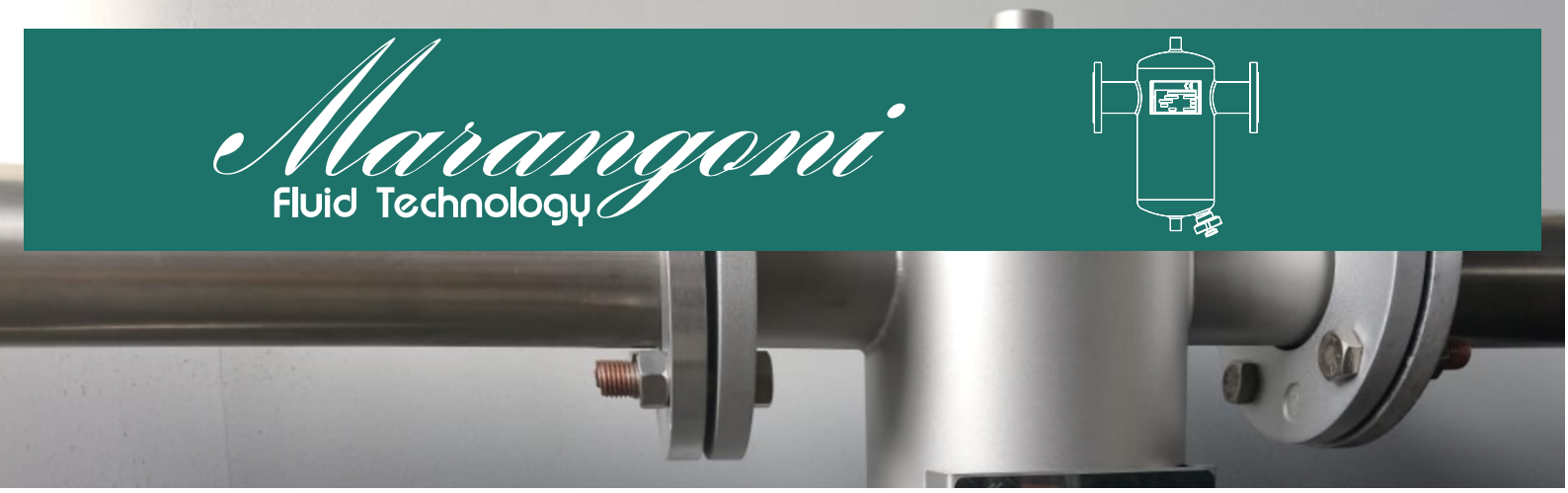
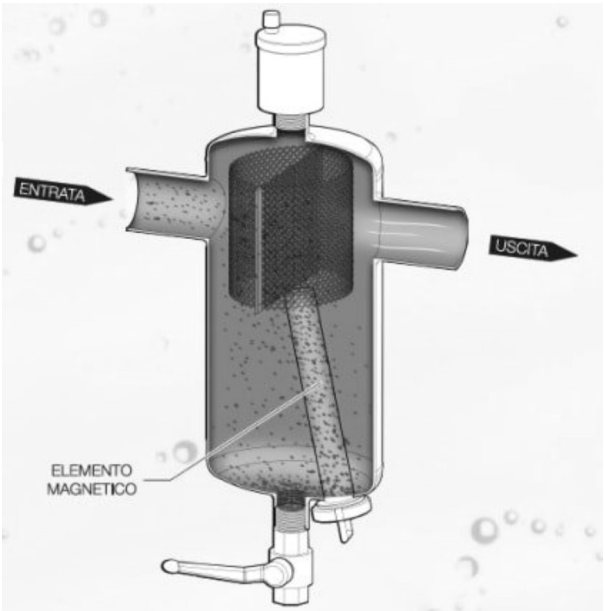


DIRT SEPARATOR

Marangoni Magnetic dirt separator

The dirt separator is an active mechanical component of the system that is used to collect and remove the impurities present in the hydraulic circuits. Most of the products on the market are made of carbon steel (common iron) and over time the contact with water and oxygen creates oxidation and corrosion, thus producing rust particles such as magnetite. The Marangoni dirt separator instead is made entirely of AISI 304 L stainless steel, therefore much lighter than traditional ones and due to its stainless properties does not produce these particles and is also suitable for more kind of aggressive liquids such as glycol solutions.

Marangoni Magnetic dirt separator

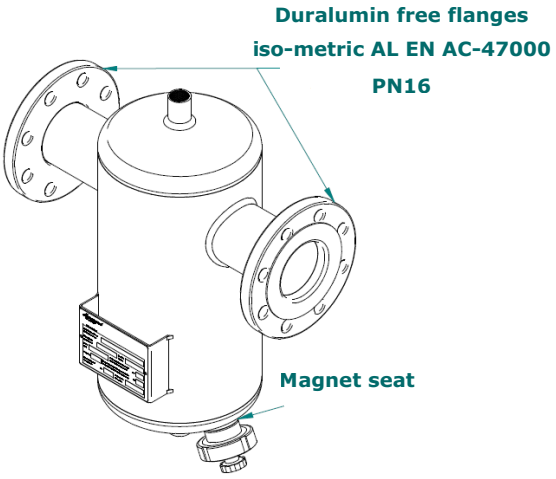


The Marangoni magnetic dirt separators feature a powerful removable magnetic candle that has the ability to attract all the sensitive particles to itself not only during the decanting phase, but also directly from the fluid in transit. The particles are then retained until periodic cleaning, preventing them from returning to the circuit.

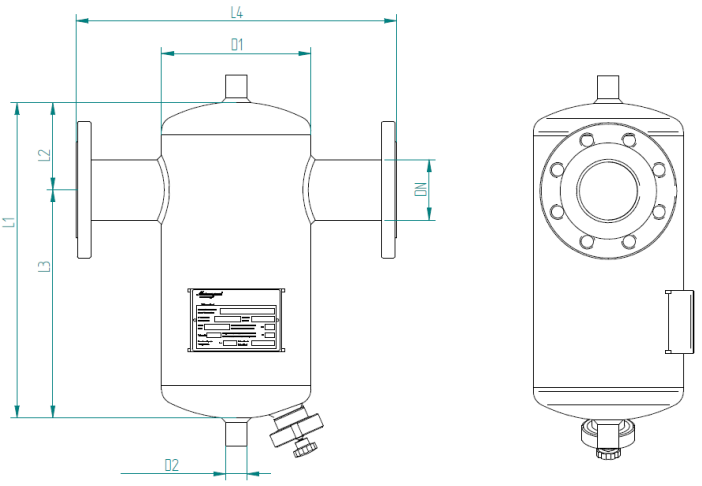
DIRT SEPARATOR

Technical features

Marangoni dirt separators are built in AISI 304L stainless steel made up of light alloy mobile flanges designed to be directed according to the fixed ones already present in the pipes and elements of the system. The powerful removable magnet inserted inside has a filtration degree of about 70 microns.



TECHNICAL FEATURES							
PRODUCT CODE	FLANGED	AVERAGE FLOW (m^3/h)	WEIGHT (Kg)	WORKING TEMPERATURE (°C)	PRESSURE (Bar)	FITTINGS	SURFACE FINISHING
DFL50	PN16	9	5,5	-20° +120°	10	INOX 304L	SANDBLASTING AND PICKLING
DFL65	PN16	14,7	7,3				
DFL80	PN16	20,4	10,6				
DFL100	PN16	34,4	10,7				
DFL125	PN16	52	18				
DFL150	PN16	76,3	20				
DFL200	PN16	130,7	28,5				



Clear advanced of Stainless steel

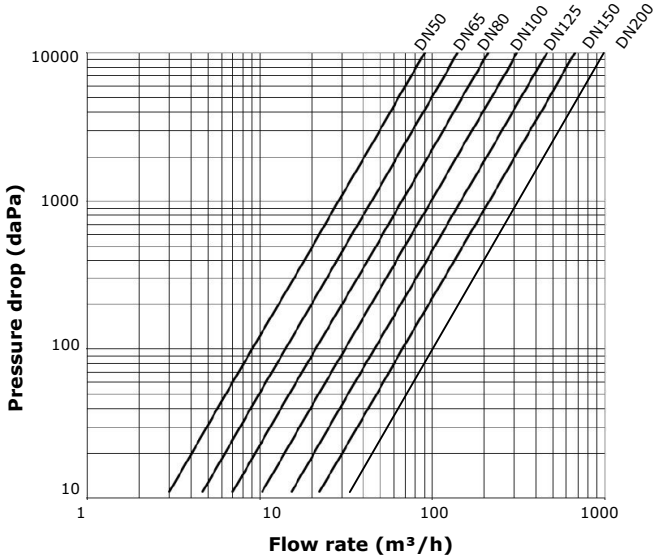
Our steel dirt separator in addition to being lighter then the traditional carbon steel ones (a DN100 in steel weighs about 11 kg against 25/30 of an equal size in iron) in contact with water do not generate any particles of impurities and an absence of corrosion and rust (which is inevitable with an iron dirt separator) guaranteeing an inalterability of all the components with constant performance over time.

DIMENSIONS							
PRODUCT CODE	DN	D1	D2	L1	L2	L3	L4
DFL50	DN 50	6"	3/4"	370	90	280	345
DFL65	DN 65	6"	3/4"	370	95	275	345
DFL80	DN 80	8"	3/4"	470	131	338	462
DFL100	DN 100	8"	3/4"	470	131	338	462
DFL125	DN 125	10"	1"	570	180	390	544
DFL150	DN 150	10"	1"	570	200	370	544
DFL200	DN 200	10"	1"	740	275	465	780

DIRT SEPARATOR

Flow rate

The racommended maximum fluid speed at the dirt separator connections is approximately 1,50 m/s.

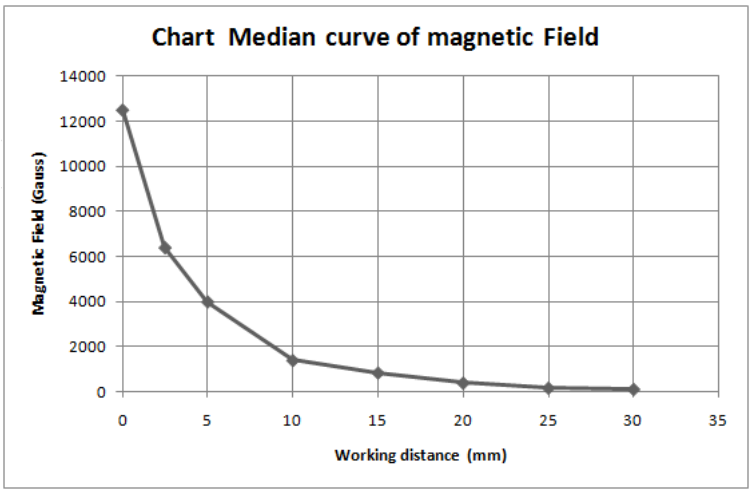


Model	0.5 m/s	1.0 m/s	1.5 m/s
DN 50	4.5 m3/h	9 m3/h	13.4 m3/h
DN 65	7.3 m3/h	14.7 m3/h	22 m3/h
DN 80	10.2 m3/h	20.4 m3/h	30.5 m3/h
DN 100	17.2 m3/h	34.4 m3/h	51.6 m3/h
DN 125	26 m3/h	52 m3/h	78.1 m3/h
DN 150	38.1 m3/h	76.3 m3/h	114.4 m3/h
DN 200	65.4 m3/h	130.7 m3/h	196.1 m3/h

The calculation values are estimated with water at 70° with clean filter. The operating temperature range varies from -10 °C to 120 °C. The pressure drop variation of Magnetic dirt separator compared to a standard ones is negligible.

Magnet

The full removable magnet weighs about 2,5 kg and has a strenght of more than 12500 Gauss. In the table below is shown how change the magnetic field related to working distance.



DIRT SEPARATOR

Insulation

On request Marangoni Magnetic dirt separators can be supplied with external insulation for models from DN50 to DN150.

This insulation, made up of 2 pre formed shells in thermoplastic material with high heat performance, made internally in Polyethylene PE C030 and outside in Polyethylene C080 to ensure a very low value of thermal conductivity. The system allows a very high thermal insulation avoiding passage of water vapor from the environment to the inside of the dirt separator.

Installation

The installation of Insulation is fast and easy thanks to the lightness of the material and the tear-off shells system.

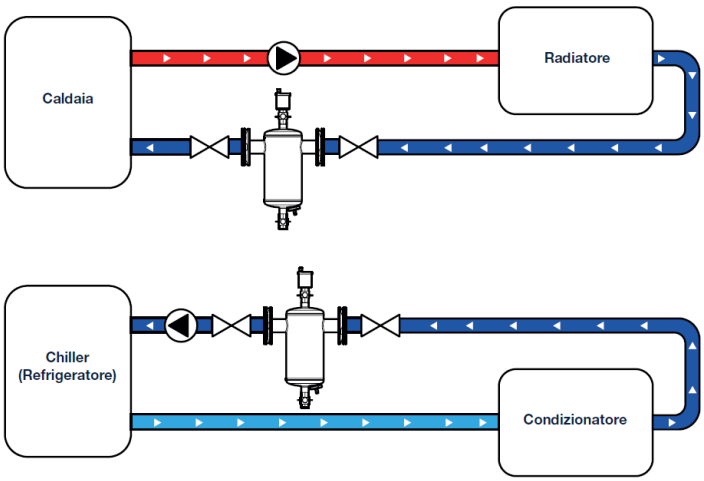
DIRT SEPARATOR

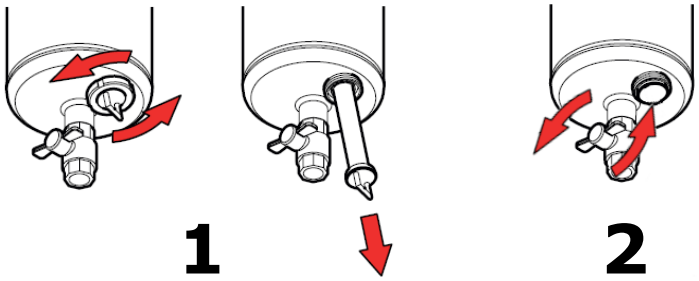
Maintenance and cleaning

Periodic cleaning in possible when the system is running, to carry out is necessary to close shut-off valves upstream and downstream of the dirt separator.

1) Proceed with carefully removal of the magnet.

2) Opening the drain valve on the base of the separator until the water runs clear.





Installation

To ensure efficient filtration of dirt particles, it's important that the unit is installed correctly.

The dirt separator must be installed on the return circuit, upstream of the boiler, and should be installed upstream of the pump. The dirt separator must be installed always in **VERTICAL** position.

Custom made dirt separator

On customer's request we also produce:

✓Dirt separator of custom sizes (DN250, DN500 and larger)

✓Dirt separator with movable stainless steel flanges made AISI 304

✓Dirt Separator stainless stell made AISI 316

✓Support are provided for large dirt separator

SPECIFICATION SUMMARY

Dirt separator flanged connection DN 50 (from DN 50 to higher models) PN 16, can be coupled with conterflanged EN 1092-1. Top connection 3/4"F (from DN 50 to 100) and 1"F (from DN 125 and higher models). Stainless steel body inox AISI 304L. Stainless steel internal element inox AISI 304L. Medium Water and no dangerous glycol solutions excluded from the guidelines 67/548/CE; Maximum percentage of glycol 100%. Max working pressure 10 bar. Max tested Pressure 30 bar.

Working temperature range -20÷120°C. Particle separation rating down to 5 μm. Floor support from size DN 200. Magnetic induction of single magnet from DN 50 to 300, double magnet from DN 300 and higher.