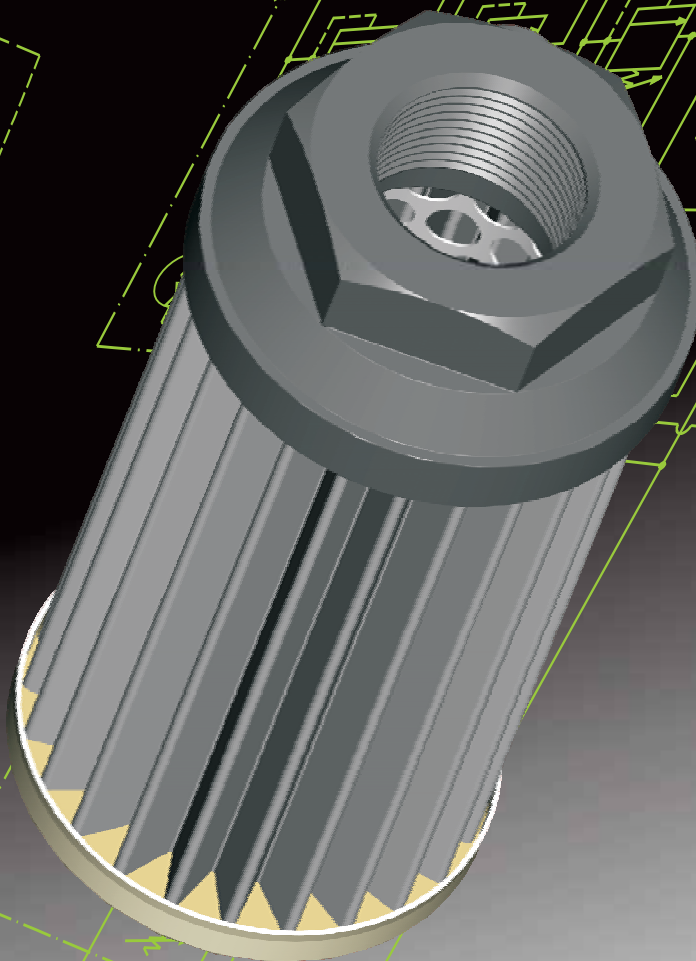


Suction filters

HF 410 / HF 412 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

The HF 410 and HF 412 suction line filters series are directly connected to the circuit's suction line and protect the system's components against contaminant particles.

The filters can be supplied with by-pass valve set at 2.9 psi (0,2 bar).

In the 10-20-30 dimensions, the HF 412 serie is made with an outside diameter smaller than the relative HF 410 versions.

- Flow up to 80 US gpm (300 l/min)
- By-pass valve
- "FS" version with oversized filtering surface

MATERIALS

| | |
|--------------|---------------------------|
| Head | Reinforced nylon |
| End cap | Zinc plated steel |
| Inner tube | Zinc plated steel |
| Filter media | Steel wire mesh |
| | Stainless steel wire mesh |

FLUID COMPATIBILITY

Conforming to ISO 2943 (Norm ISO 6743/4)

| | |
|----------------|-----------------------------|
| Oil mineral | HH - HL - HM - HR - HV - HG |
| Water emulsion | HFAE - HFAS |
| Water glycol | HFC |
| Syntetic fluid | HS - HFDR - HFDU - HFDS |

FLOW

| | |
|-----------|-----------------------|
| Flow max. | 80 US gpm (300 l/min) |
|-----------|-----------------------|

PRESSURE

| | |
|---|-------------------|
| Element collapse pressure rating (conforming to ISO 2941) | 14.50 psi (1 bar) |
|---|-------------------|

BY-PASS VALVE

| | |
|-----------------|--------------------|
| By-pass setting | 2.90 psi (0,2 bar) |
|-----------------|--------------------|

OPERATING TEMPERATURE

-22 ÷ 195 °F (-30 ÷ 90 °C)

DEGREE OF FILTRATION

| Code | Material | Degree of filtration |
|-------|---------------------------|----------------------|
| MI025 | Stainless steel wire mesh | 25 µm |
| MI060 | Stainless steel wire mesh | 60 µm |
| MS090 | Steel wire mesh | 90 µm |
| MI125 | Stainless steel wire mesh | 125 µm |
| MI250 | Stainless steel wire mesh | 250 µm |

01/05.2011

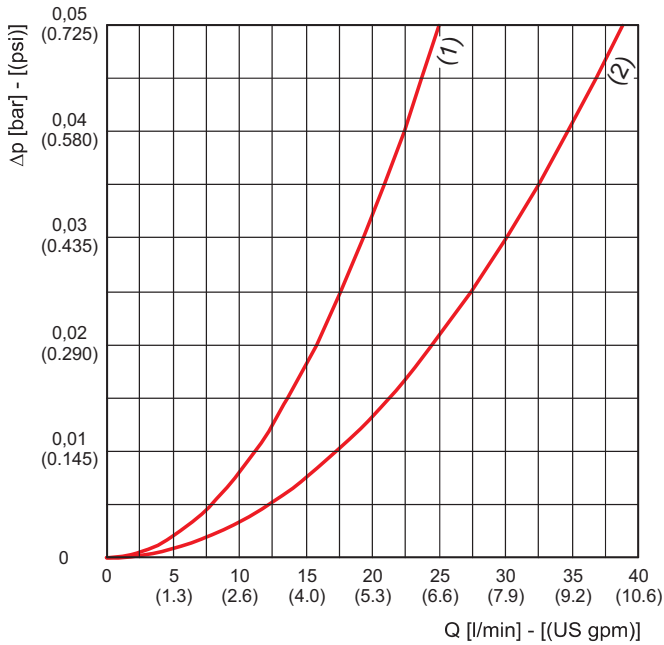
PRESSURE DROP CURVES IN THE CONNECTION THREADS

The curves are obtained in the following conditions:
 Mineral oil type ISO VG46
 Kinematic viscosity 120 SSU (30 cSt)
 Density 7.29 lb/gal (0,856 kg/dm³).

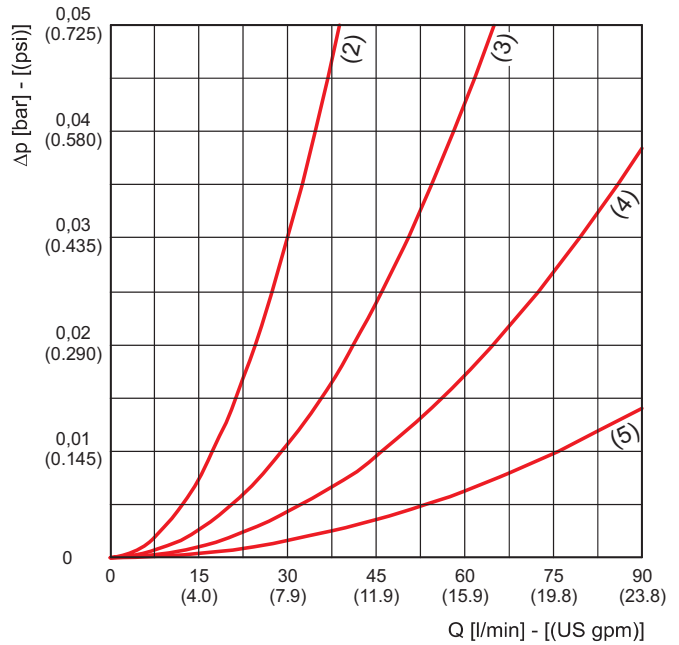
- (1) G 3/8 (4) G 1 (7) G 2
- (2) G 1/2 (5) G 1 1/4 (8) G 2 1/2
- (3) G 3/4 (6) G 1 1/2 (9) G 3

Please refer to nominal flows rates at page 3 and page 4 for a correct dimensional selection of the filters.

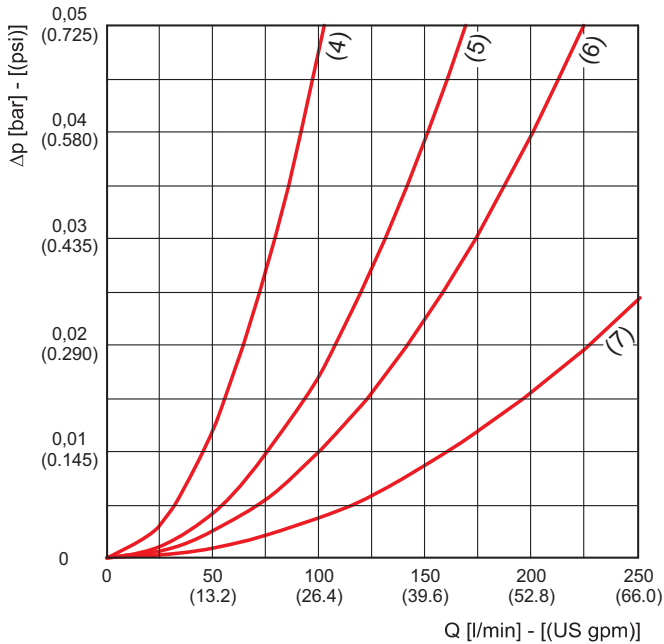
HF410-10 / HF412-10



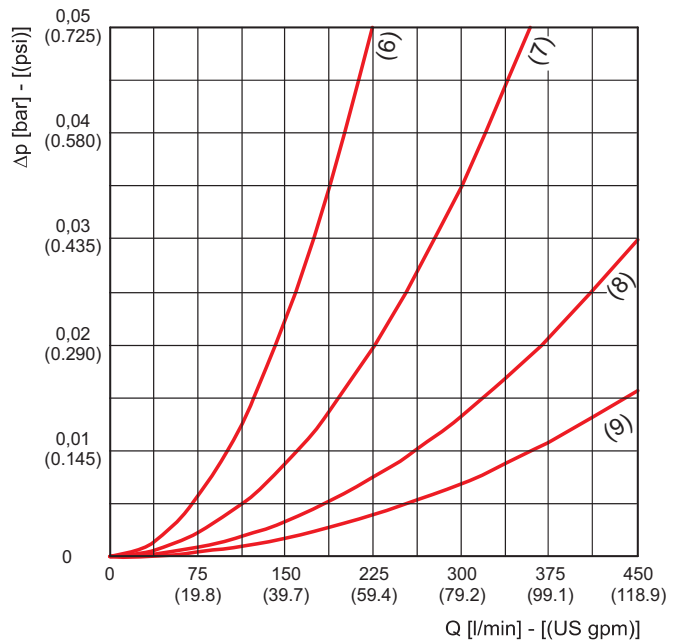
HF410-20 / HF412-20



HF410-30 / HF412-30



HF410-40



01/05.2011

NOMINAL FLOWS

| Filter type | Ports GAS (BSP) | Degree of filtration | | | | |
|---------------|-----------------------|---|------------|------------|------------|------------|
| | | MI025 | MI060 | MS090 | MI125 | MI250 |
| | | Nominal Flow ("AS" version values) US gpm (l/min) | | | | |
| HF 410-10.060 | G 3/8 | 1.3 (5) | 2.6 (10) | 4.0 (15) | 4.0 (15) | 4.0 (15) |
| | G 1/2 | 4.0 (15) | 5.3 (20) | 6.6 (25) | 6.6 (25) | 6.6 (25) |
| HF 410-20.077 | G 1/2 | 4.0 (15) | 5.3 (20) | 6.6 (25) | 6.6 (25) | 6.6 (25) |
| | G 3/4 | 5.3 (20) | 6.6 (25) | 7.9 (30) | 7.9 (30) | 7.9 (30) |
| | G 1 | 6.6 (25) | 7.9 (30) | 10.6 (40) | 10.6 (40) | 10.6 (40) |
| HF 410-20.122 | G 1 1/4 | 7.9 (30) | 11.9 (45) | 14.5 (55) | 14.5 (55) | 14.5 (55) |
| | G 1/2 | 5.3 (20) | 6.6 (25) | 7.9 (30) | 7.9 (30) | 7.9 (30) |
| | G 3/4 | 6.6 (25) | 7.9 (30) | 9.2 (35) | 9.2 (35) | 9.2 (35) |
| | G 1 | 7.9 (30) | 9.2 (35) | 11.9 (45) | 11.9 (45) | 11.9 (45) |
| HF 410-30.077 | G 1 1/4 | 9.2 (35) | 13.2 (50) | 15.9 (60) | 15.9 (60) | 15.9 (60) |
| | G 1 | 6.6 (25) | 7.9 (30) | 10.6 (40) | 10.6 (40) | 10.6 (40) |
| | G 1 1/2 | 9.2 (35) | 13.2 (50) | 15.9 (60) | 15.9 (60) | 15.9 (60) |
| HF 410-30.122 | G 2 | 10.6 (40) | 14.5 (55) | 18.5 (70) | 18.5 (70) | 18.5 (70) |
| | G 1 | 9.2 (35) | 13.2 (50) | 15.9 (60) | 15.9 (60) | 15.9 (60) |
| | G 1 1/4 | 11.9 (45) | 15.9 (60) | 19.8 (75) | 19.8 (75) | 19.8 (75) |
| | G 1 1/2 | 13.2 (50) | 17.2 (65) | 21.1 (80) | 21.1 (80) | 21.1 (80) |
| HF 410-30.162 | G 2 | 14.5 (55) | 18.5 (70) | 23.8 (90) | 23.8 (90) | 23.8 (90) |
| | G 1 | 14.5 (55) | 18.5 (70) | 23.8 (90) | 23.8 (90) | 23.8 (90) |
| | G 1 1/4 | 15.9 (60) | 22.5 (85) | 27.7 (105) | 27.7 (105) | 27.7 (105) |
| HF 410-30.195 | G 1 1/2 | 17.2 (65) | 23.8 (90) | 29.0 (110) | 29.0 (110) | 29.0 (110) |
| | G 2 | 18.5 (70) | 25.1 (95) | 31.7 (120) | 31.7 (120) | 31.7 (120) |
| | G 1 | 17.2 (65) | 23.8 (90) | 29.0 (110) | 29.0 (110) | 29.0 (110) |
| HF 410-40.077 | G 1 1/4 | 19.8 (75) | 26.4 (100) | 33.0 (125) | 33.0 (125) | 33.0 (125) |
| | G 1 1/2 | 21.1 (80) | 27.7 (105) | 34.3 (130) | 34.3 (130) | 34.3 (130) |
| | G 2 | 22.5 (85) | 29.0 (110) | 37.0 (140) | 37.0 (140) | 37.0 (140) |
| HF 410-40.122 | G 1 1/2 | 14.5 (55) | 18.5 (70) | 23.8 (90) | 23.8 (90) | 23.8 (90) |
| | G 2 | 17.2 (65) | 23.8 (90) | 29.0 (110) | 29.0 (110) | 29.0 (110) |
| | G 2 1/2 | 19.8 (75) | 26.4 (100) | 33.0 (125) | 33.0 (125) | 33.0 (125) |
| HF 410-40.162 | G 3 | 22.5 (85) | 29.0 (110) | 37.0 (140) | 37.0 (140) | 37.0 (140) |
| | G 1 1/2 | 21.1 (80) | 27.7 (105) | 34.3 (130) | 34.3 (130) | 34.3 (130) |
| | G 2 | 23.8 (90) | 31.7 (120) | 39.7 (150) | 39.7 (150) | 39.7 (150) |
| | G 2 1/2 | 26.4 (100) | 34.3 (130) | 43.8 (165) | 43.8 (165) | 43.8 (165) |
| HF 410-40.195 | G 3 | 29.0 (110) | 38.3 (145) | 47.6 (180) | 47.6 (180) | 47.6 (180) |
| | G 1 1/2 | 26.4 (100) | 35.7 (135) | 44.9 (170) | 44.9 (170) | 44.9 (170) |
| | G 2 | 30.4 (115) | 39.7 (150) | 50.2 (190) | 50.2 (190) | 50.2 (190) |
| HF 410-40.239 | G 2 1/2 | 33.0 (125) | 43.8 (165) | 54.2 (205) | 54.2 (205) | 54.2 (205) |
| | G 3 | 34.3 (130) | 46.2 (175) | 58.1 (220) | 58.1 (220) | 58.1 (220) |
| | G 1 1/2 | 33.0 (125) | 44.9 (170) | 55.5 (210) | 55.5 (210) | 55.5 (210) |
| HF 410-40.239 | G 2 | 37.0 (140) | 48.9 (185) | 60.8 (230) | 60.8 (230) | 60.8 (230) |
| | G 2 1/2 | 38.3 (145) | 51.5 (195) | 64.7 (245) | 64.7 (245) | 64.7 (245) |
| | G 3 | 40.9 (155) | 55.5 (210) | 68.7 (260) | 68.7 (260) | 68.7 (260) |
| HF 410-40.239 | G 1 1/2 | 39.7 (150) | 52.9 (200) | 66.0 (250) | 66.0 (250) | 66.0 (250) |
| | G 2 | 42.3 (160) | 56.8 (215) | 71.3 (270) | 71.3 (270) | 71.3 (270) |
| | G 2 1/2 | 44.9 (170) | 60.8 (230) | 75.3 (285) | 75.3 (285) | 75.3 (285) |
| | G 3 | 47.6 (180) | 63.4 (240) | 79.3 (300) | 79.3 (300) | 79.3 (300) |

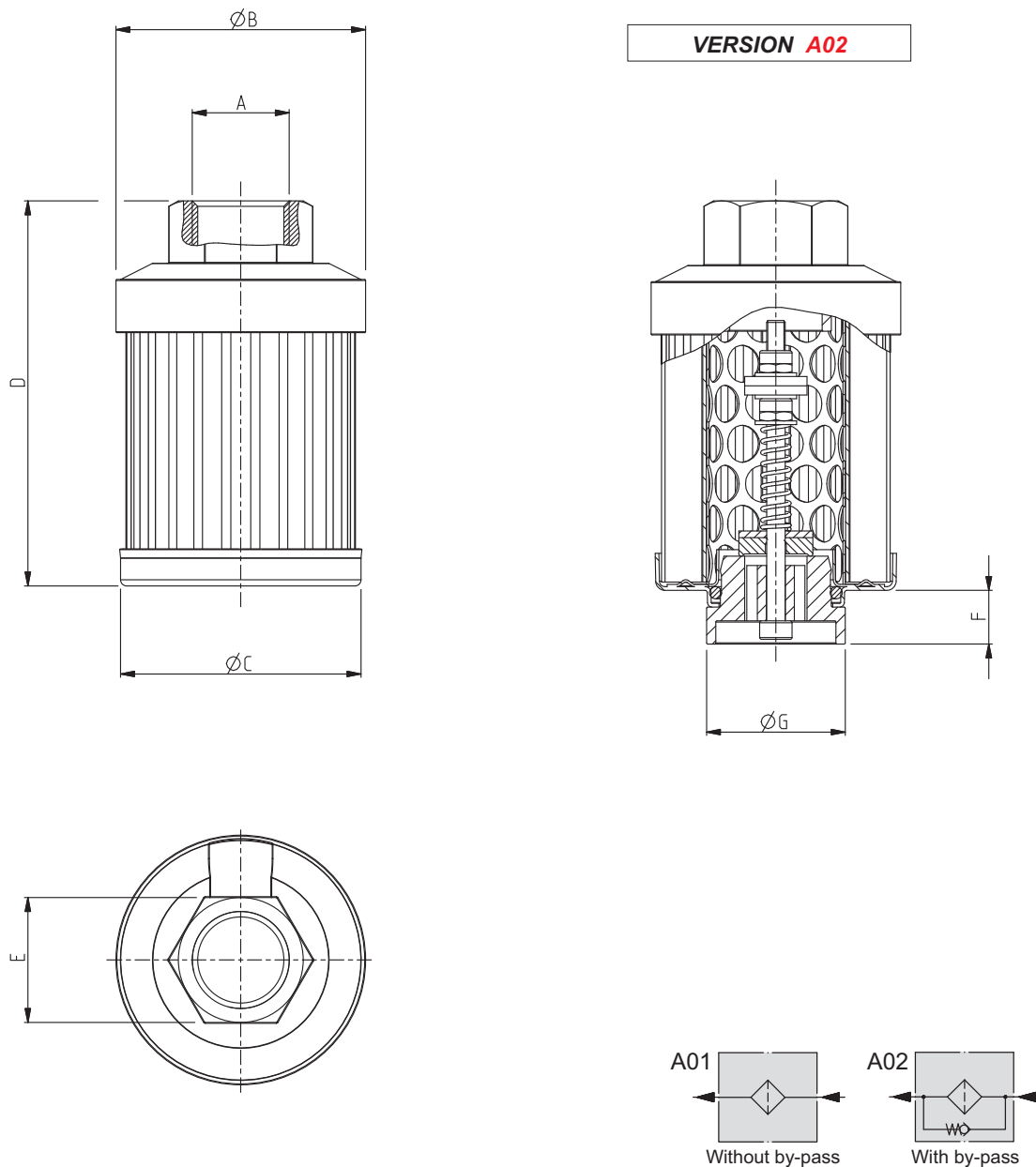
01/05.2011

NOMINAL FLOWS

| Filter type | Ports GAS (BSPP) | Degree of filtration | | | | |
|---------------|------------------------|---|------------|------------|------------|------------|
| | | MI025 | MI060 | MS090 | MI125 | MI250 |
| | | Nominal Flow ("AS" version values) US gpm (l/min) | | | | |
| HF 412-10.075 | G 3/8 | 1.3 (5) | 2.6 (10) | 4.0 (15) | 4.0 (15) | 4.0 (15) |
| | G 1/2 | 2.6 (10) | 4.0 (15) | 5.3 (20) | 5.3 (20) | 5.3 (20) |
| HF 412-10.090 | G 3/8 | 1.3 (5) | 4.0 (15) | 5.3 (20) | 5.3 (20) | 5.3 (20) |
| | G 1/2 | 4.0 (15) | 5.3 (20) | 6.6 (25) | 6.6 (25) | 6.6 (25) |
| HF 412-20.090 | G 3/4 | 5.3 (20) | 6.6 (25) | 7.9 (30) | 7.9 (30) | 7.9 (30) |
| | G 1 | 6.6 (25) | 7.9 (30) | 10.6 (40) | 10.6 (40) | 10.6 (40) |
| HF 412-20.120 | G 3/4 | 6.6 (25) | 7.9 (30) | 9.2 (35) | 9.2 (35) | 9.2 (35) |
| | G 1 | 7.9 (30) | 9.2 (35) | 11.9 (45) | 11.9 (45) | 11.9 (45) |
| HF 412-30.120 | G 1 | 9.2 (35) | 13.2 (50) | 15.9 (60) | 15.9 (60) | 15.9 (60) |
| | G 1 1/4 | 11.9 (45) | 15.9 (60) | 19.8 (75) | 19.8 (75) | 19.8 (75) |
| | G 1 1/2 | 13.2 (50) | 17.2 (65) | 21.1 (80) | 21.1 (80) | 21.1 (80) |
| | G 2 | 14.5 (55) | 18.5 (70) | 23.8 (90) | 23.8 (90) | 23.8 (90) |
| HF 412-30.181 | G 1 | 14.5 (55) | 18.5 (70) | 23.8 (90) | 23.8 (90) | 23.8 (90) |
| | G 1 1/4 | 15.9 (60) | 22.5 (85) | 27.7 (105) | 27.7 (105) | 27.7 (105) |
| | G 1 1/2 | 17.2 (65) | 23.8 (90) | 29.0 (110) | 29.0 (110) | 29.0 (110) |
| | G 2 | 18.5 (70) | 25.1 (95) | 31.7 (120) | 31.7 (120) | 31.7 (120) |
| HF 412-30.241 | G 1 | 17.2 (65) | 23.8 (90) | 29.0 (110) | 29.0 (110) | 29.0 (110) |
| | G 1 1/4 | 19.8 (75) | 26.4 (100) | 33.0 (125) | 33.0 (125) | 33.0 (125) |
| | G 1 1/2 | 21.1 (80) | 27.7 (105) | 34.3 (130) | 34.3 (130) | 34.3 (130) |
| | G 2 | 22.5 (85) | 29.0 (110) | 37.0 (140) | 37.0 (140) | 37.0 (140) |

01/05.2011

HF410-10 DIMENSION

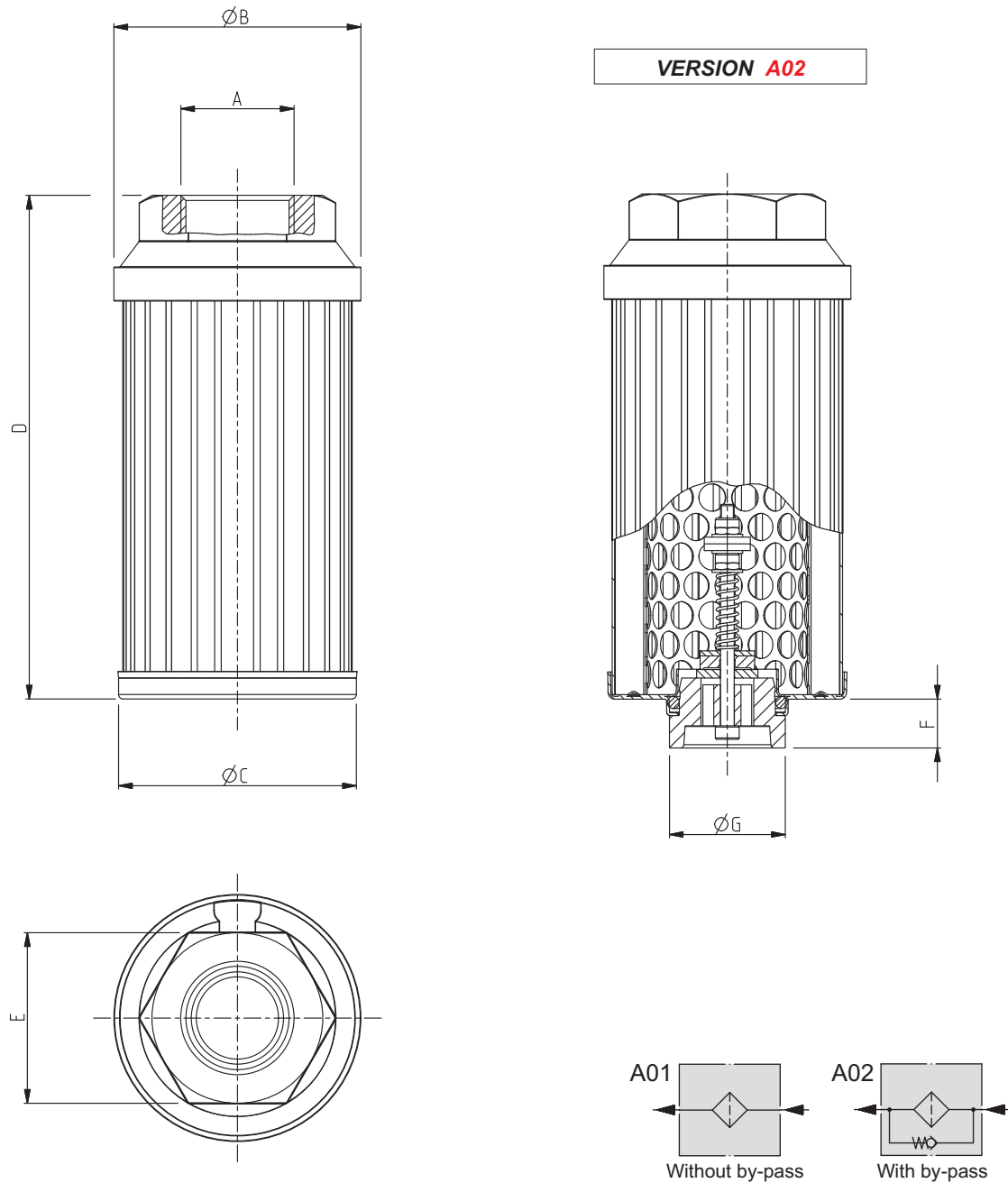


ICAT_004_001_HF410

01/05.2011

| Filter type | Weight | | A (Thread GAS-BSP) | | ØB | ØC | D | E | F | G |
|----------------------|----------------|--|--------------------|------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | kg (lbs) | | Standard | On request | | | | | | |
| HF 410-10.060 | 0,10 (0.22) | | G 3/8 | G 1/2 | 54 (2.1259) | 52 (2.0472) | 84 (3.3070) | 27 (1.0629) | 12 (0.4724) | 30 (1.1810) |

NPT threads are available (consult our technical department).

HF410-20 DIMENSION


ICAT_004_002_HF410

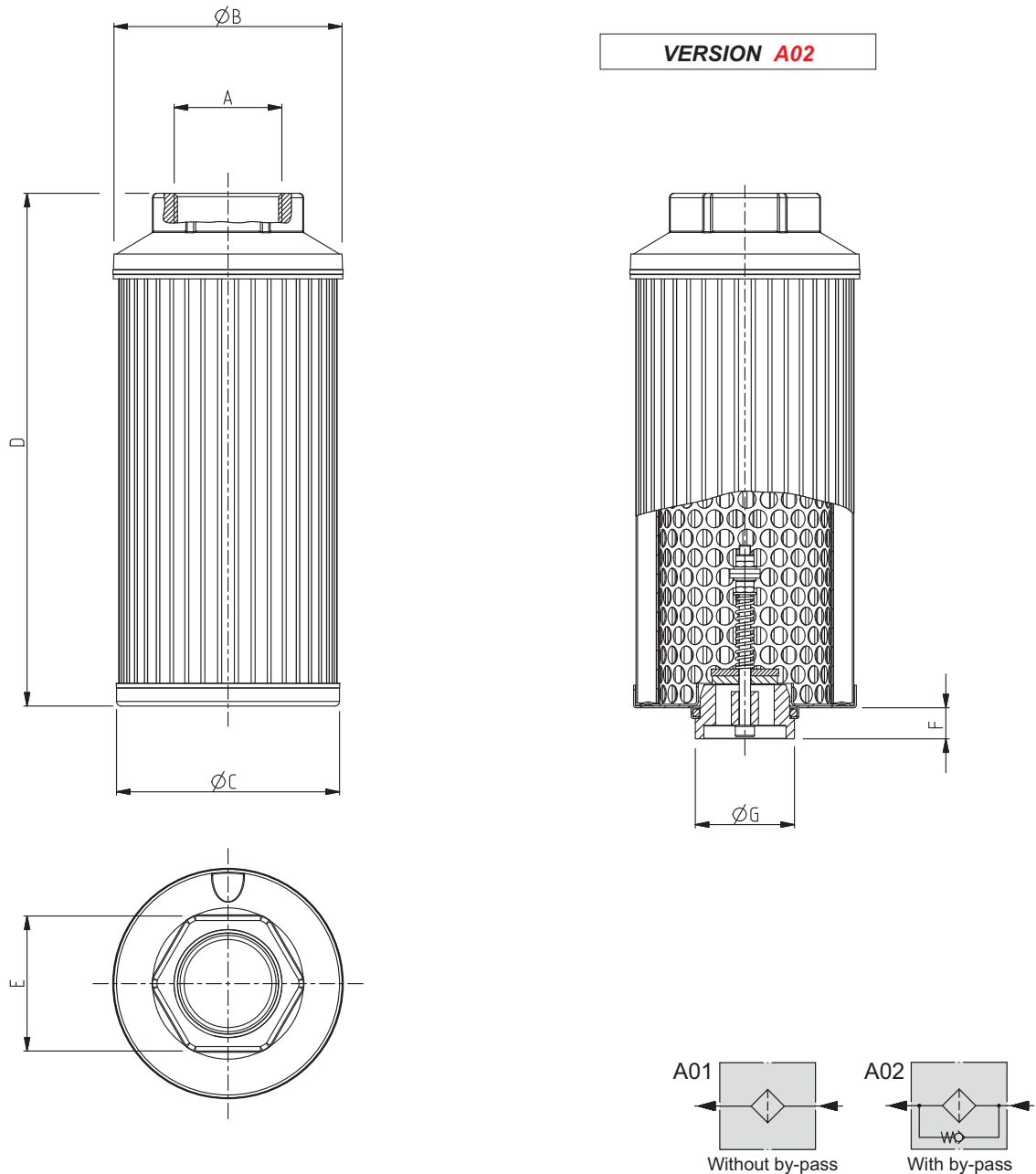
01/05.2011

| Filter type | Weight | A (Thread GAS-BSP) | | ØB | ØC | D | E | F | G |
|----------------------|----------|--------------------|-----------------------|------------------|----------------|----------|----------|----------------|----------------|
| | kg (lbs) | Standard | On request | | | | | | |
| HF 410-20.077 | 0,20 | G 1/2 | G 3/4 - G 1 - G 1 1/4 | 72,5 (2.8543) | 70 (2.7558) | 104 | 34 | 14 (0.5511) | 34 (1.3385) |
| | (0.44) | | | | | (4.0944) | (1.3385) | | |
| HF 410-20.122 | 0,25 | G 3/4 | G 1/2 - G 1 - G 1 1/4 | 72,5 (2.8543) | 70 (2.7558) | 148 | (50*) | 14 (0.5511) | 34 (1.3385) |
| | (0.55) | | | | | (5.8267) | (1.9684) | | |

NPT threads are available (consult our technical department).

(*) Only version with A= G 1 - G 1 1/4.

HF410-30 DIMENSION



ICAT_004_003_HF410

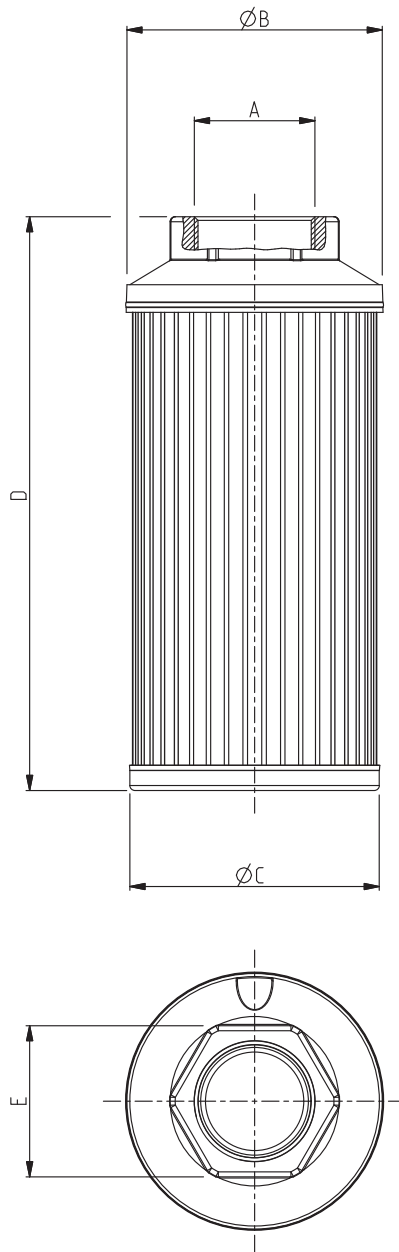
01/05.2011

| Filter type | Weight | | A (Thread GAS-BSPP) | | ØB | ØC | D | E | F | G |
|----------------------|--------|--------|---------------------|-------------------------|----------|----------|----------|----------|---------|----------|
| | kg | (lbs) | Standard | On request | | | | | | |
| HF 410-30.077 | 0,35 | (0.77) | G 1 | G 1 1/4 - G 1 1/2 - G 2 | | | 110 | | | |
| | | | | | | | (4.3306) | | | |
| HF 410-30.122 | 0,40 | (0.88) | | | | | 155 | 60 | | |
| | | | | | 102 | 99 | (6.1023) | (2.3621) | 14 | 44 |
| | | | | | (4.0157) | (3.8976) | | | (0.551) | (1.7322) |
| HF 410-30.162 | 0,45 | (0.99) | G 1 1/4 | G 1 - G 1 1/2 - G 2 | | | 195 | (70*) | | |
| | | | | | | | (7.6771) | (2.7558) | | |
| HF 410-30.195 | 0,50 | (1.10) | G 1 1/2 | G 1 - G 1 1/4 - G 2 | | | 228 | | | |
| | | | | | | | (8.9763) | | | |

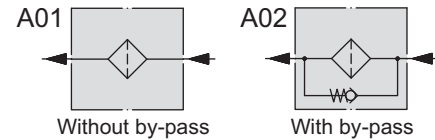
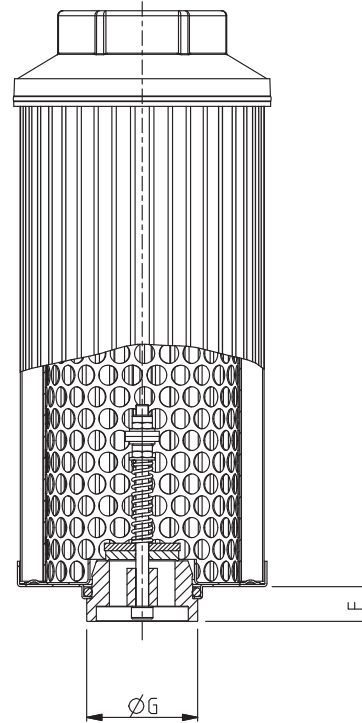
NPT threads are available (consult our technical department).

(*) Only version with A= G 2.

HF 410-40 DIMENSION



VERSION A02



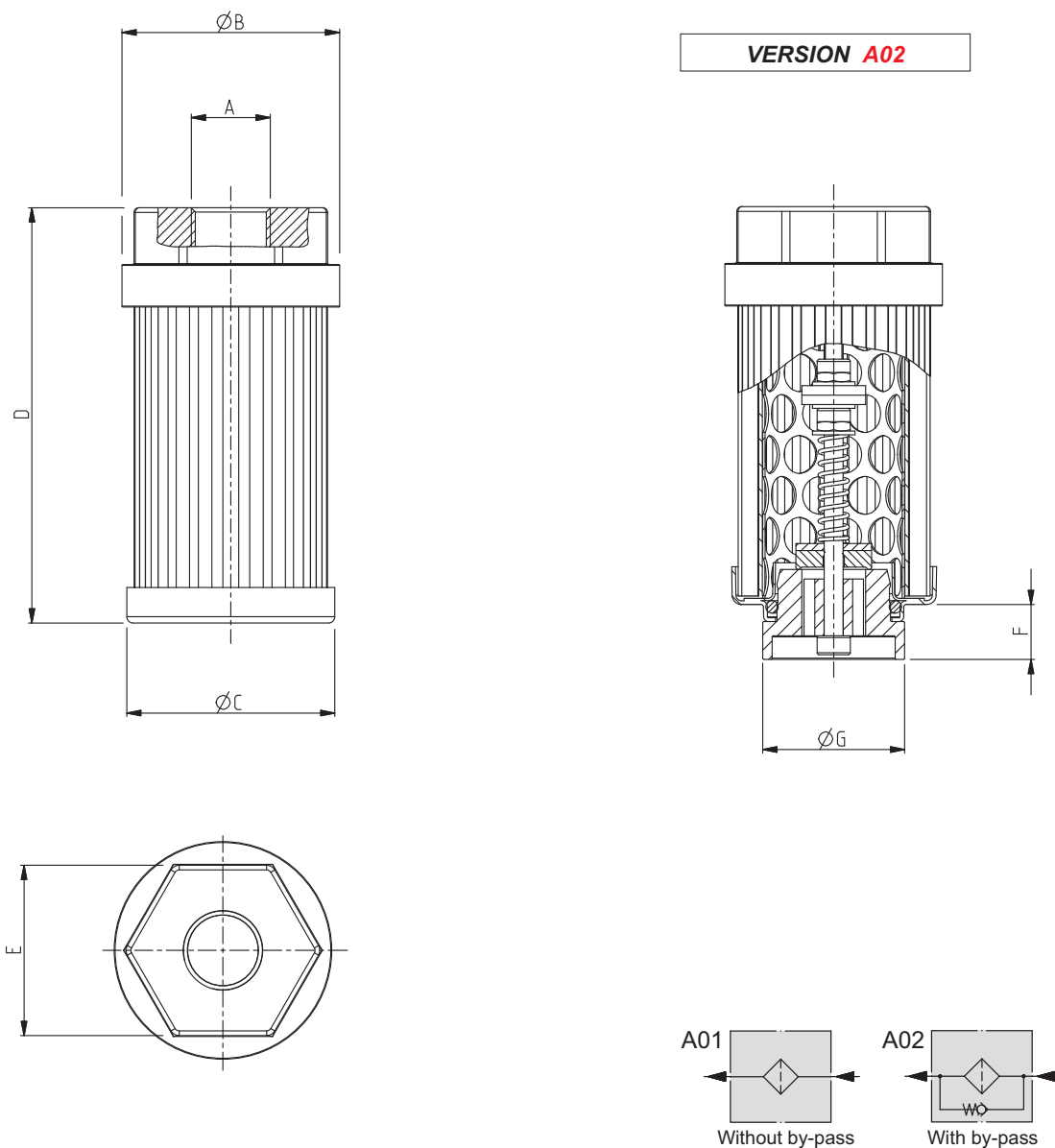
ICAT_004_003_HF410

01/05.2011

| Filter type | Weight | | A (Thread GAS-BSPP) | | ØB | ØC | D | E | F | G |
|----------------------|----------------|--|---------------------|-------------------------|-------------------|-----------------|------------------|-----------------|----------------|----------------|
| | kg (lbs) | | standard | On request | | | | | | |
| HF 410-40.077 | 0,80 (1.76) | | | | | | 117 (4.6062) | | | |
| HF 410-40.122 | 0,85 (1.87) | | | | | | 162 (6.3779) | | | |
| HF 410-40.162 | 1,00 (2.20) | | G 2 | G 1 1/2 - G 2 1/2 - G 3 | 132,5 (5.2165) | 130 (5.1180) | 202 (7.9527) | 100 (3.9369) | 14 (0.5511) | 73 (2.8740) |
| HF 410-40.195 | 1,15 (2.53) | | | | | | 235 (9.2519) | | | |
| HF 410-40.239 | 1,35 (2.97) | | | | | | 278 (10.9448) | | | |

NPT threads are available (consult our technical department).

HF412-10 DIMENSION



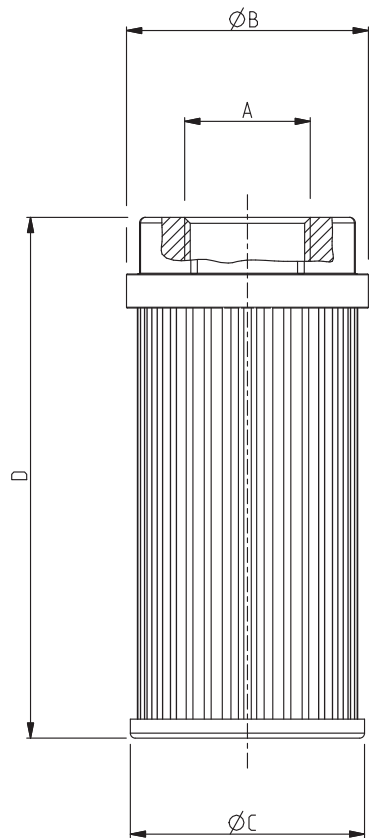
ICAT_004_005_HF410

01/05.2011

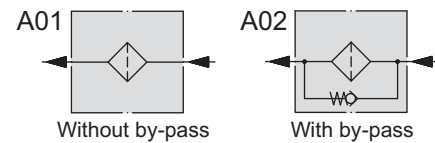
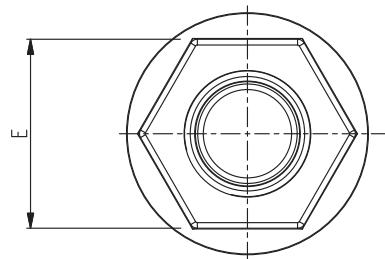
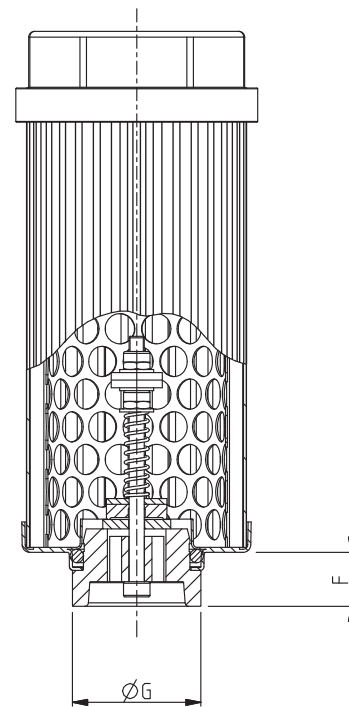
| Filter type | Weight | A (Thread GAS-BSP) | | ØB | ØC | D | E | F | ØG |
|----------------------|----------|--------------------|------------|----------|----------|-----|----------|----|----|
| | kg (lbs) | Standard | On request | | | | | | |
| HF 412-10.075 | 0,10 | G 3/8 | G 1/2 | 46 | 44 | 90 | 36 | 12 | 30 |
| | (0.22) | | | | | | | | |
| HF 412-10.090 | 0,15 | G 1/2 | G 3/8 | (1.8110) | (1.7322) | 105 | (4.1338) | | |
| | (0.33) | | | | | | | | |

NPT threads are available (consult our technical department).

HF412-20 DIMENSION



VERSION A02



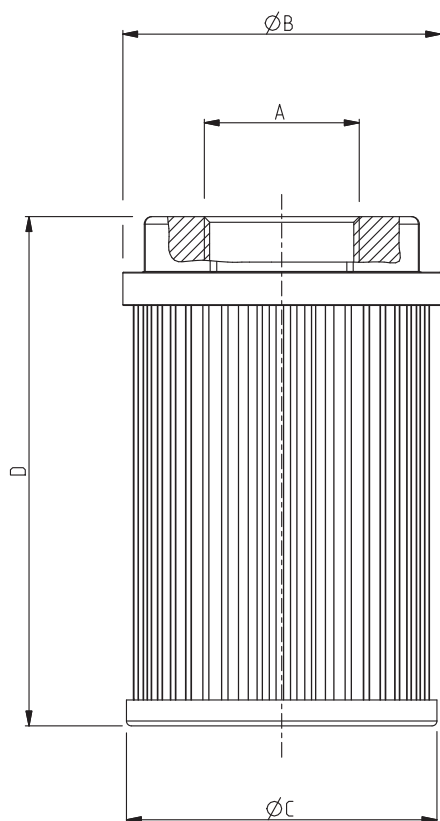
ICAT_004_006_HF410

01/05.2011

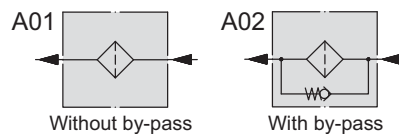
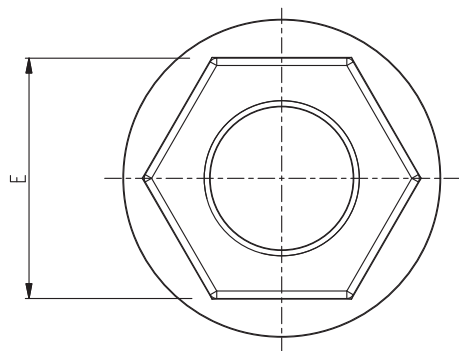
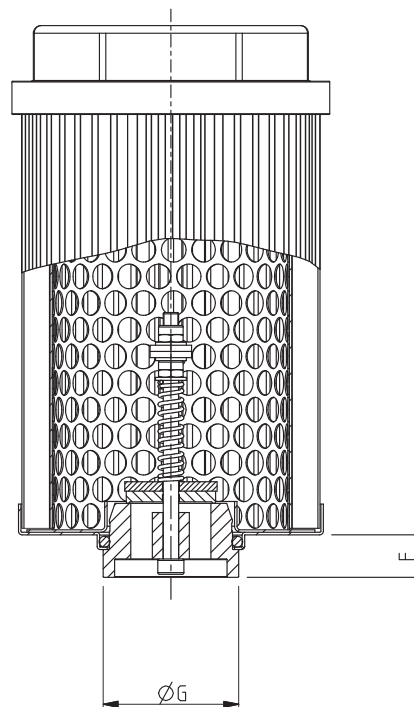
| Filter type | Weight | A (Thread GAS-BSP) | | ØB | ØC | D | E | F | ØG |
|----------------------|----------|--------------------|------------|----------|----------|----------|----------|----------|----------|
| | kg (lbs) | Standard | On request | | | | | | |
| HF 412-20.090 | 0,20 | G 3/4 | G 1 | | | 109 | | | |
| | (0.44) | | | 64 | 62 | (4.2913) | 50 | 14 | 34 |
| HF 412-20.120 | 0,25 | G 1 | G 3/4 | (2.5196) | (2.4409) | 139 | (1.9684) | (0.5511) | (1.3385) |
| | (0.55) | | | | | (5.4724) | | | |

NPT threads are available (consult our technical department).

HF412-30 DIMENSION



VERSION A02



ICAT_004_007_HF410

01/05.2011

| Filter type | Weight kg (lbs) | A (Thread GAS-BSPP) | | ØB mm (in) | ØC mm (in) | D mm (in) | E mm (in) | F mm (in) | ØG mm (in) |
|----------------------|--------------------|---------------------|-------------------------|----------------|----------------|------------------|----------------|----------------|----------------|
| | | Standard | On request | | | | | | |
| HF 412-30.120 | 0,40 (0.88) | G 1 | G 1 1/4 - G 1 1/2 - G 2 | | | 139 (5.4724) | 65 (2.5590) | | |
| HF 412-30.181 | 0,45 (0.99) | G 1 1/2 | G 1 - G 1 1/4 - G 2 | 86 (3.3858) | 84 (3.3070) | 200 (7.8739) | | 14 (0.5511) | 44 (1.7322) |
| HF 412-30.241 | 0,50 (1.10) | G 2 | G 1 - G 1 1/4 - G 1 1/2 | | | 260 (10.2361) | 75 (2.9527) | | |

NPT threads are available (consult our technical department).

FILTERING SURFACES

| Filter type | Standard filtering surface (AS) | Oversize filtering surface (FS) |
|----------------------|---------------------------------------|---------------------------------------|
| | cm ² (in ²) | cm ² (in ²) |
| HF 410-10.060 | 290 (44.9500) | 370 (57.3501) |
| HF 410-20.077 | 370 (57.3501) | 490 (75.9501) |
| HF 410-20.122 | 585 (90.6751) | 780 (120.9002) |
| HF 410-30.077 | 525 (81.3751) | 680 (105.4002) |
| HF 410-30.122 | 830 (128.6503) | 1075 (166.6253) |
| HF 410-30.162 | 1295 (200.7254) | 1425 (220.8754) |
| HF 410-30.195 | 1560 (241.8005) | 1870 (289.8506) |
| HF 410-40.077 | 955 (148.0253) | 1260 (195.3004) |
| HF 410-40.122 | 1515 (234.8255) | 2000 (310.0006) |
| HF 410-40.162 | 2010 (311.5506) | 2655 (411.5258) |
| HF 410-40.195 | 2420 (375.1008) | 3200 (496.001) |
| HF 410-40.239 | 3970 (615.3512) | 5260 (815.3016) |
| HF 412-10.075 | 285 (44.1750) | 360 (55.8001) |
| HF 412-10.090 | 345 (53.4751) | 430 (66.6501) |
| HF 412-20.090 | 430 (66.6501) | 560 (86.8001) |
| HF 412-20.120 | 575 (89.1251) | 750 (116.2502) |
| HF 412-30.120 | 835 (129.4253) | 1035 (160.4253) |
| HF 412-30.181 | 1260 (195.3004) | 1564 (242.4205) |
| HF 412-30.241 | 1675 (259.6255) | 2080 (322.4006) |

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HF410 CONNECTION THREADS

| Filter type | PORTS TYPE | |
|------------------|--------------|-------------|
| | Nominal size | Gas BSPP |
| HF 410-10 | 3/8" | GC |
| | 1/2" | GD |
| HF 410-20 | 1/2" | GD |
| | 3/4" | GE |
| | 1" | GF |
| | 1" 1/4 | GG |
| HF 410-30 | 1" | GF |
| | 1" 1/4 | GG |
| | 1" 1/2 | GH |
| | 2" | GL |
| HF 410-40 | 1" 1/2 | GH |
| | 2" | GL |
| | 2" 1/2 | GM |
| | 3" | GN |

HF412 CONNECTION THREADS

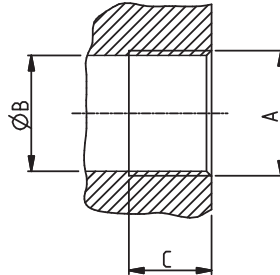
| Filter type | PORTS TYPE | |
|------------------|--------------|-------------|
| | Nominal size | Gas BSPP |
| HF 412-10 | 3/8" | GC |
| | 1/2" | GD |
| HF 412-20 | 3/4" | GE |
| | 1" | GF |
| HF 412-30 | 1" | GF |
| | 1" 1/4 | GG |
| | 1" 1/2 | GH |
| | 2" | GL |

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GAS THREAD
BSPP

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

ICAT_011_008_HF760



| CODE | Nominal dimension | A | Ø B | | C |
|-----------|-------------------|---------|------------------|----------------|------------|
| | | | mm (in) | mm (in) | mm (in) |
| GC | 3/8" | G 3/8 | 15 (0.5906) | 14 (0.5511) | |
| GD | 1/2" | G 1/2 | 19 (0.7480) | 17 (0.6692) | |
| GE | 3/4" | G 3/4 | 24,5 (0.9646) | 20 (0.7873) | |
| GF | 1" | G 1 | 30,5 (1.2008) | 22 (0.8661) | |
| GG | 1"1/4 | G 1 1/4 | 39 (1.5354) | 24 (0.9448) | |
| GH | 1"1/2 | G 1 1/2 | 45 (1.7716) | 26 (1.0236) | |
| GL | 2" | G 2 | 57 (2.2440) | 32 (1.2598) | |
| GM | 2"1/2 | G 2 1/2 | 72,5 (2.8543) | 32 (1.2598) | |
| GN | 3" | G 3 | 85 (3.3464) | 32 (1.2598) | |

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ASSEMBLY AND FILTER SUBSTITUTION INSTRUCTIONS

ASSEMBLY

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

- A Screw the filter on the male junction until getting the attainment of a reassuring filtering torque, possibly using anti unscrewing devices.
- B Make sure that the liquid's minimum level in the tank totally covers the filters, in both static and dynamic work situations.
- C Make sure that the machine works normally, always verifying the depression level through an eventual indicator put on the suction line.
- D We suggest the filter's horizontal position to considerably reduce the oil's minimum level.

FILTER SUBSTITUTION

Once the working hour limit indicated in the maintenance instructions of the system has been reached, or when the suction line's clogging indicators reach the maximum depression's limit established, the filter needs to be substituted taking care of the eventual oil leaks due to this operation. So it is advisable to hold containers for the collection. Proceed as follows:

- A Stop the system in "Machine stopped" status.
- B Secure any shut-off valves on the hydraulic circuit.
- C Take the filter off from the tank.
- D Unscrew the filter.
- E Proceed following the assembly instructions.
- F Restart the machine.
- G Make sure that the machine works normally, always verifying the depression level through an eventual indicator put on the suction line.



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HOW TO ORDER A COMPLETE FILTER

| | | | | | | | | | | |
|--------------|----------|---------------|----------|-----------|----------|--------------|----------|-----------|----------|------------|
| | 1 | | 2 | | 3 | | 4 | | 5 | |
| HF410 | - | 10.060 | - | AS | - | MS090 | - | GD | - | A01 |
| HF412 | | | | | | | | | | |

| 1 | Filter type | CODE |
|---|-----------------------------------|---------------|
| | See table from pag. 5 to pag. 8 | HF410- |
| | See table from pag. 9 to pag. 11 | HF412- |
| 2 | Filtering surface | CODE |
| | Standard | AS |
| | Oversized | FS |
| 3 | Degree of filtration | CODE |
| | 25 [µm] Stainless steel wire mesh | MI025 |
| | 60 [µm] Stainless steel wire mesh | MI060 |
| | 90 [µm] Steel wire mesh | MS090 |
| | 125[µm] Stainless steel wire mesh | MI125 |
| | 250[µm] Stainless steel wire mesh | MI250 |

| 4 | Inlet port | CODE |
|---|-------------------|-----------|
| | Thread GAS (BSPP) | |
| | G 3/8 | GC |
| | G 1/2 | GD |
| | G 3/4 | GE |
| | G 1 | GF |
| | G 1 1/4 | GG |
| | G 1 1/2 | GH |
| | G 2 | GL |
| | G 2 1/2 | GM |
| | G 3 | GN |

*In case of NPT inlet port, substitute letter **G** in the code to letter **N**.
(ex. thread 1" NPT = NF).

| 5 | Optionals | CODE |
|---|-----------------|------------|
| | None (standard) | A01 |
| | With By-pass | A02 |

Standard
 On request

Building & construction

Agriculture

Truck Market

Material Handling

Industrial



Full range of filters
for all hydraulic circuits

Suction filters

HF 410
HF 412
HF 431
HF 434
HF 437

Tank mounted return line filters

HF 502
HF 508
HF 547
HF 554
HF 570
HF 575
HF 578
HF 595

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

Accessories

Filler breathers
Air filters
Level and temperature gauges
Pressure gauges
Pressure/vacuum gauges
Clogging indicators



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