

Alfa Laval housings

Auxiliary membrane equipment

Introduction

The sanitary, stainless steel housings from Alfa Laval are designed in different sizes and for different capacities to operate with the entire range of full-fit Alfa Laval spiral membranes for microfiltration, ultrafiltration, nanofiltration and reverse osmosis processes.

Alfa Laval housings are designed with different inner diameters which corresponds to the outer diameter of the Alfa Laval spiral membranes that are available for installation in these housings.

The housings can hold up to 5 spiral membranes, depending on the inner diameter of the housing and the working pressure applied. They are able to withstand operating temperatures up to 80°C and working pressures up to 64 bar.

Applications

The Alfa Laval housings are suitable for use within a wide range of high-sanitary processes in the food, beverage, dairy, biotech and pharmaceutical industries.



The housings are suitable for food contact. Declaration of compliance can be provided on request.



Benefits

- Compact and cost-effective solution with sanitary design
- Low energy consumption and minimized spiral membrane by-pass flow
- Quick and easy exchange of spiral membranes
- Tolerant to high operating temperature and working pressure
- Space-saving and rack mounted design
- Low weight and small internal volume
- Large ports and ideal flow distribution

Housing designation

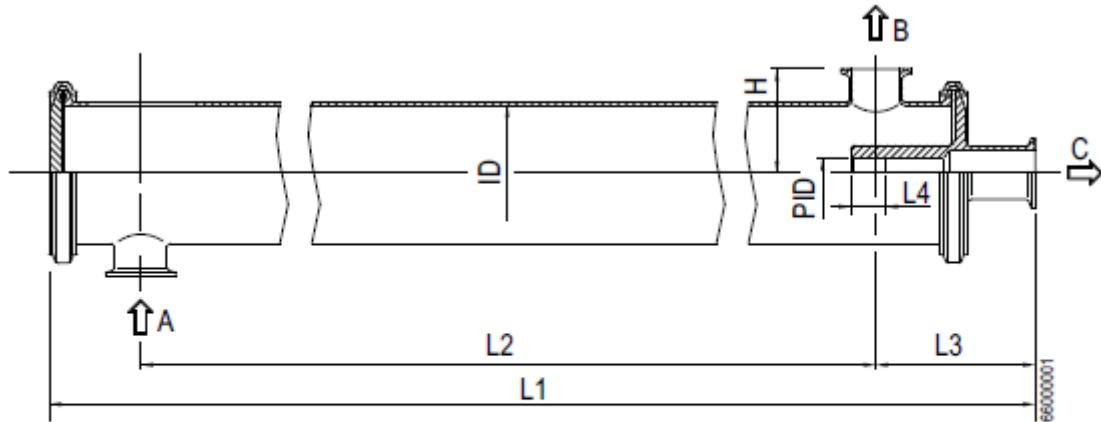
Example: Alfa Laval M6.3-2-PN16

Alfa Laval M6.3 = Inner diameter of housing (6.3") corresponding to the outer diameter of the spiral membrane

2 = Total number of spiral membranes which can be loaded

PN16 = Pressure rating in bar

Sizes and dimensions



Drawing of M6.3 housing

A = Feed

B = Retentate

C = Permeate

Standard size ¹	Code number	Housing					Port connections				
		L1	L2 ²	L3	L4	ID	PID	H	A + B	C	
M2.5-	1-PN64, 2538	531600	1197	1050	90	25	66	21.1	50.5	19	13 ³
	1-PN40	527501	1250	1060	115	25	97.6	21.1	75	38	25
	2-PN40	527502	2240	2050	115	25	97.6	21.1	75	38	25
	3-PN40	527503	3230	3040	115	25	97.6	21.1	75	38	25
	4-PN40	527504	4220	4030	115	25	97.6	21.1	75	38	25
M3.8-	5-PN40	527505	5210	5020	115	25	97.6	21.1	75	38	25
	1-PN16	525661	1260	1070	109	40	163.1	28.9	108	51	38
	2-PN16	525662	2250	2060	109	40	163.1	28.9	108	51	38
	3-PN16	525663	3240	3050	109	40	163.1	28.9	108	51	38
	1-PN16	527551	1325	1085	137	40	203.0	28.9	51	51	38
M6.3-	2-PN16	527552	2315	2075	137	40	203.0	28.9	51	51	38
	3-PN16	527553	3305	3065	137	40	203.0	28.9	51	51	38
	1-PN40	X536034	1406	1123	155	40	203.0	28.58	157	51	38
	2-PN40	X536035	2422	2139	155	40	203.0	28.58	157	51	38
	3-PN40	X536036	3437	3154	155	40	203.0	28.58	157	51	38
M8.0-	4-PN40	X536037	4457	4174	155	40	203.0	28.58	157	51	38
	5-PN40	X536038	5473	5190	155	40	203.0	28.58	157	51	38
	1-PN40	534901	1406	1123	155	40	203.0	28.9	157	51	38
	2-PN40	534902	2422	2139	155	40	203.0	28.9	157	51	38
	3-PN40	534903	3437	3154	155	40	203.0	28.9	157	51	38
M8.0-	4-PN40	534904	4457	4174	155	40	203.0	28.9	157	51	38
	5-PN40	534905	5473	5190	155	40	203.0	28.9	157	51	38
	1-PN64	-	1402	1155	137	40	203.0	28.58	151	51	38
	2-PN64	-	2422	2175	137	40	203.0	28.58	151	51	38
	3-PN64	-	3437	3190	137	40	203.0	28.58	151	51	38
M8.0-	4-PN64	-	4457	4210	137	40	203.0	28.58	151	51	38
	5-PN64	-	5477	5230	137	40	203.0	28.58	151	51	38
	1-PN64	525971	1402	1155	137	40	203.0	28.9	151	51	38
	2-PN64	525972	2422	2175	137	40	203.0	28.9	151	51	38
	3-PN64	525973	3437	3190	137	40	203.0	28.9	151	51	38
M8.0-	4-PN64	525974	4457	4210	137	40	203.0	28.9	151	51	38
	5-PN64	525975	5477	5230	137	40	203.0	28.9	151	51	38
	1-PN10	534831	1319	1085	137	40	213.1	28.9	138.1	63.5	38
	2-PN10	534832	2301	2067	137	40	213.1	28.9	138.1	63.5	38
	3-PN10	534833	3283	3049	137	40	213.1	28.9	138.1	63.5	38
M8.3-	4-PN10	534834	4265	4031	137	40	213.1	28.9	138.1	63.5	38

¹ For other sizes, please contact Alfa Laval

² Total length of spiral membranes and ATD couplers must be less than L2 minus feed port dimension (A)

³ ½" hose connection

Components and connections

Pipe, ports and end covers ¹	Stainless steel (AISI 316L)
End cover gasket	EPDM
External surfaces	Machine and glass-blasted or ground K320
Internal surface / weldings	Ra 0.8 µm / Ra 1.6 µm
Feed/water inlet, retentate and permeate outlets	ISO 2852 triclamp (hose connection)

¹ Clamp ring is used for housings of the types: M3.8–PN40, M6.3–PN16 and M8.0–PN16. Segmented lock rings are used for other housing types.

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