



## Process Bag Filter PBF

Flow rate: up to 500 l/min, up to 10 bar

PBF-F50-2-1



PBF-F50-2-2



PBF-F50-2-2A



### 1. TECHNICAL SPECIFICATIONS

#### 1.1 GENERAL

The HYDAC Process Bag Filter PBF is suitable for continuous filtering of solid contamination from low-viscosity fluids, such as cooling lubricants, washing emulsions and processing oils. The separated contamination particles can be disposed of together with the filter bag.

In order to allow larger flow rates, bag filters can be arranged in parallel switching. Optionally, the filters can be blocked individually in order to operate continuous filtration. The housings are delivered with an adjustable base frame.

#### 1.2 CONSTRUCTION AND FUNCTION

The filter housings consist of simple and easy to handle welding constructions made of stainless steel to hold filter bags in Sizes 1 or 2. The standard series features a vent screw and a connection for a pressure gauge.

The process bag filter housing has a pressure absorbing basket made of stainless steel and a pressure device which fixes both bags with steel ring and bags with plastic sealing lip securely and bypass-free.

The fluid enters into the side of the filter cover and flows through the filter bag from the inside to the outside. The outlet is in the centre of the lower dished end.



## 2. FILTER SPECIFICATIONS

### 2.1 SUMMARY OF TECHNICAL SPECIFICATIONS OF THE FILTER HOUSING (STANDARD CONFIGURATION)

Series	Filter bag type	Connection size DIN DN	Filter area [cm <sup>2</sup> ]	Filtration ratings [µm]	Max. operating over-pressure [bar]	Max. temp. [°C]	Weight (empty) [kg]	Volume [l]
PBF	1	50	5000	1- 1000	10	90	31	31
	2	80	2 x 5000				101	2 x 35
	2A	50	2 x 5000				97	2 x 33.5

### 2.2. FURTHER SPECIFICATIONS OF THE FILTER HOUSING (STANDARD CONFIGURATION)

#### 2.2.1 Material of seal

Lid: FPM (Viton),  
Flanges: asbestos free gasket (C4400)

#### 2.2.2 Flange connections

DIN flanges DN 50 (housing)  
DIN flanges DN 50 or DN 80 (piping)

#### 2.2.3 Housing materials

Stainless steel (AISI 304 / 1.4301)

#### 2.2.4 Material of internal parts

Stainless steel (AISI 304 / 1.4301)

#### 2.2.5 Pressure range

10 bar

#### 2.2.6 Operating temperature

0 to 90 °C

#### 2.2.7 Documentation

Operating and maintenance instructions

### 2.3. SUMMARY OF TECHNICAL SPECIFICATIONS OF FILTER BAGS

#### 2.3.1 Materials

Polypropylene  
Polyethylene  
Nylon monofilament  
Filtration rating between 1 µm and 1000 µm  
Sealing collar made of polypropylene, optional with stainless steel supporting ring

## 2.4. OPTIONAL VERSIONS

There are a range of optional versions available for the Process Bag Filter PBF. For technical details and prices, please contact our Technical Sales Department at Head Office.

### 2.4.1 Seal materials

- Various seal materials on request, depending on the resistance to the fluid.

### 2.4.2 Multiple filters

- Parallel piping up of several filters. Also further optional models on request.

### 2.4.3 Differential pressure monitoring

- Visual
- Electrical
- Visual electrical
- Differential pressure gauge with microswitches
- Dynamic pressure gauge

Subject to technical modifications.  
The dimensions indicated have  
± 3 mm tolerances.

### 3. MODEL CODE FOR PROCESS BAG FILTER PBF

**PBF - F50 - 1 - 2 - F80 - E - F - 0 - 2 - X - L24 - 12345678**

**Type** \_\_\_\_\_  
PBF = Process bag filter

**Housing connection flange** \_\_\_\_\_  
DIN = F 50

**Size** \_\_\_\_\_  
1 = standard housing Size 1  
2 = standard housing Size 2

**Filter type** \_\_\_\_\_  
1 = one housing  
2 = 2 housings, piped up in parallel,  
2A = 2 housings, piped up in parallel  
and individually lockable

**Type of connection (customer interface)** \_\_\_\_\_  
F50 = connection DIN flange DN 50,  
for filter types 1 and 2A  
F80 = connection DIN flange DN 50,  
for filter type 2

**Housing material** \_\_\_\_\_  
E = stainless steel 1.4301 (AISI 304)

**Sealing material** \_\_\_\_\_  
F = FPM (Viton)

**Ventilation** \_\_\_\_\_  
0 = ventilation plug  
1 = with ball valve

**Clogging indicator** \_\_\_\_\_  
0 = without clogging indicator  
1 = with visual indicator (PVD2B.1)  
2 = with visual-electrical indicator (PVD 2D.0/-L...)  
3 = with visual-analogue indicator (V01)  
4 = with differential pressure gauge,  
aluminium (measuring range 4 bar)  
5 = with differential pressure gauge,  
stainless steel (measuring range 4 bar)  
6 = with electrical indicator only (PVD 2C.0)  
E = with dynamic pressure gauge

**Modification number** \_\_\_\_\_  
X = the latest version is always supplied

**Supplementary information** \_\_\_\_\_  
Lamp voltage visual-electrical clogging indicator:  
L24 = 24V power supply  
L110 = 110V power supply  
L230 = 230V power supply

**Drawing number** \_\_\_\_\_  
For special models

### 4. FILTER CALCULATION / SIZING

#### 4.1 CALCULATION CRITERIA

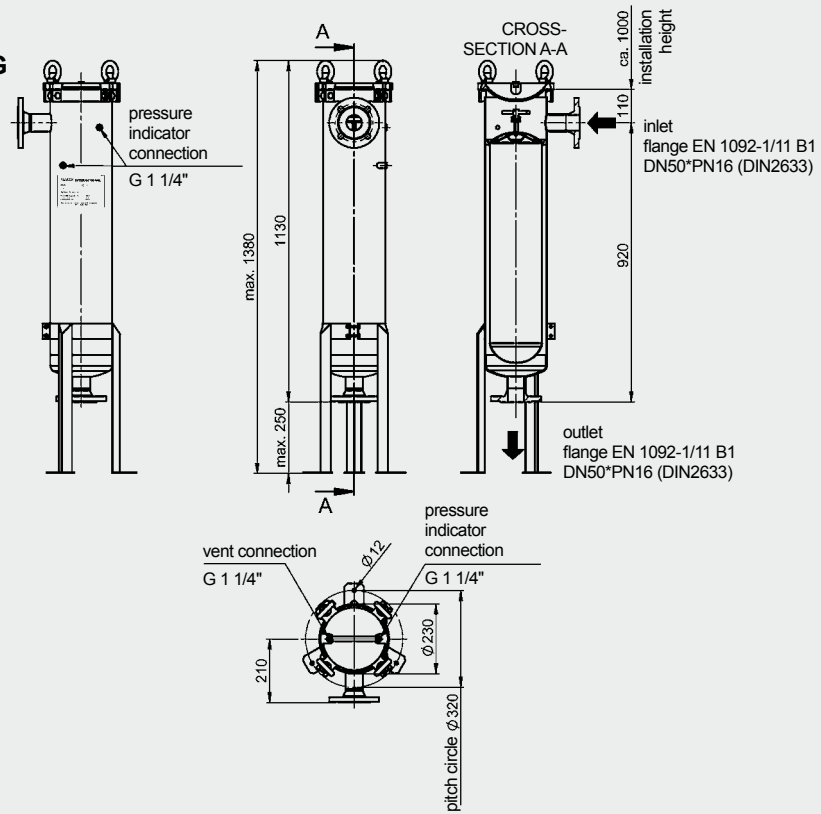
In order to be able to size the filter correctly, the following design data should be available:

- Flow rate
- Type of medium
- Materials / resistance
- Viscosity
- Required filtration rating
- Particulate loading in the fluid
- Type of contamination
- Operating pressure
- Operating temperature

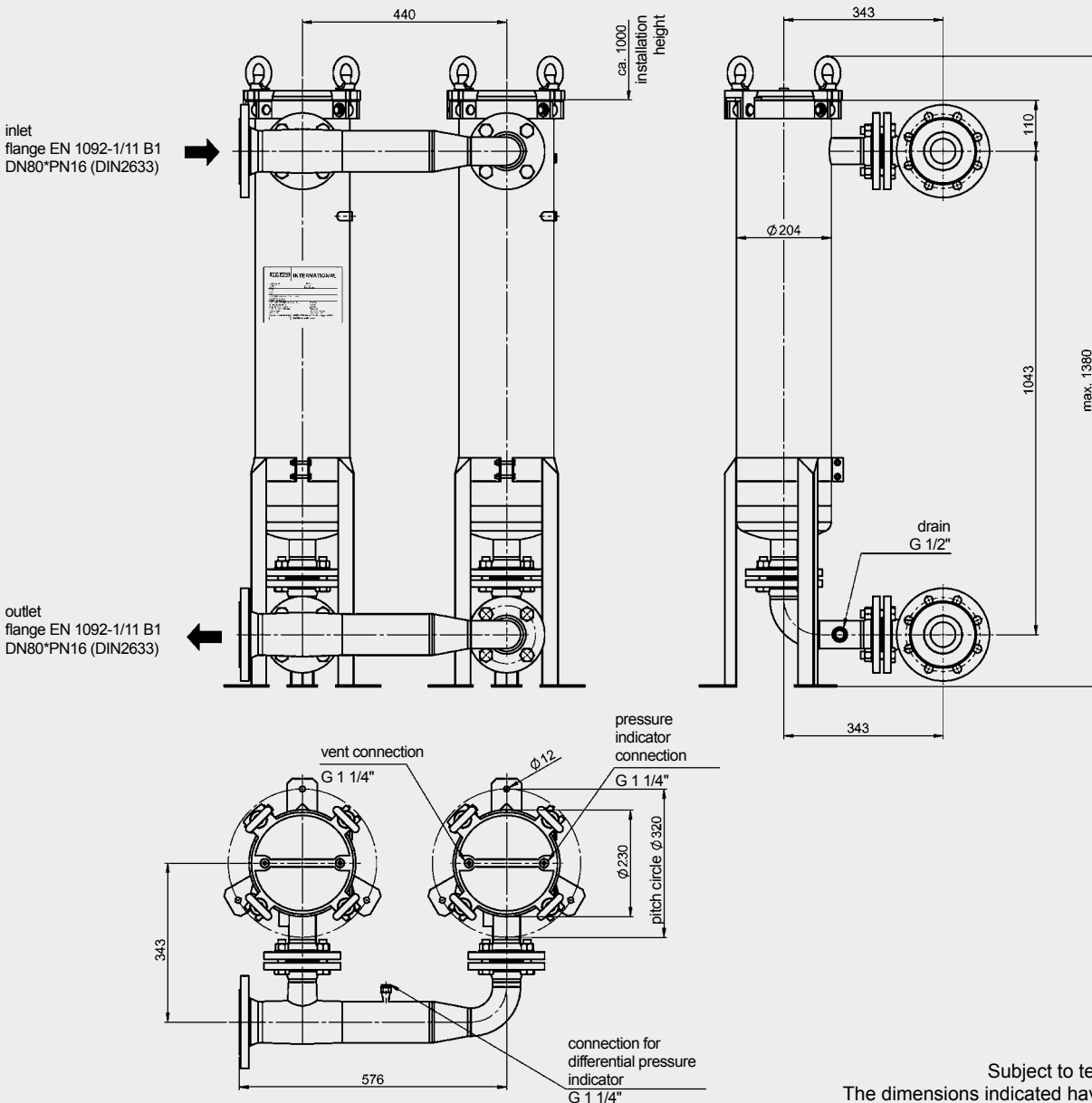
At filtration ratings > 100 µm, the flow rate 30 m³/h should not be exceeded on single housings. At filtration ratings < 100 µm, the flow rate 25 m³/h should not be exceeded.

## 5. DIMENSIONS

### 5.1 PBF-F50-x-1, SINGLE HOUSING

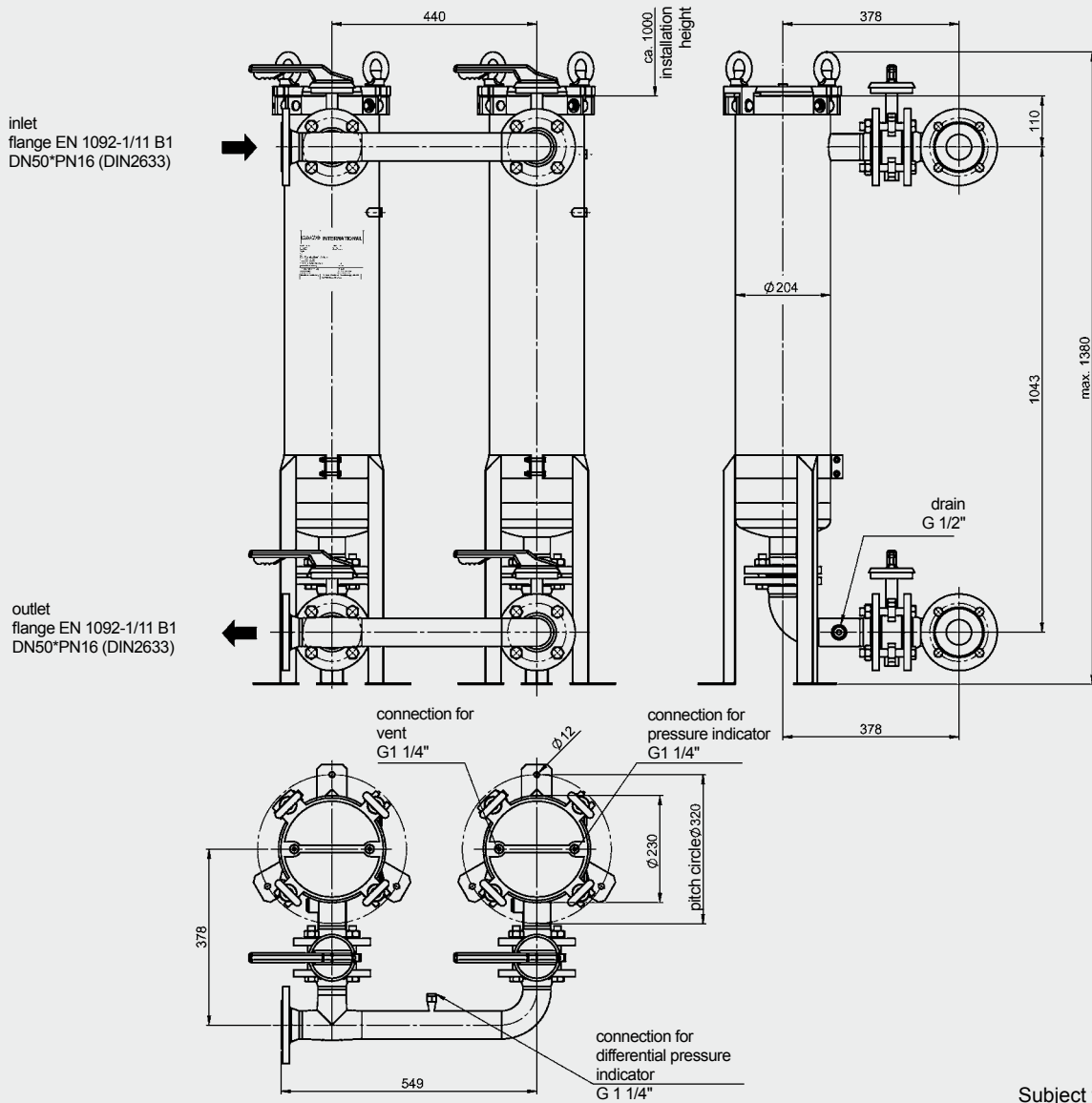


### 5.2 PBF-F50-x-2 DN80, 2 HOUSINGS PIPED UP IN PARALLEL



Subject to technical modifications.  
The dimensions indicated have  $\pm 3$  mm tolerances.

### 5.3 PBF-F50-x-2A DN50, 2 HOUSINGS PIPED UP IN PARALLEL, INDIVIDUALLY LOCKABLE



Subject to technical modifications.  
The dimensions indicated have  $\pm 3$  mm tolerances.

#### NOTE

The information in this brochure relates to the operating conditions and applications described. For applications and operating conditions not described, please contact the relevant technical department.

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