

Hydraulic Filtration Product Range



PASSION TO PERFORM





Positioned on the return line to the tank, return filters perform the task of filtering fluid and preventing particles entering the system - externally or from internal wear and tear of components.

These filters are normally fixed to the reservoir and are positioned fully or semi-immersed.

The position of the filters ensures returning fluid takes place in an immersed condition in all operating conditions - preventing the creation of foams and vortexes in the tank that can cause malfunctions or cavitation in the pumps.

The correct filter size will depend on the presence of accumulators or cylinders which can increase the return flow considerably.

As working pressures are relatively low, these filter ranges are normally light yet still robust.

For convenience it is possible to extract the filter element without disconnecting the filter from the rest of the system.

Key features:

- Inorganic microfibre from 3 µm to 25 µm
- Wire mesh from 25 µm to 90 µm
- Resin impregnated paper from 10 µm to 25 µm

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THE NEW FILTER CONCEPT



MPFX
MPTX
MFBX

Connections:

- from G3/4" to G2"
- from 3/4" NPT to 2" NPT
- from SAE 6 - 9/16" - 18 UNF to SAE 32 - 2 1/4" - 12 UN
- from 1 1/4" SAE 3000 psi/M to 4" SAE 3000 psi/M
- from 1 1/4" SAE 3000 psi/UNC to 4" SAE 3000 psi/UNC
- hose barb ø12
- UNI 2223 DN 100 PN 10/16

TYPE	DESCRIPTION	Pmax		Qmax	
		bar	psi	l/min	gpm
MPFX - MPF 020, 030, 100, 104, 110, 181, 182, 184, 191, 192, 194, 400, 410, 450, 451, 750	Tank top semi-immersed filter, standard filter element removal	8	116	750	198
MPLX 250, 660	Tank top semi-immersed filter, standard filter element removal	10	145	1800	476
MPTX - MPT 025, 027, 110, 114, 116, 120	Tank top semi-immersed filter, standard filter element removal	8	116	300	79
MFBX - MFB 020, 030, 100, 180, 190	Element and bowl assembly with optional cover and hold-down spring for dirtbox or molded tank applications	8	116	500	132
MPH 110, 114, 116, 120, 250, 630, 660, 850 MPI 100, 250, 630, 850	Tank top semi-immersed filter, standard filter element removal	10	145	3000	793
FRI 025, 040, 100, 250, 255, 630, 850	Tank top semi-immersed filter, standard filter element removal; can also be used as an in-line filter	20	290	1500	396
RF2 250, 350	Semi-immersed filter with shut-off valve for side tank mounting, easy filter element removal	20	290	350	92

Low & Medium Pressure Filters

Designed as in-line return or off-line recirculation filtration protecting the most sensitive regulation and control components such as servo and proportional valves, LMP series filters deliver maximum protection from contamination. Boasting a robust design, in-line housing and a wide choice of accessories, the LMP series offers a diverse range of models to suit all needs. Available in low and medium pressure, customers can also specify small to large flow rates and choose from a selection of different filter elements. Mounted in-line along the hydraulic circuit in a variety of low or medium pressure applications, the LMP series has been designed for a wide range of industrial sectors, like steelworks, test bench, mobile and maritime applications. LMP filters are available with threaded or flanged connections directly integrated into circuit control blocks / manifolds. They are also available in a duplex configuration to allow the contaminated section to be maintained without disruption even when the system is fully operational. They can also be used 'offline' for recirculation or lubrication lines.



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Key features include:

- Inorganic microfibre from 3 µm to 25 µm
- Wire mesh from 25 µm to 90 µm
- Resin impregnated paper from 10 µm to 25 µm
(Not LMP900-901/902-903/950-951/952-953-954)

Connections:

- from G3/4" to G4"
- from 3/4" NPT to 2" NPT
- from SAE 12 - 1 1/16" - 12 UN to SAE 24 - 1 7/8" - 12 UN
- from 1 1/4" SAE 3000 psi/Metric to 4" SAE 3000 psi/Metric
- from 1 1/4" SAE 3000 psi/UNC to 4" SAE 3000 psi/UNC

TYPE	DESCRIPTION	Pmax		Qmax	
		bar	psi	l/min	gpm
LMP MULTIPOINT 110, 112, 116, 118, 119, 120, 122, 123	In-line filter with Multipoint design for multiple choice connection and integral valving	80	1160	200	53
LMP 210, 211	In-line low & medium pressure filter, low flow rate	60	870	330	87
LMP 400, 401, 430, 431	In-line low & medium pressure filter, high flow rate	60	870	740	195
LMP 950, 951	In-line filters, available with between 2-6 different heads	30	435	2400	634
LMP 952, 953, 954	In-line low pressure filter specifically designed to be mounted in series	25	363	3000	793
LMD 211	In-line duplex medium pressure filter	60	870	330	87
LMD 400, 401, 431	In-line duplex low pressure filter	16	232	590	156
LMD 951	In-line duplex filters, available with between 2-6 different heads	16	232	1200	317
LDP - LDD 016, 025, 040	In-line and duplex medium pressure filter, filter elements designed according to DIN 24550	60	870	330	87
LMP 900, 901	In-line low pressure filter, filter elements designed according to DIN 24550	30	435	2000	528
LMP 902, 903	In-line filter specifically designed to be mounted in series, filter elements designed according to DIN 24550	20	290	3000	793

High Pressure Filters

Located downstream of the pump, High Pressure Filters are designed to withstand the maximum pressure of the system and are sized according to the specific flow rate of the pressure line where they are positioned.

Featuring robust build quality, these filters have been specially designed to thrive under high working pressures and offer exceptional protection to sensitive components located directly downstream of the filters, such as servovalves.

A wide range of models is available to satisfy all needs - from small to large flow rates - with a choice of filter elements to ensure maximum circuit protection.

High Pressure Filters are available with threaded, flanged or manifold connections which are directly integrated into circuit control blocks / manifolds.

They are also available in duplex configuration to enable the contaminated section to be maintained even when the plant or system is in operation without any interruptions to the working cycle.

These filters have been created for high pressure circuits in a wide variety of applications, including: steelworks, mobile, test benches and the maritime and industrial sectors.

Key features include:

- Inorganic microfibre from 3 µm to 25 µm
- Wire mesh from 25 µm to 90 µm



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Connections:

- from G3/4" to G1"
- from 3/4" NPT to 1" NPT
- from SAE 6 - 9/16" - 18 UNF to SAE 24 - 1 7/8" - 12 UN
- from 3/4" SAE 3000 psi/M to 4" SAE 3000 psi/M
- from 3/4" SAE 3000 psi/UNC to 2" SAE 3000 psi/UNC
- from 1 1/2" SAE 6000 psi/M to 2" SAE 6000 psi/M
- from 1 1/2" SAE 6000 psi/UNC to 2" SAE 6000 psi/UNC
- M18x1.5 - ISO 6149
- M22x1.5 - ISO 6149
- manifold side "A"
- manifold side "B"
- direct mounting bowl & element into manifold block

TYPE	DESCRIPTION	Pmax		Qmax	
		bar	psi	l/min	gpm
FMP 039	High pressure filter for industrial applications, low flow rate	110	1595	80	21
FMP 065, 135, 320	High pressure filters for industrial applications, low flow rate	320	4641	475	125
FHP 010, 011, 065, 135, 350, 500	Typical high pressure filters for industrial applications, high flow rate	420	6092	750	198
FMM 050, 150	Typical high pressure filter for mobile applications	420	6092	250	66
FHA 051	Filter optimized for use in high pressure operating systems, low flow rate	560	8122	140	37
FHM 006, 007, 010, 050, 065, 135, 320, 500	High pressure filter with intermediate manifold construction, CETOP design	320	4641	450	119
FHB 050, 065, 135, 320	High pressure filters for manifold mounting	320	4641	485	128
FHF 325	In-line or manifold mounting filters designed to assemble HF4 filter elements according to SAE J2066	350	5076	500	132
FHD 021, 051, 326, 333	In-line duplex high pressure filters	350	5076	345	91



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Stainless steel construction ensures peak protection when operating in corrosive environments or when dealing with aggressive fluids.

Featuring robust build quality, these filters have been specially designed to thrive under high working pressures and offer exceptional protection to sensitive components located directly downstream of the filters, such as servovalves.

A wide range of models is available to satisfy all needs - from small to large flow rates - with a selection of filter elements to guarantee maximum circuit protection.

They are also available with threaded, flanged or manifold connections which are directly integrated into circuit control blocks / manifolds, or in duplex configuration to enable the contaminated section to be maintained even when the plant or system is in operation with interrupting the working cycle.

These filters have been created for high pressure circuits in a variety of applications, including: steelworks, mobile, test benches and the maritime and off-shore sectors.

Key features include:

- Inorganic microfibre from 3 μm to 25 μm

Connections:

- from G3/4" to G1"
- from 3/4" NPT to 1" NPT
- from SAE 5 - 1/2" - 20 UNF to SAE 20 - 1 5/8" - 12 UN
- manifold
- manifold, with connection for differential indicator
- with autoclave 20k psi: 9/16" - 18 UNF and 3/4" - 14 NPS

TYPE	DESCRIPTION	Pmax		Qmax	
		bar	psi	l/min	gpm
FZP 039, 136	In-line pressure filter with threaded mount	420	6092	150	40
FZH 010, 011, 039	In-line pressure filter with threaded mount for higher pressure	700	10153	50	13
FZX 011	In-line pressure filter with threaded mount up to 1000 bar	1000	14504	10	3
FZB 039	Manifold side mounting	320	4641	75	20
FZM 039	Manifold top mounting	320	4641	70	18
FZD 010, 021, 051	Duplex pressure filter for continuous operation	350	5076	90	24

THE NEW FILTER CONCEPT



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Designed for use in systems with two or more circuits, MRSX and LMP124 series filters are commonly used in hydrostatic transmission machines where they have a dual filtration function - serving both the return line and the suction line of the hydraulic transmission pump.

They are equipped with a valve which maintains 0.5 bar (7.25 PSI) within the filter.

A percentage of the fluid that returns to tank is filtered by the return line filter, this is usually an absolute rated filter. This fluid is then returned to the transmission charge pump.

The internal pressure of the filter and the absolute filtration offer outstanding protection from pump cavitation.

MRSX 116, 165, and 166 key features include:

- Inorganic microfibre from 10 µm to 25 µm

LMP124 key features include:

- Inorganic microfibre from 3 µm to 25 µm
- Wire mesh from 25 µm to 90 µm
- Resin impregnated paper from 10 µm to 25 µm

Connections:

- from G 1 1/4" to G1"
- from 1 1/4" NPT to 1" NPT
- from SAE 16 - 1 5/16" - 12 UN to SAE 20 - 1 5/8" - 12

TYPE	DESCRIPTION	Pmax		Qmax	
		bar	psi	l/min	gpm
MRSX 116, 165, 166	Unique TANK TOP filter for mobile machinery, with combined filtration on return and suction to the inlet at the hydrostatic transmissions in closed circuit	10	145	300	79
LMP MULTIPOINT 124	Unique IN-LINE filter for mobile machinery, with combined filtration on return and suction to the inlet at the hydrostatic transmissions in closed circuit	80	1160	200	53

Created especially for mobile applications, MP Filtri's spin-on filters are designed to limit maximum flow rates to around 365 l/min, 96 gpm and keep pressure no higher than 35 bar, 508 psi. The head is positioned directly in-line with the circuit and is equipped with a bypass valve and / or clogging indicators. The filtration cartridge includes a filter element contained within a durable metal cannister. The element is made up of either cellulose or synthetic filter media dependent on the required level of filtration. The element is then attached to the filter head by screwing it into position hence the term 'spin-on' can.

The advantage of this type of filtration is the speed and ease with which the filter can be changed - reducing downtime and labour costs. This is especially advantageous in mobile machinery where a filter change often needs to be done in the field. Spin-on filters are used on suction lines, and return lines.



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Key features include:

- Inorganic microfibre from 3 µm to 25 µm
- Wire mesh from 25 µm to 90 µm
- Resin impregnated paper from 10 µm to 25 µm

Connections:

- from G3/4" to G1"
- from 3/4" NPT to 1" NPT
- from SAE 8 - 3/4" - 16 UNF to SAE 24 - 1 7/8" - 12 UN
- 1 1/2" SAE 3000 psi/M
- 1 1/2" SAE 3000 psi/UNC

TYPE	DESCRIPTION	Pmax		Qmax	
		bar	psi	l/min	gpm
MPS 050, 051, 070, 071, 100, 101, 150, 151, 200, 250, 300, 301, 350, 351	Low pressure filter, available with single or dual CSG, CSGW, CS elements for in-line or flange mounting	12	174	365	96
MSH 050, 070, 100, 150	In-line low and medium pressure filter available with single element (CH)	35	508	195	52



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Positioned ahead of the pump, Suction Filters and strainers protect it from contamination, while providing additional flow diffusion to the pump suction line.

They are equipped with a magnetic column for retaining ferrous particles and are normally placed under the fluid head to take advantage of the piezometric thrust of the fluid and to reduce the risk of cavitation.

There are two types of suction filters:

- Suction strainer - a simple filter element screwed onto the suction pipe
- Tank wall-mounted suction filters - which are easier to maintain when the element needs replacing due to anti-drain valve

Key features include:

- Wire mesh from 25 μm to 250 μm

Connections:

- from 3/8" (G/NPT) to 3" (G/NPT)
- from 3/4" NPT to 1" NPT
- from SAE 16 - 1 5/16" - 12 UN to SAE 24 - 1 7/8" - 12 UN
- from 1 1/2" SAE 3000 psi/Metric to 4" SAE 3000 psi/Metric
- from 1 1/2" SAE 3000 psi/UNC to 4" SAE 3000 psi/UNC
- hose barb from 2" Metric to 4" Metric

TYPE	DESCRIPTION	Qmax	
		l/min	gpm
STR 045, 050, 065, 070, 086, 100, 140, 150	Suction strainer, with or without bypass or magnetic column, internal tank mounting	875	231
MPA - MPM 012, 015, 025, 030, 045, 050, 075, 095, 120, 150, 180, 220, 280, 300, 380, 430	Suction strainer, with or without bypass or magnetic column	875	231
SF2 250, 350	Semi-submerged positive head suction filter, low flow rate, tank side or bottom mount	160	42
SF2 500, 501, 503, 504, 505, 510, 535, 540	Semi-submerged positive head suction filter, high flow rate, tank side or bottom mount	800	211



Filter elements are only efficient if their dirt-holding capacity is fully exploited.

This can be achieved by using filter housing equipped with clogging indicators which trip when the clogging causes an increase in pressure drop across the element.

The alarm indicator is set to activate before the element becomes fully clogged.

MP Filtri can supply a selection of indicators including:

- Vacuum switches and gauges
- Pressure switches and gauges
- Differential pressure indicators and transmitter

These devices can be specified with either visual and electrical signals or both.



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