

FILTER SIZING SOFTWARE

USER GUIDE



EN

PASSION  PERFORM



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1 Product Description

The web-based software program will allow you to select the most suitable MP Filtri's Filters, as well as Bell Housing & Couplings, in accordance to your process design requirements. The program will automatically check your input design process prior to propose you the acceptable solutions and create an output in PDF report style format. The MP Filtri Selection Tool software program is easy to use with a flexible fast design method and provides improved layout formats with full descriptions.

2 Technical Features

2.1 Desktop version

Compatible browsers: Internet Explorer or later versions; Microsoft Edge or later versions; Chrome; Firefox (suggested)
Any other browser will be suitable.

No specific additional software is required to enable the MP Filtri sizing software program to operate successfully.
Lists and reports will be generated as Microsoft Excel® files in .xls and .csv formats, available to be downloaded
Reports will be generated as .pdf files, available to be downloaded

2.2 Mobile version

Compatible browsers: Any

3 Web access links

The web-based is available at link: <https://www.mpfiltri.com/tools/>
by clicking on the button “**CONTINUE**” from the section “**SIZING SOFTWARE**”:

3.1 Registration

Then, a log-in page will appear, where non-registered users shall input their data to register, while already registered users shall access with their credentials. You can also access the log-in/registration page by clicking on the user icon in the top navigation bar of the website.

The diagram illustrates the user flow from the website's top navigation bar to the login and registration pages. On the left, a navigation bar contains links: CONTACTS, WORLDWIDE PRESENCE, CAREERS, TRADE SHOWS, BLOG & NEWS, COMPANY, PRODUCTS, APPLICATIONS, TOOLS, and RESOURCES. A user icon is highlighted with a yellow box. An arrow points from this icon to the 'LOGIN' page. The 'LOGIN' page features fields for 'USERNAME OR EMAIL ADDRESS' and 'PASSWORD', a 'LOG IN' button, a 'REMEMBER ME' checkbox, and a link for 'Lost your password?'. To the right of the 'LOGIN' page is the 'REGISTER' page, which includes fields for 'EMAIL ADDRESS', 'PASSWORD', 'CITY', 'COUNTRY' (a dropdown menu), 'JOB POSITION', 'COMPANY', 'TELEPHONE (OPTIONAL)', and 'WEBSITE (OPTIONAL)'. At the bottom of the 'REGISTER' page is a checkbox for 'I HAVE READ THE PRIVACY POLICY' and a small disclaimer text.

After registration with your data, or accessing with your credentials (for already registered users) you will be directed to the TOOLS area, where you can select the desired software tool:

[Home](#)
[Tools](#)

OUR USEFUL TOOLS

MP Filtri's Product selection software, online booking for re-calibration of particle counters and oil analysis are available to supply both customer support and convenience in the fluids' cleaning for everyone world-wide.



HYDRAULIC FILTRATION SIZING SOFTWARE

By entering a few simple parameters, the filter selection software developed by MP Filtri allows online configuration of the most suitable filter type, with optional clogging indicators, in order to correctly size your hydraulic circuit.

[OPEN](#)



POWER TRANSMISSION SIZING SOFTWARE

MP Filtri has developed a dedicated selection software for bell housings and couplings, simple yet highly comprehensive. By entering just a few intuitive parameters, the tool allows correct sizing and selection of the most suitable couplings and bell housings for motor-pump groups, both for electric and combustion engines.

[OPEN](#)



RECALIBRATION SERVICE

In this section, you can book the recalibration of fluid contamination monitoring units, ensuring always reliable and updated data readings and reports. The delivery time for the standard service is 10 working days from the selected appointment date (shipping excluded).

Book online today for an industry leading recalibration turnaround time.

[BOOK](#)



3D SOFTWARE

MP Filtri aims to offer every useful tool to support the customer in configuring the ideal solution for their needs. For this reason, we have developed and made available a complete library of CAD files, including 3D product files. For the correct selection, simply enter the few required data.

[OPEN](#)

When Power Transmission sizing software or 3D software are chosen, you will be redirected to the desired software or 3D viewer web page. Viceversa, for filter sizing, a specific product selection page will appear, showing the different products that can be selected:



4 Hydraulic Filtration Sizing - Main process data input

If one of the filter types has been selected to be sized, a dedicated web page will appear, with pre-selected filter type (still modifiable) already defined.

In the following example, the various steps for the selection of a “**RETURN**” filter will be simulated.

[Home](#) | [Sizing software](#)

SUCTION	LOW & MEDIUM PRESSURE	HIGH PRESSURE
RETURN	RETURN/SUCTION	STAINLESS STEEL HIGH PRESSURE
DUPLEX LOW & MEDIUM PRESSURE	DUPLEX HIGH PRESSURE	ATEX
SIMPLEX HIGH CAPACITY INDUSTRIAL	DUPLEX HIGH CAPACITY INDUSTRIAL	

Product
-- Select --

Working Pressure (bar) *	② Flow rate (l/min) *	③ DeltaP max (bar) *	DeltaP min (%-DeltaP max) *	Fluid Working Temperature (°C) *
Max 10	Max 250 Return flow rate	1.50 Max 1.50	-50 -50% ÷ -20%	-25 ÷ 110

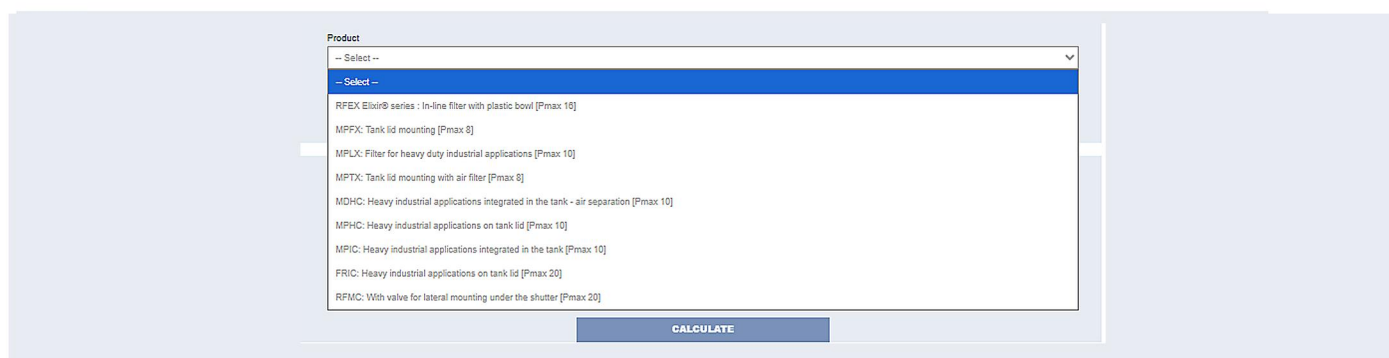
Fluid *	Fluid type *	Viscosity (cst) *	Viscosity (SUS) *
Filtration *	Connection Type *	Connection *	Connection Size

* required fields

CALCULATE

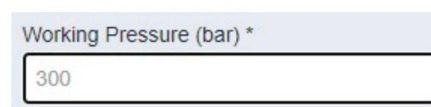
4.1 Type of product (optional)

In this optional field, it will be possible to directly choose the type of filter. The software will set the parameters based on the chosen filter. Obviously, this is an optional field. If not selected, the software will search all filter types within the selected macro category.



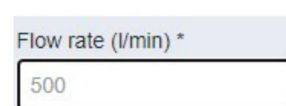
4.2 Working Pressure input

In this field, please input the desired fluid working pressure (max limit of pressure value is pre-indicated by the software in this field). Such a value is indicated in bar, for all websites with the only exception of US version, where values are in psi.



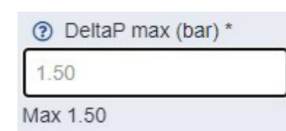
4.3 Flow rate input

In this field, please input the desired fluid flow rate (max limit of flowrate value is pre-indicated by the software in this field). Such a value is indicated in liters per minute (l/min), for all websites with the only exception of US version, where values are in gallons per minute (gpm).



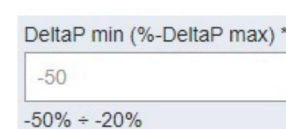
4.4 DeltaP max

In this field, please input the desired max DeltaP of the proposed filter solution (limit of max DeltaP value is pre-indicated by the software in this field). Such a value is indicated in bar, for all websites with the only exception of US version, where values are in psi.



4.5 DeltaP min (as % reduction of DeltaP max)

In this field, please input the desired min DeltaP of the proposed filter solution, as reduction percentage of the max DeltaP previously defined (**lower limit of min DeltaP value, equal to: -50% of max Delta P, is pre-indicated by the software in this field; such a value can be increased up to: -20% of max Delta P**). Such a value is indicated as percentage, and will be then calculate in absolute values in bar for all websites with the only exception of US version, where values will be then calculated in psi.



4.6 Fluid Working Temperature

In this field, please input the desired fluid working temperature (range of acceptable temperature values is pre-indicated by the software in this field). Such a value is indicated in degrees Celsius (°C), for all websites with the only exception of US version, where values are in degrees Fahrenheit (°F).

Fluid Working Temperature (°C) *

40

4.7 Fluid category

In this field, please choose the desired category for the fluid to be filtered (list of available fluid categories is indicated by the software as drop-down menu).

Fluid *

Select liquid type

Select liquid type

HFC - Water glycol

HFD - Synthetic fluids

HLP - Mineral oils

4.8 Fluid type with related viscosity

In this field, please choose the desired type for the fluid to be filtered (list of available fluid types is indicated by the software as drop-down menu, based on the pre-selected fluid category). Fields related to Viscosity (cst and SUS) will be automatically compiled by the software, based on the pre-selected Fluid Category and Fluid Working Temperature.

Fluid type *	Viscosity (cst) *	Viscosity (SUS) *
ISO VG 32 (SUS 151)	32	150

4.9 Filtration rating

In this field, please choose the desired filtration rating (list of available filtration rating is indicated by the software as drop-down menu).

Filtration *

Select

Select

A03 - 3 µm absolute inorganic microfibre

A06 - 6 µm absolute inorganic microfibre

A10 - 10 µm absolute inorganic microfibre

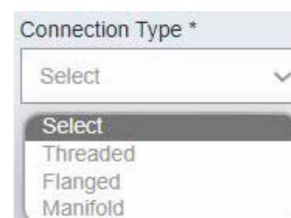
A16 - 16 µm absolute inorganic microfibre

A25 - 25 µm absolute inorganic microfibre

M25 - 25 µm nominal square wire mesh

4.10 Connection type

In this field, please choose the desired filter connection type (list of available connection types is indicated by the software as drop-down menu).



Connection Type *

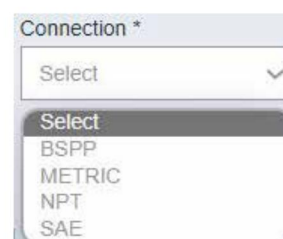
Select ▼

Select

- Threaded
- Flanged
- Manifold

4.11 Connection

In this field, please choose the desired filter connection (list of available connection is indicated by the software as drop-down menu based on the pre-selected “**connection type**”).



Connection *

Select ▼

Select

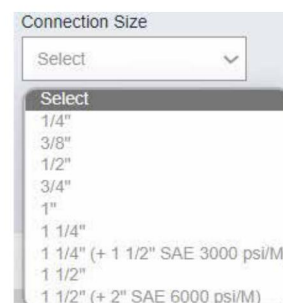
- BSPP
- METRIC
- NPT
- SAE

4.12 Connection Size (optional)

In this field, please choose the desired filter connection size (list of available connection sizes is indicated by the software as drop-down menu based on the pre-selected “**connection**”).

Such a field is not mandatory to be filled; to avoid the possibility of not finding any solution, it is suggested to leave such a field as blank and set the desired connection as manual selection from one of the proposed solutions afterwards.

Now, by clicking on “**CALCULATE**” button, it is possible to check the filter solutions proposed by the software.



Connection Size

Select ▼

Select

- 1/4"
- 3/8"
- 1/2"
- 3/4"
- 1"
- 1 1/4"
- 1 1/4" (+ 1 1/2" SAE 3000 psi/M)
- 1 1/2"
- 1 1/2" (+ 2" SAE 6000 psi/M)

5 Hydraulic Filtration Sizing - Results management

5.1 Input Data resume and selection results

The new web page will show first a recap of the selected process parameters, with calculated absolute value of the min DeltaP based on input data.

Alf these input data or results are not satisfactory, or there are no results available, it is possible to restart the selection by clicking on the “**NEW SEARCH**” button.

Working Pressure	300 (bar)	Fluid	HLP
Flow rate	500 (l/min)	Fluid type	ISO VG 32 (SUS 151)
DP min of the project	0.75 (bar)	Seal	A - NBR
DP max of the project	1.50 (bar)	Working Temperature	-25 ÷ 110 (°C)
Working Temperature	40 (°C)	Optional seals	V - FPM
Filtration	16 µm absolute inorganic microfibre	Working Temperature with options	-20 ÷ 110 (°C)
Connection Type	Threaded - BSPP	Viscosity	32 (cst) - 150 (SUS)

NEW SEARCH

UPDATE

It is also possible to modify a specific field by inputting new values, and update the results page by clicking on the “**UPDATE**” button

Working Pressure	300 (bar)	Fluid	HLP
Flow rate	500 (l/min)	Fluid type	ISO VG 32 (SUS 151)
DP min of the project	0.75 (bar)	Seal	A - NBR
DP max of the project	1.50 (bar)	Working Temperature	-25 ÷ 110 (°C)
Working Temperature	40 (°C)	Optional seals	V - FPM
Filtration	16 µm absolute inorganic microfibre	Working Temperature with options	-20 ÷ 110 (°C)
Connection Type	Threaded - BSPP	Viscosity	32 (cst) - 150 (SUS)

NEW SEARCH

UPDATE

Results are shown, as default, by DeltaP in descending order, starting from the closest one to the max DeltaP set, and only within the selected DeltaP range.

Show entries

Search:

Image	Code	Pmax		Qmax		ΔP		Housing ΔP		Element ΔP		Connection	Seal	Link
		bar	psi	l/min	gpm	bar	psi	bar	psi	bar	psi			
	FHP-350-4-B-A-A-2-A16P01	420	6090	503.50	133.2	1.49	21	1.07	15	0.42	6	G 1 1/2"	A	Adjustment Report
	FHP-350-4-B-V-A-2-A16P01	420	6090	503.50	133.2	1.49	21	1.07	15	0.42	6	G 1 1/2"	V	Adjustment Report
	FHP-500-3-B-A-F7-A16P01	420	6090	527.48	139.5	1.38	20	0.80	12	0.58	8	G 1 1/2" + 2" SAE 6000 psi/M	A	Adjustment Report
	FHP-500-3-B-V-F7-A16P01	420	6090	527.48	139.5	1.38	20	0.80	12	0.58	8	G 1 1/2" + 2" SAE 6000 psi/M	V	Adjustment

5.2 Results not found? Software can provide suggestions

In some cases, the software could not be able to provide suitable solutions because any configuration would have a calculated DeltaP lower than the set range. In these cases, as suggested by the software in a red-marked suggestion, to find available solutions it could be sufficient (if possible) to reduce the min DeltaP project input value, or to decrease the Fluid Working Temperature input value to increase viscosity and so increase accordingly the calculated DeltaP within the acceptable range. In this case, the software is able to provide you the maximum calculated DeltaP, to allow you to estimate how lower calculated DeltaP is from project input data.

Product	FMM 050	Fluid	HLP
Working Pressure	100 (bar)	Fluid type	ISO VG 32 (SUS 151)
Flow rate	20 (l/min)	Seal	A - NBR
DP min of the project	0.75 (bar)	Working Temperature	-25 ÷ 110 (°C)
DP max of the project	1.50 (bar)	Optional seals	V - FPM
Working Temperature	40 (°C)	Working Temperature with options	-20 ÷ 110 (°C)
Filtration	25 μm absolute inorganic microfibre	Viscosity	32 (cst) - 150 (SUS)
Connection Type	Threaded - BSPP		

NEW SEARCH

UPDATE

Calculated DeltaP (max 0.47) < Project DeltaP min: if possible, it is recommended to decrease the DeltaPmin value and/or decrease the fluid temperature.

Viceversa, the software could not be able to provide suitable solutions because any configuration would have a calculated DeltaP bigger than the set range. In these cases, as suggested by the software in a red-marked suggestion, to find available solutions it should be necessary (if possible) to increase the max DeltaP project input value, or to increase the Fluid Working Temperature input value to reduce viscosity and so reduce accordingly the calculated DeltaP within the acceptable range. In this case, the software is able to provide you the minimum calculated DeltaP, to allow you to estimate how higher calculated DeltaP is from project input data.

Product	FMM 050	Fluid	HLP
Working Pressure	400 (bar)	Fluid type	ISO VG 32 (SUS 151)
Flow rate	150 (l/min)	Seal	A - NBR
DP min of the project	0.25 (bar)	Working Temperature	-25 ÷ 110 (°C)
DP max of the project	0.5 (bar)	Optional seals	V - FPM
Working Temperature	40 (°C)	Working Temperature with options	-20 ÷ 110 (°C)
Filtration	25 µm absolute inorganic microfibre	Viscosity	32 (cst) - 150 (SUS)
Connection Type	Threaded - BSPP		

NEW SEARCH

UPDATE

Calculated DeltaP (min 1.67) > Project DeltaP max: if possible, it is recommended to increase the DeltaPmax value and/or increase the fluid temperature.

5.3 Results export and fine tuning

When available: result list, shown in the web page, can be exported as Microsoft® Excel .xls or .csv file.

If the number of available solutions is bigger than 400, the software automatically recommends to fine-tune results; anyway, independently from the number of available results, there is always the possibility to fine-tune them by choosing one (or more) of the proposed values from the drop-down menu within the fields:

The entered data fall within ranges that are too wide and for which there are innumerable solutions; please try to narrow down the selection fields.

Filter type
-- Select --

Valve
-- Select --

Seal
-- Select --

X RESET

DIN Standard
NOT APPLICABLE

Indicator
-- Select --

- Filter Type (if not already previously selected)
- Valve
- Seal
- DIN Standard
- Indicator

The results list will be then reduced according to the selected parameters.

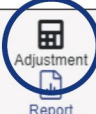
Show 10 entries

Search:

Image	Code	Pmax		Qmax		ΔP		Housing ΔP		Element ΔP		Connection	Seal	Link
		bar	psi	l/min	gpm	bar	psi	bar	psi	bar	psi			
	MPFX-100-3-B-A-G2-A25-HP01	8	116	153.40	40.6	0.49	7	0.09	1	0.40	6	G 3/4"	A	Adjustment Report
	MPFX-100-3-B-V-G2-A25-HP01	8	116	153.40	40.6	0.49	7	0.09	1	0.40	6	G 3/4"	V	Adjustment Report
	MPFX-100-3-E-A-G2-A25-HP01	8	116	153.40	40.6	0.49	7	0.09	1	0.40	6	G 3/4"	A	Adjustment Report
	MPFX-100-3-E-V-G2-A25-HP01	8	116	153.40	40.6	0.49	7	0.09	1	0.40	6	G 3/4"	V	Adjustment Report

5.4 Single result adjustment

Every single result of the proposed solution list can be manually adjusted by clicking on the “**Adjustment**” button at its right.

Image	Code	Pmax		Qmax		ΔP		Housing ΔP		Element ΔP		Connection	Seal	Link
		bar	psi	l/min	gpm	bar	psi	bar	psi	bar	psi			
	MPFX-100-3-B-A-G2-A25-HP01	8	116	153.40	40.6	0.49	7	0.09	1	0.40	6	G 3/4"	A	 Adjustment Report

By selecting such an option: a new window will appear, where user could manually modify

- Fluid Working Temperature

as well as one (or more) of the following fields from the proposed drop-down menu:

- Filter Size
- Filter Length
- Bypass
- Seal
- Connection
- Option1 (if available)
- Filtration
- Filter Element series (if available)
- Clogging Indicator

Filter Manual Configuration

Working Pressure (bar)

8

Flow rate (l/min)

150

DeltaP min (bar)

0.25

DeltaP max (bar)

0.50

Fluid Working Temperature (°C)

40

Fluid

HLP

Fluid type

ISO VG 32 (SUS 151)

Viscosity (cst)

32

Viscosity (SUS)

150

Filtration

25 µm absolute inorganic microfibre

Filter type

MPFX

Size

100

Length

3

ByPass

B

Seal

A

Connection

G2

Filtration

A25

Series

H

RESET

Indicator

BVR14P01 - Visual

Connection

G 3/4"

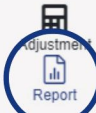
Housing ΔP (bar)

0.09

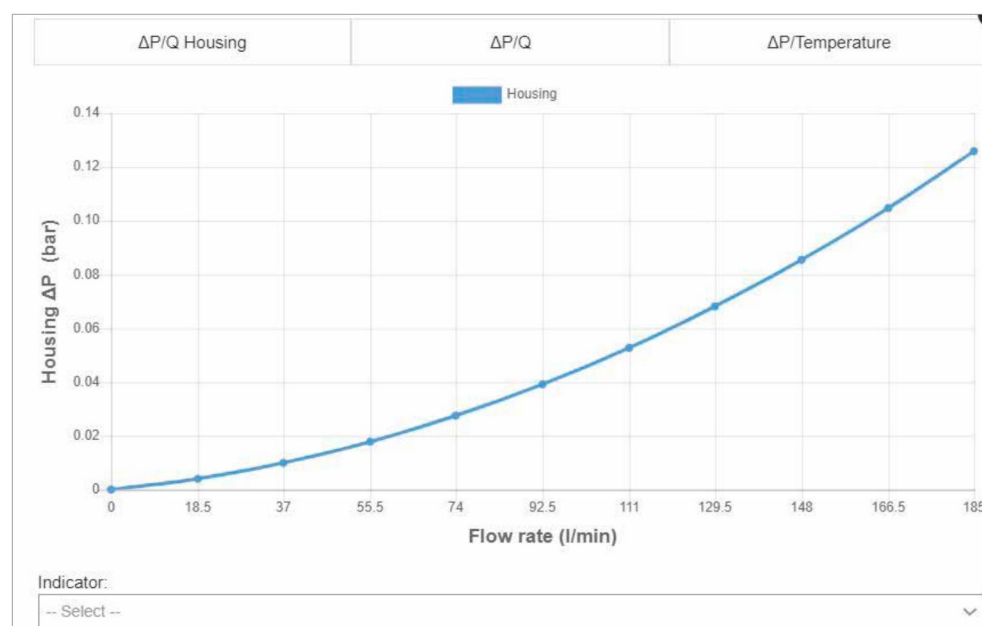
5.5 Report Generation and Saving

Result technical data can be created as .pdf file, featuring selected solution performance graphs, data summary and – if available – technical drawing in two ways:

- Directly after results calculation (see 4.2)
- or
- after result manual adjustment (see 4.3)

Image	Code	Pmax		Qmax		ΔP		Housing ΔP		Element ΔP		Connection	Seal	Link
		bar	psi	l/min	gpm us	bar	psi	bar	psi	bar	psi			
	MPFX-100-3-B-A-G2-A25-HP01	8	116	153.40	40.6	0.49	7	0.09	1	0.40	6	G 3/4"	A	

Example of a report page:



Result report file can be exported by clicking on **“SAVE PDF”** button, or even saved in a specific path of the user dedicated area, with information about: Customer reference, Application and Description, by clicking on **“SAVE SELECTION IN YOUR ARCHIVE”** button.



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