Alfa Laval LKVF Coarse Strainer

Filters and strainers

Introduction

The Alfa Laval LKVF Coarse Strainer is a type of filter used to remove coarse particles from liquids from 0.039 to 0.118 in.

Application

The Alfa Laval LKVF Coarse Strainer is designed to remove coarse particles from the liquid flow to protect pumps or other sensitive equipment from damage. It is used on a wide range of applications across the dairy, food, beverage and brewery industries.

Benefits

- Safeguards membrane filtration, pumps and other equipment from damage
- Easy to install and clean
- High durability
- Flexible filter element selection

Standard design

The LKVF Coarse Strainer consists of a housing with inlet and outlet. Inside the housing, the filter element is fixed to allow the flow to be forced through it. This element consists of a perforated tube which is welded to a flange with a handle. This flange fits a ferrule on the casing to which it is clamped.

Working principle

The recommended flow direction is to allow the liquid to enter the inlet (A). The particles strained collect inside the filter element which facilitates cleaning, especially if the handle points downwards or if the strainer is installed in a horizontal position. The liquid leaves the strainer through the side outlet (B).

However, it is possible to allow the liquid to enter the inlet (B) since the perforated tube is designed to withstand the pressure drop in both flow directions. The liquid leaves the strainer through the outlet (A). If side connection (B) is used as the inlet, then the maximum product pressure is 101.5 PSI.

TECHNICAL DATA

Pressure	
Max. product pressure (A=inlet):	145 PSI (10 bar)
Max. product pressure (B=inlet):	101.5 PSI (7 bar)
Min. product pressure:	Full vacuum

Temperature	14 ºF to 284 ºF (EPDM)
Temperature range:	

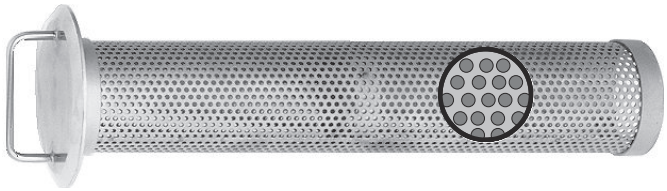
Strainer area	
1"-1.5"-2"	66.7 inch^2
2.5"-3":	130.2 inch^2

PHYSICAL DATA

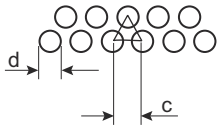
Materials	
Product wetted steel parts:	Acid-resistent steel AISI 316
Other steel parts:	Stainless steel AISI 304
Seals:	EPDM rubber
Surface finish:	Semi bright
Material grades	Seal of nitrile (NBR) or PTFE

Sizes
1", 1.5", 2", 2.5" and 3":

Strainer element perforation



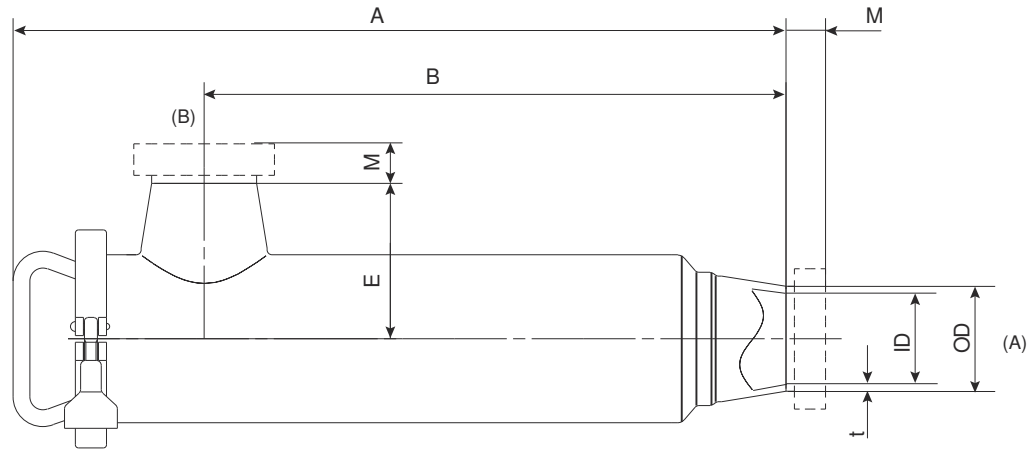
Filter element



d Inch	C Inch	Perforation
0.04	0.08	23%
0.08	0.14	30%
0.12	0.20	33%

Note!
Separate pressure drop/capacity diagrams are available on request.

Dimensions (inch)



Size	1 inch	1.5 inch	2 inch	2.5 inch	3 inch
A	16.50	14.76	13.11	18.11	16.57
B	11.34	9.61	7.95	13.86	12.32
OD	0.98	1.50	2.01	2.50	3.00
ID	0.89	1.40	1.92	2.37	2.84
t	0.05	0.05	0.04	0.06	0.08
E	4.76	3.03	3.03	3.70	3.70
M/DS male	0.73	0.79	0.79	0.94	0.94
M/SMS male	0.59	0.79	0.79	0.94	0.94
M/ISO male	0.85	0.85	0.85	0.85	0.85
M/BS male	0.87	0.87	0.87	0.87	0.87
M/DIN male	0.87	0.87	0.87	0.98	1.18
M/ISO clamp	0.85	0.85	0.85	0.85	
Weight (lb)	3.31	3.31	3.31	8.16	8.16

Pressure drop / capacity diagram

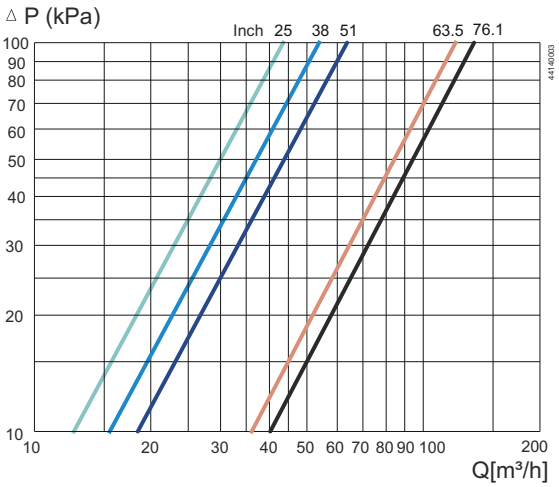


Figure 1. LKVF with ø0.079 inch holes in filter element. Medium: water (68 °F).

Ordering

Please state the following when ordering:

- Size
- Connections if not welding ends
- Size of holes in straining element, 0.039, 0.079 or 0.12 inch
- Options

200006199-2-EN-US

How to contact Alfa Laval

Up-to-date Alfa Laval contact details for all countries are always available on our website at www.alfalaval.com