

# **Compressed air filters**

Pro range cr/cf/dr/df/0f 12-690

Housing with powder coating to maximize corrosion protection

Strong and durable zinc plated cylinders

#### Atlas Copco filtration solutions

- High performance oil coalescing filters
- Optimal dry dust filtration
- Oil vapor and odor removal filter

Float drain automatically expels all captured oil and water (for CR & CF)

# **Features & benefits**



# Filtration technologies

Choose the best filtration technology for your application to improve your air quality and end product quality.



#### Dry & wet particles: wrapped media

Wrapped media are known for their durability in wet and oil-contaminated environments. Our wrapped layers can offer constant air quality at the lowest pressure drop, even in the harshest working conditions.

#### Oil vapor: activated carbon layers

The activated carbon will reduce hydrocarbons, odors and oil vapor by the use of adsorption. Our activated carbon layers can offer low pressure drop and stay minimal during the lifetime of the filter.

# Performance

|   | CR                 | CF                    | DR                  | DF                 | OF                                       |  |  |  |
|---|--------------------|-----------------------|---------------------|--------------------|--|--|--|--|
|   | Coalescence Rough  | Coalescence Fine      | Dust Rough          | Dust Fine          | Oil Vapor                                |  |  |  |
| Contaminant                                 | Oil ae             | erosol                | Dry c               | lust               | Oil vapor                                |  |  |  |
| Test method                                 | ISO1250            | 0-1:2007              | ISO12500            | -3:2009            | ISO8573-5:2001                           |  |  |  |
| ISO class 8573-1<br>in typical installation | [2:-:3]            | [1:-:2]               | [2:-:-]             | [1:-:-]            | [-:-:1]                                  |  |  |  |
| Initial dry (wet)<br>pressure drop (mbar)   | 135 (245)          | 150 (280)             | 135 150             |                    | 190                                      |  |  |  |
| Element service                             | After 4,000 operat | ing hours or 1 year   | After 4,000 operati | ng hours or 1 year | After 1,000 operating hours<br>or 1 year |  |  |  |
| Precede with                                | Water Separation   | Water Separation & CR | Dryer               | Dryer & DR         | Water Separation<br>CR/CF<br>Dryer       |  |  |  |

\*Note: For a better performance or a different applications, please contact an Atlas Copco sales representative or visit the Atlas Copco website.

# **Your benefits**

#### Maximum oil aerosol, wet dust and water droplet filtration and drainage High-efficient glass fiber and foam media

#### **Easy maintenance**

External ribs on the threaded housing.

#### Significant energy savings & limited system operating costs Optimal design and filter media allow low pressure losses.

**High reliability** 

Power coated filter housing, which prevent corrosion and epoxy sealed caps.

## **Sizing and dimensions**

|                | Nominal | Capacity | Reference | Pressure | Maximum | Pressure | Connections | Dimension |       |     |       |     |       | Weight |      |
|----------------|---------|----------|-----------|----------|---------|----------|-------------|-----------|-------|-----|-------|-----|-------|--------|------|
| Filter<br>Size | l/s     | cfm      | bar(e)    | psig     | bar(e)  | psig     | in          | L         |       | w   |       | н   |       | kg     | lbs  |
|                |         |          |           |          |         |          |             | mm        | inch  | mm  | inch  | mm  | inch  |        |      |
| 12             | 12      | 25       | 7         | 102      | 16      | 232      | 3/4         | 400       | 15.60 | 100 | 3.90  | 133 | 5.19  | 0.9    | 2.0  |
| 25             | 25      | 53       | 7         | 102      | 16      | 232      | 3/4         | 400       | 15.60 | 100 | 3.90  | 133 | 5.19  | 0.9    | 2.0  |
| 45             | 45      | 95       | 7         | 102      | 16      | 232      | 3/4         | 442       | 17.24 | 100 | 3.90  | 133 | 5.19  | 1.1    | 2.4  |
| 65             | 65      | 138      | 7         | 102      | 16      | 232      | 1           | 460       | 17.94 | 122 | 4.76  | 143 | 5.58  | 1.7    | 3.7  |
| 90             | 90      | 191      | 7         | 102      | 16      | 232      | 1 1/2       | 508       | 19.81 | 135 | 5.27  | 143 | 5.58  | 2.0    | 4.4  |
| 160            | 160     | 339      | 7         | 102      | 16      | 232      | 2           | 614       | 23.95 | 190 | 7.41  | 190 | 7.41  | 4.0    | 8.7  |
| 215            | 215     | 456      | 7         | 102      | 16      | 232      | 2           | 655       | 25.55 | 190 | 7.41  | 190 | 7.41  | 4.4    | 9.6  |
| 265            | 265     | 562      | 7         | 102      | 16      | 232      | 2           | 695       | 27.11 | 260 | 10.14 | 190 | 7.41  | 4.6    | 10.2 |
| 360            | 360     | 763      | 7         | 102      | 16      | 232      | 2 1/2       | 815       | 31.79 | 310 | 12.09 | 235 | 9.17  | 7.3    | 16.2 |
| 525            | 525     | 1112     | 7         | 102      | 16      | 232      | 3           | 903       | 35.22 | 425 | 16.58 | 277 | 10.80 | 10.5   | 23.1 |
| 690            | 690     | 1462     | 7         | 102      | 16      | 232      | 3           | 1077      | 42.00 | 550 | 21.45 | 277 | 10.80 | 12.4   | 27.2 |

## **Correction Factor**

| Inlet pressure (bar)  | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 10   | 12   | 14   | 16   |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Inlet pressure (psig) | 15   | 29   | 44   | 58   | 72.5 | 87   | 102  | 116  | 145  | 174  | 203  | 232  |
| Correction factor     | 0.38 | 0.53 | 0.65 | 0.75 | 0.83 | 0.92 | 1.00 | 1.06 | 1.20 | 1.31 | 1.41 | 1.50 |

#### Example

- Working pressure 3 bar(g), compressed air flow 35 l/s
- Multiply the nominal capacity of the selected filter with the corresponding correction
- factor at the required working pressure to obtain the capacity at working pressure.
  Size 45:45 l/s \*0.65 = 29 l/s => the 45 filter size is not large enough.
  Size 65: 65l/s\*0.65=42l/s=>the 65 filter size is the size to select.

### **Options**

Pressure differential gauge could be ordered seperately as accessory. Details please contact Atlas Copco sales representative.



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