

HydroCal™ combination hydraulic, air and dirt separator



NA549 series ASME/CRN with flanges

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Application

The Caleffi HydroCal™ combination hydraulic, air and dirt separator is a device that combines high performance air and dirt removal with hydraulic separation. Primary and secondary circuits connected to it become hydraulically decoupled thus eliminating pump conflict. A proven, time tested stainless steel internal coalescing element continuously and automatically eliminates all entrained air, including micro-bubbles, in the system. Air discharge capacity is very high. Over time, dirt particles as tiny as 5 microns are captured and collected away from the flow stream. The 3-in-1 high performance functionality of the HydroCal saves system installation and maintenance cost as there is no need to include separate air and dirt separators. It can be used on either hot or chilled water systems.

Typical Specification

Furnish and install on the plans and described herein, a Caleffi HydroCal as manufactured by Caleffi. Each separator must be designed with an epoxy resin painted steel body, 300 series stainless steel internal coalescing mesh, 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. The separator must be designed and built in accordance with Section VIII, Div. 1 of the ASME Boiler and Pressure Vessel Code and tagged and registered with the National Board of Boiler and Pressure Vessel Inspector, CRN Registered (12 inch and 14 inch pending, contact Caleffi), and stamped for 150 psi (10 bar) working pressure, with ASME U stamp. Each separator shall be Caleffi model NA549 or approved equal.

Technical specifications

Connections - flanged: 8–14" ANSI B16.5 150 CLASS RF
 - drain valve: 2" NPT female
 - thermometer pockets: front center: 3/4" NPT female
 inlet/outlet flanges: 1/2" NPT female

Materials - separator body: epoxy resin painted steel body
 - 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

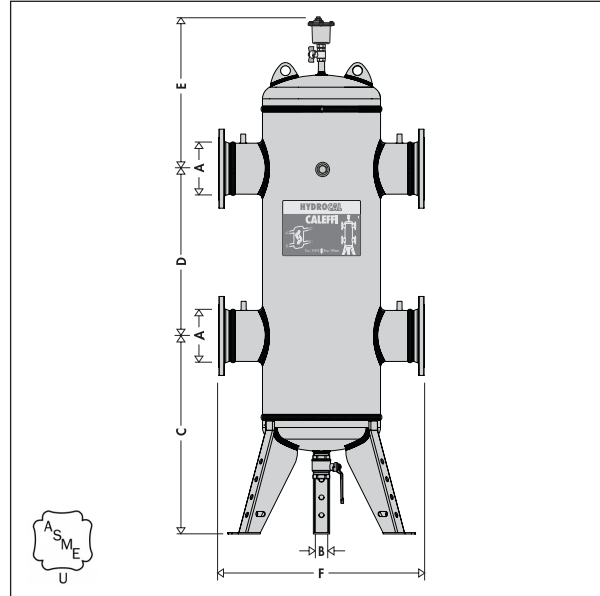
Performance

Suitable fluids: water and non-hazardous glycol solutions 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: to 5 µm (0.2 mil)
 Air separation capacity: 100% removal to micro-bubble level

Agency approval

Series NA549 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 (12-14" pending, contact Caleffi) and stamped for 150 psi (10 bar) working pressure, with ASME U stamp.

Dimensions



Code	A	B	C	D	E	F	Wt. (lbs.)	Flow (gpm)	Vol (gal.)
NA549200A	8"	2"	36"	39 3/8"	25 1/2"	35 1/2"	520	792	95
NA549250A	10"	2"	38 3/8"	43 7/8"	27 1/8"	41 3/4"	730	1,030	175
NA549300A	12"	2"	37 7/8"	47 1/4"	29 3/8"	46 1/2"	1,100	1,650	255
NA549350A	14"	2"	38 1/8"	58 3/8"	34 1/2"	52"	1,540	2,500	450

ASME tagged and registered with the National Board of Boiler and Pressure Vessel Inspectors and CRN registered (12-14" pending, contact Caleffi) with ASME U stamp.

Hydraulic characteristics

The HydroCal should be sized according to the maximum flow rate value at the inlet. The selected design value must be the greatest required flow rate of either the primary circuit or the secondary circuit.

Size	8"	10"	12"	14"
gpm	792	1,330	1,850	2,500
m³/h	180	302	420	568
l/s	50	84	117	158

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 _____