

# LMP 902-903 series

Filter element according to DIN 24550

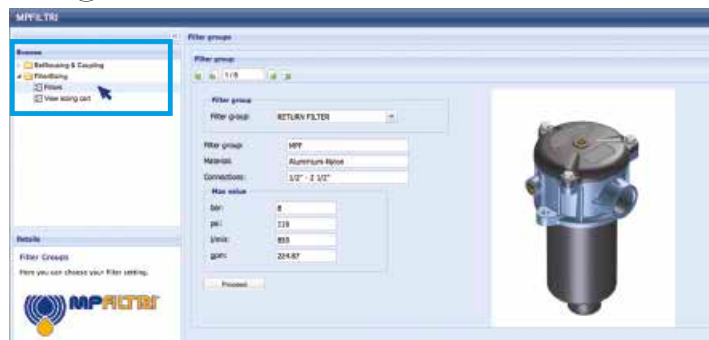
Maximum working pressure up to 2 MPa (20 bar) - Flow rate up to 3000 l/min



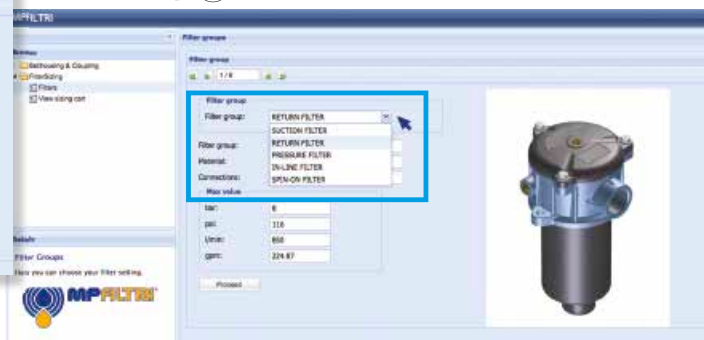


# TYPICAL FILTER SIZING Selection Software

**Step 1** Select "FILTERS"



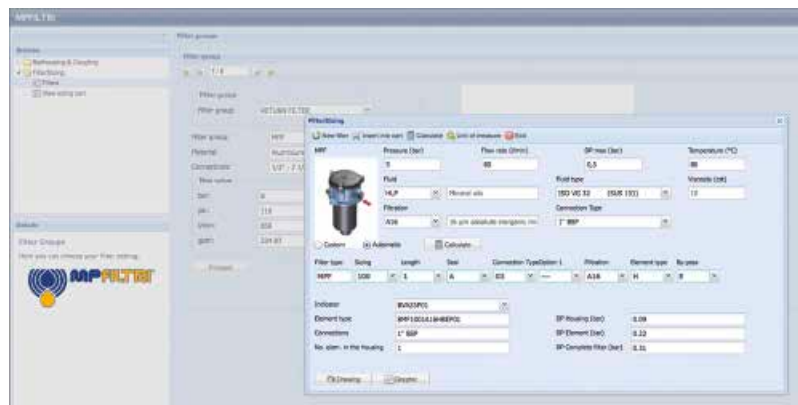
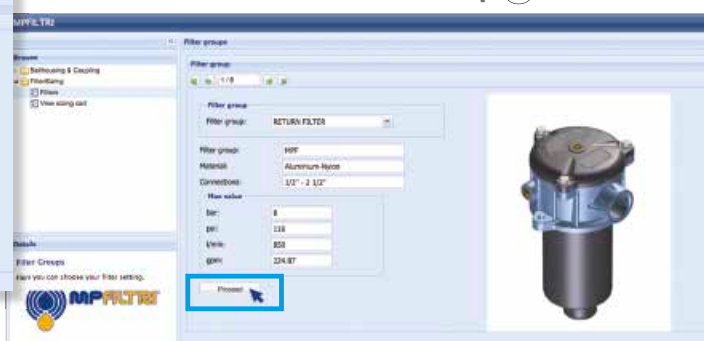
**Step 2** Choose filter group (Return Filter, Pressure Filter, etc.)



**Step 3** Choose filter type (MPF, MPT, etc.) in function of the max working pressure and the max flow rate



**Step 4** Push "PROCEED"



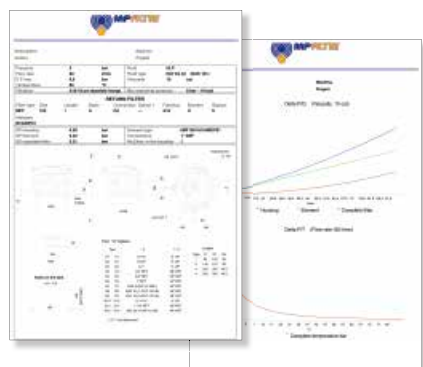
**Step 5**

Insert all application data to calculate the filter size following the sequence:

- working pressure
- working flow rate
- working pressure drop
- working temperature
- fluid material and fluid type
- filtration media
- connection type

**Step 6**

Push "CALCULATE" to have result; in case of any mistake, the system will advice which parameter is out of range to allow to modify/adjust the selection



**Step 7**

Download PDF Datasheet "Report.aspx" pushing the button "Drawing"



# LMP 902-903 GENERAL INFORMATION

## Filter element according to DIN 24550

### Description

#### 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

### 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)  $\pm 10\%$
- Other opening pressures on request.

#### Number of filter elements

LMP 902: 4 filter elements CU900

LMP 903: 6 filter elements CU900

#### Filter elements

Filter element according to DIN 24550

Size: 1000

#### $\Delta p$ 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 [dm<sup>3</sup>]

Filter series	Weights [kg]		Volumes [dm <sup>3</sup> ]	
	Length	2	Length	2
<b>LMP 902</b>		89.6		58
<b>LMP 903</b>		129.2		87

Filter series	Length	Filter element design - N Series					
		A03	A06	A10	A16	A25	M25 M60 M90 M250
<b>LMP 902</b>	<b>2</b>	2217	2576	3241	3282	3506	3987
<b>LMP 903</b>	<b>2</b>	2838	3170	3720	3755	3926	4278

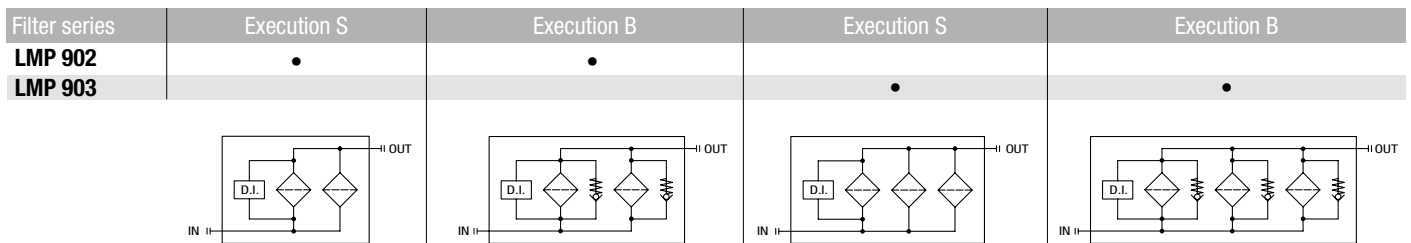
#### Maximum flow rate for a complete low and medium pressure filter with a pressure drop $\Delta p = 0.7$ bar.

The reference fluid has a kinematic viscosity of 30 mm<sup>2</sup>/s (cSt) and a density of 0.86 kg/dm<sup>3</sup>.

For different pressure drop or fluid viscosity we recommend to use our selection software available on [www.mpfiltri.com](http://www.mpfiltri.com).

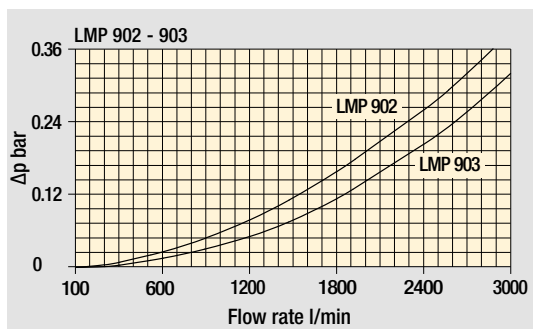
You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure. Please, contact our Sales Department for further additional information.

### Hydraulic symbols

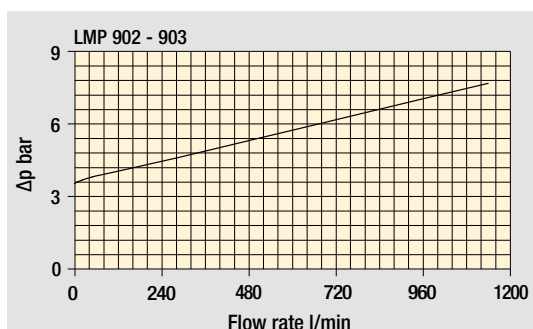


### Pressure drop

Filter housings  $\Delta p$  pressure drop



Bypass valve pressure drop

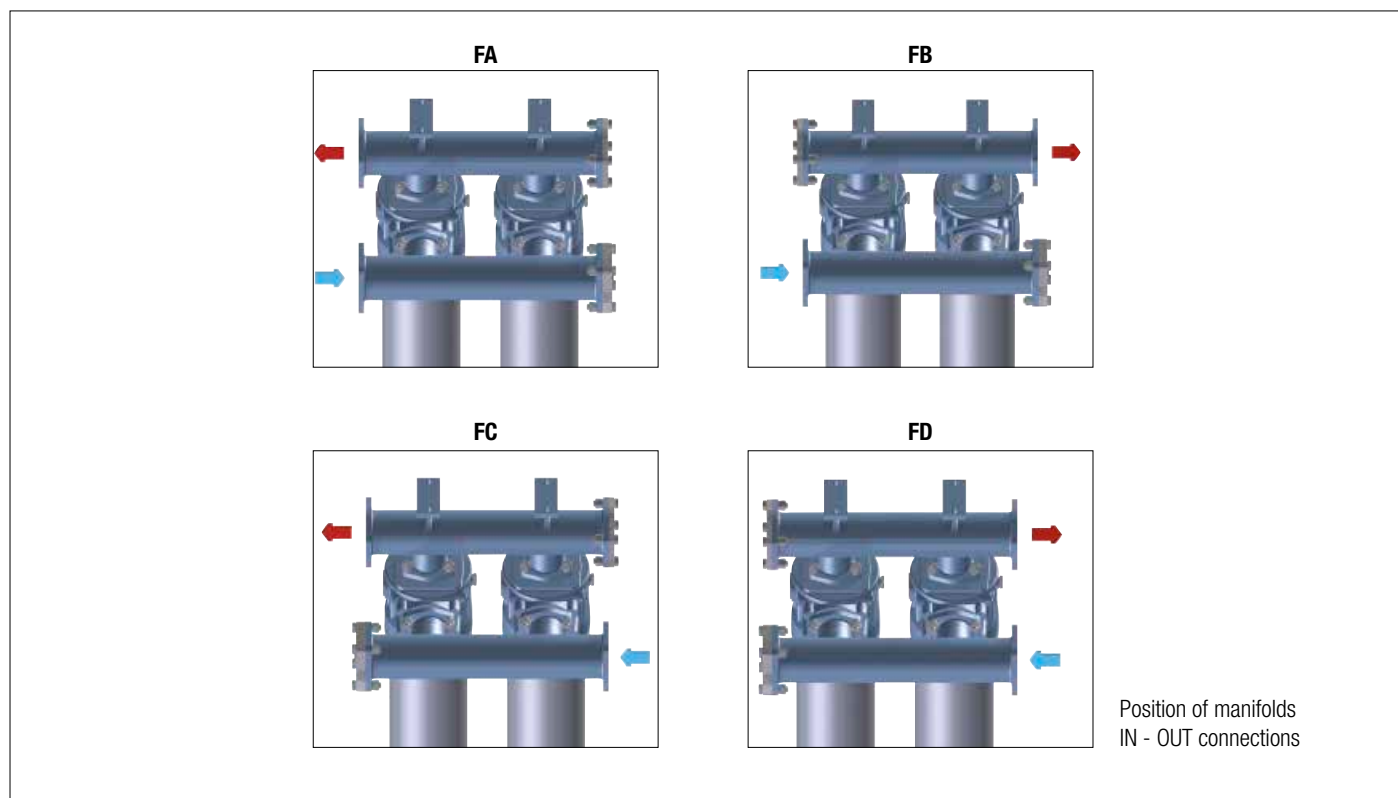


The curves are plotted using mineral oil with density of 0.86 kg/dm<sup>3</sup> in compliance with ISO 3968.  $\Delta p$  varies proportionally with density.

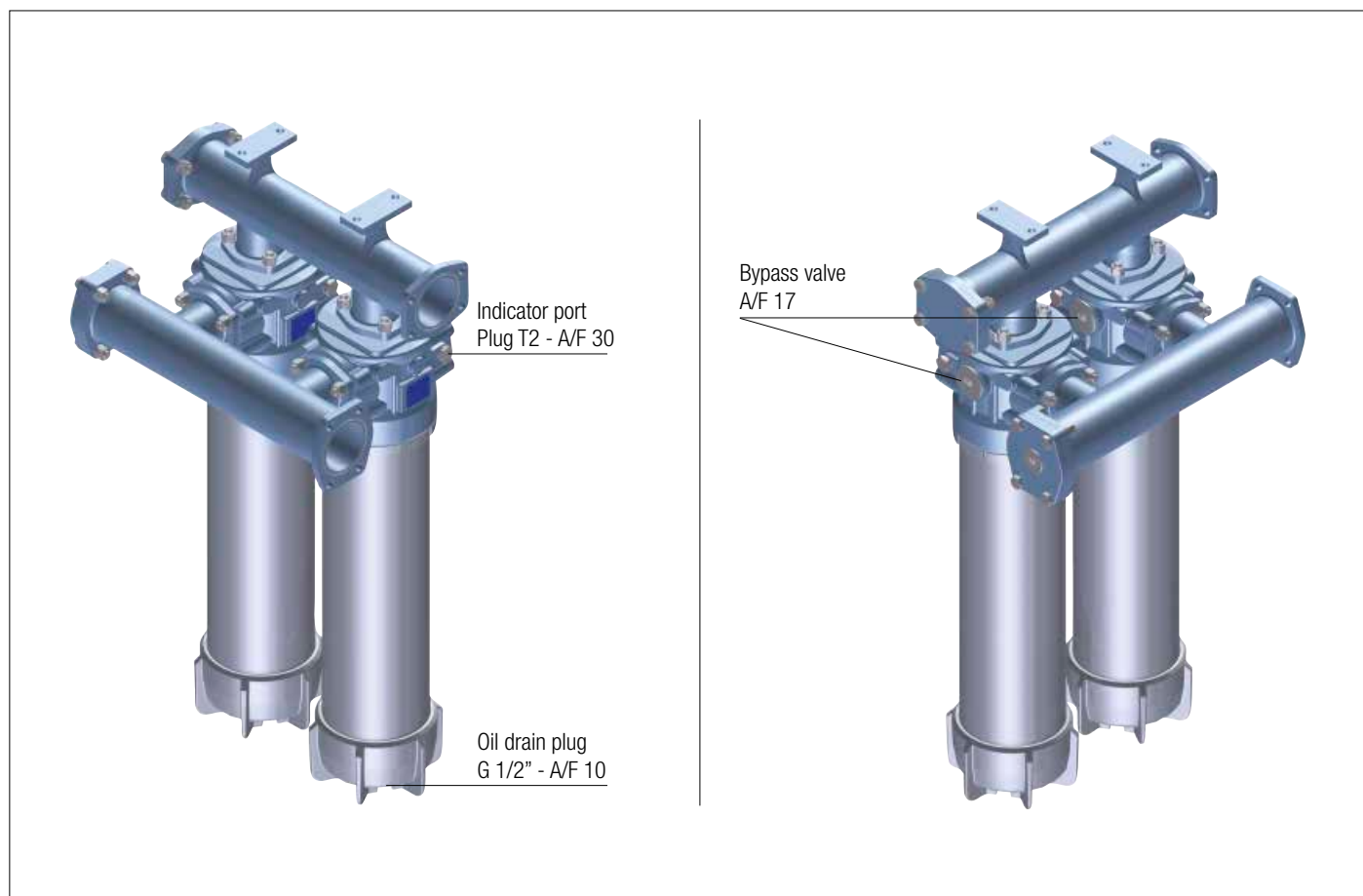
# LMP 902-903 GENERAL INFORMATION

Filter element according to DIN 24550

## Manifolds



## Focus on





# LMP 902-903 Filter element according to DIN 24550

## Designation & Ordering code

### COMPLETE FILTER

<b>Series and size</b>		Configuration example: <b>LMP902</b> <b>2</b> <b>B</b> <b>A</b> <b>FA</b> <b>A10</b> <b>N</b> <b>P01</b>								
<b>LMP902</b>   <b>LMP903</b>										
<b>Length</b>		<b>2</b>								
<b>Bypass valve</b>		<b>S</b> Without bypass <b>B</b> 3.5 bar								
<b>Seals and treatments</b>		<b>A</b> NBR <b>V</b> FPM								
<b>Connections</b>		<b>IN</b>							<b>OUT</b>	
<b>FA</b>	4" SAE 3000 psi	left							left	
<b>FB</b>	4" SAE 3000 psi	left							right	
<b>FC</b>	4" SAE 3000 psi	right							left	
<b>FD</b>	4" SAE 3000 psi	right							right	
<b>Filtration rating (filter media)</b>										
<b>A03</b>	Inorganic microfiber 3 µm							<b>M25</b>	Wire mesh 25 µm	
<b>A06</b>	Inorganic microfiber 6 µm							<b>M60</b>	Wire mesh 60 µm	
<b>A10</b>	Inorganic microfiber 10 µm							<b>M90</b>	Wire mesh 90 µm	
<b>A16</b>	Inorganic microfiber 16 µm									
<b>A25</b>	Inorganic microfiber 25 µm									
<b>WA025</b>		Water absorber inorganic microfiber						25 µm		
		<b>Element Δp</b>				<b>Execution</b>				
		<b>N</b> 20 bar				<b>P01</b> MP Filtri standard <b>Pxx</b> Customized				

### FILTER ELEMENT

<b>Element series and size</b>		Configuration example: <b>CU900</b> <b>A10</b> <b>A</b> <b>N</b> <b>P01</b>					
<b>CU900</b>							
<b>Filter series and size</b>							
<b>LMP902</b>	Nr. 4 filter elements						
<b>LMP903</b>	Nr. 6 filter elements						
<b>Filtration rating (filter media)</b>							
<b>A03</b>	Inorganic microfiber 3 µm					<b>M25</b>	Wire mesh 25 µm
<b>A06</b>	Inorganic microfiber 6 µm					<b>M60</b>	Wire mesh 60 µm
<b>A10</b>	Inorganic microfiber 10 µm					<b>M90</b>	Wire mesh 90 µm
<b>A16</b>	Inorganic microfiber 16 µm						
<b>A25</b>	Inorganic microfiber 25 µm						
<b>WA025</b>		Water absorber inorganic microfiber				25 µm	
<b>Seals</b>		<b>A</b> NBR <b>V</b> FPM					
		<b>Element Δp</b>				<b>Execution</b>	
		<b>N</b> 20 bar				<b>P01</b> MP Filtri standard <b>Pxx</b> Customized	

### ACCESSORIES

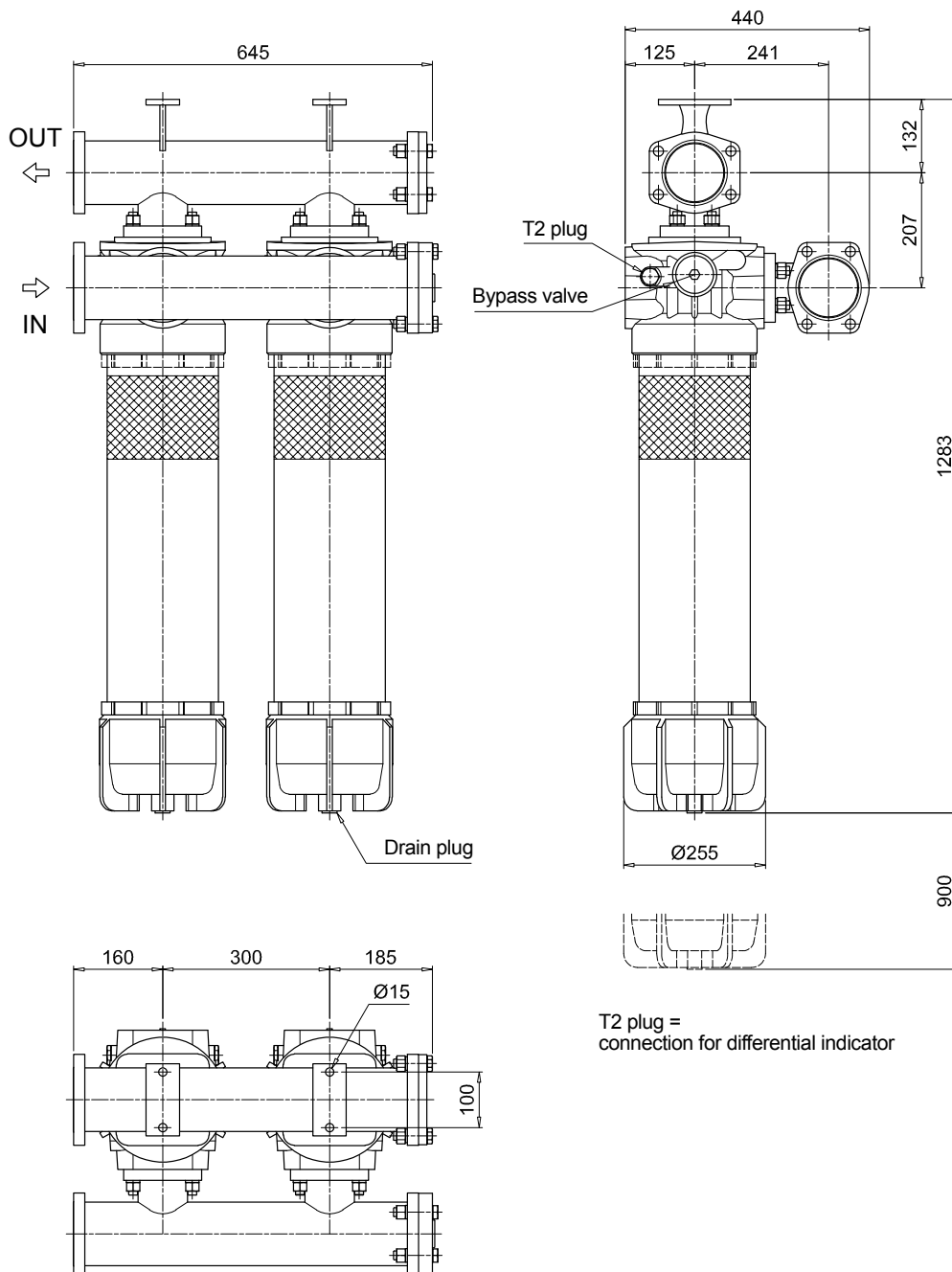
<b>Differential indicators</b>		page			page
<b>DEA</b>	Electrical differential indicator	445	<b>DTA</b>	Electronic differential indicator	448
<b>DEM</b>	Electrical differential indicator	445-446	<b>DVA</b>	Visual differential indicator	448
<b>DLA</b>	Electrical / visual differential indicator	446-447	<b>DVM</b>	Visual differential indicator	448
<b>DLE</b>	Electrical / visual differential indicator	447			
<b>Additional features</b>		page			
<b>T2</b>	Plug	449			



# Filter element according to DIN 24550 LMP 902-903

Dimensions

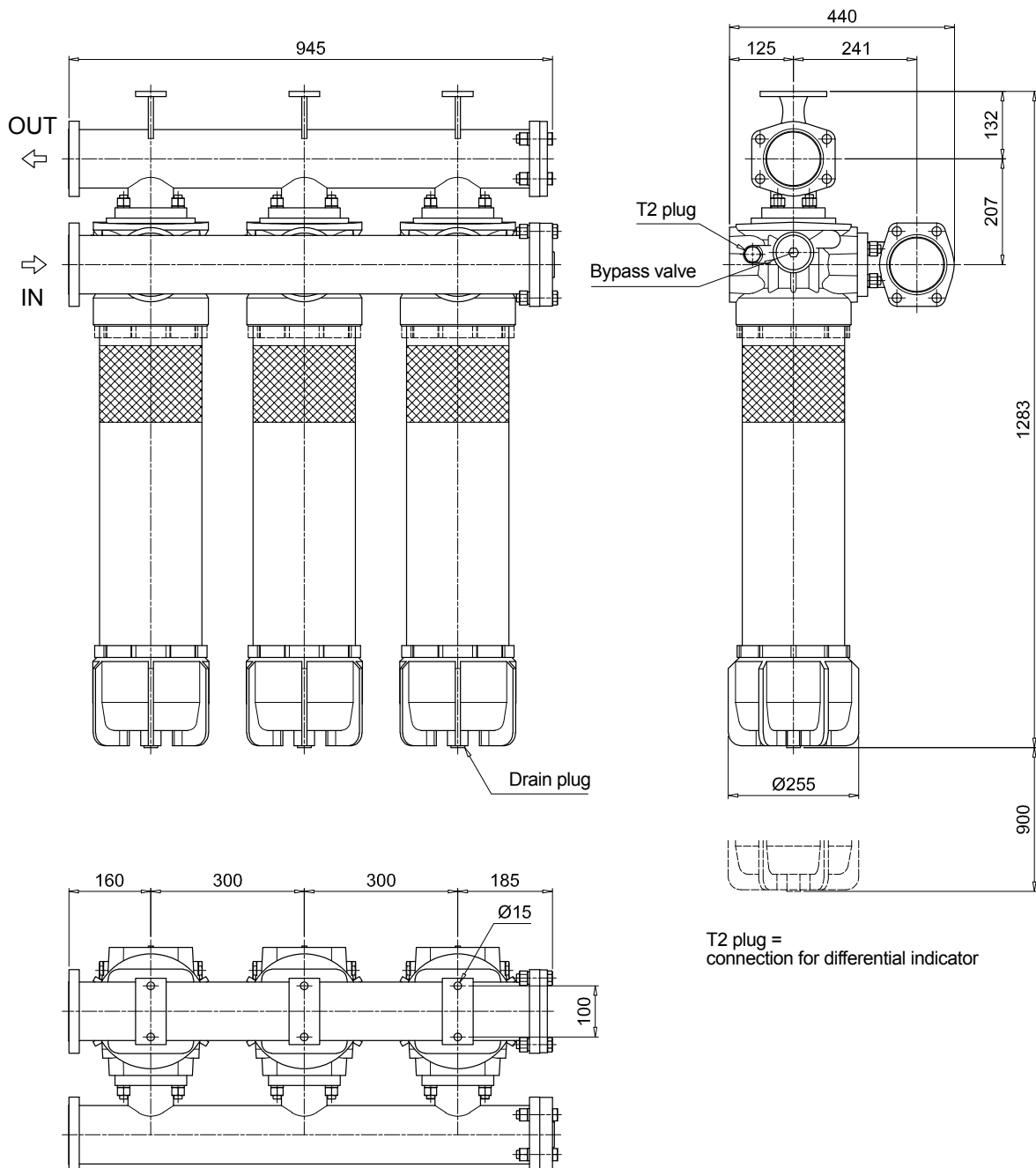
LMP902



# LMP 902-903 Filter element according to DIN 24550

## Dimensions

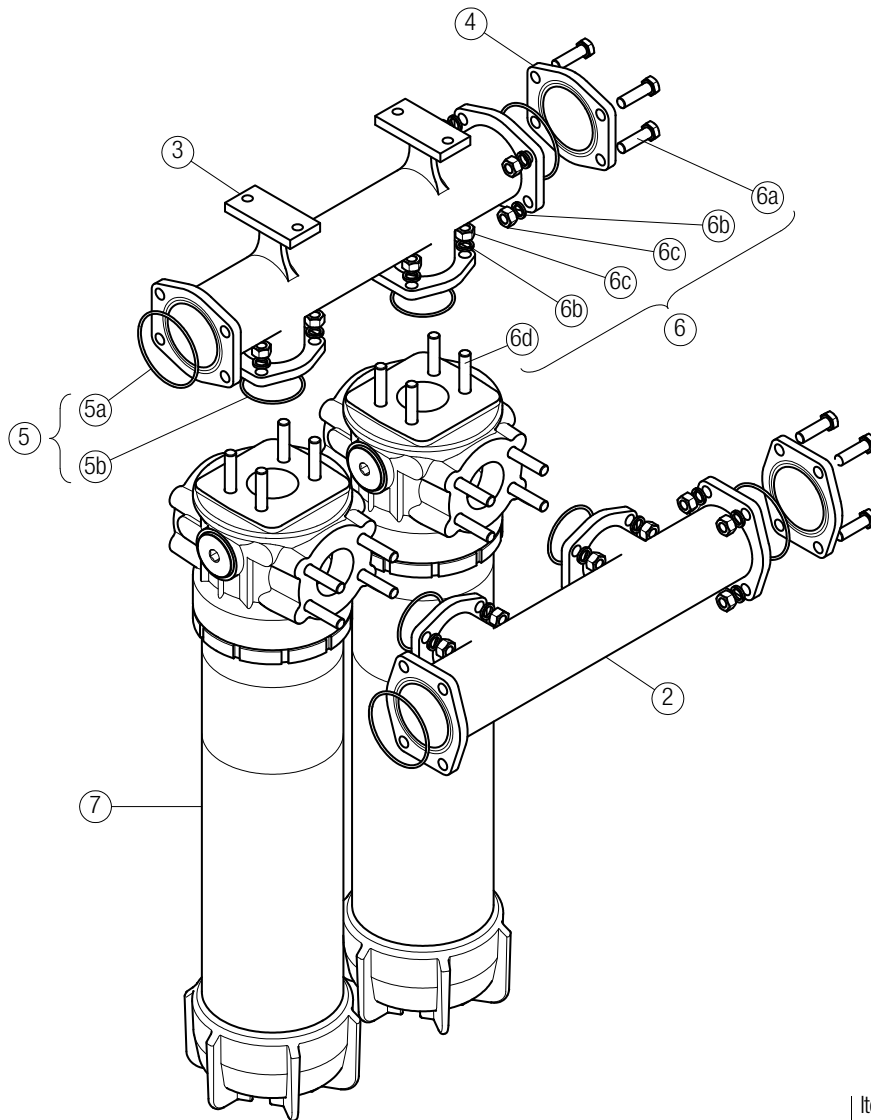
LMP903



# SPARE PARTS LMP 902-903

Order number for spare parts

LMP 902 - 903



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	Q.ty	4" SAE 3000 psi plugged flange	Q.ty	Manifolds seal kit NBR	FPM	Q.ty	Threaded fasteners kit	Q.ty	Filter
LMP 902	1 pc.	01039270	01039271	2 pcs.	01042012	1 pc.	02050404	02050405	1 pc.	02049051	2 pcs.	LMP9012xxF1xxxNP02
LMP 903	1 pc.	01039337	01039338	2 pcs.		1 pc.	02050404	02050405	1 pc.	02049052	3 pcs.	