

# COMPRESSED AIR FILTERS



## G Series Compressed Air Filters

Mikropor Compressed Air Filters have been designed to meet all requirements of compressed air filtration world. These air filters provide more comfortable usage for end users an increased endurance, higher efficiency at lower pressure drop and more port size options.

## Filtration

Due to the usage of deep pleating technique the filtration area has increased remarkably which leads to a better filtration and higher dirt holding capacity. Mikropor Compressed Air Filters have been designed to remove airborne contamination in compressed air stream, delivering energy efficient operation and reliable performance.

## Features

The air filters have four (4) ranges of efficiencies, removing contaminants as small 0.01 micron at up to 290 psi (20barg) - 1/4" to 3" NPT/BSP pipe sizes. A protected auto float drain (2mm orifice) is standard for optimal and reliable removal of liquid contaminants.

These air filters have a zero-porosity aluminum and durable epoxy powder-coat finish, along with a corrosion-resistant internal coating for a long service life. Filter combinations are configured to meet specific application requirements. Filters comply with PED and perform as per related ISO 8573 standards. These filters may be equipped with differential pressure gauges for easy maintenance and energy efficiency. Mikropor compressed air filters are always recommended with this system.

## Types of Compressed Air Filters

- P** Pre-Filter / Particulate Filter  
(Filter/Element air flow direction is out side to inside)
- X** General Purpose Filter / Water Removal  
(Filter/Element air flow direction is inside to outside)
- Y** Coalescing Filter / Oil Removal  
(Filter/Element air flow direction is inside to outside)
- A** Activated Carbon Filter / Odor Removal  
(Filter/Element air flow direction is outside to inside)



## Technical specifications

Model	Connection Size		Flow Rate		Max. working pressure (barg)	Element Model	Housing Dimensions (mm)					
			(m <sup>3</sup> /h)	(scfm)			A	B	C	D	E	
G20	-	1/4"	-	20	12	20	M20	75	45	193	175	100
G40	-	3/8"	-	40	24	20	M40	75	45	193	175	100
G25	1/4"	3/8"	1/2"	25	15	20	M25	102	45	219,5	197,5	125
G50	1/4"	3/8"	1/2"	50	30	20	M50	102	45	219,5	197,5	125
G100	3/8"	1/2"	-	100	58	20	M100	102	45	257,5	235,5	165
G150	1/2"	3/4"	1"	150	88	20	M150	123	45	302,5	275,5	205
G200	3/4"	1"	-	200	117	20	M200	123	45	366,5	339,5	265
G250	3/4"	1"	-	250	147	20	M250	123	45	406,5	379,5	315
G300	1"	1 1/4"	1 1/2"	300	176	20	M300	123	45	463	427,5	365
G500	1 1/4"	1 1/2"	-	500	294	20	M500	123	45	493	457,5	395
G600	1 1/4"	1 1/2"	-	600	353	20	M600	123	45	538	502,5	440
G851	1 1/4"	1 1/2"	2"	851	500	20	M851	160	45	625,5	583,8	495
G1210	2"	-	-	1210	712	20	M1210	160	45	695,5	653,8	565
G1520	2"	2 1/2"	3"	1520	930	20	M1520	194	45	730	672	445
G1820	2 1/2"	3"	-	1820	1140	20	M1820	194	45	870	813	565
G2220	3"	-	-	2220	1380	20	M2220	194	45	924	867	615
G2620	3"	-	-	2620	1541	20	M2620	194	45	1068	1011	695

Specifications	Pre Filtering	General Purpose	Oil Removal	Activated Carbon
Grade	<b>P</b>	<b>X</b>	<b>Y</b>	<b>A</b>
Particle Removal (Micron)	5	1	0,01	0,01
Max. Oil carryover at 21°C (mg/m <sup>3</sup> )	5	0,5	0,01	0,003
Max. working temperature (°C)	80	80	80	25
Initial pressure loss (mbar)	40	80	100	80
Pressure loss for element change (mbar)	700	700	700	700
Element colour code	WHITE	WHITE	WHITE	METAL SS

INDICATOR TYPE
Gauge with or without electrical contact
DRAIN TYPE
Electro - adjustable
External float type
Zero-loss Drain
Manual

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## Correction Factor

Operating Pressure (barg)	1	3	5	7	9	11	13	15	16	18	20
PSIG	15	44	73	100	131	160	189	218	232	261	290
Correction Factor	0,5	0,71	0,87	1	1,12	1,22	1,32	1,44	1,50	1,57	1,63

For maximum flow rate, multiply model flow rate show in the above table by the correction factor corresponding to the working pressure.

### NOTES:

- Grade A must not operate in oil saturated conditions.
- Grade A elements should be replaced periodically to suit the applications but must be changed at least every six months.
- Grade A will not remove certain gases including carbon monoxide and carbon dioxide. Please refer to works if in doubt.
- Flow rates are based on a 7 bar operating pressure, for flows at other pressures use correction factor given above.
- All filters are suitable for use with mineral and synthetic oils.
- Gauge type pressure indicators are fitted to models G20 to G2620 as standard.
- All filters are in conformity with the Pressure Equipment Directive (97/23/EC)

**ORDERING:** The complete filter model number contains the size and grade, example - 1" general purpose filter model G250MX with replacement filter element model M250X. 250 Represent 250m<sup>3</sup>/h capacity and x represents the general purpose element.



# GO Series Compressed Air Filters

## GO Series

New additional to our G series, Mikropor "GO" series compressed air filters are designed for easy element replacement for "zero clearance" ability.

## Features

The air filters have four (4) ranges of efficiencies, removing contaminants as small as 0.01 micron at up to 290 psi (20 barg) - 1/4" to 3" NPT/BSP pipe sizes. A protected auto float drain (2mm orifice) is standard for optimal and reliable removal of liquid contaminants.

These air filters have zero-porosity aluminum and durable epoxy powder-coat finish, along with a corrosion resistant internal coating for a long service life.

Filter combinations are configured to meet specific application requirements.

Filter comply with PED and perform as per related ISO 8573 standards.

These filters may be equipped with differential pressure gauges for easy maintenance and energy efficiency. Mikropor compressed air filters are always recommended with this system.



**NEW**  
for OEM use

## Element Features

Mikropor offers Superior protection - from 1 micron to 0,01 micron.

Durable element construction and efficient drain layer ensures continued performance after optimal element change. Elements are also easy to replace with the head clips.



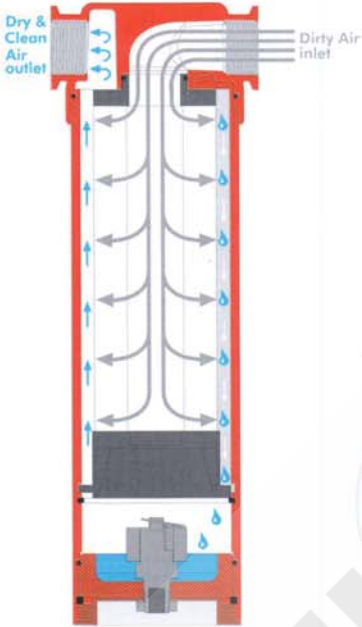
**TO REMOVE THE ELEMENT  
TWIST CLOCKWISE**



**MIKROPOR ELEMENTS  
HAVE BEEN DESIGNED  
FOR EASY HANDLING**



- 1- Deep pleating also enables a lower pressure drop
- 2- Supreme collapse resistance due to usage of fluted stainless tube provides strength against pressure drops while improving the performance by passing air diagonally through the element.
- 3- PVC impregnated foam favours Water / Oil drainage

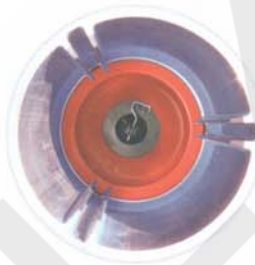


### Head Clamping

Head Clamping provides serial connection of filters without any extra piping

### Drainage Ribs

Drainage Ribs favors the humidity flow.



### Zero Clearance

A major innovation for end user is the zero clearance design. Provides for an easier bowl removal without using tool.

### Anodising

Anodising provides supreme corrosion resistance. Anodised surface treatment is proven to be better than other surface treatment methods such as Alocrome coating. Contact Mikropor to get Comparison Test results between Competitor Filters with Alocrome coating and Mikropor Filters with Anodising treatment.



With Anodising

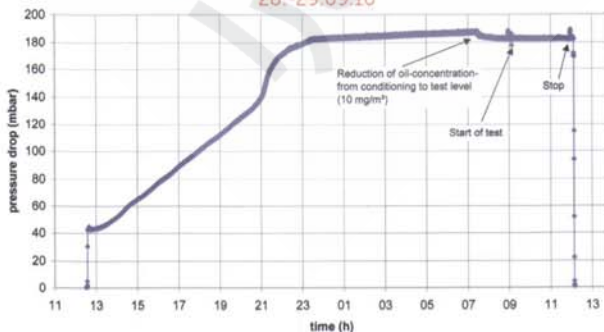


Without Anodising

### Independent test report as per ISO12500 - 1

Filterelement:	M50Y		
Element	002		
<b>Standard parameters and measuring results</b>			
Measuring parameters	unit	standard	Test
Calendar date of test			28./29.09.10
Inlet temperature	°C	20 ± 5	18,5 ± 0,5
Inlet pressure	bar (e)	7	7
Ambient temperature	°C	20 ± 5	17,5 ± 0,5
Inlet dew point	°C	< 10 °C	0 - 4
Main flow through the test filter	m³/h		50
Partial flow	m³/h		5,1
Time of conditioning	h		20,38
Measuring time	h		2,75
Inlet oil concentration at conditioning	mg/m³		23 ± 1
Inlet oil concentration at test	mg/m³	10 ± 10%	10 ± 1
Residual oil concentration	mg/m³		0,01
Pressure drop filter element	mbar		183
Remarks	mouth of probe oil-free		
Test carried out by			
Signature			

Mikropor M50Y-2 at 50m³/h ANR - 7 bar(e)  
28.-29.09.10



## Technical Specifications

Model	Connection Size			Flow Rate		Max. working pressure (barg)	Element Model	Housing Dimensions (mm)				
				(m <sup>3</sup> /h)	(scfm)			A	B	C	D	E
GO20	-	1/4"	-	20	12	20	MO20	75	45	193	175	100
GO40	-	3/8"	-	40	24	20	MO40	75	45	193	175	100
GO25	1/4"	3/8"	1/2"	25	15	20	MO25	102	45	214,5	192,5	125
GO50	1/4"	3/8"	1/2"	50	30	20	MO50	102	45	214,5	192,5	125
GO100	3/8"	1/2"	-	100	58	20	MO100	102	45	252,5	230,5	165
GO150	1/2"	3/4"	1"	150	88	20	MO150	123	45	297,5	270,5	205
GO200	3/4"	1"	-	200	117	20	MO200	123	45	361,5	334,5	265
GO250	3/4"	1"	-	250	147	20	MO250	123	45	401,5	374,5	315
GO300	1"	1 1/4"	1 1/2"	300	176	20	MO300	123	45	458	422,5	365
GO500	1 1/4"	1 1/2"	-	500	294	20	MO500	123	45	488	452,5	395
GO600	1 1/4"	1 1/2"	-	600	353	20	MO600	123	45	533	497,5	440
GO851	1 1/4"	1 1/2"	2"	851	500	20	MO851	160	45	622,5	581	495
GO1210	2"	-	-	1210	712	20	MO1210	160	45	692,5	651	565
GO1520	2"	2 1/2"	3"	1520	930	20	MO1520	194	45	725,5	669	445
GO1820	2 1/2"	3"	-	1820	1140	20	MO1820	194	45	865	808	565
GO2220	3"	-	-	2220	1380	20	MO2220	194	45	919,5	863	615
GO2700	3"	-	-	2700	1541	20	MO2700	194	45	1063,5	1007	695

Specifications	Pre Filtering	General Purpose	Oil Removal	Activated Carbon
Grade	<b>P</b>	<b>X</b>	<b>Y</b>	<b>A</b>
Particle Removal (Micron)	5	1	0,01	0,01
Max. Oil carryover at 21°C (mg/m <sup>3</sup> )	5	0,5	0,01	0,003
Max. working temperature (°C)	80	80	80	25
Initial pressure loss (mbar)	40	80	100	80
Pressure loss for element change (mbar)	700	700	700	700
Element colour code	WHITE	WHITE	WHITE	METAL SS

INDICATOR TYPE
Gauge with or without electrical contact
DRAIN TYPE
Electro - adjustable
External float type
Zero-loss Drain
Manual

## Correction Factor

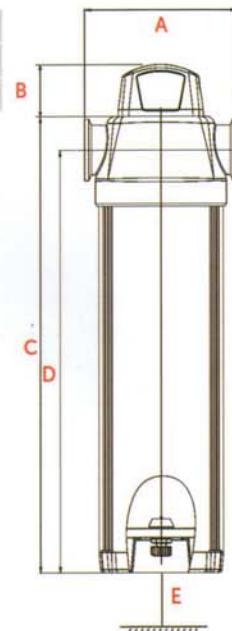
Operating Pressure (barg)	1	3	5	7	9	11	13	15	16	18	20
PSIG	15	44	73	100	131	160	189	218	232	261	290
Correction Factor	0,5	0,71	0,87	1	1,12	1,22	1,32	1,44	1,50	1,57	1,63

For maximum flow rate, multiply model flow rate show in the above table by the correction factor corresponding to the working pressure.

### NOTES:

- Grade A must not operate in oil saturated conditions.
- Grade A elements should be replaced periodically to suit the applications but must be changed at least every six months.
- Grade A will not remove certain gases including carbon monoxide and carbon dioxide. Please refer to works if in doubt.
- Flow rates are based on a 7 bar operating pressure, for flows at other pressures use correction factor given above.
- All filters are suitable for use with mineral and synthetic oils.
- Gauge type pressure indicators are fitted to models GO25 to GO2700 as standard.
- All filters are in conformity with the Pressure Equipment Directive (97/23/EC)

**ORDERING:** The complete filter model number contains the size and grade, example - 1" general purpose filter model GO250MX with replacement filter element model MO250X. 250 Represent 250m<sup>3</sup> /h capacity and x represents the general purpose element.



## Flanged Compressed Air Filters



High Performance Elements inside



### Features

- Elements are assembled by the help of a tie rod system
- Two external float drains for maximum drainage
- Unique design for pre-separation zone
- Strong welded design
- CE and ASME tanks available
- Design for easy element change from top flange

### External Float Drain

Mikropor external drains is designed to remove liquid condensation from collection points in a Compressed Air System. Durable epoxy powder-coat finish and corrosion resistant internal anodised coating for longer service life.



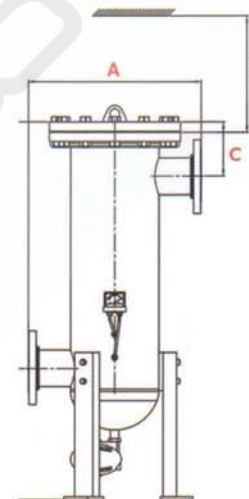
## Technical Specifications

Model	Drain Port Size	Inlet/Outlet Port Size	Flow Rate		Max. working pressure (barg)	Element Model	Number of Elements	Housing Dimensions (mm)				
			(m <sup>3</sup> /h)	(scfm)				A	B	C	D	E
F2500	1/2"	DN80	2500	1470	14	M1200	2	450	1287	277	747	650
F3200	1/2"	DN100	3200	1880	14	M1200	3	450	1317	277	767	650
F4300	1/2"	DN100	4300	2530	14	M1200	4	530	1344	279	769	650
F6500	1/2"	DN150	6500	3825	14	M1200	6	580	1425	331	796	650
F8500	1/2"	DN150	8500	5000	14	M1200	8	650	1439	333	798	650
F11000	1/2"	DN200	11000	6470	14	M1200	10	750	1504	365	825	650
F14000	1/2"	DN200	14000	8235	14	M1200	14	800	1545	383	833	650
F17000	1/2"	DN250	17000	10000	14	M1200	16	850	1583	417	862	650
F21000	1/2"	DN300	21000	12350	14	M1200	17	850	1680	447	887	650
F25500	1/2"	DN350	25500	15000	14	M1200	23	850	1778	487	917	650
F30000	1/2"	DN350	30000	17650	14	M1200	28	850	1778	487	917	650

Specifications	Pre Filtering	General Purpose	Oil Removal	Activated Carbon
Grade	P	X	Y	A
Particle Removal (Micron)	5	1	0,01	0,01
Max. Oil carryover at 21°C (mg/m <sup>3</sup> )	5	0,5	0,01	0,003
Max. working temperature (°C)	80	80	80	25
Initial pressure loss (mbar)	40	80	100	80
Pressure loss for element change (mbar)	700	700	700	700
Element colour code	WHITE	WHITE	WHITE	METAL SS

DRAIN TYPE
Electro - adjustable
External float type
Zero-loss Drain
Manual

Minimum clearance for element change



## Correction Factor

Operating Pressure (barg)	1	3	5	7	9	11	13	14
PSIG	15	44	73	100	131	160	189	200
Correction Factor	0,5	0,71	0,87	1	1,12	1,22	1,32	1,38

For maximum flow rate, multiply model flow rate show in the above table by the correction factor corresponding to the working pressure.

### NOTES:

- Grade A must not operate in oil saturated conditions.
- Grade A elements should be replaced periodically to suit the applications but must be changed at least every six months.
- Grade A will not remove certain gases including carbon monoxide and carbon dioxide. Please refer to works if in doubt.
- Flow rates are based on a 7 bar operating pressure, for flows at other pressures use correction factor given above.
- All filters are suitable for use with mineral and synthetic oils.
- Other standards for flanged connections are available.
- Direction of air flow, inside to out, through filter element

### ORDERING:

The complete filter model number contains the size and grade.  
Example - pipe size NW100 oil removal filter with model filter 3200MY replacement filter element model M1200Y.

## Mist Eliminator Compressed Air Filters



### Applications include

- Capturing oil fog, mist, or smoke from exhaust and pressure unloading vents on oil flooded compressors, vacuum pumps and blowers
- Any application requiring Low Delta P coalescing of large air volumes
- Vacuum Freeze Drying
- Vacuum Out - Gasing and Vacuum Coating
- Food Processing
- Nailers/Staplers
- Industrial Vacuum Processes
- Cement & Paper Processing

### Design

- Mist Eliminators are designed to meet the demand for:
- Efficient removal of oil-mist carryover from piston or oil flooded rotary compressors
  - Long service life
  - Strength to withstand strenuous operating conditions
  - Protection from oil slugs or compressor Air/ Oil separator failure

### Features

- Very Low pressure drop
- Large oil catching efficiency
- Easy field cleaning
- Positive sealing O-rings
- Temperature (continuous)  
4°C (40°F) min. 80°C (176°F) max.
- Auto Float Drain is Standard
- Multiple drain Style Options Available
- Pressure Rating of 14 barg (200 psig)



- Removal of particles down to 0.01 micron including coalesced liquid water and oil providing a maximum remaining oil aerosol content of 0.01 ppm
- Increased surface area in a given volume allows low velocity separation of ultra fine oil mist
- Elements are grounded to canister minimizing static electricity problems

### Mist Eliminator Element

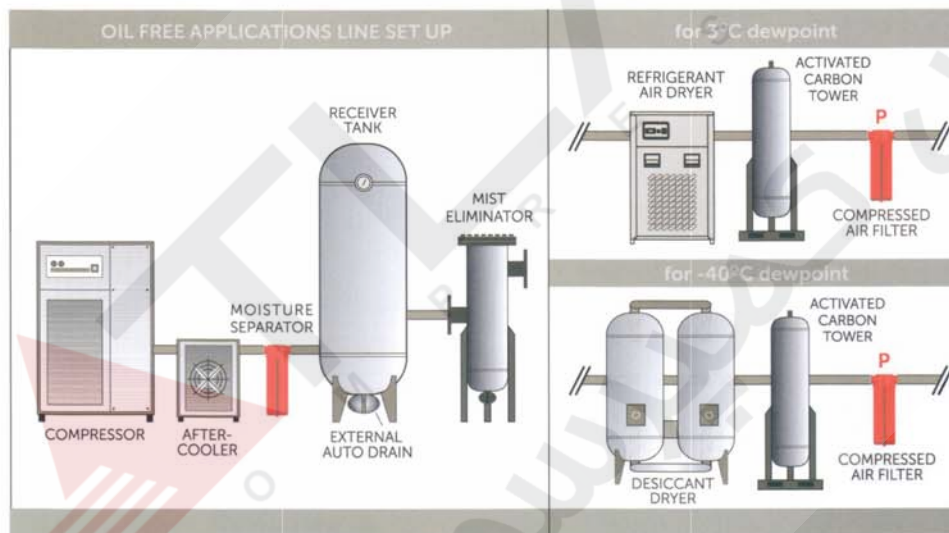
- Ultra low pressure drop reduces energy costs.
- Positive gasket seals eliminate media bypass
- Filter change out differential 2.5 psig (170 mbar)
- True Air / Oil Separator
- Long service life





## Technical specifications

Model	Drain Port Size	Inlet/Outlet Port Size	Flow Rate		Max. working pressure (barg)	Housing Dimensions (mm)							
			(m <sup>3</sup> /h)	(scfm)		A	B	C	D	ØE	ØF	G	H
ELM-150	1/2"	DN50	255	150	14	500	1003	209	459	203	103	305	330
ELM300	1/2"	DN50	510	300	14	500	1105	209	559	203	103	407	435
ELM-600	1/2"	DN50	1020	600	14	500	1461	209	916	203	103	762	790
ELM-800	1/2"	DN80	1360	800	14	500	1655	279	1084	203	103	915	950
ELM-1200	1/2"	DN80	2040	1200	14	600	1520	281	931	254	103	762	790
ELM-1600	1/2"	DN80	2720	1600	14	600	1671	281	1086	254	103	915	950
ELM-2100	1/2"	DN100	3570	2100	14	700	1575	335	953	300	129	762	790
ELM-2750	1/2"	DN100	4675	2750	14	700	1726	335	1100	300	129	915	950
ELM-4200	1/2"	DN150	7140	4200	14	800	1670	393	983	365	181	762	790
ELM-6000	1/2"	DN150	10200	6000	14	800	1925	393	1238	365	181	950	1045
ELM-8000	1/2"	DN200	13600	8000	14	850	2020	417	1277	386	233	1016	1045
ELM-10000	1/2"	DN250	17000	10000	14	1000	2118	417	1307	407	337	1016	1045
ELM-12000	1/2"	DN300	20400	12000	14	1000	2688	497	1847	437	337	1524	1550



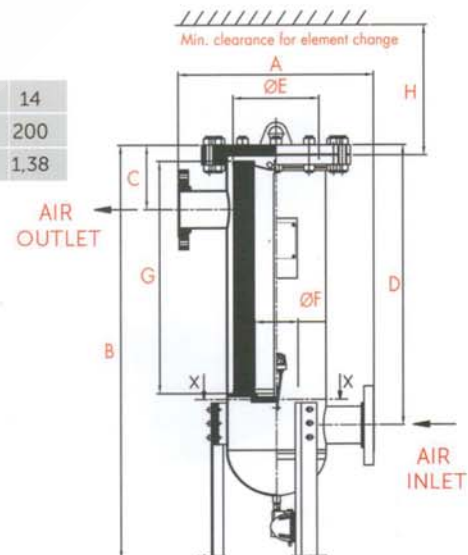
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## Correction Factor

Operating Pressure (barg)	1	3	5	7	9	11	13	14
PSIG	15	44	73	100	131	160	189	200
Correction Factor	0,5	0,71	0,87	1	1,12	1,22	1,32	1,38

For maximum flow rate, multiply model flow rate show in the above table by the correction factor corresponding to the working pressure.

DRAIN TYPE
Electro - adjustable
External float type
Zero-loss Drain
Manual



## High Pressure Compressed Air Filters



High Pressure  
High Performance  
**350 bar**

### Features

Mikropor manufactures a line of High Performance Compressed Air Filters, Moisture Separators in two different range **50 bar** range made of Aluminum, no welding, strong and reliable design. **350 bar** range made of Steel, no welding, and designed for reliability at very high pressure applications.

### Anodised Aluminum Design with High Performance

Mikropor High Pressure Range Compressed Air Filters are NO weld design. These filters are built with a very thick wall thickness and as a result are extremely robust. In-house high pressure test facilities assure the performance.

All inner and outer surfaces of **50 bar** aluminum design filters are anodised. **350 bar** Carbon Steel design filters are epoxy electro powder coated.

#### DRAIN TYPE

HG - Manual Brass Drain

HGH - Manual Brass Drain

**50 bar**



## Technical Specifications

Model	Drain Port Size	Flow Rate at 50 bar		Max. working pressure (barg)	Element Model	Housing Dimensions (mm)				
		(m <sup>3</sup> /h)	(scfm)			A	B	C	D	E
HG100	1/4"	71	42	50	M25	106	119	30	88	201
HG300	1/2"	212	125	50	M50	106	119	30	88	201
HG600	3/4"	425	250	50	M100	106	119	30	88	201
HG850	1"	595	350	50	M150	123	140	39.5	103	357
HG1200	1"	850	500	50	M200	123	140	39.5	103	357
HG1600	1 1/2"	1600	940	50	M250	123	140	39.5	103	357
HG2500	2"	2500	1470	50	M2500	159	179	56	133	380
HG3000	2 1/2"	3000	1765	50	M3000	159	179	56	133	380

Model	Drain Port Size	Flow Rate at 350 bar		Max. working pressure (barg)	Element Model	Housing Dimensions (mm)			
		(m <sup>3</sup> /h)	(scfm)			A	B	C	D
HGH100	1/4"	102	60	350	M25	113,4	115,4	25,75	155
HGH300	1/2"	298	175	350	M50	113,4	115,4	25,75	158,5
HGH600	3/4"	595	350	350	M100	109,4	115,4	32,25	207
HGH850	1"	850	500	350	M150	133	138	37,35	250
HGH1200	1"	1190	700	350	M200	133	138	37,35	314
HGH1600	1 1/2"	2240	1317	350	M250	128	138	44,4	368
HGH2500	2"	3500	2058	350	M2500	145	158	51,5	393
HGH3000	2 1/2"	4200	2470	350	M3000	160	178	57,6	386

Specifications	Pre Filtering	General Purpose	Oil Removal	Activated Carbon
Grade	P	X	Y	A
Particle Removal (Micron)	5	1	0,01	0,01
Max. Oil carryover at 21°C (mg/m <sup>3</sup> )	5	0,5	0,01	0,003
Max. working temperature (°C)	80	80	80	25
Initial pressure loss (mbar)	40	80	100	80
Pressure loss for element change (mbar)	700	700	700	700
Element colour code	WHITE	WHITE	WHITE	METAL SS

### NOTES:

- Grade A must not operate in oil saturated conditions.
- Grade A elements should be replaced periodically to suit the applications but must be changed at least every six months.
- Grade A will not remove certain gases including carbon monoxide and carbon dioxide. Please refer to works if in doubt.
- All filters are suitable for use with mineral and synthetic oils.
- The above housings require only one filter element.
- Direction of air flow, inside to out, through filter element. Except grade A
- Manual drain is standard. Electronic timer is optional.

### ORDERING:

The complete filter model number contains the size and grade, Example - 1/4" general purpose filter model HG100MX with replacement filter element model M100X.

