



**SEPARATOR OF WATER IMPURITIES**



## Efficiency

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A constant performance capacity and response to its tasks.

Each system has been planned by professionals with quality and efficiency research in order to give prestige to their job. The Marangoni dirt separator keeps this high quality unchanged even during the system operations.

Throughout the system construction phase, it is possible to find inside of it some impurities created by the same processes for its creation (sands particles, welding residuals, thread chippings, metal flakes, hemp, oils and process lubricants, plastic fragments; all those elements who are commonly called mire). These impurities are put into circulation when the system is turned on and that can deposited in very sensitive points. These impurities could cause important instruments malfunctioning; block the system by reducing the flow; create seizing and other events that would require external assistance, which may slow the product efficiency.

The dirt separator is an active mechanical component of the system. The **Marangoni Fluid Technology** stainless steel AISI 304 L system, compared to the carbon steel system already available on the market, defines clear and notable advantages, among them:

- Inalterability of the component with a constant performance throughout time;
- Lacks of corrosion by maintaining specific designs and hydraulic flow;
- "Component aesthetic".

**Marangoni Fluid Technology** is assisting professionals in order to maintain their job efficient. Research materials, accurate production processes, professional welding in TIG with qualified staff and constant innovation of the products are the components of our job that aims to satisfy the always increasing clients demand.



# Marangoni dirt separator

Marangoni dirt separator shows particularities that make it a unique component of high value and prestige:

**- The dirt separator is completely stainless steel made AISI 304 L**, It is suitable to fluids transmissions used in thermal and conditioning circuits (with every glycol percentage) etc.

The hydraulic conformation of the component and the filter mesh specific structures minimize the load losses. The inbound hydraulic flux provides a constant filter mesh cleaning and the withheld material is cumulated in the decantation area where it deposits.

The material separation is obtained by using the material specific weight, the flux speed reduction and the induced centrifugal effect.

## **- Dirt separator with magnet**

The Marangoni dirt separator with magnets series offers a powerful magnetic structure that can catch the numerous sensitive particles during the decanting phase and also directly from the transiting fluid.

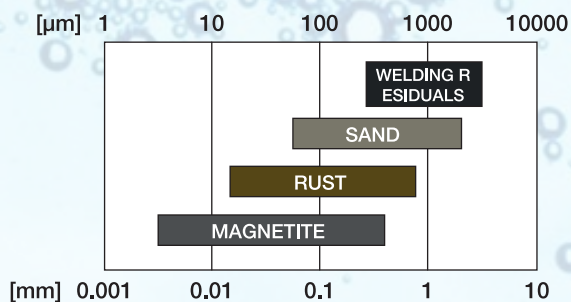
The particles are withheld until the periodic cleaning in order to avoid a return of the cycle.

**- The flanged Marangoni dirt separator** is composed by light alloy made movable flanges which have been studied to be directed according to the fix flanges which are already present in the piping and in the system elements. Moreover, this choice involves a remarkable weight reduction for the dirt separator, which makes it easier to handle it.

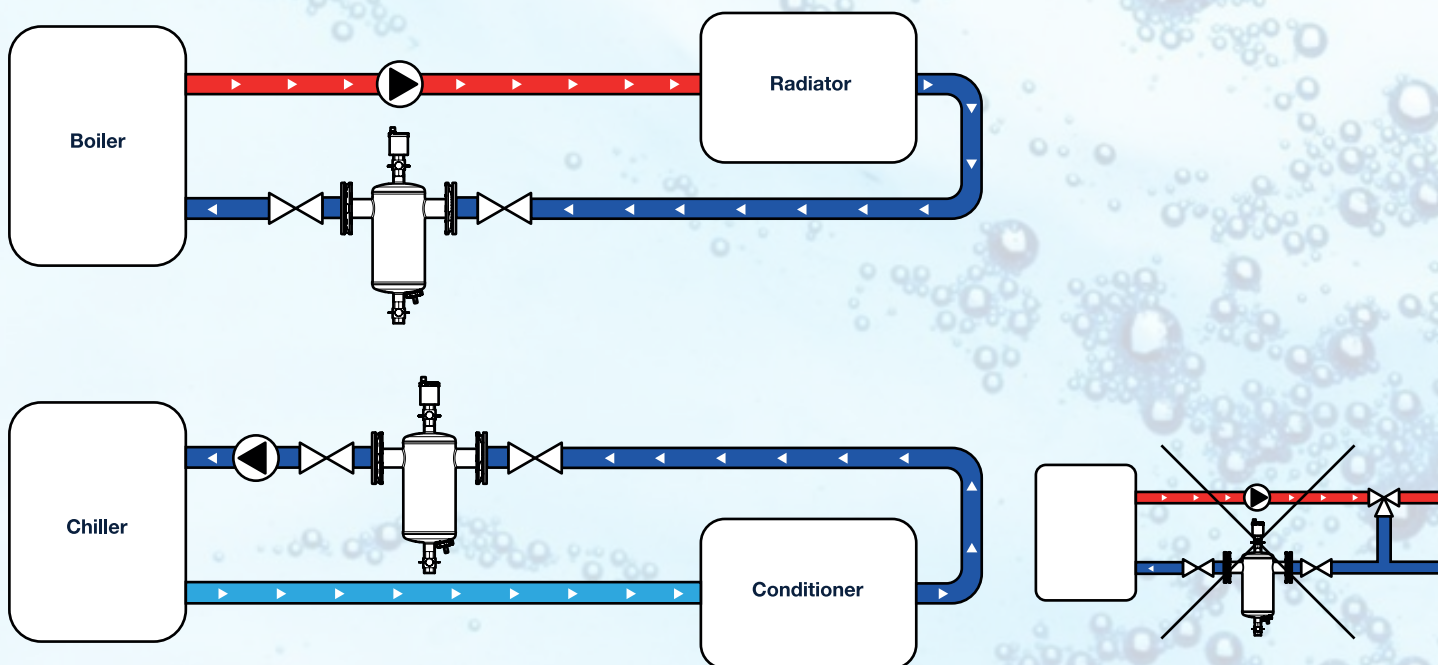
The components installation and fixing are then facilitated keeping unchanged the efficiency level.



## Separation particles ability

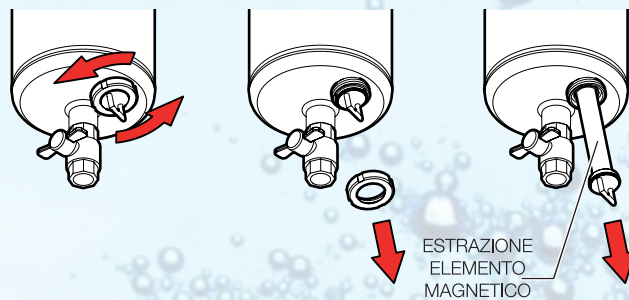


## Suggested installation



## Cleaning

The periodic cleaning is possible also when the system is working. To do so, it is necessary shutting the dirt separator upstream and downstream interceptive valves. Continuing with the magnet removal and then opening the ball valve to let impurities falling out.



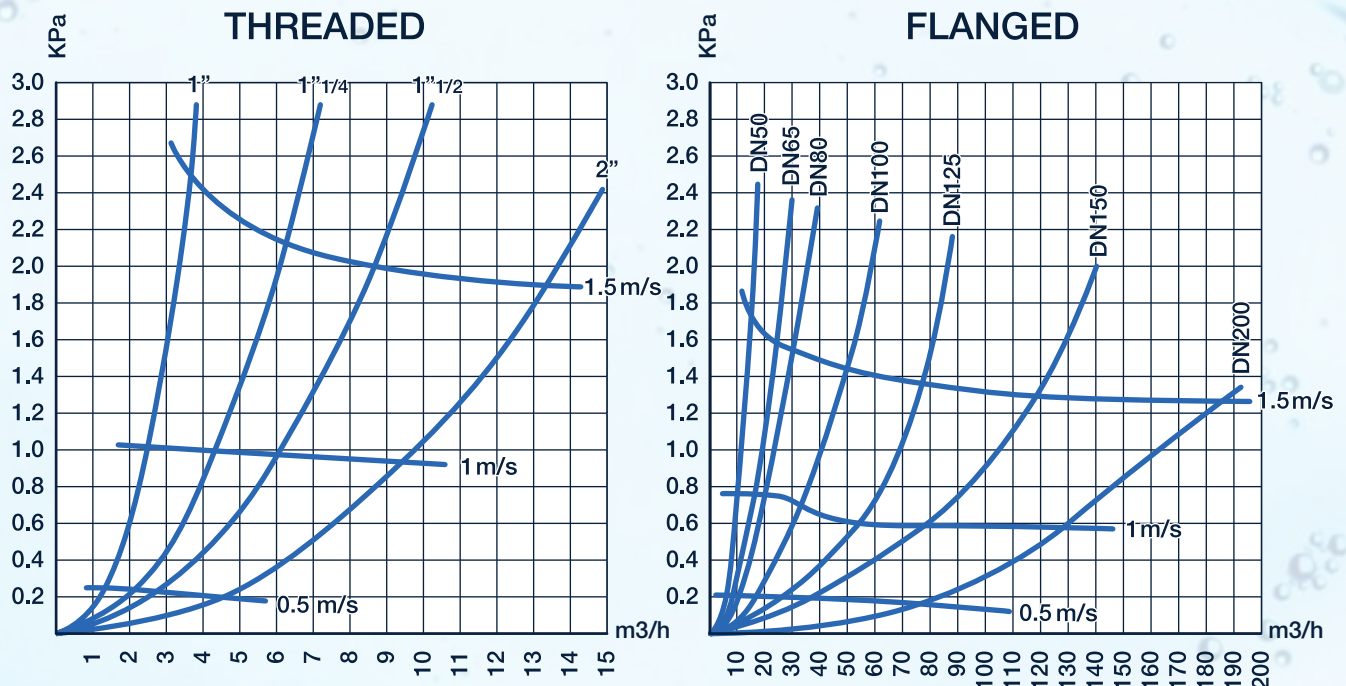
## On demand

- Tailored dirt separators
- Dirt separators with movable stainless-steel made 304 L flanges
- Dirt separators stainless-steel made AISI 316
- Fixtures for big dimensions dirt separators

# Fluid dynamic characteristics

## Load losses

Maximum recommended flow speed at the dirt separator attachments is 1.5m/s.



Values referred to water passage at 70 and with clean filter.

Temperature exercising field:  $-10^{\circ} \div 120^{\circ}\text{C}$

Magnetic dirt separator variation load loss compared to the standard or equal models is negligible.

## Scopes

### THREADED

Modello	0.5 m/s	1.0 m/s	1.5 m/s
1"	1.2 m³/h	2.5 m³/h	2.5 m³/h
1"1/4	2.1 m³/h	4.1 m³/h	2.2 m³/h
1"1/2	2.8 m³/h	5.5 m³/h	2 m³/h
2"	4.5 m³/h	9 m³/h	13.4 m³/h

### Flanged

Modello	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

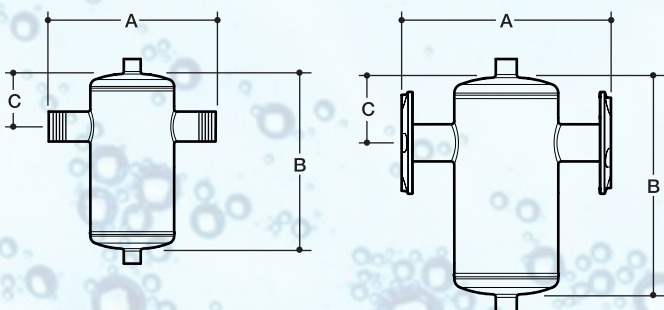
## Technical data

### THREADED

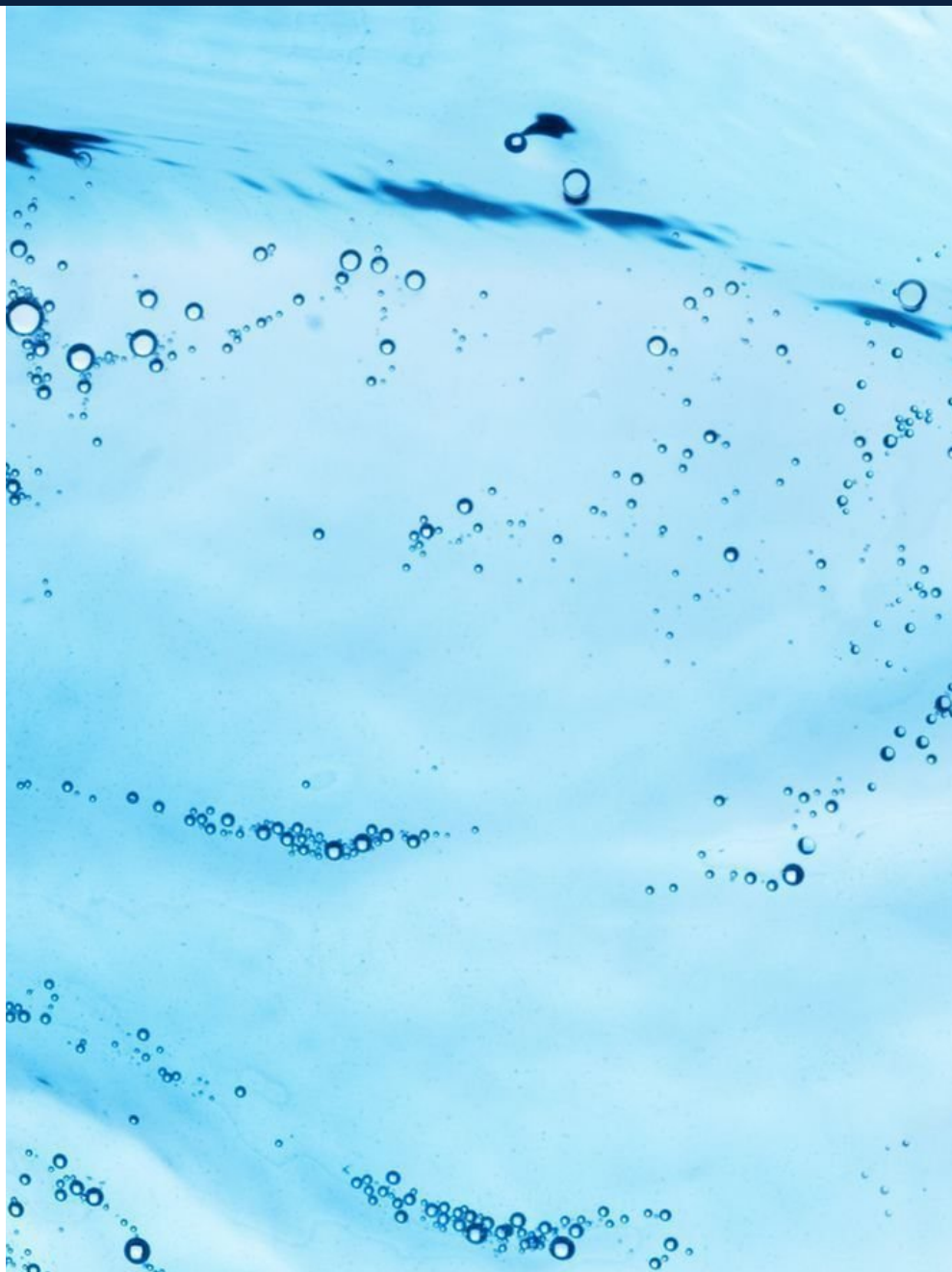
Entrate	A Ingombro	B Altezza	C Interasse
1"	130 mm	156 mm	55 mm
1"1/4	130 mm	176 mm	58 mm
1"1/2	150 mm	208 mm	60 mm
2"	180 mm	245 mm	75 mm

### Flanged

Entrate	A Ingombro	B Altezza	C Interasse
DN 50	345 mm	370 mm	90 mm
DN 65	345 mm	370 mm	95 mm
DN 80	462 mm	470 mm	135 mm
DN 100	462 mm	470 mm	135 mm
DN 125	544 mm	570 mm	180 mm
DN 150	544 mm	570 mm	200 mm
DN 200	780 mm	740 mm	275 mm







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