# **COMPRESSED AIR FILTERS**

High efficiency filtration for clean, dry and technically oil-free compressed air



INDUSTRIES



## **High Quality Filter Housings**

A new range of compressed air filter units from Hi-line have been designed with economy and efficiency in mind, for the removal of oil, water, particulates and gaseous aerosols from compressed air systems using a range of high performance filtration elements. The die-cast filter housings are produced from high-grade aluminium with a special feature of both external and internal surfaces being Alu-Chrome treated. In addition, they are also subject to a tough epoxy baked on paint finish in 'compressed air blue' – RAL 5015. These treatments are designed to provide long-term protection, even when subject to the harshest of conditions, ensuring a long service lifetime.

Optional electronic or pneumatic differential pressure gauges can be fitted as required. The oil/water condensate is removed via a highly efficient robust brass drain assembly with the built-in capability to attach a 6mm diameter nylon condensate discharge line.

#### **Filter Media**

Hi-line elements are manufactured with 'pleated' filter media. Pleated media has four times the amount of crosssectional surface area compared to conventional wrapped or rolled media. The pleated media gives a much lower pressure drop. This in turn will save energy as the compressor doesn't have to work as hard to get the air through the filter and with four times more media significantly longer service life is obtained.

These elements provide impressive filtration efficiencies from 99.99% to 99.99999% with a further grade being specific to oil/aerosol removal down to 0.003mg/m utilising activated carbon technology.

All Hi-line elements are manufactured with polished aluminium end caps, which are stronger and better suited to any elevated temperatures.

### **Alternative Elements**

Hi-line offer 'upgrades' to competitors filters, the 'copy exact' philosophy means that all Hi-line alternative filter elements are made with 'pleated' media allowing the original housing to give you the high performance low cost filtration features enjoyed by Hi-line filter elements.

## **Hi-line Industries Filter Housing Data**

Port Connection	Filter Model	Capacity @ 7 bar Nm_/h (cfm)	Element Number		
1/2"	HF25-N	42 (25)	HE25-N		
1/2"	HF36-N	61 (36)	HE36-N		
1/2"	HF50-N	85 (50)	HE50-N		
1/2"	HF72-N	122 (72)	HE72-N		
3/4"	HF75-N	122 (72)	HE72-N		
1"	HF120-N	204 (120)	HE120-N		
11/2"	HF210-N	357 (210)	HE210-N		
11⁄2″	HF320-N	544 (320)	HE320-N		
11⁄2″	HF500-N	850 (500)	HE500-N		
2"	HF630-N	1070 (630)	HE630-N		
21/2"	HF850-N	1444 (850)	HE850-N		
3"	HF1400-N	2379 (1400)	HE1400-N		
3"	HF1700-N	2888 (1700)	HE1700-N		

Where N is either 2, 3, 4 or 5 depending on grade required.

# Filter Grades

Grade 2	Particle removal down to 3 micron (99.99%).
Grade 3	Oil removal down to 0.1mg/m @ 20°C & 7 bar. Partical removal down to 1 micron (99.999%).
Grade 4	Oil removal down to 0.01mg/m $ m @~20^\circ C$ & 7 bar. Partical removal down to 0.01 (99.9999%).
Grade 5	Oil removal down to 0.003mg/m @ 20°C & 7 bar.

Differential pressure gauge: DP gauge     Replacement drains: INTD416	All available	All available ex stock, Burton-upon-Trent		
Example of how to order	Standard Filter	Filter with D/P		
1/2" Filter housing, 50cfm. Micron rating 0.01mu	HF50-4	HF50-4D		

### **Capacity Correction for Various Operating Pressure**

Pressure	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Factor	0.25	0.38	0.5	0.65	0.75	0.88	1.0	1.13	1.25	1.38	1.5	1.63	1.75	1.88	2.0	2.13

Filter Grade	Particle removal down to	Oil removal down to (*)	Normal Initial Pressure Drop		
2	3 micron	-	0.03 bar g		
3	1 micron	0.1mg/m <sup>3</sup>	0.05 bar g		
4	0.01 micron	0.01mg/m <sup>3</sup>	0.09 bar g		
5	-	0.003mg/m <sup>3</sup>	0.10 bar g		

(\*) referred to 7 bar and 20°C

2 = Dust or pre filter 3= Oil removal/coalescing 4 = Ultra high efficiency oil removal 5 = Activated carbon element

## **General Information**

Maximum recommended operating temperature of 60°C

Minimum recommended operating temperature of 1°C

Maximum recommended operating temperature of 16 bar

Filters come complete with high quality brass autodrain assembly - zeroloss Differential pressure gauge optional

All filters have aluminium end caps and brass tie rods

Filter elements are made with 'pleated' media for long service life All filter housings are CE marked and PED 97/23/EC compliant

