DISCAL DIRT® air and dirt separator

NA546A ASME series, Steel: 8, 10, 12 and 14 inch

CALEFFI

Application

Air and dirt separators are used to continuously remove the air and debris contained in the hydronic circuits of heating and cooling systems. The air discharge of these devices is very high. They are capable of automatically removing all of the air present in the system down to the microbubble level. The DISCALDIRT® air and dirt separator also removes any solid impurities in the system. The impurities collect at the bottom of the device and can be flushed through the integal drain shut-off valve. The circulation of fully de-aerated and cleaned water enables the equipment to operate under optimum conditions, free from noise, corrosion, or mechanical damage.

Typical Specification

Furnish and install on the plans and described herein, a Caleffi DISCALDIRT® air and dirt separator as manufactured by Caleffi. Each separator must be designed with a side drain valve and automatic air vent. The separator design must include a large internal volume, and a stainless steel internal screen to automatically remove all dirt present in the system with particle separating capacity to 5m (0.2 mil). The separator must be constructed in accordance with the latest revision of the ASME Boiler and Pressure Vessel Code and stamped for 150 psi (10 bar) working pressure. Each separator shall be Caleffi model NA546200A (8"), NA546250A (10"), NA546300A (12"), NA546350A (14") or approved equal. (See product instructions for specific installation information.)

Technical Data

Materials - body: epoxy resin coated steel
- air vent body: brass
- internal element: stainless steel
- air vent float: PP
- air vent float guide pin: stainless steel
- air vent float linkages: stainless steel
- spring: stainless steel
- seals: EPDM
- bottom drain shut-off valve: brass
- side drain shut-off valve: brass

Performance

Suitable fluids: water, glycol solution
Max. percentage of glycol: 50%
Max. working pressure: 150 psi (10 bar)
Flow rate:
- 4 ft/sec (optimal):

size 8 inch:	625 gpm (40 l/s)
size 10 inch:	980 gpm (62 l/s)
size 12 inch:	1,410 gpm (89 l/s)
size 14 inch:	1,950 gpm (123 l/s)

- 10 ft/sec (maximum):

size 8 inch:	1,570 gpm (99 l/s)
size 10 inch:	2,450 gpm (154 l/s)
size 12 inch:	3,525 gpm (223 l/s)
size 14 inch:	4,800 gpm (302 l/s)

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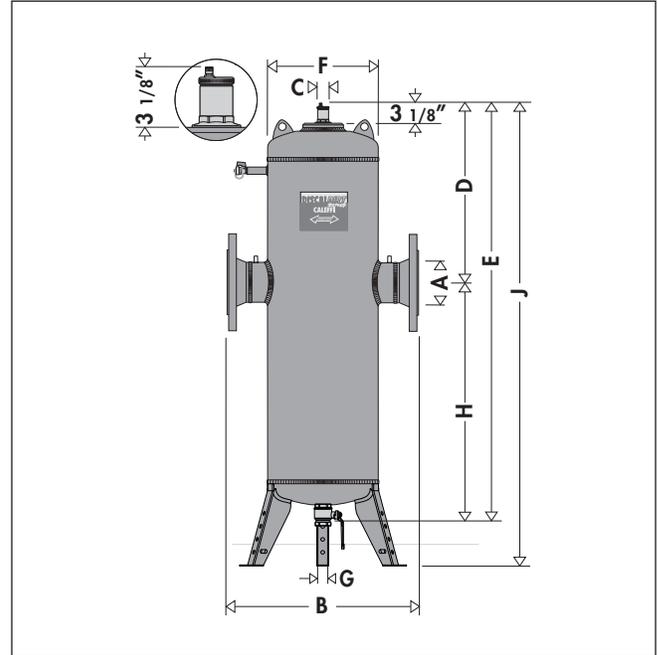
NOTE: Drawing may not reflect the actual size of the separator.

Code	A	B	C	D	E	F	G	H	J	Cap. (gal)	Wt. (lb)	Wt. (kg)
NA546200A	8"	35½"	2⅜"	35³⁄₁₆"	75⅝"	20"	2"	43⅜"	94¾"	95	355	161
NA546250A	10"	41¾"	2⅜"	39⅛"	92"	26"	2"	52¹³⁄₁₆"	103⅝"	175	555	252
NA546300A	12"	46½"	2⅜"	41¹¹⁄₁₆"	98³⁄₁₆"	30"	2"	57⅛"	110½"	255	825	375
NA546350A	14"	48"	2⅜"	46⅞"	112¼"	36"	2"	65½"	125¹⁄₁₆"	420	950	431

Temperature range (vessel): 32–270° F (0–132° C)
Air separation efficiency: 100% removal to microbubble level
Particle separation capacity: to 5 μm (0.2 mil)

Connections - flanged: 8", 10", 12", 14" ANSI B16.5 150 CLASS RF
- bottom drain valve: 2" NPT female
- side drain shut-off valve: ¾" GHT
- thermo well tap, inlet/outlet flanges: ½" NPT female

Agency approval

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 Inspectors, stamped for 150 psi (10 bar) working pressure, with ASME U stamp. Contact Caleffi for CRN registration status.

Job name _____	Size _____
Job location _____	Quantity _____
Engineer _____	Approval _____
Mechanical contractor _____	Service _____
Contractor's P.O. No. _____	Tag No. _____
Representative _____	Notes _____