

ME-41/ME-42 BANKS

MIST ELIMINATOR; 5- AND 6-STEP FILTRATION


The MistEliminators ME-41 and ME-42 are stationary filter banks for mainly oil mist applications, to be used in machine tool processes. This comprises basically any process that uses metal working fluids like oil or an emulsion to cool or lubricate the operation. The ME-41 bank is based on a 5-step filtration method which allows for exhaust to the atmosphere. In case of recirculation, it is recommended to use an ME-42 bank which is fitted with additional HEPA filters.

ME-4X/2 and ME-4X/3 are *single base filter banks*.
ME-4X/4 and ME-4X/5 are *dual base filter banks* that are composed of two interconnected single base ones.




Shown: ME-42/3

APPLICATIONS

The ME-41 and ME-42 banks are intended to be used for the following applications: 

- metal working processes with "clean" or recyclable low viscosity oil as a residue; e.g.
 - CNC machining centers for cutting, boring, drilling and honing
 - machines for metal forming operations like cold heading and stamping
 - oil mist produced by heat and surface treatments like hardening and wet grinding

Do **not** use the ME-41 and ME-42 banks for the following applications or in the following circumstances: 

- oxy-fuel cutting
- aluminium laser cutting
- arc-air gouging
- paint mist
- extraction of hot gases (more than 45°C/113°F continuously)
- grinding aluminium and magnesium
- flame spraying
- extraction of cement, saw dust, wood dust, grit etc.
- explosive environments or explosive substances/gases

Note: this list is not all-embracing.

SPECIFICATIONS

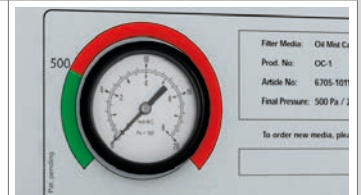
■ Physical dimensions and properties				
Housing:	electro-zinc coated steel (according to DIN EN 10152)			
<ul style="list-style-type: none"> steel grade steel grade no. 	<ul style="list-style-type: none"> DC01+ZE 1.0330 			
Colour:	<ul style="list-style-type: none"> air inlet module filter modules 			
	<ul style="list-style-type: none"> grey RAL 7011 grey RAL 7035 			
Weight (net):	ME-41/X		ME-42/X	
	kg	lbs	kg	lbs
X = 2	206	454	274	604
X = 3	299	659	401	884
X = 4	420	926	555	1,224
X = 5	512	1,129	682	1,504

■ Filters	
Filter class:	<ul style="list-style-type: none"> ME-41 banks ME-42 banks
	<ul style="list-style-type: none"> F9 according to EN 779-2003 H13 according to EN 1822-2009
Pressure drop:	(for dimensional purpose)
<ul style="list-style-type: none"> ME-41/X ME-42/X 	<ul style="list-style-type: none"> 1300 Pa (5.1 in. WG) 1500 Pa (6.0 in. WG)
Negative pressure	max. 4000 Pa (16 in. WG)
■ Performance	
Airflow:	Max.:
<ul style="list-style-type: none"> ME-4X/2 ME-4X/3 ME-4X/4 ME-4X/5 	<ul style="list-style-type: none"> 4000 m³/h (2350 CFM) 6000 m³/h (3525 CFM) 8000 m³/h (4700 CFM) 10.000 m³/h (5875 CFM)
<i>Max. airflow is a ceiling value and generally not recommended as a design value for operating the ME unit, as it might lead to short lifespan of filters. The performance of the ME unit is next to airflow influenced by other variables like amount and composition of metal working fluid, process, temperature and pre-treatment. Ask your local expert on the recommended airflow for your system design.</i>	
■ Ambient conditions	
Operating temperature:	<ul style="list-style-type: none"> min. nom. max.
	<ul style="list-style-type: none"> 5°C (41°F) 20°C (68°F) 45°C (113°F)
Max. relative humidity	80%
Outdoor use allowed	no
Storage conditions	<ul style="list-style-type: none"> 5-45°C (41-113°F) relative humidity max. 80%
■ Options and accessories	
<i>Selection required:</i>	
Single base filter banks:	Ø 500 mm (19.7 in.):
<ul style="list-style-type: none"> ME-INL-500 (1) ME-INL-COV (1) 	<ul style="list-style-type: none"> inlet connection inlet cover plate
Dual base filter banks:	Ø 500 mm (19.7 in.):
<ul style="list-style-type: none"> ME-INL-500 (1 or 2) ME-INL-COV (max. 1) 	<ul style="list-style-type: none"> inlet connection inlet cover plate
<i>Remaining options:</i>	
CFD	constant flow damper
ME-OUTL-X/S	outlet unit; side connection

ME-OUTL-X/T	outlet unit; top connection				
OilPump 230V	oil container with electric pump				
OilPump 115V					
■ Scope of supply					
<ul style="list-style-type: none"> • Single base filter banks: Assembled filter bank with common inlet - Oil container • Dual base filter banks: Assembled filter bank with common inlet (2) - Inlet join kit - Oil container (2) 					
■ Order information					
MistEliminator:	Article no.:				
• ME-41/2	• 0000100796				
• ME-41/3	• 0000100797				
• ME-41/4	• 0000100798				
• ME-41/5	• 0000100799				
• ME-42/2	• 0000100801				
• ME-42/3	• 0000100802				
• ME-42/4	• 0000100803				
• ME-42/5	• 0000100804				
Number/package	1				
■ Shipping data					
Gross weight (incl. pallet):	ME-41/X		ME-42/X		
		kg	lbs	kg	lbs
	X = 2	236	520	309	681
	X = 3	339	747	446	983
	X = 4	480	1,058	625	1,378
X = 5	582	1,283	762	1,680	
Harmonized Tariff Code	8421.39.2090				
Country of origin	Netherlands				

FEATURES

A differential pressure gauge on each filter module indicates status and need for filter replacement.



Easy to handle oil container.
Contents: 8 liters
(2 gallon).



Option: OilPump; oil container with electric pump, serving both single and dual base filter banks.

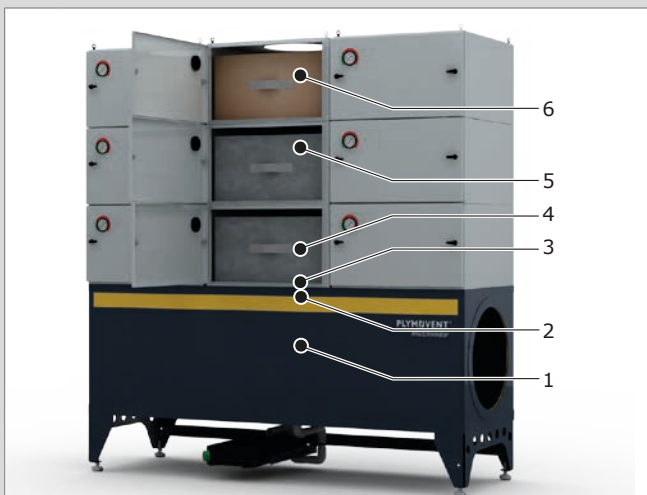


Option: outlet unit for side or top connection of duct.

Shown: top connection
ME-OUTL-3/T.



FILTER STAGES

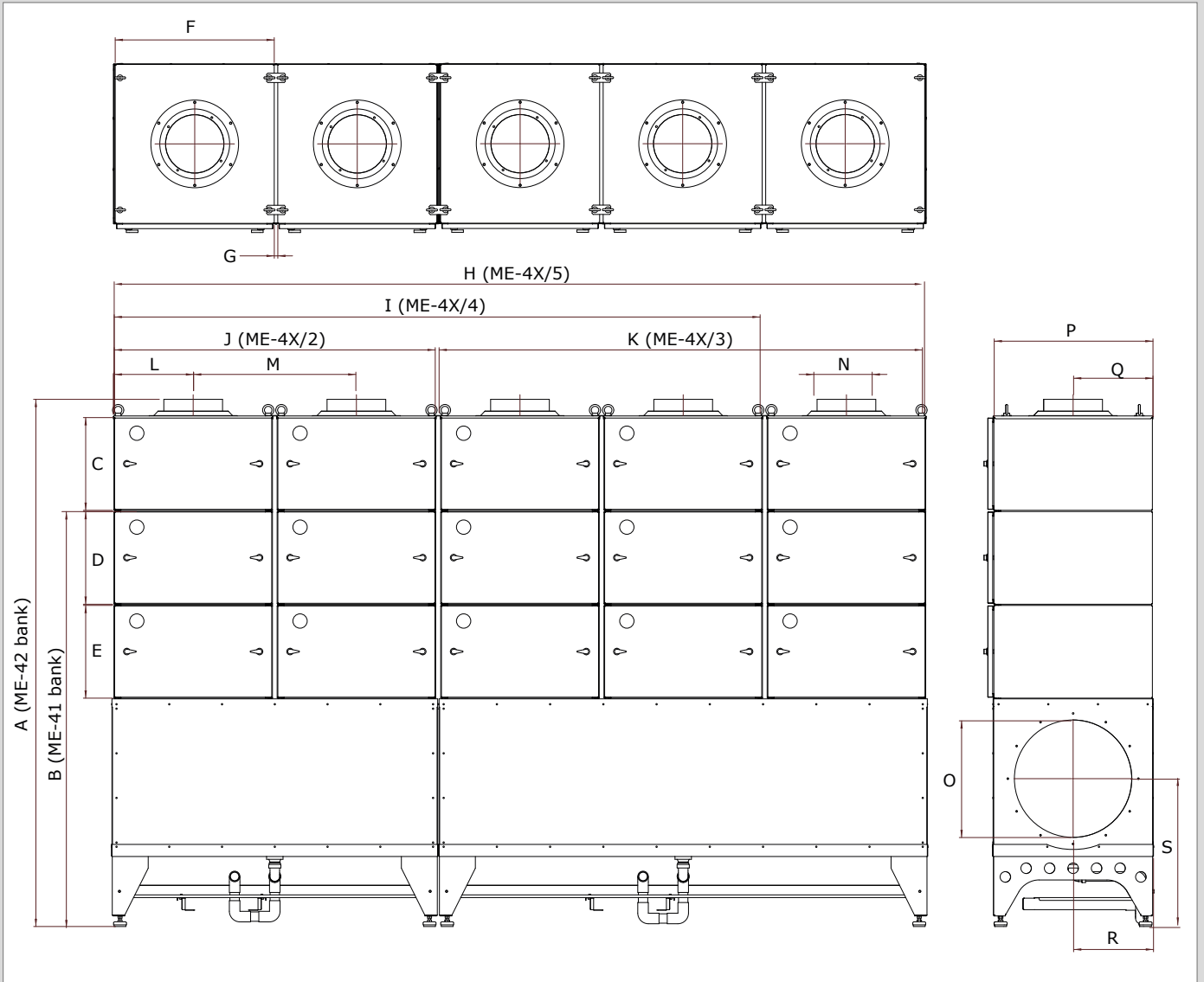


1	Air inlet module; pre separator that distributes the air and prevents large particles from entering the filter package
2	HydroFilter; impinger to separate oil droplets and coalesce oil mist into droplets
3	Aluminium mesh pre filter to keep larger particles
4	OC-1; self-draining cassette filter that coalesces oil mist to droplets and collects <i>medium sized</i> particles
5	OC-2; self-draining cassette filter that coalesces oil mist to droplets and collects <i>fine</i> particles
6	HEPA filter for final filtration (ME-42 series only)

CONFIGURATIONS

Single base filter banks	ME-4X/2 and ME-4X/3
Dual base filter banks	ME-4X/4 and ME-4X/5, which are composed of two interconnected single base filter banks

DIMENSIONS



	mm	inch
A	2245	88.4
B	1845	72.6
C	395	15.6
D	395	15.6
E	395	15.6
F	680	15.0
G	15	0.6
H	3460	136.2
I	2765	108.9
J	1375	54.1
K	2070	81.5
L	340	13.4
M	695	27.4
N	Ø 250	Ø 9.8
O	Ø 500	Ø 19.7
P	680	26.8
Q	340	13.4
R	342	13.5
S	630	24.8

Product type

ME-41 / ME-42 banks

Article no.

refer to order information

Product category

oil mist filters

Version

041213/B

Always check the latest version on www.plymovent.com