Filters for inline installation
Wide application
Compact modular design
Optimised flow characteristics
Low pressure drop
High efficient filter media

Operating pressure: 40/160 bar
Connection up to G1½”
**Inline Filters**

40/160 LE 0005-0045
40/160 LEN 0040-0400

Operating Pressure 40/160 bar
Operating temperature - 10°C to + 100°C
Connection up to G 1-1/2

**Application**
Filtration of pressurised fluids and lubricants.

Filtration of liquids and gases.

Direct installation in pipeline to provide wear protection of subsequent components and systems.

**Design**
Filter head with inlet, outlet and filter element spigot. Filter bowl is unscrewed for small sizes, others with quick locking device.

Material: as per spare parts list in this brochure.

**Filter Element**
Pleated design with optimised pleat density and various filter media. The filter element is the most important component of the filter to provide prolonged life and wear protection of the system.

Oil cleanliness, the initial pressure drop and the dirt holding capacity are the most important criteria for selection.

For further detailed information please refer our “Filter Elements” brochure.

**Accessories**

**Maintenance Indicator**
For monitoring the filter element’s contamination status, visual and visual/electrical indicators, with one or two switching points are available.

**Bypass Valve**
To protect the filter element during start up and over pressurisation due to clogging.

**Vent Valve**
For removing the air from filter during starting and for safe depressurisation.

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**Performance characteristics**

$\Delta P$-O-characteristic lines for complete filters.
Recommended start- $\Delta p$ for assembly = 0.8 bar

Oil viscosity: 30 mm²/S
Specific gravity < 0.9 kg/dm³
**Ordering Information**
Special design available on request.

**Maintenance Indicator**
The maintenance indicator monitors the degree of dirt of the filter elements. They are available as visual or visual/electrical displays. See “Maintenance Indicator” catalog for technical data.

**Filter Switching Symbol**

* Buna N / Nitrile, V = Viton, E = Ethylene-propylene; N = Neoprene possible
Filter housing for filter Elements in accordance with EPE Standard

<table>
<thead>
<tr>
<th>Type</th>
<th>Capacity in l</th>
<th>Weight in kg</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
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1) = Weight including standard filter element and maintenance indicator
2) = Servicing height for filter element replacement

Filter housing for Filter Elements in accordance with DIN 24550

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<thead>
<tr>
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1) = Weight including standard filter element and maintenance indicator
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All dimensions are in mm
## Spare Parts List

<table>
<thead>
<tr>
<th>Part</th>
<th>Quantity</th>
<th>Title</th>
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<td>0020 0160</td>
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<td>0045 0400</td>
</tr>
</tbody>
</table>

*Please specify opening pressure
Installation, Starting and Maintenance

Installation
Verify operating pressure with name plate information.

Mount the filter assembly using mounting holes on the head (part 1) considering flow direction (direction arrows) and servicing height required for cleaning/replacing elements.

Connection of electrical maintenance indicator
Connect indicator using the three wired cable. Please verify electrical ratings on the indicators (part 5) name plate.

Connection settings:
1. Closer 1 (black) + 3 (blue)
2. Opener 1 (black) + 2(brown)
3. Changer 1 (black) + 2(brown) + 3(blue)

Starting operation
Switch on service pump. Ventilate filter by opening the vent valve (part 7), close when operating liquid appears.

Maintenance
The filter element is clogged and must be changed or cleaned when at operation temperature the red pointer on the maintenance indicator (part 5) is hard against the plastic tap and / or the switching process on the electrical indicator is triggered.

Filter element service
Switch off pump, open vent valve (part 7) and ventilate system. Unscrew filter bowl (part 2), (unscrew quick locking device for size 40 LE 0020-0045 and 40 LEN 0160-0400) and remove filter element (part 3), turning slightly off from its locator in the filter head (part 1). Check filter bowl inside and clean if necessary. Replace filter element H...-XL, P..and VS ... The filter element with G...media is cleanable. The effectiveness of cleaning depends on the type of dirt and the level of the differential pressure at the time of changing the filter element.

If the differential pressure after the filter element’s cleaning process exceeds more than 50% of the pre-service value the G...filter element also needs to be replaced. Replace filter element by slightly turning it back on its locator. Check O-Ring (part 4) on filter bowl, replace in case of damage or wear. Screw filter bowl and tighten it at hexagon bolt using a suitable tool (size 40 LE 0020-0045 and 40 LEN 0160-0400: connect filter bowl at filter head and screw it with the quick locking device). Operate filter as described above.

Technical specifications are subject to change!

EPE/LE/01 R.02 (11-11)
Disposal Guidelines - Filters

Disposal

Before the filter is sent for disposal or recycling, it should always be de-pressurised completely. It is suggested that the filter is dismantled and the components disposed of as industrial waste.

Fluid residues are to be drained completely before disposal / recycle of the accumulator.

Filter Elements - Oil from the used filter elements is to be drained before the element is sent for disposal or recycling.

Decontaminate if needed and in accordance with local regulations.

Environmental Protection

Careless disposal of the product and/or residual fluid contained therein can cause environmental pollution.

Dispose the product in accordance with provisions applicable in the country of use.

 Fluid residues are to be disposed according to the respective safety data sheets (MSDS) valid for the specific hydraulic fluids.