

SDDF Series

Multifunction hydraulic separator

Technical Data Sheet



Description

The **SDDF Series** multifunction hydraulic separator is a device that combines different and important functions to enable smooth operation of the system. As well as separating distinct parts of the system, it also functions as a magnetic dirt separator and deaerator, all within the same component.



SDDF – Multifunction hydraulic separator

Multifunction hydraulic separator featuring steel body and low pressure losses: hydraulic separator, magnetic dirt separator and deaerator. The multifunction hydraulic separator makes the flow and head characteristics of the primary and secondary circuits independent of one another and purges the circuit of micro air bubbles, dirt, and both metallic and non-metallic impurities. Flanged connections from DN50 up to DN300, compliant with EN1092-1 PN16. Maximum operating pressure PN10. Temperature 0 °C to 110 °C.

Type	Part no.	DN	Maximum flow rate (m ³ /h)	Δp at max flow rate (kPa)	Volume (litres)	Weight (kg)
SDDF	SDDF050W	50	12.50	2.9	12	26
SDDF	SDDF065W	65	20.00	3.0	13	31
SDDF	SDDF080W	80	27.00	3.1	29	46
SDDF	SDDF100W	100	47.00	3.7	38	57
SDDF	SDDF125W	125	72.00	4.2	105	114
SDDF	SDDF150W	150	108.00	4.9	123	125
SDDF	SDDF200W	200	180.00	5.8	252	245
SDDF	SDDF250W	250	288.00	7.0	501	372
SDDF	SDDF300W	300	405.00	7.8	859	578

Technical specifications

Water with glycol	Max 50%
PN	10
Operating temperature	0 to 110 °C
Connections	Flanged EN1092-1 PN16

Materials

Body	ST37 steel
Deaerator	Brass
Magnet	Neodymium
Drain valve	Brass

Application

With its threefold function, the device:

- Makes the flow and head characteristics of the primary and secondary circuits independent, thereby separating them. Accordingly, the pumps and their flow rates do not affect one another.
- Eliminates micro air bubbles by means of the deaerator, exploiting a reduction in flow velocity and the internal geometry of the body.
- Traps dirt particles and impurities within the body without clogging it, so that they can be purged easily through the drain valve. thanks to a powerful magnet, even metallic impurities are collected and removed.

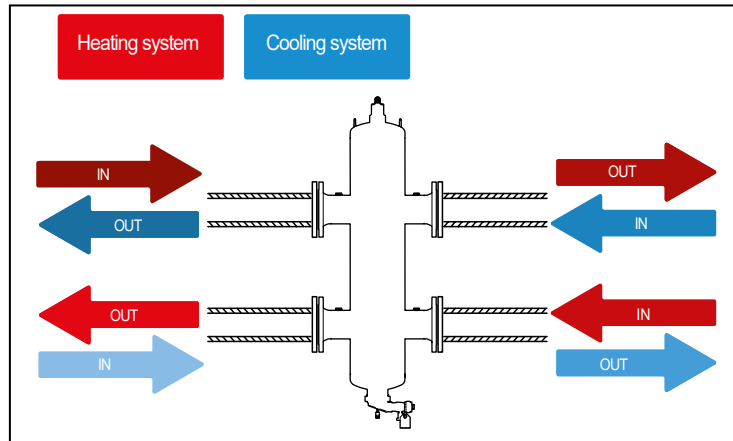
Both metallic and soil residues are then expelled through the drain valve, once the permanent magnet not in direct contact with the liquid is switched off.

Installing a multifunction hydraulic separator brings benefits in terms of savings on time and material, as three components necessary for the smooth and efficient operation of the system can be replaced by a single device performing all three functions.

Installation

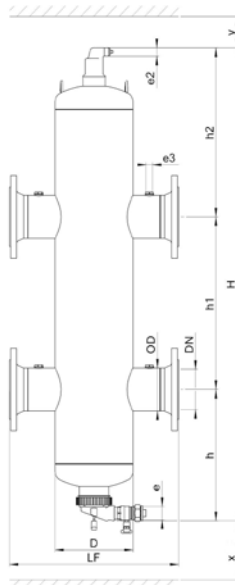
The multifunction hydraulic separator must be installed between the primary circuit and the secondary circuit, and more exactly between the thermal energy generator and the manifold supplying the system.

The separator is always installed in the vertical position, taking care to leave sufficient space for maintenance operations, cleaning of the magnet and disassembly of the deaerator, in keeping with the distances indicated in the dimensioned drawing.



Overall dimensions (mm)

SDDF



DN	50	65	80	100	125	150	200	250	300
OD (mm)	60.3	76.1	88.9	114.3	139.7	168.3	219.1	273	323.9
H (mm)	810	905	997	1261	1543	1778	2327	2870	3394
h (mm)	234	252	268	351	441	503	682	835	1002
h1 (mm)	240	305	360	460	560	670	870	1100	1295
h2 (mm)	337	348	369	450	542	604	776	935	1096
D (mm)	159	159	219	219	324	324	406	508	610
LF (mm)	350	350	470	475	635	635	775	890	1005
e	Rp 1	Rp 1	Rp 1	Rp 1	R 1	R 1	Rp 1	Rp 1	Rp 1
e2	R ½	R ½	R ½	R ½	R ½	R ½	R ½	R ½	R ½
x (mm)	> 75	> 75	> 100	> 100	> 100	> 100	> 100	> 100	> 100
y (mm)	> 50	> 50	> 50	> 50	> 50	> 50	> 50	> 50	> 50

Specification text

SDDF Series

SDDF Series multifunction hydraulic separator – Watts brand – with steel body, low pressure losses. Functions: hydraulic separator, magnetic dirt separator and deaerator. Suitable for use with fluid with up to 50% glycol. Flanged connections from DN50 up to DN300, compliant with EN1092-1 PN16. Maximum operating pressure PN10. Temperature 0 °C to 110 °C.

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