

# DISCAL<sup>®</sup> air separator



## 551 series, 2 inch and 2 1/2 inch Steel NPT threaded

Submittal Data 2905.03 NA — Issue Date 03/2021

### Application

Air separators are used to continuously remove the air contained in hydronic circuits of heating and cooling systems. The air discharge capacity of these devices is very high. They automatically remove all the air present in the system down to micro-bubble level with low head loss due to the special internal shape of the separator body. The circulation of fully de-aerated water enables the equipment to operate under optimum conditions, free from noise, corrosion, localized or mechanical damage.

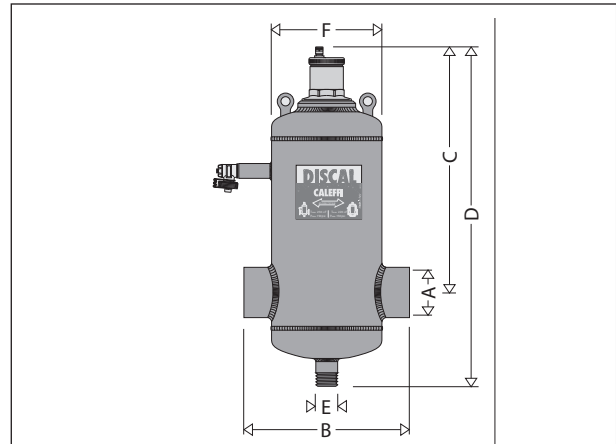
### Typical Specification

Furnish and install on the plans and described herein, a Caleffi DISCAL<sup>®</sup> air separator as manufactured by Caleffi. Each separator must be designed with a blowdown drain port, side drain valve and automatic air vent. The separator design must include a 304 stainless steel coalescing medium to automatically remove all air present in the system. Each separator shall be a Caleffi model 551 or approved equal. (See product instructions for specific installation information.)

### Technical data

- Materials
- body: epoxy resin coated steel
  - internal element: 304 stainless steel
  - air vent float: PP
  - seal: peroxide-cured EPDM
  - air vent float linkages: stainless steel
  - air vent float guide pin: stainless steel
  - side drain shut-off valve: brass
- Performance
- Suitable fluids: water, glycol solution
  - Max. percentage of glycol: 50%
  - Max. working pressure: 150 psi (10 bar)
  - Temperature range (vessel): 32–270°F (0–132°C)
  - Air separation efficiency: 100% removal to microbubble level
- Connections
- 2 - 2 1/2": NPT male threaded
  - drain pipe: 1" NPT male
  - side drain shut-off valve: 3/4" GHT

### Dimensions



Code	A	B	C	D	E	F
551050AT	2"	10 1/4"	14 3/4"	19 15/16"	1"	6 5/8"
551060AT	2 1/2"	10 1/4"	14 3/4"	19 15/16"	1"	6 5/8"

		Flow capacity	
		2"	2 1/2"
4.0 f/s	GPM	39	60
	l/s	2.5	3.8
10.0 f/s	GPM	100	155
	l/s	6.3	9.8
	Cv	87	174

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

Size \_\_\_\_\_  
 Quantity \_\_\_\_\_  
 Approval \_\_\_\_\_  
 Service \_\_\_\_\_  
 Tag No. \_\_\_\_\_  
 Notes \_\_\_\_\_

# DISCAL<sup>®</sup> air separator



## 551 series, 2 through 6 inch

Submittal Data 2906 NA — Issue Date 10/2020

### Application

Air separators are used to continuously remove the air contained in hydronic circuits of heating and cooling systems. The air discharge capacity of these devices is very high. They automatically remove all the air present in the system down to micro-bubble level with low head loss due to the special internal shape of the separator body. The circulation of fully de-aerated water enables the equipment to operate under optimum conditions, free from noise, corrosion, localized or mechanical damage.

### Typical Specification

Furnish and install on the plans and described herein, a Caleffi DISCAL<sup>®</sup> air separator as manufactured by Caleffi. Each separator must be designed with a blowdown drain port, side drain valve and automatic air vent. The separator design must include a 304 stainless steel coalescing medium to automatically remove all air present in the system. Each separator shall be a Caleffi model 551 or approved equal.  
(See product instructions for specific installation information.)

### Technical data

Materials

- body: epoxy resin coated steel
- internal element: 304 stainless steel
- air vent float: PP
- seal: peroxide-cured EPDM
- air vent float linkages: stainless steel
- air vent float guide pin: stainless steel
- side drain shut-off valve: brass

Performance

Suitable fluids: water, glycol solution

Max. percentage of glycol: 50%

Max. working pressure: 150 psi (10 bar)

Temperature range (vessel): 32–270°F (0–132°C)

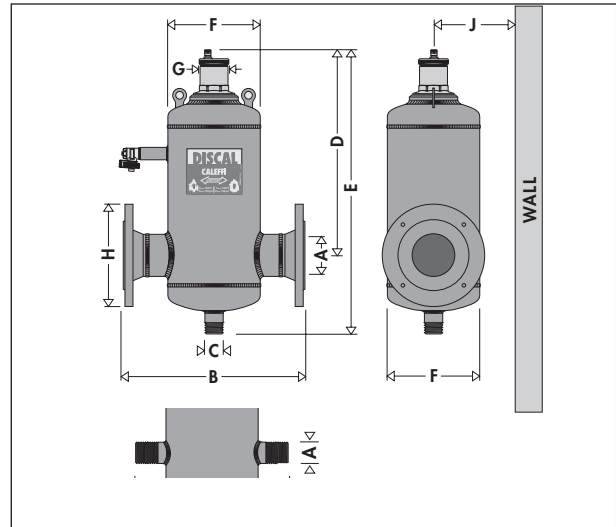
Air separation efficiency: 100% removal to microbubble level

Connections

- flanged (A): ANSI B16.5 150 CLASS RF
- threaded(T): 2" & 2½" NPT male
- drain pipe: 1" NPT male
- side drain shut-off valve: ¾" GHT

		Flow capacity — steel					
		Size	2"	2 ½"	3"	4"	5"
4.0 f/s	GPM	39	60	90	160	245	355
	l/s	2.5	3.8	5.7	10	15.5	22.4
10.0 f/s	GPM	100	155	220	400	615	880
	l/s	6.3	9.8	14	25.2	38.8	55.5
	Cv	87	174	208	324	520	832

### Dimensions



Code	A	B	C	D	E	F
551050A	2"	13¾"	1"	14¾"	19 <sup>15</sup> / <sub>16</sub> "	6 <sup>5</sup> / <sub>8</sub> "
551050T	2"	13"	1"	14¾"	19 <sup>15</sup> / <sub>16</sub> "	6 <sup>5</sup> / <sub>8</sub> "
551060A	2½"	13¾"	1"	14¾"	19 <sup>15</sup> / <sub>16</sub> "	6 <sup>5</sup> / <sub>8</sub> "
551060T	2½"	13"	1"	14¾"	19 <sup>15</sup> / <sub>16</sub> "	6 <sup>5</sup> / <sub>8</sub> "
551080A	3"	18 <sup>3</sup> / <sub>8</sub> "	1"	17 <sup>1</sup> / <sub>8</sub> "	23 <sup>7</sup> / <sub>16</sub> "	8 <sup>5</sup> / <sub>8</sub> "
551100A	4"	18½"	1"	17 <sup>1</sup> / <sub>8</sub> "	23 <sup>7</sup> / <sub>16</sub> "	8 <sup>5</sup> / <sub>8</sub> "
551120A	5"	25"	1"	21 <sup>7</sup> / <sub>16</sub> "	30½"	12¾"
551150A	6"	25"	1"	21 <sup>7</sup> / <sub>16</sub> "	30½"	12¾"

Code	G	H	J†	Cap (gal)	Wt (lb)
551050A	2 <sup>13</sup> / <sub>16</sub> "	6"	6 <sup>5</sup> / <sub>16</sub> "	1.8	34
551050T	2 <sup>13</sup> / <sub>16</sub> "	--	6 <sup>5</sup> / <sub>16</sub> "	1.8	30
551060A	2 <sup>13</sup> / <sub>16</sub> "	7"	6 <sup>5</sup> / <sub>16</sub> "	1.8	35
551060T	2 <sup>13</sup> / <sub>16</sub> "	--	6 <sup>5</sup> / <sub>16</sub> "	1.8	31
551080A	2 <sup>13</sup> / <sub>16</sub> "	7½"	7 <sup>1</sup> / <sub>16</sub> "	4.8	62
551100A	2 <sup>13</sup> / <sub>16</sub> "	9"	7 <sup>1</sup> / <sub>16</sub> "	4.8	67
551120A	2 <sup>13</sup> / <sub>16</sub> "	10"	9 <sup>3</sup> / <sub>8</sub> "	13.7	106

†This dimension allows for a minimum of 3" wall clearance to accommodate insulation if used.

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