Pressure independent modular flow controller



Instruction Manual



MF Inline Cartridge 3P 3/4"

Optimal flow control

The MF Inline Cartridge creates a constant flow through its unique property of pressure independence. Fitted into the piping, the MF Inline Cartridge is optimally suitable to control flows into specified areas of any water system. As such it ensures system stabilisation, optimal user comfort and savings.

Pressure independent modular flow controller

Read this Instruction Manual carefully.

Packaging contents

- 1 x MF Inline Cartridge 3P 3/4" Fiber
- 2 x washer 24.0 x 17.0 x 2.0 mm



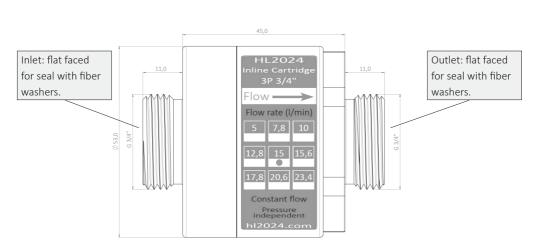


Image: MF Inline Cartridge 3P 3/4" - dimensions (in mm)

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Installation

Install the product into the piping of a water installation. Always use suitable swivels / adapters on both sides. Both the inlet and outlet connection (BSPP) are flat faced and designed for installation with fiber washers. Always use the originally supplied fiber washers (specifications: $24.0 \times 17.0 \times 2.0 \text{ mm}$) or fiber washers of the same specification.

Tighten the swivels / adapters and let water run through the product. The fiber washers will expand as a result of the exposure to water. There will be a water tight seal after about 30 seconds. Check whether this is the case. If not, repeat the above process with new and dry fiber washers.



Preferably, do not use wrenches or other grabbing tools on the product unless this is absolutely necessary. Instead, tightening the swivels / adapters with a wrench should result in a water tight seal in most cases. If however it is necessary, only use a wrench on the hexagonal part of the product and only use a suitable 46 mm wrench.



Do not use excessive force to install the product.



If present, any existing flow limiters in the piping need to be removed in order to guarantee the optimal functioning of the product.

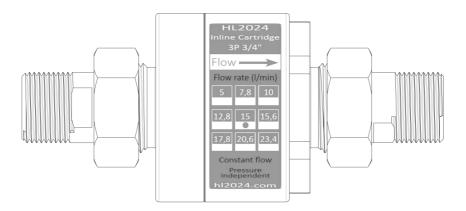


Image: installation example - MF Inline Cartridge 3P 3/4" with 3/4" BSPP to 1/2" BSPP swivels for installation with compression fittings.

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Maintenance and cleaning

The product is maintenance-free with the exception of the following:

Possible residue that originates from the water system and that exceeds the maximum particle size for the product (see product Data Sheet) will collect on the meshes inside of the product. This needs to be removed by removing the entire product from the piping. Hold the product upside down, submerge in clean water and shake until dirt falls out. Rinse with clean water prior to re-installation, run the water for a few seconds to allow the new fiber washers to expand for a water tight fit. Keep the product clean for optimal functionality.

Lime residue

In exceptional circumstances, some lime may collect on the inside of the product. This is however very rare due to the fact that the product is permanently submerged in water, the used materials are not expected to collect lime and the flow speed in the product is very high. In case there is some lime residue, this can best be cleaned out according to the above process and with a mild lime descaler.



After maintenance / cleaning, always use new and dry fiber washers of the original specifications on the inlet and outlet of the product $(24.0 \times 17.0 \times 2.0 \text{ mm})$.

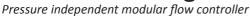


DO NOT in any way disassemble the product under any circumstance and do not replace parts with parts of other manufacturers. Disassembly of the product leads to product damage, loss of functionality and irrevocable loss of warranty.

Careful use and warranty

This Marine Flow product has a 10-year carry-in warranty on production errors and functionality. This warranty is only valid under the following specific warranty conditions and any supplementary warranty conditions at www marine-flow com

- 1. The products are used with care. In this context, careful use means:
- a. The product is only used for the application for which it is intended;
- b. The product is installed and treated with care;
- c. The product is maintained and cleaned when necessary;
- d. The product is only used under conditions that (drinking) water installations must legally comply with;
- e. The product is used according to the instructions in this manual and according to the product specifications and criteria as set out in the product Data Sheet.





Careful use and warranty - continued

2. The products are not exposed for a prolonged period, that is to say within a permanent or semipermanent installation setting, to a temperature higher than 60 °C in combination with water pressure of more than 500 kPa (dyn. This does not include brief and incidental higher pressures and higher temperatures within the product's specifications.

For (desired) application within a permanent or semi-permanent water pressure of more than 500 kPa (dyn) in combination with 60 °C or more, please contact Marine Flow at info@marine-flow.com

Disclaimer: Marine Flow aim to provide correct and up to date information at all times. Marine Flow, or companies belonging to its group, are not liable for possible consequences of any

incorrect information provided in this document by mistake. Marine Flow reserve the right to make changes.

Note: later versions of this document replace and void older versions. The general terms and conditions of Marine Flow are applicable. In the general terms and conditions Marine Flow has

limited its liability. Current versions of this document and of the general terms and conditions of Marine Flow are available at www.marine-flow.com

General terms and conditions of installation and use Marine Flow

Marine Flow is a trade name of MIT Investments BV., The Netherlands, registered with the Chamber of Commerce under number 84229691.

These terms and conditions have been filed with the Chamber of Commerce.

Applicability and formation of agreement

- 1. These General terms and conditions of installation and use apply, with the exclusion of customer's terms and conditions, to the installation and use of all Marine Flow products.
- 2. In addition to and without prejudice to the General terms and conditions of sale and delivery, these General terms and conditions of installation and use apply to the legal relationship between Marine Flow, including third parties engaged by Marine Flow, on the one hand, and one or more customers and / or users on the other hand, in the context of the installation and use of Marine Flow products.

Use of products

 The customer must at all times follow the instructions and directions regarding the use of Marine Flow products. Any guarantee and / or liability of Marine Flow will be null and void if the instructions and directions have not been fully followed.

Exonerations

- 4. Installation is entirely at the risk of the customer. Marine Flow is not liable for any damage caused during installation, unless the damage was caused by intent or deliberate recklessness on the part of Marine Flow. In no case is Marine Flow liable for consequential damage and / or indirect damage. Without prejudice to the above, the following limitations of Marine Flow's liability apply.
- 5. Marine Flow offers a guarantee with respect to the products if and insofar this has been agreed in writing between the parties upon conclusion of the agreement or insofar as Marine Flow is legally obliged to do so.
- 6. Subject to any mandatory obligations arising from the law, Marine Flow is never obliged to compensate any loss, except in the event of intent or willful recklessness.
- 7. Any liability for consequential loss or loss of profits, indirect loss, lost profits and loss owing to stoppage of the customer and/or the customer's customers is explicitly excluded under all circumstances. Liability is always limited to the amount insured or paid by Marine Flow. In the event of loss that is not or only partially covered, Marine Flow's liability is always limited to the invoice amount of the specific delivery or partial delivery.

Other

- 8. Should any provisions of these General terms and conditions of installation and use be null and void, be annulled, or be unenforceable, this will not have any consequences for the validity of all other provisions or the agreement.
- 9. If and insofar Marine Flow cannot invoke any provision of these General terms and conditions of installation and use or the agreement, then said provision will be construed as having a content and purport that is as much as possible in accordance with the original provision, allowing it to be invoked by Marine Flow.
- All costs, judicial and extrajudicial, related to the collection of sums owed to Marine Flow are fully for the account of the customer.
- 11. The legal relationship between Marine Flow and the customer will be governed by Dutch law, under exclusion of the Vienna Sales Convention, and all disputes will be settled exclusively by the competent court in the District of Amsterdam, The Netherlands.