



5462 series, NPT



5462 series, Sweat

DIRTCAL[®] Dirt Separator

5462 series

Function

In heating and air conditioning control systems, the circulation of water containing impurities may result in rapid wear and damage to components such as pumps and control valves. It also causes blockages in heat exchangers, heating elements and pipes, resulting in lower thermal efficiency within the system.

The dirt separator separates off these impurities, which are mainly made up of particles of sand and rust, collecting them in a large collection chamber, from which they can be removed even while the system is in operation.

This device is capable of efficiently removing even the smallest particles, with very low head loss. It includes a large internal volume with a polymer screen to automatically remove all dirt present in the system with particle separator capacity to 5 μm (0.2 mil).

Patented.

Product Range

5462 Series

DIRTCAL dirt separator in brass:

Sizes 3/4" - 1" - 1 1/4" - 1 1/2" - 2" NPT female

Sizes 1" - 1 1/4" - 1 1/2" - 2" sweat

Flow Rate

Size	3/4"	1"	1 1/4"	1 1/2"	2"
gpm	6	9.3	15.3	23.9	36
l/s	0.4	0.6	1.0	1.5	2.3
Cv	18.8	32.6	56.6	73.3	81

The maximum fluid velocity recommended at the unit connections is ~4 f/s. This table shows the maximum flow rates to comply with this condition.

5462 series

Reference documentation:  **Tech. broch. 01137**

Technical Specification

Materials:

- Body, dirt collection chamber and top plug: brass
- Internal element: PA66G 30
- Hydraulic seal: EPDM
- Drain shut-off valve: brass

Suitable fluids: water, glycol solution

- Max percentage of glycol: 50%
- Max working pressure: 150 psi (10 bar)
- Temperature range: 32-250°F (0 - 120°C)
- Particle separation capacity: to 5 μm (0.2 mil)

Connections:

- Main: 3/4", 1", 1 1/4", 1 1/2", 2" NPT Female
1" - 1 1/4" - 1 1/2" - 2" Sweat
- Top: 1/2" F (with plug)
- Drain: 3/4" garden hose

Operating Principal

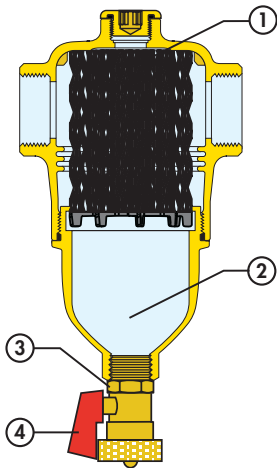
Microparticle dirt separation

The dirt separator operating principle is based on the combined action of a number of physical phenomena.

The internal element (1) is composed of a set of radical reticular surfaces. The impurities in the water, on striking these surfaces, get separated, dropped into the bottom of the body (2) where they collect.

In addition, the large internal volume of DIRTICAL slows down the flow speed of the medium thus helping, by gravity, to separate the particles it contains.

The collected impurities are discharged, even with the system running, by opening the drain shut-off valve (3) with the handle (4).



Construction Details

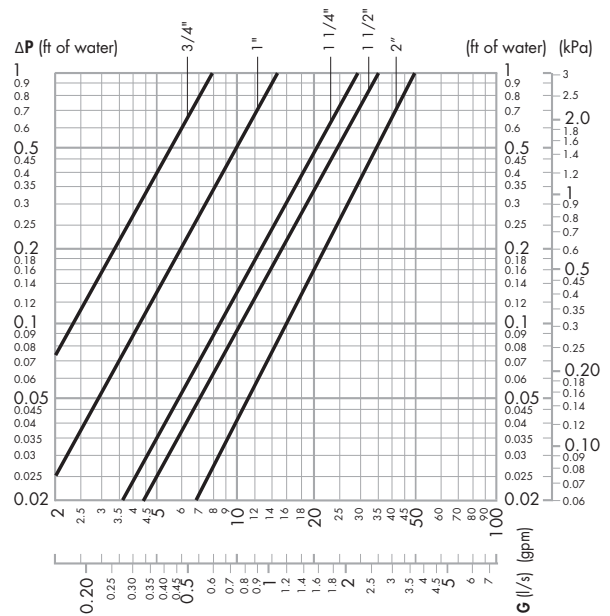
Low head losses and performance maintained over time

The separating action performed by the dirt separator is based on using the internal element with reticular surfaces in place of an ordinary filter. The screen, by its nature, offers little resistance to the flow of medium while ensuring separation.

This occurs due to the particle colliding with the reticular surfaces and then settling, and not by filtration; an action by which the filter, over time, gets progressively clogged by sludge it removes.

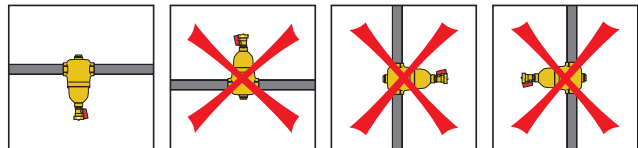
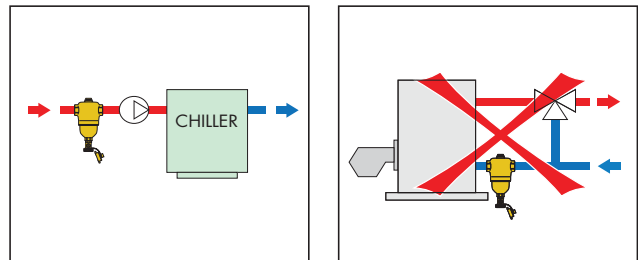
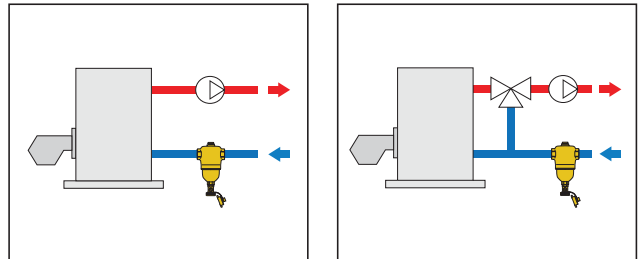
All this is to the benefit of performance, that is the high capacity to separate impurities and the low head losses that remain unaltered over time.

Hydraulic Characteristics



Installation

The dirt separator must always be installed in a vertical position, preferably on the return circuit upstream of the boiler (or chiller). This enables it to intercept impurities already present in the circuit, particularly when it is first started, before they reach the boiler (or chiller).



We reserve the right to change our products and their relevant technical data, contained in this publication, at any time and without prior notice.

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