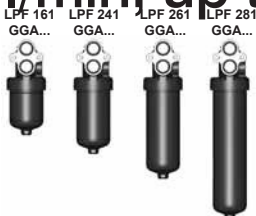




## Inline Filter LPF

### Flange-Mounted, With Integrated Cooler Bypass Valve up to 260 l/min, up to 50 bar



## 1. TECHNICAL SPECIFICATIONS

### 1.1 FILTER HOUSING

#### Construction

The filter housings are designed in accordance with international regulations. They consist of a filter head and a screw-in filter bowl. The built-in check valve in the filter head supplies partial flow to the cooler.

Standard equipment:

- cooler bypass valve
- connection for a clogging indicator

**1.2 FILTER ELEMENTS** HYDAC filter elements are validated and their quality is constantly monitored according to the following standards:

- ISO 2941, ISO 2942, ISO 2943, ISO 3724, ISO 3968, ISO 11170, ISO 16889

#### Contamination retention capacities in g

Betamicon® (BN4HC)				
LPFGGA 3	5 µm	10 µm	20 µm	
µm 161	15.2	16.8	20.2	22.9
241	25.1	27.8	33.5	37.9
261	38.8	43.0	51.7	58.5
281	62.4	69.2	83.2	94.1

Filter elements are available with the following pressure stability values:

Betamicon® (BN4HC):	20 bar
Mobilemicon (MM):	10 bar

### 1.3 SEALS

Perbunan (= NBR)

### 1.4 INSTALLATION

As inline filter

### 1.5 SPECIAL MODELS AND ACCESSORIES

- Seals in FPM, EPDM
- Without clogging indicator connection

### 1.6 FILTER SPECIFICATIONS

Nominal pressure	50 bar
Fatigue strength	At nominal pressure 10 <sup>6</sup> cycles from 0 to nominal pressure -10
Temperature range	°C to +120 °C
Material of filter head EN-GJS-400	Material of filter bowl
Aluminium	
Type of clogging indicator	VM (differential pressure measurement up to 210 bar operating pressure) 5 bar
Pressure setting of the clogging indicator	(others on request)
Bypass cracking pressure	3.4 bar

### 1.7 SPARE PARTS

See Original Spare Parts List

### 1.8 CERTIFICATES AND APPROVALS

On request

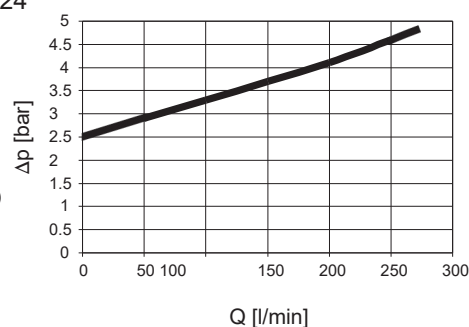
### 1.9 COMPATIBILITY WITH HYDRAULIC FLUIDS ISO 2943

- Hydraulic oils H to HLPD DIN 51524
- Lubrication oils DIN 51517, API, ACEA, DIN 51515, ISO 6743
- Compressor oils DIN 51506
- Biodegradable operating fluids VDMA 24568 HETG, HEES, HEPG
- Fire-resistant fluids HFC and HFD
- Operating fluids with high water content (>50% water content) on request

### 1.10 FILTER CALCULATION / SIZING

#### GRAPHS FOR COMPLETE FILTER

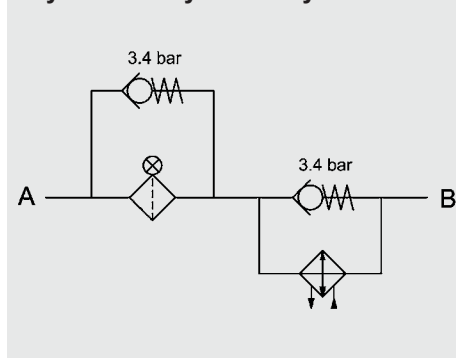
The total pressure drop graph applies to mineral oil with a density of 0.86 kg/dm<sup>3</sup> and a kinematic viscosity of 30mm<sup>2</sup>/s.



The gradient coefficients in mbar/(l/min) apply to mineral oils with a kinematic viscosity of 30 mm<sup>2</sup>/s. The pressure drop changes proportionally to the change in viscosity.

Betamicon® (BN4HC)				
	3 µm	5 µm	10 µm	20 µm
161	13.4	10.4	6.5	3.5
241	8.1	6.3	3.9	2.1
261	5.2	4.1	2.5	1.4
281	3.3	2.5	1.6	0.9

#### Symbol for hydraulic systems



## 2. MODEL CODE

### 2.1 COMPLETE FILTER

Type	Filter material	Size	Pressure range	Inlet / outlet to cooler	Type of connection	Filtration rating [µm]	Type of clogging indicator*	Type code	Modification number	Supplementary details
<b>LPF</b> Betamicon® (glass fibre)  <b>MM</b> = Mobilemicron (synthetic fibre)	<b>BN4HC</b>	<b>161</b> <b>241</b> <b>261</b> <b>281</b>	<b>G</b> = 50 bar	<b>G</b> = M27x2	<b>A</b> = 2 mounting holes	<b>BN/HC</b> : <b>3, 5, 10, 20</b>  <b>MM</b> : <b>8, 10, 15</b>	<b>W</b> = no indic. port <b>A</b> = steel plug in indicator port  <b>B</b> = visual <b>C</b> = electrical <b>D</b> = visual/ electrical	<b>1</b>	<b>.x</b> = The latest version is always supplied	<b>V</b> = FPM seal <b>L..</b> = light with appropri. voltage (24, 48 110, 220 Volt)

\* for other clogging indicators see brochure no. 7.050../..

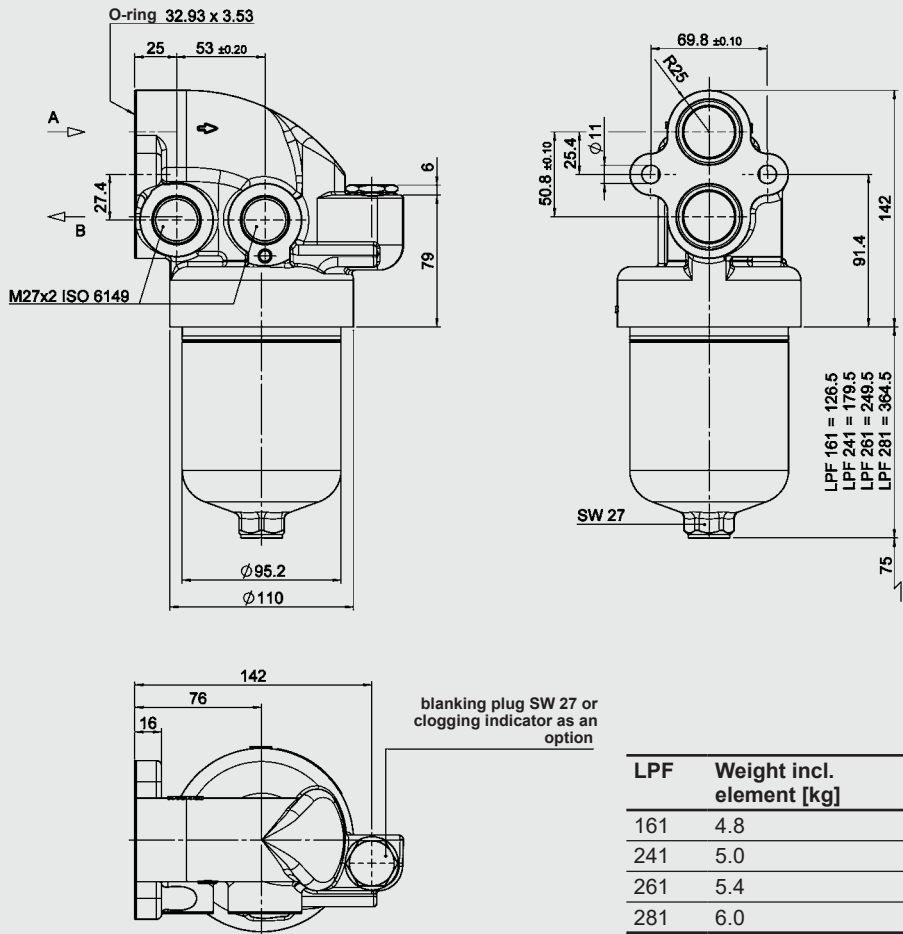
### 2.2 REPLACEMENT ELEMENT

Size	Type	Filtration rating [µm]	Filter material	Supplementary details
<b>0161</b> <b>0241</b> <b>0261</b> <b>0281</b>	<b>RD</b> = Return line element for pressure filter	<b>BN4HC</b> = 003, 005, 010, 020  <b>MM</b> = 008, 010, 015	<b>BN4HC</b> = Betamicon®  <b>MM</b> = Mobilemicron	<b>B3.4</b> = with bypass valve (cracking press. 3.4 bar) <b>B6</b> = with bypass valve (cracking press. 6 bar) <b>kB</b> = without bypass valve

### 2.3 REPLACEMENT CLOGGING INDICATOR

Type	Pressure setting	Type of clogging indicator*	Modification number	Supplementary details
<b>VM</b>	<b>5</b> = standard 5 bar	<b>W</b> = no port, no indicator <b>B</b> = visual <b>C</b> = electrical <b>D</b> = visual/ electrical	<b>.x</b> =  The latest version is always supplied	<b>-V</b> = FPM seal

## 3. DIMENSIONS



LPF	Weight incl. element [kg]	Vol. of pressure chamber [l]
161	4.8	0.6
241	5.0	0.9
261	5.4	1.4
281	6.0	2.0

## NOTE

The information in this brochure relates to the operating conditions and applications described.  
For applications or operating conditions not described, please contact the relevant technical department.  
Subject to technical modifications.