

# PROPOSAL REQUEST

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> Owner      | <input type="checkbox"/> Civil             | <input type="checkbox"/> FF&E           |
| <input checked="" type="checkbox"/> Architect  | <input type="checkbox"/> Landscape         | <input type="checkbox"/> Sustainability |
| <input checked="" type="checkbox"/> Contractor | <input type="checkbox"/> Geotech           | <input type="checkbox"/> Acoustics      |
| <input checked="" type="checkbox"/> O.P.M      | <input type="checkbox"/> Structural        | <input type="checkbox"/> Other          |
| <input checked="" type="checkbox"/> CX Agent   | <input checked="" type="checkbox"/> MEP-FP | <input type="checkbox"/> Other          |



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Project Name:	<b>Haverhill Consentino Middle School</b>	PR No.	<b>02</b>
Architect's Project No.	<b>21-0818</b>		
Owner:	<b>City of Haverhill 4 Summer Street Haverhill, MA 01830</b>	Architect:	<b>DORE + WHITTIER 260 Merrimac St, Bldg 7, Newburyport, MA 01950</b>
To:	<b>Brait Builders Corporation 57 Rockwood Road Marshfield, MA 02050</b>	Contract Date	<b>4/1/2024</b>
		Issue Date:	<b>7/25/2024</b>
Attention:	<b>TJ Dahill</b>	Subject:	<b>Expansion Tank Size-Submittal</b>

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Please submit an itemized quotation for changes in the Contract Sum and/ or Time incidental to proposed modifications to the Contract documents described herein.

THIS IS NOT A CHANGE ORDER NOR A DIRECTION TO PROCEED WITH THE WORK DESCRIBED HEREIN.

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To coordinate with Expansion Tank Bladder size changes made in 23 00 10 – 006 Air Separators, Automatic Air Vents, and Expansion Tanks, revise the following:

On Sheet M0.06, revise basis of design on schedule as noted below.

ET-1 serving HHW system shall be modified to model **B1400**. ET-1 to be 370 GAL.

ET-2 serving CHW system shall be modified to model **B600**. ET-2 to be 159 GAL.

AS-1 serving HHW system shall be modified to model **R-10F**.

Issued by

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**DORE + WHITTIER**

Tara King

Copy: File, GG

**SECTION 23 00 10**  
**Heating, Ventilating, & Air-Conditioning**

23 00 10 - Heating, Ventilating, & Air-Conditioning	6	
SPEC DIVISION	NO.	REV.

NAME OF GENERAL CONTRACTOR:	Brait Builders
DATE SUBMITTED:	April 25, 2024
ITEM SUBMITTED:	Air Separators, Automatic Air Vents, and Expansion Tanks
SPECIFICATION PARAGRAPH REF.:	23 00 10 2.08
IS THIS ITEM A SUBSTITUTION?	(If yes, provide a Substitution Request Form, Section 01 25 01)
RETURN REQUESTED BY:	(Allow 15 working days for Architect, and 15 working days for consultant reviews.)

**GENERAL CONTRACTOR'S CERTIFICATION:**

The General Contractor hereby certifies that the General Contractor has reviewed the submitted item / system for compliance with the contract documents, verified all required field dimensions, and coordinated this item / system with related items / systems and with the overall work prior to making this submittal.

**SIGNED:** Jake McDonough **DATE:** 04/25/24

- ☐ Reviewed (No Comments)
- ☒ Reviewed (See Comments)
- ☐ Reviewed (Accepted for Record)
- ☐ Reviewed (Revise & Resubmit)
- ☐ Rejected

Checked only for conformance with the design concept of the project and with the information provided in the Contract Documents. Review of shop drawings or other submittals shall not release the Contractor from responsibility for deviations from Drawings and Specifications, errors in shop drawings or schedules, quantities, dimensions, fabrication, installation, and coordination requirements. The Contractor shall check and verify all field measurements.

Signature + Date

**DORE + WHITTIER**

Vermont | Massachusetts

doreandwhittier.com

1. Refer to comments provided within by engineer of record.

# ENGINEERING SHOP DRAWING REVIEW



**GGD Consulting Engineers, Inc.**  
375 Faunce Corner Road, Suite D  
Dartmouth, MA 02747

**DATE:** May 9, 2024  
**PROJECT:** Consentino Middle School  
894 117 00.00  
**SHOP DWG. NO.:** M-7  
**TITLE:** Air Separators, Automatic Air  
Vents, & Expansion Tanks  
Submittal  
230010-6.0  
**REVIEWED BY:** Sean Strassell

APPROVED

☐

APPROVED AS NOTED

☒

AMEND & RESUBMIT

☐

NOT APPROVED

☐

Shop drawing review is for general conformance with the design concept and for compliance with the contract documents. Marking or comments made on the shop drawing do not relieve the contractor from compliance with the requirements of the contract documents. Contractor is responsible for confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating its' work with that of other trades, and performing its work in a safe and satisfactory manner.

Date 05/09/2024 By SS

GGD Consulting Engineers, Inc.

## Review Notes:

1. ET-1 serving HHW system shall be model B1400.
2. ET-2 serving CHW system shall be model B600.
3. Mechanical Contractor shall set system pressure per Expansion Tank schedule on drawing M0.06.
4. AS-1 serving HHW system shall be model R-10F.



**GGD Consulting Engineers, Inc.**

375 Faunce Corner Road, Suite D  
Dartmouth, MA 02747

P (508) 998-5700 F (508) 998-0883

## LETTER OF TRANSMITTAL

**Date: May 9, 2024**

**Job #: 894 117 00.00**

**Attention: Michelle Barbaro-Rogers**

**Re: Consentino Middle School**

**To: Dore + Whittier**  
**260 Merrimac Street**  
**Building 7, 2<sup>nd</sup> Floor**  
**Newburyport, MA 01950**

**We Are Sending You:**        X   Attached        X   The following items via: Email

  X   Shop Drawings      \_\_\_ Prints      \_\_\_ Plans      \_\_\_ Specifications

  \_\_\_   Copy of Letter      \_\_\_ Change Order      \_\_\_ Samples      \_\_\_ Drawings

COPIES	DATE REC'D	GGD NUMBER	DESCRIPTION SUBMITTAL NUMBER	ACTION
1	4/25/24	M-7	Air Separators, Automatic Air Vents, & Expansion Tanks Submittal 230010-6.0	Approved As Noted

**These are transmitted as checked below:**

  \_\_\_   For Approval      \_\_\_ Approved as submitted      \_\_\_ Resubmit \_\_\_ copies for approval  
  X   For your use      \_\_\_ Approved as noted      \_\_\_ Submit \_\_\_ copies for distribution  
  X   As requested      \_\_\_ Returned for corrections      \_\_\_ Return \_\_\_ corrected prints  
  \_\_\_   For review and comment      \_\_\_ Forwarded \_\_\_\_\_  
  \_\_\_   For Bids Due \_\_\_\_\_,   20        \_\_\_ Prints Returned on Loan to Us

**REMARKS:**

**COPY (S) TO: File**  
**Tara King, Dore and Whittier**  
**Heather Gratton, Dore and Whittier**

**SIGNED: Sean R. Strassell;md**



**Brait Builders Corporation**  
57 Rockwood Rd, Suite 3  
Marshfield, Massachusetts 02050  
P: +17818376400

**Project: CMS Haverhill Middle School**  
685 Washington Street  
Haverhill, Massachusetts 01830



## Submittal #23 00 10-6.0 - 23 00 10 - 06.0 Air Separators, Automatic Air Vents, & Expansion Tanks 23 00 10 - Heating, Ventilating & Air-Conditioning (HVAC)

<b>Revision</b>	0	<b>Submittal Manager</b>	Jake McDonough (Brait Builders Corporation)
<b>Status</b>	Open	<b>Date Created</b>	Apr 24, 2024
<b>Issue Date</b>		<b>Spec Section</b>	23 00 10 - Heating, Ventilating & Air-Conditioning (HVAC)
<b>Responsible Contractor</b>	General Mechanical Contractors, Inc.	<b>Received From</b>	Mark Tomasino (General Mechanical Contractors, Inc.)
<b>Received Date</b>		<b>Submit By</b>	
<b>Final Due Date</b>	May 9, 2024	<b>Lead Time</b>	
		<b>Cost Code</b>	
<b>Location</b>	General Site	<b>Type</b>	Product Information
<b>Approvers</b>	Heather Gratton (Dore and Whittier), Tara King (Dore and Whittier)		
<b>Ball in Court</b>	Heather Gratton (Dore and Whittier), Tara King (Dore and Whittier)		
<b>Distribution</b>	Dave Mentzer (Dore and Whittier), Don Walter (Dore and Whittier), Heather Gratton (Dore and Whittier), Majorie Dickstein (Dore and Whittier), Michael Brait (Brait Builders Corporation), Neil Dooney (Brait Builders Corporation), Tara King (Dore and Whittier), TJ Dahill (Brait Builders Corporation)		
<b>Description</b>			

### Submittal Workflow

Name	Sent Date	Due Date	Returned Date	Response	Attachments
General Information Attachments					<a href="#">23 00 10 - 06.0 Air Separators, Automatic Air Vents, &amp; Expansion Tanks.pdf</a>
Heather Gratton	Apr 25, 2024	May 9, 2024		Pending	
Tara King	Apr 25, 2024	May 9, 2024		Pending	



Fluid Industrial Associates Inc. • 7 Sixth Road, PO Box 2414, Woburn, Massachusetts 01888 • PHONE: (781) 938-8900  
TOLL FREE: 1-800-423-7187 • FAX: (781) 933-3965 • E-Mail: [custsrv@fiainc.com](mailto:custsrv@fiainc.com) • Website: [www.fiainc.com](http://www.fiainc.com)

**Submittal 4/24/2024**

**Project:  
Consentino Middle School**

Location :	Haverhill, MA
Engineer:	GGD Consulting Engineers, Inc.
Mechanical Contractor:	General Mechanical Contractors
Representative:	FIA Inc. – Chris James
Product:	Air Separators, Automatic Air Vents, Expansion Tanks
Tag:	AS-1-2, AS-3, AS-AAV, AS-Snowmelt, ET-1-2
Manufacturer:	Xylem Inc – Bell & Gossett

**Comments:**

- 1. All equipment on hold until receipt of approved submittal.**

Job/Project: Consentino Middle School HVAC		Representative: FIA	
ESP-Systemwize: WIZE-11C39B4B	04/24/2024	Phone: (781) 938-8900	
Location/Tag: AS-1,2		Email: custsrv@fiainc.com	
Engineer: Garcia Galuska DeSousa Inc.		Submitted By:	Date:
Contractor: General Mechanical Contractors		Approved By:	Date:

## Rolairtrol Air Separator Hot & Chilled Water

### Bell & Gossett Model: R-8F

The Bell & Gossett Rolairtrol is a patented air separator with significant advantages. The Rolairtrol is capable of removing the air that commonly causes problems in commercial hot and chilled water systems. The Rolairtrol provides air free flow, improving efficiency and performance of the HVAC system.



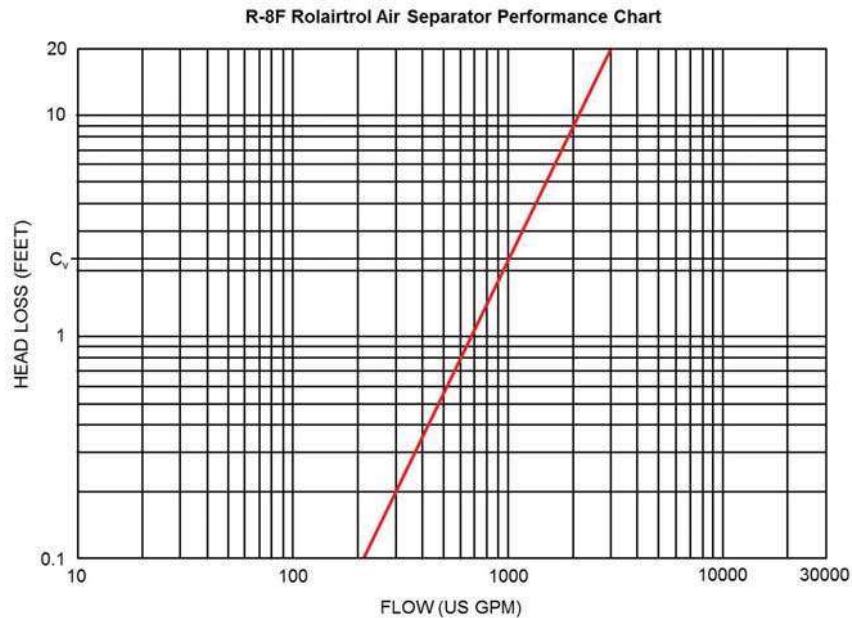
Designed and constructed per ASME Section VIII, Division 1

### Separator Selection

Model	R-8F
Size	8.0 in
Recommended Max Flow	1300.0 gpm
ASME Certified	true
Pressure Drop @ Design Flow	0.0'
Shipping Weight	460.0 lbs
Flooded Weight	1211.0 lbs

Type of Separator: Centrifugal, With Strainer

## Performance Coverage Chart:

**R-8F**


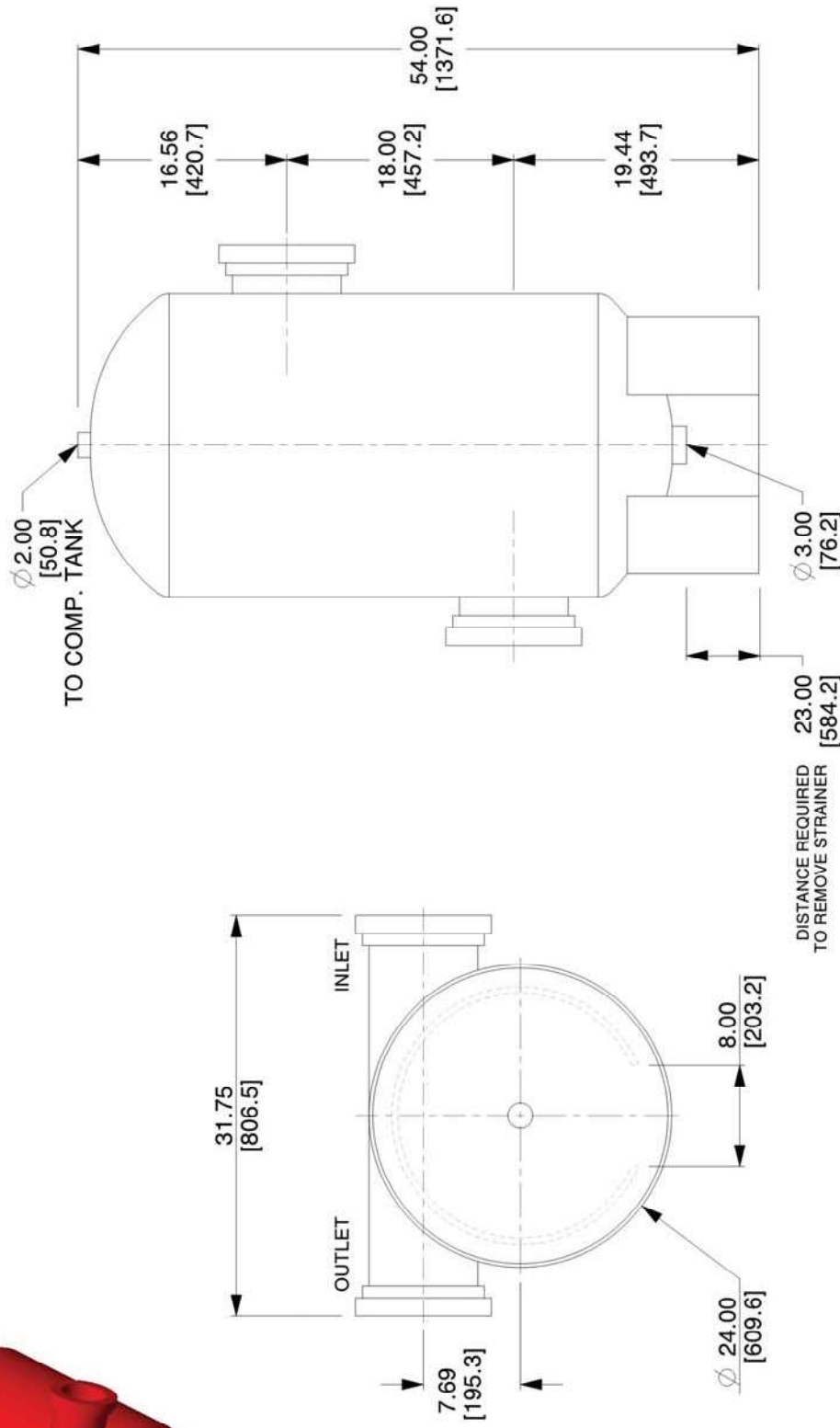
### Materials of Construction

Body	Carbon Steel
Baffle	Carbon Steel
Strainer	304 SS

### Maximum Working Pressure

Max Working Pressure	125psig
Max Operating Temperature	350°F

Consult local rep. for higher working pressures and temperatures.



8200 N. Austin Ave.  
Morton Grove, IL 60053, USA

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Dimensions are subject to change  
Not to be used for construction unless certified

5360-08F-12-003

ROLAIRTROL Air Separator  
Flanged with Strainer Air Control and Elimination

Dimensions : INCH [MM]      Scale : N.T.S.      Approval :



Job/Project: Consentino Middle School HVAC		Representative: FIA	
ESP-Systemwise: WIZE-11C39B4B	04/24/2024	Phone: (781) 938-8900	
Location/Tag: AS-3		Email: custsrv@fiainc.com	
Engineer: Garcia Galuska DeSousa Inc.		Submitted By:	Date:
Contractor: General Mechanical Contractors		Approved By:	Date:

## Rolairtrol Air Separator Hot & Chilled Water

### Bell & Gossett Model: R-6F

The Bell & Gossett Rolairtrol is a patented air separator with significant advantages. The Rolairtrol is capable of removing the air that commonly causes problems in commercial hot and chilled water systems. The Rolairtrol provides air free flow, improving efficiency and performance of the HVAC system



Designed and constructed per ASME Section VIII, Division 1

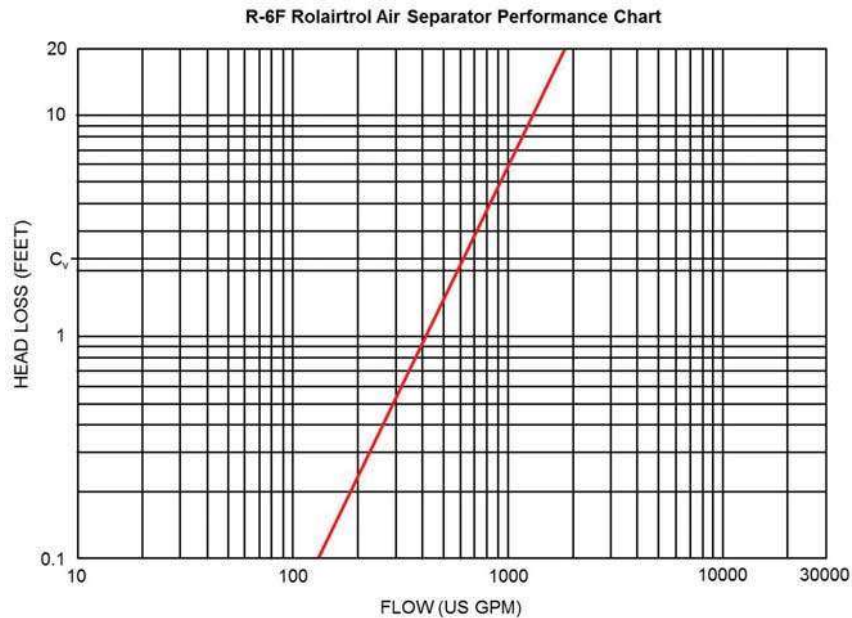
### Separator Selection

Model	R-6F
Size	6.0 in
Recommended Max Flow	700.0 gpm
ASME Certified	true
Pressure Drop @ Design Flow	0.0'
Shipping Weight	295.0 lbs
Flooded Weight	579.0 lbs

Type of Separator	Centrifugal, With Strainer
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## Performance Coverage Chart:

**R-6F**



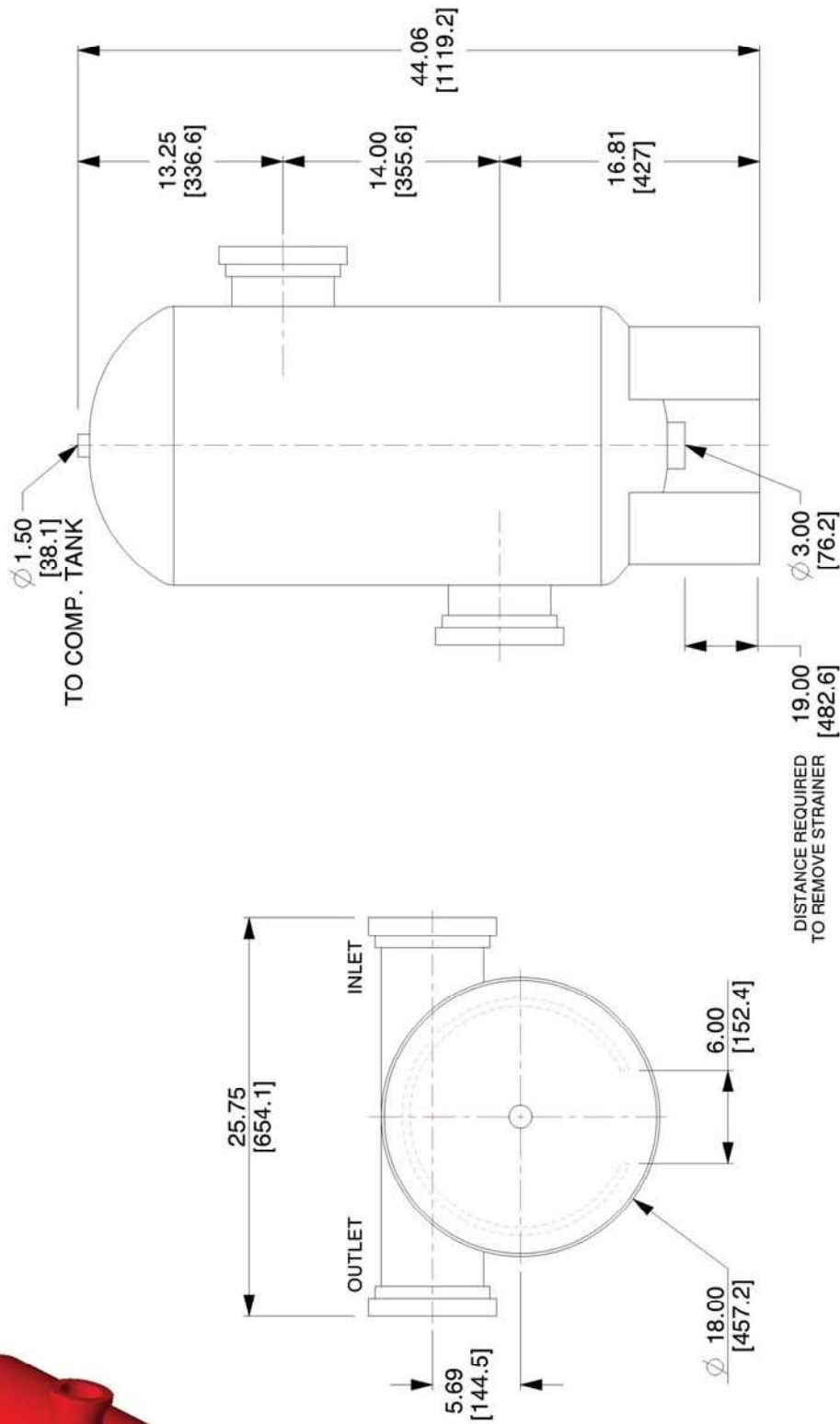
### Materials of Construction

Body	Carbon Steel
Baffle	Carbon Steel
Strainer	304 SS

### Maximum Working Pressure

Max Working Pressure	125psig
Max Operating Temperature	350°F

Consult local rep for higher working pressures and temperatures.



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Dimensions are subject to change  
Not to be used for construction unless certified

5360-06F-12-003

## ROLAIRROL Air Separator

### Flanged with Strainer Air Control and Elimination



**Bell & Gossett**  
a xylem brand

8200 N. Austin Ave.  
Morton Grove, IL 60053, USA

Dimensions : INCH [MM]

Scale : N.T.S.

Approval :

**JOB:** Consentino Middle School HVAC

**REPRESENTATIVE:** Fluid Industrial Associates

**UNIT TAG:**

**ENGINEER:** Garcia Galuska DeSousa Inc.

**CONTRACTOR:** General Mechanical Contractors

**ORDER NO.**

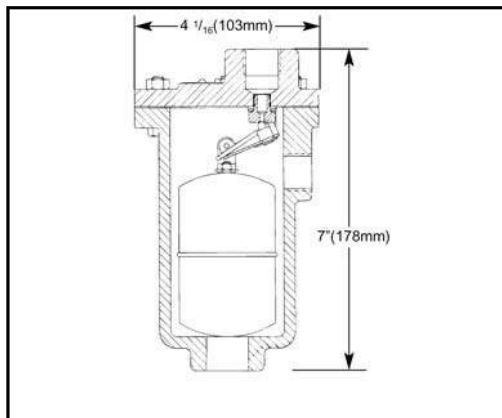
**SUBMITTED BY:** Chris James

**APPROVED BY:**

**DATE:** 4/24/2024

**DATE:**

**DATE:**



# Hoffman Specialty Model 792 High Pressure Water Main Vent Valve

Materials of Construction	
Part	Specifications
Body	Cast Iron
Cover	Cast Iron
Float	Stainless Steel
Seat	Stainless Steel
Pin	Stainless Steel

Capacities	
Water Pressure psig (bar)	Air Discharge to Atmosphere cu. ft./min. (S(m³/min))
100 (6.9)	10 (.28)
150 (10.3)	15 (.42)
200 (13.8)	20 (.57)
250 (17.3)	25 (.70)

## RATINGS

Model	NPT Bottom Inlet Size in.	NPT Side Inlet Size in.	NPT Outlet Size in.	Maximum Operating Pressure psig (bar)	Maximum Hydrostatic Pressure psig (bar)	Maximum Operating Temperature °F (°C)
792	3/4	1/2	1/2	250 (17.3)	350 (24.2)	300 (149)

## SCHEDULE

MODEL NUMBER	PART NUMBER	TAGGING INFORMATION	QTY.
➡ 792	401494	AS-AAV	3

Xylem Inc.  
8200 N. Austin Avenue  
Morton Grove, IL 60053  
Phone (847)966-3700  
Facsimile (847)966-9052  
www.hoffmanspecialty.com

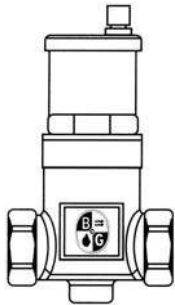
JOB: Consentino Middle School HVAC

REPRESENTATIVE: Fluid Industrial Associates

UNIT TAG:  
ENGINEER: Garcia Galuska DeSousa Inc.  
CONTRACTOR: General Mechanical Contractors

ORDER NO.  
SUBMITTED BY: Chris James  
APPROVED BY:

DATE: 4/24/2024  
DATE:  
DATE:



Enhanced Air Separator  
Model EASB-JR

DESCRIPTION

The Bell & Gossett Model EASB-JR Enhanced Air Separator automatically removes entrained air bubbles in hydronic systems. As fluid enters the EASB-JR, the velocity is slowed down creating a low pressure area. The small bubbles are then released from the fluid and collect on the coalescing medium. As the bubbles coalesce, they will rise on the top of the air separator where they can be released to atmosphere through the built-in automatic air vent. The air separator has a bottom 1/2" NPT connection to accommodate a B&G diaphragm expansion tank. The compact design and brass body construction make the EASB-JR ideal for residential and commercial hydronic and heating systems.

Available Sizes: 3/4", 1", 1-1/4", 1-1/2" & 2" NPT or  
3/4", 1", 1-1/4" Sweat


CONSTRUCTION

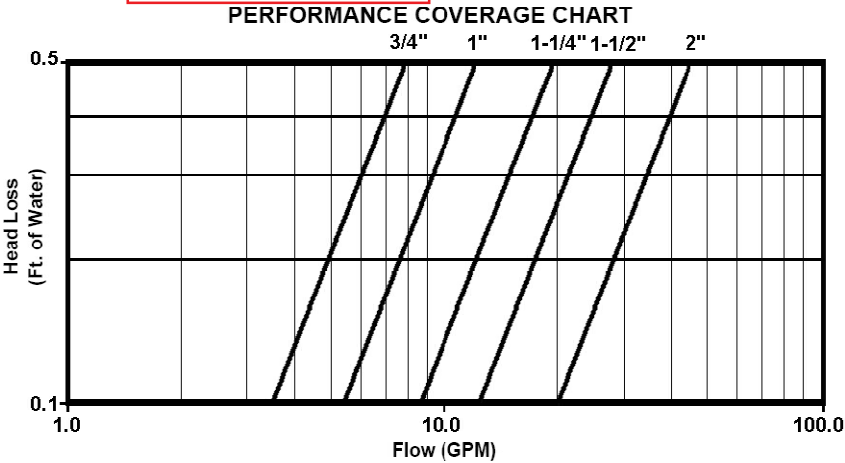
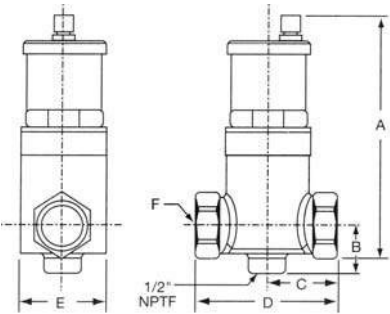
Cast Body and Cap: Brass  
Coalescing Medium: Stainless Steel  
Venting Mechanism: Non-Ferrous

MAXIMUM OPERATING LIMITATIONS


Temperature: 250°F (121°C)  
Working Pressure: 150 psi (10 Bar)

SCHEDULE

MODEL NUMBER	PART NUMBER	SIZE INCHES	RECOMMENDED MAXIMUM FLOW (GPM)	TAGGING INFORMATION	QUANTITY
EASB-3/4 JR	112111	3/4" NPT	6		
EASB-3/4S JR	112114	3/4" Sweat	6		
EASB-1 JR	112112	1" NPT	12		
EASB-1S JR	112115	1" Sweat	12		
EASB-1-1/4 JR	112113	1-1/4" NPT	20		
EASB-1-1/4S JR	112116	1-1/4" Sweat	20		
EASB-1-1/2 JR	112117	1-1/2" NPT	30		
 EASB-2 JR	112464	2" NPT	45	SNOWMELT AIR SCOOP	1



DIMENSIONS AND WEIGHTS

MODEL NUMBER	SIZE INCHES NPT	DIMENSIONS-INCHES (MM)						APPROX. SHPG. WT. LBS. (Kg)
		A	B	C	D	E	F	
EASB-3/4 JR	3/4" NPT	6-7/8 (175)	1-5/8 (41)	1-13/16 (46)	3-5/8 (92)	2-1/4 (57)	3/4" NPTF	2-1/2 (1)
EASB-3/4S JR	3/4" Sweat	6-7/8 (175)	1-5/8 (41)	1-13/16 (46)	3-5/8 (92)	2-1/4 (57)	3/4" Sweat	2-1/2 (1)
EASB-1 JR	1" NPT	6-7/8 (175)	1-5/8 (41)	1-13/16 (46)	3-5/8 (92)	2-1/4 (57)	1" NPTF	2-1/2 (1)
EASB-1S JR	1" Sweat	6-7/8 (175)	1-5/8 (41)	1-13/16 (46)	3-5/8 (92)	2-1/4 (57)	1" Sweat	2-1/2 (1)
EASB-1-1/4 JR	1-1/4" NPT	7-1/2 (191)	1-7/8 (48)	2-5/16 (59)	4-5/8 (117)	3-1/8 (79)	1-1/4" NPTF	4 (1.8)
EASB-1-1/4S JR	1-1/4" Sweat	7-1/2 (191)	1-7/8 (48)	2-5/16 (59)	4-5/8 (117)	3-1/8 (79)	1-1/4" Sweat	4 (1.8)
EASB-1-1/2 JR	1-1/2" NPT	7-1/2 (191)	1-7/8 (48)	2-5/16 (59)	4-5/8 (117)	3-1/8 (79)	1-1/2" NPTF	4 (1.8)
 EASB-2 JR	2" NPT	7-1/2 (191)	2 (51)	2-1/2 (64)	5 (128)	3-1/8 (79)	2" NPTF	5 (2.27)

Dimensions are subject to change. Not to be used for construction purposes unless certified.

TYPICAL SPECIFICATIONS

Furnish and install as shown on plans a brass body, in-line air separator designed to effectively separate and remove free air in hydronic heating/cooling systems. The air separator shall be constructed of brass body with stainless steel coalescing medium designed to function satisfactorily at working pressures up to 150 psi (10 bar) and liquid temperatures up to 250°F (121°C). The air separator shall have an internal coalescing medium design that traps and collect air bubbles to be released to atmosphere through the built-in automatic air vent.

The air separator shall have a 1/2" NPT connection on the bottom to accommodate a precharged \_\_\_\_\_ (Choose one: Bladder or Diaphragm) expansions tank.

The air separator shall be Xylem Bell & Gossett Model No. EASB-\_\_\_\_\_JR Enhanced Air Separator.

Xylem Inc.  
8200 N. Austin Avenue  
Morton Grove, IL 60053  
Phone: (847)966-3700 Fax: (847)965-8379  
www.bellgossett.com  
Bell & Gossett is a trademark of Xylem Inc. or one of its subsidiaries.  
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Job/Project:		Representative: FIA	
ESP-Systemwize: WIZE-11C39B4B	Created On: 04/24/2024	Phone: (781) 938-8900	
Location/Tag:		Email: custsrv@fiainc.com	
Engineer:		Submitted By:	Date:
Contractor:		Approved By:	Date:

## Expansion Tanks: Pressurized (Air Elimination)

### Bell & Gossett Series: B ASME

Series B expansion tanks are ASME rated pre-charged bladder-type pressure vessels. The Series B tank is designed to absorb the expansion forces of heating/cooling system water while maintaining proper system pressurization under varying operating conditions. The heavy duty bladder contains system water thereby eliminating tank corrosion and waterlogging problems.



Designed and constructed per ASME Section VIII, Division 1

### Selection Criteria

Model	B200
Quantity	2
Required Tank Volume	0.0 gal
Required Acceptance	0.0 gal
Actual Tank Volume	53.0 gal
Actual Acceptance Volume	53.0 gal
Orientation	Horizontal/Vertical
Type	Bladder
ASME Rated	true
Fill/Max Temperature	0.0 F / 0.0 F
Fill/Max Pressure	0.0 psi / 0.0 psi
System Volume	0.0 gal
System Medium	Water

### Tank Details

Not For Potable Water System

**B200**

- Increases system performance
- Reduces oxygen corrosion
- Prevents waterlogging
- Replaceable bladder
- Integrated bladder integrity monitor on all models
- High maximum operating temperatures
- Seismic restraints available
- Sight glass available

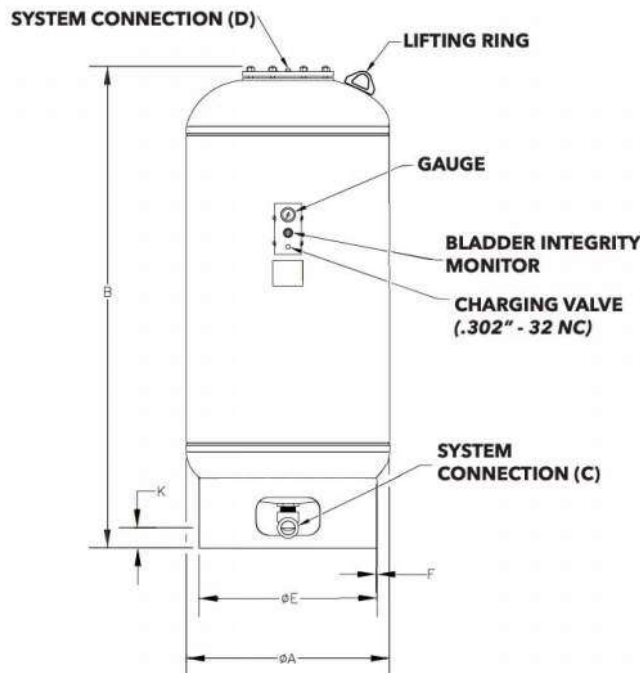
### Operating Data

Max Design Temperature	0.0 F
Max Working Pressure	125.0 psig
Shipping Weight	210 (95)
Flooded Weight	651 (295)

### Performance Curve Data

#### Materials of Construction

Shell	Carbon Steel
Bladder	Heavy Duty Butyl Rubber
System Connection	Forged Steel



Dimensions are subject to change. Not to be used for construction purposes unless certified.

A	B	C (FNPT)	D (FNPT)	E	F	K
24 (610)	43 (1,092)	1-1/2	3/4	20 (508)	0.14 (4)	5.25 (133)
Inches (mm)						



**Fluid Industrial Associates**  
**7 Sixth Rd**  
**Woburn, MA 01888**  
Phone: **781-938-8900**  
Fax: **781-933-3965**

TO: **General Mechanical**  
ATTN: **Mark**

Quote Date: **3/7/2024**  
Quoted By: **Chris James**  
Date: **5/29/2024 11:33:25 AM**  
[Terms and Conditions of Sale](#)  
Freight: **Full Freight Allowed**  
Job: **Consentino Middle School**  
**Expansion Tank CO**  
**Haverhill, MA 01832**  
Engineer: **Garcia Galuska DeSousa**  
**Inc.**

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### Pricing for revised expansion tanks per engineer submittal review

We are pleased to quote you on the following equipment for the above job subject to approval. Quantities listed are not guaranteed and should be verified. Prices will be adjusted accordingly. This quotation is subject to change without notice and void after 30 days unless otherwise stated below. All Contracts or Orders are subject to acceptance by the Company and are contingent upon non-occurrence of strikes or other delays beyond their control. In addition to prices named herein, you are to pay any applicable sales taxes.

Qty	Description & Tag	Wt (lbs)	Net Price Ea.	Total Net Price
<b>REVISED EXPANSION TANKS</b>				
1	Tag: ET-1 116059 - B&G B1400 Series B ASME Bladder Tank (370 GAL)	688	\$6,495.00	\$6,495.00
1	Tag: ET-2 116055 - B&G B600 Series B ASME Bladder Tank (158 GAL)	360	\$3,991.00	\$3,991.00
	<b>Total REVISED EXPANSION TANKS</b>			<b>\$10,486.00</b>
<b>SPECIFIED EXPANSION TANKS</b>				
2	Tag: ET-1,2 116051 - B&G B200 Series B ASME Bladder Tank (53 GAL)	420	(\$1,569.00)	(\$3,139.00)
	<b>Total SPECIFIED EXPANSION TANKS</b>			<b>(\$3,139.00)</b>
	<b>Total Change Order Price</b>	<b>1468</b>		<b>\$7,347.00</b>





Fluid Industrial Associates Inc. • 7 Sixth Road, PO Box 2414, Woburn, Massachusetts 01888 • PHONE: (781) 938-8900  
TOLL FREE: 1-800-423-7187 • FAX: (781) 933-3965 • E-Mail: [custsrv@fiainc.com](mailto:custsrv@fiainc.com) • Website: [www.fiainc.com](http://www.fiainc.com)

**Re-Submittal 5/24/2024**

**Project:  
Consentino Middle School**

Location : Haverhill, MA

Engineer: GGD Consulting Engineers, Inc.

Mechanical Contractor: General Mechanical Contractors

Representative: FIA Inc. – Chris James

Product: Air Separators, Automatic Air Vents, Expansion Tanks

Tag: AS-1-2, AS-3, AS-AAV, AS-Snowmelt, ET-1-2

Manufacturer: Xylem Inc – Bell & Gossett

**Comments:**

- 1. All equipment on hold until receipt of approved submittal.**





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- 2. Resubmitting on air separators less strainers per discussion with engineer.**
- 3. Expansion tank sizes revised per submittal comments.**

Job/Project: Consentino Middle School HVAC	Representative: FIA	
ESP-Systemwise: WIZE-984C4F6E	05/24/2024	Phone: (781) 938-8900
Location/Tag: AS-1-2	Email: custsrv@fiainc.com	
Engineer: Garcia Galuska DeSousa Inc.	Submitted By:	Date:
Contractor: General Mechanical Contractors	Approved By:	Date:

## Rolairtrol Air Separator Hot & Chilled Water

### Bell & Gossett Model: RL-8F

The Bell & Gossett Rolairtrol is a patented air separator with significant advantages. The Rolairtrol is capable of removing the air that commonly causes problems in commercial hot and chilled water systems. The Rolairtrol provides air free flow, improving efficiency and performance of the HVAC system.



Designed and constructed per ASME Section VIII, Division 1

### Separator Selection

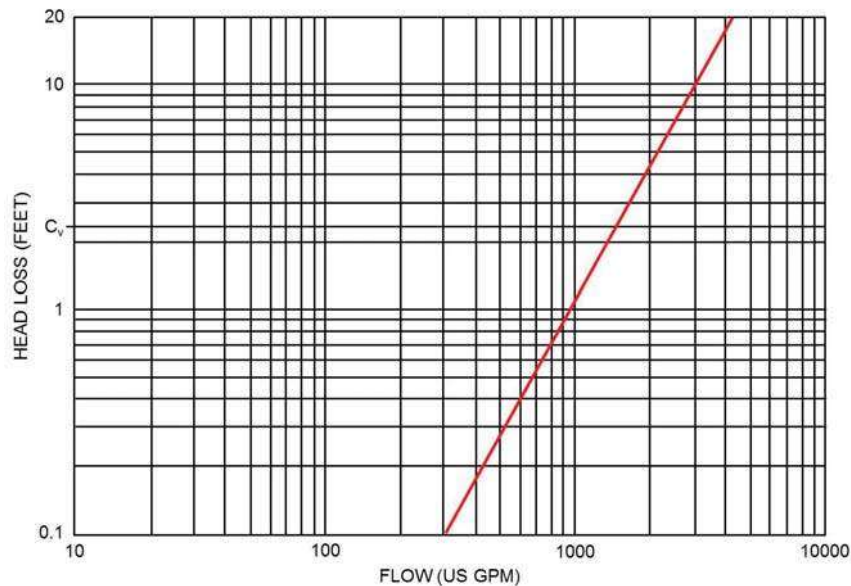
Model	RL-8F
Size	8.0 in
Recommended Max Flow	1900.0 gpm
ASME Certified	true
Pressure Drop @ Design Flow	0.0'
Shipping Weight	420.0 lbs
Flooded Weight	1171.0 lbs

Type of Separator: Centrifugal, Without Strainer

## Performance Coverage Chart:

**RL-8F**

RL-8F Rolairtrol Air Separator Performance Chart



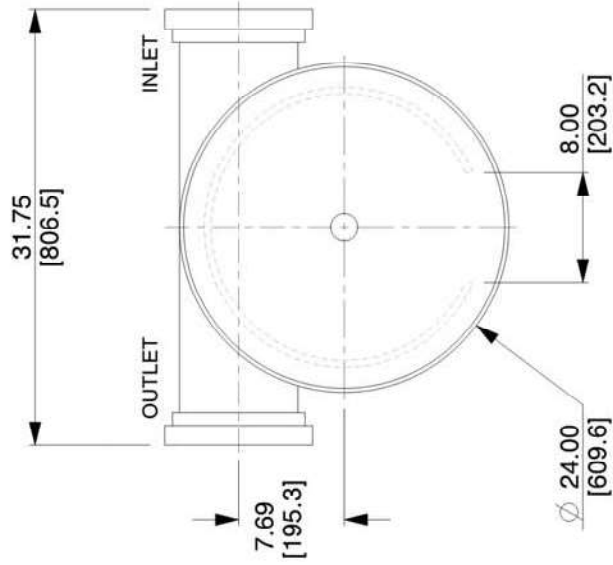
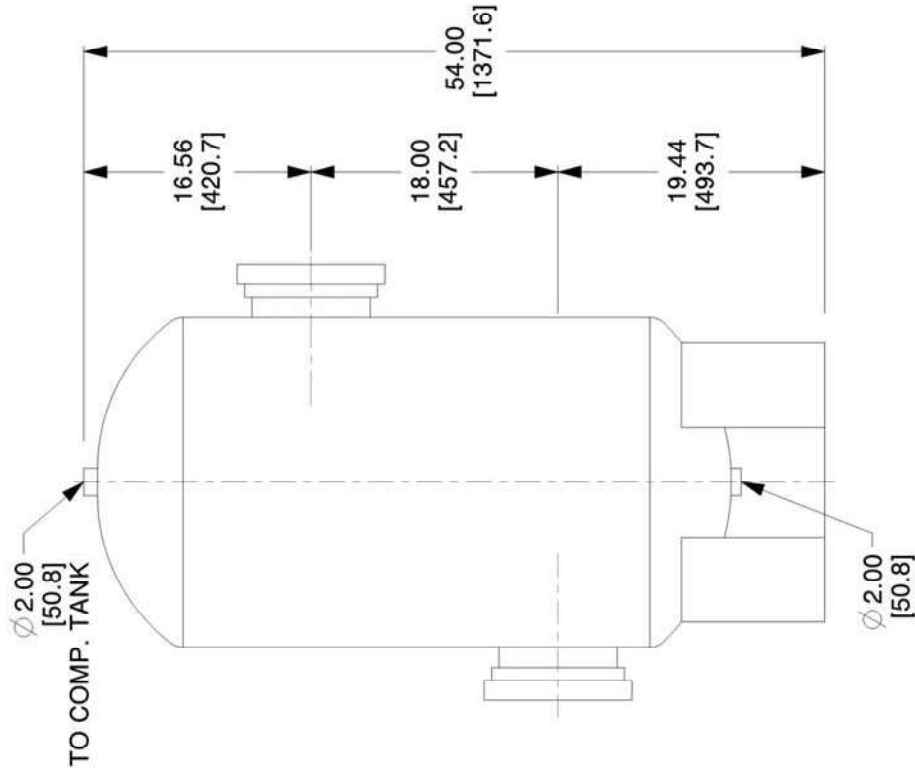
### Materials of Construction

Body: Carbon Steel

### Maximum Working Pressure

Max Working Pressure: 125psig  
 Max Operating Temperature: 350°F

Consult local rep. for higher working pressures and temperatures.



8200 N. Austin Ave.  
Morton Grove, IL 60053, USA

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Dimensions are subject to change  
Not to be used for construction unless certified

5363-08F-12-004

ROLAIRtrol Air Separator  
Flanged Less Strainer Air Control and Elimination

Dimensions : INCH [MM]      Scale : N.T.S.      Approval :

Job/Project: Consentino Middle School HVAC	Representative: FIA	
ESP-Systemwise: WIZE-984C4F6E	05/24/2024	Phone: (781) 938-8900
Location/Tag: AS-3	Email: custsrv@fiainc.com	
Engineer: Garcia Galuska DeSousa Inc.	Submitted By:	Date:
Contractor: General Mechanical Contractors	Approved By:	Date:

## Rolairtrol Air Separator Hot & Chilled Water

### Bell & Gossett Model: RL-6F

The Bell & Gossett Rolairtrol is a patented air separator with significant advantages. The Rolairtrol is capable of removing the air that commonly causes problems in commercial hot and chilled water systems. The Rolairtrol provides air free flow, improving efficiency and performance of the HVAC system.



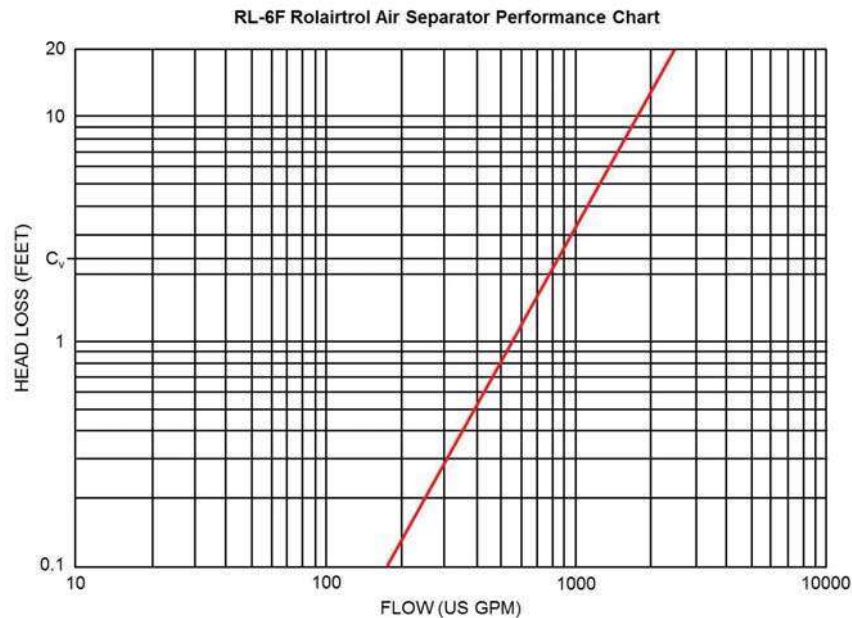
Designed and constructed per ASME Section VIII, Division 1

### Separator Selection

Model	RL-6F
Size	6.0 in
Recommended Max Flow	850.0 gpm
ASME Certified	true
Pressure Drop @ Design Flow	0.0'
Shipping Weight	280.0 lbs
Flooded Weight	564.0 lbs

Type of Separator: Centrifugal, Without Strainer

## Performance Coverage Chart:

**RL-6F**


### Materials of Construction

Body: Carbon Steel

### Maximum Working Pressure

Max Working Pressure: 125psig  
 Max Operating Temperature: 350°F

Consult local rep. for higher working pressures and temperatures.