

Magnetic filter-desilter MF-D



	MF-D 37 25/76	MF-D 60 32/89	MF-D 95 40/114	MF-D 144 50/133	MF-D 275 65/159	MF-D 365 80/219
Non-insulated						
Insulated						

ELTERM M.M.Kaszuba Sp.J., ul. Przemysłowa 5, 86-200 Chełmno, www.elterm.pl

OPERATING AND INSTALLATION MANUAL

Purpose:

Our magnetic filter-desilter MF-D DRYL is designed to work with systems where constant liquid cleaning from large magnetic and non – magnetic particles is essential. It also acts as an air vent which, in connection with its internal filter basket, works for better central heating system performance, improves energy efficiency and extends the life of your boiler and whole central heating system. Moreover, it stops tiny magnetic shards from being spread into the whole system, something which is directly responsible for causing rust and corrosion. MF-D also removes black ferrous oxide or 'sludge', which can seriously reduce boiler's efficiency by limiting heat transfer or blocking pipework.

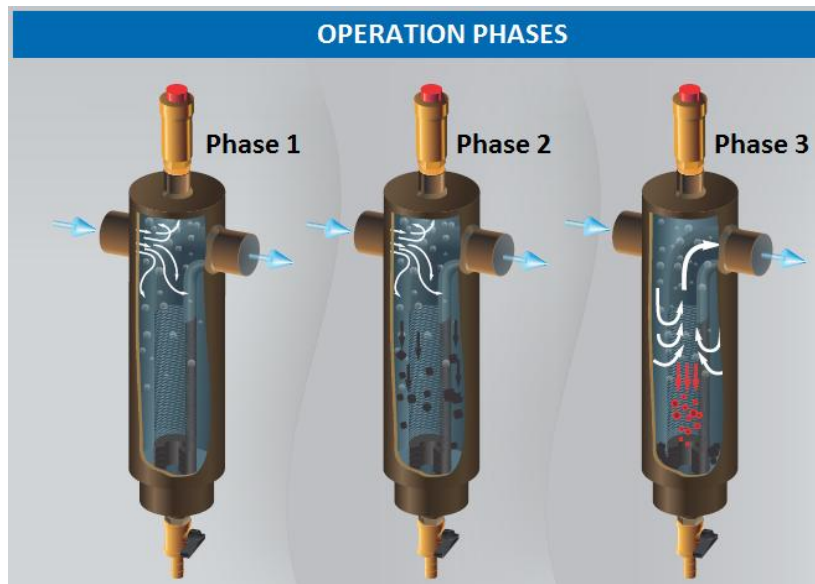
This product can be used as a main filter through which 100% liquid is run. The magnetic filter is made of black construction steel (mild steel) but the whole internal area and parts, with the exception of the filter basket and magnet, are covered by a layer of zinc, thus helping to prevent corrosion. While cleaning, there is no need to remove the magnetic parts from the stainless-steel, non-magnetic basket, saving time and keeping your environment clean.

Construction:

Stream of working fluid flows through inlet and strikes into inner short radius elbow of outlet. Stub pipes and body diameters are calculated to reduce fluid speed Vc 6-times and makes flow turbulent. Settlements fall by gravity to the bottom of MF-D. Then the liquid is mechanically filtered through filter basket made of nichrome with mesh size of 0,4mm. On filter's net with low velocity of fluid separation of air bubbles is done (+ their removal through air vent). After going through mechanical filter, fluid is in the magnetic field zone – additional cleansing process takes place – ferromagnetic particles are targeted. Those particles represent more than 50% of all sediments in installation. Summarizing – in our MF_D several filtration methods are used: mechanical, centrifugal, sedimental, magnetic and air separation.

Installation and operation:

MF-D needs to be mounted on main CH pipe, favorably on return side. On both sides, ball valves are needed in order to enable periodical filter cleaning without draining whole installation. Device sizing depends on main pipe diameter - remaining technical data available in below table are just auxiliary. Construction of MF-D is a result of minimizing hydraulic resistance. Sludge from installation need to be periodically removed from the bottom part by opening drain valve (while keeping both ball valves closed). At least once a year user need to twist off cast iron reduction in the bottom part, take off strainer filter with magnetic stack, rinse thoroughly both filter and MF-D inside, check whether magnets still have their properties. In case of degaussing – replace stack together with filter (spare part available in distribution network). Reassemble product in reversed order and open both ball valves. All service activities are simple and require universal tools. Ensuring proper service guarantees failure-free operation of not only MF-D but also whole central heating installation.



WARRANTY

- ✓ The manufacturer gives warranty for faultless operation of device for a period of 2 years (24 months) of the date of sale.
- ✓ Warranty repairs are made by the manufacturer or authorized representative of the same.
- ✓ Warranty expires if any alterations are made to the product without the manufacturer's consent, or if the product covered by the warranty is used against its intended purpose, in which cases the manufacturer shall not be held liable for any negative effects of such product use.
- ✓ The user is responsible for strict adherence to the operating and installation manual for the device, paying particular attention to the maximum admissible technical parameters provided in the relevant catalogue sheet.
- ✓ Failure to adhere to the above renders the warranty void.
- ✓ Incomplete warranty is invalid.
- ✓ Specific cases not covered by this warranty are regulated by the Civil Code.

Producer seal	Date of sale	Seller seal and signature

Declaration of conformity EN1/2016

Elterm M.M. Kaszuba Sp.J., ul. Przemysłowa 5, 86-200 Chełmno

We herewith declare, under our sole responsibility, that the following products:

- **safety units for CH and UHW:** GBCO 3 bar; GBCWU 6 bar/8bar; GBCWU INOX 6bar/8bar
- **connecting manifolds:** 2-way; 3-way and manufactured against special order
- **chemical dosing pots:** DCE 3,5l; DCE 5l; DCE 10l; DCE 15l; DCE 25l
- **magnetic filter-desilters:** Dryl 37 25/76; Dryl 60 32/89; Dryl 95 40/114; Dryl 144 50/133; Dryl 275 65/159; Dryl 365 80/219
- **safety heat exchangers:** Strażnik 32 40/133; Strażnik 32 40/133 – OC; Strażnik 45 50/133

Manufactured by ELTERM conform to the pressure equipment directive 2014/68/UE; EN 13445 "Unfired pressure vessels" as amended - UNM and to the ordinance by the Minister of Economy of 11.02.2015 on the absolute requirements concerning pressure equipment and pressure equipment units (Journal of Laws Dz.U.2015 poz. 244).

Relevant conformity assessment procedure: Internal production control – module A (in accordance with 2014/68/UE – equipment up to category I). Usable for water with $T < 110^{\circ}\text{C}$, for the remaining maximum admissible operating parameters and dimensions see the relevant manual or catalogue sheets available at www.elterm.pl

Chełmno, July 19th, 2016

Maciej Kaszuba
