

SEP4™ combination hydraulic, air, dirt and magnetic separator



NA549AM ASME/CRN Series With Flanged Connections, 2" - 6"

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Application

The Caleffi SEP4™ combination separator is a device that incorporates four critical functions for hot or chilled water systems. It combines high performance air and dirt (magnetic and non-magnetic) removal into the hydraulic separation function which makes the primary and secondary circuits connected to it hydraulically independent. The SEP4™ features an internal coalescing element that continuously and automatically eliminates air micro-bubbles with the simultaneous removal of dirt particles as tiny as 5 microns. The air discharge capacity is very high, with the capability of automatically removing all the air present in the system down to the micro-bubble level. The 4-in-1 high performance functionality of the SEP4™ saves system installation and maintenance costs as there is no need to include separate air and dirt separators. In addition to removing solid impurities in the system without isolating the separator or shutting down the system, the added powerful removable external magnet probe in the lower body removes up to 100% of the ferrous impurities, including magnetite, that can form in a hydronic system. The SEP4™ has 2½ times the ferrous impurities removal performance of standard air and dirt separators.

Typical Specification

Furnish and install on the plans and described herein, a Caleffi SEP4™ combination hydraulic, air, dirt and magnetic separator as manufactured by Caleffi. Each separator must be designed with an epoxy resin painted steel body, a brass blowdown drain valve and automatic brass air vent with brass shutoff valve. The separator design must include ANSI B16.5 Class 150 RF flanges, a 300 series stainless steel internal element and A brass drywell for an external removable neodymium rare-earth magnet with up to 100% ferrous impurities, including magnetite, separation efficiency. The separator must be ASME Registered, see below, and shall be a Caleffi model NA549AM or approved equal. (See product instructions for specific installation information.)

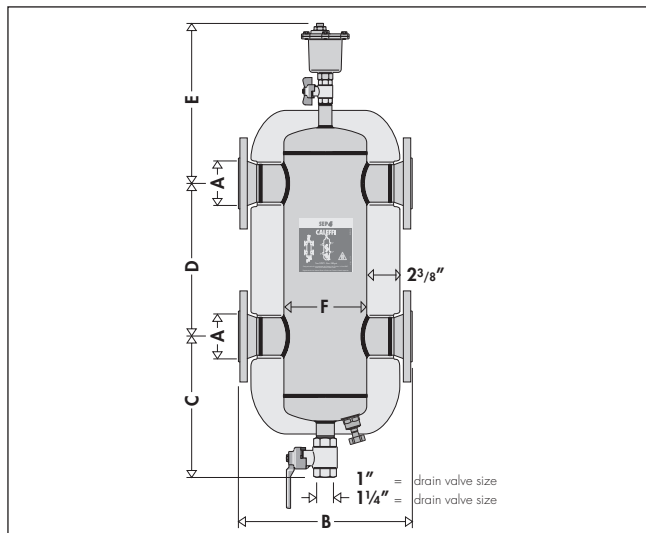
Technical Data

Materials	- separator body:	epoxy resin painted steel
	- air vent body:	brass
	- shut off and drain valve body:	brass
	- internal element:	300 series stainless steel
	- air vent seal:	VITON
	- air vent float:	stainless steel
	- magnet:	neodymium rare-earth
	- magnet probe:	brass

Performance

Suitable fluids:	water and non-hazardous glycol solution up to 50%
Max. operating pressure:	150 psi (10 bar)
Temperature range:	-with insulation: 32–220°F (0–105°C)
	-without insulation (vessel) 32–270°F (0–132°C)
Particle separation capacity:	5 µm (0.2 mil)
Air separation efficiency:	100% removal to micro-bubble level
Ferrous impurities separation efficiency:	up to 100% removal

Dimensions



NOTE: Drawing may not reflect the actual size of the separator.

Code	A	B	C	D	E	F	Wt. (lbs.)	Wt. (kg)
NA549052AM	2"	13¾"	13"	13"	13½"	6"	76	35
NA549062AM	2½"	13¾"	13"	13"	13½"	6"	82	37
NA549082AM	3"	18¾"	15"	17¾"	15½"	8"	112	50
NA549102AM	4"	18½"	15"	17¾"	15½"	8"	120	55
NA549120AM*	5"	25"	23⅞"	22"	18⅞"	12¾"	220	100
NA549150AM*	6"	25"	23⅞"	22"	18⅞"	12¾"	235	106

*Without insulation.

NA prefix indicates ASME tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors and CRN registered, with ASME U stamp.

Connections	- main:	2"—6" ANSI B16.5 150 CLASS RF
	- drain valve:	1" NPT female (2 - 4 inch) 1¼" NPT female (5 - 6 inch)
	- inlet/outlet flanges:	½" NPT female

Agency approval

Series NA549_M is designed and built in accordance with Section VIII, Division 1 of the ASME Boiler and Pressure Vessel Code and tagged and registered with the National Board of Boiler and Pressure Vessel Inspector, and CRN registered, and stamped for 150 psi (10 bar) working pressure, with ASME U stamp.

Size	2"	2½"	3"	4"	5"	6"
gpm	60	80	124	247	300	484
m³/h	13.6	18.2	28.2	56.0	68.0	110.0
l/s	3.8	5.0	7.8	15.6	19.0	30.5
Gallons	4.0	4.0	8.0	8.0	23	23
liters	15.1	15.1	30	30	87	87

We reserve the right to change our products and their relevant technical data, contained in this publication, at any time and without prior notice. Contractors should request production drawings if prefabricating the system

Job name _____
 Job location _____
 Engineer _____
 Mechanical contractor _____
 Contractor's P.O. No. _____
 Representative _____

Size _____
 Quantity _____
 Approval _____
 Service _____
 Tag No. _____
 Notes _____