

HYDRAULIC SEPARATOR

Application

The **Art. 765** hydraulic separator allows to decouple the primary circuit's flow from that of the secondary circuit allowing the circulation pumps to work without reciprocal interference.

The separator's additional functions are the release of the circulating air, that is expelled from the automatic exhaust positioned at the top, and the decantation of impurities, that are expelled through a cleansing carried out by the equipped ball valve.

Made of galvanized carbon steel, it can be combined with Art. 745 by using Art. 535SP/1 (2pcs) fittings. Complete with EPP insulation.

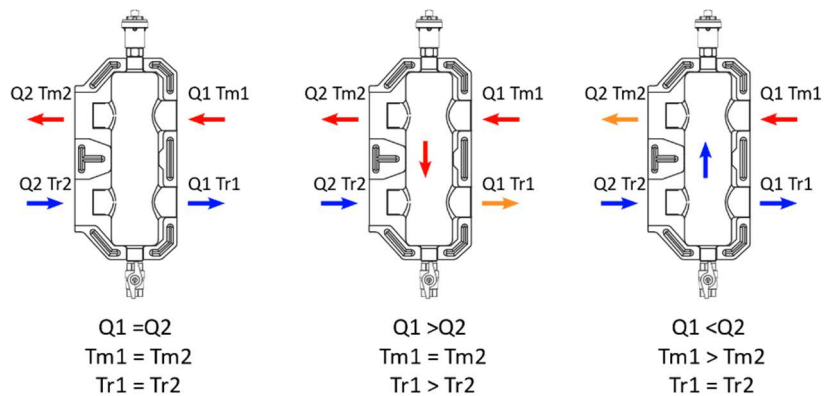


Mode of operation

The operating principle of a hydraulic separator is very simple, being it basically a by-pass installed between supply and return. The possible scenarios are three, the first is when the flow of the primary is higher than that of the secondary, the second is when the flow of the secondary is higher than that of the primary, the third is when the flow of the primary and the flow of the secondary are the same.

According to the scenario and therefore depending on the size and direction of the water flow in by-pass, there are different temperatures at the secondary supply.

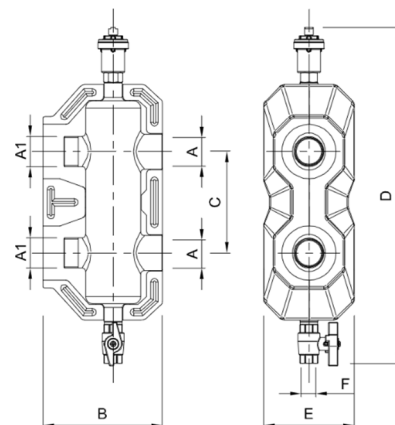
The deposition of impurities and the release of circulating air is due to the enlargement of the section in the body which causes a slowing of the flow rate, resulting in the release of the transported particles.



Technical data

- Zinc plated carbon steel body
- Maximum operating temperature 100°C
- Maximum pressure 10 bar
- Male/Female threaded connections between primary and secondary
- Automatic air vent valve with shut-off valve for maintenance
- Ball valve for impurities discharge
- Insulation in EPP ($\lambda=0,037$ W/mK at 10°C).
- Reaction to fire classification (UL94) HBF.

Dimensions



Power in KW of the hydraulic separator in function of the primary ΔT

Q = 2,5 m ³ /h	ΔT (°C)	10	15	20	25	30
	KW	29	44	58	73	87
Q = 3 m ³ /h	ΔT (°C)	10	15	20	25	30
	KW	35	52	70	87	104

A	A1	B	C	D	E	F	Q	V	P
1¼"F	1¼"M	170	140	465	125	1/2"	2,5	1,5	44

Q = Suggested flow m³/h with loss of pressure Δp 150 daPa

V = Water liters contained

P = Power in KW calculated with ΔT 15°C in primary circuit