

STR & MPA - MPM series

Flow rate up to 875 l/min



STR & MPA-MPM GENERAL INFORMATION

Description

Technical data

Suction filters

Flow rate up to 875 l/min

STR

STR is a range of suction strainers for protection of the downstream pump against the coarse contamination.

They are placed below the oil level directly connected to the suction line of the pump.

Available features:

- Female threaded connections up to 3", for a maximum flow rate of 875 l/min
- Bypass valve, to relieve excessive pressure drop across the filter media

Common application:

- Mobile machines (Construction and Agriculture machines)
- Industrial equipment

MPA - MPM

MPA and MPM are ranges of suction strainers for protection of the downstream pump against the coarse contamination.

They are placed below the minimum oil level, directly connected to the suction line of the pump.

The robust design allows the use of these filters in any heavy duty application.

Available features:

- Female threaded connections up to 3", for a maximum flow rate of 875 l/min
- Magnetic column (MPM), to hold the ferrous particles

Common application:

Industrial equipment

STR materials

- 1 - Connection: Polyamide, GF reinforced
- 2 - Core tube: Tinned Steel
- 3 - Wire mesh
- 4 - End cap: Polyamide, GF reinforced
- 5 - Bypass valve: Polyamide, GF reinforced - Steel

MPA - MPM materials

- 1 - Connection: Aluminium
- 2 - Magnetic column
- 3 - Tie rod: Galvanized Steel
- 4 - End cap: Galvanized Steel
- 5 - Core tube: Galvanized Steel
- 6 - Filter media: Wire mesh
- 7 - Bottom: Galvanized Steel
- 8 - Washer: Galvanized Steel
- 9 - Self-locking nut: Galvanized Steel - Nylon

Bypass valve

Opening pressure 30 kPa (0.3 bar)

Elements

Fluid flow through the filter element from OUT to IN.



Temperature

From -25 °C to +110 °C

Weights [kg]

| Filter series | |
|---------------|-------------|
| STR | see page 35 |
| MPA - MPM | see page 37 |



| Filter series | Thread | l/min |
|----------------------------|--------|-------|
| STR & MPA - MPM | 3/8" | 19 |
| | 1/2" | 28 |
| | 3/4" | 67 |
| | 1" | 126 |
| | 1 1/4" | 167 |
| | 1 1/2" | 258 |
| | 2" | 480 |
| | 2 1/2" | 854 |
| | 2" | 480 |
| | 3" | 995 |

Maximum flow rate for a complete suction filter with a pressure drop $\Delta p = 0.08$ bar.

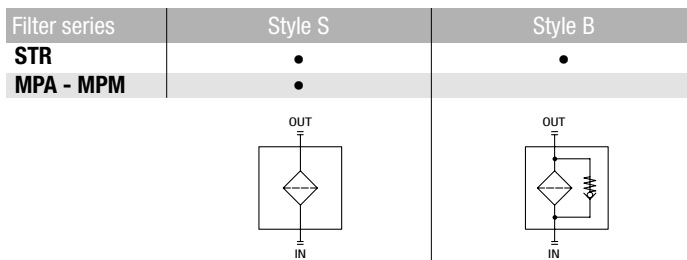
The reference fluid has a kinematic viscosity of 30 mm²/s (cSt) and a density of 0.86 kg/dm³.

For different pressure drop or fluid viscosity we recommend to use our selection software available on www.mpfiltri.com.

You can also calculate the right size using the formulas present on the FILTER SIZING paragraph at the beginning of the full catalogue or at the beginning of the filter family brochure.

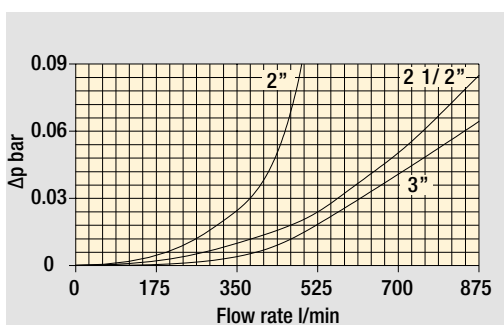
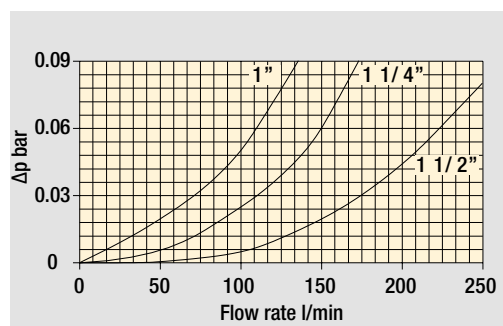
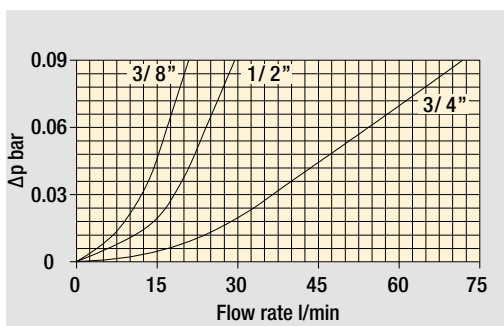
Please, contact our Sales Department for further additional information.

Hydraulic symbols



Pressure drop

Filters pressure drop Δp
in function of connection type



The curves are plotted using mineral oil with density of 0.86 kg/dm³ in compliance with ISO 3968. Δp varies proportionally with density.

COMPLETE FILTER

Element series and size

| |
|---------------|
| STR045 |
| STR050 |
| STR065 |
| STR070 |
| STR086 |
| STR100 |
| STR140 |
| STR150 |

Configuration example 1:

| | | | | | |
|--------|---|---|----|-----|-----|
| STR045 | 1 | B | G1 | M60 | P01 |
|--------|---|---|----|-----|-----|

Configuration example 2:

| | | | | | |
|--------|---|---|----|------|-----|
| STR100 | 4 | S | G2 | M250 | P01 |
|--------|---|---|----|------|-----|

Connection type

| | STR045 | STR050 | STR065 | STR070 | STR086 | STR100 | STR140 | STR150 |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 3/8" | 3/8" | 1/2" | 1/2" | 1 1/2" | 1 1/4" | 1 1/2" | 2" |
| 2 | 1/2" | 1/2" | 3/4" | 3/4" | 2" | 1 1/4" | 2" | 2 1/2" |
| 3 | - | - | 3/4" | 3/4" | 1 1/2" | 1 1/2" | 2" | 3" |
| 4 | - | - | 1" | 1" | 2" | 2" | 2 1/2" | - |
| 5 | - | - | - | - | 1 1/2" | 1 1/2" | 3" | - |
| 6 | - | - | - | 1/2" | 2" | - | 3" | - |

Valves

| | |
|----------|---------------------|
| S | Without bypass |
| B | With bypass 0.3 bar |

Thread type

| | |
|-----------|------------|
| G1 | Thread GAS |
| G2 | Thread NPT |

Filtration rating (filter media)

| | | |
|-------------|-----------|--------|
| M25 | Wire mesh | 25 µm |
| M60 | Wire mesh | 60 µm |
| M90 | Wire mesh | 90 µm |
| M250 | Wire mesh | 250 µm |

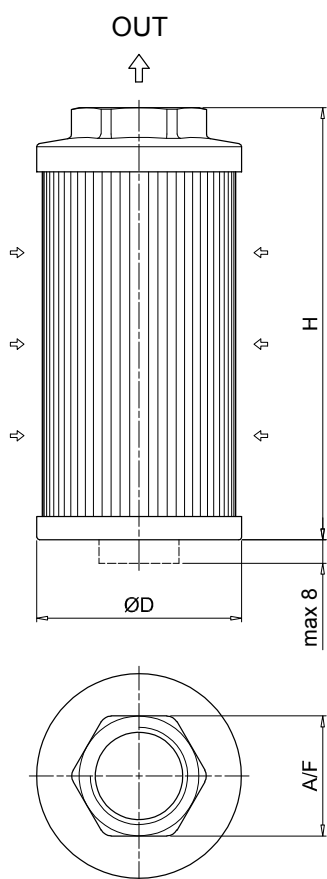
OTHER INFORMATION

Conditions of packaging

| Filter size | Pcs. per box |
|-------------|--------------|
| 045 | 12 |
| 050 | 12 |
| 065 | 6 |
| 070 | 6 |
| 086 | 6 |
| 100 | 6 |
| 140 | 1 |
| 150 | 1 |

Execution

| | |
|------------|--------------------|
| P01 | MP Filtri standard |
| Pxx | Customized |



| STR | | | | | | |
|-------------|-----------------|--------|---------|--------|------------|-------------|
| Filter size | Connection type | Thread | ØD [mm] | H [mm] | A / F [mm] | Weight [kg] |
| 045 | 1 | 3/8" | 46 | 105 | 30 | 0.15 |
| | 2 | 1/2" | 46 | 105 | 30 | 0.19 |
| 050 | 1 | 3/8" | 52 | 79 | 30 | 0.11 |
| | 2 | 1/2" | 52 | 79 | 30 | 0.11 |
| 065 | 1 | 1/2" | 65 | 110 | 41 | 0.19 |
| | 2 | 3/4" | 65 | 110 | 41 | 0.22 |
| | 3 | 3/4" | 65 | 144 | 41 | 0.24 |
| | 4 | 1" | 65 | 144 | 41 | 0.22 |
| 070 | 1 | 1/2" | 70 | 95 | 41 | 0.18 |
| | 2 | 3/4" | 70 | 95 | 41 | 0.17 |
| | 3 | 3/4" | 70 | 141 | 41 | 0.23 |
| | 4 | 1" | 70 | 141 | 41 | 0.22 |
| | 6 | 1/2" | 70 | 141 | 41 | 0.24 |
| 086 | 1 | 1 1/2" | 86 | 143 | 69 | 0.33 |
| | 2 | 2" | 86 | 143 | 69 | 0.30 |
| | 3 | 1 1/2" | 86 | 201 | 69 | 0.43 |
| | 4 | 2" | 86 | 201 | 69 | 0.40 |
| | 5 | 1 1/2" | 86 | 261 | 69 | 0.53 |
| | 6 | 2" | 86 | 261 | 69 | 0.50 |
| 100 | 1 | 1 1/4" | 99 | 137 | 69 | 0.47 |
| | 2 | 1 1/4" | 99 | 227 | 69 | 0.58 |
| | 3 | 1 1/2" | 99 | 227 | 69 | 0.55 |
| | 4 | 2" | 99 | 227 | 69 | 0.51 |
| | 5 | 1 1/2" | 99 | 137 | 69 | 0.43 |
| 140 | 1 | 1 1/2" | 130 | 160 | 69 | 0.70 |
| | 2 | 2" | 130 | 160 | 69 | 0.68 |
| | 3 | 2" | 130 | 262 | 69 | 0.94 |
| | 4 | 2 1/2" | 130 | 272 | 101 | 1.10 |
| | 5 | 3" | 130 | 272 | 101 | 1.00 |
| | 6 | 3" | 130 | 330 | 101 | 1.17 |
| 150 | 1 | 2" | 150 | 150 | 70 | 0.34 |
| | 2 | 2 1/2" | 150 | 212 | 90 | 0.37 |
| | 3 | 3" | 150 | 272 | 100 | 0.40 |

MPA-MPM

Designation & Ordering code

COMPLETE FILTER

| Element series | |
|----------------|-------------------------|
| MPA | Without magnetic column |
| MPM | With magnetic column |

Configuration example 1:

| | | | | |
|-----|-----|----|-----|-----|
| MPA | 030 | G1 | M60 | P01 |
|-----|-----|----|-----|-----|

Configuration example 2:

| | | | | |
|-----|-----|----|------|-----|
| MPM | 430 | G2 | M250 | P01 |
|-----|-----|----|------|-----|

| Connections | |
|-------------|--------|
| 012 | 3/8" |
| 015 | 1/2" |
| 025 | 1/2" |
| 030 | 3/4" |
| 045 | 3/4" |
| 050 | 1" |
| 075 | 1" |
| 095 | 1 1/4" |
| 120 | 1 1/4" |
| 150 | 1 1/2" |
| 180 | 1 1/2" |
| 220 | 2" |
| 280 | 2" |
| 300 | 2 1/2" |
| 380 | 2" |
| 430 | 3" |

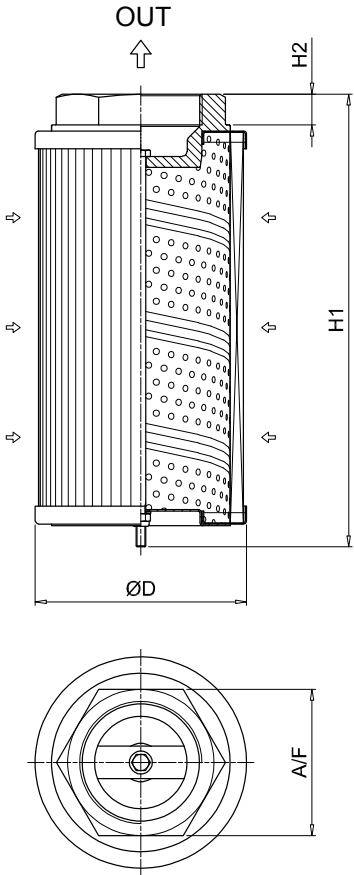
| Thread type | |
|-------------|------------|
| G1 | Thread GAS |
| G2 | Thread NPT |

| Filtration rating (filter media) | |
|----------------------------------|------------------|
| M25 | Wire mesh 25 µm |
| M60 | Wire mesh 60 µm |
| M90 | Wire mesh 90 µm |
| M250 | Wire mesh 250 µm |

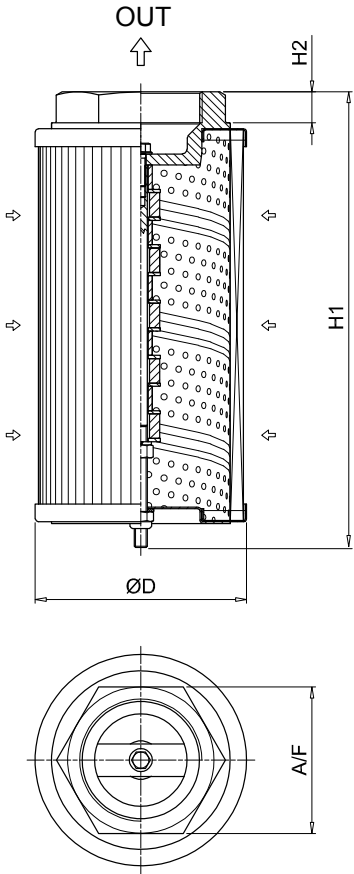
| Execution | |
|------------|--------------------|
| P01 | MP Filtri standard |
| Pxx | Customized |

OTHER INFORMATION

| Conditions of packaging | |
|-------------------------|--------------|
| Size | Pcs. per box |
| 012 | 12 |
| 015 | 6 |
| 025 | 6 |
| 030 | 6 |
| 045 | 6 |
| 050 | 6 |
| 075 | 6 |
| 095 | 6 |
| 120 | 6 |
| 150 | 6 |
| 180 | 1 |
| 220 | 1 |
| 280 | 1 |
| 300 | 1 |
| 380 | 1 |
| 430 | 1 |



| MPA | | | | | | |
|-------------|--------|---------|---------|---------|----------|-------------|
| Filter size | Thread | ØD [mm] | H1 [mm] | H2 [mm] | A/F [mm] | Weight [kg] |
| 012 | 3/8" | 50 | 98 | 16 | 28 | 0.17 |
| 015 | 1/2" | 50 | 98 | 16 | 28 | 0.17 |
| 025 | 1/2" | 70 | 113 | 16 | 28 | 0.27 |
| 030 | 3/4" | 70 | 115 | 18 | 42 | 0.36 |
| 045 | 3/4" | 70 | 160 | 18 | 42 | 0.39 |
| 050 | 1" | 70 | 160 | 18 | 42 | 0.35 |
| 075 | 1" | 99 | 145 | 18 | 42 | 0.54 |
| 095 | 1 1/4" | 99 | 148 | 20 | 60 | 0.63 |
| 120 | 1 1/4" | 99 | 239 | 20 | 60 | 0.95 |
| 150 | 1 1/2" | 99 | 239 | 20 | 60 | 0.91 |
| 180 | 1 1/2" | 130 | 174 | 20 | 60 | 0.98 |
| 220 | 2" | 130 | 162 | 13 | 80 | 1.00 |
| 280 | 2" | 130 | 272 | 13 | 80 | 1.60 |
| 300 | 2 1/2" | 130 | 281 | 20 | 90 | 1.67 |
| 380 | 2" | 130 | 322 | 13 | 80 | 1.60 |
| 430 | 3" | 130 | 335 | 22 | 106 | 1.93 |



| MPM | | | | | | |
|-------------|--------|---------|---------|---------|----------|-------------|
| Filter size | Thread | ØD [mm] | H1 [mm] | H2 [mm] | A/F [mm] | Weight [kg] |
| 012 | 3/8" | 50 | 98 | 16 | 28 | 0.17 |
| 015 | 1/2" | 50 | 98 | 16 | 28 | 0.17 |
| 025 | 1/2" | 70 | 113 | 16 | 28 | 0.27 |
| 030 | 3/4" | 70 | 115 | 18 | 42 | 0.36 |
| 045 | 3/4" | 70 | 160 | 18 | 42 | 0.39 |
| 050 | 1" | 70 | 160 | 18 | 42 | 0.35 |
| 075 | 1" | 99 | 148 | 18 | 42 | 0.54 |
| 095 | 1 1/4" | 99 | 154 | 20 | 60 | 0.63 |
| 120 | 1 1/4" | 99 | 244 | 20 | 60 | 0.95 |
| 150 | 1 1/2" | 99 | 244 | 20 | 60 | 0.91 |
| 180 | 1 1/2" | 130 | 174 | 20 | 60 | 0.98 |
| 220 | 2" | 130 | 163 | 13 | 80 | 1.00 |
| 280 | 2" | 130 | 273 | 13 | 80 | 1.60 |
| 300 | 2 1/2" | 130 | 282 | 20 | 90 | 1.67 |
| 380 | 2" | 130 | 323 | 13 | 80 | 1.60 |
| 430 | 3" | 130 | 336 | 22 | 106 | 1.93 |