Series EDWF 6005
232 PSI

1) Connection for the potential equalization, only for application in the explosive area.

Switch lever standard in the front.

2) On request: The switch lever can be moved to backside of the changeover valve, opposite to the inlet and outlet. Please specify this configuration on the order.

Position I: Filter 1 in operation
Position II: Filter 2 in operation

Dimensions:

<table>
<thead>
<tr>
<th>process connection</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>weight</th>
<th>volume tank</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot;</td>
<td>58.11</td>
<td>34.48</td>
<td>17.32</td>
<td>8.14</td>
<td>16.92</td>
<td>1466 lbs</td>
<td>2x 34 Gal.</td>
</tr>
<tr>
<td>8&quot;</td>
<td>60.47</td>
<td>36.85</td>
<td>20.47</td>
<td>9.60</td>
<td>21.26</td>
<td>1653 lbs</td>
<td>2x 34 Gal.</td>
</tr>
</tbody>
</table>

Dimensions: inches
Designs and performance values are subject to change.
Duplex Pressure Filter
Series EDWF 6005
232 PSI

Description:
Stainless steel-duplex pressure filter series EDWF 6005 have a working pressure up to 232 PSI. Pressure peaks can be absorbed with a sufficient safety margin.

A changeover ball valve between the two filter housings makes it possible to switch from the dirty filter side to the clean filter side without interrupting operation. The filters can be installed as a suction filter, pressure filter or return line filter.

The filter element consists of star-shaped, pleated filter material, which is supported on the inside by a perforated core tube and is bonded to the end caps with a high-quality adhesive. The flow direction is from outside to inside.

For cleaning the stainless steel mesh element or changing the element, remove the cover and take out the element. The mesh elements are not guaranteed to maintain 100% performance after cleaning.

For filtration finer than 25 μm, use the disposable elements made of microglass. Filter elements as fine as 3 μm are available; finer filter elements are available upon request.

Eaton filter elements are known for high intrinsic stability and an excellent filtration capability, a high dirt-retaining capacity and a long service life.

Eaton filters are suitable for all petroleum based fluids, HW-emulsions, most synthetic hydraulic fluids and lubrication oils.

Ship classifications available upon request.

Type index:

Complete filter: (ordering example)

EDWF 6005. 10VG. 10. E. P. VA. FA11. E. VA. -

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>KH.</td>
<td>OE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. series:
   EDWF = stainless steel-double welded filter

2. nominal size: 6005

3. filter material:
   80G, 40G, 25G, 10G stainless steel wire mesh
   25VG, 16VG, 10VG, 6VG, 3VG microglass
   25API, 10API microglass according to API

4. filter element collapse rating:
   10 = Δp 145 PSI

5. filter element design:
   E = without by-pass
   S = with by-pass valve Δp 29 PSI

6. sealing material:
   P = Nitrile (NBR)
   V = Viton (FPM)

7. filter element specification:
   - = standard
   VA = stainless steel
   IS06 = for HFC application, see sheet-no. 31601

8. process connection:
   FA11 = flange ANSI CLASS 150 PSI,
   sealing surface rough grind 1600-3600 μin
   FA12 = flange ANSI CLASS 150 PSI,
   sealing surface rough grind < 640 μin

9. process connection size:
   D = 6" (standard)
   E = 8" (standard)

10. filter housing specification:
    VA = stainless steel

11. specification pressure vessel:
    - = standard (PED 2014/68/EU)
    IS20 = ASME VIII Div.1 with ASME equivalent material,
    see sheet-no. 55217

12. shut-off:
    - = without
    KH = with shut-off ball valve

13. clogging indicator or clogging sensor:
    - = without
    AE = visual-electrical, see sheet-no. 1609
    OP = visual, see sheet-no. 1614
    OE = visual-electrical, see sheet-no. 1614
    VS5 = electronic, see sheet-no. 1641

To add an indicator/sensor to your filter, use the corresponding indicator data sheet to find the indicator details and add them to the filter assembly model code.

Filter element: (ordering example)

01E. 1501. 10VG. 10. E. P. VA

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

1. series:
   01E = filter element according to company standard

2. nominal size: 1501

3. - see type index-complete filter

Accessories:
- drain- and bleeder connection, see sheet-no. 1651
- lifting mechanism, see sheet-no. 1662
Technical data:

operating temperature: +14 °F to +212 °F
operating medium: mineral oil, other media on request
max. operating pressure: 232 PSI
test pressure: 333 PSI
standard process connection: flange ANSI B16.5 CLASS 150 PSI
housing material: stainless steel
sealing material: Nitrile (NBR) or Viton (FPM), other materials on request
installation position: vertical
bleeder connections: BSPP ½
drain connections: BSPP 1
measure connections: BSPP ¼

Classified under the Pressure Equipment Directive 2014/68/EU for mineral oil (fluid group 2), Article 4, Para. 3.
Classified under ATEX Directive 2014/34/EU according to specific application (see questionnaire sheet-no. 34279-4).

Pressure drop flow curves:

Filter calculation/sizing

The pressure drop of the assembly at a given flow rate Q is the sum of the housing ∆p and the element ∆p and is calculated as follows:

\[ \Delta p_{\text{assembly}} = \Delta p_{\text{housing}} + \Delta p_{\text{element}} \]
\[ \Delta p_{\text{housing}} = (\text{see } \Delta p = f(Q) \text{- characteristics}) \]
\[ \Delta p_{\text{element}}(\text{PSI}) = Q \left( \frac{\text{GPM}}{1000} \right) \times MSK_{1000} \left( \frac{\text{PSI}}{\text{GPM}} \right) \times \nu(SUS) \times \frac{\rho}{0.876} \left( \frac{\text{kg}}{\text{dm}^3} \right) \]

For ease of calculation, our Filter Selection tool is available online at: [www.eatonpowersource.com/calculators/filtration/](http://www.eatonpowersource.com/calculators/filtration/)

Material gradient coefficients (MSK) for filter elements

The material gradient coefficients in psi/gpm apply to mineral oil (HLP) with a density of 0.876 kg/dm³ and a kinematic viscosity of 139 SUS (30 mm²/s). The pressure drop changes proportionally to the change in kinematic viscosity and density.

<table>
<thead>
<tr>
<th>EDWF</th>
<th>VG 3VG</th>
<th>VG 6VG</th>
<th>VG 10VG</th>
<th>VG 16VG</th>
<th>VG 25VG</th>
<th>G 10G</th>
<th>G 25G</th>
<th>G 40G</th>
<th>G 80G</th>
<th>API 10</th>
<th>API 25</th>
</tr>
</thead>
<tbody>
<tr>
<td>6005</td>
<td>0.048</td>
<td>0.033</td>
<td>0.021</td>
<td>0.019</td>
<td>0.013</td>
<td>0.0018</td>
<td>0.0013</td>
<td>0.0012</td>
<td>0.0008</td>
<td>0.012</td>
<td>0.005</td>
</tr>
</tbody>
</table>

\[ \Delta p = f(Q) \text{- characteristic according ISO 3968} \]

The pressure drop characteristics apply to mineral oil (HLP) with a density of 0.876 kg/dm³. The pressure drop changes proportionally to the density. The flow curve for 6° available on request.

![EDWF6005- 8" Housing Pressure Drop](image)
Symbols:

- **without indicator**
- **with shut-off ball valve**
- **with electric indicator AE 30 / AE 40**
- **with visual-electric indicator AE 60 / AE 62**
- **with visual indicator OP**
- **with visual-electric indicator OE**
- **with electronic sensor VS5**

Spare parts:

<table>
<thead>
<tr>
<th>item</th>
<th>qty.</th>
<th>designation</th>
<th>dimension</th>
<th>artikel-no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8</td>
<td>filter element</td>
<td>01E.1501…</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>8</td>
<td>O-ring</td>
<td>93 x 5</td>
<td>307588 (NBR) / 307589 (FPM)</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>O-ring</td>
<td>429 x 6</td>
<td>306659 (NBR) / 310273 (FPM)</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>gasket kit of changeover UKK</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>gasket kit of changeover UKK</td>
<td>6&quot;</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>screw plug</td>
<td>BSPPP 1/2</td>
<td>306966</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>screw plug</td>
<td>BSPPP 1</td>
<td>305303</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>clogging indicator, visual-electric</td>
<td>AE</td>
<td>see sheet-no. 1609</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>clogging indicator, visual</td>
<td>OP</td>
<td>see sheet-no. 1614</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>clogging indicator, visual-electric</td>
<td>OE</td>
<td>see sheet-no. 1614</td>
</tr>
<tr>
<td>10</td>
<td>1</td>
<td>clogging sensor, electronic</td>
<td>VS5</td>
<td>see sheet-no. 1641</td>
</tr>
</tbody>
</table>

Test methods:

- ISO 2941 Verification of collapse/burst resistance
- ISO 2942 Verification of fabrication integrity
- ISO 2943 Verification of material compatibility with fluids
- ISO 3723 Method for end load test
- ISO 3724 Verification of flow fatigue characteristics
- ISO 3968 Evaluation of pressure drop versus flow characteristics
- ISO 16889 Multi-pass method for evaluating filtration performance

For more information, please email us at filtration@eaton.com or visit www.eaton.com/ filtration

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