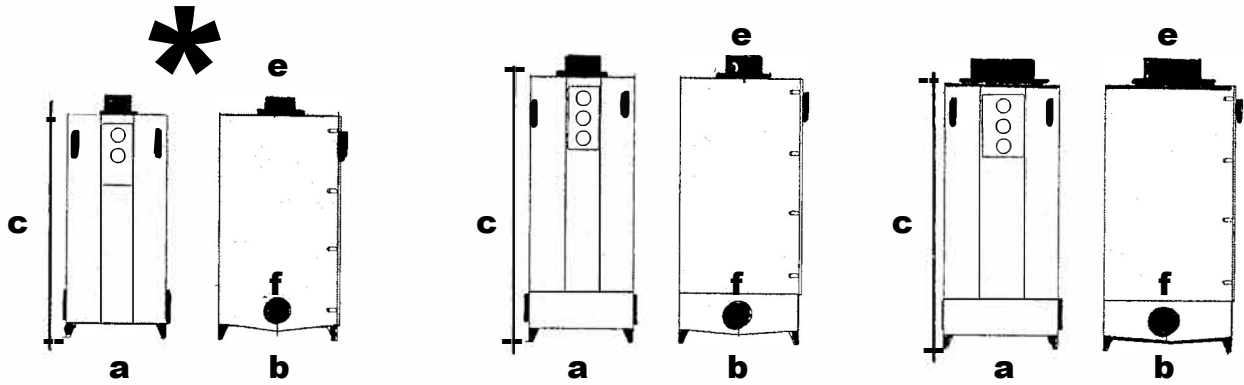
To get 0.5m/sec. air velocity in the opening of the machine, the following NX Filters are recommended:

Machin/Machines Opening size m ²	Air Volume/hour	NX Filter
0.25m ²	450m ³ /h	NX-400 or NX-600
0.5m ²	900m ³ /h	NX-1000
0.75m ²	1350m ³ /h	NX-1000 or NX-2000
1m ²	1800m ³ /h	NX-2000
1.25m ²	2250m ³ /h	NX-2000
1.5m ²	2700m ³ /h	NX-4000
1.75m ²	3150m ³ /h	NX-4000
2m ²	3600m ³ /h	NX-4000 or NX-6000
2.25m ²	4050m ³ /h	NX-4000 or NX-6000
2.5m ²	4500m ³ /h	NX-6000
2.75m ²	5000m ³ /h	NX-6000
3m ²	5500m ³ /h	NX-6000
3.25m ²	6000m ³ /h	NX-6000
3.5m ²	6500m ³ /h	NX-8000
3.75m ²	7000m ³ /h	NX-8000

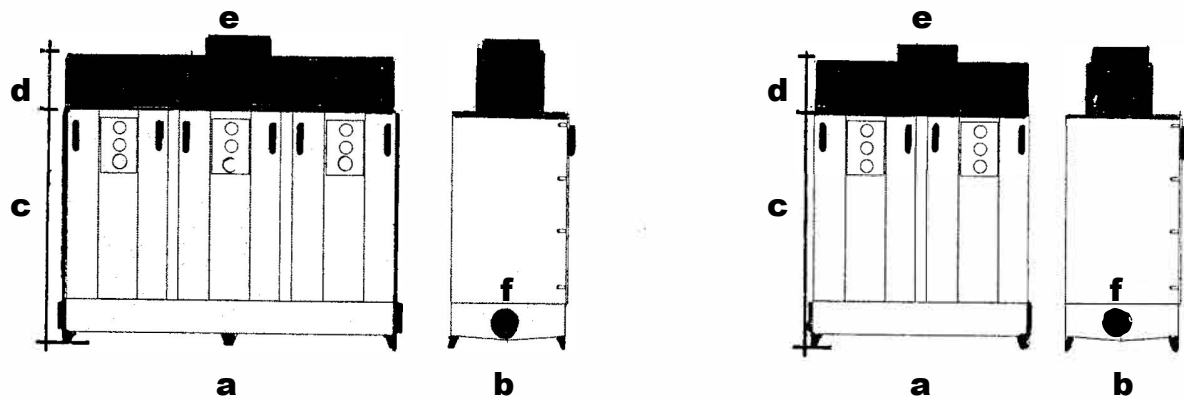
Always choose the next larger size if you are unsure and if there are a lot of fine particles in the mist.

If you need further advice don't hesitate to contact our specialists on info@plymoth.com

1.5 Technical Data

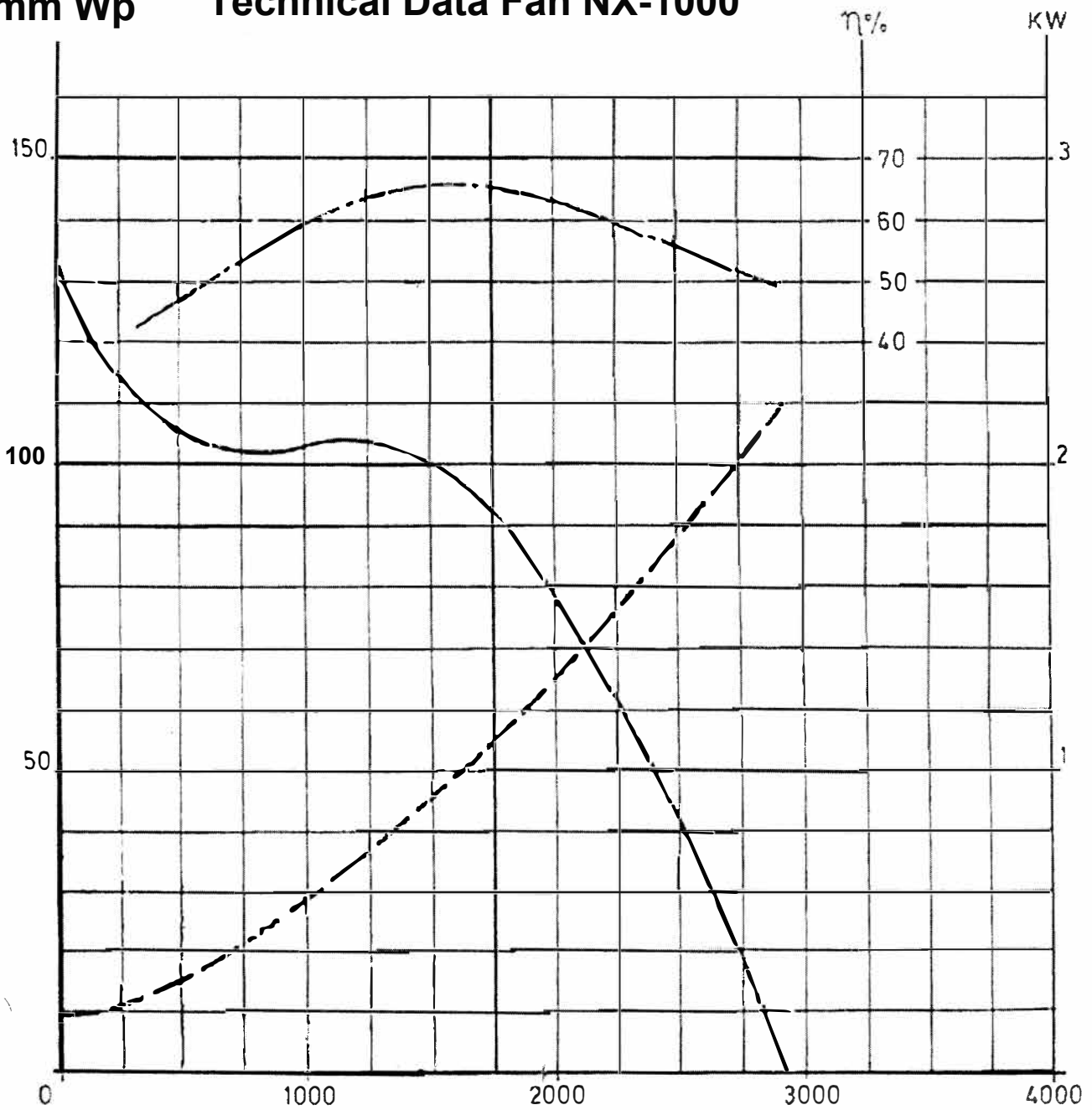


Product	a(width)mm	b(depth)mm	c(mm)	d(mm)	e	f	Weight
NX-1000	640	750	1300	-----	d.160	d.160	134kg
NX-2000	640	750	1600	-----	d.200	d.200	176kg
NX-4000	800	900	1600	-----	d.315	d.315	248kg
NX-6000	2200	750	1600	500	d.400	d.400	522kg
NX-8000	1700	900	1600	500	d.400	d.400	496kg



Measures NX 1000-8000 without Fan.

mm Wp Technical Data Fan NX-1000



The above diagram shows the fan data for the fan m³/h used in "NX-1000 with fan".

Please see "Ducting NX-1000 with fan" to see which airflow it gives, with different lengths of ducting.

It is advisable to choose a fan which has a somewhat higher curve than the one above, when the fan is mounted separately.

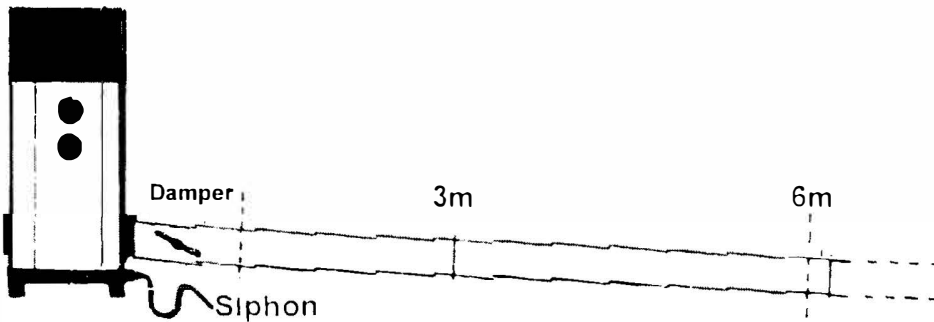
Ducting NX-1000 with/without Fan.

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.

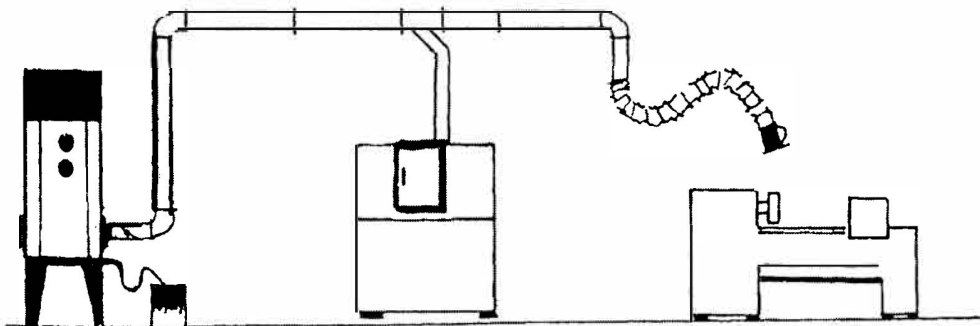
The values bellow are measured with Clean Filters and the Damper horizontal (Full open). The Air Velocity and Airvolume have been measured at the end of a ducting system without bends. Depending on number of bends the figures become lower. Over time the measured values will become lower.

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

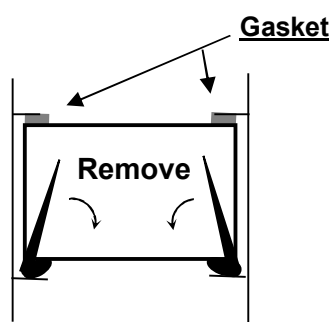
2.1 General Information

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.

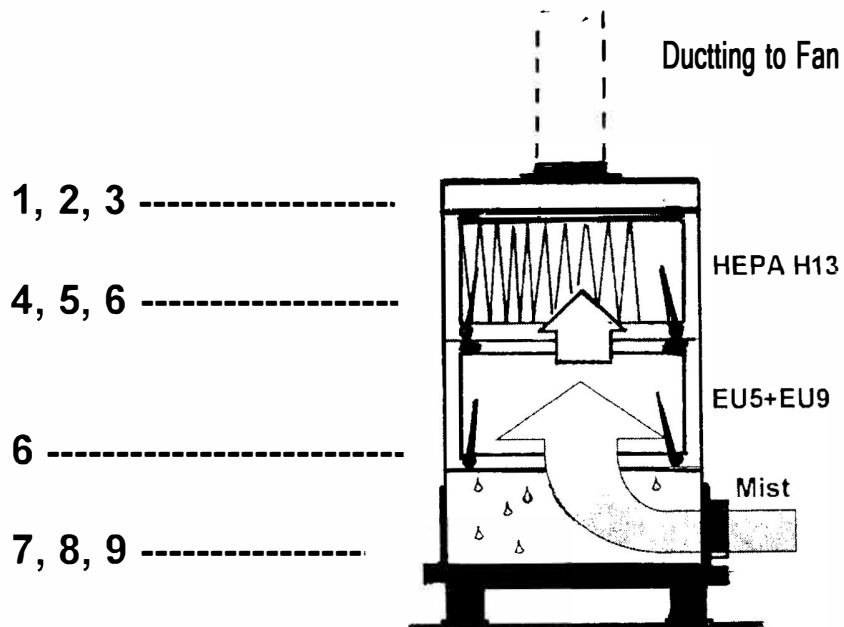


4. Install the new Filter/Filters with GASKET UPWARDS. Turn the exenter BUCKELS UPWARDS.

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 without Fan: Spare Parts.



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

1. Dia. 160mm Flange.
2. Dia. 200mm Flange.
3. -----
4. Complete Door without Pressure Gauges.
5. Pressure Gauge 1 pc.
6. Exenter Lock 1 pc.
7. Inlet Lid for Air.
8. Outlet Lid for Drainage.
9. Inlet Flange for Duct System dia. 160mm.
10. Inlet Flange for Duct System dia. 200mm.



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, Mobi-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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