



HG Series 16 bar Compressed Air Filters

For solid particles and oil vapours



Introduction

Compressed air has been recognized as a safe and reliable power source widely used throughout industry. Approximately 90% of all manufacturing companies use compressed air in some aspect of their operations. Unlike gas, water & electricity which is supplied to site by a utility supplier and to strict tolerances and quality specifications, compressed air is generated on-site by the users. The quality of compressed air and the cost of producing this powerful utility is therefore the responsibility of the users.



HG Series Compressed Air Filters



The Problem with Compressed Air and Contaminations

Compressed air systems inherently suffer from performance and reliability issues and almost all of the problems associated with the compressed air system and many manufacturing related quality issues can be directly attributed to contamination found in the compressed air.



Solid particles



Pipe scale



Liquid water



Liquid oil



Oil vapour



Micro-organisms

Submicronic contaminants in compressed air systems plug orifices of sensitive pneumatic instrumentation, wear out seals, erode system components, reduce the absorptive capacity of desiccant air/gas dehydrators, foul heat transfer surfaces, reduce air tool efficiency, and damage finished products. The results include product rejects, lost production time and increased maintenance expense. For example, trace amounts of submicronic oil can cause serious fish eye blemishing in automotive finishing operations.

Water left in air lines can freeze during exposure to cold temperatures, blocking flow or rupturing pipes. Compressor lubricant not captured in a coalescing filter will eventually collect in pneumatic components, causing premature component failure, requiring repair or replacement. Environmental concerns will be raised if oily, compressed air is continually discharge into the atmosphere through a pneumatic muffler.

Above types of contaminants that must be treated and reduced to acceptable levels to ensure the safe, efficient and economical operation of the compressed air system.

About HG Series Air Filters

HG series aluminum alloy die casting air filters are designed to remove liquid aerosols, water, oil, and sub-micron particles from compressed air.

Filtration efficiency can reach 99.99% to remove particles smaller than 0.01 micron. This will improve product pass rates, reduce maintenance costs, increase productivity, and lower production costs.



YunAir's filter housings have an exquisite and unique appearance in green color, which provides a fresh and natural feeling as if you were in the middle of a forest.



Filter elements provide excellent filtration for solid particles and oil vapours, resulting in lower pressure drops and significant energy savings.



No tie-rod required, the air filter element can be easily installed and maintained by operators and takes up less space in the installation area.



Air filter housings are protected by an alocrome process treatment and tested by salt spray, allowing them to be used in extremely corrosive environments, such as offshore platforms.



A wall bracket and connection kit are provided for easy wall mounting and save installation space.



The differential pressure gauge installed on the housing of the air filter indicates the difference between the two pressures and indicates the possibility of premature blockage of the filter element.



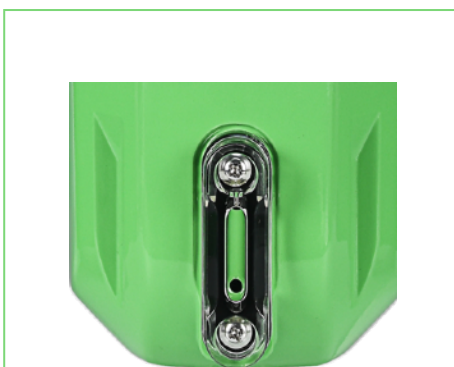
On the filter head, two pieces of yellow air flow direction kits clearly indicates the direction of air flow.



An internal float ball drain is equipped for the purpose of removing condensate without losing

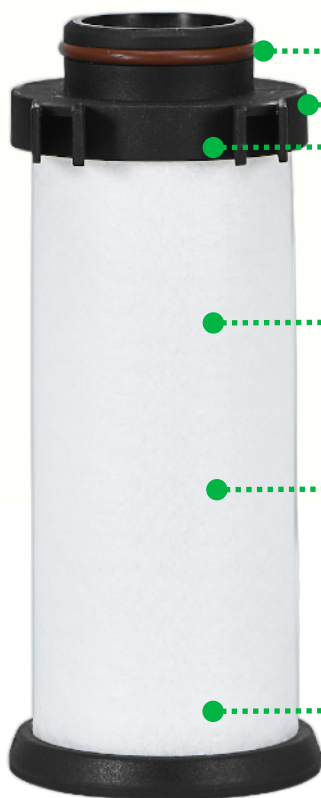


The lock design indicates the direction in which it should be tightened and loosened.



Sight glass is used to monitor the liquid level of the moisture water separator and dry filter.

Filter Element Features & Filtration Grades



Brown Fluorine rubber O-rings enriched air flow

End caps made of glass filled nylon that are corrosion resistant.

Element cap ensure perfect sealing within the filter housing and assist with easy removal without tie rod.

The use of stainless steel cylinders provides corrosion resistance and strong and stable performance to the element.

The hydrophobic and oleophobic borosilicate media have been developed specifically to enable consistently low pressure drop, wrap element construction, which results in a high dirt holding capacity and not easily damaged. This media is used on both general purpose and high efficiency filtration grades.

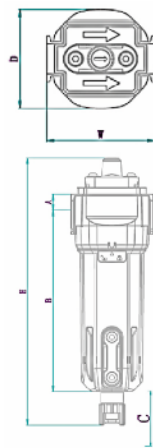
An outer drainage layer designed specifically to prevent oil carryover and improve

Element Grade	PF	AO	AA	AX	ACS	AR	AAR
Solid particle size (ISO12500-3)	5µm	1µm	0.01µm	0.01µm	N/A	1µm	0.01µm
Remove efficiency (ISO12500-3)	N/A	99.999+%	99.999+%	99.999+%	99.999+%	99.999+%	99.999+%
Residual oil content (ISO12500-1)	5 mg/m ³	0.6 mg/m ³	<0.01mg/m ³	< 0.001 mg/m ³	< 0.003 mg/m ³	N/A	N/A
Oil remove efficiency (ISO12500-1)	50%	90%	99.99+%	99.99%	N/A	N/A	N/A
Dry pressure drop	N/A	80mbar	80mbar	90mbar	140mbar	N/A	N/A
Wet pressure drop	N/A	200mbar	200mbar	200mbar	N/A	N/A	N/A
Every change	6000 hours	8000 hours	8000 hours	8000 hours	when oil detected	6000 hours	6000 hours

Product Selection

Provide 7 grades of filtration grades PF/AO/AA/AX/ACS/AR/AAR, efficiently meet the needs of compressed air purification.

Model	Inlet/ outlet (Rc)	Rated air flow at 7bar			Dimensions (mm)				
		L/S	Nm ³ / min	scfm	Width (W)	Depth (D)	Height (H)	A	B
HG017	1/2"	16.7	1.0	35.3	91.7	82.5	255.0	17.5	164.0
HG025	3/4"	25.0	1.5	53.0	91.7	82.5	255.0	17.5	164.0
HG030	1/2"	30.0	1.8	63.6	91.7	82.5	285.0	17.5	192.7
HG035	3/4"	33.3	2.0	70.6	91.7	82.5	285.0	17.5	192.7
HG058	3/4"	46.7	2.8	98.9	133	119.6	393.0	24.4	257.6
HG068	1"	60.0	3.6	127.1	133	119.6	393.0	24.4	257.6
HG080	1"	80.0	4.8	169.5	133	119.6	492.0	24.4	356.2
HG145	1-1/2"	120.0	7.2	254.2	135	118.0	504.0	36.0	361.6



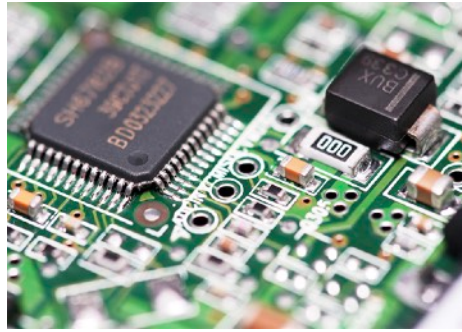
Pressure	Barg	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
	Psig	15	29	44	59	73	87	100	116	131	145	160	174	189	203	219	232
Pressure Correction Factor		0.38	0.53	0.65	0.76	0.85	0.93	1.00	1.07	1.13	1.19	1.23	1.31	1.36	1.41	1.46	1.51

To correctly select an air filter model, the flow rate of the air filter must be adjusted for the minimum operating (inlet) pressure at the point of installation.

Calculate the adjust filtration capacity:

1. Minimum Filtration Capacity = Compressed Air Flow Rate x pressure correction factor rate.
2. Using the minimum filtration capacity, select an air filter model from the flow rate tables above (air filter selected must have a flow rate equal to or greater than the minimum filtration capacity).

Applications of Compressed Air



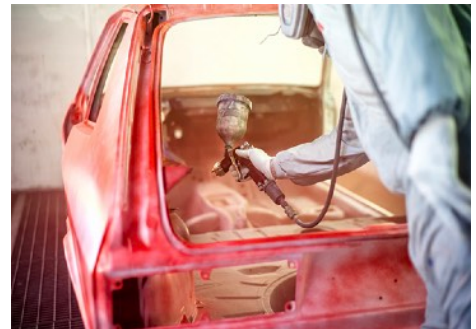
Electronic



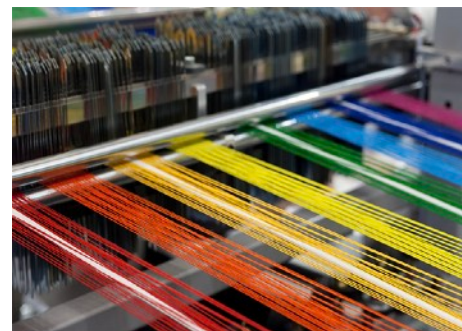
Laser Cutting



PET Blowing



Car Painting



Textile



Oil and Gas



Food



Instruments



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OEM Capabilities

When you need a special filter for a unique application, Yun Air experts are ready to work with you. We can tailor a configuration to meet your special need from the wide variety of filter media available. In addition, with LEAN manufacturing, we can produce specials in reasonable quantities, in a reasonable amount of time, at a reasonable price. Not only will this enhance the performance of your product, but it will benefit you with aftermarket sales of replacement elements.

OUR RANGES OF PRODUCTS INCLUDE THE FOLLOWING:

- Compressed air dryers
- Compressed air filters
- Compressed air water separators
- Alternative air filter elements
- Condensate auto drain
- Compressed air accessories
- Portable mask