

HYDRAULIC SEPARATOR WITH FLANGED CONNECTIONS

Application

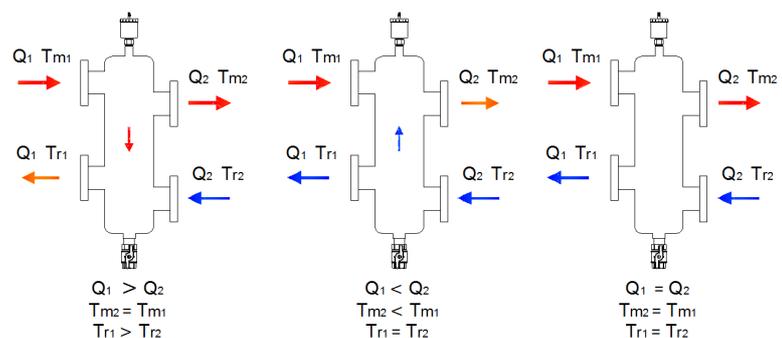
The hydraulic separator **Art. 761** allows to decouple the flow of the primary circuit from that of the secondary circuit, allowing the circulation pumps to work without mutual interference. The additional functions of the separator include the release of the circulating air, which is expelled by an automatic drain to be positioned at its top, and the decantation of the impurities that are expelled by washing carried out by means of a ball valve to be positioned in the lower part of the separator. Made of carbon steel, it is particularly suitable for the renovation of existing systems and in new big-sized systems with condensing boilers, where magnetic dirt separators are usually provided for the elimination of ferrous particles carried by the circulating water.



Mode of operation

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

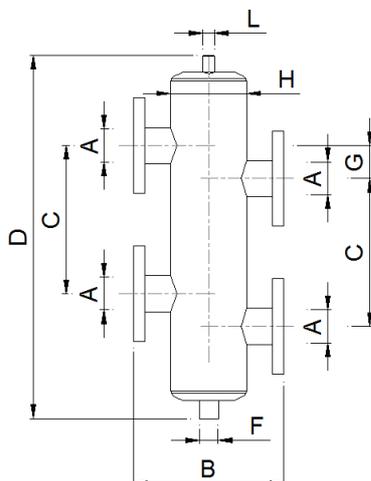
Depending on the scenario, and therefore depending on the extent and direction of the water flow in the by-pass, there are different temperatures at the secondary supply. The deposition of the impurities and the release of the circulating air is due to the enlargement of the section in the separator body which entails a slowing down of the flow rate with consequent release of the transported particles that fall to the bottom of the separator.



Technical data

- Body in carbon steel P235GH (FE360) EN10028-2 painted with anti-rust
- Maximum operating temperature 90 °C
- Maximum operating pressure 5 bar
- Offset connections between primary and secondary equipped with PN10 welded flanges
- 1/2" F connection for automatic air vent valve with shut-off cock for maintenance
- 1" F connection for impurity discharge ball valve
- Insulating shell in fireproof polyurethane with reaction to fire Class B2 available on request

Dimensions



Art.	A	B	C	D	F	G	H	L	Q	V	KW
761-10	DN 65	420	415	1050	1"	175	6"	1/2"	15	21	260
761-11	DN 80	470	485	1200	1"	205	8"	1/2"	22	42	380
761-12	DN 100	525	635	1560	1"	265	10"	1/2"	37	84	640

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

Q = Recommended flow rate m³/h with pressure loss Δp 150 daPa

V = Water content in liters