

Formally Known as "MTS - Membrane Technology Systems"

5 - 20 gpm

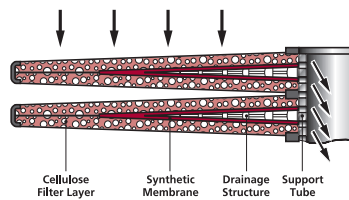
19-75 L/min

85 psi

6.0 bar



Single Membrane Element



Element Cross Section

Features and Benefits

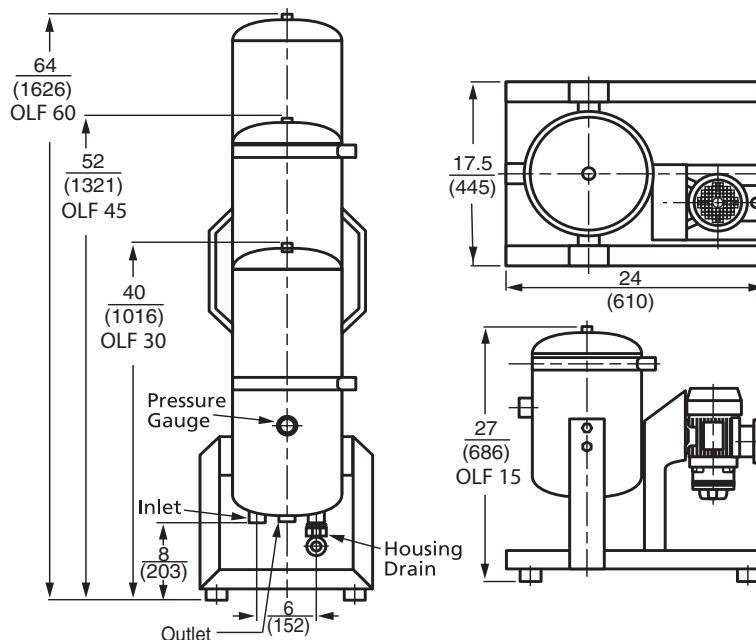
- Effectively cleans hydraulic and cleaning fluids, lubricating oils, and coolants
- Provides excellent dirt removal efficiency, even in single pass filtration
- Available with pump and motor or can be utilized as an individual filter
- Included framework makes unit ready to install
- Easy to retrofit existing system
- Test points provided on all models
- Housing drain standard on all units

Applications

- Off-line filtration for hydraulic systems and test stands
- Bypass filtration
- Flushing and filling applications
- In-line auxiliary filtration

Description

The OLF from Schroeder is an off-line filtration system that features unique membrane elements constructed of stacked disks where dirt holding capacity is measured in pounds instead of grams, drastically reducing the amount of time required to clean up highly contaminated fluids. The abundant media surface area afforded by the stacked disk construction combined with the highly efficient membrane filtration give the OLF its very impressive dirt retention characteristics. The OLF can hold up to four filter elements and can be supplied as a stand-alone filter or with a pump and motor.



Metric dimensions in ().

Offline Filtration Systems

OLF

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	OLF-15	OLF-30	OLF-45	OLF-60
Connections:	Inlet = Female O-Ring Boss; Outlet Male JIC			
Housing Inlet & Outlet:	1 5/6 - 12UN (SAE 16); G 1" BSPP*			
Pump Inlet: Gear	1 1/16 - 12UN (SAE 12); G 3/4" BSPP	1 5/16 - 12UN (SAE 16); G 1" BSPP	1 7/8 - 12UN (SAE 24); G 1 1/2" BSPP	
Filter Element:	N15DMxxx(1x)	N15DMxxx(2x)	N15DMxxx(3x)	N15DMxxx(4x)
Contamination Retention Capacity:	1.1lbs (500g)	2.2lbs (1000g)	3.3lbs (1500g)	4.4lbs (2000g)
Filter Efficiency:	$\beta_x > 1000$			
Permissible Δp Across the Element:	72.5 psi (5 bar)			
Element Weight:	6.6lbs (3 kg)	13.2lbs (6 kg)	19.8lbs (9 kg)	26.4lbs (12 kg)
Material of Filter Housing:	Stainless Steel			
Capacity of Pressure Vessel:	5.25 gal. (20 l)	10.50 gal. (39.7l)	15.75 gal. (59.6 l)	20.5 gal. (28.1 l)
Max. Operating Pressure - Filter Housing:	85 psi (5.86)			
Material of Seals - Housing:	Buna N	Buna N	Buna N	Buna N
Housing Weight:	25lbs (11.3 kg)	33lbs (15 kg)	53lbs (24 kg)	62lbs (28.1 kg)
Fluid Temperature:	15 to 175°F (-9.4 to 79.4°C)			
Motor-Pump Units:	5 gpm 18.9 lpm)	10 gpm (37.8 lpm)	15 gpm (56.8 lpm)	20 gpm (75.5 lpm)
Pump Operating Pressure:	65 psi (4.5 bar)			
Gear Pump Viscosity Range:	7-5000 SUS (14 to 1078 cSt)			
Gear Pump Motor Capacity:	370 W	570 W	1500 W	1500 W
Material of Seals - Pumps:	Buna N	Buna N	Buna N	Buna N
Dry Weight of OLF System:	50 lbs. (22.7 kg)	77 lbs. (34.9 kg)	116 lbs. (57.6 kg)	132 lbs. (60 kg)

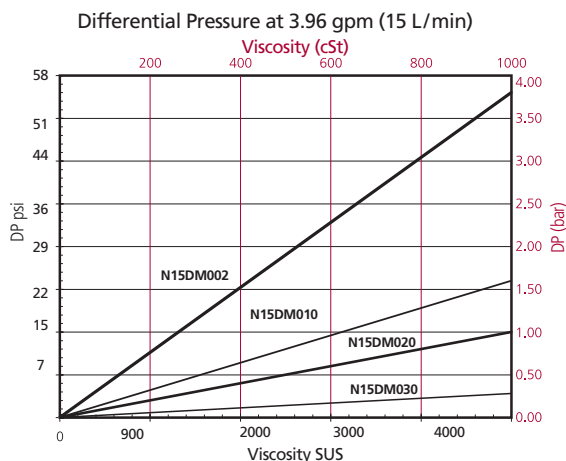
Housing drain standard on all units

BLACK = SAE connections when using adapters which are supplied standard

RED = BSPP connections if supplied adapters

Specifications

Element Pressure Drop



CS 1000

CS 1939

CSI-C-11

HY-TRAX*

RBSA

CSM

FCU

MCS

AS

SMU

CTU

EPK

Trouble
Check Plus

HMG2500

HMG4000

ET-100-6

HTB

RFSA

HFS-BC

HFS-15

MFD-BC

MFS, MFD

HY-TRAX*
Retrofit System

MFD-MV

MFS-HV

AMS, AMD

FS

AMFS

KLS, KLD

KLCO

MCO

AKS, AKD

LSN, LSA, LSW

X Series

OLF Compact

OLF

OLF-P

NxTM

VEU-F

VMU

IXU

Triton-A

Triton-E

NAV

SVD01

OXS

Appendix

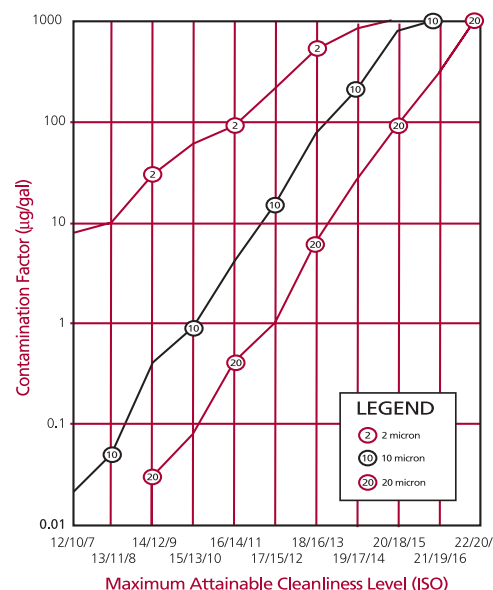
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Sizing Off-line Filtration

The following calculations will help to approximate the attainable system cleanliness level when applying off-line filtration.

Step 1: Select the approximate contamination ingress rate from the chart. Quantitative investigations have yielded the following approximate figures.

Type of System	Contamination Ingression (µg/gal) Surroundings		
	Clean	Normal	Polluted
Closed circuit	1	3	5
Injection molding machine	3	6	9
Standard hydraulic system	6	9	12
Lubrication system	8	11	14
Mobile equipment	10	13	16
Heavy industrial press	14	18	22
Flushing test equipment	42	60	78



Step 2: Make the correction required for off-line filtration.

The contamination input selected above must be multiplied by the factor:
Main System Flow Rate / Desired Off-line Flow Rate

Note: Main system flow rate must be corrected for cycle time. For example, if the flow rate is 500 gpm, but only runs for 20% of the system cycle, the main system flow rate would be 100 gpm. (500 gpm X 20%)

This yields the expression:

$$\text{Contamination Factor} = \text{Contamination Input (}\mu\text{g/gal)} \times \frac{\text{Main System Flow Rate (gpm)}}{\text{Desired Off-line Flow Rate (gpm)}}$$

Calculate the contamination factor using this expression.

Step 3: Determine the attainable cleanliness level. Locate the calculated contamination factor on the y-axis of the attached graph. Go to the right to find the intersection point on the curve corresponding to the desired absolute filter micron rating. Read the resulting attainable cleanliness level on the x-axis. (In case of dynamic flow through the off-line filter, the attainable cleanliness level will be 2 to 3 times worse than indicated by the graph.)

Off-line Filtration Sizing Example:

Type of System: Heavy industrial press

Surroundings: Normal

Main System Flow Rate: 150 gpm

Desired Off-line Flow Rate: 20 gpm (OLF-60)

Step 1: Using this criterion select the approximate contamination ingress rate from the chart above.

This yields a contamination input of 18 µg/gal based on a heavy industrial press with normal surroundings.

Step 2: Make the correction required for off-line filtration.

$$\text{Contamination Factor} = 18 \mu\text{g/gal} \times 150 \text{ gpm} / 20 \text{ gpm} = 135$$

Step 3: Determine the approximate attainable cleanliness level for each micron rating using the attached graph. If the attainable cleanliness level is not acceptable, the desired off-line flow rate should be increased. The approximate attainable levels for this example are as follows.

2 µm - ISO 17/15/12

20 µm - Between ISO 20/18/15 and ISO 21/19/16

Offline Filtration Systems

OLF

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How to Build a Valid Model Number for a Schroeder OLF:

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8
OLF							

Example: NOTE: One option per box

BOX 1	BOX 2	BOX 3	BOX 4	BOX 5	BOX 6	BOX 7	BOX 8	
OLF	30	30	G	L60	N15DM002	E	12	= OLF-30/30-G-L60-N15DM002-E/-12

Model Number Selection

Highlighted product eligible for **QuickDelivery**

BOX 1	BOX 2	BOX 3
Model	Size	Pump Flow Rate (must be ≤ to size)
OLF = Stationary offline filter	15 = 1 element	15 = 5 gpm
OLFCM = Stationary offline filter with integrated contamination monitoring sensors	30 = 2 elements	30 = 10 gpm
	45 = 3 elements	45 = 15 gpm
	60 = 4 elements	60 = 20 gpm
		Z = without pump

This code entry (15,30,45,60) must be less than or equal to the same size entry (15,30,45,60)

BOX 4	BOX 5	BOX 6
Pump Type	Motor Voltage	Filter Element
G = Gear Pump	L60 = 115V, Single Phase	N15DM002 = Dimicron® 2 µm Absolute
Z = Without motor-pump	O60 = 460V, Three Phase	N15DM010 = Dimicron® 10 µm Absolute
	Z = Without motor-pump	N15DM020 = Dimicron® 20 µm Absolute
		N15DM030 = Dimicron® 30 µm Absolute
		Z = No filter element supplied

BOX 7	BOX 8
Clogging Indicator	Model
E = Standard gauge	12 = SAE adapters (BSPP connections are standard)
BM = Differential visual VM2BM.1	V = Viton® Seals (NBR seals are standard)
C = Differential electrical VM2C.0	PKZ = On/Off Switch and Overload Protective Motor Switch
D = Differential visual/electrical	C = Cart-style mobile frame
	PC = Hytrax-HV Contamination Monitoring Unit (only with L60 motor voltage; contact SI for other product configurations)
	CSI = CSI-C-11 Sensor Interface Option for data acquisition (only with PC option)
	CSI-W = CSI-C-11 Sensor Interface Option for data acquisition with AS1008 Water Saturation Sensor (only with PC option)

For replacement element part numbers, please see "Appendix Section - Replacement Elements" of this catalog.

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CS 1939

CSI-C-11

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FCU

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EPK

Trouble
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HMG2500

HMG4000

ET-100-6

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HFS-BC

HFS-15

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MFS, MFD

HY-TRAX®
Retrofit System

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