

# SEP4™ combination hydraulic, air, dirt and magnetic separator



NA549AM ASME/CRN Series With Flanged Connections, 8" -10" -12" -14"

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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 incorporates 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, the added powerful removable external magnet probes 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 three brass drywells for external removable neodymium rare-earth magnets 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.)

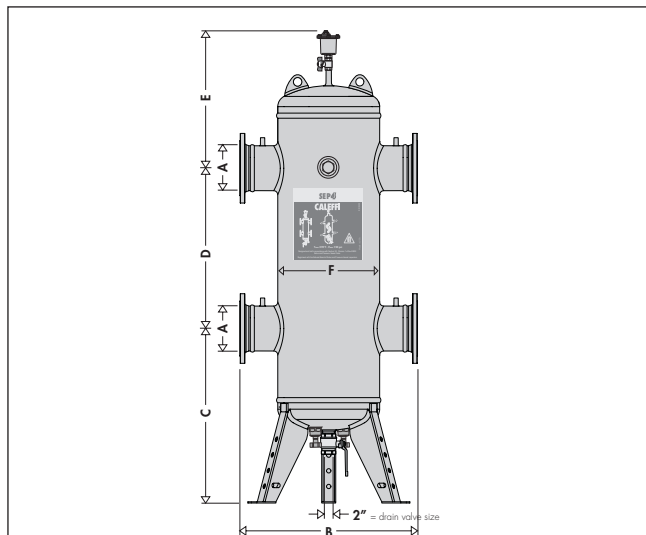
## Technical Data

<b>Materials</b>	- 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)
NA549200AM	8"	35½"	36"	39⅝"	25⅜"	20"	530	240
NA549250AM	10"	41⅜"	38⅝"	43⅜"	27⅝"	26"	740	335
NA549300AM	12"	46½"	37⅝"	47¼"	29⅝"	30"	1,110	503
NA549350AM	14"	52"	38⅝"	58⅝"	34½"	36"	1,550	703

NA prefix indicates ASME tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors and CRN pending (contact Caleffi), with ASME U stamp. Insulation is not included.

<b>Connections</b>	- main:	8" — 14" ANSI B16.5 150 CLASS RF
	- drain valve:	2" NPT female
	- thermo well tap:	
	- front center:	¾" NPT female
	- 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 (8" only), and stamped for 150 psi (10 bar) working pressure, with ASME U stamp. Contact Caleffi for size 10"-14" CRN registration status.

Size	8"	10"	12"	14"
<b>gpm</b>	792	1330	1850	2500
<b>m³/h</b>	180	302	420	568
<b>l/s</b>	50	84	117	158
<b>Gallons</b>	95	175	255	450
<b>liters</b>	359.6	662.4	965.3	1703

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 \_\_\_\_\_