



Marine & Power Generation Filters

Brochure: FDHB173UK





- Consistent quality
- Technical innovation
- Premier customer service

Parker's technical resources provide the correct filtration technologies that conform to your requirements. That's why thousands of manufacturers and equipment users around the world rely on Parker Filtration products and people.

Worldwide Sales and Service

Parker Filtration's global reputation as a reliable supplier of superior filtration products is the result of a focused and integrated development and manufacturing system.

Parker Filtration consolidates quality filtration products, manufactured by process filtration, air and gas filtration and separation, fuel conditioning and filtration, hydraulic and lubrication filtration, fluid power products and fluid condition monitoring equipment into one broad-based range that covers many markets and most applications, as detailed here.

Hydraulic, Lubrication & Coolant Filtration

High-performance filtration systems for production machinery in industrial, mobile and military/marine applications.



Compressed Air & Gas Filtration

Complete line of compressed air/gas filtration products; coalescing, particulate and adsorption filters in many applications in many industries.



Photo courtesy of GLASBAU HAHN.

Process & Chemical Fluid Filtration

Liquid filtration systems for beverage, chemical and food processing; cosmetic, paint, water treatment; photo-processing; and micro-chip fabrication.



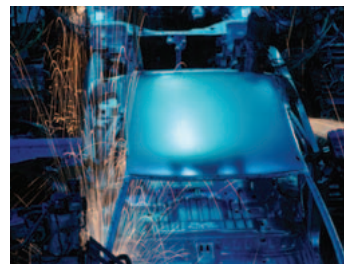
Racor Fuel Conditioning & Filtration

Parker air, fuel and oil filtration systems provide quality protection for engines operating in any environment, anywhere in the world.



System Contamination Monitoring

On-line dynamic particle analysis, off-line bottle sampling and fluid analysis and measurement of water content polluting the oil in a system. All important and achievable, cost-effective solutions available to equipment manufacturers and end users alike.



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ParTrap fuel 200



FMU Differential Pressure Indicators



Lubrication Oil Filter Series FF2110



Security at sea starts with

Deck Machinery

- Lifeboat handling systems
- Cargo winch hydraulics
- Control hydraulics for anchors

Parker typical solutions

- Alternative winch system hydraulics eg. fishing nets, cable laying and offshore applications



SH100 stainless steel filter



CM20 & Single Point Sampling connection

Lifting Systems

- Passenger lift hydraulics
- Goods lifting hydraulics
- Restaurant/theatre stage hydraulics

Parker typical solutions

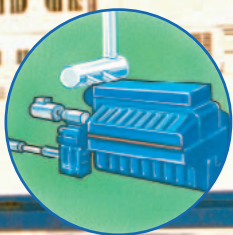


Parker reservoir products, such as filler breathers...



...LEIF® (Low Environmental Impact Filter)

With the courtesy of Silja Oyj Abp



Manoeuvring Systems

- Steering gear hydraulics and lube
- Rudder control hydraulics

- Thruster hydraulics and lubrication
- CP propeller control hydraulics

Parker typical solutions



70 Series high pressure filters



BGT-L 2000 high-flow return filter

Propulsion Systems

- Diesel engine lubrication systems
- Diesel engine fuel oil systems
- Diesel engine crankcase breathers

- Reduction gear lubrication and control oil systems
- Engine room control hydraulics

Parker typical solutions



FF2040 lubrication filter



32PD Duplex filter



ParTrap fuel 200 automatic filter



Racor crankcase ventilation unit (CCV) section

quality system installations

Handling Systems

- Ferry door hydraulic control systems
- Hydraulic power packs
- Control hydraulics for anchors
- Winch hydraulics
- Ramp control hydraulics

Parker typical solutions



Tanktopper III including air breather



Environmental air breather



ABL air breather (Incl. LEIF® elements)



Multiclamp pipe clamping system



Refrigeration and compressed air systems

- Refrigeration lube oil systems
- Oil separation
- Compressed air oil separation
- Compressed air water separation

Thruster systems

- Tunnel thruster control hydraulics



7100 Series high pressure filters



Lube duplex filter

Parker typical solutions



Separator elements



2000 Series compressed air filters

Parker typical solutions



1095 Series return line filter



Multiflow tank mounted filters



High pressure filters 18, 28 and 38P Series



Automatic Back Flushing Fuel Oil Filters ParTrap *fuel* Series



ParTrap^{fuel}

No more oil leaks

On-board waste oil and fuel, if it cannot be burned at sea, must be brought safely and securely to harbour to be destroyed.

Parker Filtration has designed an automatic fuel oil filter – ParTrap fuel – which not only reduces the amount of fuel oil waste but also increases the efficiency of filtration and backflushing.

Integration means less leakages

ParTrap is a compact product, complete with patented construction saving always so critical engine room space. All major components are integrated into the same housing: multi-functional valve, by-pass filter and most of the piping. The function of ParTrap is reliable and without leakages – the leakage oil pan might rust, but that will then be your only concern.

A new way to protect the environment

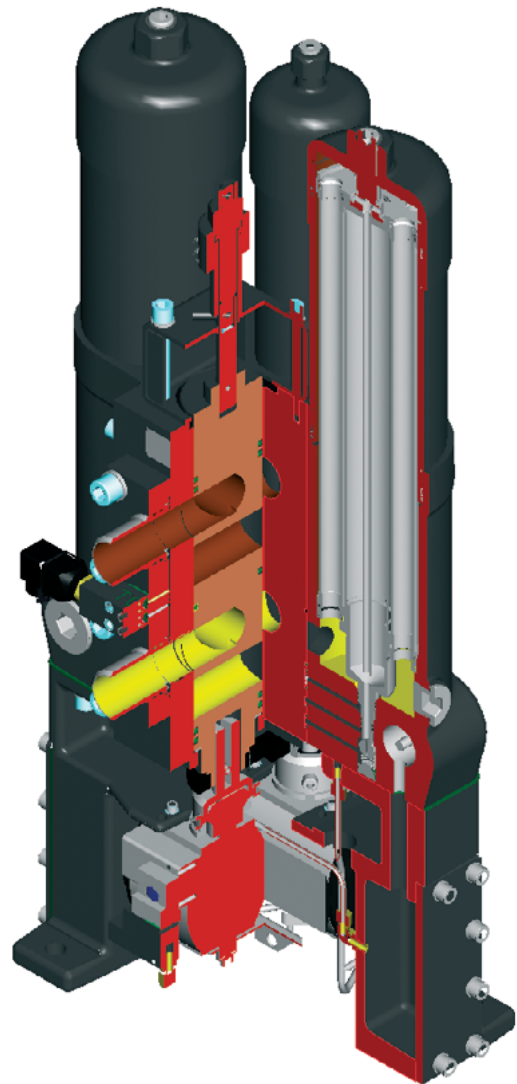
Efficient filtration and flushing means less waste, which in turn makes the investment very positive – even for the environment. ParTrap is designed for all existing fuels as well as fuels of the future.

This is what you have been waiting for

Thanks to its' robust and modular construction ParTrap fuel is very easy to maintain – and it very seldom needs repairing. The draining and refilling as well as de-aeration are taken care of automatically. The control unit is also available which makes the updating of existing fuel systems very easy.

Parker Filtration – the knowledge of fuel filtration

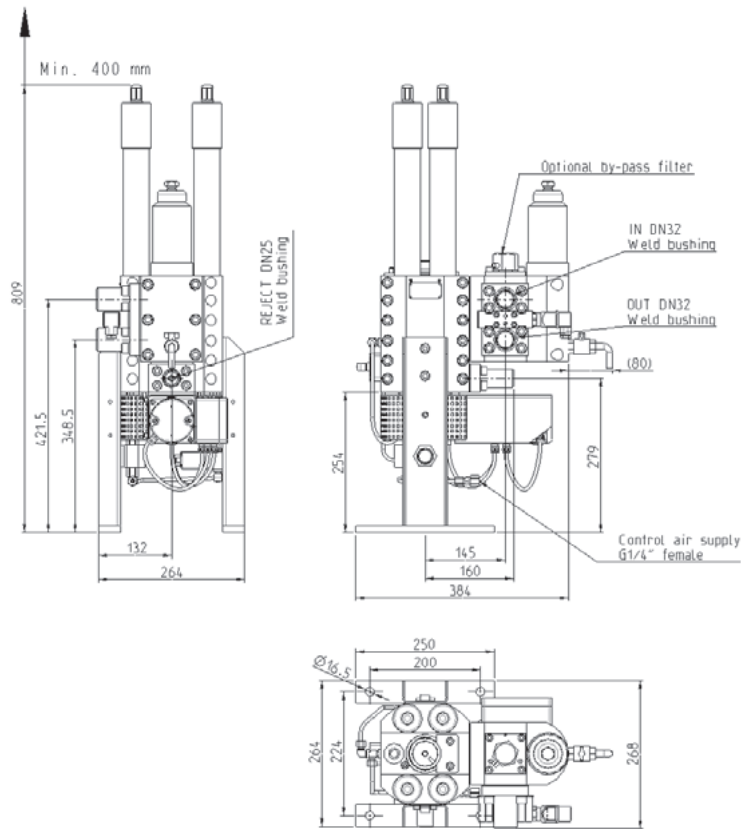
Parker Filtration, a globally known brand in marine and power generation market for fuel and lube oil filtration, is part of Parker Hannifin Corporation – an \$8 billion world-wide leader in the production of motion control, instrumentation and fluid power components and systems.



Cut away drawing of ParTrap fuel 200.

		ParTrap ^{fuel} 50	ParTrap ^{fuel} 200	ParTrap ^{fuel} 600
Flow rate [m ³ /h]	maximum	4	9	35
Connection size		DN32	DN40	DN80
Operating pressure [bar]	minimum	3	4	4
	maximum	20	20	20
Number of filter candles total/in use		4/3	16/8	40/32
Weight (approx.) [kg]		55	160	310
Air pressure [bar]	minimum	6	6	6
	maximum	10	10	10
Filter fineness [µm]		10-500	10-500	10-500

ParTrap^{fuel50}



Specification

Flow rate:

HOT SIDE	COLD SIDE
4 m ³ /h	2,5 m ³ /h
(30 cSt)	(90 cSt)

Filter fineness:

10-500 µm

Maximum operating pressure:

20 bar

Maximum temperature:

160 °C

Differential pressure:

0,2 bar (clean element)
0,8 bar (charged element)
1,5 bar alarm

Air feed pressure:

6...10 bar

Product Description

PTF50- - - -

Table 1 Table 2 Table 3 Table 4

Table 1

DEGREE OF FILTRATION	
Element type	CODE
10 µm	10
25 µm	25
34 µm	34

Table 2

CONNECTION	
Connection type	CODE
DN32	DN32

Table 3

BY-PASS	
Options	CODE
With by-pass filter	BF
Without by-pass	-

Table 4

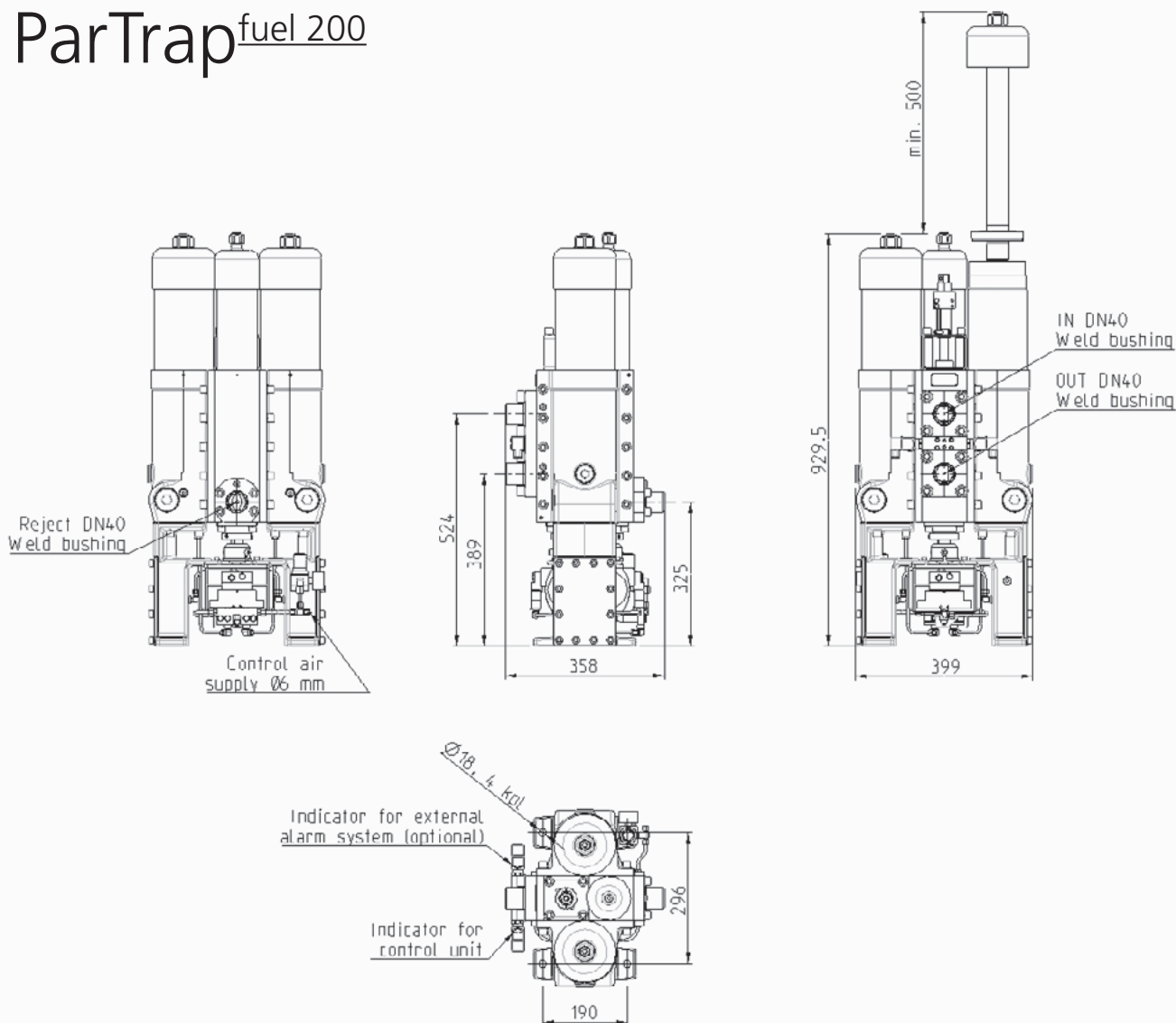
CONTROL UNIT	
Options	CODE
With control unit	CU
Without control unit	-



Automatic Back Flushing Fuel Oil Filters *ParTrap* fuel 200



ParTrap_{fuel 200}



Specification

Flow rate:

HOT SIDE	COLD SIDE
9 m ³ /h	4,2 m ³ /h
(30 cSt)	(90 cSt)

Filter fineness:

10-500 µm

Maximum operating pressure:

20 bar

Maximum temperature:

160 °C

Differential pressure:

0,2 bar (clean element)
0,8 bar (charged element)
1,5 bar alarm

Air feed pressure:

6...10 bar

Product Description

PTF200-Table 1-Table 2-BF-Table 3

Table 1

DEGREE OF FILTRATION	
Element type	CODE
10 µm	10
25 µm	25
34 µm	34

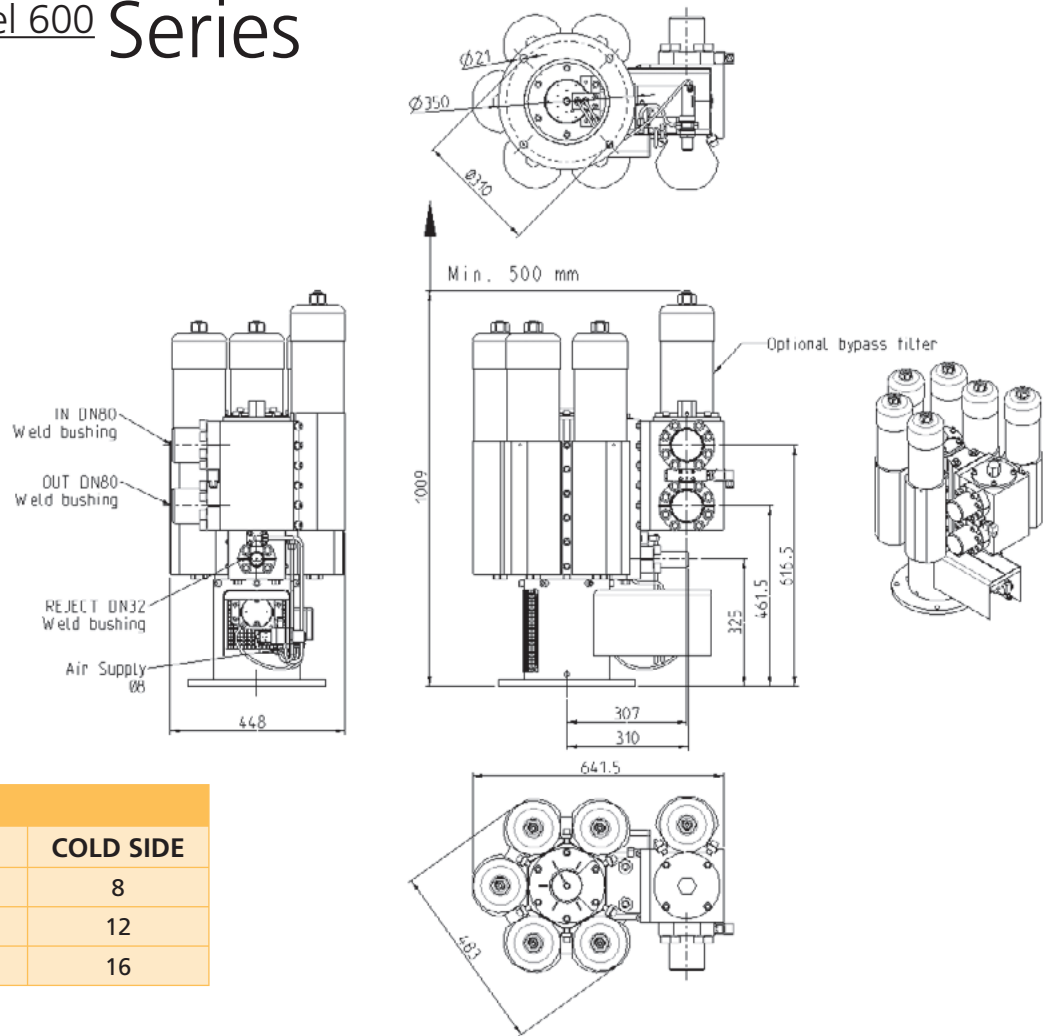
Table 2

CONNECTION	
Connection type	CODE
DN40	DN40

Table 3

CONTROL UNIT	
Options	CODE
With control unit	CU
Without control unit	-

ParTrap^{fuel 600} Series



FLOW RATE		
MODEL	HOT SIDE	COLD SIDE
400	18	8
500	27	12
600	36	16

Specification

Filter fineness:
10-500 µm

Maximum operating pressure:
20 bar

Maximum temperature:
160 °C

Differential pressure:
0,2 bar (clean element)
0,8 bar (charged element)

Air feed pressure:
1,5 bar alarm
6...10 bar

Product Description

PTF - - - -

Table 1 Table 2 Table 3 Table 4 Table 5

Table 1

NUMBER OF CHAMBERS	
Options	CODE
3 chambers	400
4 chambers	500
5 chambers	600

Table 2

DEGREE OF FILTRATION	
Element type	CODE
10 µm	10
25 µm	25
34 µm	34

Table 3

CONNECTION	
Connection type	CODE
DN80	80

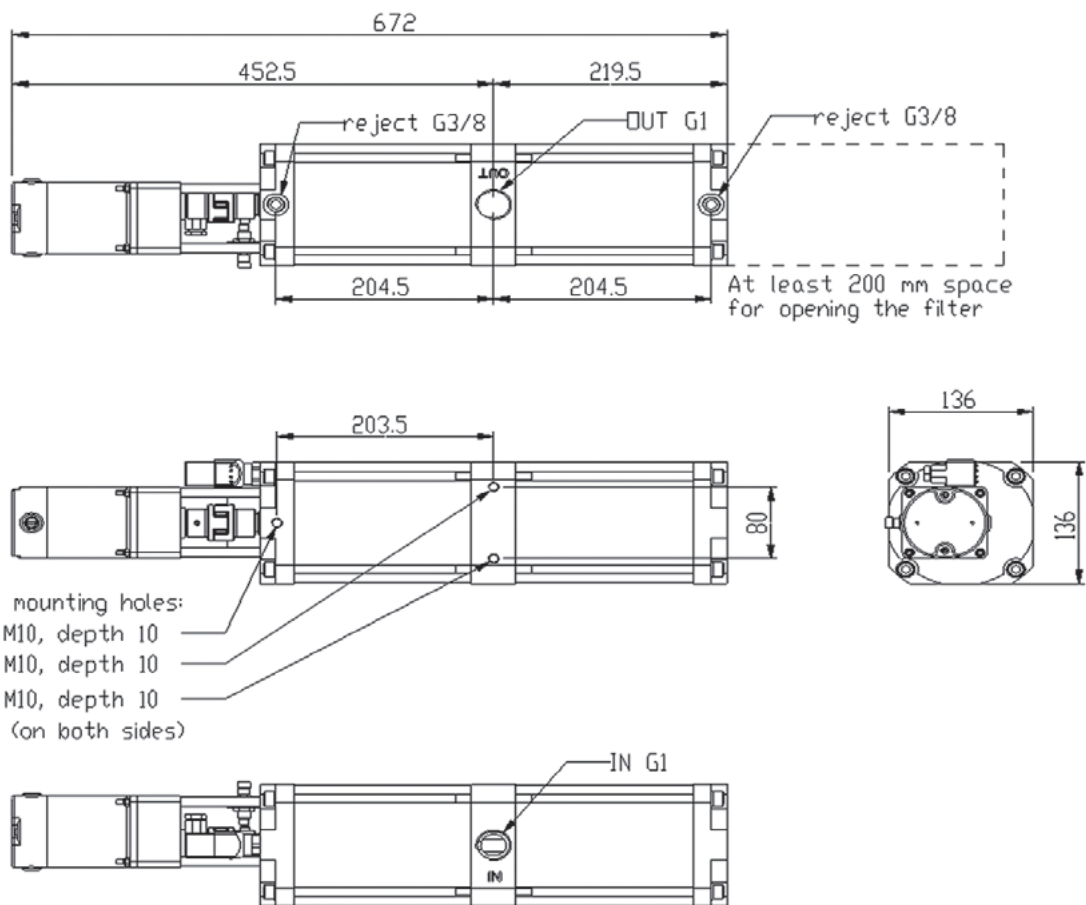
Table 4

BY-PASS	
Options	CODE
With by-pass filter	BF
Without by-pass	-

Table 5

CONTROL UNIT	
Options	CODE
With control unit	CU
Without control unit	-

ParTrap W



Specification

Flow rate:

200 l/min (5 cSt)

Filter fineness:

10-500 µm

Maximum operating pressure:

20 bar

Maximum temperature:

80 °C

Minimum operating pressure:

2 bar

Differential pressure:

0,2 bar (clean element)

0,8 bar (charged element)

1,5 bar alarm

Power supply:

24 VDC

Product Description

PTW6--G16-

Table 1

DEGREE OF FILTRATION	
Element type	CODE
25 µm	25
34 µm	34
50 µm	50

Table 2

CONTROL UNIT	
Options	CODE
With control unit	CU
Without control unit	-



FMU Differential Pressure Indicators



Indicator Series

Specification

Maximum operating pressure:
420 bar

Maximum differential pressure:
210 bar

Working temperature range:
-20°C to +85°C, note FMUF thermal lock at +20°C

Material of housing:
Brass or stainless steel

Seals:
Fluoroelastomer as standard (code V).
For other seal material options,
please contact Parker Filtration.

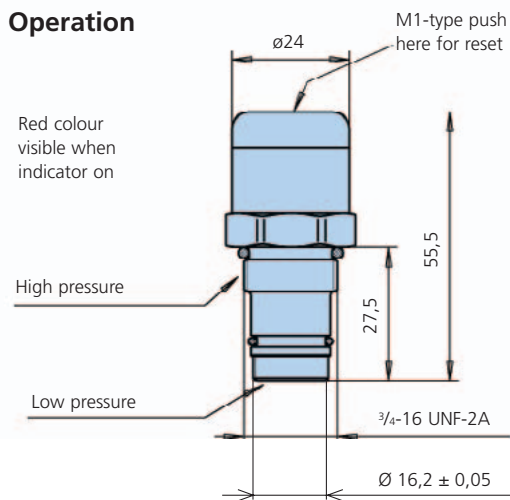
The differential pressure values of standard indicator models:

1,0 bar \pm 0,1
1,5 bar \pm 0,2
2,5 bar \pm 0,2

(Indicators for other differential pressure values are optional).

FMUM3 Visual Auto Reset/FMUM1 Visual Manual Reset

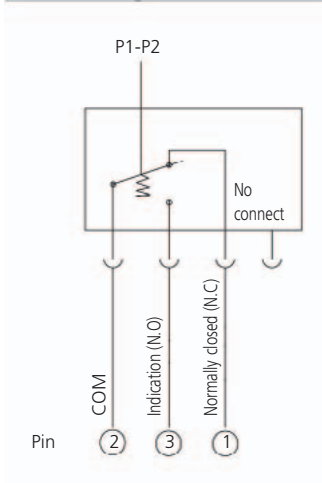
Operation



Indicator Series

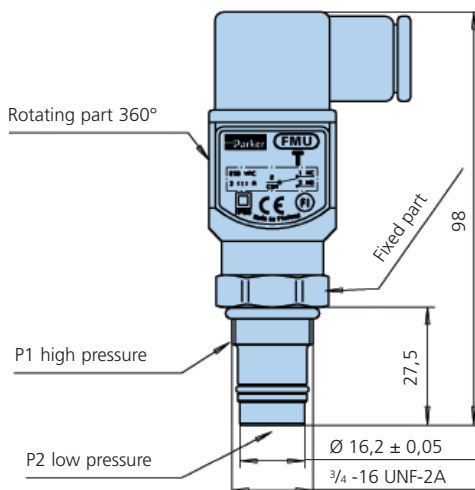
FMUT1 Electrical

Contact configuration



Rated voltage	Non-inductive load (A)				Inductive load (A)				Inrush current (A)	
	Resistive load		Lamp load		Inductive load		Motor load			
	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.	N.C.	N.O.
125VAC	5		1,5	0,7	3		2,5	1,3	20 max.	10 max.
250VAC	3		1,0	0,5	2		1,5	0,8		
8VDC	5		2		5	4	3			
14VDC	5		2		4	4	3			
30VDC	4		2		3	3	3			
125VDC	0,4		0,05		0,4	0,4	0,05			
250VDC	0,2		0,03		0,2	0,2	0,03			

Enclosure class	IP65
Electrical connector	DIN 43650
Overvoltage category	II (EN61010-1)



FMUL1 Programmable

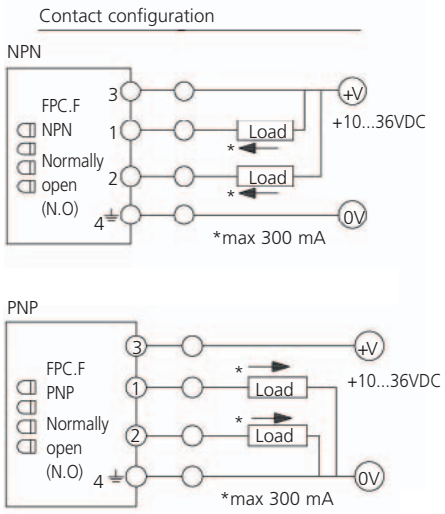


Dimensions: see FMUF electronic Δp-indicator (page 19)
FMUX1 ATEX certified indicator - contact Parker Filtration

Programmable Δp-indicator

All settings adjustable (settings made via PC)
Connections cable and software available from Parker

- 4 LEDs giving visual indication:
 - Green (G): Power ON
 - Yellow 1 (Y1): Pre-alarm 1 (presetting 50%)
 - Yellow 2 (Y2): Pre-alarm 2 (presetting 75%)
 - Red (R): Indication (presetting 100%)
- Two independently programmable indication outputs
 - Can be set independently from each other and LED setting
 - Output type: NPN or PNP
 - Switching type: N.O. or N.C.
- Setting range: 0,5 ... 10 bar
- Thermal lock-out range: 0 ... 100°C
- Includes a microchip with memory logs
 - Number of alarms: max 65535
 - Time indication on (output 1): maximum 1092 hours
 - Time power on (running hours): maximum 7 ½ years
- Upload and reset via PC



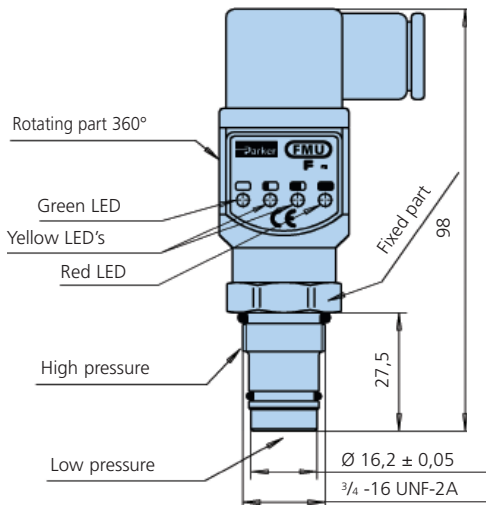
Ind. press. setting	LED status				Output
	G	Y1	Y2	R	
< 50 %	⊗				-
50 %	⊗	⊗			-
75 %	⊗	⊗	⊗		2 active
100 %	⊗	⊗	⊗	⊗	1 active

Enclosure class	IP65
Electrical connector	DIN 43650, cable connection PG9
Input supply voltage	+10 to 36 VDC
*Indication output	maximum 300 mA/36 VDC
Output type	N.O., NPN or PNP

Thermal lock-out setting +20°C

- Indicator operates only when temperature is above setting.

Note: Do not connect output terminals 1 or 2 directly (without load) to power supply terminals, because this will damage the equipment.



Indicator Series

Product Description

Table 1

FMU

Table 2

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Table 3

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Table 4

V

Table 5

--

Table 6

U12

Table 7

H

Table 8

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Table 2

INDICATOR TYPE	
Indicator options	CODE
Visual Δp indicator (auto reset)	M3
Visual Δp indicator (manual reset)	M1
Electrical Δp indicator	T1
Electronic, 4 LED, PNP, N.O.	F1
Electronic, 4 LED, NPN, N.O.	F2
Programmable Δp indicator	L1

Table 5

BODY MATERIAL	
Standard body material	CODE
Brass	M
Optional body material	
Stainless steel	R

Table 3

INDICATING PRESSURE	
Indicating pressure options	CODE
1,0 bar	F
1,5 bar	H
2,5 bar	K

Table 8

OPTIONS	
Setting for F1, F2, L1 types	CODE
Thermal lock-out standard +20°	omit
Other options by request	factory supplied

Other indicating pressures available.

Table 4

SEAL TYPE	
Seal material	CODE
Fluoroelastomer	V

Connection cable + software for programmable L1 type FMU Δp indicator

Connection cable for PC serial connection and software for setting indicator adjustments and utilising memory logs.

ORDERING CODE: 905075030

SEAL KIT ORDERING CODE:

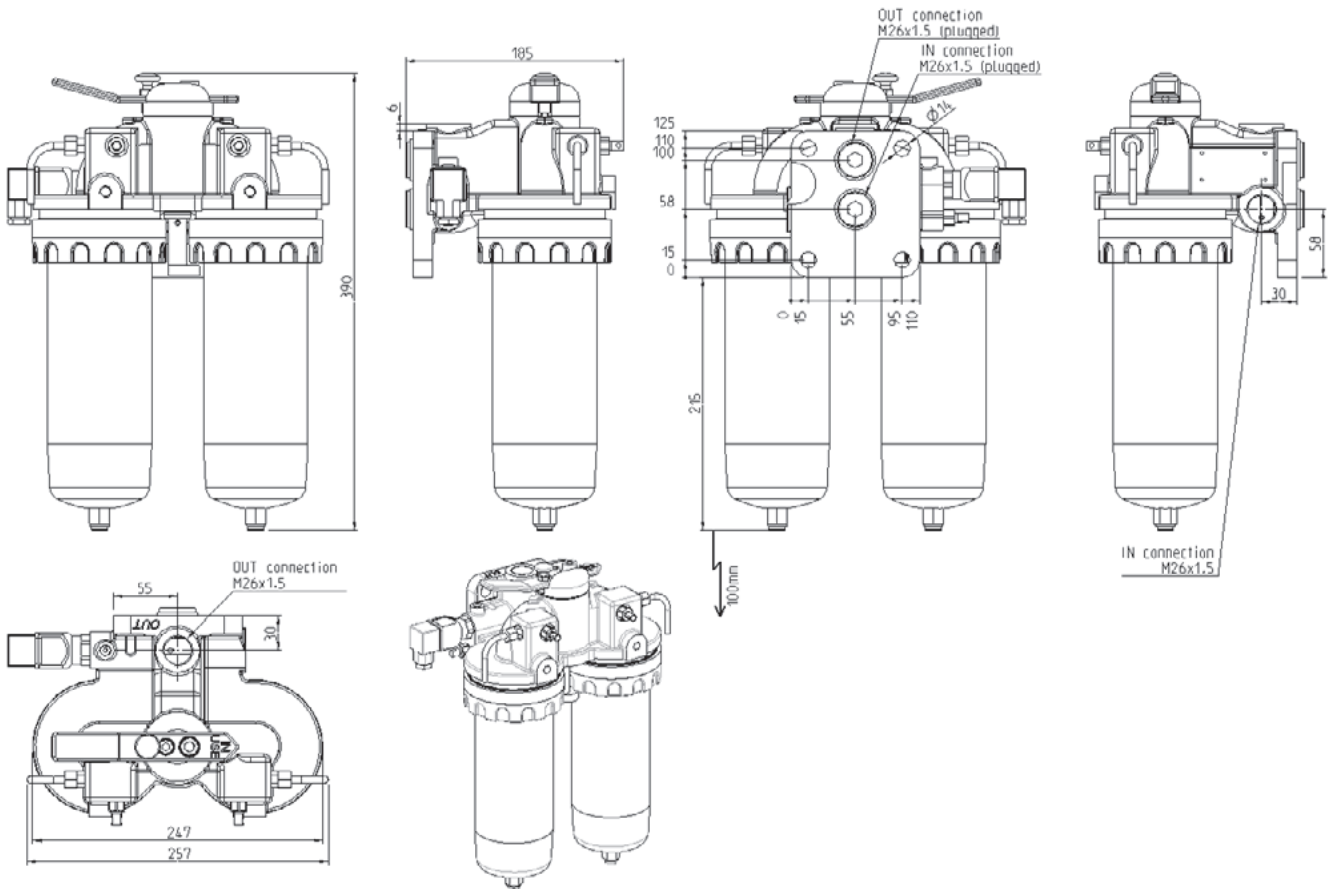
Fluoroelastomer: **911045078**



Duplex Filters FF2146



FF2146



Specification

Maximum operating pressure:

40 bar

Test pressure:

60 bar

Seal material:

Fluoroelastomer*

Operating temperature:

0°C...+100°C

Housing material:

Cast iron (GJS)

Weight:

~15 kg

Maximum flow rate:

80 l/min (10cSt)

By-pass valve opening pressure:

3,5 bar

* Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M)

Element:

- FC7006 filter element
- Filtration materials
 - Glass fiber Microglass III $\beta_{20}=200$
 - Cleanable wire mesh

Operation:

One side or both sides in use

Environmentally friendly Ecoglass III elements also available.

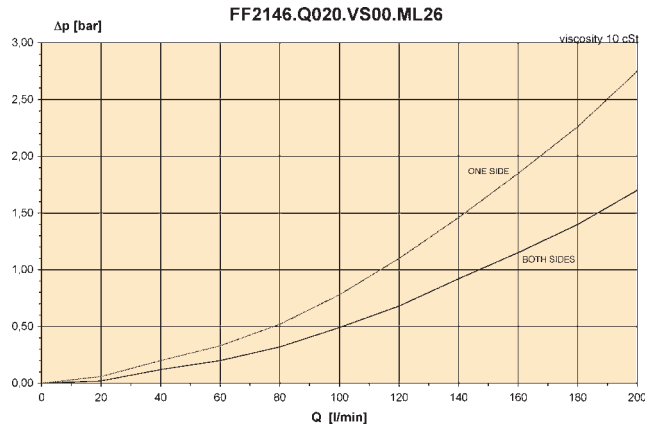
Fluid compatibility:

Suitable for use with regular hydraulic and lubrication oils & light fuel oils (diesel). For other fluids consult Parker Filtration.

Pressure Drop Curves

The recommended level of the initial pressure drop for this filter is maximum 0,5 bar.

If the medium used has a viscosity different from 10cSt, please contact Parker Filtration for correct pressure drop values.



Product Description

Complete Filter: FF2146. Table 1 .VS Table 2 . Table 3

Filter Element: FC7006. Table 1 .BK

Δp Indicator: For ordering indicators, see page 20.

Table 1

DEGREE OF FILTRATION	
Element type	CODE
Glass fiber 20 μm	Q020
Glass fiber 10 μm	Q010
Cleanable wire mesh 35 μm	M035
Ecoglass 20 μm	QE20
Ecoglass 10 μm	QE10

Table 3

FILTER CONNECTION	
Options	CODE
G 3/4" thread	GC12
M26x1,5	ML26

Table 2

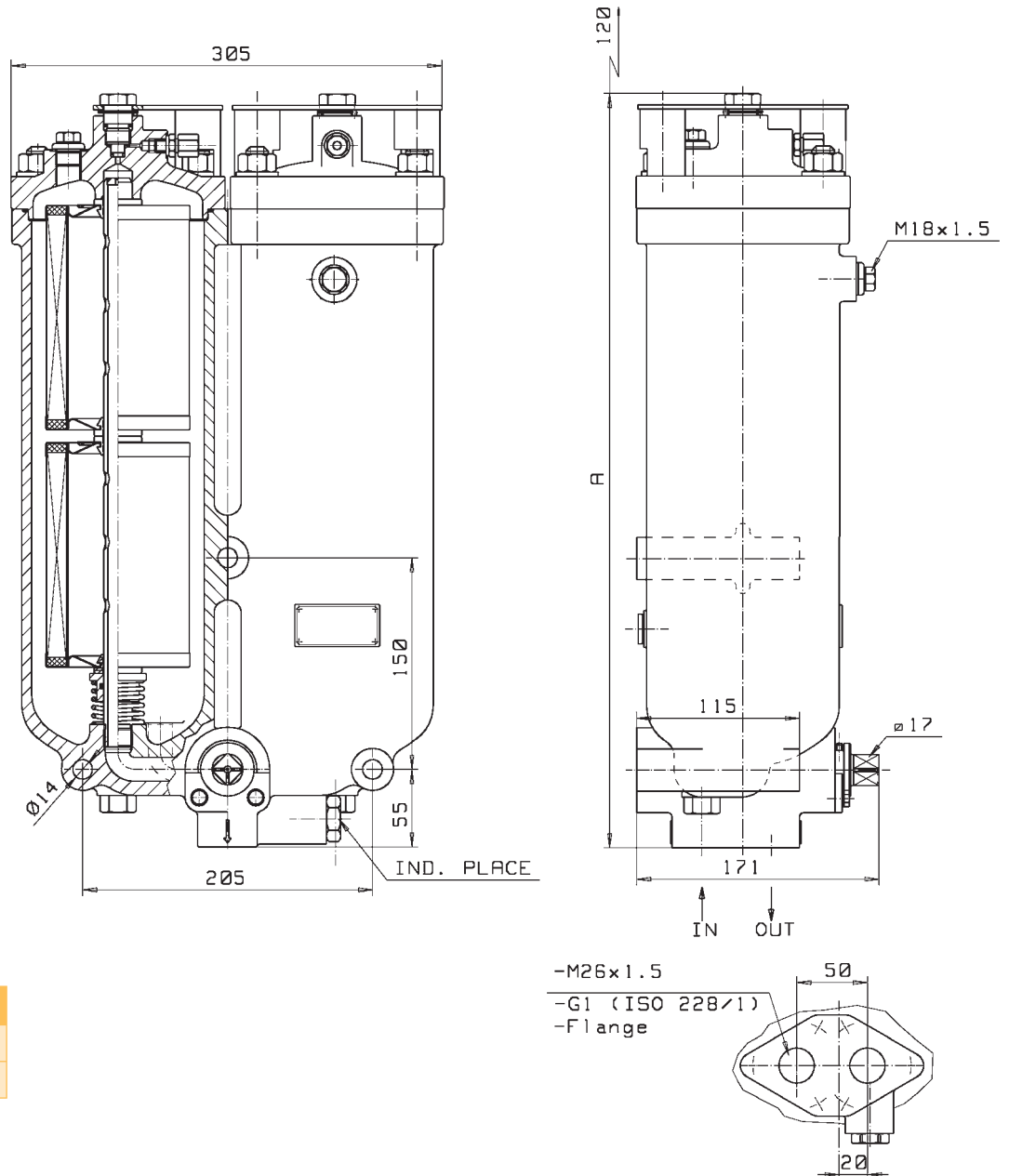
BY-PASS VALVE	
Opening pressure	CODE
3,5 bar	35
No by-pass	00



Fuel Oil Filters FF2520



FF2520



TYPE	A
FF2520	367
FF2521	535

Specification

Filter cartridges can be replaced by steering the flow through another filter reservoirs by means of a three-way valve.

Maximum operating pressure:

10 bar

Test pressure:

15 bar

Seal material:

Fluoroelastomer*

Operating temperature:

-20°C...+100°C

Housing material:

Aluminium

Weight:

15,5 kg (FF2520)

18,5 kg (FF2521)

FF2520:

- One filter cartridges per side
- Filtration materials
 - Cellulose paper 15 µm nominal
 - Felt 7 µm nominal
 - Glass fiber Microglass III $\beta_{20}=200$
- Nominal flow for diesel fuel 30 l/min

FF2521:

- Two filter cartridges per side
- Filtration material, see FF2520 above
- Nominal flow for diesel fuel 60 l/min

Fluid compatibility:

Suitable for use with light fuel oils (diesel).
For other fluids consult Parker Filtration.

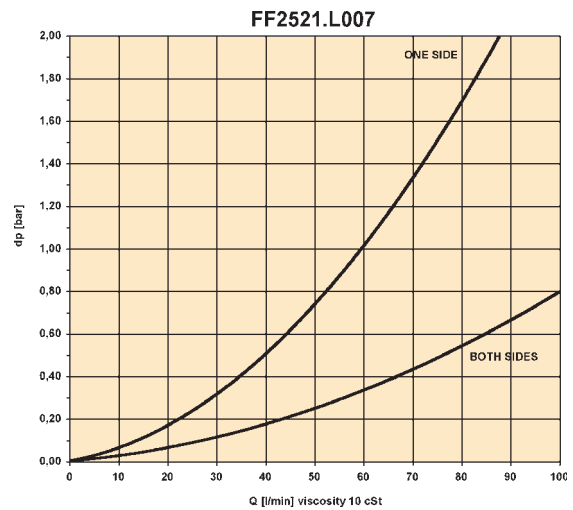
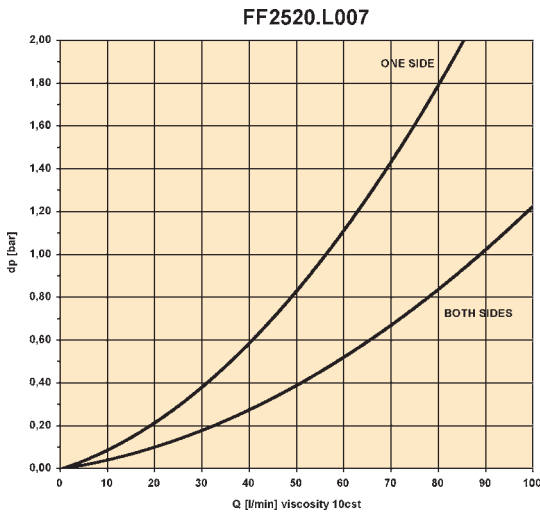
* Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M)

FF2520

Pressure Drop Curves

The recommended level of the initial pressure drop for this filter is maximum 0,5 bar.

If the medium used has a viscosity different from 10cSt, please contact Parker Filtration for correct pressure drop values.



Product Description

Complete Filter: FF . .VA00.

Filter Element: FC2520. .BS

Δp Indicator: For ordering indicators, see page 20.

Table 1

ELEMENTS PER RESERVOIR	
Number of elements	CODE
1 element per reservoir	2520
2 elements per reservoir	2521

Table 3

CONNECTION	
Options	CODE
Metric thread M26x1,5	MC26
G1" thread	GC16
Flange connection	XC25

Table 2

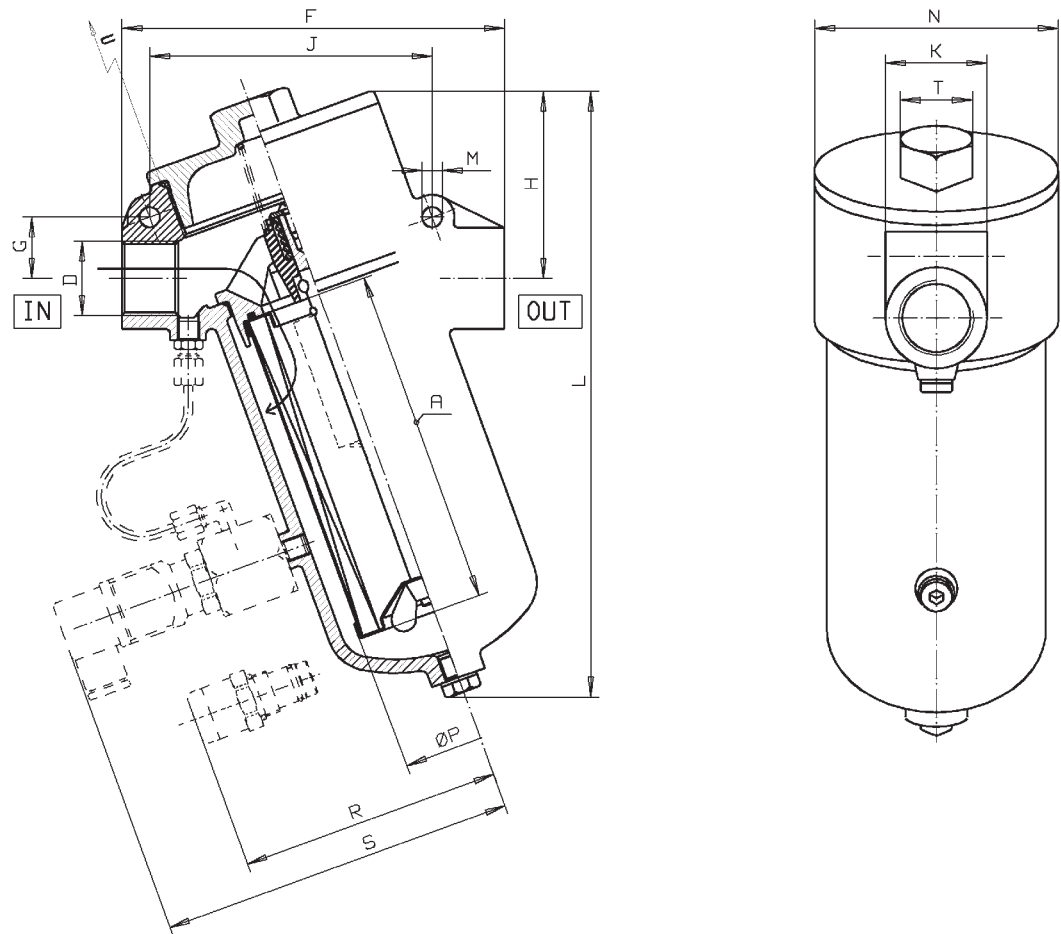
DEGREE OF FILTRATION	
Element type	CODE
Cellulose paper 15 μm	N015
Glass fiber 20 μm	Q020
Felt 7 μm	L007



Medium Pressure Filters Series FF1087



Series FF1087



Type	Weight	A	D	F	G	H	J	K	L	M	N	P	R	S	T	U
1087	5,5 kg	150	G1	170	27	83	125	45	275	11	108	71	118	159	32	200
1088	12 kg	190	G1.1/2	230	38	112	170	64	350	13	148	106	139	180	55	210
1089	15 kg	260	G1.1/2	230	38	112	170	64	420	13	148	106	139	180	55	210

Specification

Assembly:

As in-line filter

Operating pressure:

Maximum 40 bar

Connections:

Threads G1 for 1087, G1.1/2 for 1088/1089 (ISO 228/1) or flanges DN80/PN10 for 1089 (for details contact Parker Filtration)

Seal material:

Nitrile (NBR) or fluoroelastomer* (FPM)

Operating temperature:

-20°C...+100°C

Filter housing and holder material:

Cast iron (GJS), holder aluminium

Magnet pack:

Available as option

By-pass valve:

Opening pressure 1,6 bar.

For other settings, please contact Parker Filtration.

* Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M).

Indicator options:

This filter type requires FPC-adapter 1050910003 (order separately)

Indicating pressure 1,0±0,2 bar

- Visual indicator FPC.V10.BM
- Electrical indicator FPC.T10.VM (max 250 VAC)
- Electronic indicator FPC.F10.BM (10...36 VDC)

Indicator body:

Material brass, maximum torque 15 Nm

Filter element:

Degree of filtration

Determined by Multi-pass-test according to ISO16889, see Table 2

Filtration material

Microglass III, supported with epoxy coated metal wire mesh, end cap material steel

Flow fatigue characteristics

Filter media is supported so that the optimal fatigue life is achieved (ISO 3724)

Element collapse rating

8 bar (ISO 2941)

Fluid compatibility:

Suitable for use with regular hydraulic and lubrication oils. For other fluids consult Parker Filtration.

Pressure Drop Curves for Series FF1087

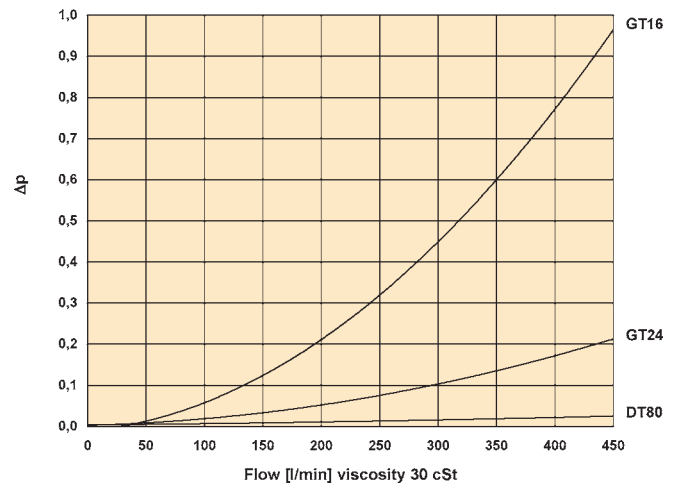
$$\Delta p_{\text{total}} = \Delta p_{\text{housing}} + \Delta p_{\text{element}}$$

The recommended level of the initial pressure drop for this filter is maximum 0,5 bar.

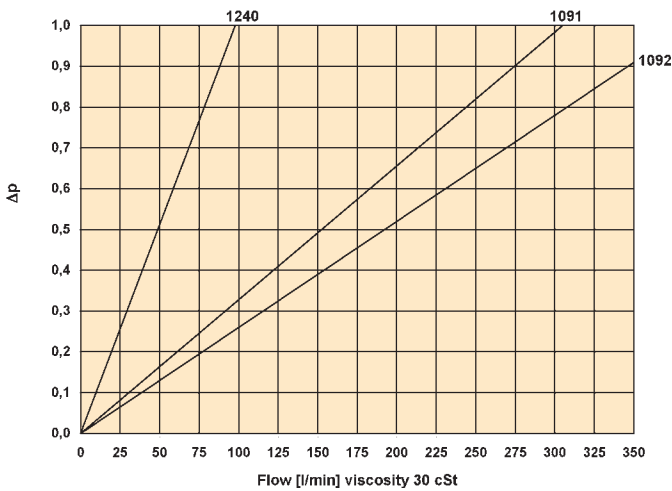
If the medium used has a viscosity different from 30cSt, pressure drop over the element can be estimated as follows:

$$\Delta p_{\text{total}} = \Delta p_{\text{housing}} + \Delta p_{\text{element}} \times \text{working viscosity} / 30 \text{ cSt}.$$

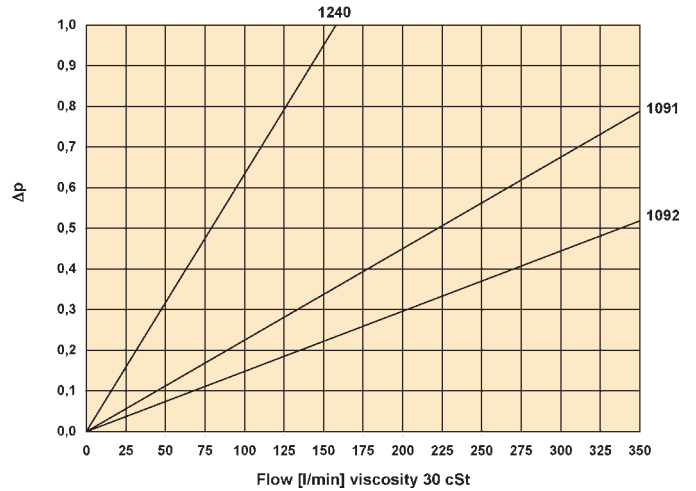
Filter housing (without element)



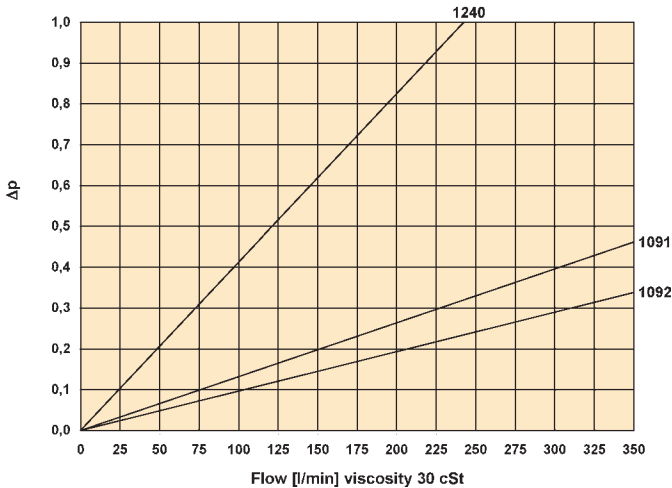
Filter element Q002



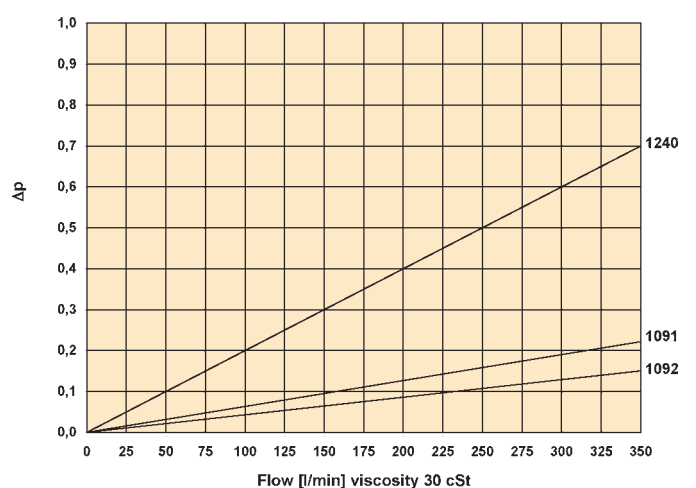
Filter element Q005



Filter element Q010



Filter element Q020



Series FF1087

Product Description

Filter Assembly: FF ^{Table 1a} . ^{Table 2} . ^{Table 3} S ^{Table 4} . ^{Table 5} - ^{Table 6}

Filter Element: FC ^{Table 1b} . ^{Table 2} . ^{Table 3} S

Δp Indicator: For ordering indicators, see page 20. Requires also FPC-adapter, ordering code 1050910003.

Seal Kit: FD1087- ^{Table 3}
 FD1088/1089- ^{Table 3}

Table 1

FILTER TYPE		
Housing/element options	CODE 1a	CODE 1b
Filter housing for type 1087	1087	
Element for type 1087, 150mm		1240
Filter housing for type 1088	1088	
Element for type 1088, 190mm		1091
Filter housing for type 1089	1089	
Element for type 1089, 260mm		1092

Table 5

FILTER CONNECTION	
Connection type options, filter housing	CODE
T-model	
G1 thread for model 1087	GT16
G1.1/2 thread for model 1088 and 1089	GT24
DN80/PN16 flange, 1089	DT80

Table 2

DEGREE OF FILTRATION						
Average filtration ratio β (ISO 16889)/particle size μm (c)						
2	10	75	100	200	1000	CODE*
N/A	N/A	N/A	N/A	N/A	4,5	Q002
N/A	N/A	4,5	5	6	7	Q005
N/A	6	8,5	9	10	12	Q010
6	11	17	18	20	22	Q020

* Also metal mesh elements available.

Table 3

SEAL TYPE	
Options	CODE
Nitrile	B
Fluoroelastomer	V

Table 4

BY-PASS VALVE	
Opening pressure	CODE
1,6 bar	16

Table 6

MAGNET PACK	
Option	CODE
Magnet pack	M

Filter Capacity

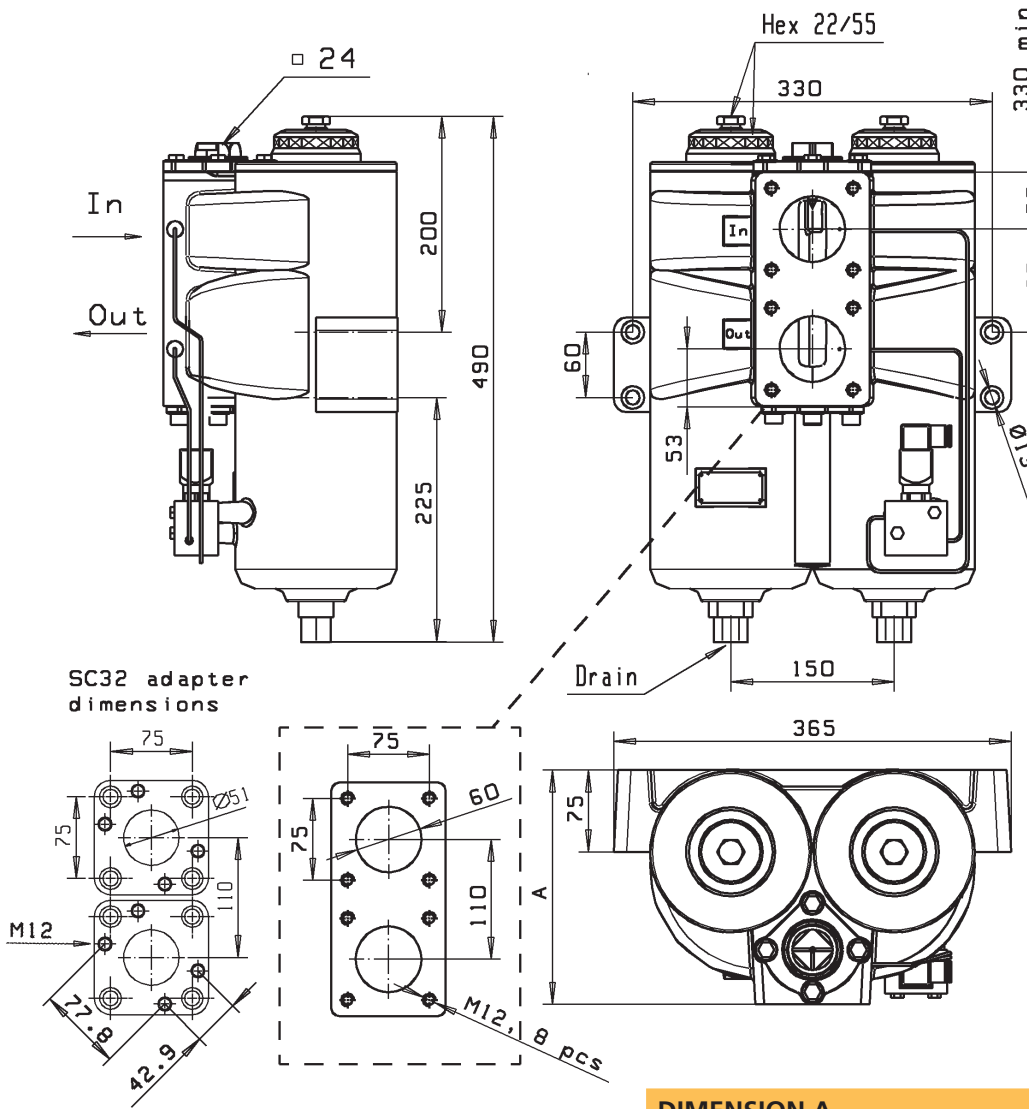
NOMINAL FLOW (l/min) FOR FILTER ASSEMBLY AT VISCOSITY 30 cSt		
Filter type	Filter connections	
	GT16	GT24
FF1087	Q002	40
	Q005	60
	Q010	80
	Q020	130
FF1088	Q002	140
	Q005	180
	Q010	220
	Q020	250
FF1089	Q002	200
	Q005	250
	Q010	300
	Q020	350



Duplex Filters FF2089



FF2089



DIMENSION A	
Connection type	mm
W/O flange/adaptor	215
With XC56 flange	232
With SC32 adaptor	245

Specification

Maximum operating pressure:

40 bar

Test pressure:

60 bar

Seal material:

Fluoroelastomer*

Operating temperature:

-20°C...+100°C

Housing material:

Cast iron (GJS)

Weight:

~65 kg

Maximum flow rate:

350 l/min (30sCt)

By-pass valve:

Opening pressure 2,0 bar

Element:

- FC1092 filter element
- Filtration materials
 - Glass fiber Microglass III $\beta_{20}=200$
 - Cleanable wire mesh

Fluid compatibility:

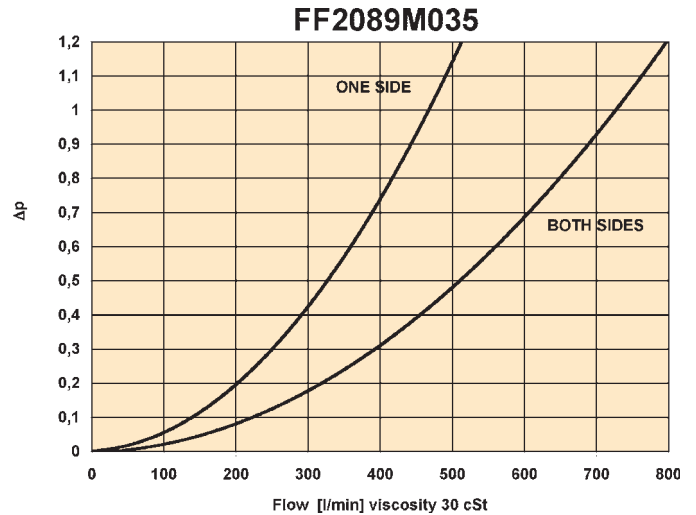
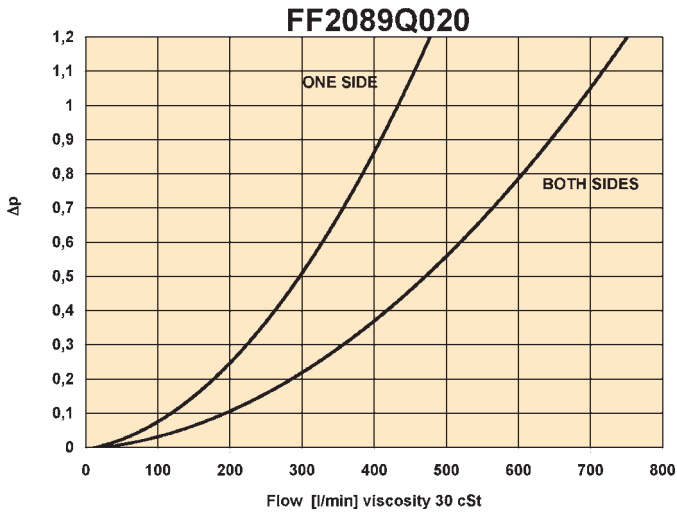
Suitable for use with regular hydraulic and lubrication & light fuel oils (diesel). For other fluids consult Parker Filtration.

* Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M).

Pressure Drop Curves

The recommended level of the initial pressure drop for this filter is maximum 0,5 bar.

If the medium used has a viscosity different from 30cSt, please contact Parker Filtration for correct pressure drop values.



Product Description

Complete Filter: FF2089. Table 1 .VS20. Table 2 . Table 3 - Table 4

Filter Element: FC1092. Table 1 .VS

Δp Indicator: For ordering indicators, see page 20.

Table 1

DEGREE OF FILTRATION	
Element type	CODE
Glass fiber 20 μm	Q020
Glass fiber 10 μm	Q010
Cleanable wire mesh 35 μm	M035

Table 3

MAGNET OPTION	
Magnet pack option	CODE
With magnet pack	M
Without magnet pack	

Table 2

FILTER CONNECTION	
Connection type options	CODE
Square flanges*	XC56
SAE 2" 3000 psi	SC32

Table 4

INDICATOR BLOCK	
Options	CODE
With indicator block	INB
Without indicator block	

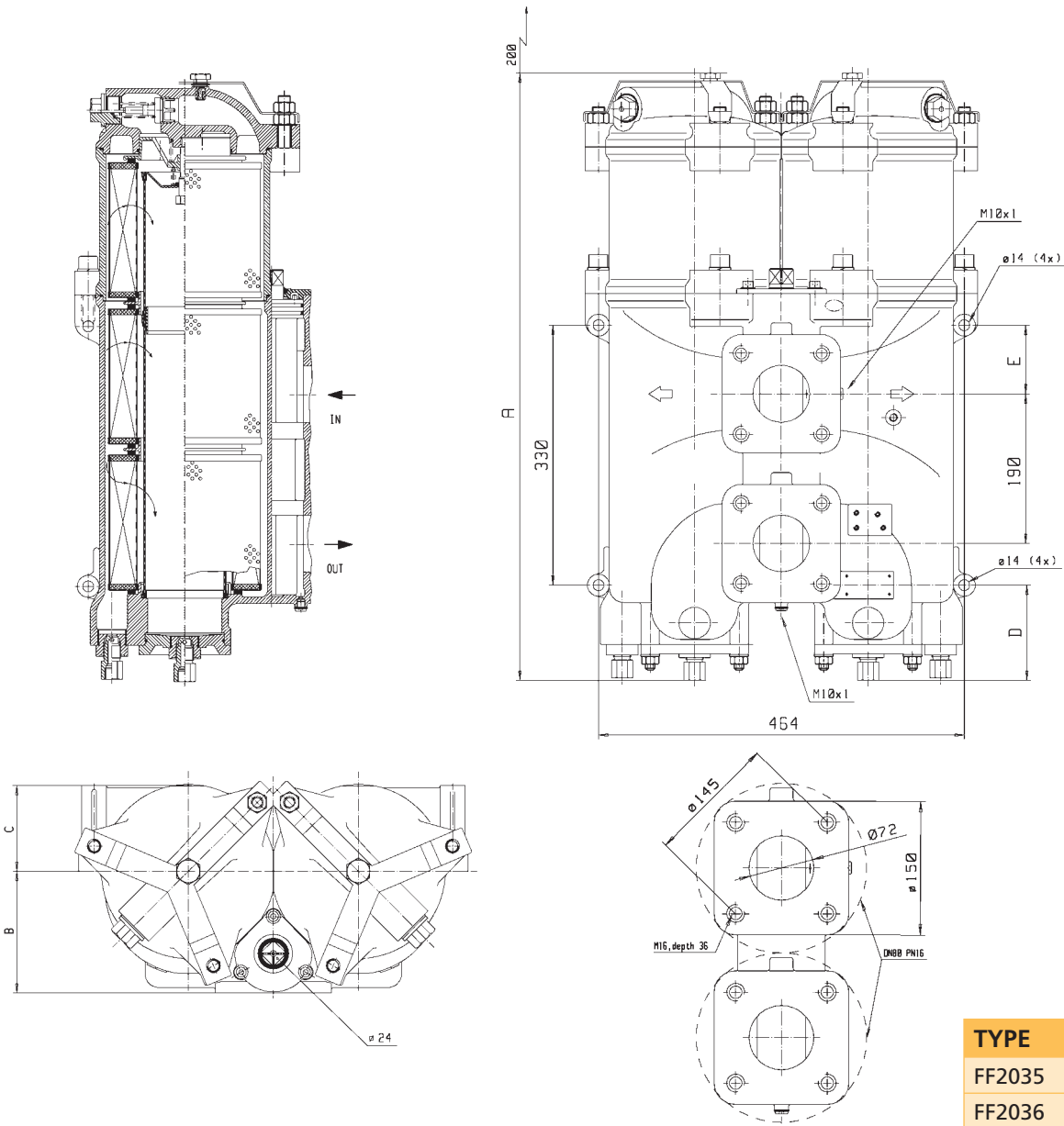
* Blind counter flanges with seals included in delivery.



Lubrication Oil Filters Series FF2035



Series FF2035



TYPE	A
FF2035	590
FF2036	775

Specification

Duplex filter:

One reservoir can be closed for service, vertical installation.

Maximum operating pressure:

8 bar

Test pressure:

12 bar

Seal material:

Fluoroelastomer*

Operating temperature:

-20°C...+100°C

Housing material:

Aluminium

Weight:

49,0 kg (FF2035)

62,5 kg (FF2036)

Primary filter:

- FF2035: two filter elements per reservoir
- FF2036: three filter elements per reservoir
- Filtration materials

- Resin impregnated heavy duty cellulose paper 15µm nominal
- Glass fiber Microglass III $\beta_{20}=200$
- Cleanable wire mesh

Secondary filter:

- Filtration material cleanable wire mesh
- Filtration degree 60µm

Fluid compatibility:

Suitable for use with regular hydraulic and lubrication oils. For other fluids consult Parker Filtration.

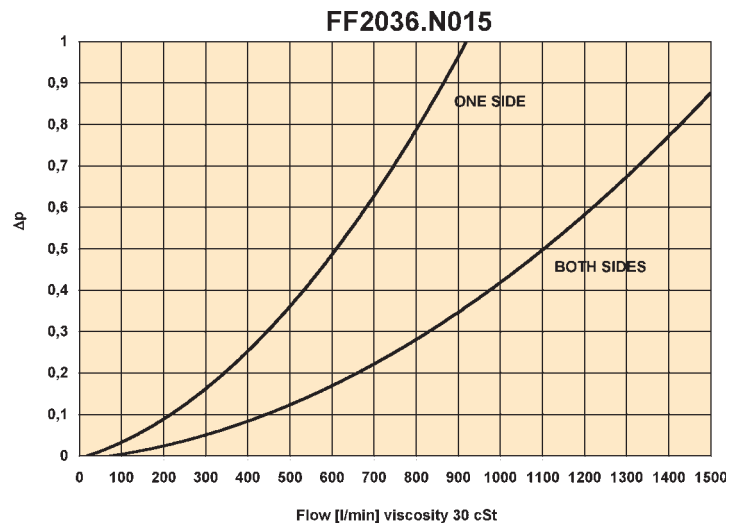
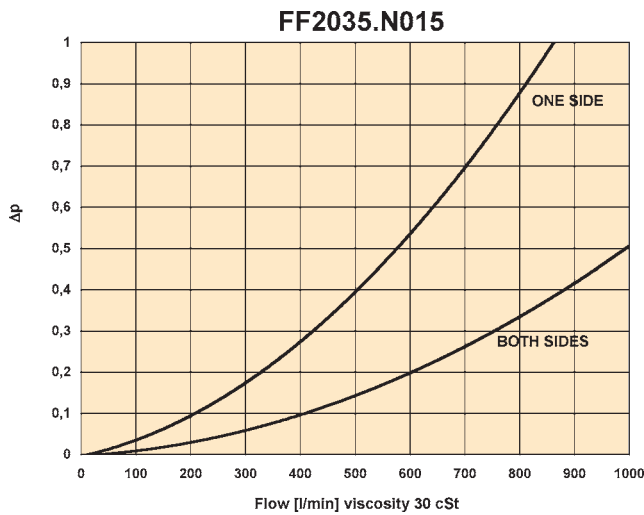
* Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M).

Series FF2035

Pressure Drop Curves

The recommended level of the initial pressure drop for this filter is maximum 0,5 bar.

If the medium used has a viscosity different from 30cSt, please contact Parker Filtration for correct pressure drop values.



Product Description

Complete Filter: FF . .VA20.XC72-

Filter Element: FC2035. .BS

Δp Indicator: For ordering indicators, see page 20.

Table 1

NUMBER OF PRIMARY ELEMENTS	
Number of elements per side	CODE
Two elements per side	2035
Three elements per side	2036

Table 3

INDICATOR BLOCK	
Options	CODE
With indicator block	INB
Without indicator block	

Table 2

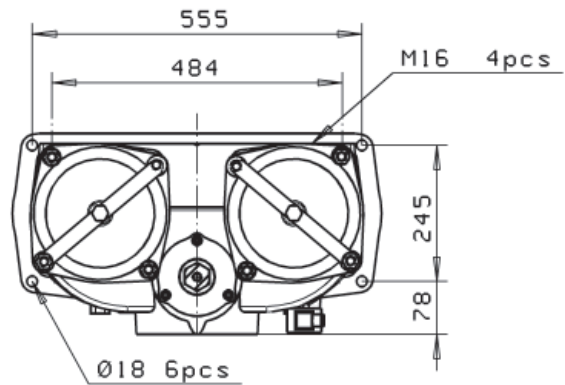
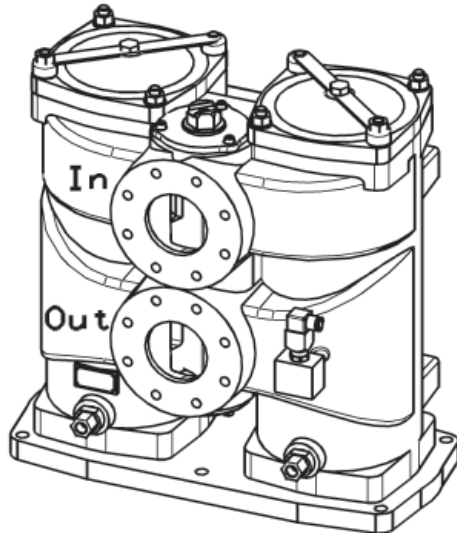
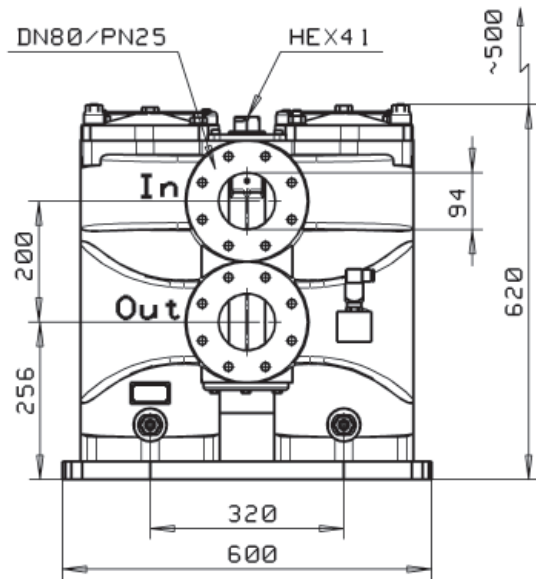
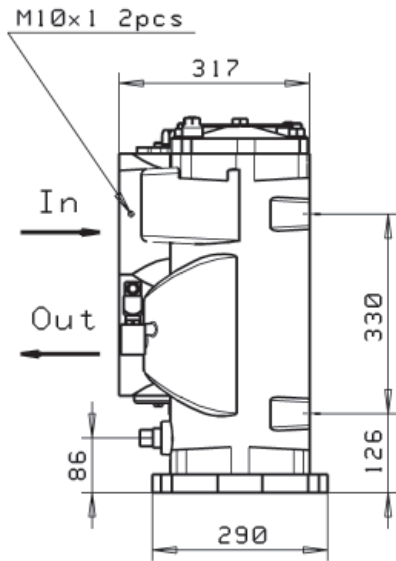
DEGREE OF FILTRATION	
Element type	CODE
Reinforced cellulose paper 15 μm	N015
Glass fiber 20 μm	Q020
Cleanable wire mesh 35 μm	M035



Lubrication Oil Filters Series FF2110



Series FF2110



Specification

Maximum operating pressure:

25 bar

Test pressure:

37,5 bar

Seal material:

Fluoroelastomer*

Operating temperature:

-20°C...+100°C

Housing material:

Cast iron (GJS)

Weight:

~200 kg

Maximum flow rate:

1200 l/min (30sCt)

By-pass valve:

Opening pressure 2,0 bar

Element:

- FC1110 filter element

- Filtration materials

- Glass fiber Microglass III $\beta_{20}=200$
- Cleanable wire mesh

Fluid compatibility:

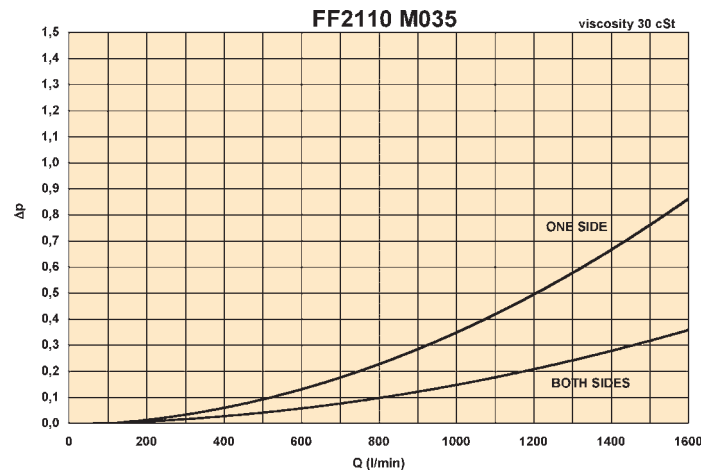
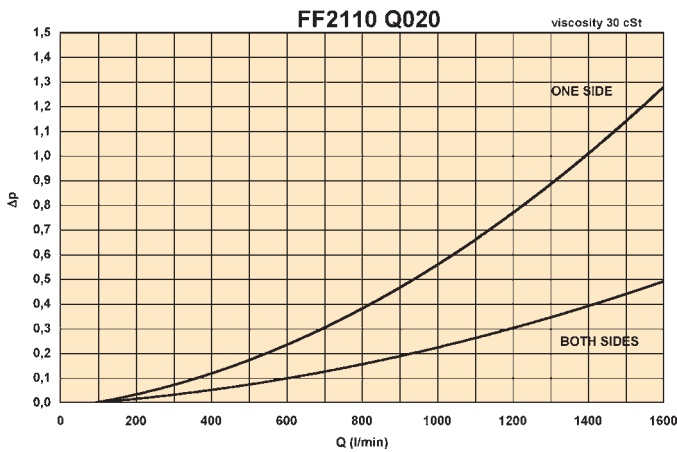
Suitable for use with regular hydraulic and lubrication & light fuel oils (diesel). For other fluids consult Parker Filtration.

* Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M).

Pressure Drop Curves

The recommended level of the initial pressure drop for this filter is maximum 0,5 bar.

If the medium used has a viscosity different from 30cSt, please contact Parker Filtration for correct pressure drop values.



Product Description

Complete Filter: FF2110. Table 1 .VS20.DC80- Table 2

Filter Element: FC1110. Table 1 .VS

Δp Indicator: For ordering indicators, see page 20.

Table 1

DEGREE OF FILTRATION	
Element type	CODE
Glass fiber 10 μm	Q010
Glass fiber 20 μm	Q020
Cleanable wire mesh 35 μm	M035

Table 2

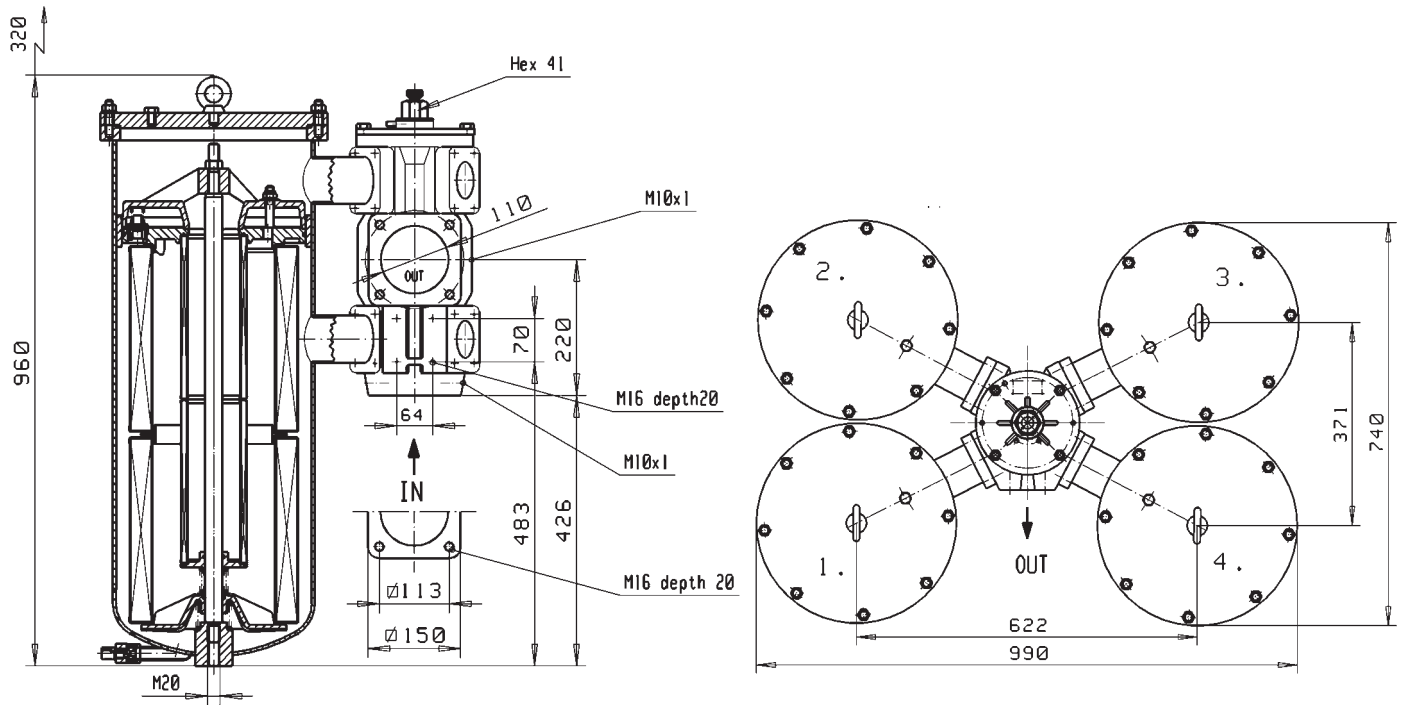
INDICATOR BLOCK	
Indicator block options	CODE
With indicator block	INB
Without indicator block	



Lubrication Oil Filters Series FF2040



Series FF2040



RESERVOIRS INCLUDED	Model
Reservoirs 1 and 4	2042
Reservoirs 1, 2 and 3	2043
Reservoirs 1, 2, 3 and 4	2044

Specification

Duplex filter:

One reservoir can be closed for service, vertical installation. Filter available with four, three or two filter reservoirs connected to a multi-way valve.

Maximum operating pressure:

8 bar

Test pressure:

15 bar

Seal material:

Fluoroelastomer*

Operating temperature:

-20°C...+100°C

Housing material:

Steel/cast iron (GJS)

Weight:

240 kg (FF2042)

350 kg (FF2043)

418 kg (FF2044)

Nominal flow engine lubricant oil:

- FF2042: 1200 l/min

- FF2043: 1500 l/min

- FF2044: 2000 l/min

By-pass valve:

For the primary filter only, opening pressure 2,0 bar

Primary filter:

- Two filter elements per reservoir
- Filtration materials
 - Resin impregnated heavy duty cellulose paper 15µm nominal
 - Glass fiber Microglass III $\beta_{20}=200$
 - Cleanable wire mesh

Secondary filter:

- One filter element per reservoir
- Filtration material cleanable wire mesh
- Filtration degree 60µm

Fluid compatibility:

Suitable for use with regular hydraulic and lubrication oils. For other fluids consult Parker Filtration.

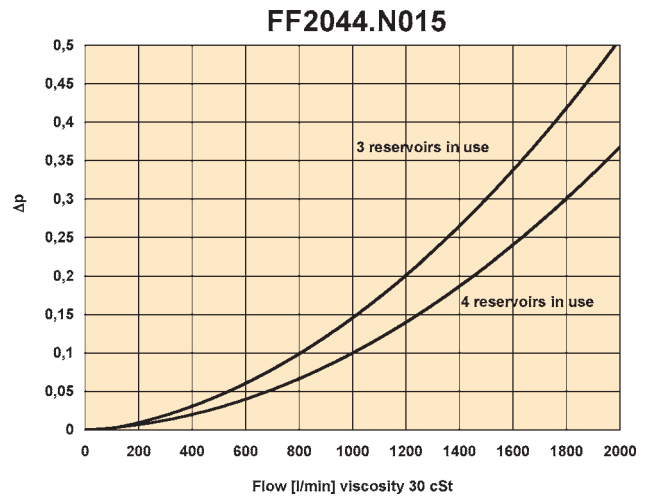
* Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M).

Series FF2040

Pressure Drop Curves

The recommended level of the initial pressure drop for this filter is maximum 0,5 bar.

If the medium used has a viscosity different from 30cSt, please contact Parker Filtration for correct pressure drop values.



Product Description

Complete Filter: FF ^{Table 1} ^{Table 2} .VS20.XL110- ^{Table 3}

Filter Element: FC2040. ^{Table 2} .BS

Δp Indicator: For ordering indicators, see page 20.

Table 1

NUMBER OF RESERVOIRS	
Options	CODE
Two reservoirs	2042
Three reservoirs	2043
Four reservoirs	2044

Table 3

INDICATOR BLOCK	
Options	CODE
With indicator block	INB
Without indicator block	

Table 2

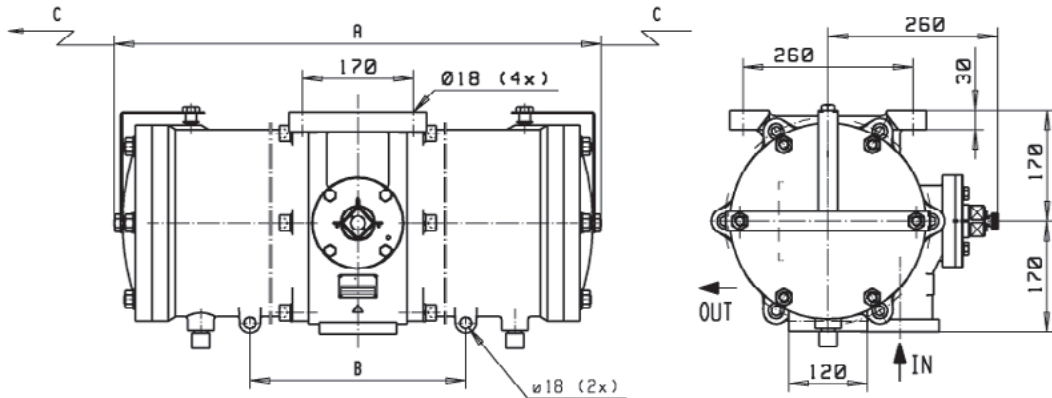
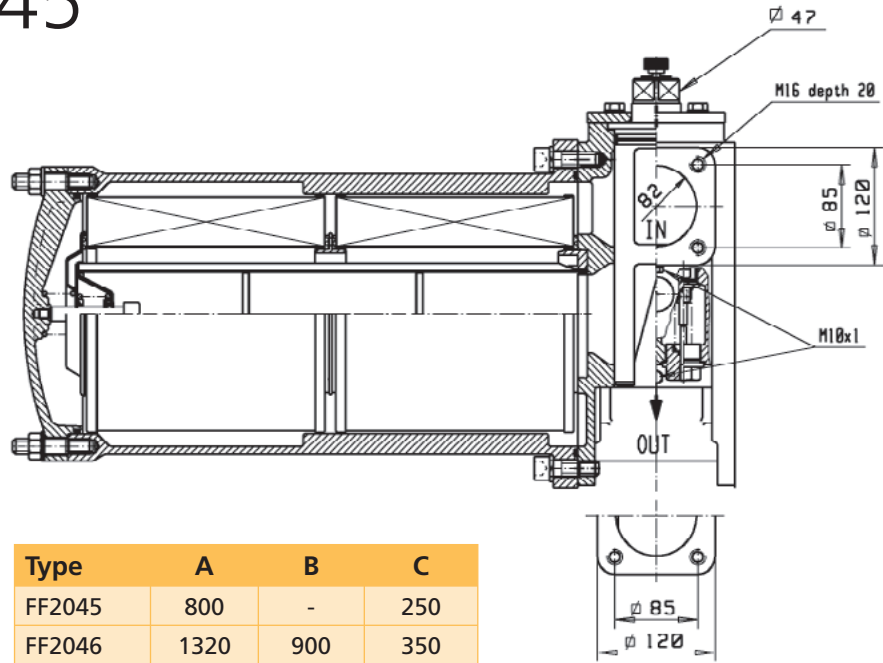
DEGREE OF FILTRATION	
Element type	CODE
Reinforced cellulose 15 μm	N015
Glass fiber 20 μm	Q020
Cleanable wire mesh 35 μm	M035



Lubrication Oil Filters Series FF2045



Series FF2045



Specification

Duplex filter:

One reservoir can be closed for service, horizontal installation.

Maximum operating pressure:

10 bar

Test pressure:

15 bar

Seal material:

Fluoroelastomer*

Operating temperature:

-20°C...+100°C

Housing material:

Cast iron (GJS)

Weight:

115 kg (FF2045)

145 kg (FF2046)

Nominal flow engine lubricant oil:

- FF2045: 750 l/min

- FF2046: 900 l/min

By-pass valve:

For the primary filter only, opening pressure 2,0 bar

Primary filter:

- FF2045: one filter element per reservoir
- FF2046: two filter elements per reservoir
- Filtration materials

- Resin impregnated heavy duty cellulose paper 15µm nominal
- Glass fiber Microglass III $\beta_{20}=200$
- Cleanable wire mesh

Secondary filter:

- One filter element per reservoir
- Filtration material cleanable wire mesh
- Filtration degree 60µm

Fluid compatibility:

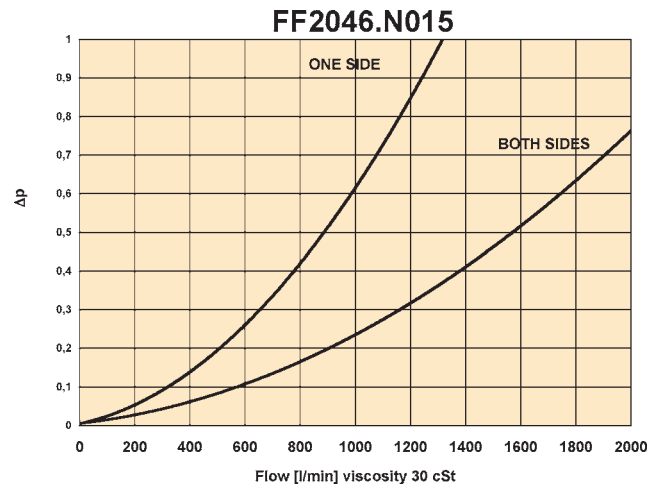
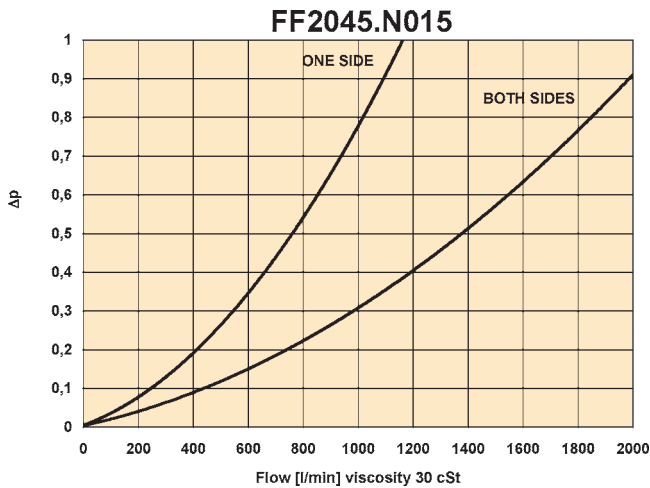
Suitable for use with regular hydraulic and lubrication oils. For other fluids consult Parker Filtration.

* Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M).

Pressure Drop Curves

The recommended level of the initial pressure drop for this filter is maximum 0,5 bar.

If the medium used has a viscosity different from 30cSt, please contact Parker Filtration for correct pressure drop values.



Product Description

Complete Filter: FF ^{Table 1} . ^{Table 2} .VS20.XC82- ^{Table 3}

Filter Element: FC2045. ^{Table 2} .XS

Δp Indicator: For ordering indicators, see page 20.

Table 1

ELEMENTS PER RESERVOIR	
Number of elements	CODE
One element per reservoir	2045
Two elements per reservoir	2046

Table 3

INDICATOR BLOCK	
Options	CODE
With indicator block	INB
Without indicator block	

Table 2

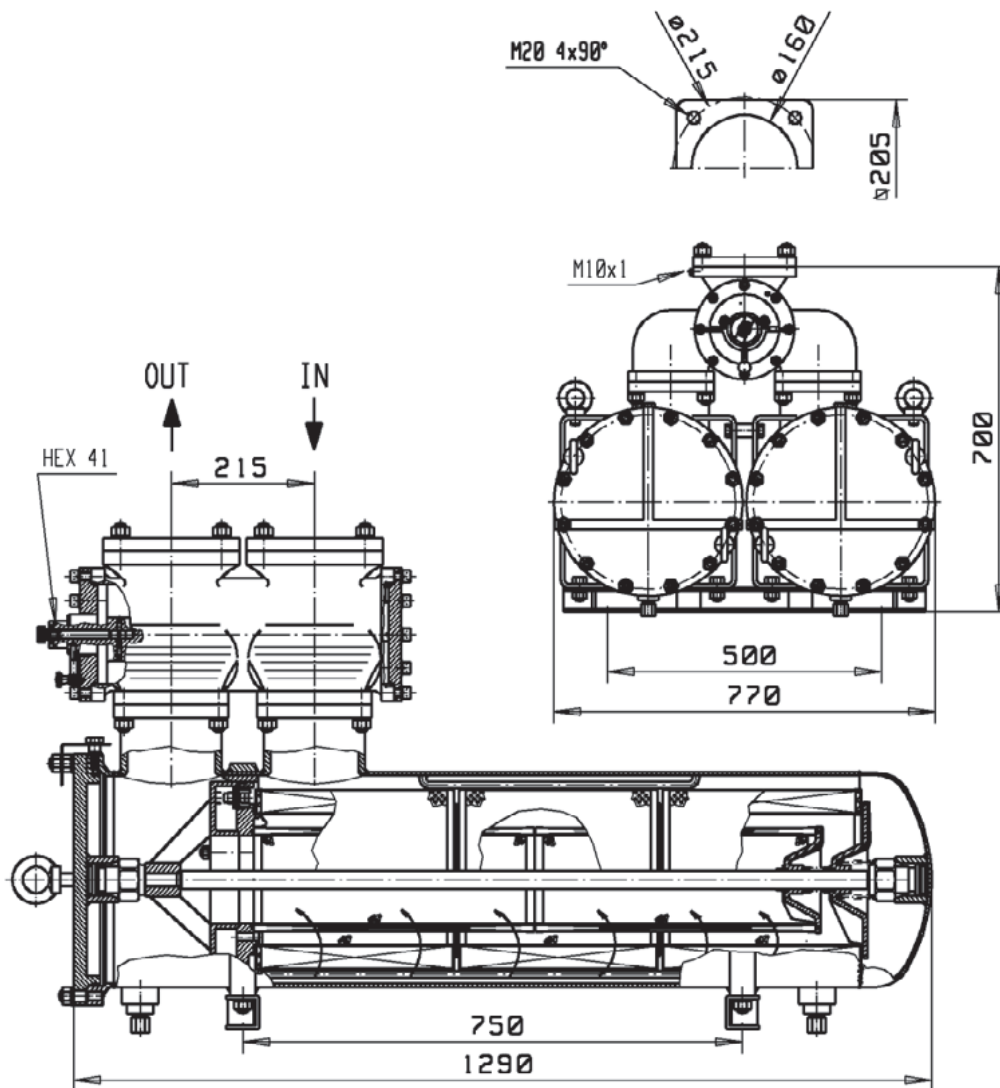
DEGREE OF FILTRATION	
Element type	CODE
Reinforced cellulose paper 15 μm	N015
Glass fiber 20 μm	Q020
Cleanable wire mesh 35 μm	M035



Lubrication Oil Filters FF2060



FF2060



Specification

Duplex filter:

One reservoir can be closed for service, horizontal installation. 1300 mm (1,3 m) free space must be reserved in front of the filter for filter element removal.

Maximum operating pressure:

10 bar

Test pressure:

15 bar

Seal material:

Fluoroelastomer*

Operating temperature:

-20°C...+100°C

Housing material:

Steel/cast iron (GJS)

Weight:

390 kg

Nominal flow engine lubricant oil:

2200 l/min.

By-pass valve:

For the primary filter only, opening pressure 2,0 bar

Primary filter:

- Three filter elements per reservoir
- Filtration materials
 - Resin impregnated heavy duty cellulose paper 15µm nominal
 - Glass fiber Microglass III $\beta_{20}=200$
 - Cleanable wire mesh

Secondary filter:

- One filter element per reservoir
- Filtration material cleanable wire mesh
- Filtration degree 60µm

Fluid compatibility:

Suitable for use with regular hydraulic and lubrication oils. For other fluids consult Parker Filtration.

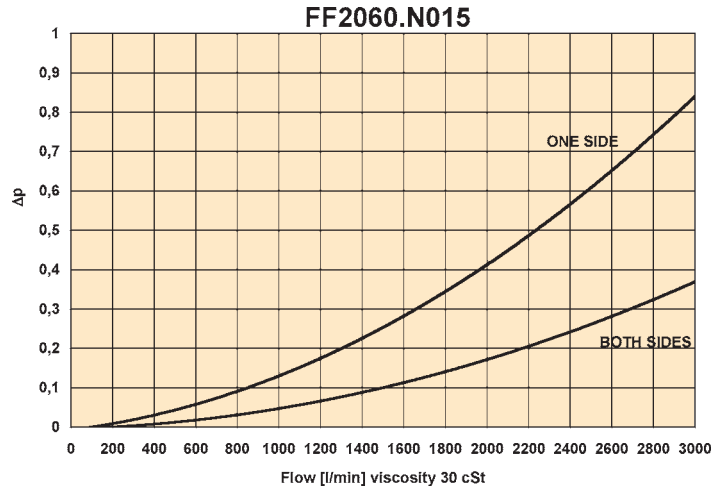
* Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M).

FF2060

Pressure Drop Curves

The recommended level of the initial pressure drop for this filter is maximum 0,5 bar.

If the medium used has a viscosity different from 30cSt, please contact Parker Filtration for correct pressure drop values.



Product Description

Complete Filter: FF2060. Table 1 .VS20.XC160- Table 2

Filter Element: FC2040. Table 1 .BS

Δp Indicator: For ordering indicators, see page 20.

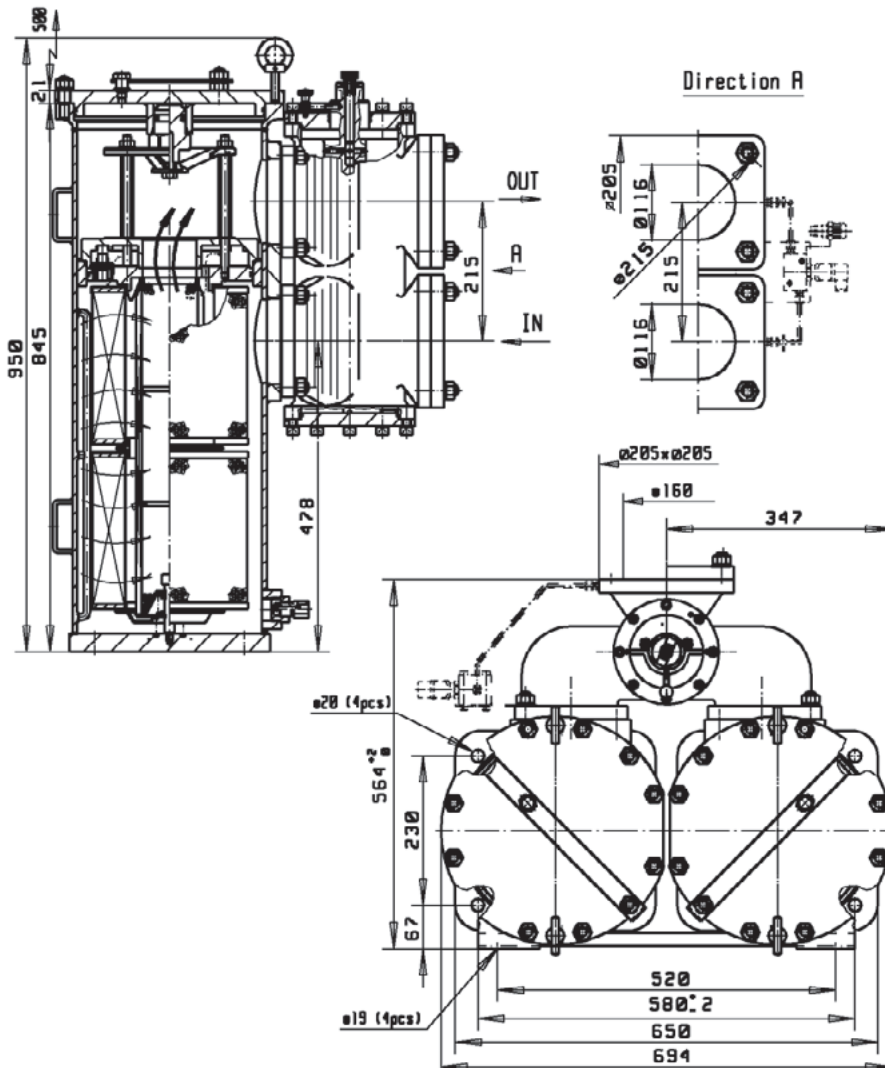
Table 1

DEGREE OF FILTRATION	
Element type	CODE
Reinforced cellulose paper 15 μm	N015
Glass fiber 20 μm	Q020
Cleanable wire mesh 35 μm	M035

Table 2

INDICATOR BLOCK	
Options	CODE
With indicator block	INB
Without indicator block	

FF2065



Specification

Duplex filter:

One reservoir can be closed for service, vertical installation.

Maximum operating pressure:

10 bar

Test pressure:

15 bar

Seal material:

Fluoroelastomer*

Operating temperature:

-20°C...+100°C

Housing material:

Steel/cast iron (GJS)

Weight:

~350 kg

Nominal flow engine lubricant oil:

1500 l/min.

By-pass valve:

For the primary filter only, opening pressure 2,0 bar

Primary filter:

- Two filter elements per reservoir
- Filtration material resin impregnated heavy duty cellulose paper
- Filtration degree 15 µm nominal

Secondary filter:

- One filter element per reservoir
- Filtration material cleanable wire mesh
- Filtration degree 60µm

Fluid compatibility:

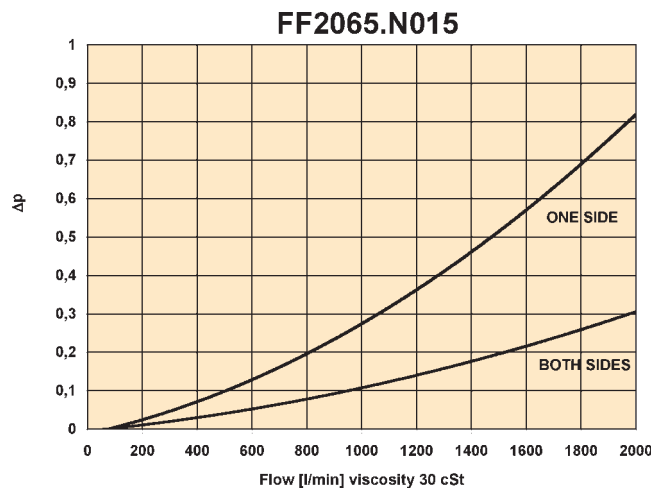
Suitable for use with regular hydraulic and lubrication oils. For other fluids consult Parker Filtration.

* Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M).

Pressure Drop Curves

The recommended level of the initial pressure drop for this filter is maximum 0,5 bar.

If the medium used has a viscosity different from 30cSt, please contact Parker Filtration for correct pressure drop values.



Product Description

Complete Filter: FF2065. .VS20.XC160-

Filter Element: FC2045. .XS

Δp Indicator: For ordering indicators, see page 20.

Table 1

DEGREE OF FILTRATION	
Element type	CODE
Reinforced cellulose paper 15 μm	N015
Glass fiber 20 μm	Q020
Cleanable wire mesh 35 μm	M035

Table 2

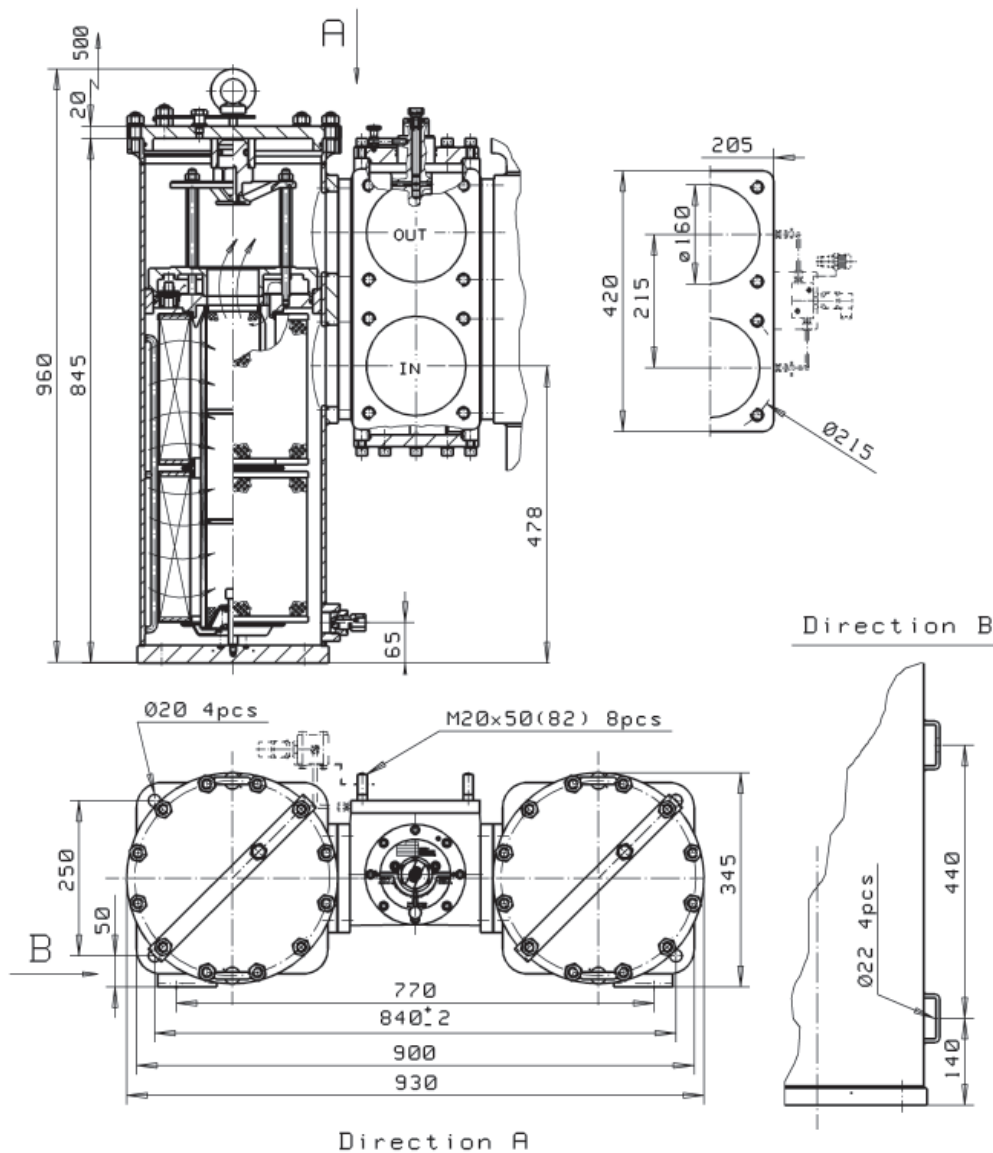
INDICATOR BLOCK	
Options	CODE
With indicator block	INB
Without indicator block	



Lubrication Oil Filters FF2070



FF2070



Specification

Duplex filter:

One reservoir can be closed for service.

Maximum operating pressure:

10 bar

Test pressure:

15 bar

Seal material:

Fluoroelastomer*

Operating temperature:

-20°C...+100°C

Housing material:

Steel/cast iron (GJS)

Weight:

310 kg

Nominal flow engine lubricant oil:

1500 l/min

By-pass valve:

For the primary filter only, opening pressure 2,0 bar

Primary filter:

- Two filter elements per reservoir
- Filtration materials
 - Resin impregnated heavy duty cellulose paper 15µm nominal
 - Glass fiber Microglass III $\beta_{20}=200$
 - Cleanable wire mesh

Secondary filter:

- One element per reservoir
- Filtration material cleanable wire mesh
- Filtration degree 60 µm

Fluid compatibility:

Suitable for use with regular hydraulic and lubrication oils. For other fluids consult Parker Filtration.

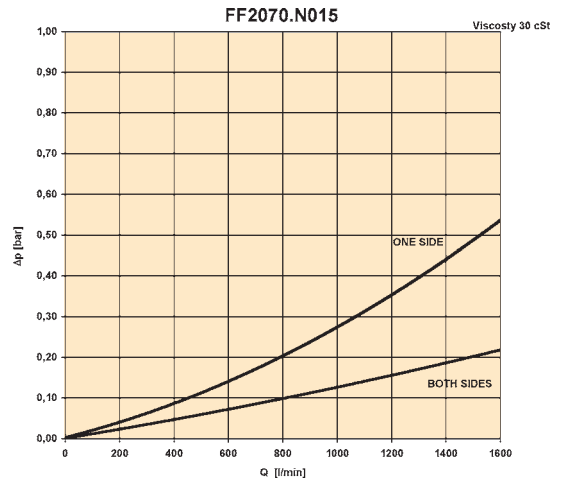
* Fluoroelastomers are available under various registered trademarks, including Viton (a registered trademark of DuPont) and Fluorel (a registered trademark of 3M).

FF2070

Pressure Drop Curves

The recommended level of the initial pressure drop for this filter is maximum 0,5 bar.

If the medium used has a viscosity different from 30cSt, please contact Parker Filtration for correct pressure drop values.



Product Description

Complete Filter: FF2070. Table 1 .VS20.XC160- Table 2

Filter Element: FC2045. Table 1 .XS

Δp Indicator: For ordering indicators, see page 20.

Table 1

DEGREE OF FILTRATION	
Element type	CODE
Reinforced cellulose 15 μm	N015
Glass fiber 20 μm	Q020
Cleanable wire mesh 35 μm	M035

Table 2

INDICATOR BLOCK	
Options	CODE
With indicator block	INB
Without indicator block	

Important Information

Parker Hannifin Filter Division Europe, herewith declares that Parker Hydraulic Filtration products are intended to be incorporated into machinery covered by Directive 97/23/EC, as amended and that the following harmonised standards have been applied;

EN982

EN292-1

EN292-2

We furthermore declare that, machinery incorporating Parker Hydraulic Filtration products is not allowed to be put into service until the machinery has been found and declared to be in conformity with, the provisions of Directive 97/23/EC and with national implementing legislation.

In line with our policy of continuous product improvement, Parker Hannifin reserve the right to alter product data and specification without notice. This does not affect your statutory rights.

Within this catalogue, each product has been allocated an operating temperature range and fluid compatibility. The range listed for each filter is dictated by the materials of construction and the capability of the seals specified. Consideration should also be given to the characteristics of the system fluid when specifying filters for extreme temperature applications.

The use of non Parker replacement elements and spares may invalidate your warranty.

WARNING!

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

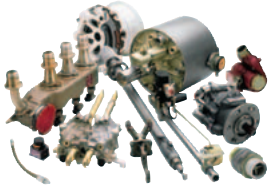
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Indonesia	+60 3 5638 1476
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Korea	+82 31 379 2200
Malaysia	+62 811 179135
Mexico	+1 800 272 7537
Netherlands	+31 (0) 541 585000
New Zealand	+64 (9) 573 1523
Norway	+47 64 91 1000
Philippines	+63 34 4323 779
Poland	+48 2257 32400
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Spain	+34 (91) 675 7300
Sweden	+46 8 5979 5000
Switzerland	+41 31 917 1850
Taiwan	+886 (2) 2298 8987
Thailand	+662 693 3304
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Venezuela	+58 212 238 54 22

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