

High performance filters & oil water separator

PMS
Gas process Engineering

革新エンジニアたちへ
新たな選択を



PMS high performance filter introduction

Compressed air is reliable energy source for every production facility. However compressed air contains dusts, oil fume, water vapor and bacteria etc. which are coming from atmospheric air.

And during compression process, compressed air is discharged with lubricant and sludges from compressor system. Therefore unless these impurities is removed,

- Malfunction of production machines and equipment
- Air leakage
- Increase of product yield rate
- Increase of maintenance costs of production machine
- Environmental issue

are likely to be caused.

NES filter series remove these problems and improve productivities. And compared with conventional filters, NES filter has lower pressure drop which leads to energy saving in terms of lowering compressor discharge pressure.



Third party certification by AEA

NES series specification

Max. pressure: 1.6 Mpa(Flange type: 1.57MPa)
 Max. inlet temperature: 66°C(Flange type: 120°C)

Filter type	Connection	Air flow	Dimensions (mm)					Weight kg	Element Number
		m ³ /min	A	B	C	D	E		
NES-**-0017G/V2	Rc 1/2	1.0	89	42	160	-	95	1.1	L017**/V2
NES-**-0030G/V2	Rc 1/2	1.8	89	42	193	-	130	1.5	L030**/V2
NES-**-0058G/V2	Rc 3/4	3.6	120	58	252	-	172	2.5	L058**/V2
NES-**-0080G/V2	Rc 1	4.8	120	58	352	-	272	3.2	L145**/V2
NES-**-0145G/V2	Rc 1 1/2	8.7	120	58	352	-	272	3.2	L145**/V2
NES-**-0220G/V2	Rc 2	13.2	162	74	424	180	320	6.6	L220**/V2
NES-**-0330G/V2	Rc 2	20.0	162	74	738	180	625	10.9	L330**/V2
NES-**-0430G/V2	Rc 3	25.8	200	90	488	180	400	12.9	L430**/V2
NES-**-0620G/V2	Rc3	40.0	200	90	749	180	625	17.5	L620**/V2
NES-**-0830F/V2	DN100	50.0	493	263	1119	220	650	115	L330**/V2
NES-**-1000F/V2	DN100	60.0	493	263	1119	200	650	115	L330**/V2

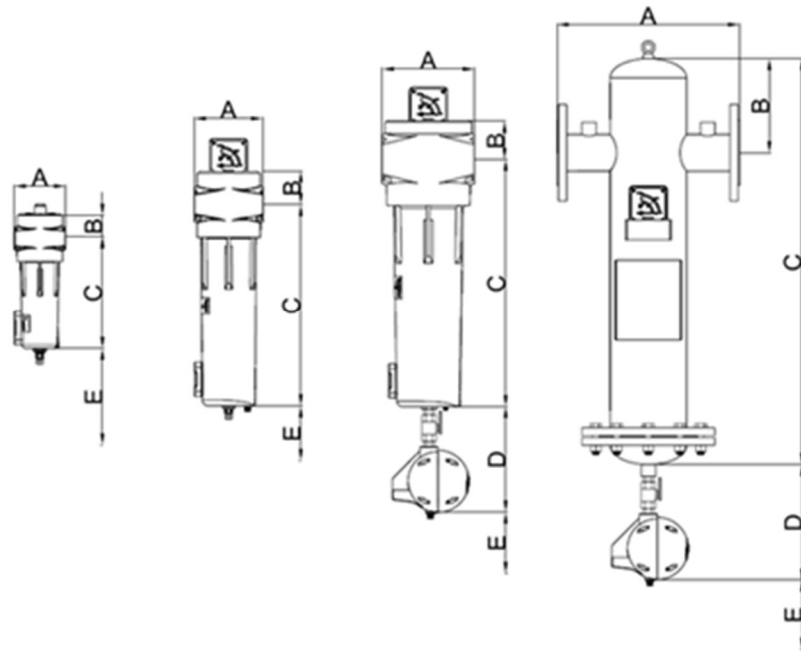
**Replace with filtration grade

Filtration grade

Grade	Micron rating μm	Residual oil mist mg/m ³	Dry pressure drop kPa	Wet pressure drop kPa	Element change interval	Precede with filtration grade
AO	1	0.6	7	14	1 year	-
AA	0.01	0.01	10	20	1 year	AO
AR	1	-	7	-	1 year	-
AAR	0.01	-	10	-	1 year	AR
AX	0.01	0.001	20	40	1 year	AA
ACS	-	0.003	7	-	1000 hrs	AA

Auxiliary device: Pressure difference gauge and auto. drain
 (Pop up indicator for 0017G to 0030G)

NES-0017~0030 G NES-0058~0145 G NES-0220~0620G NES-0830~1000F



Aluminum casting: 10-year warranty

Correction factor by pressure Corrected flow=Air flow x Correction factor

0.1 MPa	0.2 MPa	0.3 MPa	0.4 MPa	0.5 MPa	0.6 MPa	0.7 MPa	0.8 MPa	0.9 MPa	1.0 MPa	1.1 MPa	1.2 MPa	1.3 MPa	1.4 MPa	1.5 MPa	1.6 MPa
0.38	0.53	0.65	0.76	0.85	0.93	1.00	1.07	1.13	1.19	1.25	1.31	1.36	1.41	1.46	1.51

OMEGA Series

High performance sterile filter SPF series

Highly remove submicron particles up to 0.01 micron like microorganism(bacteria)

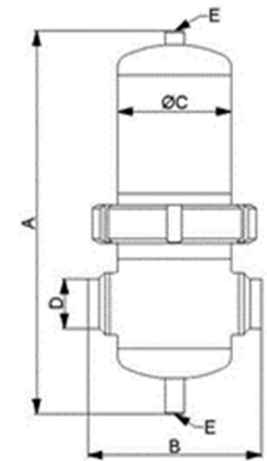
Application:

- Food/beverage
- Brewery
- Pharmaceutical
- Biotechnology
- Fermentation process
- Medical

Max. inlet pressure: 1.4 Mpa
 Max air temperature: 150 °C
 Casing material: SUS316L
 Particulate removal rate: 99.9999%(0.01μ)
 Pressure difference gauge: Option
 Replacement interval: 1 year



Filter type	Connection D	Air flow(0.7MPa)	Dimensions (mm)				Weight kg	Replacement element number
		m ³ /min	A	B	C	E		
SPF 005	Rc 1/4	1.25	225	120	76.1	1/8"	1.9	310
SPF 007	Rc 3/8	1.75	251	120	76.1	1/8"	2.0	410
SPF 010	Rc 2/1	2.50	258	121	76.1	1/8"	2.1	420
SPF 018	Rc 3/4	3.75	282	121	76.1	1/8"	2.3	520
SPF 030	Rc 1	5.25	299	136	88.9	1/8"	3.1	525
SPF 047	Rc 1 1/4	7.0	359	155	88.9	1/8"	3.4	725
SPF 070	Rc 1 1/2	10.0	395	180	114.3	1/4"	4.7	730
SPF 094	Rc 2	15.0	464	180	114.3	1/4"	5.3	1030
SPF 150	Rc 2	21.0	592	180	114.3	1/4"	6.0	1530
SPF 175	Rc 2 1/2	28.0	743	226	139.7	1/4"	11.4	2030
SPF 200	Rc 3	40.0	995	226	139.7	1/4"	12	3030
SPF 240	Rc 3	60.0	1029	256	168.3	1/4"	18	3050



Correction factor by pressure Corrected air flow=Air flow x Correction factor

0.2 MPa	0.3 MPa	0.4 MPa	0.5 MPa	0.6 MPa	0.7 MPa	0.8 MPa	0.9 MPa	1.0 MPa	1.1 MPa	1.2 MPa	1.3 MPa	1.4 MPa
0.38	0.50	0.63	0.75	0.88	1.00	1.13	1.25	1.38	1.50	1.63	1.75	1.88

HF series: maximum pressure of 5MPa
 Choice of 1 μ and 0,01 μ filtration

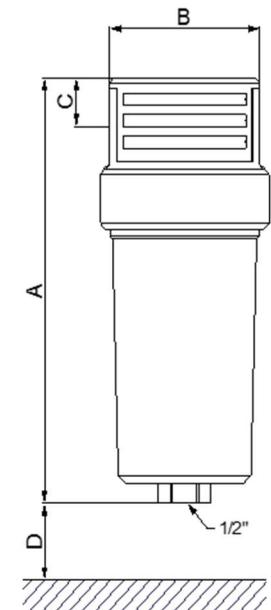
Max. pressure: 5.0 Mpa Casing material: Aluminum
 Max. air temperature: 65 °C Particulate removal: 1 μ &0.01 μ
 Pressure differential gauge: Option
 Element replacement interval: 1 year

Application:

- Laser cutting
- Automobile
- Pet bottle
- Petro chemical
- Plastic



Type	Connection D	Air flow(0.7MPa)	Dimensions (mm)				Weight kg	Element number	
		m ³ /min	A	B	C	D		1 μ	0.01 μ
HF 007	Rc 1/2	1.18	250	110	30.0	80	2.4	HF6060R	HF6060S
HF 010	Rc 3/4	1.87	250	110	30.0	90	2.4	HF7060R	HF7060S
HF 018	Rc 1	3.40	250	110	30.0	140	2.4	HF12060R	HF12060S
HF 047	Rc 1 1/2	4.70	535	160	45.0	260	6.1	HF22090R	HF22090S
HF 070	Rc 1 1/2	6.67	535	160	45.0	360	6.1	HF32090R	HF32090S
HF 094	Rc 2	8.23	715	160	45.0	540	13	HF50090R	HF50090S
HF 150	Rc 2	13.31	715	160	45.0	550	13.0	HF51090R	HF51090S
HF 200	Rc 3	36.00	772	198	70.0	620	30.3	HF51140R	HF51140S
HF 240	Rc 3	46.00	1010	198	70.0	780	34.7	HF75140R	HF75140R



Correction factor by pressure

Corrected air flow=Air flow x Correction factor

0.3 MPa	0.5 MPa	0.7 MPa	1.0 MPa	1.3MPa	1.6 MPa	2.0 MPa	3.0 MPa	4.0 MPa	5.0 MPa
0.50	0.75	1.00	1.38	1.75	2.13	2.63	3.88	5.13	6.38

Oil water separator WOSm series

Overview:

WOSm water oil separators have been developed to separate lubricant oil from condensate generated in compressed air systems. Due to patented technology regular service can be done in 30 seconds without any cleaning. Separation begins in “cyclonic depressurization chamber” and continues in “filter cartridge”. When the “filter cartridge” is fully saturated you just simply unscrew complete cartridge and replace it with new one.

All the condensate stays in old cartridge which can also be sealed with plastic cover and disposed according to local directives and laws.

Use application: Separate oil from compressor drain(not suitable for emulsion)

Residual oil content: Below 5ppm

Maintenance: 2000 hours of compressor operation
or every year

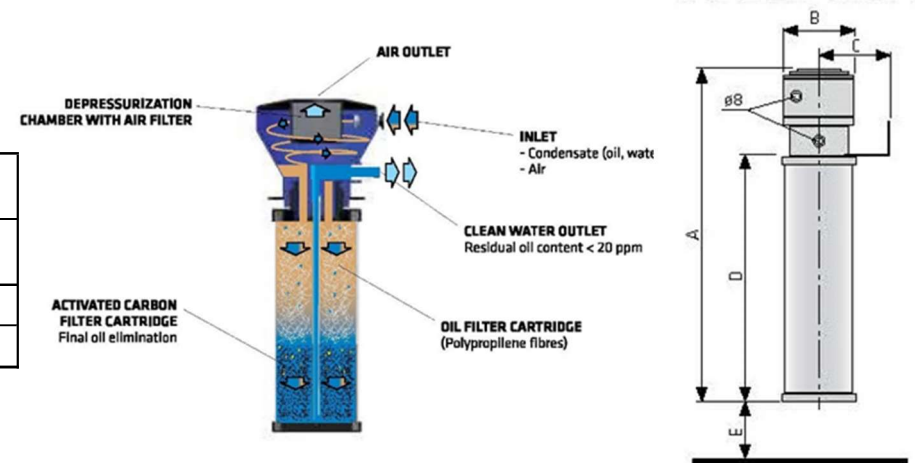
When all white polypropylene filling becomes yellow

Working condition: 1.5 – 45°C



Specification(@30deg C, 70%RH)

Type	Compressor Air flow (m ³ /min)	Inlet/outlet connection	Connection type	Dimensions (mm)				
				A	B	C	D	E
WOSm1	1	1 each	Hose ø8mm	483	106	80	335	50
WOSm2	2	1 each		816	106	80	670	50



Oil water separator WOS series

Overview:

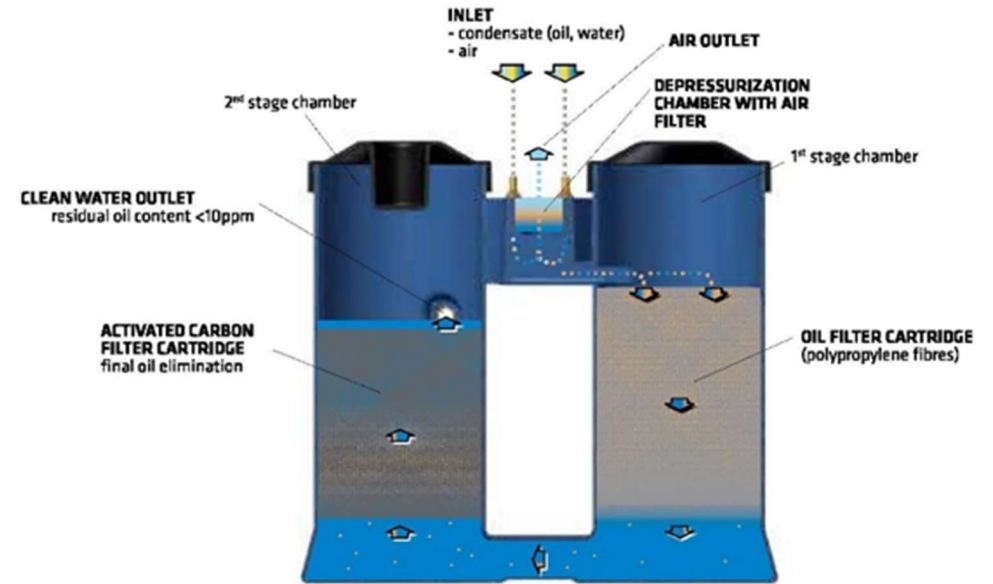
WOS water oil separators have been developed to separate lubricant oil from condensate from compressed air systems. WOS water-oil separator can be used in variety of applications.

Use application: Separate oil from compressor drain (not suitable for emulsion)

Residual oil content: Below 5ppm

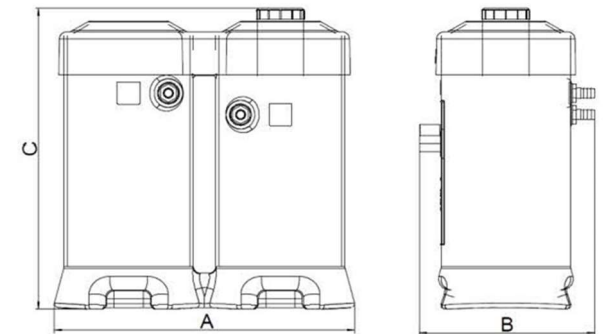
Maintenance: 2000 hours of compressor operation
Or every year

Working condition: 1.5 – 45°C



Specification (@30deg C, 70%RH)

Type	Compressor Air flow (m ³ /min)	Inlet connection	Outlet connection	Connection type	Dimensions (mm)			PP element	AC element
					A	B	C		
WOS-4	3.4	1	1	Hosetail Ø10mm	416	243	411	1	1
WOS-8	7.0	2	1		730	343	680	1	1
WOS-20	17.2	2	1		820	366	940	1	1
WOS-35	29.8	4	1		960	386	1137	2	2



Drain trap RSPSQ-400

Discharge drain from compressed air system automatically.

This trap is also suitable for compressor aftercooler, refrigeration dryer and filter etc. as external drain trap. Condensate accumulates in the aluminum reservoir and when the level is high enough condensate is discharged from the system without any air losses. Direct acting valve is operated by precise level controlled floater which assures reliable and efficient operation.

Specification

Max. inlet pressure:1.6 MPa

Max. inlet temperature:100°C

Max. discharge volume:400L/H

Connection:G 1/2

Dimensions (L x W x H mm):134 x 108 x 125



Application:

- Air compressor (Piston and Screw)
- Aftercooler
- Cyclone type drain separator
- Receiver tank
- Air dryer
- Air filter



PMS KK

Gas process Engineering

2-37 Sansei BLD 402 Higashi Korai Bashi, Chuo-ku, Osaka, Japan

Tel: [+81-6-6949-8740](tel:+81-6-6949-8740) Fax: +81-6-6949-8741

E-mail: infogpe@pmskk.com

Web site: <http://pmskk.jp/>