

MAHLE

Industry

Cartridge filter

AFS1-8

1. Introduction

Specially designed for sterile filter applications we can offer a range of high quality sanitary filter housings in stainless steel. MAHLE Industrial Filtration supplies a complete range of filter housings. These housings have proven their quality in the pharmaceutical and beverage industries. For models from 12 up to 30 cartridges, please see Data Sheet AFS12-30.



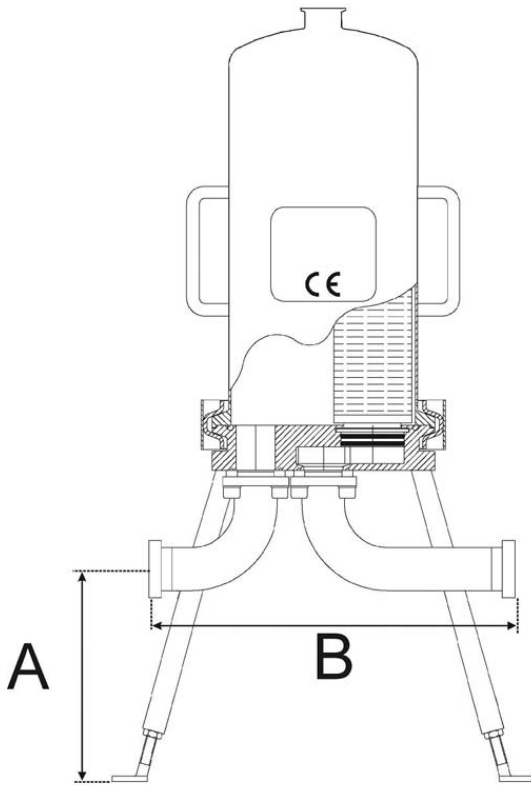
2. Features

- Compact design
- For 10", 20", 30" or 40" cartridges
- O-ring sealing: standard silicone, FDA / BfR approved
- Vessel material stainless steel 1.4404 (316L)
- Internally mechanically polished ($R_a < 0.8 \mu\text{m}$).
 - On request:
 - Internally mechanically polished ($R_a < 0.4 \mu\text{m}$)
 - Electropolishing (internal/external)
- Externally mechanically polished
- Tri-clamp closing
- Three adjustable support legs
- One vent connection (1.5" clamp)
- Drain connections optional
- Various instrument configurations possible

3. Standard specifications

Design pressure	: 0 / 10 bar(g) at 40 °C 0 / 7.5 bar(g) at 150 °C
Test pressure	: 14.5 bar(g)
Design temperature	: 0 / 150 °C
Operating pressure	: depending on application
Operating temperature	: depending on application, filter cartridge and gasket
Design code	: AD-Merkblätter
Approval	: PED 97/23/EC
Hazard category	: I
Fluid group	: 1 and 2

4. Housing data and dimensions



A = Height Inlet / Outlet
B = Distance Inlet / Outlet

Housing data		Number of cartridges			
Diameter	Cartridge length	1	3	5	8
		102	169	219	273
Total height [mm]	10"	800	810	825	846
	20"	1050	1060	1075	1096
	30"	1300	1310	1325	1346
	40"	1550	1560	1575	1596
Additional height required for lifting bowl [mm]	10"	300	290	290	290
	20"	550	540	540	540
	30"	800	790	790	790
	40"	1050	1040	1040	1040
Volume [dm ³]	10"	3.0	7.3	11.0	21.3
	20"	4.8	12.6	20.0	35.5
	30"	6.7	17.8	29.1	49.7
	40"	8.6	23.1	38.2	63.9
Total weight empty [kg]	10"	7.0	17.4	18.0	27.0
	20"	8.2	19.4	22.0	30.0
	30"	9.4	21.4	22.0	33.0
	40"	10.6	23.4	24.0	36.0
Bowl weight [kg]	10"	2.0	4.0	5.3	7.0
	20"	3.3	6.0	7.5	10.0
	30"	4.6	8.0	10.2	13.0
	40"	5.9	10.0	12.9	16.0

Dimensions																
Inlet / Outlet connections		Weld					DIN 11851 male part					Clamp				
		1.0"	1.5"	2.0"	2.5"	3.0"	DN25	DN40	DN50	DN65	DN80	1.0"	1.5"	2.0"	2.5"	3.0"
	[mm]	381	340	310	281	253	381	340	310	281	253	381	340	310	281	253
1 cartridge	no drains	163	-	-	-	-	221	-	-	-	-	189	-	-	-	-
	with drains	244	-	-	-	-	-	-	-	-	-	270	-	-	-	-
3 cartridges	no drains	-	285	-	-	-	-	351	-	-	-	-	310	-	-	-
	with drains	-	360	-	-	-	-	426	-	-	-	-	385	-	-	-
5 cartridges	no drains	-	305	353	-	-	-	371	423	-	-	-	331	379	-	-
	with drains	-	380	420	-	-	-	446	490	-	-	-	406	446	-	-
8 cartridges	no drains	-	331	379	442	498	-	379	449	518	588	-	357	405	469	524
	with drains	-	406	446	522	578	-	472	516	602	658	-	432	472	548	604

Dimensions are for reference only. Use dimensional drawing for installation purposes.
Subject to technical alteration without prior notice.

5. Ordering code

Example

AFS3 4 2 B 0 7

Type

AFS1 = 1 cartridge
AFS3 = 3 cartridges
AFS5 = 5 cartridges
AFS8 = 8 cartridges

Cartridge length

1 = 10"
2 = 20"
3 = 30"
4 = 40"

Inlet / outlet size

1 = 1.0" / DN25
1.5 = 1.5" / DN40
2 = 2.0" / DN50
2.5 = 2.5" / DN65
3 = 3.0" / DN80

Inlet / outlet connection

B = weld
M = DIN 11851 male part
T = clamp

Drain connections

0 = no drains
2 = two drains (clamp 1.5", for AFS1 clamp 1")

Cartridge style

7 = X7 and X6 style
8 = X8 and X3 style

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