MYCLEAN

THE X CONCEPT FOR OUR FILTERS

Protect the performance of your system with MYclean. Quality and efficiency are fundamental for MP Filtri: this exclusive new filter element possesses polygon shape geometry and specific seal that ensures only original spare parts can be used - ensuring correct operation and higher system reliability.

LFEX series

with MYCLEAN FEX Filter Element

- Protects the machine from improper use of non-original products.
- Safety of constant quality protection & reliability

With exclusive filter element you are sure that only MP Filtri filter elements can be used, ensuring the best cleaning level of the oil due to the use of originals filter elements.

The products identified as LFEX are protected by:
- Italian Patent n° 102014902261205
- Canadian Patent n° 2,937,258
- European Patent n° 3 124 092 B1
- US Patent n° 20170030384 A1
LFEX series

Maximum working pressure up to 1.6 MPa (16 bar) - Flow rate up to 300 l/min
LFEX is a range of low pressure filter for protection of sensitive components in low pressure hydraulic systems. They are also suitable for the off-line filtration of small reservoirs. They are directly connected to the lines of the system through the hydraulic fittings.

### Available features:
- Female threaded connections up to 1 1/4" and SAE connections up to 1 5/8", for a maximum flow rate of 300 l/min
- Fine filtration rating, to get a good cleanliness level into the system
- Water removal elements, to remove the free water from the hydraulic fluid
- Bypass valve, to relieve excessive pressure drop across the filter media
- NEW Visual and electrical differential clogging indicators, capable to hold the overall dimension
- MYclean interface connection for the filter element, to protect the product against non-original spare parts
- External protective wrap, to optimize the flow through the element and to save the element efficiency against non-proper handling

### Common applications:
Delivery lines, in any low pressure industrial equipment or mobile machines

### Filter housing materials
- Head: Aluminium
- Bypass valve: Polyamide - Steel
- Bowl: Polyamide

### Bypass valve
Opening pressure 350 kPa (3.5 bar) ±10%

### Δp element type
- Microfibre filter elements - series N: 8 bar
- Fluid flow through the filter element from OUT to IN

### Seals
Standard NBR series A

### Temperature
From -25 °C to +110 °C

### Note
LFEX filters are provided for vertical mounting

### Weights [kg] and volumes [dm³]

<table>
<thead>
<tr>
<th>Filter series</th>
<th>Weights [kg]</th>
<th>Volumes [dm³]</th>
</tr>
</thead>
<tbody>
<tr>
<td>LFEX 060</td>
<td>1.00</td>
<td>0.60</td>
</tr>
<tr>
<td>LFEX 080</td>
<td>1.15</td>
<td>0.80</td>
</tr>
<tr>
<td>LFEX 110</td>
<td>1.90</td>
<td>1.60</td>
</tr>
<tr>
<td>LFEX 160</td>
<td>2.10</td>
<td>2.00</td>
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</table>

### Hydraulic symbols

<table>
<thead>
<tr>
<th>Filter series</th>
<th>Style S</th>
<th>Style B</th>
</tr>
</thead>
<tbody>
<tr>
<td>LFEX 060</td>
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<td>●</td>
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<td>LFEX 080</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>LFEX 110</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>LFEX 160</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>
### General Information

**Pressure drop**

Maximum flow rate for a complete delivery filter with a pressure drop $\Delta p = 0.7$ bar.

The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

Please, contact our Sales Department for further additional information.

### Filter Assembly Sizing

**Flow rates [l/min]**

<table>
<thead>
<tr>
<th>Filter series</th>
<th>A03</th>
<th>A06</th>
<th>A10</th>
<th>A16</th>
<th>A25</th>
<th>M25</th>
<th>M60</th>
<th>M90</th>
<th>P10</th>
<th>P25</th>
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<tbody>
<tr>
<td>LFEX 060</td>
<td>45</td>
<td>47</td>
<td>65</td>
<td>66</td>
<td>68</td>
<td>84</td>
<td>84</td>
<td>86</td>
<td>67</td>
<td>73</td>
</tr>
<tr>
<td>LFEX 080</td>
<td>58</td>
<td>59</td>
<td>73</td>
<td>72</td>
<td>76</td>
<td>86</td>
<td>87</td>
<td>88</td>
<td>79</td>
<td>82</td>
</tr>
</tbody>
</table>

Connections of filter under test G 3/4”

<table>
<thead>
<tr>
<th>Filter series</th>
<th>A03</th>
<th>A06</th>
<th>A10</th>
<th>A16</th>
<th>A25</th>
<th>M25</th>
<th>M60</th>
<th>M90</th>
<th>P10</th>
<th>P25</th>
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</thead>
<tbody>
<tr>
<td>LFEX 060</td>
<td>49</td>
<td>51</td>
<td>75</td>
<td>77</td>
<td>80</td>
<td>104</td>
<td>105</td>
<td>107</td>
<td>74</td>
<td>95</td>
</tr>
<tr>
<td>LFEX 080</td>
<td>67</td>
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<td>92</td>
<td>107</td>
<td>108</td>
<td>110</td>
<td>96</td>
<td>112</td>
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</tbody>
</table>

Connections of filter under test G 1”

<table>
<thead>
<tr>
<th>Filter series</th>
<th>A03</th>
<th>A06</th>
<th>A10</th>
<th>A16</th>
<th>A25</th>
<th>M25</th>
<th>M60</th>
<th>M90</th>
<th>P10</th>
<th>P25</th>
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</thead>
<tbody>
<tr>
<td>LFEX 110</td>
<td>107</td>
<td>115</td>
<td>182</td>
<td>195</td>
<td>216</td>
<td>295</td>
<td>298</td>
<td>300</td>
<td>232</td>
<td>242</td>
</tr>
<tr>
<td>LFEX 160</td>
<td>146</td>
<td>150</td>
<td>210</td>
<td>212</td>
<td>227</td>
<td>300</td>
<td>303</td>
<td>304</td>
<td>254</td>
<td>262</td>
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</tbody>
</table>

Connections of filter under test G 1 1/4”

**Pressure drop**

The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968.

$\Delta p$ varies proportionally with density.
**Designation & Ordering code**

### COMPLETE FILTER

<table>
<thead>
<tr>
<th>Series and size</th>
<th>Configuration example: LFEX060</th>
<th>B</th>
<th>A</th>
<th>A</th>
<th>6</th>
<th>A10</th>
<th>N</th>
<th>P01</th>
</tr>
</thead>
<tbody>
<tr>
<td>LFEX060</td>
<td>LFEX080</td>
<td>Filter featuring \text{M} \rangle \text{clean} Filter Element</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bypass valve**

- S Without bypass
- B With bypass 3.5 bar

**Seals and treatments**

- A NBR

**Connections**

- A G 3/4”
- B G 1”
- C 3/4” NPT
- D 1” NPT
- E SAE 12 - 1 1/16” - 12 UN
- F SAE 16 - 1 5/16” - 12 UN

**Connection for clogging indicator**

- 1 Without
- 6 With plugged connections

**Filtration rating**

- A03 Inorganic microfiber 3 µm M25 Wire mesh 25 µm
- A06 Inorganic microfiber 6 µm M60 Wire mesh 60 µm
- A10 Inorganic microfiber 10 µm M90 Wire mesh 90 µm
- A16 Inorganic microfiber 16 µm P10 Resin impregnated paper 10 µm
- A25 Inorganic microfiber 25 µm P25 Resin impregnated paper 25 µm

**Element \( \Delta p \)**

- N 8 bar

**Execution**

- P01 MP Filtri standard
- Pxx Customized

**FILTER ELEMENT**

<table>
<thead>
<tr>
<th>Series and size</th>
<th>Configuration example: FEX060</th>
<th>A10</th>
<th>A</th>
<th>N</th>
<th>P01</th>
</tr>
</thead>
<tbody>
<tr>
<td>FEX060</td>
<td>FEX080</td>
<td>Filter Element with \text{M} \rangle \text{clean} feature</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Filtration rating**

- A03 Inorganic microfiber 3 µm M25 Wire mesh 25 µm
- A06 Inorganic microfiber 6 µm M60 Wire mesh 60 µm
- A10 Inorganic microfiber 10 µm M90 Wire mesh 90 µm
- A16 Inorganic microfiber 16 µm P10 Resin impregnated paper 10 µm
- A25 Inorganic microfiber 25 µm P25 Resin impregnated paper 25 µm

**Element \( \Delta p \)**

- N 8 bar

**Execution**

- P01 MP Filtri standard
- Pxx Customized

### CLOGGING INDICATORS

- DES Electrical differential indicator
- DVS Visual differential indicator

### PLUGS

- T4 Differential indicator plug

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**Low & Medium Pressure filters**

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**MP Filtri**
LFEX060 - LFEX080

**Dimensions**

<table>
<thead>
<tr>
<th>Filter size</th>
<th>H [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>060</td>
<td>202</td>
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<tr>
<td>080</td>
<td>265</td>
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</table>

<table>
<thead>
<tr>
<th>Connections</th>
<th>R</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>M6</td>
</tr>
<tr>
<td>B</td>
<td>M6</td>
</tr>
<tr>
<td>C</td>
<td>1/4&quot; UNC</td>
</tr>
<tr>
<td>D</td>
<td>1/4&quot; UNC</td>
</tr>
<tr>
<td>E</td>
<td>1/4&quot; UNC</td>
</tr>
<tr>
<td>F</td>
<td>1/4&quot; UNC</td>
</tr>
</tbody>
</table>

**IN** → **OUT**

- **26.5**
- **35**
- **25**
- **100**
- **24**
- **38**

**Recommend clearance space for maintenance**

- **R - depth 12 mm**
- **Nr. 2 holes**

**Connection for differential indicator**

T4 plug not included
### COMPLETE FILTER

<table>
<thead>
<tr>
<th>Series and size</th>
<th>Configuration example:</th>
<th>LFEX110</th>
<th>A10</th>
<th>N</th>
<th>P01</th>
</tr>
</thead>
<tbody>
<tr>
<td>LFEX110</td>
<td>LFEX160</td>
<td>Filter Element</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bypass valve**
- S Without bypass
- B With bypass 3.5 bar

**Seals and treatments**
- A NBR

**Connections**
- A G 1"
- B G 1 1/4"
- C 1" NPT
- D 1 1/4" NPT
- E SAE 16 - 1 5/16" - 12 UN
- F SAE 20 - 1 5/8" - 12 UN

**Connection for clogging indicator**
- 1 Without
- 6 With plugged connections

**Filtration rating**
- A03 Inorganic microfiber 3 µm M25 Wire mesh 25 µm
- A06 Inorganic microfiber 6 µm M60 Wire mesh 60 µm
- A10 Inorganic microfiber 10 µm M90 Wire mesh 90 µm
- A16 Inorganic microfiber 16 µm P10 Resin impregnated paper 10 µm
- A25 Inorganic microfiber 25 µm P25 Resin impregnated paper 25 µm

**Filtration rating**
- WA025 Water absorber inorganic microfiber 25 µm

### FILTER ELEMENT

<table>
<thead>
<tr>
<th>Element series and size</th>
<th>Configuration example:</th>
<th>FEX110</th>
<th>A10</th>
<th>N</th>
<th>P01</th>
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</thead>
<tbody>
<tr>
<td>FEX110</td>
<td>FEX160</td>
<td>Filter Element with feature</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Filtration rating**
- A03 Inorganic microfiber 3 µm M25 Wire mesh 25 µm
- A06 Inorganic microfiber 6 µm M60 Wire mesh 60 µm
- A10 Inorganic microfiber 10 µm M90 Wire mesh 90 µm
- A16 Inorganic microfiber 16 µm P10 Resin impregnated paper 10 µm
- A25 Inorganic microfiber 25 µm P25 Resin impregnated paper 25 µm

**Filtration rating**
- WA025 Water absorber inorganic microfiber 25 µm

**Seals and treatments**
- A NBR

**Element Δp**
- N 8 bar

**Execution**
- P01 MP Filtri standard
- Pxx Customized

### CLOGGING INDICATORS

- DES Electrical differential indicator
- DVS Visual differential indicator

### PLUGS

- T4 Differential indicator plug
## LFEX110 - LFEX160 LFEX

**Dimensions**

<table>
<thead>
<tr>
<th>Filter size</th>
<th>H (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>266</td>
</tr>
<tr>
<td>160</td>
<td>315</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connections</th>
<th>R</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>M8</td>
</tr>
<tr>
<td>B</td>
<td>M8</td>
</tr>
<tr>
<td>C</td>
<td>5/16&quot; UNC</td>
</tr>
<tr>
<td>D</td>
<td>5/16&quot; UNC</td>
</tr>
<tr>
<td>E</td>
<td>5/16&quot; UNC</td>
</tr>
<tr>
<td>F</td>
<td>5/16&quot; UNC</td>
</tr>
</tbody>
</table>

Connection for differential indicator
T4 plug not included

Recommended clearance space for maintenance

R - depth 12 mm
 Nr. 2 holes
Order number for spare parts

<table>
<thead>
<tr>
<th>Item:</th>
<th>Q. by 1 pc.</th>
<th>Q. by 1 pc.</th>
<th>Q. by 1 pc.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>3 (3a + 3d)</td>
<td>4</td>
</tr>
<tr>
<td>Filter series</td>
<td>Filter element</td>
<td>Seal Kit code number NBR</td>
<td>Indicator connection plug NBR</td>
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<tr>
<td>LFEX 060-080</td>
<td>See order table</td>
<td>02050771</td>
<td>T4A</td>
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<td>LFEX 110-160</td>
<td>See order table</td>
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