

Ultra-Filter

DF 0035 - DF 1100

Filter with Economizer/ Economizer and pneumatic/ electronic drain resp. plug for application of different element types for the industrial processing of compressed air and gases.

Product description:

The filters Ultra-Filter DF are intended for the processing of compressed air or other gases in different areas of applications.

The intelligent overall concept of the filter unites the following characteristics:

- high performance
- efficiency
- compactness
- easy of use
- flexibility
- safety

Validated performance data acc. to ISO 12500-1 for reliable achievement of compressed air quality suitable to the application acc. to ISO 8573-1.

Besides energy cost savings by the filter design, the use of the Economizer offers further saving achievements through timely replacement of the used filter elements. The most cost-effective replacement time for the filter element is calculated and LEDs then signal that the "filter exchange" is necessary.

With 9 sizes the Ultra-Filter covers the performance range from 35 to 1100 m³/h flow rate and hence conventional compressor capacities between 2 and 120 KW.



Version Superplus



Filter combination with adapter

Three versions are available:

Standard

(type with float condensate drain and Economizer / with element A with plug, without Economizer).

Plus

(float condensate drain and Economizer / with element A with plug and Economizer).

Superplus

(level-controlled condensate drain UFM-T and Economizer).

A selection of appropriate filter grades by filter element types **S, M, V, B, P, A** ensure that the right product for the filtration task is always available to the user.

The filter housing design allows an easy replacement of the filter element. The filter bowl is rotated slightly via a bayonet lock and can be removed together with the filter element.








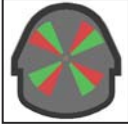

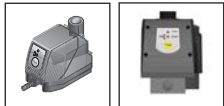
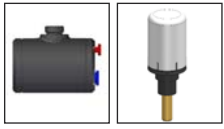


For this a installation height of only a few centimetres of ground clearance is necessary.

Ultra-Filter DF 0035 - DF 1100

Technical Data

| Features: | Benefits: |
|--|--|
| Validated performance data acc. to ISO 12500-1 | Reliable achievement of compressed air quality acc. to ISO 8573-1 |
| Intelligent overall concept | Flow range, filtration grades, efficiencies and available options perfectly meet requirements of industrial air purification |
| Flow-optimised filter housing and filter element design | Low pressure losses, thereby saving of energy costs |
| Bayonet fixing between filter head and filter bowl; element can be removed together with filter bowl; filter head with integrated differential pressure indicator can be rotated | Easy to use construction - simplified filter replacement; simple installation and assembly |
| Little installation height for the filter element exchange, differential pressure indicator integrated in filter head | Compact, space-saving construction - installation within smallest space possible |
| Changing the coding clip inside the filter cover allows the filter element to be rotated and thus change the flow direction | High flexibility - filters can be either used as coalescence filters or particulate filters |
| Filter cannot be opened under pressure due to bayonet lock | High safety during operation |
| Filter housings immersion-laquerred on the inside and outside surface | Ensures long-term corrosion protection, in particular against aggressive condensates |

| Options: | |
|--------------------|--|
| Econometer | Mechanical differential pressure indicator |
| Economizer | Differential pressure indicator for the determination of the most economical time for replacement of the filter element; Possibility of remote data transmission |
| KA ½ / UFM-P | Float drain, pneumatically |
| UFM-T | Electronic level-controlled condensate drain without compressed air losses |
| UFZ | Time-controlled condensate drain |
| S | Plug |
| Wall bracket | Distance to the wall gradelessly adjustable (except DF-0035) |
| Connection adapter | Intelligent adapter solution for filter combination |
| Filter elements | V / M / S (coalescence filter) P / B (Pre-filter / particulate filter) A (activated carbon filter) |

| Ultra-Filter | DF - S | 0035 | Z | U |
|--------------|--|--|--|--|
| |  M  S  V  P  B  A | 0035 0070 0120 0210 0320 0450 0600 0750 1100 |  Z = Economizer  M = Econometer  P = Plate |  U = UFM-T05 SP / T1  K = UFM-P / KA 1/2  T = UFZ  S = Plug |

| | |
|-------------------------------------|---|
| P-filter Particle filter | Initial differential pressure : 0,15 bar 1 Efficiency : 100% related to 25 µm |
| B-filter Particulate filter | Initial differential pressure : 0,12 bar 1 Efficiency : 100% related to 25 µm |
| A-filter Activated carbon filter | Initial differential pressure : 0,15 bar 1 Residual oil content : 0,003 mg/m ³ 3 |
| V-filter Coalescence filter | Initial differential pressure : 0,11 bar 1 Residual oil content : < 0,2 mg/m ³ 2 |
| M-filter Coalescence filter | Initial differential pressure : 0,11 bar 1 Residual oil content : < 0,02 mg/m ³ 2 |
| S-filter Coalescence filter | Initial differential pressure : 0,13 bar 1 Residual oil content : < 0,01 mg/m ³ 2 |

1 related to nominal performance at 7 bar, dry condition
 2 related to an inlet concentration of 3 mg/m³
 3 when upstream connected a M- or S-filter

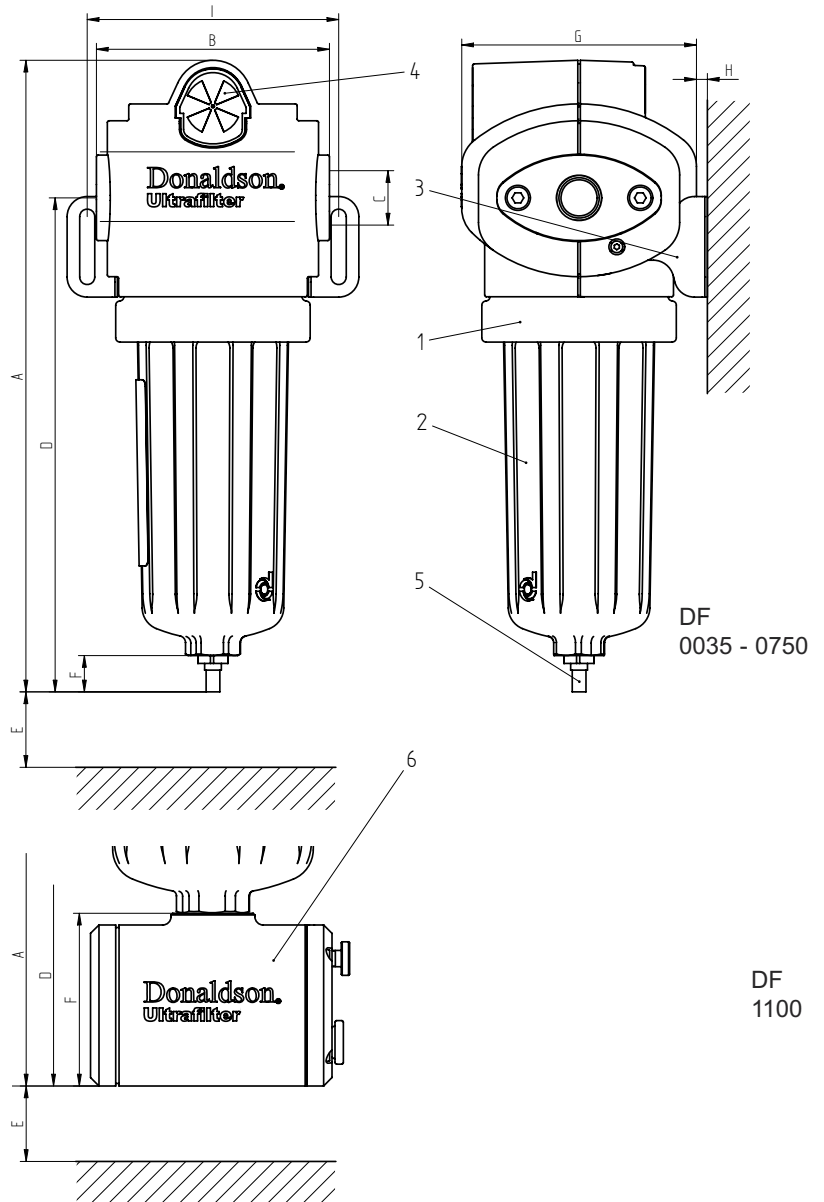
Ultra-Filter Standard (DF 0035 MK - DF 1100 MK)

| Pos. | Pcs. | Description |
|---------------------------|------|------------------------------------|
| 1 | 1 | Filter head |
| 2 | 1 | Lower housing bowl |
| 3 | 2 | Wall bracket (option) |
| 4 | 1 | Econometer |
| 5 DF 0035 - DF 0750 | 1 | Internal automatic drain KA 1/2 |
| 6 DF 1100 | 1 | External automatic drain UFM-P |

| Materials | |
|----------------|----------------------------------|
| Filter housing | Aluminium die cast |
| Econometer | Polymer |
| Float drain | Polymer / aluminium mold cast |
| Sealings | Viton |

| | |
|-----------------------------|--------------|
| Max. operating pressure | 16 bar |
| Test pressure | 22.9 bar |
| Perm. operating temperature | +1°C / +65°C |

| | |
|---|----------------|
| Classification acc. to 97 / 23 / EG for fluids group 2 | |
| DF 0035 - DF 0320 | Art. 3, par. 3 |
| DF 0450 - DF 1100 | Cat. I |



| Size housing/element | Flow rate* m ³ /h | Volume (l) | Weight** (kg) | A mm | B mm | C | D mm | E mm | F mm | G mm | H min./ max. mm | I mm |
|----------------------|---------------------------------|---------------|------------------|---------|---------|---------|---------|---------|---------|---------|-----------------------|---------|
| 0035 | 35 | 0.20 | 0.5 | 254 | 76 | G 1/4 | 186 | 100 | 27 | 85 | 5 | 84 |
| 0070 | 70 | 0.40 | 0.9 | 297 | 103 | G 3/8 | 222 | 115 | 27 | 107 | 5 / 34 | 107 |
| 0120 | 120 | 0.50 | 1.0 | 341 | 103 | G 1/2 | 266 | 150 | 27 | 107 | 5 / 34 | 107 |
| 0210 | 210 | 1.15 | 2.0 | 382 | 139 | G 3/4 | 300 | 180 | 27 | 140 | 5 / 53 | 150 |
| 0320 | 320 | 1.50 | 2.2 | 442 | 139 | G 1 | 360 | 250 | 27 | 140 | 5 / 53 | 150 |
| 0450 | 450 | 5 | 5.2 | 586 | 190 | G 1 1/4 | 487 | 250 | 27 | 203 | 5 / 73 | 190 |
| 0600 | 600 | 5 | 5.2 | 586 | 190 | G 1 1/2 | 487 | 250 | 27 | 203 | 5 / 73 | 190 |
| 0750 | 750 | 5 | 5.2 | 586 | 190 | G 2 | 487 | 250 | 27 | 203 | 5 / 73 | 190 |
| 1100 | 1100 | 6 | 7.2 | 764 | 190 | G 2 | 665 | 250 | 103 | 203 | 5 / 73 | 190 |

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

** without filter element

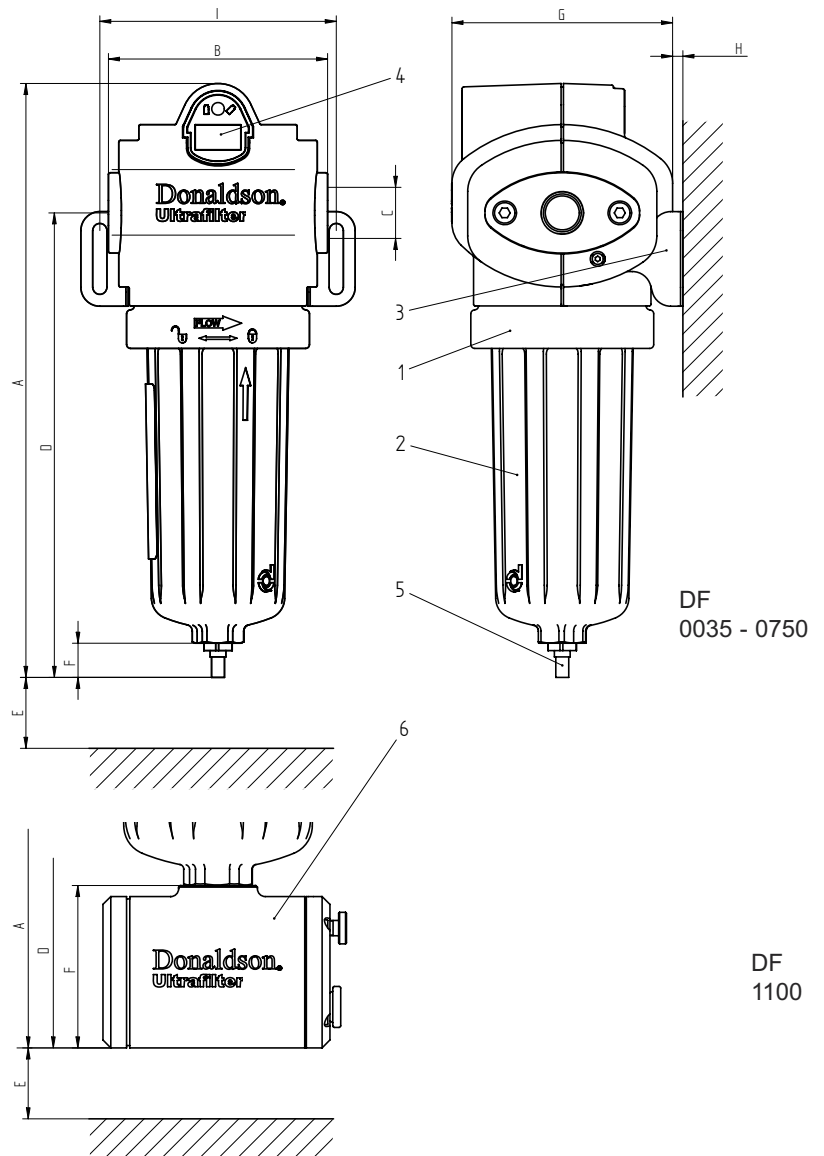
Ultra-Filter Plus (DF 0035 ZK - DF 1100 ZK)

| Pos. | Pcs. | Description |
|---------------------------|------|------------------------------------|
| 1 | 1 | Filter head |
| 2 | 1 | Lower housing bowl |
| 3 | 2 | Wall bracket (option) |
| 4 | 1 | Economizer |
| 5 DF 0035 - DF 0750 | 1 | Internal automatic drain KA 1/2 |
| 6 DF 1100 | 1 | External automatic drain UFM-P |

| Materials | |
|----------------|----------------------------------|
| Filter housing | Aluminium die cast |
| Economizer | Polymer |
| Float drain | Polymer / aluminium mold cast |
| Sealings | Viton |

| | |
|-----------------------------|--------------|
| Max. operating pressure | 16 bar |
| Test pressure | 22.9 bar |
| Perm. operating temperature | +1°C / +65°C |

| | |
|---|----------------|
| Classification acc. to 97 / 23 / EG for fluids group 2 | |
| DF 0035 - DF 0320 | Art. 3, par. 3 |
| DF 0450 - DF 1100 | Cat. I |



| Size housing/element | Flow rate* m ³ /h | Volume (l) | Weight** (kg) | A mm | B mm | C | D mm | E mm | F mm | G mm | H min./ max. mm | I mm |
|----------------------|---------------------------------|---------------|------------------|---------|---------|---------|---------|---------|---------|---------|-----------------------|---------|
| 0035 | 0035 | 0.20 | 0.5 | 254 | 76 | G 1/4 | 186 | 100 | 27 | 85 | 5 | 84 |
| 0070 | 0070 | 0.40 | 0.9 | 297 | 103 | G 3/8 | 222 | 115 | 27 | 107 | 5 / 34 | 107 |
| 0120 | 0120 | 0.50 | 1.0 | 341 | 103 | G 1/2 | 266 | 150 | 27 | 107 | 5 / 34 | 107 |
| 0210 | 0210 | 1.15 | 2.0 | 382 | 139 | G 3/4 | 300 | 180 | 27 | 140 | 5 / 53 | 150 |
| 0320 | 0320 | 1.50 | 2.2 | 442 | 139 | G 1 | 360 | 250 | 27 | 140 | 5 / 53 | 150 |
| 0450 | 0450 | 5 | 5.2 | 586 | 190 | G 1 1/4 | 487 | 250 | 27 | 203 | 5 / 73 | 190 |
| 0600 | 0600 | 5 | 5.2 | 586 | 190 | G 1 1/2 | 487 | 250 | 27 | 203 | 5 / 73 | 190 |
| 0750 | 0750 | 5 | 5.2 | 586 | 190 | G 2 | 487 | 250 | 27 | 203 | 5 / 73 | 190 |
| 1100 | 1100 | 6 | 7.2 | 764 | 190 | G 2 | 665 | 250 | 103 | 203 | 5 / 73 | 190 |

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

** without filter element

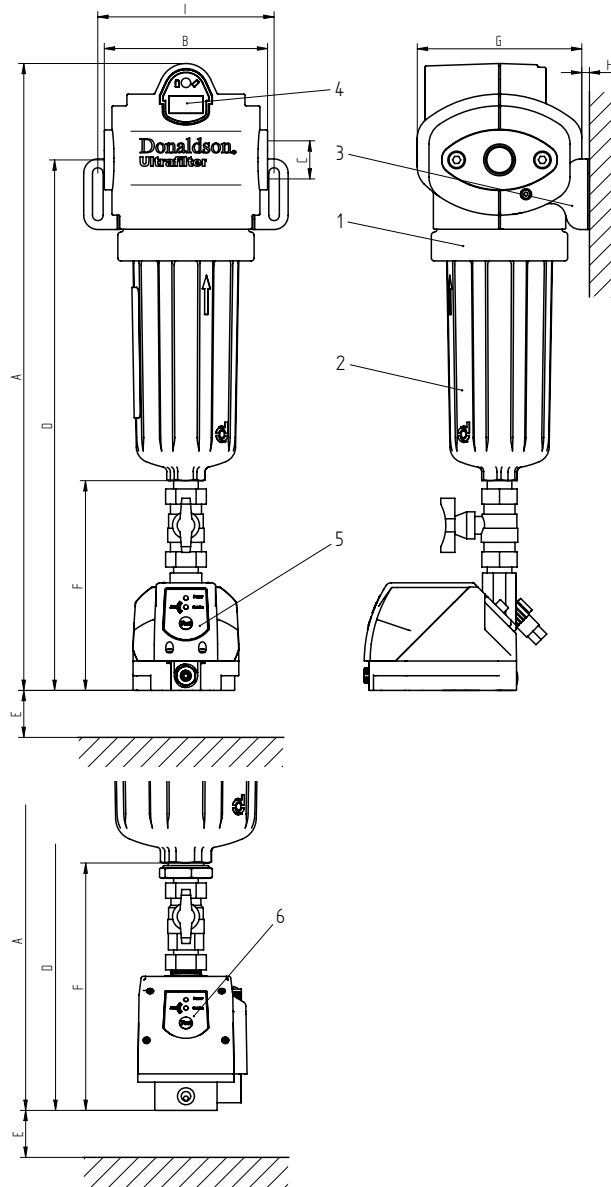
Ultra-Filter Superplus (DF 0035 ZU - DF 1100 ZU)

| Pos. | Pcs. | Description |
|---------------------------|------|-----------------------------|
| 1 | 1 | Filter head |
| 2 | 1 | Lower housing bowl |
| 3 | 2 | Wall bracket (option) |
| 4 | 1 | Economizer |
| 5 DF 0035 - DF 0450 | 1 | Condensate drain UFM-T05 |
| 6 DF 0600 - DF 1100 | 1 | Condensate drain UFM-T1 |

| Materials | |
|----------------|---|
| Filter housing | Aluminium die cast |
| Economizer | Polymer |
| Float drain | Aluminium, glass fibre reinforced polymer |
| Sealings | Viton |

| | |
|-----------------------------|--------------|
| Max. operating pressure | 16 bar |
| Test pressure | 22,9 bar |
| Perm. operating temperature | +1°C / +65°C |

| | |
|---|----------------|
| Classification acc. to 97 / 23 / EG for fluids group 2 | |
| DF 0035 - DF 0320 | Art. 3, par. 3 |
| DF 0450 - DF 1100 | Cat. I |



DF
0035 - 0450

DF
0600 - 1100

| Size housing/element | Flow rate* m ³ /h | Volume (l) | Weight** (kg) | A mm | B mm | C | D mm | E mm | F mm | G mm | H min./ max. mm | I mm |
|----------------------|---------------------------------|---------------|------------------|---------|---------|---------|---------|---------|---------|---------|-----------------------|---------|
| 0035 | 0035 | 0.20 | 1.5 | 402 | 76 | G 1/4 | 334 | 100 | 175 | 85 | 5 | 84 |
| 0070 | 0070 | 0.40 | 1.9 | 448 | 103 | G 3/8 | 373 | 115 | 178 | 107 | 5 / 34 | 107 |
| 0120 | 0120 | 0.50 | 2.0 | 492 | 103 | G 1/2 | 417 | 150 | 178 | 107 | 5 / 34 | 107 |
| 0210 | 0210 | 1.15 | 3.0 | 533 | 139 | G 3/4 | 451 | 180 | 178 | 140 | 5 / 53 | 150 |
| 0320 | 0320 | 1.50 | 3.2 | 593 | 139 | G 1 | 511 | 250 | 178 | 140 | 5 / 53 | 150 |
| 0450 | 0450 | 5 | 6.6 | 738 | 190 | G 1 1/4 | 639 | 250 | 178 | 203 | 5 / 73 | 190 |
| 0600 | 0600 | 5 | 6.6 | 760 | 190 | G 1 1/2 | 661 | 250 | 201 | 203 | 5 / 73 | 190 |
| 0750 | 0750 | 5 | 6.6 | 760 | 190 | G 2 | 661 | 250 | 201 | 203 | 5 / 73 | 190 |
| 1100 | 1100 | 6 | 6.9 | 867 | 190 | G 2 | 769 | 250 | 201 | 203 | 5 / 73 | 190 |

* Nominal flow at 7 bar g, m³/h related to 1 bar abs. and 20°C

** without filter element