



Strainers for Membrane Filtration

Alfa Laval LKSF Slot Strainer

Application

LKSF has a wide range of applications within process filtering, especially where strainers of hygienic design are required.

Working principle Type LKSF-BL

The product enters at A. Impurities are stopped by the filter element. When the filter is full of particles, it can be cleaned by removing the clamp and pulling out the filter element. It is also possible to reverse the flow and flush out the impurities (back flush).

Working principle Type LKSF-CL

The product enters the filter at A. Most of the impurities will collect at the bottom and can be emptied via a valve, during operation. Emptying can also be automatic by means of two remote controlled valves at B. The upper valve is open during operation and the lower is closed. The impurities will collect between the two valves. Closing the upper valve and opening the lower one will empty the impurities with a minimum of product loss. The filter can be cleaned as LKSF-BL. The degree of filtering can be altered by changing filter element. Strainer type LKSF-CL must always be installed vertically. The degree of filtering may be changed immediately by changing elements.



TECHNICAL DATA

Max. working press. (20°C): 1000 kPa (10 bar).
 Temperature range: -100 to +140°C (EPDM)
 Strainer area: 1100 cm²
 Max. Δ p in flow direction: 1000 kPa (10 bar)
 Capacity: 10-120 m³/h (water) at Δ p = 1 bar

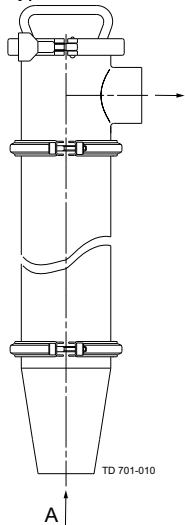
Separate pressure drop/capacity diagrams are available on request.

PHYSICAL DATA

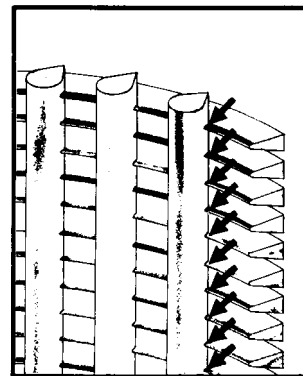
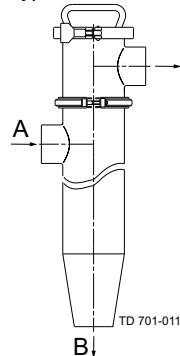
Materials

Product wetted steel parts: AISI 316
 Other steel parts: AISI 304
 Seals: EPDM rubber
 Surface finish: Semi bright

Type LKSF-BL



Type LKSF-CL



Welded at every intersection of vertical rod and surface wire.

The LKSF strainer element.

Standard Design

Both strainer types consist of a housing in three parts, LKSF-BL has housing in two parts (101.6 mm)(4") in which the strainer element is placed. The housing is assembled by means of clamps, (the upper clamp ring has a wing nut for manual operation) to allow for quick dismantling for the cleaning. The strainer element is fitted centrally in the housing and has direct access to the end cover of same where a welded on handle facilitates dismantling when cleaning is required.

Ordering

When ordering please specify strainer element, type of male part and position. (See fig. 3 - A, B, C).

Strainer elements - available slot sizes

Standard		Option	
74 µm	53 µm	595 µm	
105 µm	63 µm	841 µm	
177 µm	88 µm	1190 µm	
500 µm	125 µm	1410 µm	
707 µm	149 µm	1680 µm	
1000 µm	210 µm	2380 µm	
2000 µm	250 µm	2830 µm	
	297 µm	3360 µm	
	354 µm	4000 µm	
	420 µm		

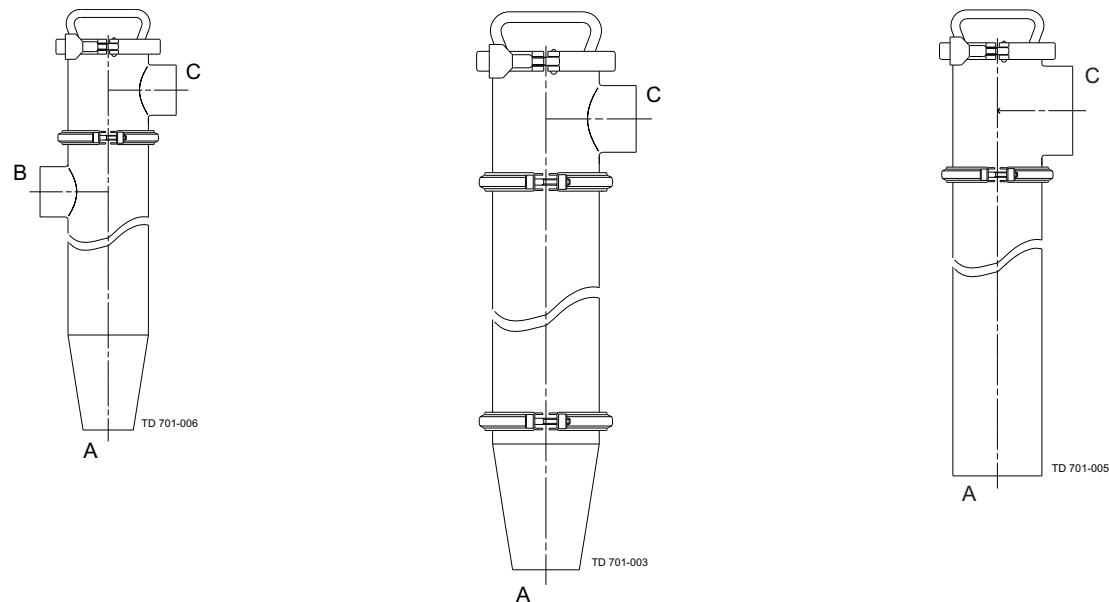
Separate pressure drop/capacity diagrams are available on request.

Additional length mm - for male parts (both types)

Size	25 mm	38 mm	51 mm	63.5 mm	76.1 mm	101.6 mm
DS	18.5	20.0	20.0	24.0	24.0	24.0
SMS	15.0	20.0	20.0	24.0	24.0	35.0
IDF	21.5	21.5	21.5	21.5	21.5	21.5
BS	22.2	22.2	22.2	22.5	22.2	27.0
Clamp	21.5	21.5	21.5	21.5	21.5	21.5
DIN	22.0	22.0	22.0	25.0	30.0	30.0

Separate pressure drop/capacity diagrams are available on request.

Connection Position



a. LKSF-CL

b. LKSF-BL
(25-76.1 mm)

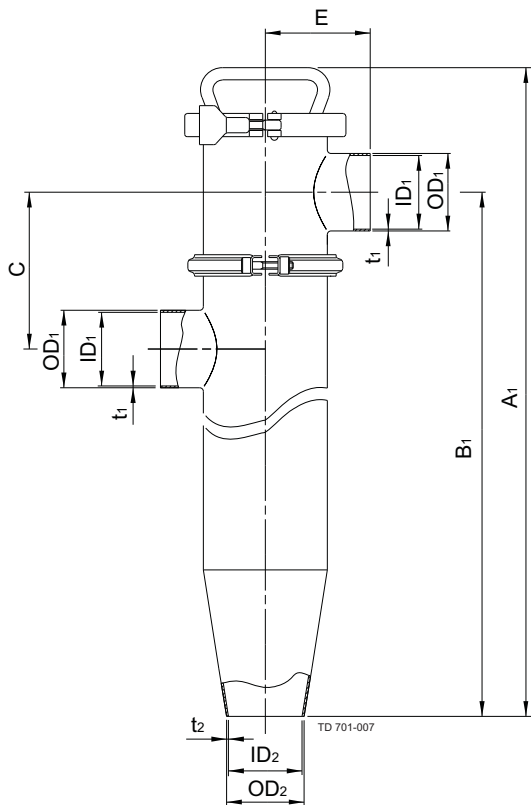
c. LKSF-BL
(101.6 mm)

Fig. 3 Strainer element and connection position.

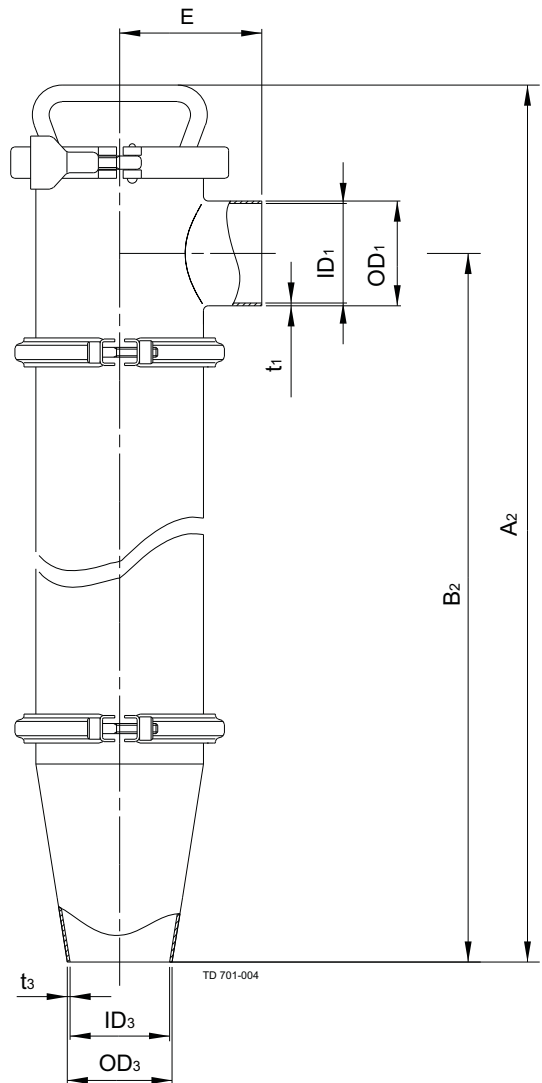
Dimensions mm

Size	25 mm	38 mm	51 mm	63.5 mm	76.1 mm	101.6 mm
A1	727	727	727	727	727	820
A2	852	808	766	727	688	693
B1	632.5	632.5	632.5	632.5	632.5	705
B2	756	712	670	631	592	583
C	130	130	130	130	130	150
OD ₁	25.4	38.1	50.8	63.5	76.2	101.6
ID ₁	22.2	34.9	47.6	60.3	73	97.6
t ₁	1.6	1.6	1.6	1.6	1.6	2
OD ₂	63.5	63.5	63.5	63.5	63.5	63.5
ID ₂	60.3	60.3	60.3	60.5	60.3	60.3
t ₂	1.6	1.6	1.6	1.6	1.6	1.6
OD ₃	25	38	51	36.5	76.1	101.6
ID ₃	22.6	35.6	47.8	60.3	72.1	97.6
t ₃	1.2	1.2	1.6	1.6	2	2
E	86	86	86	86	86	86
Weight (kg)	8.7	9.2	9.0	8.5	9.0	9.5

Separate pressure drop/capacity diagrams are available on request.



a. LKSF-CL



b. LKSF-BL

Fig. 4. Dimensions

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