DISCAL® air separator

551 series, brass

Submittal Data 02904 NA — Issue Date 10/2018

Application

Air separators are used to continuously remove the air contained in the hydronic circuits of heating and cooling systems. The air discharge capacity of these devices is very high. They are capable of removing automatically all the air present in the system down to the micro-bubble level.

The circulation of fully de-aerated water enables the equipment to operate under optimum conditions, free from noise, corrosion, localized or mechanical damage. Micro-bubbles, fusing with each other, increase in volume (get larger) until they become large enough to rise to the top where they are automatically released.

Typical Specification

Furnish and install on the plans and described herein, a Caleffi DISCAL® Air Separator as manufactured by Caleffi. Each separator must be designed with a brass valve body and seals in peroxide-cured EPDM. The separator design must include a removable internal glass-reinforced nylon fiber mesh - PA66G30, coalescing medium (304 stainless steel for compact version), to automatically remove all air present in the system. Each separator shall be Caleffi model 551 or approved equal.
(See product instructions for specific installation information.)

Technical specification

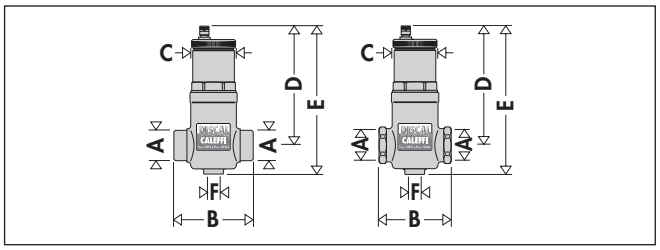
Materials
- body: brass
- internal element (compact version): 304 stainless steel
- internal element: glass reinforced nylon PA66GF30
- air vent float: PP
- seal: peroxide-cured EPDM
- air vent float linkages: stainless steel
- air vent float guide pin: stainless steel

Performance
Suitable fluids: water, glycol solution
Max. percentage of glycol: 50%
Max. working pressure: 150 psi (10 bar)
Temperature range: 32–250°F (0–120°C)
Air separation efficiency: 100% removal to micro-bubble level

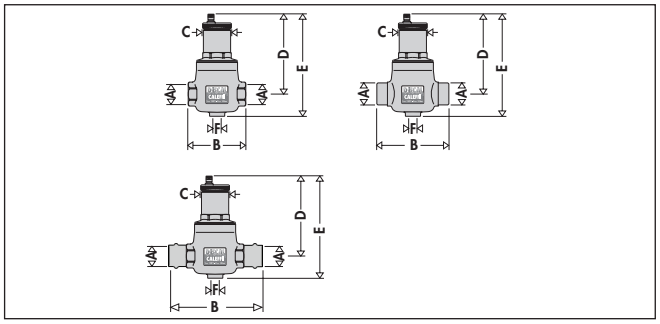
Connections
- main:
  - compact series: ¾" integral sweat; ¾" NPT female
  - horizontal: ¾", 1", 1¼", 1½" and 2" NPT female
    1", 1¼", 1½" and 2" integral sweat
    1", 1¼", 1½" and 2" integral press
- drain: ½" NPT female

		Flow capacity					
	Size	¾" C	¾"	1"	1¼"	1½"	2"
4.0 f/s	GPM	6	6	10	15	22	39
	l/s	0.4	0.4	0.6	1.0	1.4	2.5
	Cv	12	19	32	56	73	81

Dimensions



Code	A	B	C	D	E	F	Wt (lb)
551003A*	¾" NPT	3 1/16"	2 3/16"	5 3/8"	6 7/8"	½"	2.0
551022A*	¾" SWT	3 1/16"	2 3/16"	5 3/8"	6 7/8"	½"	2.0



Code	A	B	C	D	E	F	Wt (lb)
551005A*	¾" NPT	4 5/16"	2 3/16"	5 3/4"	7 1/2"	½"	3.7
551006A*	1" NPT	4 5/16"	2 3/16"	5 3/4"	7 1/2"	½"	3.7
551007A*	1¼" NPT	4 7/8"	2 3/16"	6 9/16"	8 1/4"	½"	4.9
551008A*	1½" NPT	4 7/8"	2 3/16"	6 9/16"	8 1/4"	½"	4.9
551009A*	2" NPT	5 1/8"	2 3/16"	6 9/16"	8 1/4"	½"	5.5
551028A*	1" SWT	5 1/16"	2 3/16"	5 3/4"	7 1/2"	½"	3.7
551035A*	1¼" SWT	5 3/16"	2 3/16"	6 5/16"	8 1/4"	½"	3.7
551041A*	1½" SWT	5 3/4"	2 3/16"	6 9/16"	8 1/4"	½"	4.9
551054A*	2" SWT	6 1/8"	2 3/16"	6 9/16"	8 1/4"	½"	5.5
551066A*	1" press	6 3/16"	2 3/16"	5 3/4"	7 1/2"	½"	3.8
551067A*	1¼" press	7 7/16"	2 3/16"	5 3/4"	7 1/2"	½"	5.0
551068A*	1½" press	8"	2 3/16"	6 9/16"	8 1/4"	½"	5.1
551069A*	2" press	8 1/2"	2 3/16"	6 9/16"	8 1/4"	½"	5.5

*Add suffix C to sweat, NPT and press code numbers when ordering the brass DISCAL to ship with expansion tank service check valve, code 561402A.

Press connection lay length:
size 1": 4½" ; size 1¼": 5⅛"; size 1½": 5¼": size 2": 5½".

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

Caleffi North America, Inc. 3883 West Milwaukee Road / Milwaukee, WI 53208
Tel: 414.238.2360 / Fax: 414.238.2366 / www.caleffi.com