



WombatFilter WBF

Description

The WombatFilter WBF is used for the pre-filtration and main filtration of fluids. It ensures components and systems have excellent protection, primarily in industrial parts washers as well as in hydraulic and lubrication systems.

The following filter elements are used:

- **Wombat WB filter elements:**
The star-folded filter elements are characterised by their particularly high contamination retention capacity, low pressure loss and high deposition rates; for the highest cleanliness requirements.
- **Filter bag FB**
Commercial filter bags available in 1, 2 or 3-layered models, depending on the purity requirement.
- **Fleximicron FM filter elements (30" filter candles)**
Filter candles of the premium, standard and economy series enable optimum adaptation to the system and the purity requirement.

The option of using these different types of filter elements provides a high level of flexibility in system planning and in operation.

Applications

- Industrial part washers
- Cooling-lubrication systems
- Hydraulic and lubrication systems
- Lacquer filtration
- Water filtration

Special features

- High contamination retention capacity and low pressure loss due to star-folded Wombat filter elements
- Very high separation performance >99.8% in various filtration ratings
- Magnetic bars available as accessory for the Wombat filter elements and filter bags
- Very straightforward serviceability thanks to special filter element structure
- Stainless steel housing

Technical specifications

General specifications	
Size	100 or 201
Housing material	Stainless steel
Flow rate, recommended	WBF 100: 200 l/min max. WBF 201: 400 l/min max.
Operating pressure, maximum	10 bar or 16 bar
Hydraulic connection, inlet	DIN DN 50
Hydraulic connection, outlet	DIN DN 50
Permissible operating temperature	max. 100 °C
Seal material	FKM (FPM, Viton®)
Empty weight	Size 100 ≈ 40 kg Size 201 ≈ 48 kg
Housing volume	Size 100 = 15 litres Size 201 = 30 litres

Preferred models (with shorter delivery times)

Size	Part no.	Model code
201	4158239	WBF-201B-BL-FZ
201	4158279	WBF-201W-BL-FZ
201	4112609	WBF-201Z-BL-FZ

Model code

WBF - 201 W - B L - E Z /-

Basic model

WBF = WombatFilter

Size

100 = for Wombat filter element N100WB
or filter bag N100FB-xx

201 = for Wombat filter element N200WB
or filter bag N200FB-xx
or 4 filter candles N30FM-x

Filter element model

W = Wombat filter element

B = filter bag

F = Flexmicron filter candles

Z = without basket mount for filter elements

Pressure stage

B = 10 bar

C = 16 bar

Hydraulic connection

L = DIN DN 50

Seal material

F = FKM (FPM, Viton®)

Clogging indicator

A = no indicator, with mount G 1/2" for differential pressure indicator 2 bar

E = dynamic pressure gauge

Z = no clogging indicator

Others on request

Supplementary details

Scope of delivery

- WBF (without filter elements)
- Installation and Maintenance Instructions

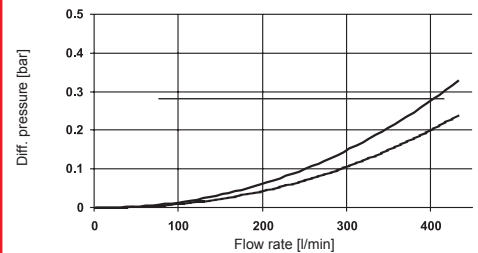
For filter element model "Z" the scope of delivery does not include an element basket mount. The mount must be ordered separately.

Filter elements must be ordered separately and installed before initial start-up on site.

Filter calculation

The total pressure loss of the filters at a particular flow rate is made up of housing Δp and element Δp . The pressure loss of the housing can be determined on the basis of the following pressure loss characteristic curve. The pressure loss of the elements is calculated by means of the R-factors (see further below).

The flow speed at the filter inlet should not exceed 3 m/s for oil and 4 m/s for water.



Top curve:
oil, 30 mm²/s and 0.86 kg/dm³

Bottom curve:
water at 20 °C

Element Δp : pressure loss calculation for filter element

$$\Delta p \text{ [mbar]} = \frac{R \times V \text{ (mm}^2\text{/s)} \times Q \text{ (l/min)}}{n}$$

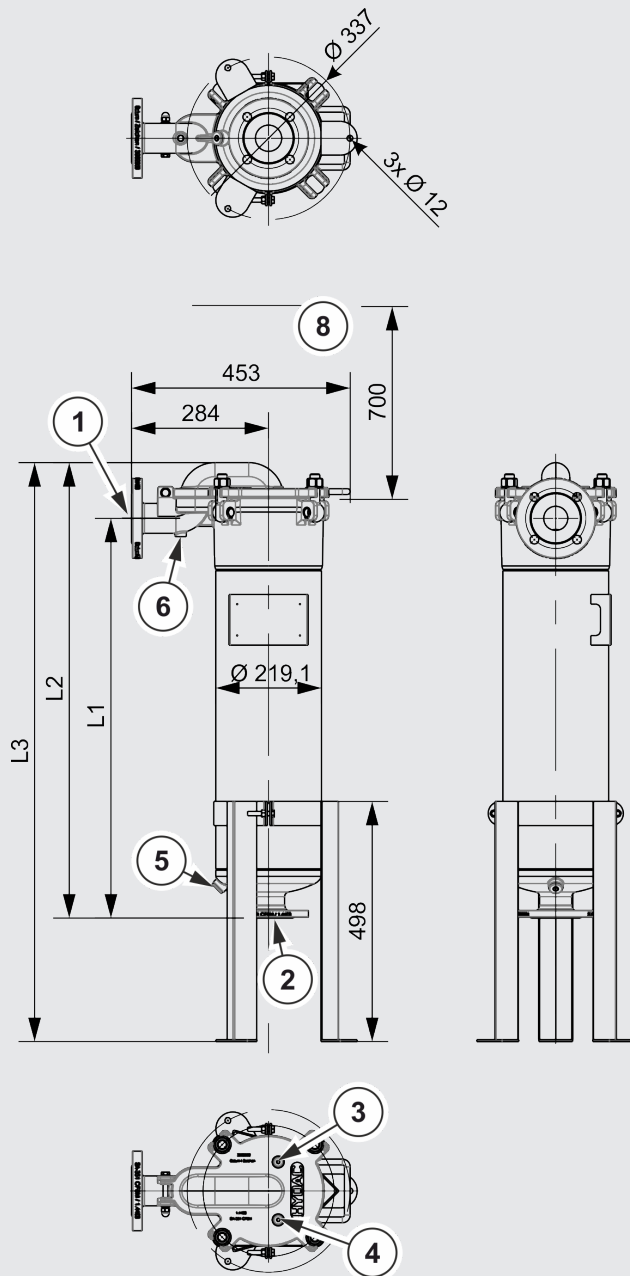
R = R factor
(given in the filter element data sheet)

V = viscosity [mm²/s]

Q = flow rate [l/min]

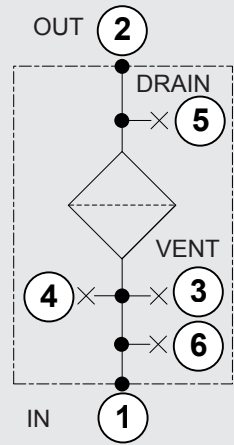
n = number elements

Model code



All data given in mm

Hydraulic circuit:



Dimensions

Description	WBF 100	WBF 201
L1	395 mm	830 mm
L2	510 mm	945 mm
L3	845 mm	945 to 1280 mm

Ports

The filter housing has the following ports:

Description		
1	Inlet	Flange connection 2" DIN DN 50
2	Outlet	Flange connection 2" DIN DN 50
3	Vent	1/4" in acc. with ISO 228
4	Connection, clogging indicator	1/4" in acc. with ISO 228
5	Drain	1/2" in acc. with ISO 228
6	Connection point	1/4" in acc. with ISO 228
8	Filter element removal height	

Filter elements for WBF

Please ensure that the housing is equipped with a suitable element mount (see order information). If it is not, select the suitable basket mount or adapter kit under accessories.

Filter element model	WBF 100	WBF 201
Wombat elements	N100WBxxx-xxxx	N200WBxxx-PESF
Filter bag (1-layer)	N100FB-EAxxx-xxx	N200FB-EAxxx-xxx
Filter bag (2-layer)	N100FB-SAxxx-xxx	N200FB-SAxxx-xxx
Filter bag (3-layer)	N100FB-SBxxx-xxx	N200FB-SBxxx-xxx
Flexmicron (Economy)	-	N30FM-Exxx-xx1x
Flexmicron (Standard)	-	N30FM-Sxxx-xx1x
Flexmicron (Premium)	-	N30FM-Pxxx-xx1x

Accessories

Application	WBF 100	WBF 201
Basket mount for Wombat filter elements	3674956	3549057
Basket mount for filter bag	3878814	3909007
Basket mount for 4 Flexmicron filter elements	-	4107160
Magnetic bar insert (for Wombat filter elements)	3633896	3601237
Magnetic bar insert (for filter bag)	3913551	3913578
Support strainer to increase flow rate	4097906	4027300
Clogging indicator kit (for retrofitting a differential pressure gauge)	4253311	4253311

Note

The information in this brochure relates to the operating conditions and applications described.

For applications and operating conditions not described, please contact the relevant technical department.

Subject to technical modifications.

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