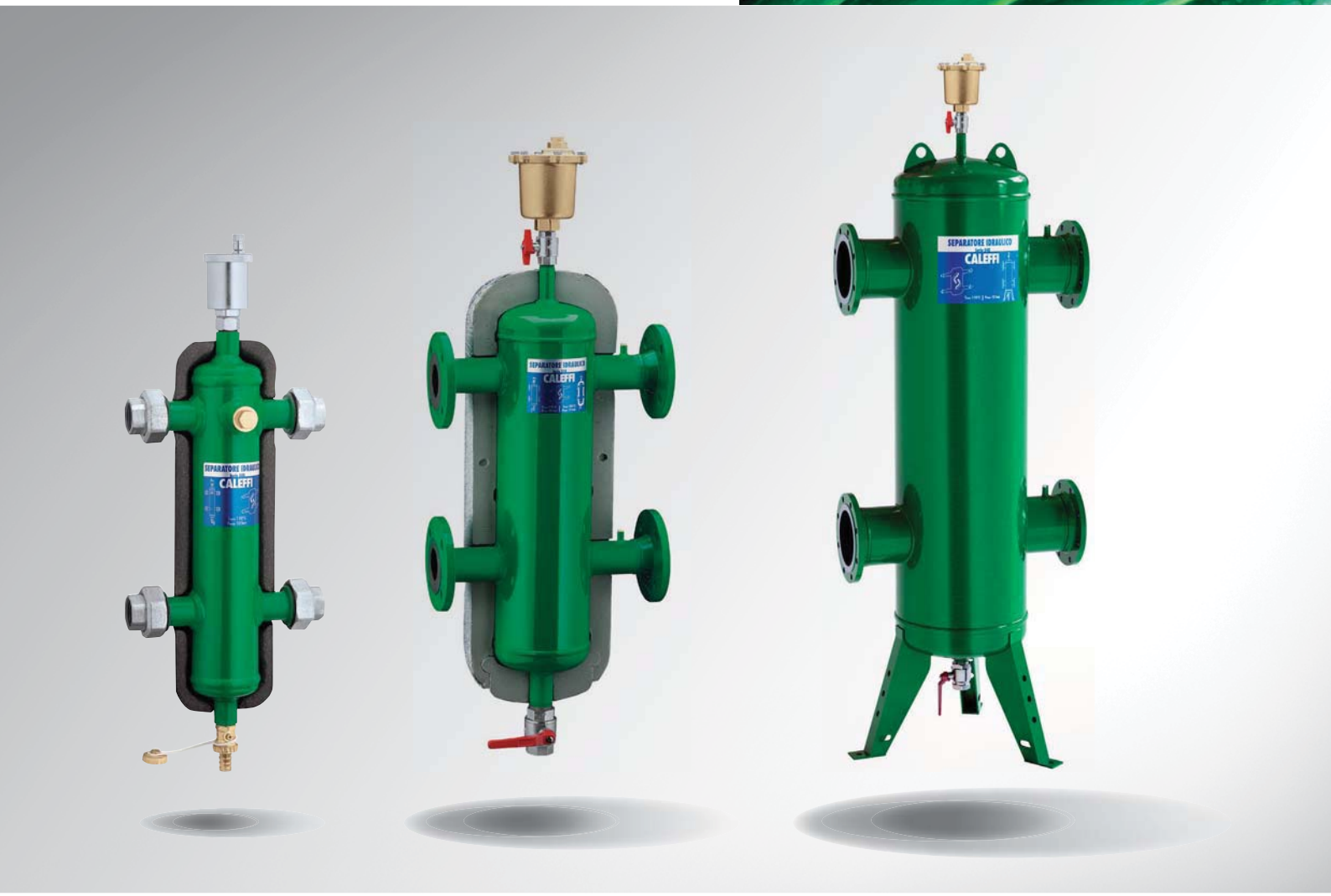
HYDRAULIC SEPARATOR

CALEFFI Hydronic Solutions



KEEPS HYDRAULIC CIRCUITS INDEPENDENT OF EACH OTHER

FUNCTION AND FEATURES

- Three functions combined in a single compact device
- Keeps circuits independent, thus avoiding interference to the pump installed on the secondary circuit
- Supplied complete with pre-formed insulation – up to 150mm
- Only four connections rather than eight
- Automatically removes the circulating air
- Separates and collects particles, removed via discharge pipe

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.

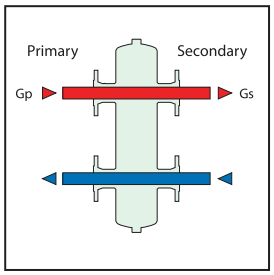
The hydraulic separator creates a zone with a low pressure loss, which enables the primary and secondary circuits connected to it to be hydraulically independent of each other; the flow in one circuit does not create a flow in the other if the pressure loss in the common section is negligible.

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.

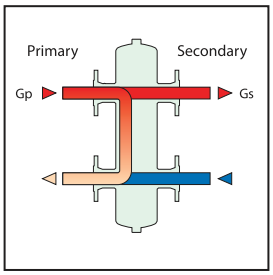
When the secondary pump is off, there is no circulation in the secondary circuit; the whole flow rate produced by the primary pump is by-passed through the separator.

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.

PERFORMANCE		
MEDIUM	water, glycol solutions	
MAX. PERCENTAGE OF GLYCOL	threaded 30%	flanged 50%
MAX. WORKING PRESSURE	10 bar	
SYSTEM WORKING TEMPERATURE RANGE	0 – 110°C	



Gprimary = **Gs**econdary



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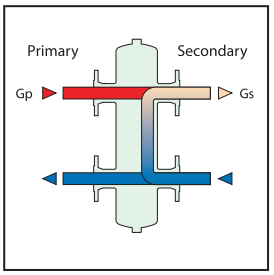
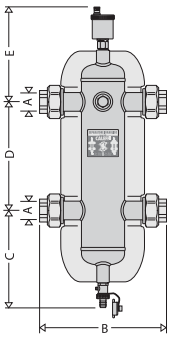
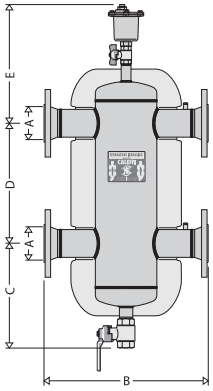
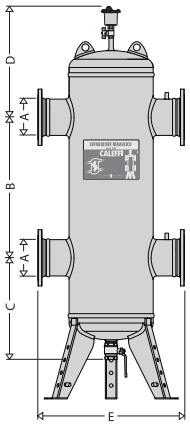


Gprimary < **Gs**econdary

DIAGRAM







CODE	548006	548007	548008	548009
A	1”	1 1/4”	1 1/2”	2”
B	225	248	282	315
C	195	225	235	281
D	220	214	224	230
E	204	214	224	230
Mass (kg)	2.7	3.8	5.7	11.8
Volume (l)	1.7	2.6	4.8	13.5
Flow rate (m^3/h)	2.5	4	6	8.5

548052	548062	548082	548102	548122	548152
DN50	DN65	DN80	DN100	DN125	DN150
460	460	526	529	670	670
341	341	389	389	374	374
330	330	450	450	560	560
398	398	440	440	499	499
34.5	39	51	55	104	108
15	15	30	30	85	88
9	18	28	56	75	110

548200	548250	548300
DN200	DN250	DN300
1000	250	250
610	660	710
400	460	500
900	1060	1180
255	410	600
394	778	990
180	300	420

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