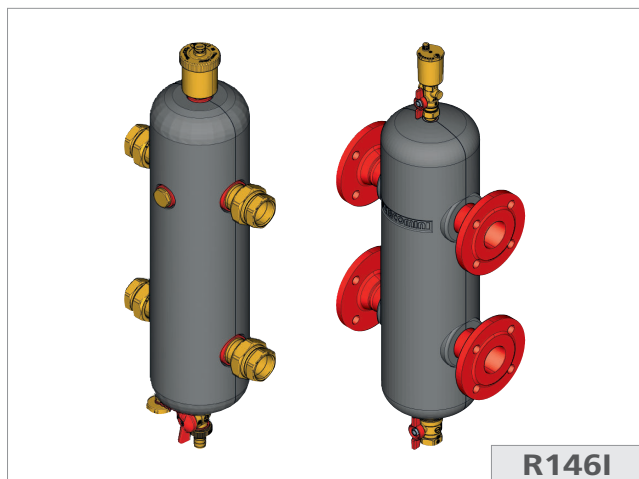


R146I HYDRAULIC SEPARATOR



R146I

Description

The hydraulic separator is a device that in modern conditioning systems guarantees the following functions:

Hydraulic separation

It makes the connected hydraulic circuits independent, by eliminating the mutual influence among pumps installed in series, compensating the difference among the capacities that cross the circuits, exclusively according to the features of the respective circulator;

Dirt separator

It allows the separation and elimination of the circuit impurities through a valve, that can be connected to the discharge pipe, and is positioned on the lower part of the separator;

Desareator

It permits the separation and elimination of the air present into the circuits, through an air vent valve, that can be linked to the connection on the upper part of the separator; the air vent valve is equipped with a connection that can be intercepted for possible maintenance operations.

The hydraulic separators are supplied with insulation, in order to guarantee an appropriate thermal insulation.

Versions and product codes

Product code	Connection	Max. capacity [m³/h]	Weight [Kg]	Volume [liters]
R146IY005	1"	2,5	2,7	1,5
R146IY006	1"1/4	4	3,7	2,5
R146IY007	1"1/2	6	5,7	4,5
R146IY008	2"	9	7,2	7,2
R146IY105	DN50	10,5	19	10
R146IY106	DN65	17,5	25	17
R146IY108	DN80	25	36	36
R146IY110	DN100	42	48	66
R146IY112	DN125	65	73	105
R146IY115	DN150	95	97	109

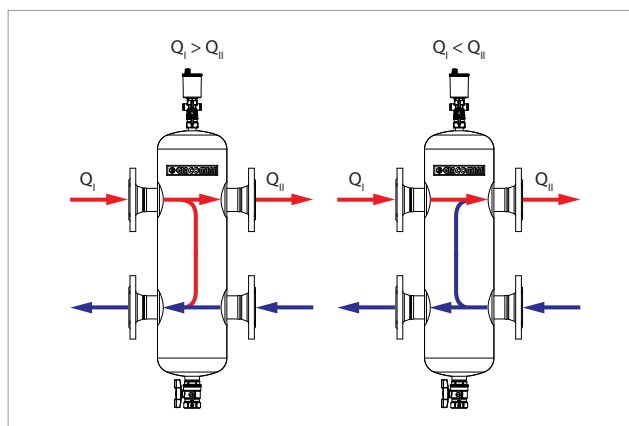


Remark.

The maximum recommended capacity is related to a fluid speed of 1,3 m/s at the connections.

Flow schemes

The hydraulic separator permits to decouple the primary circulator capacity from that of the secondary one. If the capacity that crosses a circuit, primary or secondary, exceeds the one circulating into the other circuit, a part of it is by-passed through the separator. You can have a production circuit having constant capacity and a distribution circuit of variable capacity.

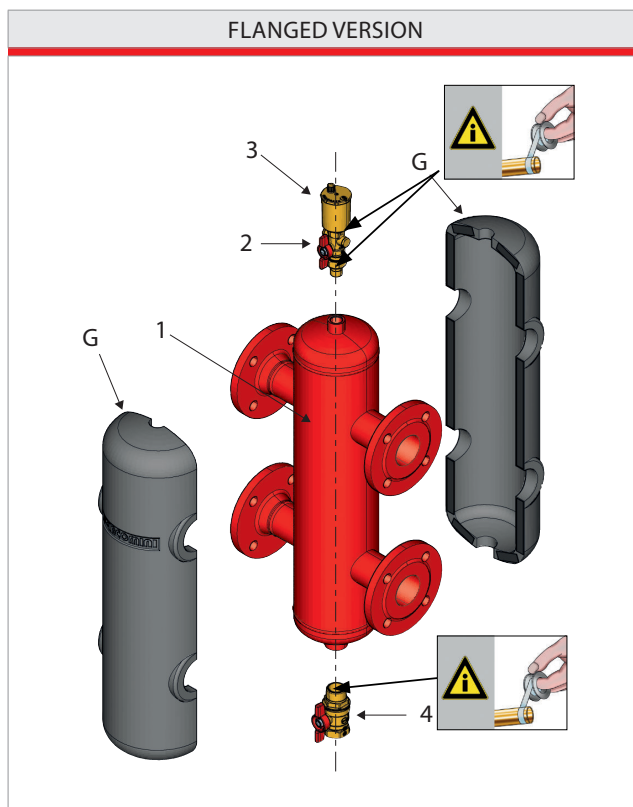
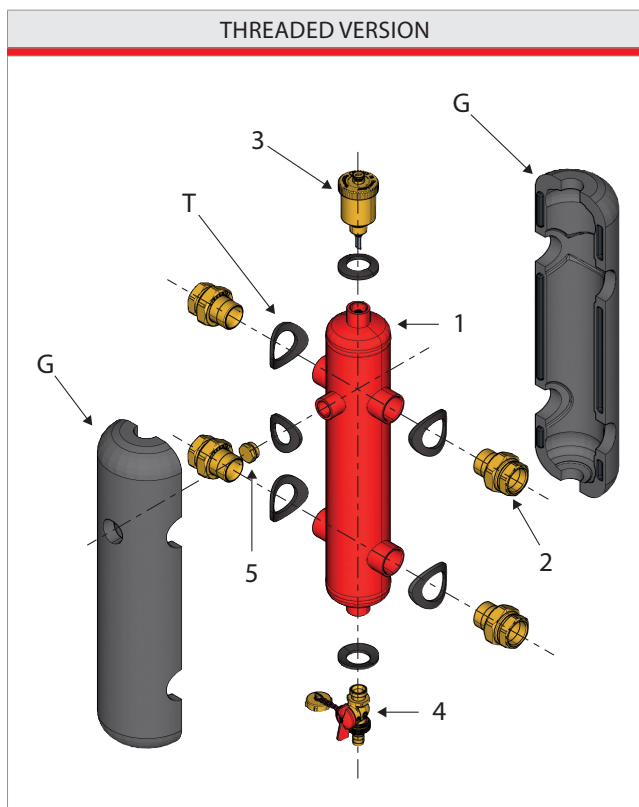


Technical features

Operation features	Threaded version	Flanged version
Use fluids	Water, solutions with glycol	Water, solutions with glycol
Maximum glycol percentage	30%	50%
Maximum working pressure	10 bar	10 bar
Working temperature range	0 ÷ 110 °C	0 ÷ 110 °C
Separator connections	1" e 1" 1/4 - UNI ISO 228; 1"1/2" e 2" - UNI ISO 7/1	DN50, DN65, DN80, DN100, DN125, DN150
Automatic air vent valve connections	1/2"	1/2"
Drain cock connections	1/2" M + barb fitting	1"
Sensor connection	1/2"	-
Materials	Threaded version	Flanged version
Separator body	Painted steel	Painted steel
Insulation	Expanded rigid polyurethane foam with closed cells, external covering in rough goffered aluminium (0,7 mm)	Expanded PE-X with closed cells
Thickness		20 mm
Density		30 kg/m³
Thermal conductivity		0,038 W/mK
Reaction to fire	Class 1 for the external covering	Class B2

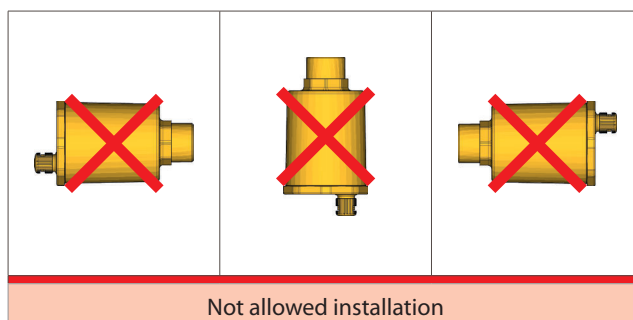
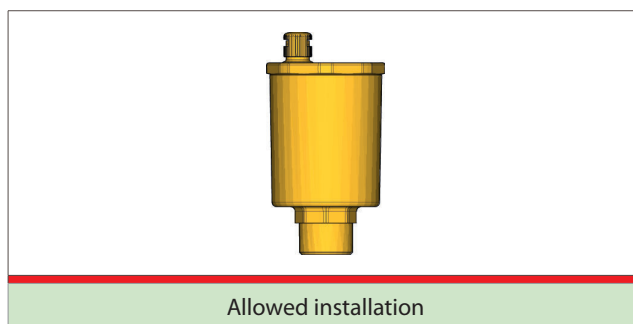
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Installation



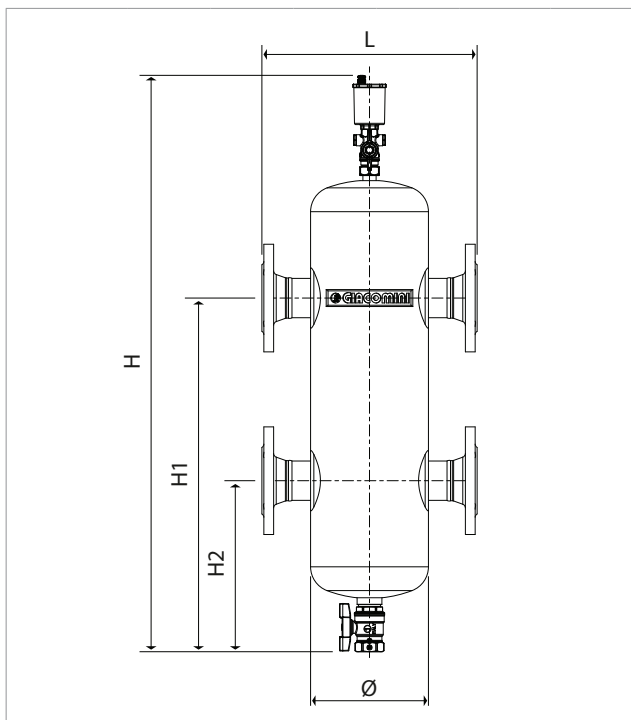
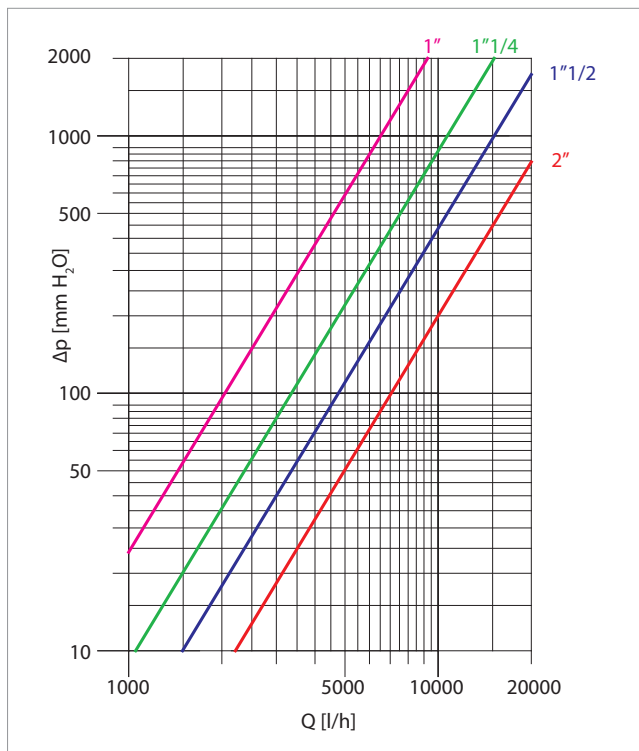
- A. Mount the appropriate sealing elements (T) on the base of the separator spacer, in order to prearrange for the use of the insulating shell.
- B. Proceed by mounting on the separator body (1), fittings in 3 pieces with threaded connections – R18 (2) on the lateral spacer, the automatic air vent valve – R99 (3) on the upper spacer (the nearest one to the frontal connection) the drain cock with barb fitting – R608 (4) on the lower spacer, and the plug with gaskets – R92 (5) on the frontal connection.
- C. After the possible assembly of the insulating shell (G), apply silicone in the space between the spacers and the shell itself, to avoid air exchange into the cavity.
- D. After all accessories have been mounted, the separator shall be installed on the system vertically, with the automatic air vent valve on the upper spacer, and it shall be connected by respecting the flows reported on the label.

- A. The separator body (1) is supplied with insulating shell (G).
- B. Connect the separator body with the relief valve R254 (4) and with the air vent group R99S composed by the automatic air vent valve (3), shut-off valve (2), with by-pass caps that can be used during the system filling up to drain air in a quicker way.



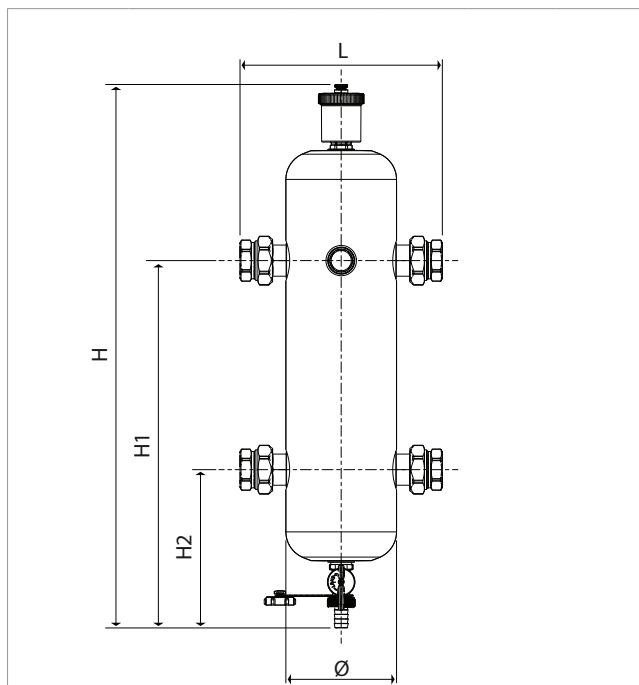
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Pressure losses



Product code	DN	L [mm]	Ø [mm]	H [mm]	H1 [mm]	H2 [mm]
R146Y105	DN50	330	140	884	542	262
R146Y106	DN65	360	169	1004	612	282
R146Y108	DN80	450	220	1164	762	322
R146Y110	DN100	500	273	1284	852	352
R146Y112	DN125	550	324	1484	1002	402
R146Y115	DN150	600	356	1683	1152	452

Dimensions



Product code	G	L [mm]	Ø [mm]	H [mm]	H1 [mm]	H2 [mm]
R146Y005	1"	213	76	571	386	166
R146Y006	1 1/4"	232	89	614	418	178
R146Y007	1 1/2"	300	115	661	451	191
R146Y008	2"	341	140	708	485	205

Product specification

R146I – threaded hydraulic separator

Hydraulic separator with threaded female connections. Body made of painted steel. Complete with automatic air vent valve, drain cock with barb connection and plug with gasket. Insulation with preformed shell made of expanded polyurethane with closed cells, thickness 20 mm, density 40 kg/m³ covered with aluminium. Maximum working pressure 10 bar, temperature 0 ÷ 110°C, maximum glycol percentage 30%.

R146I – flanged hydraulic separator

Hydraulic separator with flanged connections. Body made of painted steel. Complete with automatic air vent valve, drain cock with barb connection and plug with gasket. Insulation in expanded PE-X with closed cells, thickness 20 mm, density 30 kg/m³. Maximum working pressure 10 bar, temperature 0 ÷ 110°C, maximum glycol percentage 50%. Flanges in compliance with UNI EN 1092-1, PN16.

Additional information

For additional information please check the Giacomini website at the following address: www.giacomini.com

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