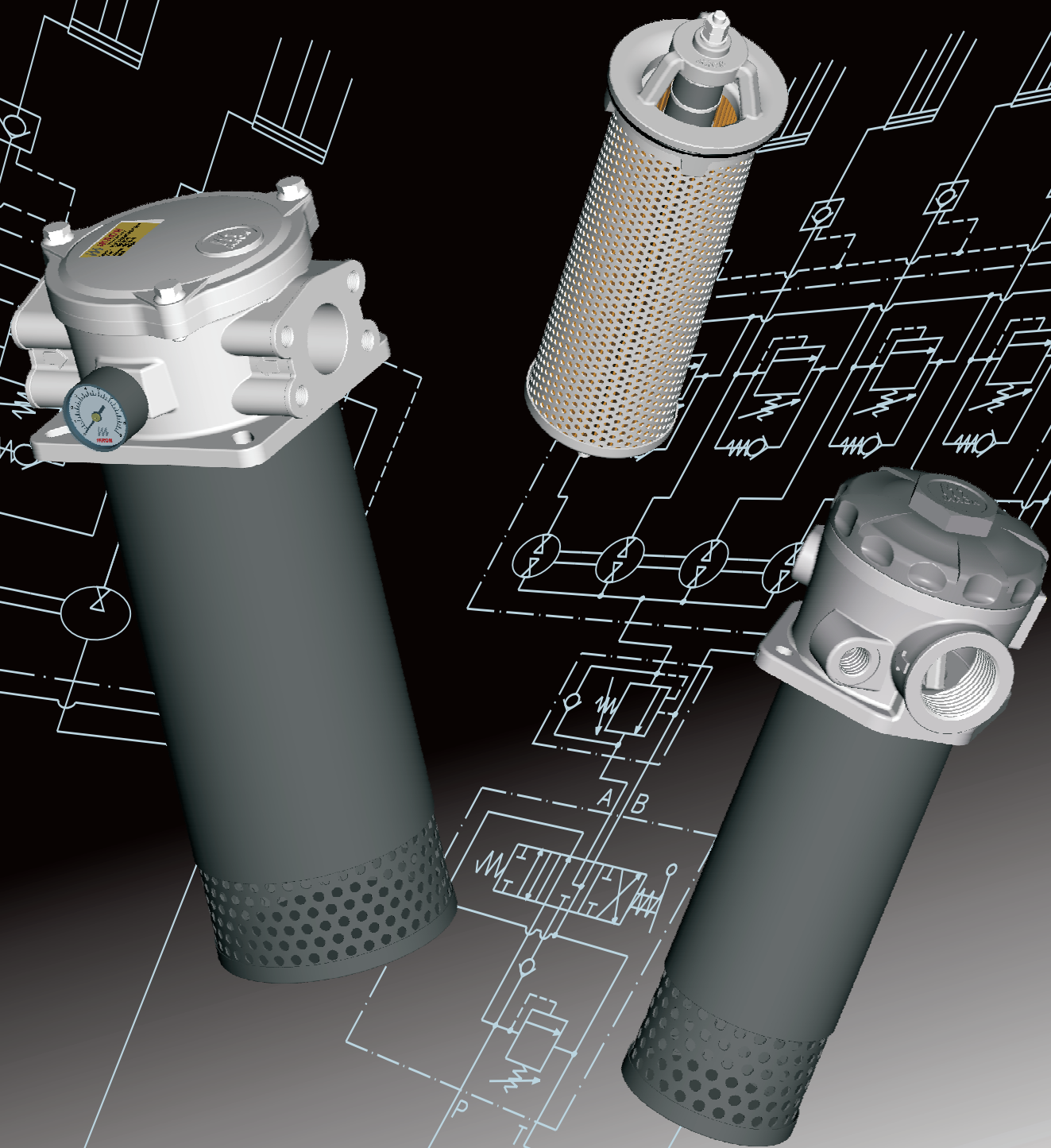


Tank mounted return line filters

HF 570 / HF 575 / HF 578 series



THE IMPORTANCE OF AN EFFICIENT FILTRATION

The main cause of anomalies in hydraulic systems has to be attributed to the presence of contaminants in the fluid. The nature of the contaminant may be: gaseous, namely air mixed with the fluid; fluid, it depends on water penetrating the fluid; solid, therefore particles of various origins and dimensions.

Customers who operate equipments are always focused on obtaining the best possible performance, lower energy consumptions and greater respect for the environment.

These characteristics can be attained by using top quality components in the hydraulic system for generating and regulating the fluid power, which are also more sensitive to the presence of contaminants in the fluid.

Starting from these requirements, we understand how important and fundamental it is to prevent the presence of air and water from mixing in the fluid tank by using dedicated solutions.

It is also crucial to limit the presence of solid particles in the hydraulic circuit through a suitable filtering system, which is indispensable to maintain the project requirements of the system over time and to keep running costs low.

The correct choice of a filter and its optimum position in the hydraulic system requires the same care and experience needed to choose all the other components.

The use of filters with larger filtering surfaces reduces, at equal flow rates, the superficial contaminant load and therefore the filter's life is extended proportionally.

To maintain the maximum efficiency of the system, the filters must have a clogging indicator showing the differential pressure on the filtering cartridge and to immediately point out when the cartridge needs replacing in order to prevent the by-pass valve from opening.

The following factors should be analysed when choosing the ideal filter:

- The filtration degree required to protect the most sensitive component from contamination
- The points of the circuit in which the filters have to be installed
- The working pressure of the system
- The maximum flow rate and the type of fluid to be filtered
- The duty cycle
- The retention efficiency of the filtering cartridge
- The contaminant accumulation capacity of the filtering cartridge
- The working ambient temperature

Each filter used generates a pressure drop that increases continuously as time goes by. This pressure drop represents an efficiency index of the filter itself.

When the hydraulic system is about to be assembled, all the components must be perfectly clean and the fluid has to be added through a device complete with a filter.

During the test phase, it is advisable to run some work cycles at low pressure in order to create the best possible conditions for all the components.

TECHNICAL CHARACTERISTICS

Tank mounted return line filters HF 570 and HF 578 series along with in tank filters HF575 series are specifically designed to be directly connected on the return line of hydraulic circuit to safeguard it from contaminating particles. HF 578 series is available with double inlet port with SAE 3000 threads.

- Flow up to 317 US gpm (1200 l/min)
- Inside-outside flow filtration
- Pre-filtration area magnetic set
- Fluid-decelerating diffuser

MATERIALS

Cover	Reinforced nylon (HF570-20) Aluminum
Housing	Aluminum
Bowl-Diffusor	Steel
Seals	Buna - Viton
End cap	Zinc plated steel
Inner tube	Zinc plated steel Stainless steel
Filter media	Cellulose Micro-fibre glass

FLUID COMPATIBILITY

Conforming to ISO 2943 (Norm ISO 6743/4)

Oil mineral (1)	HH - HL - HM - HR - HV - HG
Water emulsion (1)	HFAE - HFAS
Syntetic fluid (2)	HS - HFDR - HFDU - HFDS
(1) With Buna seals	
(2) With Viton seals	

FLOW

Flow max.	317 US gpm (1200 l/min)
-----------	-------------------------

PRESSURE

Working pressure	116 psi (8 bar)
Testing pressure	174 psi (12 bar)
Burst pressure	232 psi (16 bar)
Element collapse pressure rating (conforming to ISO 2941)	145 psi (10 bar)

BY-PASS VALVE

By-pass setting	25 psi (1,7 bar)
-----------------	------------------

OPERATING TEMPERATURE

With Buna seals	-22 ÷ 195 °F (-30 ÷ 90 °C)
With Viton seals	-4 ÷ 230 °F (-20 ÷ 110 °C)

DEGREE OF FILTRATION

Absolute Filtration

Code	Material	Degree of filtration
FG010	Micro-fibre glass	10 µm
FG025	Micro-fibre glass	25 µm

Nominal Filtration

Code	Material	Degree of filtration
SP010	Cellulose	10 µm
SP025	Cellulose	25 µm
MI060	Stainless steel	60 µm
MI125	Stainless steel	125 µm

INDICATORS (3)

Rear manometer
Radial manometer
Visual indicator
Electrical indicator

(3) Characteristics and dimensions at page 21

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SIZING – PRESSURE DROP

The total pressure drop of the filter is calculated by summing the pressure drop value in the housing to the one in the filtering element.

$$\text{Total } \Delta p = \Delta p \text{ in housing} + \Delta p \text{ in element}$$

In filters of HF 570 and HF 578 series in normal working conditions, the total Δp must not be more than 5.8 psi (0,4 bar). To establish the values of pressure drop involved, the following pages provide some diagrams with curves referred to the use of mineral oils SAE 10 with kinematic viscosity of 120 SSU (30 cSt) and density of 7.29 lb/gal (0,856 kg/dm³).

Calculation example

Filter HF570-30.260-AS-FG025-B17-GH-B-H-R-XN-G-YN-G-D

Flow rate= 63 US gpm (240 l/min)

Kinematic viscosity: 120 SSU (30 cSt)

Oil density : 7.29 lb/gal (0,856 kg/dm³)

Filtration degree: 25 μm

Data obtained from the diagrams:

Δp in housing = 3.20 psi (0,22 bar) (page 4)

Δp in element = 2.00 psi (0,14 bar) (page 8)

Total Δp = 3.20 + 2.00 = 5.2 psi (0,36 bar) (Δp is lower than maximum value admitted – therefore sizing is correct).

If oil with different kinematic viscosity and different density is used, the values obtained from the diagrams will be re-calculated considering the following indications:

1) The pressure drop of the housing is proportional with the oil density, therefore for oil with density different to 7.29 lb/gal (0,856 kg/dm³) the value of the Δp in the head-bowl will be:

$$\Delta p \text{ in housing} = \frac{\Delta p \text{ of diagram (psi)} \cdot \text{Oil density (lb/gal)}}{7.29 \text{ (lb/gal)}} \quad [\text{psi}]$$

Or

$$\Delta p \text{ in housing} = \frac{\Delta p \text{ of diagram (bar)} \cdot \text{Oil density (kg/dm}^3\text{)}}{0,856 \text{ (kg/dm}^3\text{)}} \quad [\text{bar}]$$

2) The pressure drop of the element is proportional with the oil density and kinematic viscosity, therefore for oil with density different to 7.29 lb/gal (0,856 kg/dm³) and kinematic viscosity different to 120 SSU (30 cSt) the value of Δp in the element will be:

$$\Delta p \text{ element} = \Delta p \text{ of diagram (psi)} \cdot \frac{\text{Oil density (lb/gal)}}{7.29 \text{ (lb/gal)}} \cdot \frac{\text{Oil viscosity (SSU)}}{120 \text{ (SSU)}} \quad [\text{psi}]$$

Or

$$\Delta p \text{ element} = \Delta p \text{ of diagram (bar)} \cdot \frac{\text{Oil density (kg/dm}^3\text{)}}{0,856 \text{ (kg/dm}^3\text{)}} \cdot \frac{\text{Oil viscosity (cSt)}}{30 \text{ (cSt)}} \quad [\text{bar}]$$

Now you sum the values of the pressure drop of the housing to the value of the pressure drop of the filtering element, always making sure the total Δp does not exceed the pressure limit of 5.8 psi (0,4 bar).

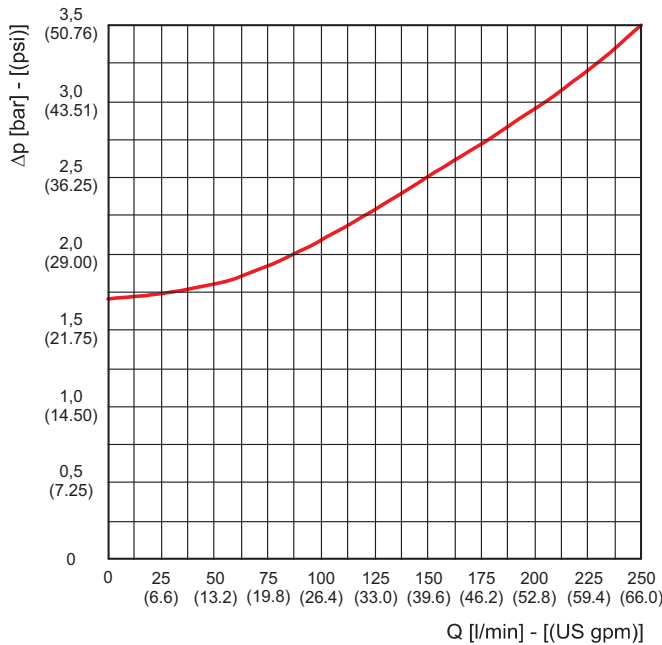
01/04.2010

PRESSURE DROP CURVES THROUGH THE BY-PASS VALVES

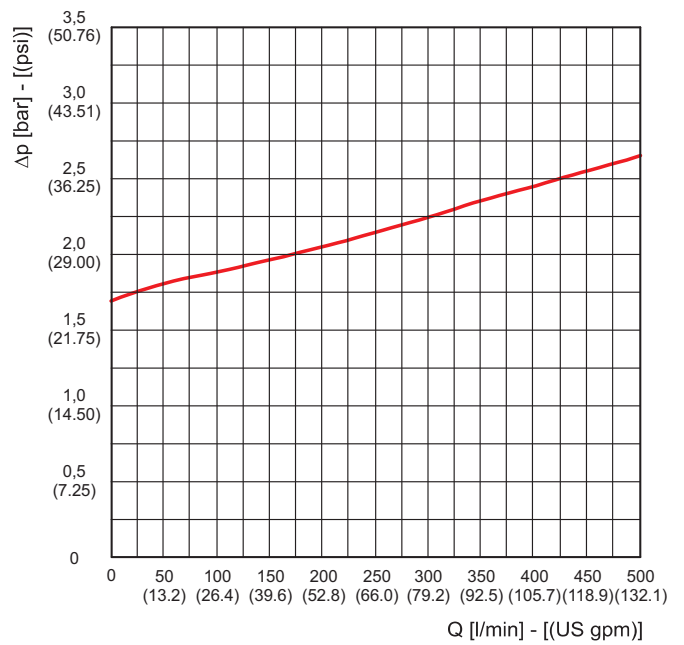
The pressure drop values are directly proportional with the specific weight of the fluid and do not affect the establishment of the total pressure drop of the complete filter.

The curves are obtained in the following conditions:
Mineral oil type SAE 10
Kinematic viscosity 120 SSU (30 cSt)
Density 7.29 lb/gal (0,856 kg/dm³).

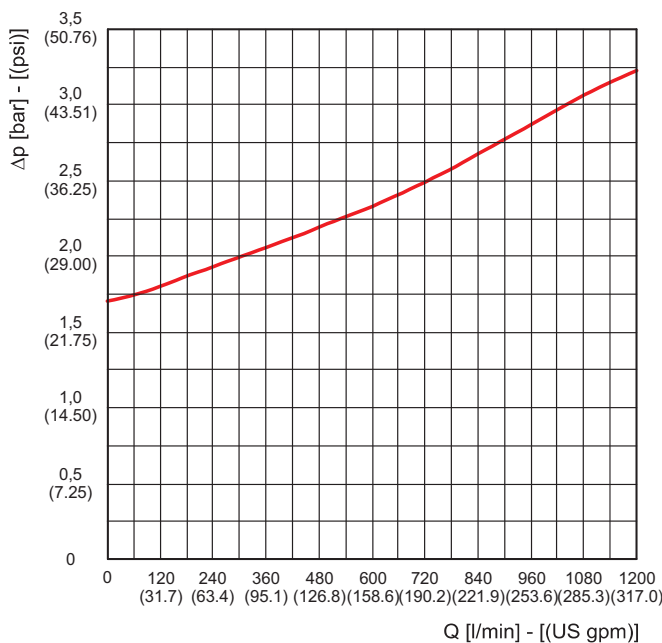
HF 570 / HF575-20



HF 570 / HF 575 / HF 578-30



HF 570 / HF 575 / HF 578-40



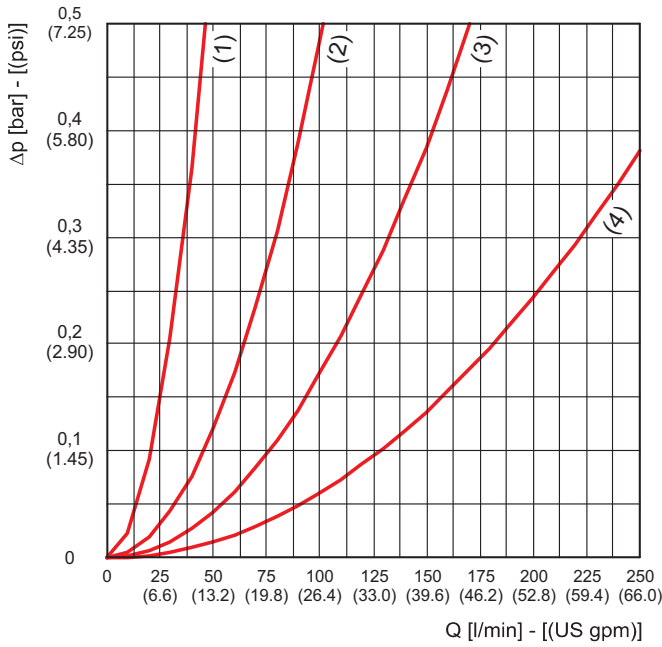
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PRESSURE DROP CURVES THROUGH THE HOUSING

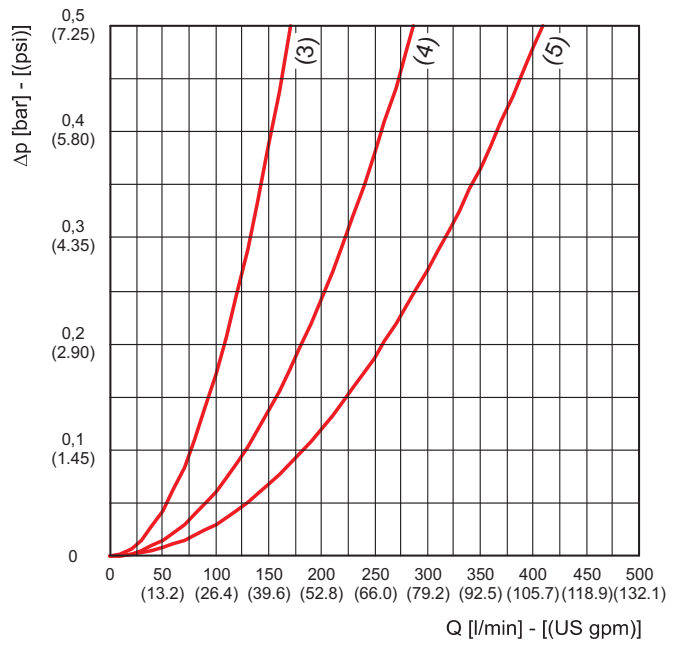
The curves are obtained in the following conditions:
 Mineral oil type SAE 10
 Kinematic viscosity 120 SSU (30 cSt)
 Density 7.29 lb/gal (0,856 kg/dm³).

- (1) G 1/2 (4) G 1 1/4
- (2) G 3/4 (5) G 1 1/2
- (3) G 1 (6) G 2

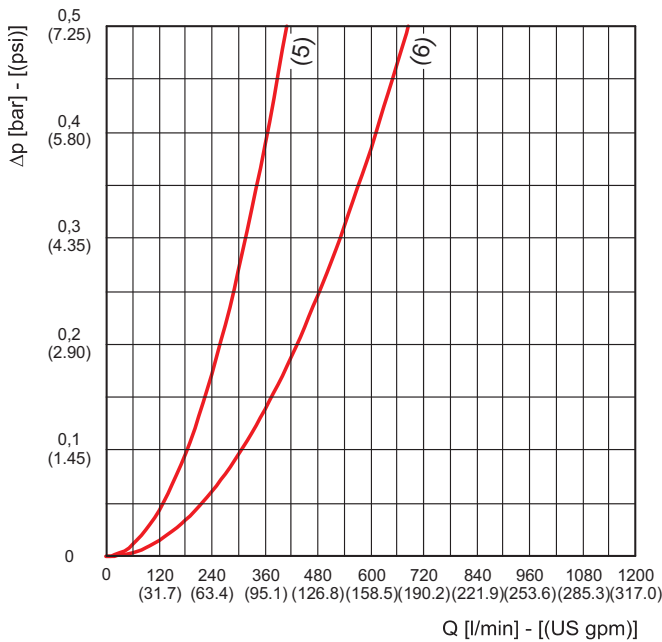
HF 570-20



HF 570-30



HF 570-40



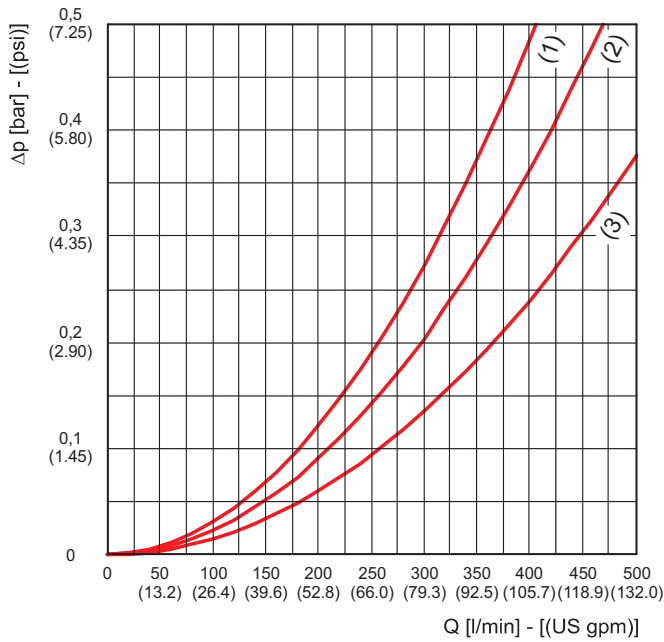
01/04.2010

PRESSURE DROP CURVES THROUGH THE HOUSING

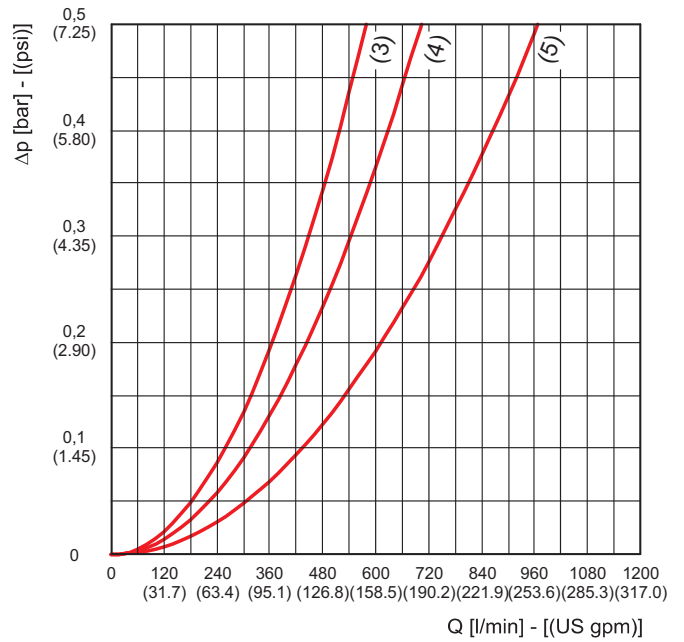
The curves are obtained in the following conditions:
 Mineral oil type SAE 10
 Kinematic viscosity 120 SSU (30 cSt)
 Density 7.29 lb/gal (0,856 kg/dm³).

- (1) G 1 1/4 - G 1 1/4 (4) G 1 1/2 - G 2
- (2) G 1 1/4 - G 1 1/2 (5) G 2 - G 2
- (3) G 1 1/2 - G 1 1/2

HF 578-30



HF 578-40



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PRESSURE DROP CURVES THROUGH THE ELEMENT HEK08-20

The curves are obtained in the following conditions:
 Mineral oil type SAE 10
 Kinematic viscosity 120 SSU (30 cSt)
 Density 7.29 lb/gal (0,856 kg/dm³).

- (1) HEK08-20.105
- (2) HEK08-20.150
- (3) HEK08-20.200
- (4) HEK08-20.300

FG010

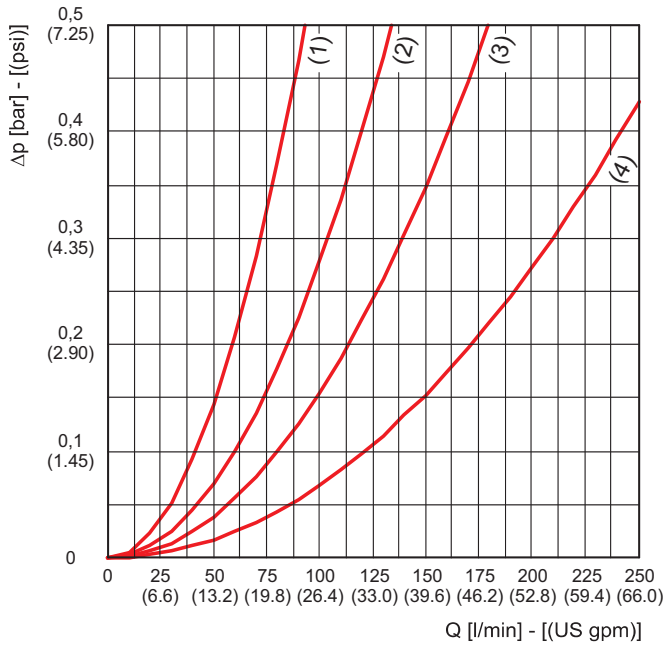


Diagram good also for filter series HF575-20

FG025

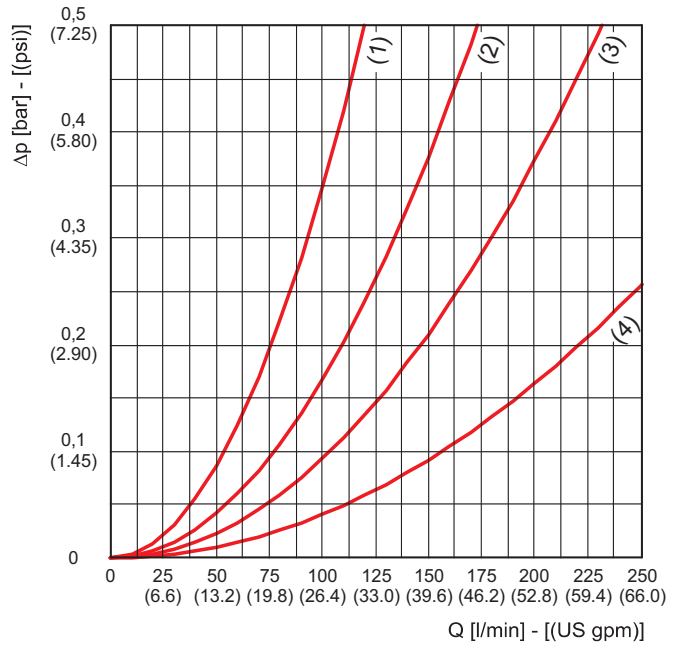


Diagram good also for filter series HF575-20

SP010

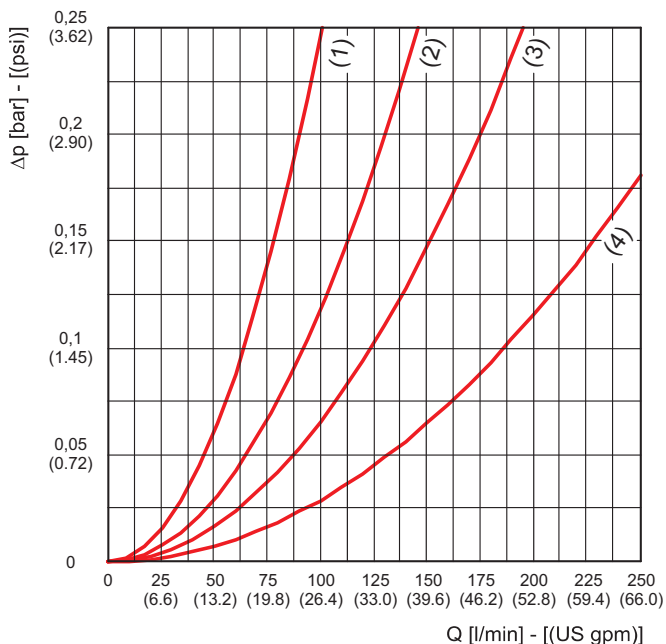


Diagram good also for filter series HF575-20

SP025

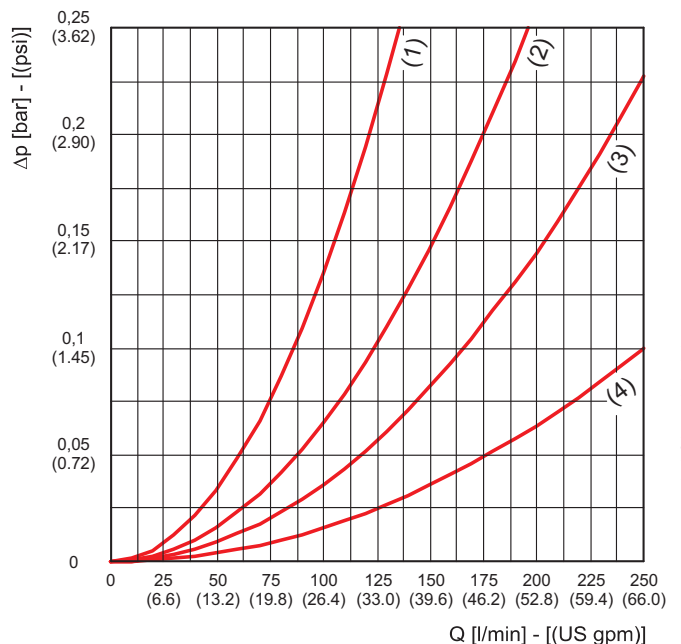


Diagram good also for filter series HF575-20

01/04.2010

PRESSURE DROP CURVES THROUGH THE ELEMENT HEK08-20

The curves are obtained in the following conditions:
 Mineral oil type SAE 10
 Kinematic viscosity 120 SSU (30 cSt)
 Density 7.29 lb/gal (0,856 kg/dm³).

- (1) HEK08-20.105
- (2) HEK08-20.150
- (3) HEK08-20.200
- (4) HEK08-20.300

MI060

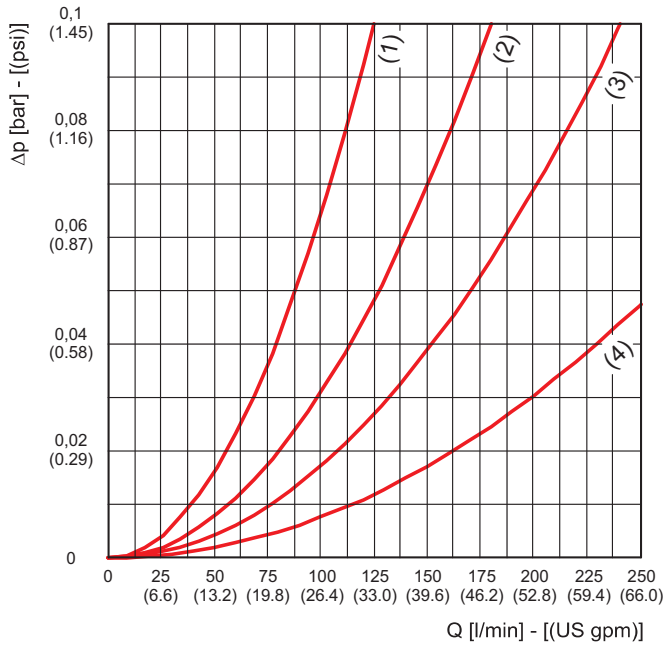


Diagram good also for filter series HF575-20

MI125

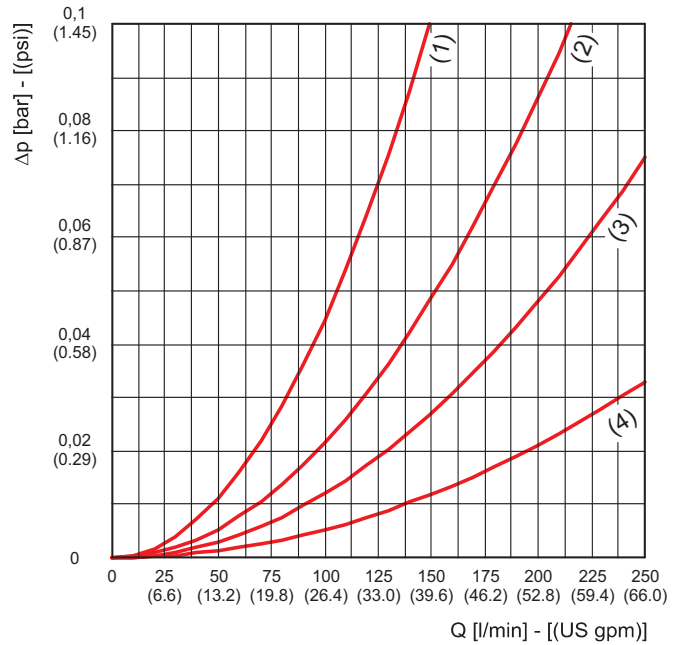


Diagram good also for filter series HF575-20

01/04.2010

PRESSURE DROP CURVES THROUGH THE ELEMENT HEK08-30

The curves are obtained in the following conditions:
 Mineral oil type SAE 10
 Kinematic viscosity 120 SSU (30 cSt)
 Density 7.29 lb/gal (0,856 kg/dm³).

- (1) HEK08-30.190
- (2) HEK08-30.260
- (3) HEK08-30.465

FG010

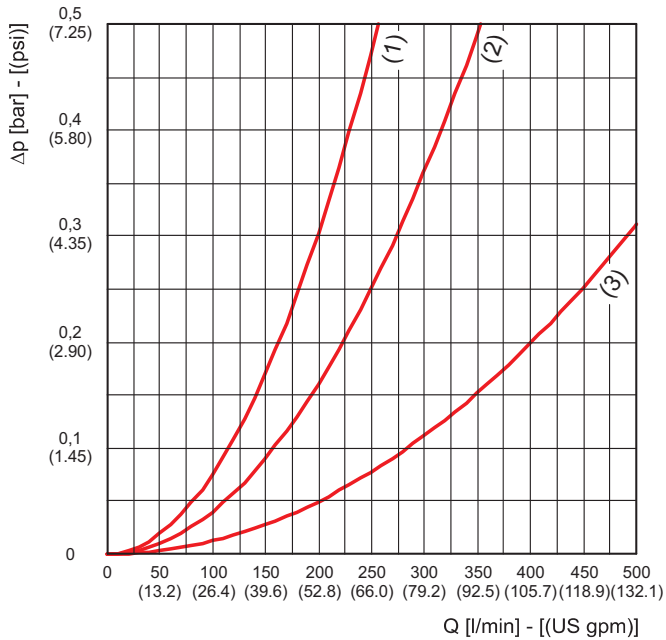


Diagram good also for filter series HF575-30

FG025

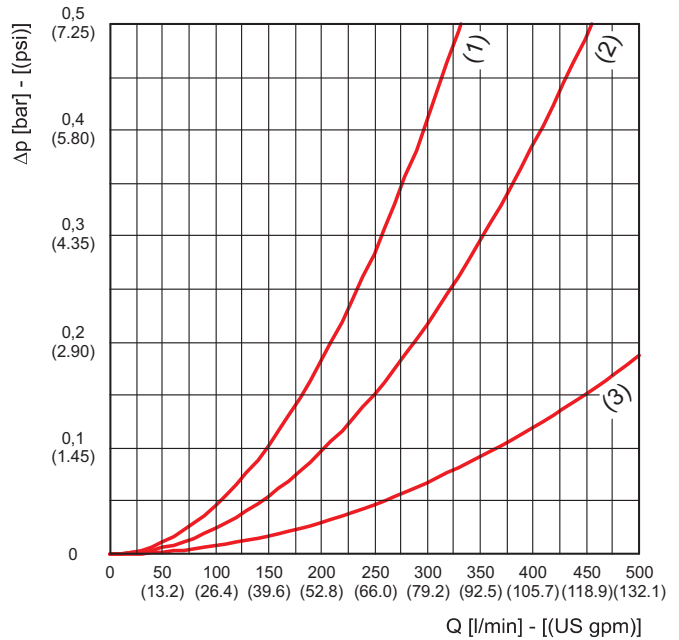


Diagram good also for filter series HF575-30

SP010

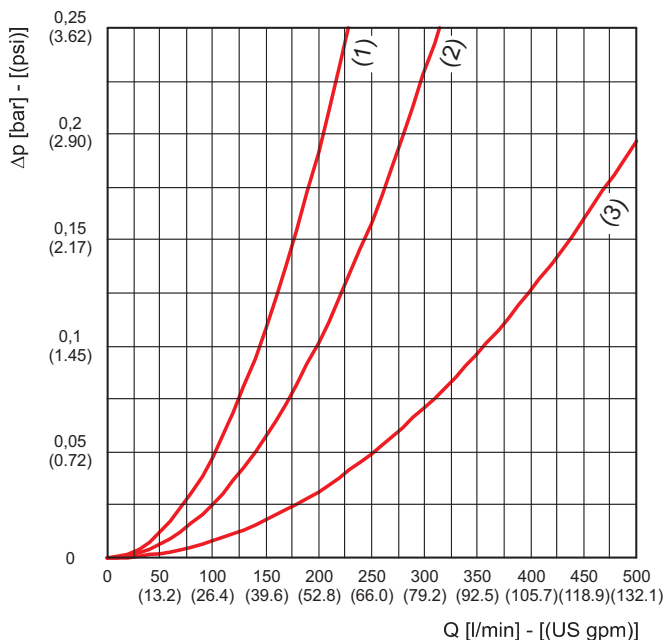


Diagram good also for filter series HF575-30

SP025

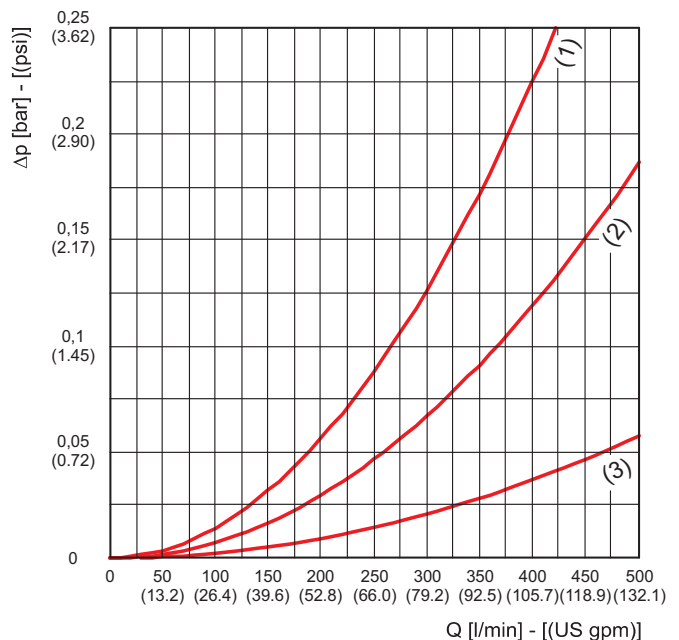


Diagram good also for filter series HF575-30

01/04.2010

PRESSURE DROP CURVES THROUGH THE ELEMENT HEK08-30

The curves are obtained in the following conditions:
 Mineral oil type SAE 10
 Kinematic viscosity 120 SSU (30 cSt)
 Density 7.29 lb/gal (0,856 kg/dm³).

- (1) HEK08-30.190
- (2) HEK08-30.260
- (3) HEK08-30.465

MI060

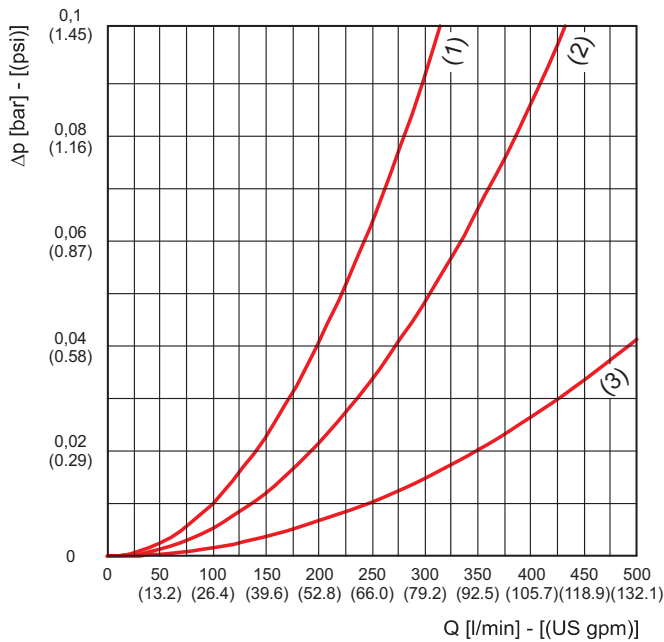


Diagram good also for filter series HF575-30

MI125

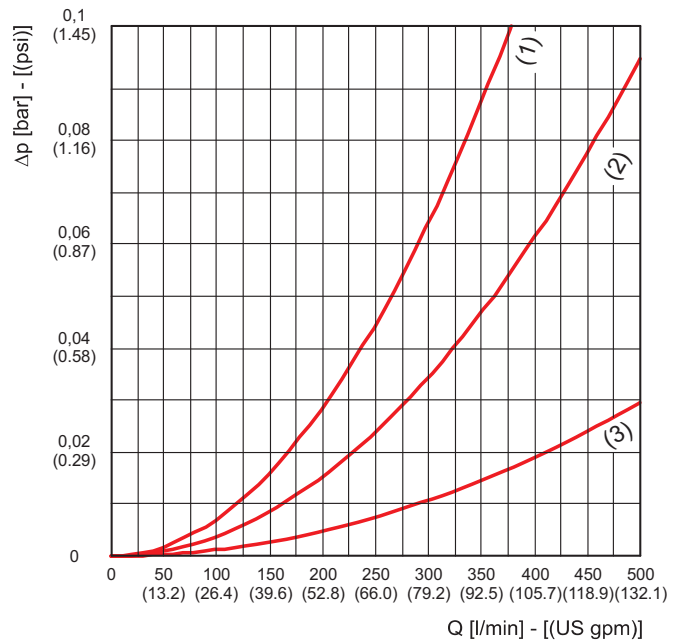


Diagram good also for filter series HF575-30

01/04.2010

PRESSURE DROP CURVES THROUGH THE ELEMENT HEK08-40

The curves are obtained in the following conditions:
 Mineral oil type SAE 10
 Kinematic viscosity 120 SSU (30 cSt)
 Density 7.29 lb/gal (0,856 kg/dm³).

- (1) HEK08-40.210
- (2) HEK08-40.290
- (3) HEK08-40.390
- (4) HEK08-40.480

FG010

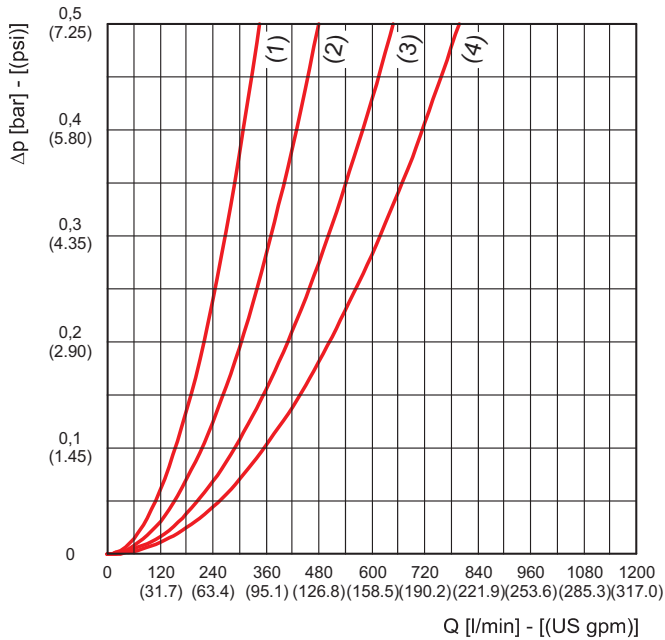


Diagram good also for filter series HF575-40

FG025

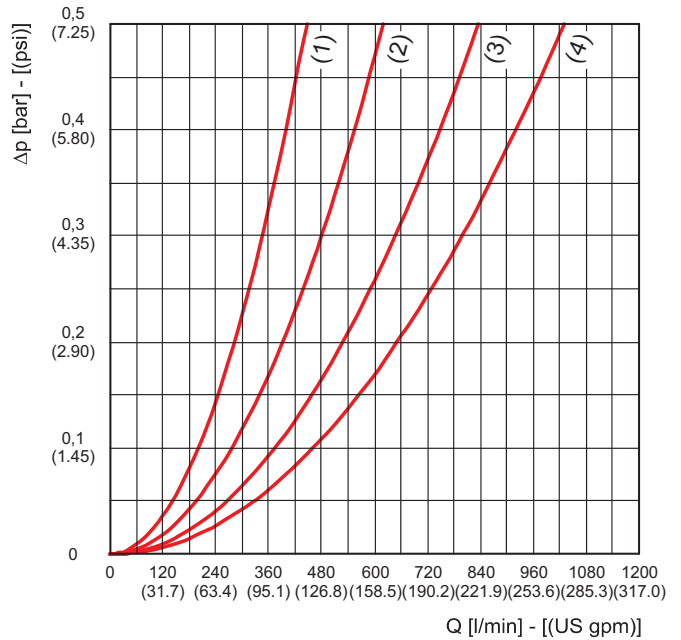


Diagram good also for filter series HF575-40

SP010

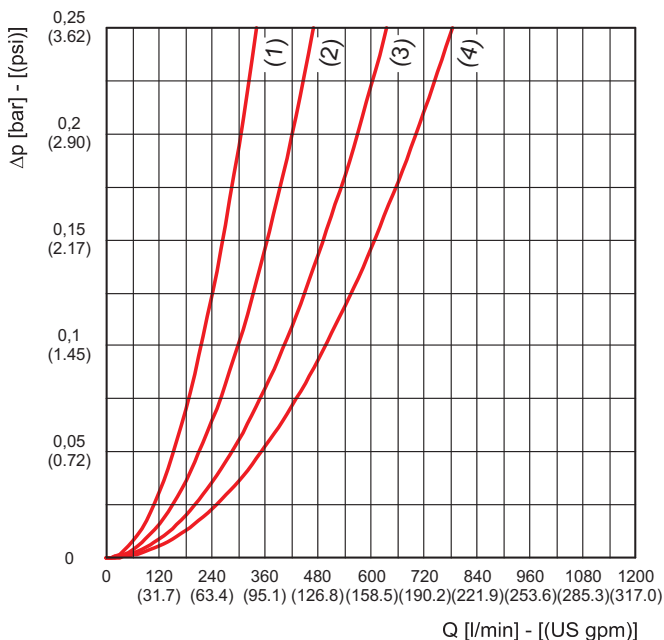


Diagram good also for filter series HF575-40

SP025

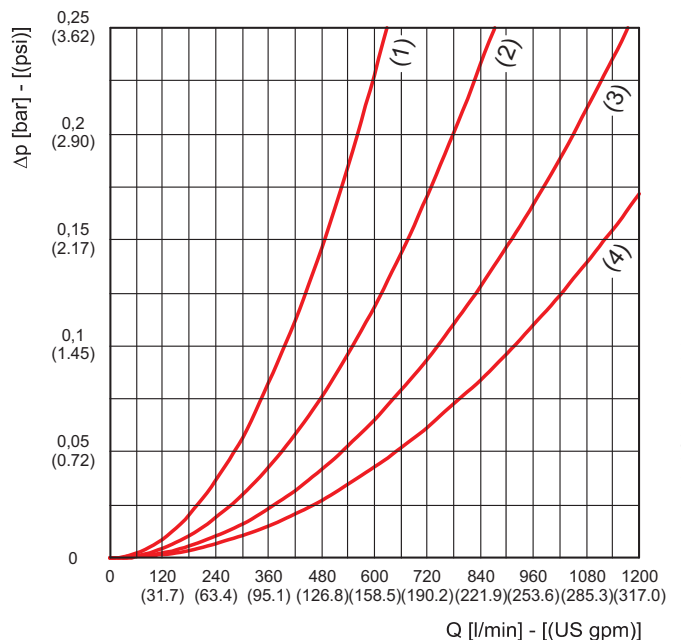


Diagram good also for filter series HF575-40

01/04.2010

PRESSURE DROP CURVES THROUGH THE ELEMENT HEK08-40

The curves are obtained in the following conditions:
 Mineral oil type SAE 10
 Kinematic viscosity 120 SSU (30 cSt)
 Density 7.29 lb/gal (0,856 kg/dm³).

- (1) HEK08-40.210
- (2) HEK08-40.290
- (3) HEK08-40.390
- (4) HEK08-40.480

MI060

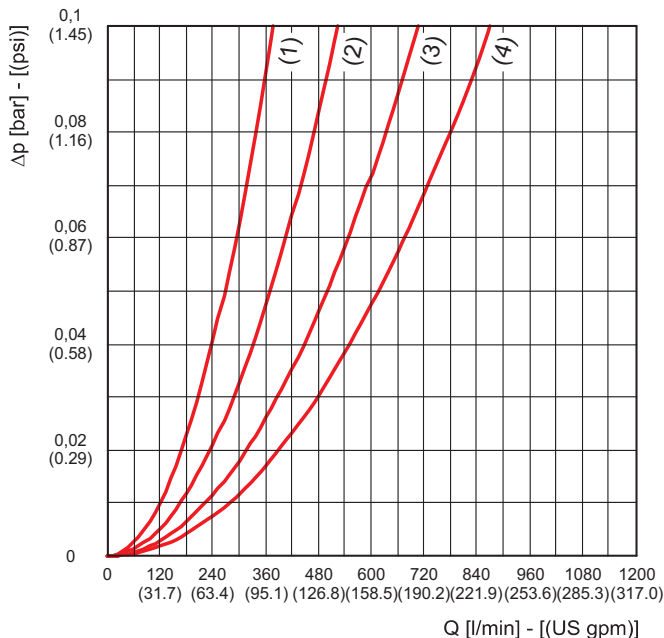


Diagram good also for filter series HF575-40

MI125

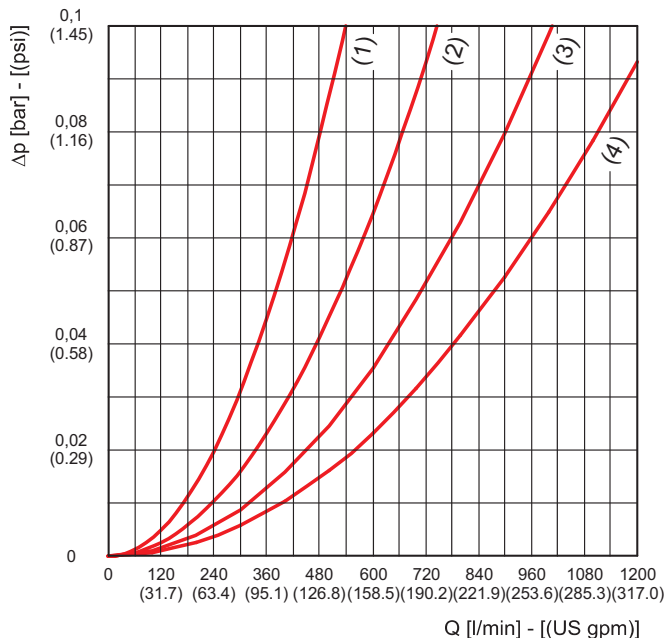


Diagram good also for filter series HF575-40

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FLOWS - FILTERS WITH SINGLE INLET PORT

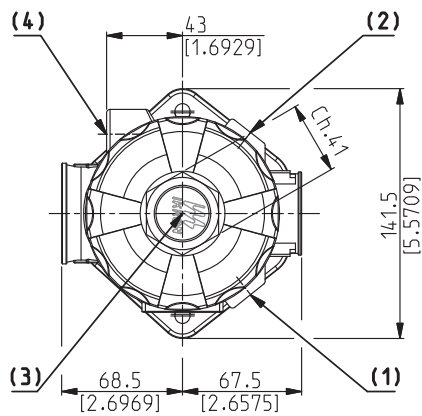
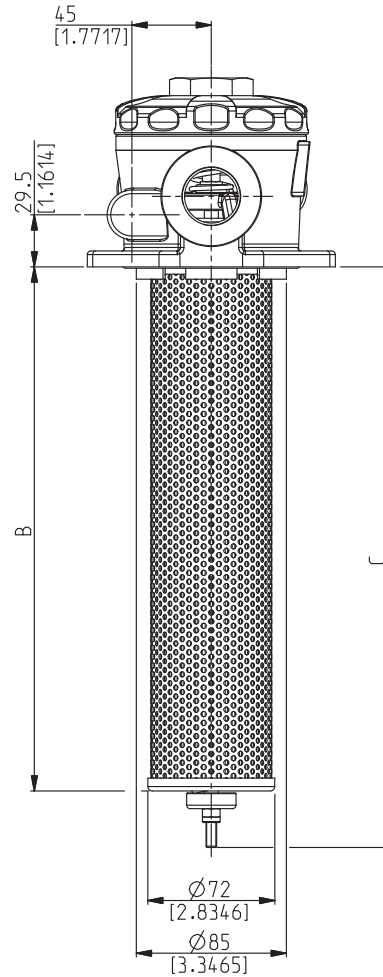
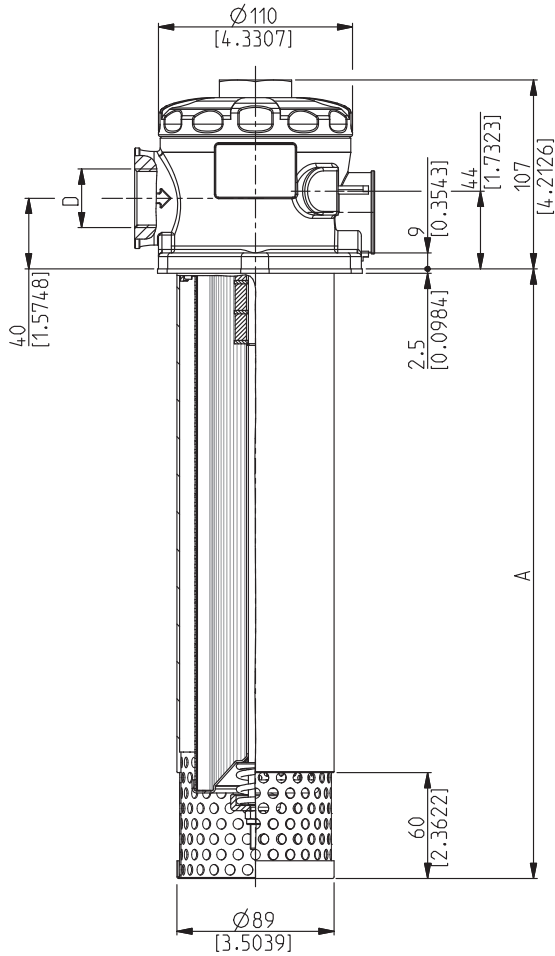
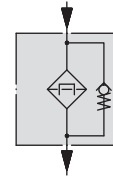
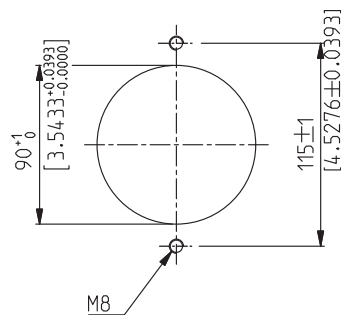
Filter type	Inlet ports			Degree of filtration					
				FG010	FG025	SP010	SP025	MI060	MI125
	GAS (BSPP)	NPT	SAE J514b	Flow Δp= 5.8 psi (0,4 bar) US gpm (l/min)					
HF 570-20.105	G 1/2	1/2 NPT	3/4-16 UNF-2B	7.9 (30)	9.2 (35)	9.2 (35)	10.6 (40)	10.6 (40)	10.6 (40)
	G 3/4	3/4 NPT	1 1/16-12 UNF-2B	15.9 (60)	18.5 (70)	19.8 (75)	21.1 (80)	22.5 (85)	22.5 (85)
	G 1	1 NPT	1 5/16-12 UNF-2B	18.5 (70)	22.5 (85)	26.4 (100)	30.4 (115)	34.3 (130)	35.7 (135)
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	21.1 (80)	26.4 (100)	30.4 (115)	38.3 (145)	47.6 (180)	51.5 (195)
HF 570-20.150	G 1/2	1/2 NPT	3/4-16 UNF-2B	9.2 (35)	10.6 (40)	10.6 (40)	11.9 (45)	11.9 (45)	11.9 (45)
	G 3/4	3/4 NPT	1 1/16-12 UNF-2B	18.5 (70)	19.8 (75)	22.5 (85)	22.5 (85)	22.5 (85)	23.8 (90)
	G 1	1 NPT	1 5/16-12 UNF-2B	23.8 (90)	29.1 (110)	31.7 (120)	34.3 (130)	37.0 (140)	38.3 (145)
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	29.1 (110)	34.3 (130)	39.6 (150)	46.2 (175)	55.5 (210)	58.1 (220)
HF 570-20.200	G 1/2	1/2 NPT	3/4-16 UNF-2B	10.6 (40)	11.9 (45)	11.9 (45)	11.9 (45)	11.9 (45)	11.9 (45)
	G 3/4	3/4 NPT	1 1/16-12 UNF-2B	21.1 (80)	22.5 (85)	22.5 (85)	22.5 (85)	23.8 (90)	25.1 (95)
	G 1	1 NPT	1 5/16-12 UNF-2B	29.1 (110)	31.7 (120)	34.3 (130)	37.0 (140)	38.3 (145)	39.6 (150)
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	35.7 (135)	42.3 (160)	47.6 (180)	54.2 (205)	59.4 (225)	62.1 (235)
HF 570-20.300	G 1/2	1/2 NPT	3/4-16 UNF-2B	11.9 (45)	11.9 (45)	11.9 (45)	11.9 (45)	11.9 (45)	11.9 (45)
	G 3/4	3/4 NPT	1 1/16-12 UNF-2B	22.5 (85)	23.8 (90)	23.8 (90)	23.8 (90)	25.1 (95)	25.1 (95)
	G 1	1 NPT	1 5/16-12 UNF-2B	34.3 (130)	35.7 (135)	37.0 (140)	38.3 (145)	39.6 (150)	40.9 (155)
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	46.2 (175)	52.8 (200)	55.5 (210)	60.8 (230)	63.4 (240)	64.7 (245)
HF 570-30.190 HF 578-30.190	G 1	1 NPT	1 5/16-12 UNF-2B	33.0 (125)	35.7 (135)	35.7 (135)	38.3 (145)	39.6 (150)	40.9 (155)
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	44.9 (170)	51.5 (195)	51.5 (195)	60.8 (230)	63.4 (240)	66.0 (250)
HF 570-30.260 HF 578-30.260	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	51.5 (195)	60.8 (230)	60.8 (230)	79.2 (300)	81.9 (310)	87.2 (330)
	G 1	1 NPT	1 5/16-12 UNF-2B	35.7 (135)	38.3 (145)	38.3 (145)	38.3 (145)	39.6 (150)	40.9 (155)
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	52.8 (200)	58.1 (220)	58.1 (220)	63.4 (240)	64.7 (245)	66.0 (250)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	63.4 (240)	71.3 (270)	71.3 (270)	85.9 (325)	88.5 (335)	92.5 (350)
HF 570-30.465 HF 578-30.465	G 1	1 NPT	1 5/16-12 UNF-2B	38.3 (145)	39.6 (150)	39.6 (150)	39.6 (150)	40.9 (155)	42.3 (160)
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	62.1 (235)	63.4 (240)	64.7 (245)	66.0 (250)	67.4 (255)	68.7 (260)
HF 570-40.210 HF 578-40.210	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	81.9 (310)	87.2 (330)	87.2 (330)	92.5 (350)	93.8 (355)	95.1 (360)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	62.1 (235)	71.3 (270)	74.0 (280)	87.2 (330)	89.8 (340)	92.5 (350)
	G 2	2 NPT	2 1/2-12 UNF-2B	72.6 (275)	88.5 (335)	93.8 (355)	129.4 (490)	134.7 (510)	142.7 (540)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	74.0 (280)	80.6 (305)	83.2 (315)	91.1 (345)	92.5 (350)	95.1 (360)
HF 570-40.290 HF 578-40.290	G 2	2 NPT	2 1/2-12 UNF-2B	92.5 (350)	107.0 (405)	113.6 (430)	141.3 (535)	145.3 (550)	150.6 (570)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	81.9 (310)	87.2 (330)	88.5 (335)	92.5 (350)	95.1 (360)	96.4 (365)
HF 570-40.390 HF 578-40.390	G 2	2 NPT	2 1/2-12 UNF-2B	111.0 (420)	125.5 (475)	129.4 (490)	150.6 (570)	153.2 (580)	155.9 (590)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	85.9 (325)	89.8 (340)	91.1 (345)	93.8 (355)	95.1 (360)	97.7 (370)
HF 570-40.480 HF 578-40.480	G 2	2 NPT	2 1/2-12 UNF-2B	122.8 (465)	134.7 (510)	138.7 (525)	153.2 (580)	155.9 (590)	158.5 (600)

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FLOWS - FILTERS WITH DOUBLE INLET PORT

Filter type	Inlet ports				Degree of filtration					
					FG010	FG025	SP010	SP025	MI060	MI125
					Flow $\Delta p = 5.8 \text{ psi (0,4 bar)}$					
GAS (BSPP)	NPT	SAE J514b	SAE 3000 Nom. dim.	US gpm (l/min)						
HF 578-30.190	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	1 1/4	50.2	60.8	60.8	79.3	81.9	87.2
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	1 1/4	(190)	(230)	(230)	(300)	(310)	(330)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	52.8	63.4	63.4	87.2	92.5	97.7
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	1 1/4	(200)	(240)	(240)	(330)	(350)	(370)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	55.5	66.0	66.0	97.7	105.7	113.6
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	(210)	(250)	(250)	(370)	(400)	(430)
HF 578-30.260	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	1 1/4	63.4	71.3	71.3	87.2	89.8	92.5
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	1 1/4	(240)	(270)	(270)	(330)	(340)	(350)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	66.0	76.6	76.6	97.7	100.4	103.0
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	1 1/4	(250)	(290)	(290)	(370)	(380)	(390)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	71.3	84.5	84.5	111.0	116.2	121.5
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	(270)	(320)	(320)	(420)	(440)	(460)
HF 578-30.465	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	1 1/4	81.9	84.5	84.5	89.8	92.5	95.1
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	1 1/4	(310)	(320)	(320)	(340)	(350)	(360)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	89.8	97.7	97.7	105.7	108.3	111.0
	G 1 1/4	1 1/4 NPT	1 5/8-12 UNF-2B	1 1/4	(340)	(370)	(370)	(400)	(410)	(420)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	100.4	111.0	111.0	126.8	129.4	132.1
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	(380)	(420)	(420)	(480)	(490)	(500)
HF 578-40.210	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	71.3	81.9	87.2	113.6	118.9	124.2
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	(270)	(310)	(330)	(430)	(450)	(470)
	G 2	2 NPT	2 1/2-12 UNF-2B	2	74.0	87.2	92.5	129.4	137.4	142.7
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	(280)	(330)	(350)	(490)	(520)	(540)
	G 2	2 NPT	2 1/2-12 UNF-2B	2	76.6	95.1	103.0	153.2	163.8	177.0
	G 2	2 NPT	2 1/2-12 UNF-2B	2	(290)	(360)	(390)	(580)	(620)	(670)
HF 578-40.290	-	-	-	2 1/2	79.3	110.4	108.3	182.3	200.1	224.5
	-	-	-	2	(300)	(380)	(410)	(690)	(760)	(850)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	81.9	110.4	103.0	124.2	126.8	129.4
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	(310)	(380)	(390)	(470)	(480)	(490)
	G 2	2 NPT	2 1/2-12 UNF-2B	2	92.5	108.3	113.6	142.7	147.9	153.2
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	(350)	(410)	(430)	(540)	(560)	(580)
HF 578-40.390	G 2	2 NPT	2 1/2-12 UNF-2B	2	100.4	124.2	129.4	179.6	187.6	198.1
	G 2	2 NPT	2 1/2-12 UNF-2B	2	(380)	(470)	(490)	(680)	(710)	(750)
	-	-	-	2 1/2	108.3	134.7	145.3	227.2	245.7	269.5
	-	-	-	2	(410)	(510)	(550)	(860)	(930)	(1020)
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	103.0	111.0	116.2	129.4	132.1	134.7
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	(390)	(420)	(440)	(490)	(500)	(510)
HF 578-40.480	G 2	2 NPT	2 1/2-12 UNF-2B	2	113.6	126.8	137.4	153.2	155.9	158.5
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	(430)	(480)	(520)	(580)	(590)	(600)
	G 2	2 NPT	2 1/2-12 UNF-2B	2	126.8	147.9	155.9	198.1	203.4	208.7
	G 2	2 NPT	2 1/2-12 UNF-2B	2	(480)	(560)	(590)	(750)	(770)	(790)
	-	-	-	2 1/2	140.0	174.4	182.3	266.8	285.3	303.8
	-	-	-	2	(530)	(660)	(690)	(1010)	(1080)	(1150)
HF 578-40.480	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	111.0	118.9	121.5	129.4	132.1	134.7
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	(420)	(450)	(460)	(490)	(500)	(510)
	G 2	2 NPT	2 1/2-12 UNF-2B	2	124.2	137.4	140.0	155.9	158.5	161.1
	G 1 1/2	1 1/2 NPT	1 7/8-12 UNF-2B	1 1/2	(470)	(520)	(530)	(590)	(600)	(610)
	G 2	2 NPT	2 1/2-12 UNF-2B	2	145.3	166.4	169.1	206.0	211.3	214.0
	G 2	2 NPT	2 1/2-12 UNF-2B	2	(550)	(630)	(640)	(780)	(800)	(810)
-	-	-	2 1/2	166.4	203.4	211.3	290.6	303.8	317.0	
-	-	-	2	(630)	(770)	(800)	(1100)	(1150)	(1200)	

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HF570-20 DIMENSIONS

RESERVOIR MOUNTING HOLE DIMENSIONS


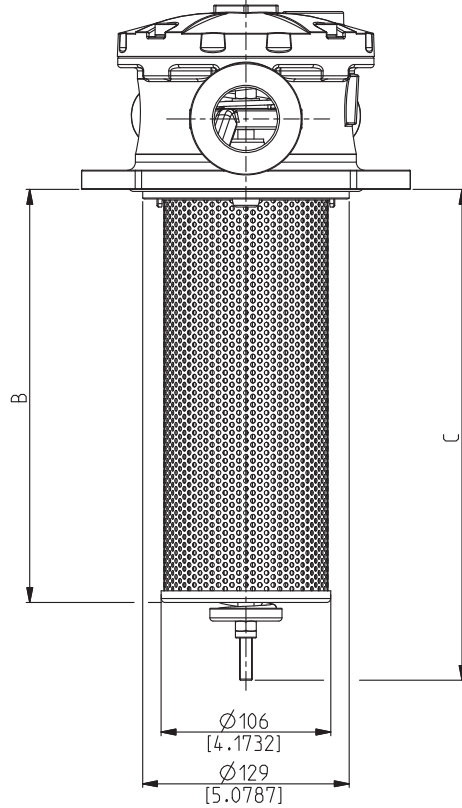
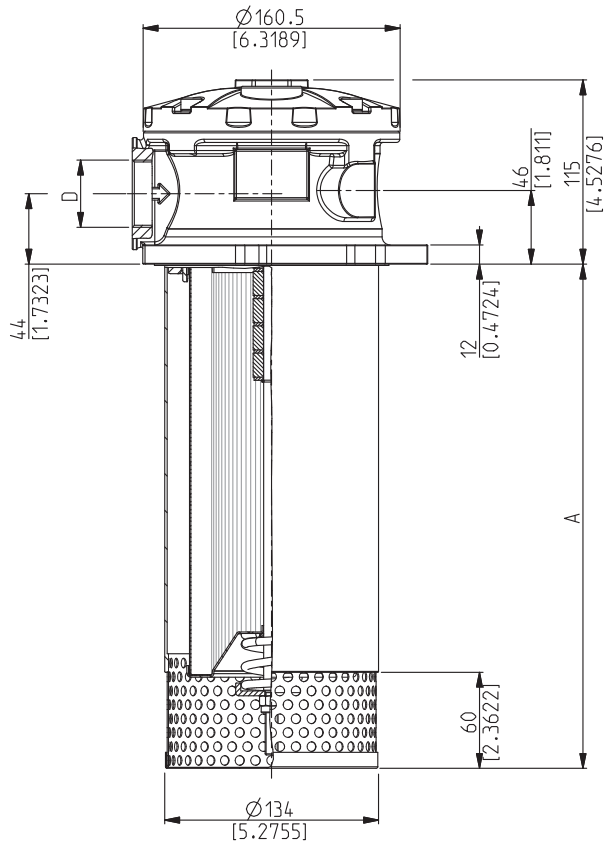
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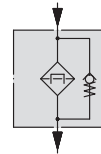
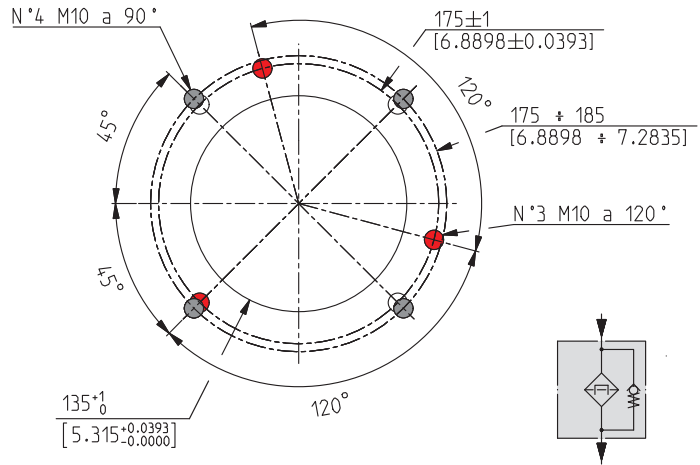
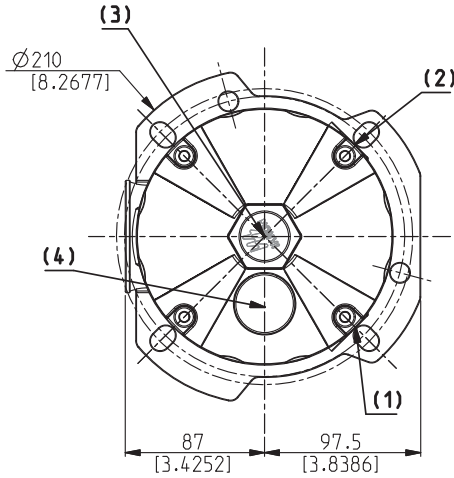
Filter type	Weight	A	B	C	D (GAS-BSP)		(1) (2) (4) (GAS-BSP) Secondary inlet		(1) (2) (3) (GAS-BSP) Indicators		
					Standard	On request	Standard				
HF 570-20.105	2,00 (4.40)	195 (7.677)	102 (4.016)	133 (5.236)	G 3/4	G 1/2 - G 1 G 1 1/4					
HF 570-20.150	2,20 (4.85)		147 (5.787)	178 (7.008)	G 1	G 1/2 - G 3/4 G 1 1/4	G 3/8			G 1/8	
HF 570-20.200	2,40 (5.29)	345 (13.583)	197 (7.756)	228 (8.976)			G 1/2				
HF 570-20.300	2,80 (6.17)		297 (11.693)	328 (12.913)	G 1 1/4	G 1/2 - G 3/4 G 1					

NPT, metric and SAE UN-UNF threads are available (consult our technical department).

HF 570-30 DIMENSIONS



RESERVOIR MOUNTING HOLE DIMENSIONS



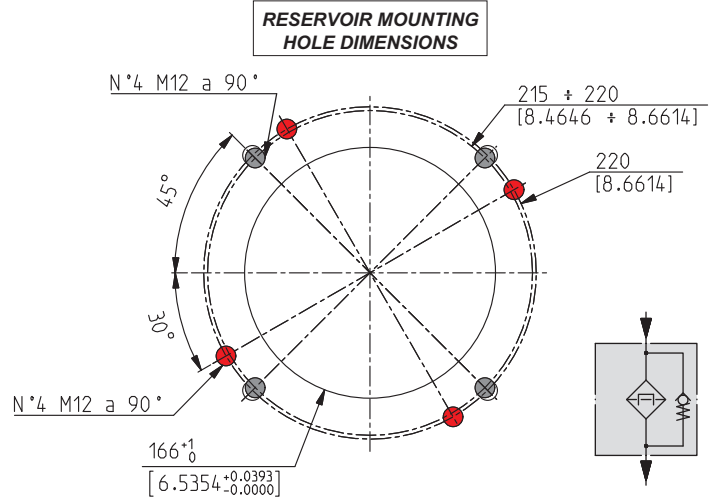
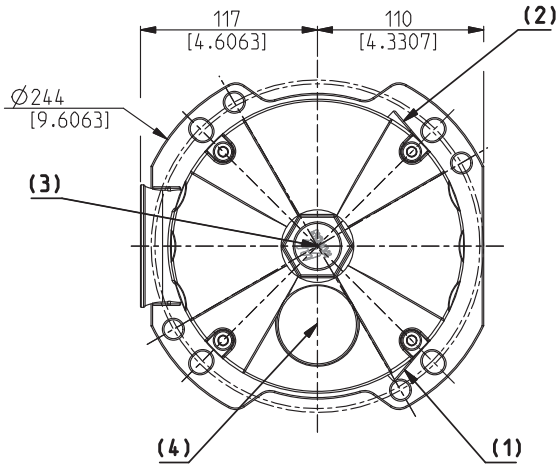
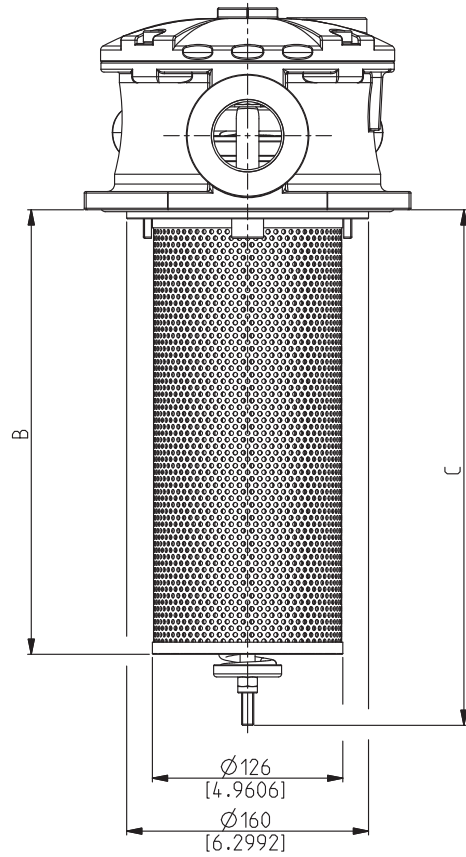
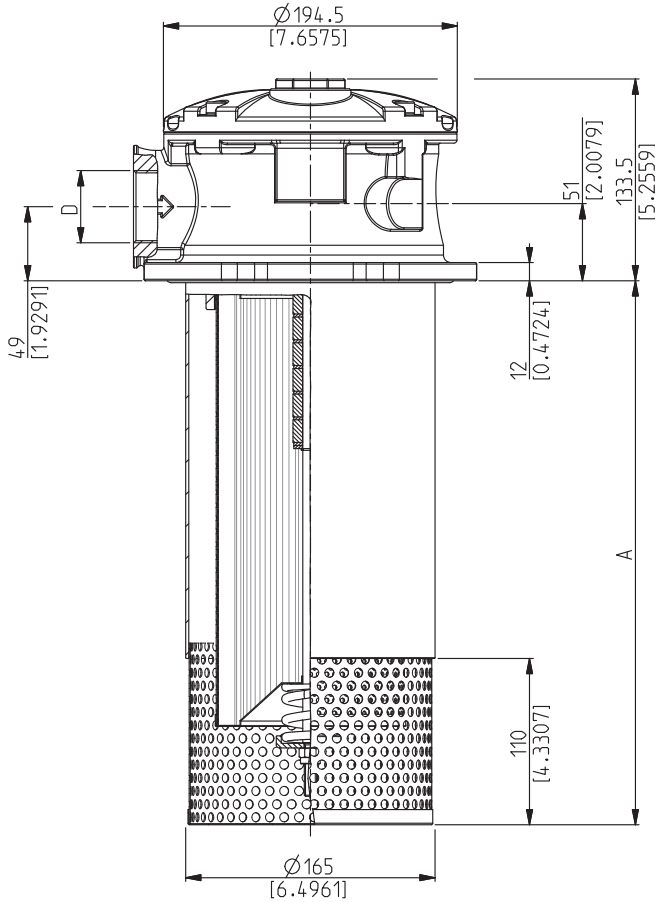
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ICAT_010_002_HF570

Filter type	Weight kg(lbs)	A mm(in)	B mm(in)	C mm(in)	D (GAS - BSPP)		(1) (GAS-BSPP)	(2) (GAS-BSPP)	(3) (GAS-BSPP)	(4) (GAS-BSPP)
					Standard	A richiesta	Secondary inlet	Indicators	Filler cap	
HF 570-30.190	5,30 (11.68)	310 (12.205)	188 (7.402)	233 (9.173)	G 1 1/4	G 1 - G 1 1/2		G 3/8		
HF 570-30.260	5,60 (12.34)		258 (10.157)	303 (11.929)	G 1 1/2	G 1 - G 1 1/4		G 1/2	G 1/8	G 3/4
HF 570-30.465	6,90 (15.21)	515 (20.276)	463 (18.228)	508 (20.000)				G 3/4		

NPT, metric and SAE UN-UNF threads are available (consult our technical department).

HF 570-40 DIMENSIONS



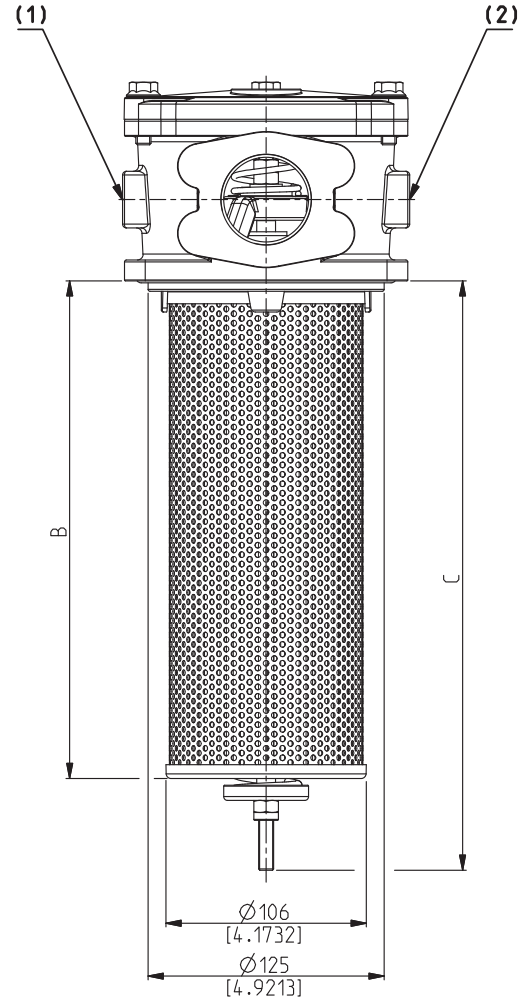
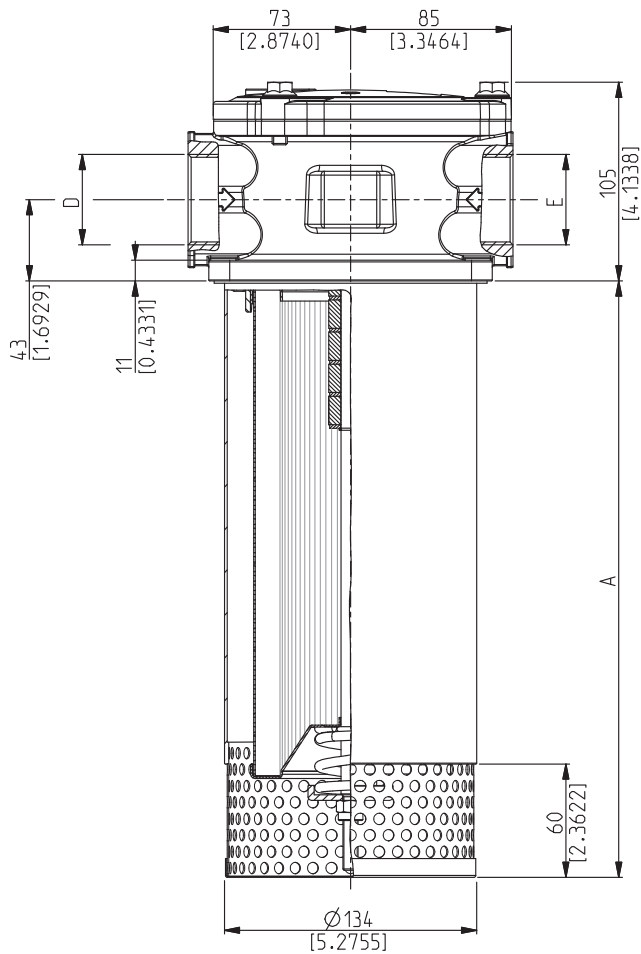
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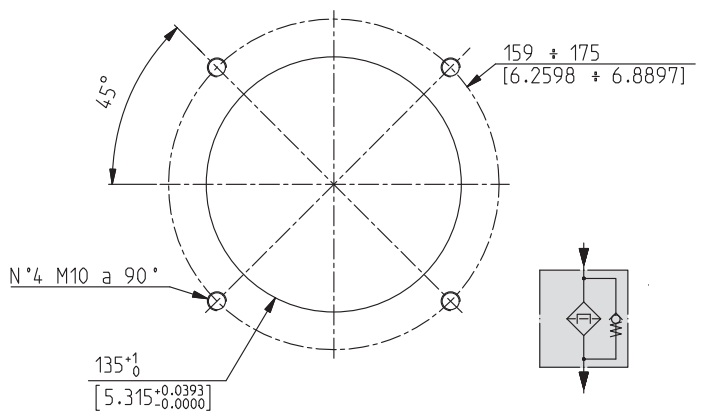
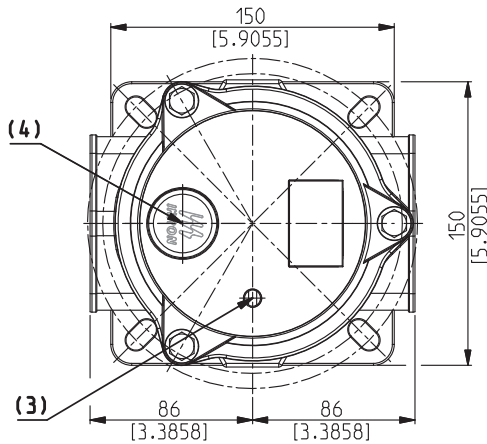
Filter type	Weigth kg(lbs)	A mm(in)	B mm(in)	C mm(in)	D (GAS - BSPP)		(1) (2)	(1) (2) (3)	(4)
					Standard	On request	Secondary inlet	Indicators	Filler cap
HF 570-40.210	7,20 (15.87)	360 (14.173)	215 (8.465)	265 (10.433)	G 1 1/2	G 2	Standard		
HF 570-40.290	7,50 (16.53)		295 (11.614)	345 (13.583)			G 3/8		
HF 570-40.390	9,10 (20.06)	550 (21.653)	395 (15.551)	445 (17.520)	G 2	G 1 1/2	G 1/2 G 3/4	G 1/8	G 3/4
HF 570-40.480	9,80 (21.60)		485 (19.094)	535 (21.063)					

NPT, metric and SAE UN-UNF threads are available (consult our technical department).

HF 578-30 DIMENSIONS



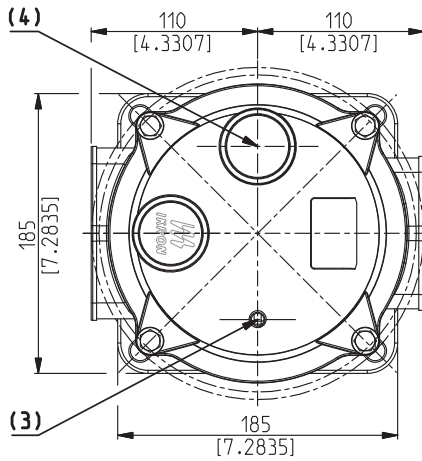
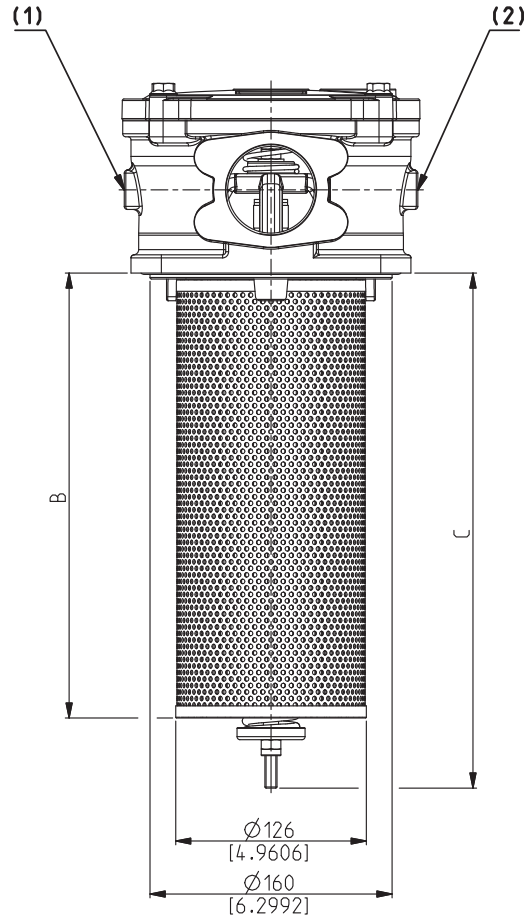
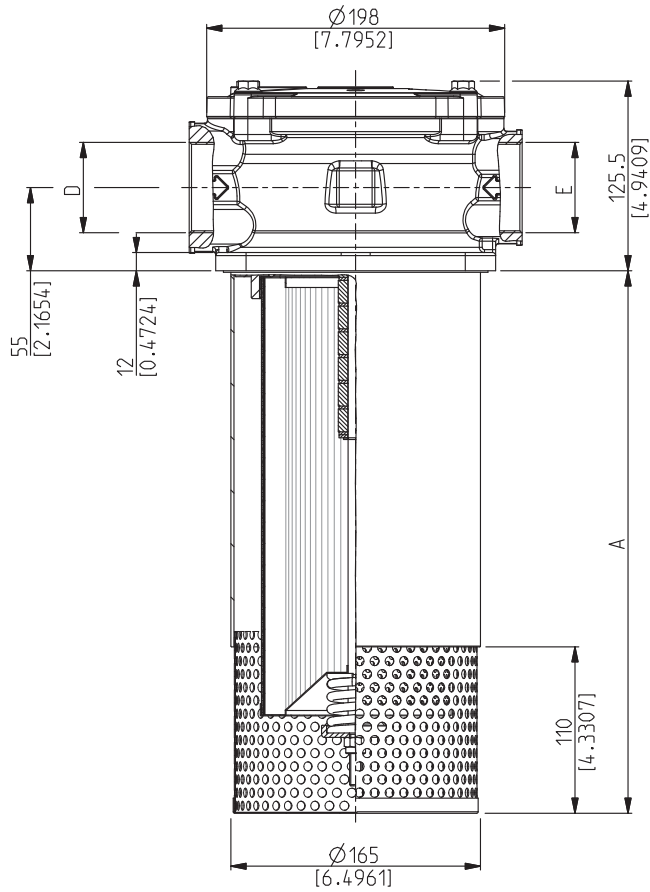
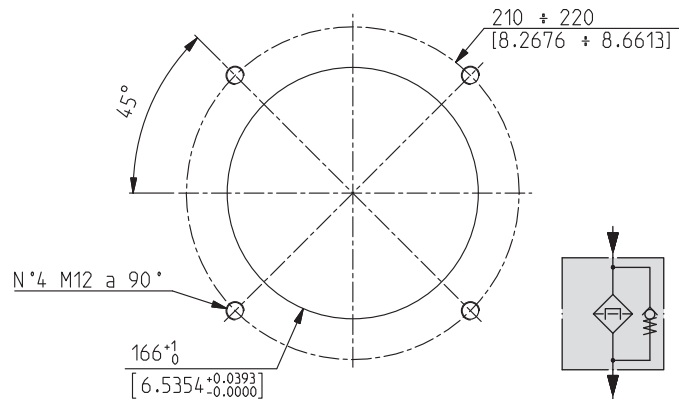
RESERVOIR MOUNTING HOLE DIMENSIONS



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ICAT_010_004_HF570

Filter type	Weight kg(lbs)	A mm(in)	B mm(in)	C mm(in)	D/E (GAS - BSPP)		(1) (2) (GAS-BSPP) Secondary inlet	(1) (2) (3) (GAS-BSPP) Indicators	(4) (GAS-BSPP) Filler cap
					Standard	On request	Standard		
HF 578-30.190	5,30 (11.68)	316 (12.441)	193 (7.598)	242 (9.528)	G 1 1/4	G 1 - G 1 1/2			
HF 578-30.260	5,60 (12.34)		263 (10.354)	312 (12.283)	G 1 1/2	G 1 - G 1 1/4	G 3/8 G 1/2	G 1/8	G 3/4
HF 578-30.465	6,90 (15.21)	521 (20.512)	468 (18.425)	517 (20.354)					

NPT, metric, SAE UN-UNF and SAE 3000 threads are available (consult our technical department).

HF 578-40 DIMENSIONS

RESERVOIR MOUNTING HOLE DIMENSIONS


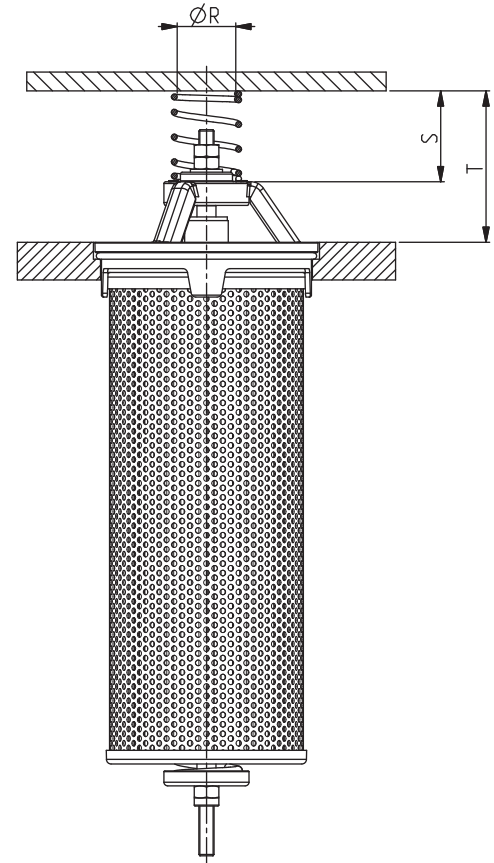
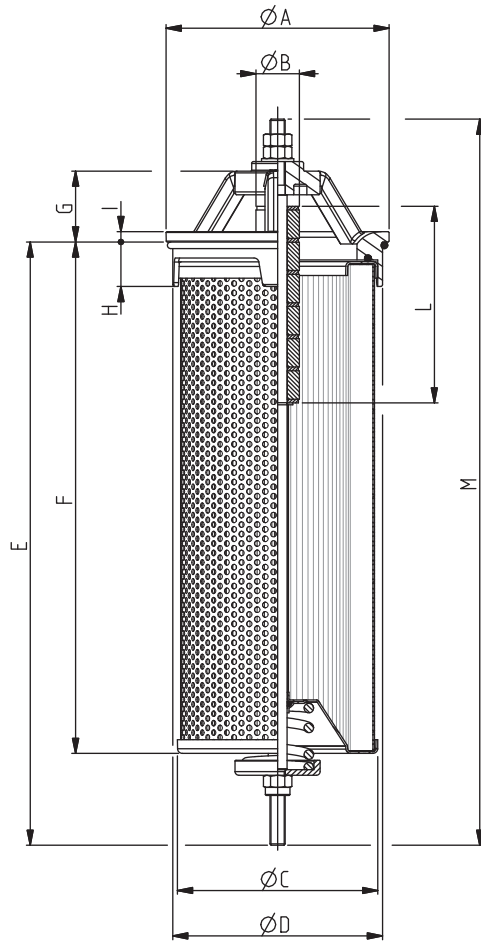
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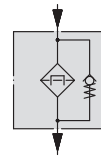
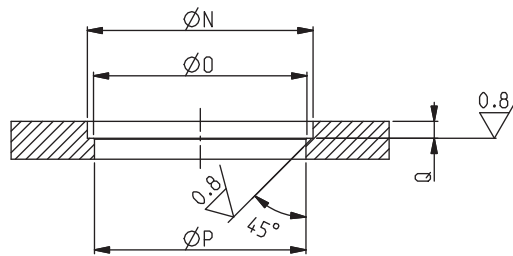
Filter type	Weight kg(lbs)	A mm(in)	B mm(in)	C mm(in)	D/E (GAS - BSPP)		(1) (2)	(1) (2) (3)	(4)
					Standard	On request	(GAS-BSPP) Secondary inlet	(GAS-BSPP) Indicators	(GAS-BSPP) Filler cap
HF 578-40.210	6.90 (15.21)	358 (14.094)	214 (8.425)	260 (10.236)	G 1 1/2	G 2			
HF 578-40.290	7.20 (15.87)		294 (11.575)	340 (13.386)			G 3/8	G 1/8	G 3/4
HF 578-40.390	8.80 (19.40)	548 (21.575)	394 (15.512)	440 (17.323)	G 2	G 1 1/2	G 1/2		
HF 578-40.480	9.50 (20.94)		484 (19.055)	530 (20.866)					

NPT, metric, SAE UN-UNF and SAE 3000 threads are available (consult our technical department).

HF 575 DIMENSIONS



RESERVOIR MOUNTING
HOLE DIMENSIONS

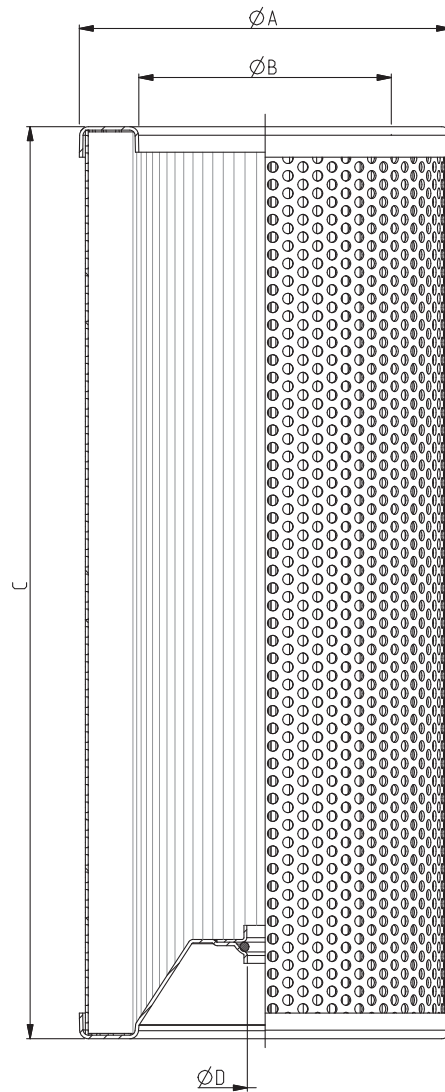


ICAT_010_006_HF570

01/04.2010

Filter type	A	B	C	D	E	F	G	H	I	L	M	ØN	ØO	ØP	Q	ØR	S	T
	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)	mm(in)
HF 575-20.105					145 (5.709)	113 (4.449)					196 (7.717)							
HF 575-20.150					190 (7.480)	158 (6.220)					241 (9.488)	86,5 (3.406)	82,5 (3.248)	81,5 (3.209)	7,5 (0.295)	20 (0.787)	39,5 (1.555)	64,5 (2.539)
HF 575-20.200	85 (3.346)	23 (0.906)	72 (2.835)	80,5 (3.169)	240 (9.449)	208 (8.189)	30 (1.181)	17,5 (0.689)	4,8 (0.189)	70 (2.756)	291 (11.457)							
HF 575-20.300					340 (13.386)	308 (12.126)					391 (15.393)							
HF 575-30.190					246 (9.685)	200 (7.874)					314 (12.362)							
HF 575-30.260	118 (4.646)	23 (0.906)	106 (4.173)	111 (4.370)	316 (12.441)	270 (10.630)	40,5 (1.594)	23,5 (0.925)	5,5 (0.217)	104 (4.094)	384 (15.118)	119,5 (4.705)	113 (4.449)	112 (4.409)	9 (0.354)	31 (1.220)	45 (1.775)	80 (3.150)
HF 575-30.465					521 (20.512)	475 (18.701)					589 (23.189)							
HF 575-40.210					275 (10.827)	225 (8.858)					358 (14.094)							
HF 575-40.290					355 (13.976)	305 (12.008)					438 (17.244)							
HF 575-40.390	150 (5.905)	23 (0.906)	126 (4.961)	138 (5.433)	455 (17.913)	405 (15.945)	57,5 (2.264)	29 (1.142)	7 (0.276)	159 (6.260)	538 (21.181)	151,5 (5.965)	140 (5.512)	139 (5.472)	12,5 (0.492)	31 (1.220)	49 (1.929)	100 (3.937)
HF 575-40.480					545 (21.457)	495 (19.488)					628 (24.724)							

ELEMENTS DIMENSIONS FOR HF 570 / HF 575 / HF 578



ICAT_010_007_HF570

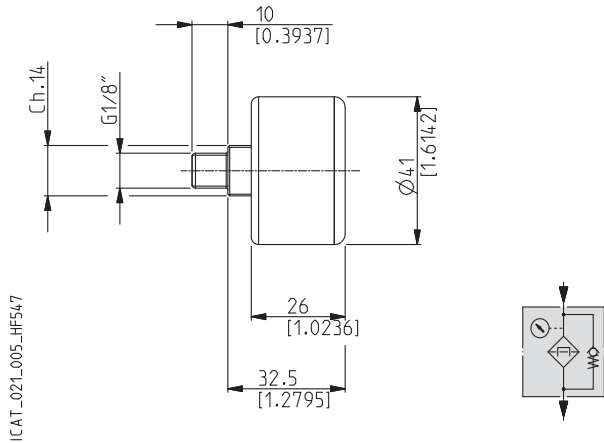
Element type	Ø A	Ø B	C	ØD	Filtering surface		
					FG	MI	SP
	mm(in)	mm(in)	mm(in)	mm(in)	cm ² (in ²)	cm ² (in ²)	cm ² (in ²)
HEK08-20.105			105 (4.134)		1175 (182.125)	620 (96.100)	1273 (197.315)
HEK08-20.150			150 (5.909)		1693 (262.416)	894 (138.570)	1835 (284.426)
HEK08-20.200			200 (7.874)		2269 (351.696)	1198 (185.690)	2459 (381.146)
HEK08-20.300			300 (11.811)		3421 (530.256)	1806 (279.931)	3707 (574.586)
HEK08-30.190			190 (7.480)		3250 (503.751)	1563 (242.266)	3949 (612.096)
HEK08-30.260	72 (2.835)	45 (1.772)	260 (10.236)	8 (0.315)	4467 (692.386)	2149 (333.096)	5428 (841.342)
HEK08-30.465			465 (18.307)		8030 (1244.652)	3862 (598.611)	9757 (1512.338)
HEK08-40.210			210 (8.268)	10 (0.394)	4372 (677.661)	2231 (345.806)	5875 (910.627)
HEK08-40.290			290 (11.417)		6061 (939.457)	3094 (479.571)	8145 (1262.478)
HEK08-40.390	126 (4.961)	92 (3.622)	390 (15.354)		8173 (1266.818)	4172 (646.661)	10983 (1702.368)
HEK08-40.480			480 (18.898)		10074 (1561.473)	5142 (797.012)	13537 (2098.239)

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INDICATORS

REAR MANOMETER

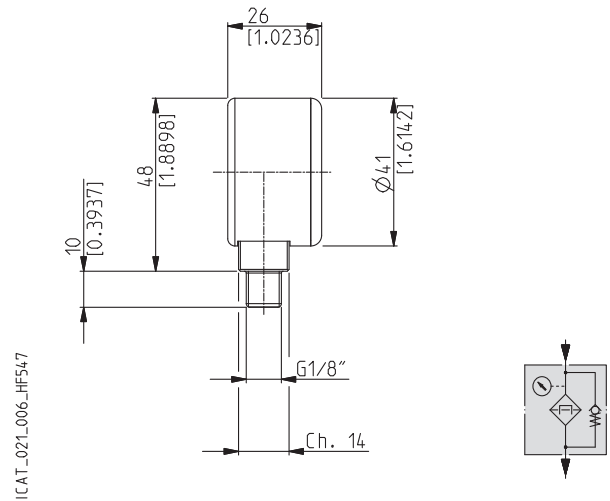
Code: **M**



Scale 0 + +145 psi (0 + +10 bar)

RADIAL MANOMETER

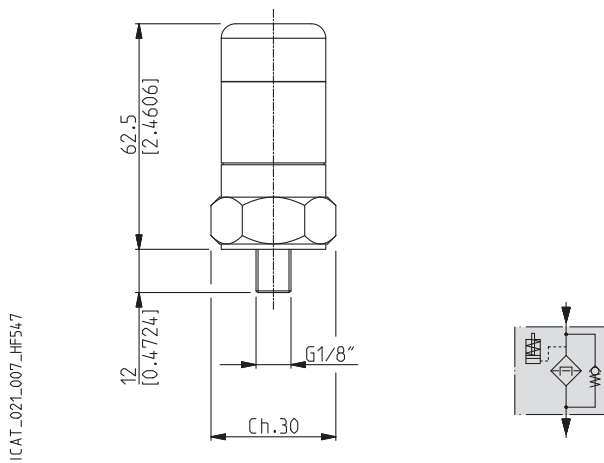
Code: **N**



Scale 0 + +145 psi (0 + +10 bar)

VISUAL INDICATOR

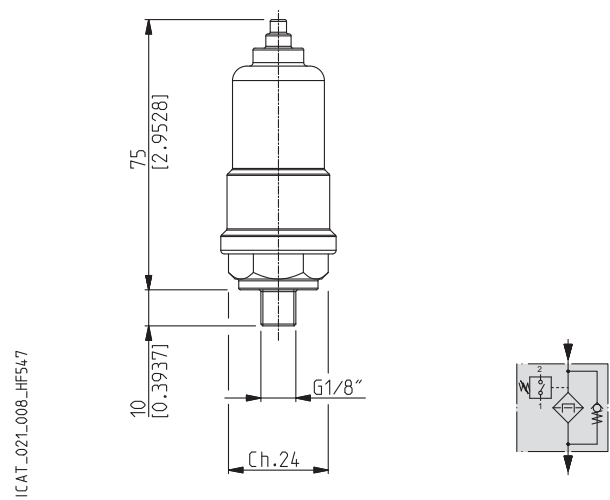
Code: **P**



Pressure setting 21.8 psi (1,5 bar)

ELECTRICAL INDICATOR

Code: **S**



Pressure setting	21.8 psi (1,5 bar)
Max. working voltage	220 VCA 30 VCC
Max. working current	0,5 A (resistivity) 0,2 A (inductive)
Protection class	IP65
Contacts	N.O.contact

01/04:2010

ICAT_021_007_HF547

ICAT_021_008_HF547

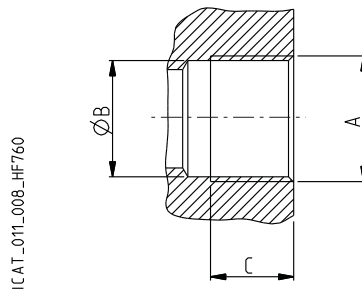
INLET PORTS

Filter type	PORTS TYPE					
	Nominal size	Gas BSPP	NPT	SAE ODT	Split SSM (3000 PSI)	Split SSS (3000 PSI)
HF 570-20	1/2"	GD	ND	OB	--	--
	3/4"	GE	NE	OD	--	--
	1"	GF	NF	OF	--	--
	1" 1/4	GG	NG	OG	--	--
HF 570-30	1"	GF	NF	OF	--	--
	1" 1/4	GG	NG	OG	--	--
	1" 1/2	GH	NH	OH	--	--
HF 578-30	1"	GF	NF	OF	--	--
	1" 1/4	GG	NG	OG	MD	SD
	1" 1/2	GH	NH	OH	ME	SE
HF 570-40	1" 1/2	GH	NH	OH	--	--
	2"	GL	NL	OI	--	--
HF 578-40	1" 1/2	GH	NH	OH	ME	SE
	2"	GL	NL	OI	MF	SF
	2" 1/2	-	-	-	MG	SG

GAS THREAD

BSPP

Cylindrical GAS thread (55°) in accordance with UNI - ISO 228



CODE	Nominal size	A	Ø B		C	Nm (lbf in)
			mm	(in)		
GD	1/2"	G 1/2	19	(0.748)	17	20 ⁺¹ (177 ÷ 186)
GE	3/4"	G 3/4	24,5	(0.965)	20	30 ^{+2,5} (266 ÷ 288)
GF	1"	G 1	30,5	(1.201)	22	50 ^{+2,5} (443 ÷ 465)
GG	1" 1/4	G 1 1/4	39	(1.535)	24	60 ⁺⁵ (531 ÷ 575)
GH	1" 1/2	G 1 1/2	45	(1.772)	26	70 ⁺⁵ (620 ÷ 664)
GL	2"	G 2	57	(2.244)	32	150 ⁺¹⁰ (1328 ÷ 1416)

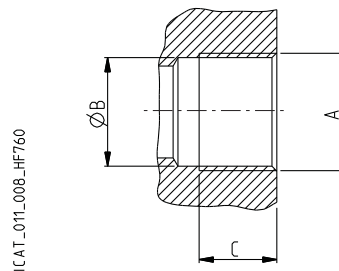
01/04.2010

INLET PORTS

NPT THREAD

NPT

NPT thread (60°) in accordance with ANSI - ASME B1-20

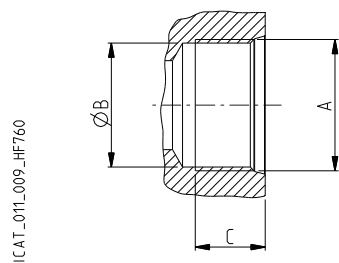


CODE	Nominal size	A	Ø B	C	Nm (lbf in)
			mm (in)	mm (in)	
ND	1/2"	1/2 NPT	18 (0.707)	13 (0.512)	10 ⁺¹ (88 ÷ 97)
NE	3/4"	3/4 NPT	23,5 (0.925)	14 (0.551)	25 ⁺¹ (221 ÷ 230)
NF	1"	1 NPT	29,5 (1.161)	17 (0.669)	30 ^{+2,5} (265 ÷ 287)
NG	1" 1/4	1 1/4 NPT	38,5 (1.516)	18 (0.709)	50 ^{+2,5} (442 ÷ 464)
NH	1" 1/2	1 1/2 NPT	44 (1.732)	18,5 (0.728)	70 ⁺⁵ (620 ÷ 664)
NL	2"	2 NPT	57 (2.244)	19,5 (0.768)	130 ⁺⁵ (1150 ÷ 1195)

SAE J514 THREAD

ODT

American thread UNC-UNF 60° in accordance with ANSI B 1.1



CODE	Nominal size	A	Ø B	C	Nm (lbf in)
			mm (in)	mm (in)	
OB	1/2"	3/4" - 16 UNF - 2B	17,3 (0.681)	15 (0.591)	20 ⁺¹ (177 ÷ 186)
OD	3/4"	1 1/16" - 12 UNF - 2B	24,7 (0.972)	20 (0.787)	40 ^{+2,5} (354 ÷ 376)
OF	1"	1 5/16" - 12 UNF - 2B	30,5 (1.201)	20 (0.787)	60 ⁺⁵ (531 ÷ 575)
OG	1" 1/4	1 5/8" - 12 UNF - 2B	39,1 (1.539)	20 (0.787)	70 ⁺⁵ (620 ÷ 664)
OH	1" 1/2	1 7/8" - 12 UNF - 2B	45,3 (1.783)	20 (0.787)	100 ⁺⁵ (885 ÷ 929)
OI	2"	2 1/2" - 12 UNF - 2B	61,3 (2.413)	20 (0.787)	150 ⁺¹⁰ (1328 ÷ 1416)

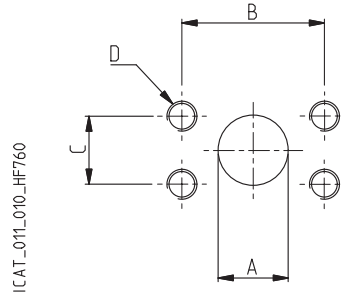
01/04.2010

INLET PORTS

SAE FLANGED PORTS J518 - Standard pressure series 3000 PSI

SSM

Metric thread ISO 60° in accordance with ISO/R 262

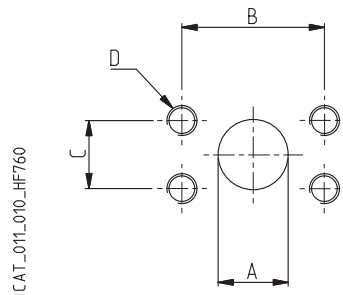


CODE	Nominal size	Ø A		B		C		D		Nm (lbf in)
		mm (in)	mm (in)	mm (in)	mm (in)	mm (in)	Thread Depth mm(in)			
MD	1 1/4	31,8 (1.252)	58,7 (2.311)	30,2 (1.189)	M 10 15,0 (0.591)	20 ⁺¹ (177 ÷ 186)				
ME	1 1/2	38,1 (1.252)	69,8 (2.748)	35,7 (1.406)	M 12 18,0 (0.709)	30 ^{+2,5} (265 ÷ 287)				
MF	2	50,8 (2.000)	77,8 (3.063)	42,9 (1.689)	M 12 18,0 (0.709)	30 ^{+2,5} (265 ÷ 287)				
MG	2 1/2	64 (2.520)	88,9 (3.500)	50,8 (2.000)	M 12 18,0 (0.709)	30 ^{+2,5} (265 ÷ 287)				

SAE FLANGED PORTS J518 - Standard pressure series 3000 PSI

SSS

American thread UNC-UNF 60° in accordance with ANSI B 1.1



CODE	Nominal size	Ø A		B		C		D		Nm (lbf in)
		mm (in)	mm (in)	mm (in)	mm (in)	Thread Depth mm(in)				
SD	1 1/4	31,8 (1.252)	58,7 (2.311)	30,2 (1.189)	7/16-14 UNC-2B 16,0 (0.630)	30 ^{+2,5} (265 ÷ 287)				
SE	1 1/2	38,1 (1.252)	69,8 (2.748)	35,7 (1.406)	1/2-13 UNC-2B 18,0 (0.709)	30 ^{+2,5} (265 ÷ 287)				
SF	2	50,8 (2.000)	77,8 (3.063)	42,9 (1.689)	1/2-13 UNC-2B 18,0 (0.709)	30 ^{+2,5} (265 ÷ 287)				
SG	2 1/2	64 (2.520)	88,9 (3.500)	50,8 (2.000)	1/2-13 UNC -2B 18,0 (0.709)	30 ^{+2,5} (265 ÷ 287)				

01/04.2010

HF 575 ASSEMBLY AND REPLACING ELEMENT INSTRUCTIONS

MOUNTING

Once you have checked the integrity of the filter inside its package, proceed as follows:

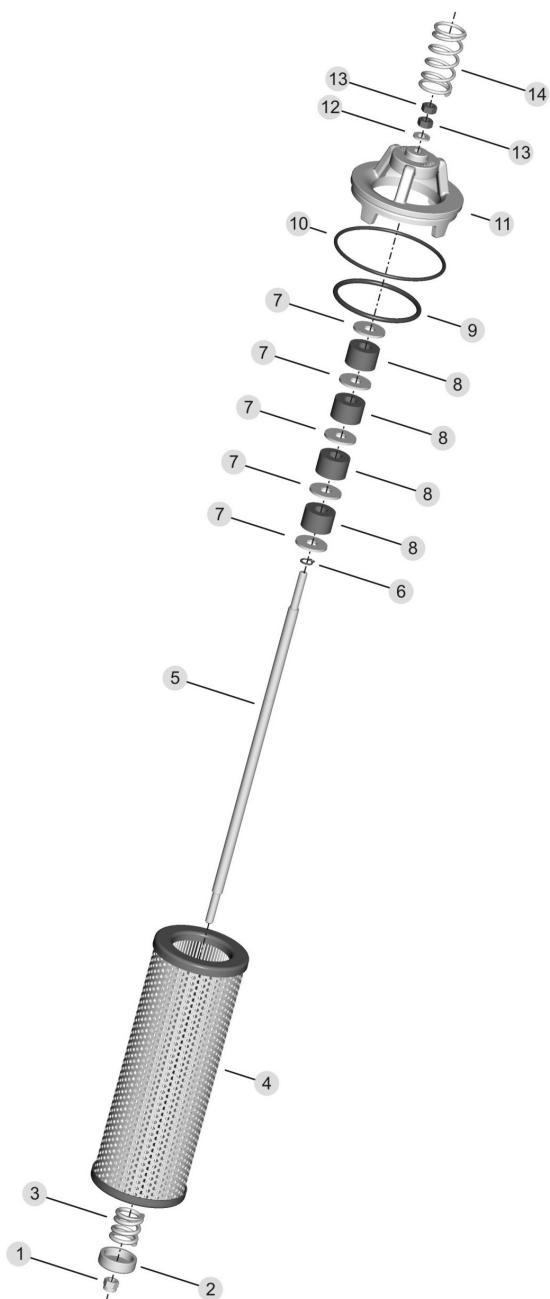
- A Take off the filter packaging.
- B Oil the perch gasket (pos.10).
- C Remove the tank's cover.
- D Insert the filter in the dedicated seat of the tank.
- E Insert the placement spring between the tank's perch and cover, as indicated on page 19.
- F Close the tank's cover.
- G Start the circuit for a few minutes.
- H Make sure there are no leaks.

REPLACING ELEMENT

Once the working hour limit indicated in the maintenance instructions of the system is reached or when the clogging indicators point out the limit pressure drop created inside the filter, the element must be replaced. Pay attention to the drainage of hydraulic oil, therefore prepare suitable containers to collect it.

Proceed as follows:

- A Stop the system in "machine stopped" status.
- B Secure any shut-off valves on the Hydraulic circuit.
- C Remove the tank's cover and the placement spring (pos.14), so extract the filter.
- D Unscrew the stop-diskette nut (pos.1), extract the push-diskette (pos.2) and the by-pass spring (pos.3).
- E Remove the clogged element (pos.4) from the perch (pos.11); if there is a magnetic set (pos.7 - pos.8) remove the accumulated brassy contaminant.
- F Check out that the O-rings (pos.9 - pos.10) are not damaged, otherwise substitute and replace them correctly.
- G Insert the new filtering element (pos.4) on the perch (pos.11) pre-emptively lubricating the O-ring placed in the element inner cap.
- H Position the by-pass spring (pos.3), the push-spring diskette (pos.2) and the stop-diskette (pos.1). For a correct by-pass calibration, make sure that the push-spring diskette gets in contact with the beat in the central bar (pos. 5).
- I Put the filter with its placement spring (pos.14) in the tank.
- L Close the tank's cover.
- M Re-open the eventual valves closed before.
- N Start the machine for a few minutes.
- O Make sure there are no leaks.



Pos. Description

- | | |
|----|----------------------|
| 1 | Stop-diskette nut |
| 2 | Push-spring diskette |
| 3 | By-pass spring |
| 4 | Filtering element |
| 5 | Central bar |
| 6 | Elastic ring |
| 7 | Large band washer |
| 8 | Magnetic set |
| 9 | Element's O-ring |
| 10 | Perch's O-ring |
| 11 | Perch |
| 12 | Washer |
| 13 | Stop-perch diskette |
| 14 | Placement spring |

When ordering spare parts, always specify the reference number, the filter code and quantity.

Example: Spare parts pos. 6 - HHF38900 - Qty 3

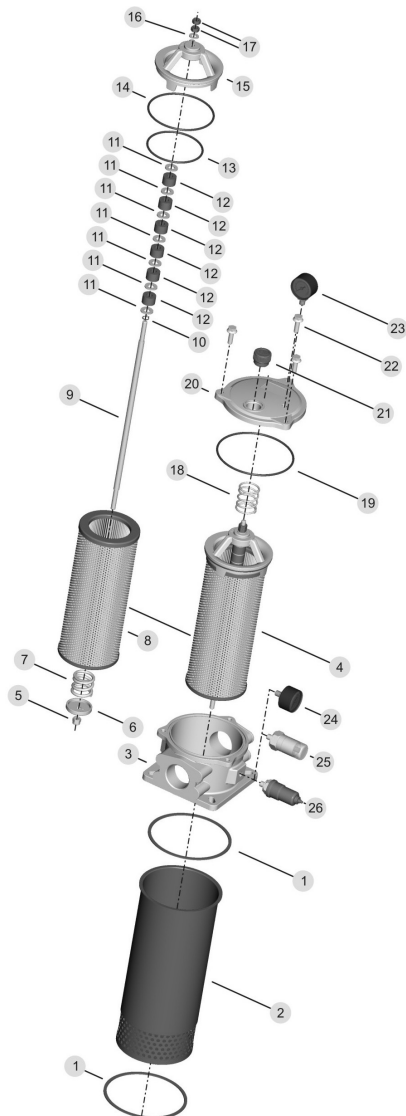
01/04.2010

HF 570 AND HF 578 ASSEMBLY AND REPLACING ELEMENT INSTRUCTIONS

MOUNTING

Once you have checked the integrity of the filter inside its package, proceed as follow:

- A Take off the protection cap from the inlet port.
- B Secure the filter in the tank through the holes in the body's flange (pos.3) tightening them as follows:
 HF 570-20 = 44 lbf in (5 Nm)
 HF 570-30 e HF578-30 = 62 lbf in (7 Nm)
 HF 570-40 e HF578-40 = 88 lbf in (10 Nm)
- C Connect the piping of the return line to the inlet port using the tightening torque indicated on pages 22, 23 and 24.
- D In the presence of secondary inlet ports, prepare the required connections.
- E If the filter has a clogging indicator (pos.23 - 24 - 25 - 26), take the protection cap off and screw the indicator in the dedicated seat, then tighten to a tightening torque of 266 lbf in (30 Nm). If the indicator is electric, complete the required connections.
- F Start the circuit for a few minutes.
- G Make sure there are no leaks.



REPLACING ELEMENT

Once the working hour limit indicated in the maintenance instructions of the system is reached or when the clogging indicators point out the limit pressure drop created inside the filter, the element must be replaced. Pay attention to the drainage of hydraulic oil, therefore prepare suitable containers to collect it.

Proceed as follows:

- A Stop the system in "machine stopped" status.
- B Secure any shut-off valves on the hydraulic circuit.
- C Unscrew the cover's screw (pos.22) (except HF570-20), take off the closing cap (pos.20) and extract the perch part with the "HF 575" element (pos.4).
- D Unscrew the stop-diskette nut (pos.5), extract the push-spring diskette (pos.6) and the by-pass spring (pos.7).
- E Remove the clogged element (pos.8) from the perch (pos.15); if there is a magnetic set (pos.11 - pos.12) remove the accumulated brassy contaminant.
- F Check out that the O-ring (pos.13 - pos.14) are not damaged, otherwise replace them and consequently position the new ones correctly.
- G Insert the new filtering element (pos.8) on the perch (pos.15) pre-emptively lubricating the O-Ring placed in the element inner cap.
- H Position the by-pass spring (pos.7), the push-spring diskette (pos.6) and the stop-diskette nut (pos.5). For a correct by-pass calibration, make sure that push-spring diskette gets in contact with the beat in the central bar (pos.9).
- I Put the perch part with the "HF 575" element (pos.4) inside the filter's body (pos.3).
- L Check out that the O-ring (pos.19) is not damaged, otherwise replace it and consequently position the new one correctly.
- M Insert the placement spring (pos.18) in the dedicated seat of the filter's cover (pos.20), re-assemble it screwing the fixing screws (pos.22) with a tightening torque of 44 lbf in (5 Nm).
- N Re-open the eventual valves closed before.
- O Start the machine for a few minutes.
- P Make sure there are no leaks.

Pos.	Description
1	Filter's body seal
2	Diffuser
3	Filter's body
4	Perch with element
5	Stop-diskette nut
6	Push-spring diskette
7	By-pass spring
8	Filtering element
9	Central bar
10	Elastic ring
11	large band washer
12	Magnetic set
13	Element's O-ring

Pos.	Description
14	Perch's O-ring
15	Perch
16	Washer
17	Stop-perch nut
18	Placement spring
19	Cover's O-ring
20	Closing cap
21	Filter cap
22	Cover's fixing screws
23	Radial manometer
24	Rear manometer
25	Visual indicator
26	Electrical indicator

When ordering spare parts, always specify the reference number, the filter code and quantity. Example: Spare parts pos. 10 - HHG34101 - Qty 3

01/04.2010

HOW TO ORDER A COMPLETE FILTER HF570

1	2	3	4	5	6	7	8		
HF570-	20.105	- AS	- FG010	- B17	- GE	- B	- H	- R	-
9	10	11	12	13	14				
XA	- GA	- M	- YB	- GC	- C				

1	Filter type	CODE
	See table from pag. 14 to pag. 16	HF570..

2	Filtering surface	CODE
	Standard	AS

3	Degree of filtration	CODE
	10 [µm] Micro-fibre glass	FG010
	25 [µm] Micro-fibre glass	FG025
	60 [µm] Stainless steel wire mesh	MI060
	125[µm] Stainless steel wire mesh	MI125
	10 [µm] Cellulose	SP010
	25 [µm] Cellulose	SP025

4	By-pass setting valve	CODE
	With By-pass setting valve 25 [psi] (1,7 [bar])	B17

5	Inlet port	CODE
	GAS threads (BSPP)	
	G 1/2	GD
	G 3/4	GE
	G 1	GF
	G 1 1/4	GG
	G 1 1/2	GH
	G 2	GL
	NPT threads	
	1/2	ND
	3/4	NE
	1	NF
	1 1/4	NG
	1 1/2	NH
	2	NL
	SAE threads ODT	
	1/2	OB
	3/4	OD
	1	OF
	1 1/4	OG
	1 1/2	OH
	2	OI
6	Seals	CODE
	Buna	B
	Viton	V

7	Filler cap	CODE
	Without	H
	With filler cap (only for HF570-30 and HF570-40)	L

8	Magnetic set	CODE
	With magnetic set	R
	Without	Z

9	Indicators arranged	CODE
	Without	XN
	On the housing - right (1)	XA
	On the housing - left (2)	XB
	On the cover (3)	XD

10	Indicators' ports dimensions	CODE
	GAS threads (BSPP)	
	G 1/8	GA
	G 1/8 with plug	DA

11	Indicators	CODE
	Without	G
	Manometer - rear connection	M
	Manometer - radial connection	N
	Visual indicator	P
	Electrical indicator	S

12	Secondary ports	CODE
	Without	YN
	On the housing - right (1)	YA
	On the housing - left (2)	YB
	On the housing - front-left (4) (only for HF570-20)	YC

13	Secondary ports dimensions	CODE
	G 3/8	GC
	G 1/2	GD
	G 3/4 (only for HF570-30 and HF570-40)	GE

14	Diffusor	CODE
	Without	C
	With Diffusor	D

01/04.2010

<input checked="" type="checkbox"/>	Standard	<input type="checkbox"/>	On request
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HOW TO ORDER A COMPLETE FILTER HF578

1	2	3	4	5	6	7	8
HF578-	40.480	- AS	- FG010	- B17	- MG / MF	- B	- H
9	10	11	12	13	14	15	
R	- XA	- GA	- M	- YA	- GD	- D	

1	Filter type	CODE
	See table from pag. 17 to pag. 18	HF578..
2	Filtering surface	CODE
	Standard	AS
3	Degree of filtration	CODE
	10 [µm] Micro-fibre glass	FG010
	25 [µm] Micro-fibre glass	FG025
	60 [µm] Stainless steel wire mesh	MI060
	125[µm] Stainless steel wire mesh	MI125
	10 [µm] Cellulose	SP010
	25 [µm] Cellulose	SP025
4	By-pass setting valve	CODE
	With By-pass setting valve 25 [psi] (1,7 [bar])	B17
5	Main inlet port	CODE
6	Supplementary inlet port	CODE
	GAS threads (BSPP)	
	G 1 1/4	GG
	G 1 1/2	GH
	G 2	GL
	NPT threads	
	1 1/4	NG
	1 1/2	NH
	2	NL
	SAE threads ODT	
	1 1/4	OG
	1 1/2	OH
	2	OI
	Flanged SAE (SSM) - 3000 PSI	
	1 1/4	MD
	1 1/2	ME
	2	MF
	2 1/2 (only for main inlet port HF 578-40)	MG
	Flanged SAE (SSS) - 3000 PSI	
	1 1/4	SD
	1 1/2	SE
	2	SF
	2 1/2 (only for main inlet port HF 578-40)	SG
	Only for supplementary inlet port	
	Blind unmachined port	00

7	Seals	CODE
	Buna	B
	Viton	V
8	Filler cap	CODE
	Without	H
	With filler cap	L
9	Magnetic set	CODE
	With magnetic set	R
	Without	Z
10	Indicators arranged	CODE
	Without	XN
	On the housing - right (1)	XA
	On the housing - left (2)	XB
	On the cover (3)	XD
11	Indicators' ports dimensions	CODE
	GAS threads (BSPP)	
	G 1/8	GA
	G 1/8 with plug	DA
12	Indicators	CODE
	Without	G
	Manometer - rear connection	M
	Manometer - radial connection	N
	Visual indicator	P
	Electrical indicator	S
13	Secondary ports	CODE
	Without	YN
	On the housing - right (1)	YA
	On the housing - left (2)	YB
14	Secondary ports dimensions	CODE
	G 3/8	GC
	G 1/2	GD
15	Diffusor	CODE
	Without	C
	With Diffusor	D

 Standard

 On request

01/04.2010

HOW TO ORDER A COMPLETE FILTER HF575

1	2	3	4	5	6
HF575-	20.105	- AS	- FG010	- B17	- B - R

1	Filter type	CODE
	See table pag. 19	HF575..

2	Filtering surface	CODE
	Standard	AS

3	Degree of filtration	CODE
	10 [µm] Micro-fibre glass	FG010
	25 [µm] Micro-fibre glass	FG025
	60 [µm] Stainless steel wire mesh	MI060
	125[µm] Stainless steel wire mesh	MI125
	10 [µm] Cellulose	SP010
	25 [µm] Cellulose	SP025

4	By-pass setting valve	CODE
	With By-pass setting valve 25 [psi] (1,7 [bar])	B17

5	Seals	CODE
	Buna	B
	Viton	V

6	Magnetic set	CODE
	With magnetic set	R
	Without	Z

 Standard

 On request

HOW TO ORDER A REPLACEMENT ELEMENT

1	2	3	4
HEK08-	20.105	-	AS
		-	FG010
			-
			B

1	Element type	CODE
	See table pag. 20	HE K08..

2	Filtering surface	CODE
	Standard	AS

3	Degree of filtration	CODE
	10 [µm] Micro-fibre glass	FG010
	25 [µm] Micro-fibre glass	FG025
	60 [µm] Stainless steel wire mesh	MI060
	125[µm] Stainless steel wire mesh	MI125
	10 [µm] Cellulose	SP010
	25 [µm] Cellulose	SP025

4	Seals	CODE
	Buna	B
	Viton	V

Standard
 On request

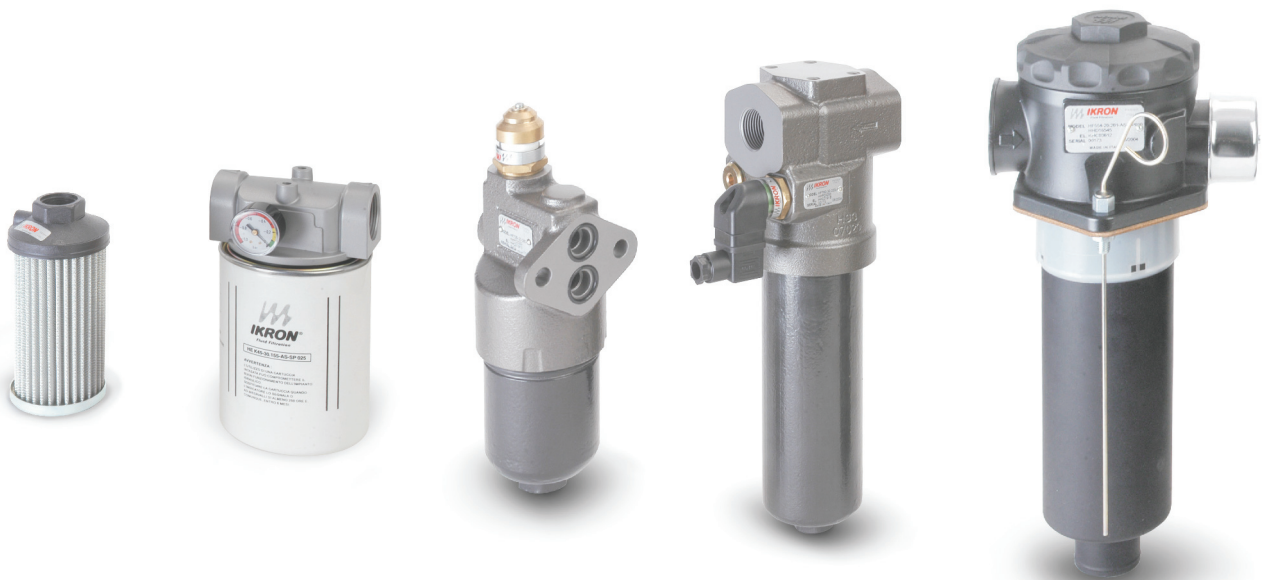
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for all hydraulic circuits

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HF 412
HF 431
HF 434
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HF 554
HF 570
HF 575
HF 578

In line filters Spin-On

HF 620
HF 625
HF 650

In line medium and high pressure filters

HF 690
HF 705
HF 710
HF 725
HF 735
HF 745
HF 760
HF 761

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