



Flexmicron Lacquer FM-L

Description

The filter elements in the FlexMicron Lacquer (FM-L) product line are depth filter elements produced with melt-blown technology.

These elements have been developed and optimized specifically for varnish and paint filtration.

Technical Data

General data	
Length	10", 20", 30", 40"
Filtration rating	1 ... 200 µm
Filtration performance	95 %
Filter material of element	Polypropylene (PP)

Applications

- Varnishes, Paints

Special features

- Filtration performance 95%
- Filtration rating 1 ... 200 µm
- Sorting accuracy
- Caps welded, not glued
- Wide range of adapters
- Cost-effective
- Materials: Polypropylene
- Spray spun technology, not wrapped
- High media compatibility
- Commercially available element geometry
- Good cleanliness due to graded depth filter construction
- High contamination retention due to large depth effect of the filter material
- Production without contact to oil or silicon permits the filtration of varnishes and paints

Order details:

N 40 FM-L 005 - PP 1 F

Filter element length _____

10 = 10"
20 = 20"
30 = 30"
40 = 40"

Element type _____

FM-L = Flexmicron Lacquer

Filtration rating _____

001 = 1 µm
003 = 3 µm
005 = 5 µm
010 = 10 µm
020 = 20 µm
030 = 30 µm
040 = 40 µm
050 = 50 µm
070 = 70 µm
100 = 100 µm
125 = 125 µm
200 = 200 µm

Filter material of element _____

PP = Polypropylene

End cap form _____

0 = cutting ring (DOE), no cap or sealing (Ø 64 mm)
1 = Plug adapter (1 x 222 o-ring), flat end cap (Ø 64 mm)
2 = Plug adapter (2 x 222 o-ring), flat end cap (Ø 64 mm)
10 = Gasket (DOE) (Ø 64 mm)
13 = Plug adapter (2 x 222 o-ring), center point (Ø 64 mm)
14 = Bayonet (2x 226 O-Ring), center point (Ø 64 mm)
others on request

Sealing material _____

F = FKM (Viton®, FPM)
N = NBR
E = EPDM
Z = No seal (only for end cap form 0)

other element types on request

R (Resistance) Factors

		Aqueous fluids
Filtration rating	1 µm	30
	3 µm	22
	5 µm	11
	10 µm	8
	20 µm	7.2
	30 µm	6.7
	40 µm	5.3
	50 µm	4.2
	70 µm	3
	100 µm	1.9
	125 µm	1.3
200 µm	0.8	

Maximum differential pressure Δp_{max} and permitted temperature range at the element

Fluid temperature	Maximum differential pressure Δp_{max}
-10 ... 30 °C	4 bar
-10 ... 60 °C	2 bar
-10 ... 100 °C	-

Sizing

The total pressure drop of the filters at a certain flow rate is the sum of the housing Δp and the filter element Δp . The pressure drop of the housing Δp can be determined using a pressure loss curve. The pressure loss of the filter elements is computed on the basis of the R factors.

The following calculation is based on clean filter elements.

$$\Delta p [\text{bar}] = \frac{R \times V (\text{mm}^2/\text{s}) \times Q (\text{l}/\text{min})}{n \times l (\text{inch}) \times 1000}$$

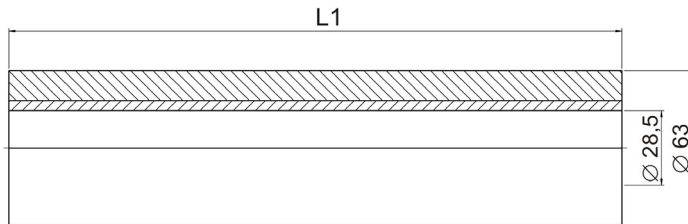
R = R Factor
V = viscosity (mm²/s)
Q = flow rate (l/min)
n = Number of filter elements
l = Filter element length (inch)

Maximum permitted flow rate

Filter element length	Maximum permitted flow rate
10"	15 l/min
20"	30 l/min
30"	45 l/min
40"	60 l/min

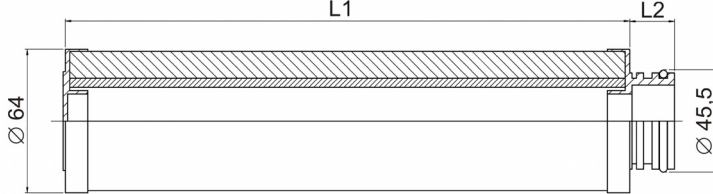
Dimensions of Flexmicron L Elements

Type 0: Cutting ring (DOE), no cap or seal



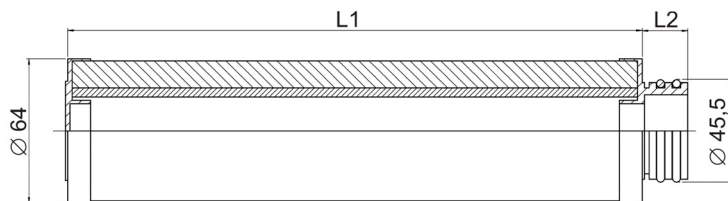
Description	L1 in mm
N10FM-L...	254
N20FM-L...	508
N30FM-L...	762
N40FM-L...	1016

Type 1: Plug adapter (1 x 222 o-ring), flat end cap



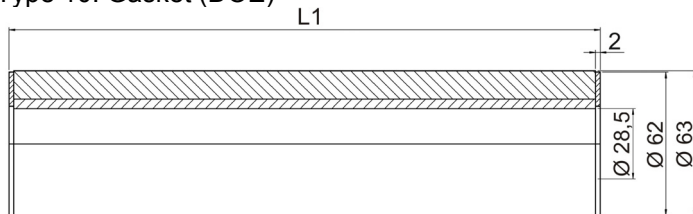
Description	L1 in mm	L2 in mm
N10FM-L...	254	20
N20FM-L...	508	20
N30FM-L...	762	20
N40FM-L...	1016	20

Type 2: Plug adapter (2 x 222 o-ring), flat end cap



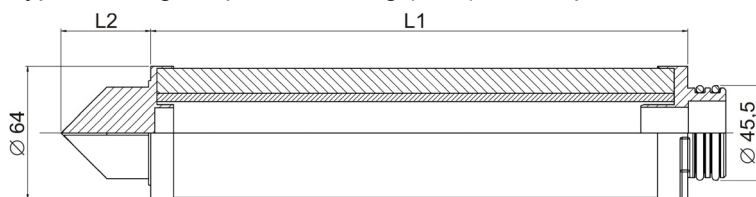
Description	L1 in mm	L2 in mm
N10FM-L...	254	20
N20FM-L...	508	20
N30FM-L...	762	20
N40FM-L...	1016	20

Type 10: Gasket (DOE)



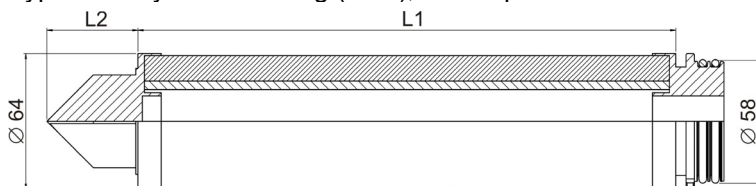
Description	L1 in mm
N10FM-L...	254
N20FM-L...	508
N30FM-L...	762
N40FM-L...	1016

Type 13: Plug adapter 2x O-Ring (-222), center point



Description	L1 in mm	L2 in mm
N10FM-L...	254	43
N20FM-L...	508	43
N30FM-L...	762	43
N40FM-L...	1016	43

Type 14: Bayonet 2x o-ring (-226), center point



Description	L1 in mm	L2 in mm
N10FM-L...	235	43
N20FM-L...	489	43
N30FM-L...	743	43
N40FM-L...	997	43

Note:

The information in this brochure relates to the operating conditions and applications described.

In the event of deviating applications and/or operating conditions, please contact the respective HYDAC department concerned.

Subject to technical modifications.

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