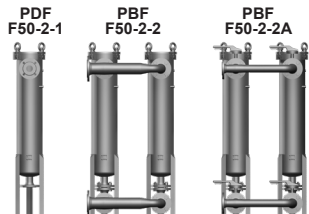


Process bag filters PBF



Specifications	
Nominal size:	DN 50 to DN 80
Q _S max:	500 l/min
p _S max:	10 bar
Filtration ratings:	1 - 1000 µm

1. GENERAL INFORMATION

Product description:

- Bag filters
- Continuous separation of solids from low-viscosity fluids, such as:
 - Water
 - Coolants
 - Washing emulsions
 - Processing oils

Bag material:

- Filtration rating: 1 to 1000 µm
- Polypropylene needle felt (PP)
- Polyethylene needle felt (PE)
- Nylon monofil (NY)

Product advantages:

- Inexpensive
- High efficiency
- Sealing lip ensures bypass-free sealing
- No particle ingress to the clean side thanks to thermally welded seams
- Polypropylene sealing collar
- Stainless steel support ring on request
- Parallel piping of multiple filters possible
- Optional blocking of individual filters possible



Parallel piping

Technical data, filter housing

Series	Filter bag type	Port dimensions [DN]	Housing material	Pressure range [bar]	T _S max [°C]	Weight ¹⁾ [kg]	Volume [l]
PBF	1	50	Stainless steel 1.4301 or similar (Group 304)	10	90	31	31
	2	80				101	2 x 35
	2 A	50				97	2 x 33.5

¹⁾ Empty weight based on standard pressure rating

Technical data, filter bag

Bag installation size	Filter bag material	Filtration rating [µm]	Temperature T _{max} [°C]	Filter area [cm ²]	Bag capacity [l]	Bag diameter [mm]	Bag length [mm]	Sealing collar
2	Polypropylene (PP)	1 - 1000	90	5000	17	178	815	Polypropylene / optional stainless steel support ring
	Polyethylene (PE)							
	Nylon monofil (NY)							

2. FUNCTION AND SPECIAL FEATURES

FUNCTION

- Flow passes through the filter bag from the inside to the outside
- The separated solid particles remain in the filter bag
- Particles depositing during the filtration process increase the pressure loss
- When the maximum differential pressure is reached, the filter bag is changed manually
- Once the filter bag has been changed, the bag filter is ready for operation again



3. CLOGGING INDICATORS

Type	Figure	Description
Clogging indicator/ differential pressure monitoring		
Visual PVD x B.x		■ Visual display by means of green-red field ■ Automatic reset
Electrical PVD x C.x		■ Electrical signal when trigger differential pressure is reached ■ Switch type: NC or NO contact ■ Automatic reset
Differential pressure gauge DS11		■ Two micro-switches (NC or NO contact) ■ Switch points of the micro-switches can be set from outside ■ Measurement cell made from aluminium or stainless steel
Back-pressure indicator VMF 16 E.x		■ Visual display of back pressure ■ Automatic reset

4. FILTER CALCULATION*

CHECKLIST, FILTER CALCULATION

STEP 1: REQUIRED OPERATING DATA

- Flow rate
- Type of medium
- Materials/resistances
- Viscosity
- Desired filtration rating
- Particulate loading of the medium
- Particle type
- Operating pressure
- Operating temperature

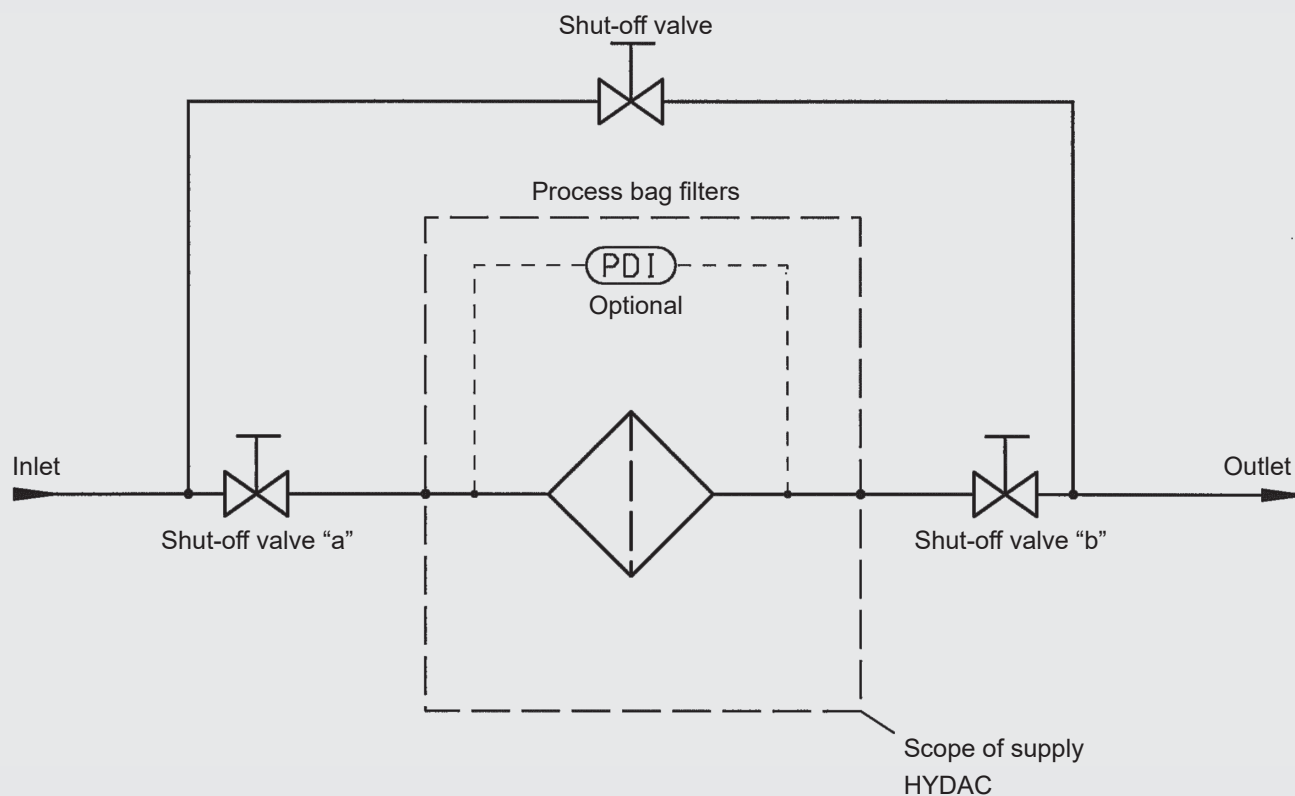
STEP 2: FILTER DIMENSIONING

Filtration rating	Max. permitted flow rate (Single housing)
>100 µm	30 m³/h
<100 µm	25 m³/h

STEP 3: SPECIFICATION OF FILTRATION RATING

- **Basic rule:**
As coarse as possible – as fine as necessary!
- **Note:**
Filter inserts are not included in the scope of supply and need to be ordered separately.

PIPING DIAGRAM



* If you have any questions regarding filter calculation, please contact the head office.

5. FILTER CONFIGURATION*

	Standard	Optional
Flange connections	■ Housing: DIN DN 50 ■ Piping: DIN DN 50 / 80	
Housing materials	Stainless steel: 1.4301 or similar (Group 304)	
Material, inner parts	Stainless steel: 1.4401 or similar (Group 304)	
Sealing materials	■ End cap: FPM ■ Flanges: asbestos-free gasket	Various seal materials on request and in accordance with the resistance to the medium
Differential pressure monitoring		■ Visual ■ Electrical ■ Visual-electrical ■ Differential pressure gauge with micro-switches ■ Back-pressure indicator
Multiple filter		Parallel piping of multiple filters
Documentation	Operation and maintenance instructions	

* Other versions and customer-specific special solutions after consultation with our head office.

6. MODEL CODE

MODEL CODE, PROCESS BAG FILTER PBF

PBF - F50 - 1 - 2 - F80 - E - F - 0 - 2 - 2 - L24 - 1235467

Process bag filter

Housing connection flange

DIN = F50

Size

- 1 = standard housing BG1
- 2 = standard housing BG2

Filter type

- 1 = one housing
- 2 = two housings, parallel piping
- 2 = two housings, parallel piping, can be shut off individually

Body and ports (customer interface)

- F50 = port DIN flange DN 50, for housing type 1 and 2A
- F80 = port DIN flange DN 50, for housing type 2

Housing material

- E = stainless steel 1.4301 (AISI 304)

Sealing material

- F = FPM (Viton)

Air vent

- 0 = vent plug
- 1 = with ball valve

Clogging indicator

- 0 = no clogging indicator
- 1 = with visual CI (PVD2B.1)
- 2 = with visual-electrical CI (PVD 2D.0/-L...)
- 3 = with visual-analogue CI (V01)
- 4 = with diff. pressure gauge AI (measurement range 4 bar)
- 5 = with diff. pressure gauge stainless steel (measurement range 4 bar)
- 6 = with purely electrical CI (PVD 2C.0)
- 7 = with purely electrical CI (PVL 2 GW.0/-V-110)
- E = with back-pressure indicator

Modification number

- X = the latest version of the specific type is always supplied

Supplementary details

Lamp voltage for visual-electrical clogging indicator:

- L24 = 24V supply voltage
- L110 = 110V supply voltage
- L230 = 230V supply voltage

Special number

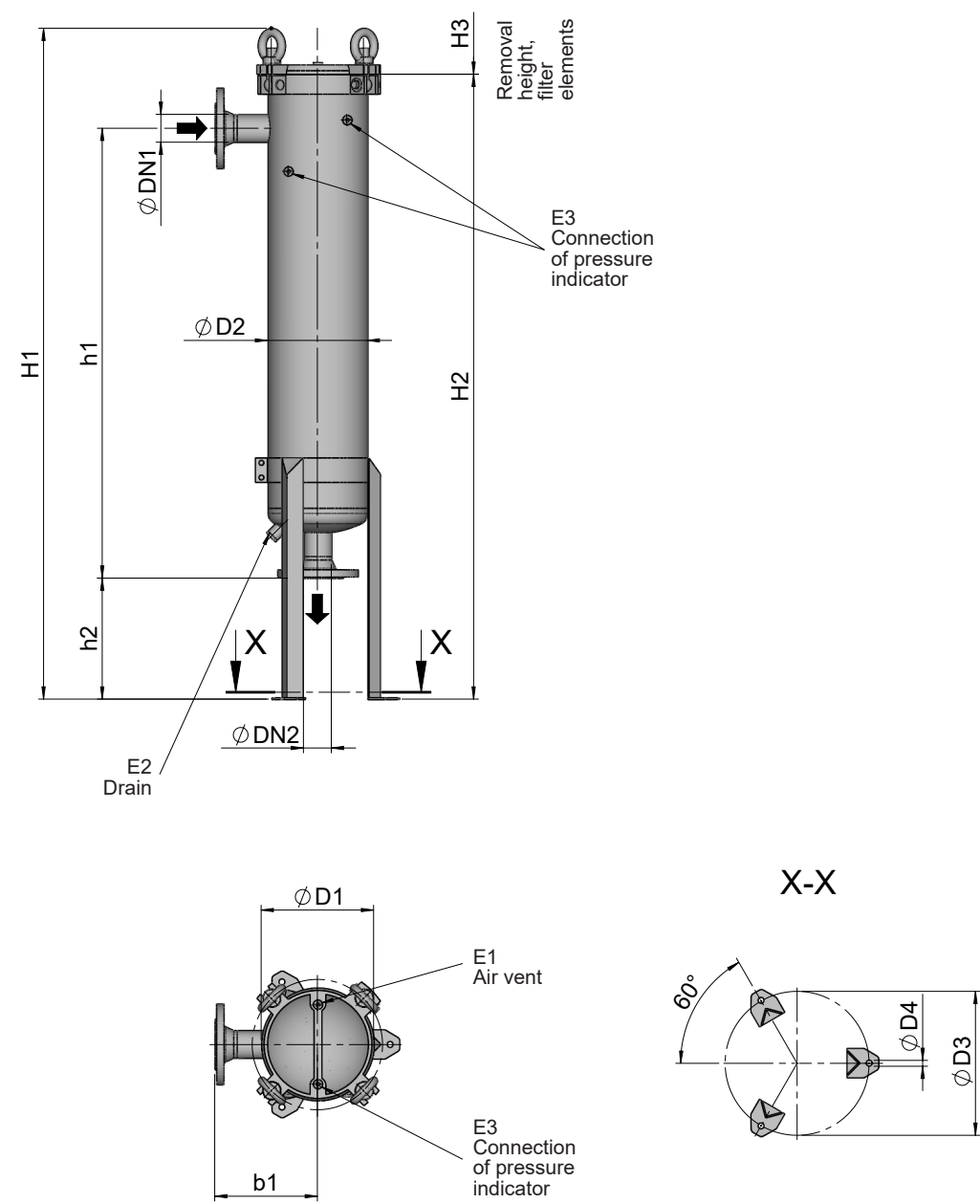
For special design (number will be issued after technical clarification with head office)

Note:

Filter inserts are not included in the scope of supply and need to be ordered separately.

7. UNIT DIMENSIONS

PBF 1-1 AND 2-1

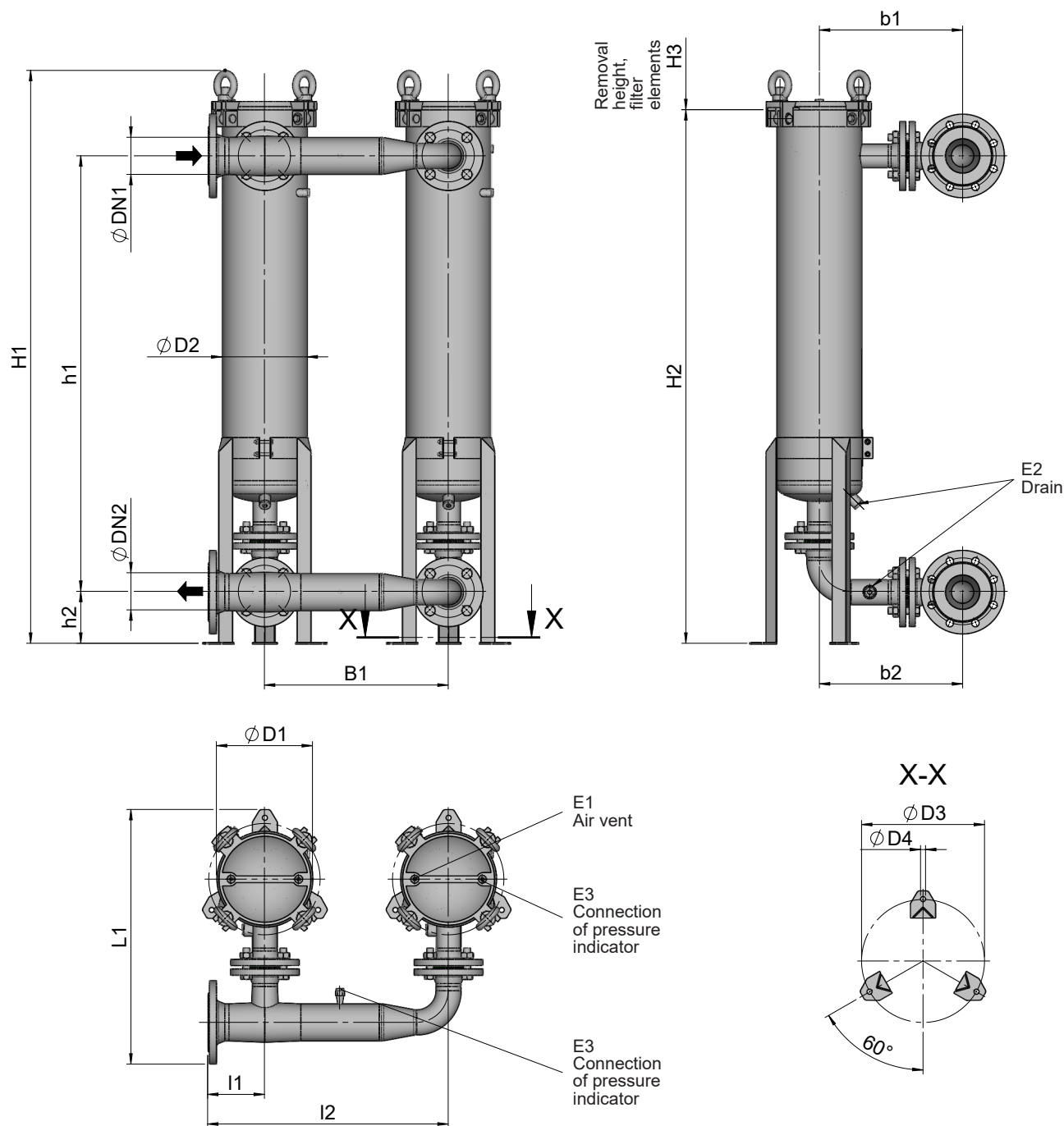


Values given in millimetres.
Subject to technical modifications.

Size	DN1	DN2	b1	h1	h2	H1	H2	H3	D1	D2	D3	D4	E1	E2	E3
PBF-1-1	50	50	210	556	max. 275	max. 1035	max. 941	600	230	204	294	12	G1/4	G1/2	G1/4
PBF-2-1	50	50	210	920	max. 275	max. 1405	max. 1305	1000	230	204	294	12	G1/4	G1/2	G1/4

7. UNIT DIMENSIONS

PBF 1-2 AND 2-2

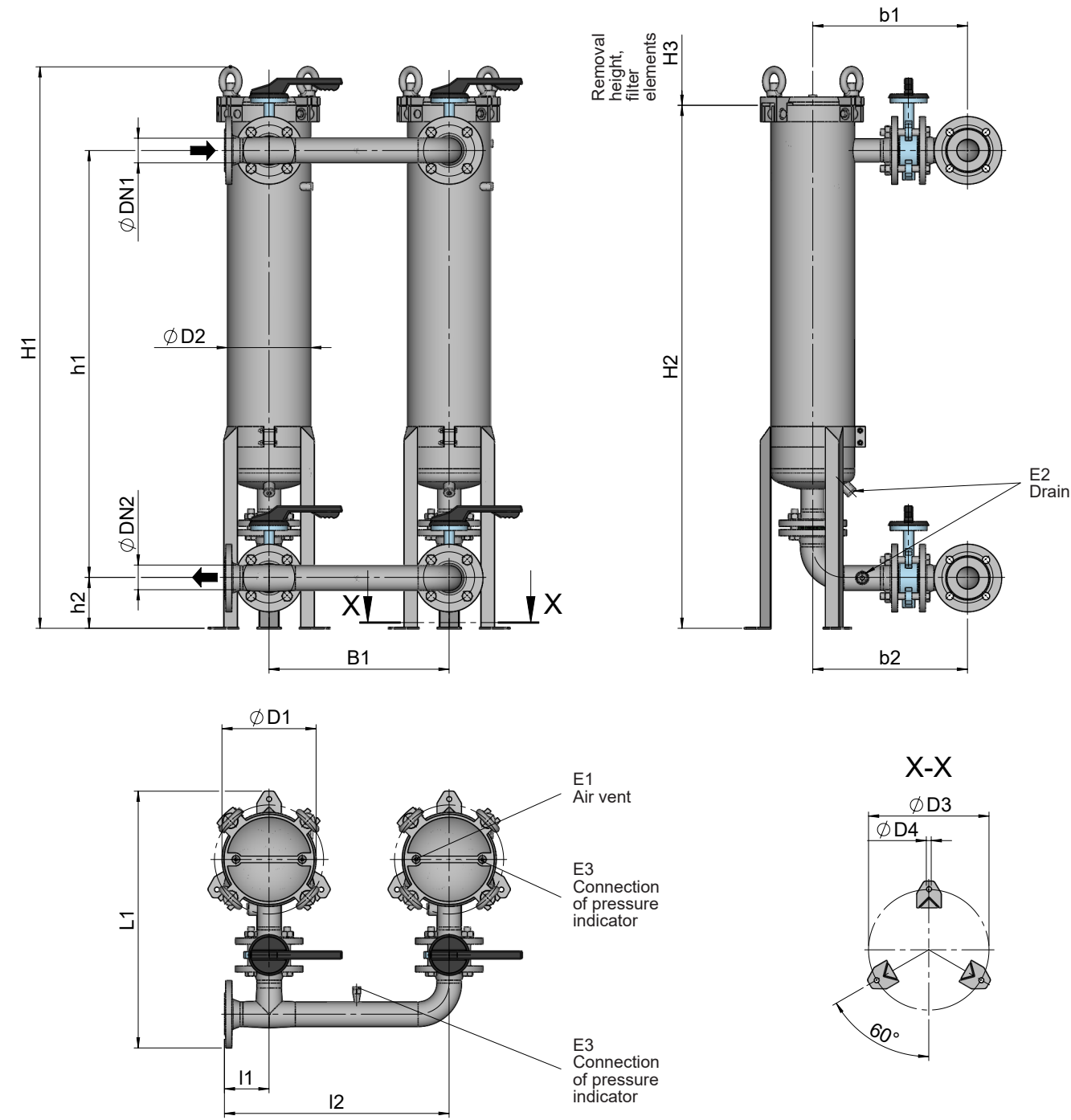


Values given in millimetres.
Subject to technical modifications.

Size	DN1	DN2	b1	b2	h1	h2	H1	H2	H3	B1	I1	I2	L1	D1	D2	D3	D4	E1	E2	E3
PBF-1-2	80	80	343	343	679	max. 155	max. 1035	max. 941	600	440	136	576	610	230	204	294	12	G1/4	G1/2	G1/4
PBF-2-2	80	80	343	343	1043	max. 155	max. 1405	max. 1305	1000	440	136	576	610	230	204	294	12	G1/4	G1/2	G1/4

7. UNIT DIMENSIONS

PBF 1-2A AND 2-2A



Values given in millimetres.
Subject to technical modifications.

Size	DN1	DN2	b1	b2	h1	h2	H1	H2	H3	B1	I1	I2	L1	D1	D2	D3	D4	E1	E2	E3
PBF-1-2A	50	50	378	378	679	max. 155	max. 1035	max. 941	600	440	109	549	627	230	204	294	12	G1/4	G1/2	G1/4
PBF-2-2A	50	50	378	378	1043	max. 155	max. 1405	max. 1305	1000	440	109	549	627	230	204	294	12	G1/4	G1/2	G1/4

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.

Subject to technical modifications.

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