

Flangible filters

These filters are for installation on the return line. Semi-submerged in the tank. All filters are complete with by-pass valve.

Operating Temperature	
with NBR seals	-30 ÷ 90° C
Fluid compatibility conforming to ISO 2943 (Norm ISO 6743/4)	
oil mineral with NBR seals	HH - HL - HM - HR - HV - HG
water emulsions with NBR seals	HFAE - HFAS
Pressure	
working pressure	8 bar
testing pressure	12 bar
burst pressure	16 bar
element collapse pressure rating (conforming to ISO 2941)	10 bar
By-pass valve	
by-pass setting	1,7 bar

DEFINITION

Ratio “β_x” according to ISO 4572:

$$\beta_x \geq \frac{\text{Upstream particles with dimensions "x" } \mu\text{m}}{\text{Downstream particles with dimensions "x" } \mu\text{m}}$$

where “x” stands for particle size in μm

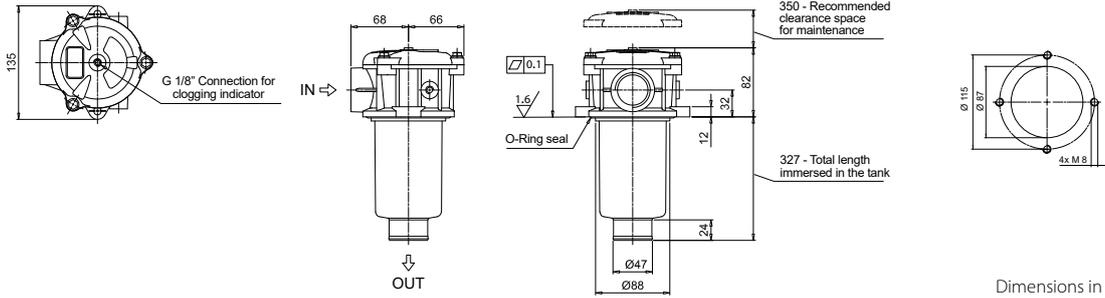
$$\% \text{ / Filtration Efficiency} = \frac{\text{Ratio } \beta - 1}{\text{Ratio } \beta} \times 100$$

Values	Efficiency
“β”	%
≥ 2	50
≥ 20	95
≥ 50	98
≥ 75	98,7
≥ 100	99
≥ 200	99,5

CONVERSION TABLE

Characteristics	International System (SI)	US Customary System (USCS)	Conversion from SI to USCS	Conversion from USCS to SI
Pressure	Mega Pascal (MPa) 1 MPa = 10 bar	Pound/Square Inch (psi)	1 MPa = 145 psi	1 psi = 0,0069 MPa
Flow in hydraulic	Litre per minute (l/min)	Gallon per minute (gpm)	1 l/min = 0,265 gpm	1 gpm = 3,78 l/min
Force	Newton (N)	Pound force (lbf)	1 N = 0,225 lbf	1 lbf = 4,444 N
Torque	Newton meter (Nm)	Pound force per foot (lbf ft)	1 Nm = 0,767 lbf ft	1 lbf ft = 1,357 Nm
Temperature	Celsius degree (°C)	Fahrenheit degree (°F)	°C = (°F-32)/1,8	°F = (°C*1,8) + 32
Lenght	Millimeter (mm) , Meter (m)	Inch (in), Foot (ft)	1 mm = 0,03937 in, 1 m = 3,28084 ft	1 in = 25,4 mm, 1 ft = 0,3048 m
Weight	Kilogram (kg)	Pound (lb)	1 kg = 2,2016 lb	1 lb = 0,1536 kg

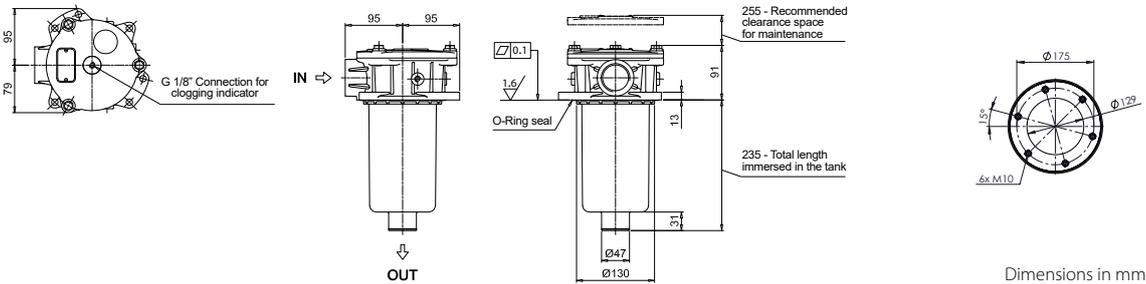
Flange F4



Dimensions in mm

Distance between the holes	Filter	β	Displacement l/min	Code	IN NPT	Cartridge
115	Micro-fibre glass 10 μ m	$\beta_{10} > 200$	150	11800154110	1 1/4"	11800254110
	Micro-fibre glass 25 μ m	$\beta_{25} > 200$	200	11800154120		11800254120
	Steel 60 μ m		250	11800154160		11800254160

Flange F2



Dimensions in mm

Distance between the holes	Filter	β	Displacement l/min	Code	IN NPT	Cartridge
175	Micro-fibre glass 10 μ m	$\beta_{10} > 200$	200	11800152110	1 1/4"	11800252110
	Micro-fibre glass 25 μ m	$\beta_{25} > 200$	250	11800152120		11800252120
	Steel 60 μ m		300	11800152160		11800252160

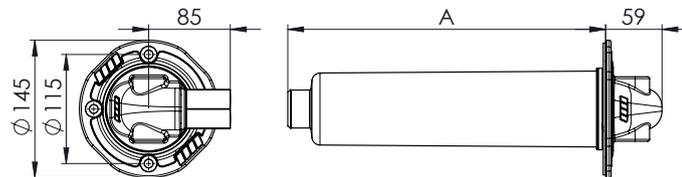
Multifunctional adjustable return system cap



The peculiarity of this product is that the port to which the return line of the systems is connected, can be oriented in any position of 360 ° allowed.

CAP WITH FILTER CARTRIDGE

Flange F4

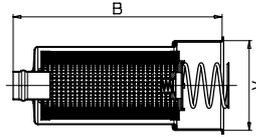


Dimensions in mm

Cap without ports	Code	A	B NPT	Spare parts				
Technical features				Plastic recipient	Cartridge	Cap	Cap ring	Gasket
60 μ m (steel) 200 lt	11800126518	330	1"	50900001859	11800211176	54600250010	49211020010	50600003022
25 μ m (cellulose) 160 lt	11800126527				11800212175			
25 μ m (fiber) 160 lt	11800126536				11800212193			
60 μ m (steel) 90 lt	11800126714				11800201356			
25 μ m (cellulose) 60 lt	11800126723	165	1"	50900001902	11800202355	54600250010	49211020010	50600003022
25 μ m (fiber) 60 lt	11800126732				11800204353			

Submerged filter

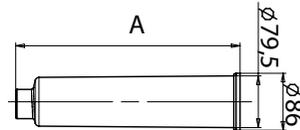
These filters have to be fitted in combination with flange in combination with mounting plates for diverters.



Dimensions in mm

Order code	Flange type	Displacement		Filter		Operating temperature °C	A mm	B mm	Max. operating pressure bar	Testing pressure bar	By-pass valve opening Δp bar	Filter element collapse pressure bar	Spare cartridge
		l/min	μm	β									
Flange F2													
11800111757	175	180	60			-25÷110	127	304	3	6	1,5±9%	10	11800201203 steel
11800112756		130	30	2									11800202202 reinforced cellulose

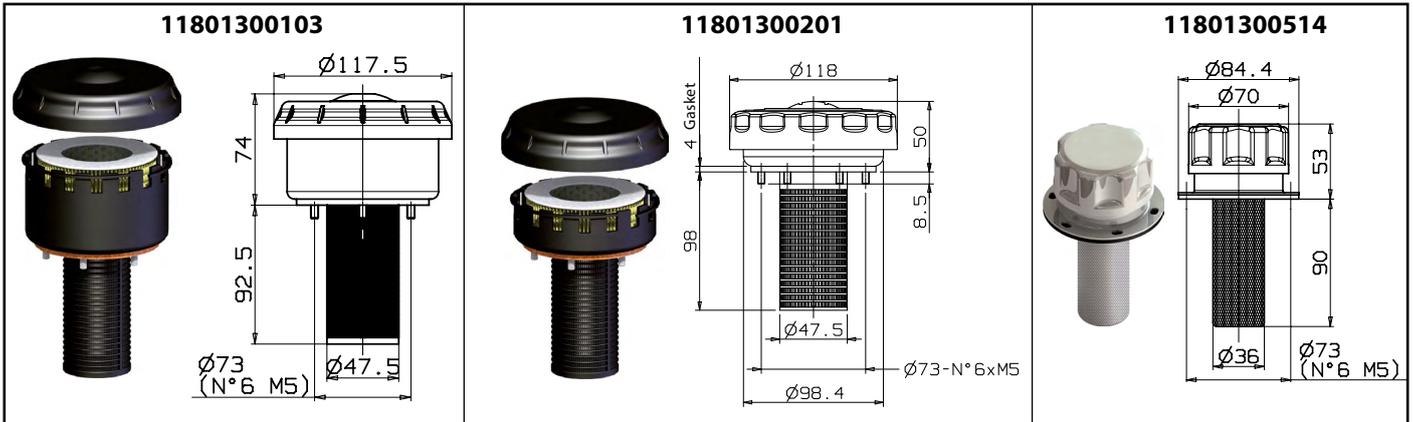
These filters have to be fitted in combination with flange **F4** in combination with mounting plates for diverters.



Dimensions in mm

Order code	Flange type	A	Displacement		Filter		Operating temperature °C	Max. operating pressure bar	Testing pressure bar	By-pass valve opening Δp bar	Filter element collapse pressure bar	Spare cartridge
			l/min	μm	β	25						
Flange F4												
11800111177	115	330	200	60		-25÷110	8	12	1,7±10%	10	11800211176 steel	
11800112176			160	25	2						11800212175 reinforced cellulose	
11800112194			160	25	200						11800212193 microfiber	
11800111195		162	90	60							11800201356 steel	
11800112210			60	25	2						11800202355 reinforced cellulose	
11800112229			60	25	200						11800204353 microfiber	

Filler cap

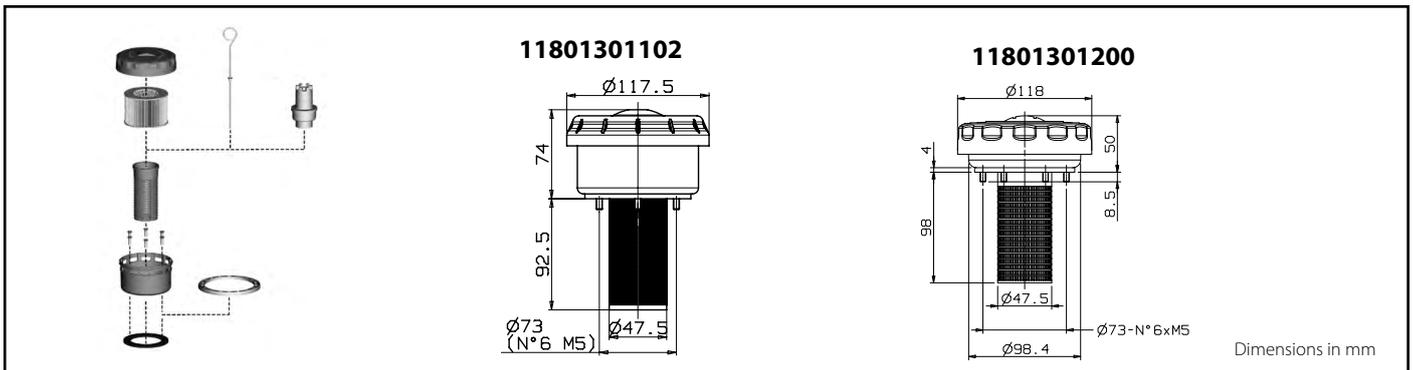


Filler cap complete with paper filter to ensure a proper filtration on the air coming into the tank.

Dimensions in mm

Order code	Air displacement	Filter	Filter Elements	
11801300103	1800 l/min	3 µm	11890200107	Paper
11801300201	1400 l/min	10 µm	11890200125	
11801300514	480 l/min	40 µm	Metallic net	

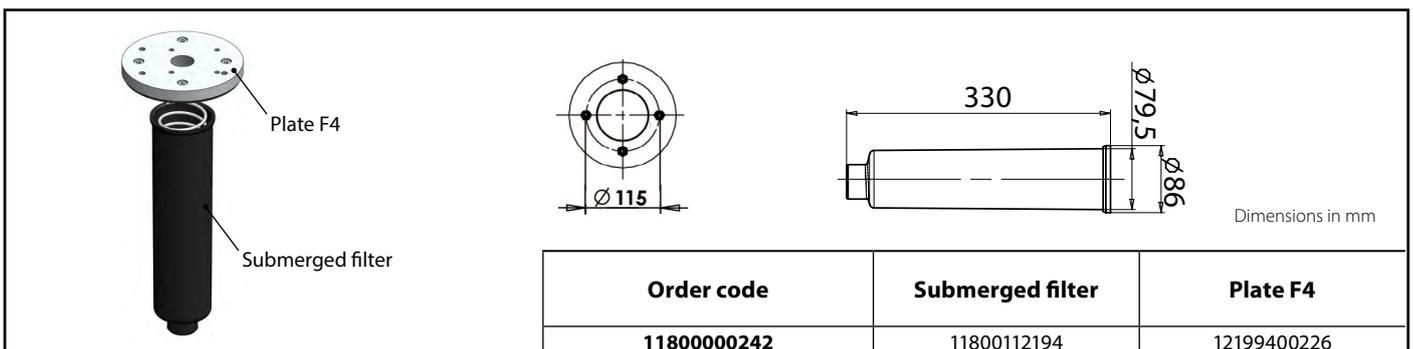
Filler cap with antispash



Dimensions in mm

Order code	Air displacement	Filter	Filter Elements	
11801301102	1800 l/min	3 µm	11890200107	Paper
11801301200	1400 l/min	10 µm	11890200125	

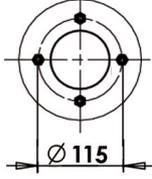
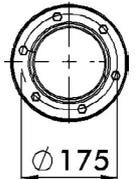
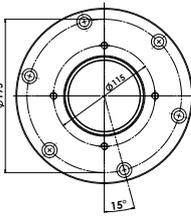
"Easy kit" - Submerged filter+plate F4



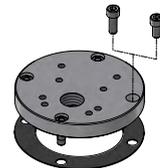
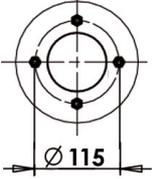
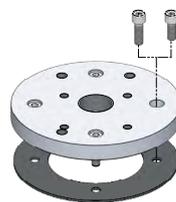
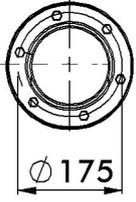
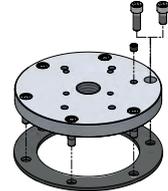
Dimensions in mm

Order code	Submerged filter	Plate F4
11800000242	11800112194	12199400226

Flanges

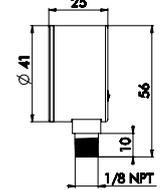
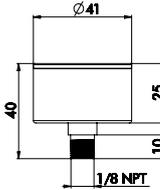
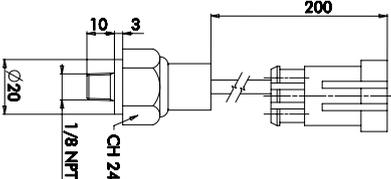
	Order code	Description	Bill of material
Blank flanges	 Code 13599020110 (OMFB) 13599020129 (Neutro)	Blank flange	 Flange F4 4 screws SPEI M8x16 1 aluminium plate 1 Gasket
	 Code 13599020165	Blank flange	 Flange F2 6 screws SPEI M10x18 1 aluminium plate 1 Gasket
Kit adaptor filter cap	 Code 13590400234	Kit adaptor F4 on oil tanks F2.	 Flange F2 1 plate 6 screws TCE M10x30 4 screws SPEI M8x20

Dimensions in mm

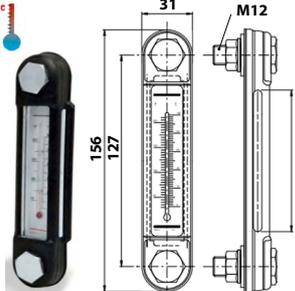
	Order code	Description	Bill of material
Mounting flanges for tipping valves	 Code 12199400182	Mounting flange for tipping valves option: FM / FP 80 Modular 150	 Flange F4 4 screw TCE M 8x14 4 screw TCE M 8x20 1 aluminium plate 1 Gasket WARNING: SHORT SCREWS MUST BE USED ONLY FOR OIL TANKS FAMILY CODE 135700...
	 Code 12199400226	Mounting flange for tipping valves option: Modular 150 - Modular 250 on side and rear mounting tanks	 Flange F4 4 screw TCE M 8x25 4 screw TCE M 8x20 1 aluminium plate 1 Gasket WARNING: SHORT SCREWS SHALL BE USED ON TANKS WITH WELDED FLANGES. LONG SCREWS SHALL BE USED ON TANKS WITH DEEP-DRAWN FLANGES AND THREADED INSERTS.
	 Code 12199400217	Mounting flange for tipping valves option: Modular 150 Modular 250	 Flange F2 6 screw TCE M10x20 6 screw TCE M10x30 1 aluminium plate 1 Gasket 1 Plug G 1/8 WARNING: SHORT SCREWS MUST BE USED ONLY FOR OIL TANKS FAMILY CODE 135700...

Dimensions in mm

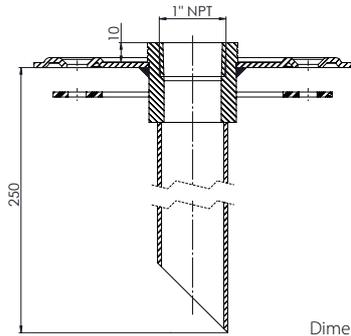
Clogging indicators

Order code		Description	Products	
Visual indicators	Radial attachment 1180000073	Pressure gauge, scale from 0 to 6 bar radial attachment.		
	Rear attachment 1180000082	Pressure gauge, scale from 0 to 6 bar rear attachment.		
Electric indicators	31200500110	Adjustable electric indicator from 0.5 bar to 3 bar. IP 65 Packard connection.		 Dimensions in mm

Visual level indicator

Order code	Description	Product
50900400052	VERTICAL LEVEL GAUGES WITH METAL CASING - Max working temperature - 30° + 100° C. - Rear gasket: NBR 70 Shore. - Maximum tightening torque suggested 5 Nm.	 Dimensions in mm

Non-filtered return for F4 flange

Order code	Description	Product
13590400421	NON-FILTERED RETURN - 1" NPT return connection and pipe	 Dimensions in mm