

HYDRAULIC SEPARATOR



Hydraulic Separator INSTALLATION & OPERATION INSTRUCTIONS

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ENG



Function

This device consists of several different functional components, each of which meets specific requirements, typical of the circuits used in heating and air-conditioning systems.

• **Hydraulic separator**

To keep connected hydraulic circuits totally independent from each other.

• **Dirt remover**

To permit the separation and collection of any impurities present in the circuits. Provided with a valved connection with discharge piping.

• **Automatic air vent**

For automatic venting of any air contained in the circuits. Provided with a valved connection for maintenance purposes.

• **Insulation**

The separators, threaded and flanged up to 2", are supplied complete with pre-formed shell insulation to ensure perfect thermal insulation when used in both hot and cold water systems.

TECHNICAL SPECIFICATIONS

Series	Threaded
Materials	
Separator body:	Brass EN 12165 CW617N, chrome plated
Automatic air vent body:	PP
Automatic air vent float:	EPDM
Automatic air vent seals:	Brass EN 12165 CW617N
Drain valve body:	-
Shut-off valve body:	-
 Medium:	 Water, non-hazardous glycol solutions excluded From the guidelines of directive 2014/68/EC
Max. percentage of glycol:	30%
Max. working pressure:	10 bar
Working temperature range:	0–110°C
 Connections:	 1", 1 1/4", 1 1/2", 2" F with union
 Probe holder:	 Front 1/2" F
Automatic air vent:	1/2" F
Automatic air vent discharge:	-
Drain valve:	1/2" Threaded connection

OPERATING PRINCIPLE

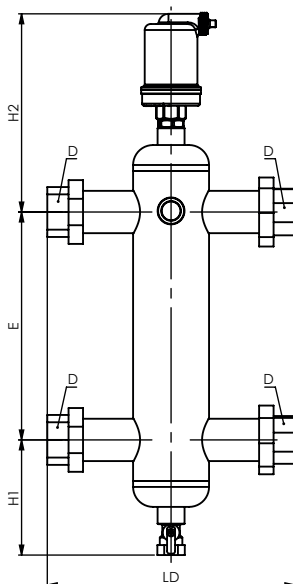
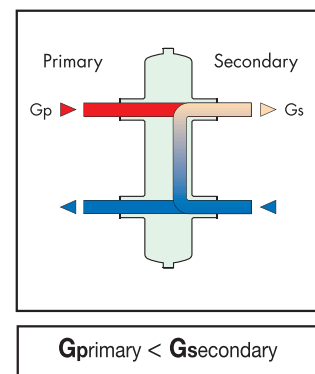
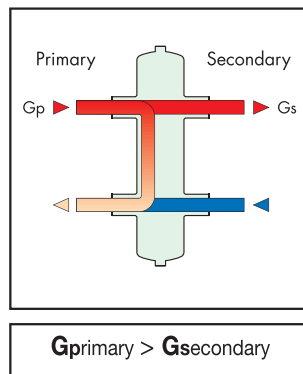
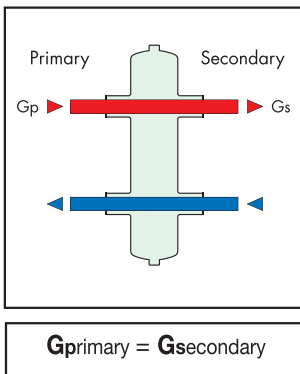
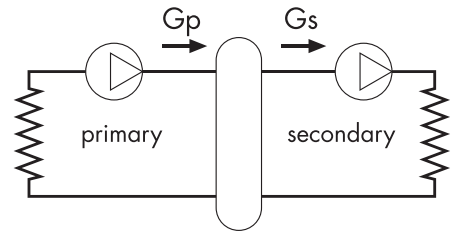
When a single system contains a primary production circuit, with its own pump, and a secondary user circuit, with one or more distribution pumps, operating conditions may arise in the system whereby the pumps interact, creating abnormal variations in circuit flow rates and pressures.

The hydraulic separator creates a zone with a low pressure loss, which enables the primary and secondary circuits connected to it to be hydraulically independent of each other; the flow in one circuit does not create a flow in the other if the pressure loss in the common section is negligible.

In this case, the flow rate in the respective circuits depends exclusively on the flow rate characteristics of the pumps, preventing reciprocal influence caused by connection in series. Therefore, using a device with these characteristics means that the flow in the secondary circuit only circulates when the relevant pump is on, permitting the system to meet the specific load requirements at that time.

When the secondary pump is off, there is no circulation in the secondary circuit; the whole flow rate produced by the primary pump is by-passed through the separator.

With the hydraulic separator, it is thus possible to have a production circuit with a constant flow rate and a distribution circuit with a variable flow rate; these operating conditions are typical of modern heating and air-conditioning systems.



Dimensions

Model	D	LD	H1	H2	E	Kg
SB-D-R	1"	225	195	220	204	2,7
SB-D-R	1 1/4"	248	225	240	214	3,8
SB-D-R	1 1/2"	282	235	260	224	5,7
SB-D-R	2"	315	281	300	230	11,8

SPECIFICATION SUMMARIES

Hydraulic separator. Connections 1" F (from 1" to 2") with union. Medium water and non-hazardous glycol solutions excluded from the guidelines of EC directive 2014/68/EC.

Maximum percentage of glycol 30%.

Maximum working pressure 10 bar. Working temperature range 0–110°C. Complete with:

- Automatic air vent. 1/2" M connection. Brass body, chrome plated. PP float. EPDM hydraulic seals.
- Drain valve. Hose connection. Brass body.
- Front probe holder connection 1/2" F.

The manufacturer reserves the right to make change without prior notification.

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