



PRECISE COMPRESSED AIR FILTER

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Compressed air without purification in industrial application contains in more than 100 millions polluting particles such as oil, dirt, water and etc. Most of these particles are so small in dimension, less than 5 micron, that it cannot be filtered / intercepted by the standard intake filter in the compressor. Such particles mixed with water and oil vapours generated during compression, caused the early wear and tear of the appliances and consequently caused of expensive interruptions to the production and increase the number of the intervention for the maintainance purposes.

A right selction of filters will allows the best choice of the suitable equipment according to the quantity of air to treated and the necessary filtration degree in order to improve the performance of the whole system.

### **BELAIR FILTER GRADE**

#### Filter Grade GF

- For coarse pre-filtration
- Particle removal down to 3 micron

#### Filter Grade PF

- For general filtration
- Particle removal down to 1 micron
- Oil content down to 0.1 mg/m³ at 20 °C

#### Filter Grade AF

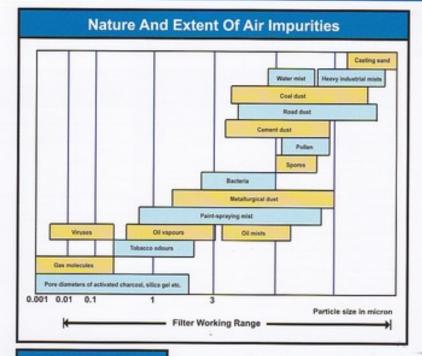
- For high performance filtration
- Particle removal down to 0.01 micron
- Oil content down to 0.01 mg/m³ at 20°C

#### Filter Grade XF

- For high performance filtration
- Particle removal down to 0.01 micron
- Oil content down to 0.001 mg/m³ at 20°C

#### Filter Grade AC

- Activated carbon filter. For odour removal. Applicable in oil lubricated compressors.
- For removal of oil content down to 0.003 mg/m³ at 20°C



#### ISO8573.1-2001

| Class | Solid Particle (ma | ximum number of | Water Pressure | Oil (incl. vapour)      |       |
|-------|--------------------|-----------------|----------------|-------------------------|-------|
|       | 0.1-0.5 µ          | 0.5-1.0 µ       | 1.0-5.0 µ      | Dewpoint <sup>o</sup> C | mg/m³ |
| 1     | 100                | 1               | 0              | -70                     | 0.01  |
| 2     | 100,000            | 1,000           | 10             | -40                     | 0.1   |
| 3     |                    | 10,000          | 500            | -20                     | 1.0   |
| 4     | -                  | -               | 1,000          | +3                      | 5     |
| 5     |                    | - 2             | 20,000         | +7                      |       |
| 6     | -                  |                 | -              | +10                     |       |





# TECHNICAL DATA & SPECIFICATION

| Model     | Flow Rate<br>(m3/min) | Connection<br>(inches) | Dimension (mm) |      |     | Weight | Element Kit |          |
|-----------|-----------------------|------------------------|----------------|------|-----|--------|-------------|----------|
|           |                       |                        | A              | В    | С   | (KĞ)   | Model       | Quantity |
| BHKF-10*  | 1.0                   | 3/4"                   | 105            | 300  | 260 | 1.5    | E-10*       | 1        |
| BHKF-18*  | 1.8                   | 1-1/2*                 | 105            | 300  | 260 | 1.5    | E-18*       | 1        |
| BHKF-28*  | 2.8                   | 1-1/2*                 | 125            | 370  | 330 | 1.7    | E-28*       | 1        |
| BHKF-48*  | 4.8                   | 1-1/2"                 | 125            | 500  | 460 | 3.5    | E-48*       | 1        |
| BHKF-71*  | 7.1                   | 2"                     | 125            | 500  | 460 | 3.5    | E-71*       | 1        |
| BHKF-110* | - 11                  | 2"                     | 135            | 635  | 595 | 4.5    | E-110*      | 1        |
| BHKF-140* | 14                    | 2-1/2"                 | 135            | 635  | 595 | 4.5    | E-140*      | 1        |
| BHKF-180* | 18                    | 2-1/2"                 | 315            | 965  | 830 | 38     | E-180*      | 1        |
| BHKF-230* | 23                    | 2-1/2"                 | 315            | 1125 | 830 | 38     | E-230*      | 1        |
| BHKF-270* | 27                    | 3*                     | 400            | 1150 | 970 | 43     | E-270*      | - 1      |
| BHKF-350* | 35                    | 3"                     | 400            | 1150 | 970 | 43     | E-350*      | 1        |

| Filter Grade (*) | Particle Removal<br>Down To | Oil Removal<br>Down To | Norminal Initial<br>Pressure Drop |
|------------------|-----------------------------|------------------------|-----------------------------------|
| GF               | 3 micron                    |                        | 0.03 bar g                        |
| PF               | 1 micron                    | 0.1mg/m <sup>3</sup>   | 0.05 bar g                        |
| AF               | 0.01 micron                 | 0.01mg/m <sup>3</sup>  | 0.09 bar g                        |
| XF               | 0.01 micron                 | 0.001mg/m <sup>3</sup> | 0.10 bar g                        |
| AC               |                             | 0.003mg/m <sup>3</sup> | 0.10 bar g                        |

## Modification for Model Selection

| Working Pressure (MPa(g)) | 0.1  | 0.2  | 0.3  | 0.5  | 0.7  | 0.9  |
|---------------------------|------|------|------|------|------|------|
| Correction Factor         | 0.38 | 0.53 | 0.65 | 0.85 | 1.00 | 1.13 |

<sup>\*</sup> BELAIR reserved the right to make technical changes without prior notice, errors and omissions excepted

