LMP 902-903 series
Filter element according to DIN 24550
Maximum working pressure up to 2 MPa (20 bar) - Flow rate up to 3000 l/min
**Low & Medium Pressure filters**

**Maximum working pressure up to 2 MPa (20 bar)**

Flow rate up to 3000 l/min

LMP902 and LMP903 are ranges of low pressure filter with large filtration surface mainly suitable for lubrication, off-line filtration of the reservoirs and filtration equipment.

Multiple LMP950 filters are connected to a manifold to reduce the pressure drop caused by the filter media and to increase the life time of the filter element. They are directly connected to the lines of the system through the hydraulic fittings.

**Available features:**
- 4” flanged connections, for a maximum flow rate of 3000 l/min
- Filter element designed in accordance with DIN 24550 regulation
- Fine filtration rating, to get a good cleanliness level into the system
- Water removal elements, to remove the free water from the hydraulic fluid. For further information, see the Contamination Management document and the dedicate leaflet.
- Bypass valve, to relieve excessive pressure drop across the filter media
- Vent ports, to avoid air trapped into the filter going into the system
- Drain ports, to remove the fluid from the housing prior the maintenance work
- Visual, electrical and electronic differential clogging indicators

**Common applications:**
- Off-line filtration of reservoirs
- Filtration systems

**Filter element according to DIN 24550**

**Technical data**

**Filter housing materials**
- Head: Anodized aluminium
- Housing: Anodized aluminium
- Manifolds: Welded - Phosphatized steel
- Bypass valve: Steel
- Size 1000 filter elements complying with DIN 24550 standard

**Pressure**
- Test pressure: 3.5 MPa (35 bar)

**Bypass valve**
- Opening pressure 350 kPa (3.5 bar) ±10%
- Other opening pressures on request.

**Number of filter elements**
- LMP 902: 4 filter elements C900
- LMP 903: 6 filter elements C900

**Filter elements**
- Filter element according to DIN 24550
  - Size: 1000

**Ap element type**
- Microfibre filter elements - series N: 20 bar
- Fluid flow through the filter element from OUT to IN

**Connections**
- LMP 902-903: In-line Inlet/Outlet

**Seals**
- Standard NBR series A
- Optional FPM series V

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

**Note**
- LMP 902 - 903 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></td>
<td>Length 2</td>
<td>Length 2</td>
</tr>
<tr>
<td>LMP 902</td>
<td>89.6</td>
<td>58</td>
</tr>
<tr>
<td>LMP 903</td>
<td>129.2</td>
<td>87</td>
</tr>
</tbody>
</table>
Filter element according to DIN 24550

Pressure drop

Filter housings ∆p pressure drop

Valves

Bypass valve pressure drop

Maximum flow rate for a complete low and medium pressure filter with a pressure drop ∆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.
You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure.
Please, contact our Sales Department for further additional information.

Flow rates [l/min]

<table>
<thead>
<tr>
<th>Filter series</th>
<th>Length</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>
</tr>
</thead>
<tbody>
<tr>
<td>LMP 902</td>
<td>2</td>
<td>2217</td>
<td>2576</td>
<td>3241</td>
<td>3282</td>
<td>3506</td>
<td>3987</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LMP 903</td>
<td>2</td>
<td>2838</td>
<td>3170</td>
<td>3720</td>
<td>3755</td>
<td>3926</td>
<td>4278</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hydraulic symbols

Pressure drop

Filter housings ∆p pressure drop

Bypass valve pressure drop

The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968. ∆p varies proportionally with density.
Filter element according to DIN 24550

Manifolds

Position of manifolds IN - OUT connections

Focus on

Indicator port Plug T2 - A/F 30

Bypass valve A/F 17

Oil drain plug G 1/2" - A/F 10
### Designation & Ordering code

**COMPLETE FILTER**

<table>
<thead>
<tr>
<th>Series and size</th>
<th>Configuration example:</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMP902</td>
<td>LMP903</td>
</tr>
<tr>
<td>Length</td>
<td>2</td>
</tr>
<tr>
<td>Bypass valve</td>
<td></td>
</tr>
<tr>
<td>S Without bypass</td>
<td>B With bypass 3.5 bar</td>
</tr>
<tr>
<td>Seals and treatments</td>
<td></td>
</tr>
<tr>
<td>A NBR</td>
<td></td>
</tr>
<tr>
<td>V FPM</td>
<td></td>
</tr>
<tr>
<td>Connections</td>
<td></td>
</tr>
<tr>
<td>FA 4” SAE 3000 psi</td>
<td>left left</td>
</tr>
<tr>
<td>FB 4” SAE 3000 psi</td>
<td>left right</td>
</tr>
<tr>
<td>FC 4” SAE 3000 psi</td>
<td>right left</td>
</tr>
<tr>
<td>FD 4” SAE 3000 psi</td>
<td>right right</td>
</tr>
<tr>
<td>Filtration rating (filter media)</td>
<td></td>
</tr>
<tr>
<td>A03 Inorganic microfiber 3 µm</td>
<td>M25 Wire mesh 25 µm</td>
</tr>
<tr>
<td>A06 Inorganic microfiber 6 µm</td>
<td>M60 Wire mesh 60 µm</td>
</tr>
<tr>
<td>A10 Inorganic microfiber 10 µm</td>
<td>M90 Wire mesh 90 µm</td>
</tr>
<tr>
<td>A16 Inorganic microfiber 16 µm</td>
<td></td>
</tr>
<tr>
<td>A25 Inorganic microfiber 25 µm</td>
<td></td>
</tr>
<tr>
<td>WA025 Water absorber inorganic microfiber 25 µm</td>
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</tr>
</tbody>
</table>

**FILTER ELEMENT**

<table>
<thead>
<tr>
<th>Element series and size</th>
<th>Configuration example:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CU900</td>
<td></td>
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<tr>
<td>Filter series and size</td>
<td></td>
</tr>
<tr>
<td>LMP902 Nr. 4 filter elements</td>
<td></td>
</tr>
<tr>
<td>LMP903 Nr. 6 filter elements</td>
<td></td>
</tr>
<tr>
<td>Filtration rating (filter media)</td>
<td></td>
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<tr>
<td>A03 Inorganic microfiber 3 µm</td>
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<td></td>
</tr>
<tr>
<td>WA025 Water absorber inorganic microfiber 25 µm</td>
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</tr>
<tr>
<td>Seals</td>
<td></td>
</tr>
<tr>
<td>A NBR</td>
<td></td>
</tr>
<tr>
<td>V FPM</td>
<td></td>
</tr>
<tr>
<td>Element Δp</td>
<td>N 20 bar</td>
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<tr>
<td>Execution</td>
<td>P01 MP Filtri standard</td>
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<td></td>
<td>Pxx Customized</td>
</tr>
</tbody>
</table>

**CLOGGING INDICATORS**

- DEA Electrical differential indicator
- DEM Electrical differential indicator
- DLA Electrical / visual differential indicator
- DLE Electrical / visual differential indicator
- DTA Electronic differential indicator
- DVA Visual differential indicator
- DVM Visual differential indicator

**PLUGS**

- T2 Differential indicator plug

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Low & Medium Pressure filters
Dimensions

LMP 902-903

Filter element according to DIN 24550

Drain plug
T2 plug = connection for differential indicator
Bypass valve

IN
OUT

A/F 40

Ø15

160
300
185

100

125
241
125
132
207

440

1283

900

645

Low & Medium Pressure filters
LMP 902-903 Filter element according to DIN 24550

Dimensions

Drain plug

T2 plug = connection for differential indicator

Bypass valve

IN

OUT

A/F 40

LMP 902-903 Filter element according to DIN 24550

Low & Medium Pressure filters

436
Item 7:
for complete filter code and
spare parts, see
LMP 900 - 901 series chapter

Quantity:
- filter spare parts:
  LMP 902 - 2 pcs.
  LMP 903 - 3 pcs.
- filter seal kit:
  LMP 902 - 2 pcs.
  LMP 903 - 3 pcs.

Item: | 2 | 3 | 4 | 5 (5a-5b) | 6 (6a ÷ 6d) | 7
---|---|---|---|---|---|---
Filter series | Q.ty | Manifold IN | OUT | 4" SAE 3000 psi plugged flange | Manifolds seal kit | Threaded fasteners kit | Filter
LMP 902 | 1 pc. | 01039270 | 01039271 | 2 pcs. | NBR 02050404 | FPM 02050405 | LMP9012xxF1xxxNP02
LMP 903 | 1 pc. | 01039337 | 01039338 | 2 pcs. | NBR 02050404 | FPM 02050405 | LMP9012xxF1xxxNP02

Low & Medium Pressure filters