

**Interdisciplinary Science Building
Webster University
Cannon Design Project No. 004561.01**

Project: Webster ISB Substitution Request Number: 2
From: Alex Chmbers
To: Melissa Pirtle stl-
cac@cannondesign.com Date: 8/9/16
Re: Fin Tube Radiation Contract For: Icon Mechanical

Specification Title: HAC Equipment **Description:** Finned Tube Radiation
Section: 235000 **Page:** 21 **Article/Paragraph:** 2.15

Proposed Substitution: Airedale (Modine) in lieu of Sterling Versa-Line
Trade Name: Pipe Fitters
Model No.: CP07534C
Manufacturer: Airedale (Modine)
Modine Manufacturing Company
Airedale North America
Commercial Products Group
Modine Manufacturing Company
1500 DeKoven Avenue
Racine, Wisconsin 53403-2552
Address: USA

Phone: 1 866 823 1631 **Manufacturer Web Page:** http://www.airedale.com/web/Home.htm

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

Savings to Owner for
accepting substitution: _____ (\$ _____)

Proposed substitution
changes Contract Time: ☒ No ☐ Yes [Add] [Deduct] _____ days.

The Undersigned Bidding General Contractor/Construction Manager Certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified products.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.

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- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

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- The following supporting data is attached to this request and verifies the above statements:

☐ Drawings

☒ Product Data

☐ Samples

☐ Tests

☐ Reports

☒ Other (explain) Airedale (Modine) is a 100 year old company that has been in the

HVAC Industry for many of those years. They make a great product essentially

Identical to that of Sterling

Submitted by: Alex Chambers

Signed by: Alex Chambers

Contractor: icon Mechanical

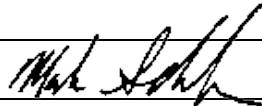
Address: 1616 Cleveland Blvd. Granite City, IL 62040

Phone: 618-452-0035 **Email:** achambers@iconmech.com

Review and Action

- ☒ Substitution approved – Make submittals in accordance with the Specifications.
- ☐ Substitution approved as noted – Make submittals in accordance with the Specifications.
- ☐ Substitution rejected – Use specified materials.
- ☐ Substitution received too late – Use specified materials.

Comments:

Signed by:  Date: 8/30/16



Mechanical

LETTER OF TRANSMITTAL

TO: Paric Corporation

77 West Port Plaza #250

St. Louis, MO 63146

ATTN: Jason Szachnieski, Devin Gates

DATE: 8/9/16

JOB #: 5768

RE: Webster ISB

We are sending you

☒

Shop drawings

☐ Attached

☐ Prints

☐ Under separate cover

☐ Plans

☐ Samples

☐ Specifications

☐ Copy of letter

☐ Change order

☐ Other

COPIES	DATE	NO.	DESCRIPTION
1	8/9/16	23500-2.15	Finned Tube Radiation

These are transmitted as checked below:

☐ For signature

☐ For your use

☐ As requested

☐ For bids due

☒

For review and comment

☐ Approved as submitted

☐ Approved as noted

☐ Returned for corrections

☐ Prints returned after loan to us

☐ Other

☐ Resubmit

☒ Submit

☐ Return

☐ copies for approval

☐ copies for distribution

☐ corrected prints

Remarks: Please return by

COPY TO: file

SIGNED:

Alex Chambers



Mechanical

Webster University ISB Webster Groves, MO

Submittal #:

23500-2.15

Submittal Description:

Finned Tube Radiation

Return By:

Please Note: To avoid scheduling delays and equipment release delays, please submit by the "Return By" date.

CHECKED BY:			
DESIGNER:		ENGINEER:	
☒	NO EXCEPTION TAKEN	☐	MAKE CORRECTIONS NOTED
☐	SUBMIT SPECIFIED ITEM	☐	REVISE AND RESUBMIT
☐	REJECTED	☐	
Checking is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the plans and specifications. Equipment supplier is responsible for: dimensions which shall be confirmed and correlated at the job site; fabrication processes and techniques of construction; coordination of his work with that of all other trades; and satisfactory performance of his work.			
		Job #:	5768
		Date:	8/9/16
		By:	ARC



THERMAL MECHANICS, INC.

715 GODDARD AVENUE, CHESTERFIELD, MO 63005

VOICE (636) 532-1110

FAX (636) 532-7318

DATE: June 9, 2016

MAB

EQUIPMENT SUBMITTAL – REVISION “1”

PRODUCTION ON HOLD FOR APPROVAL

Production is on HOLD and will not be released or scheduled until receipt of approved submittals noting any changes required.

Manufacturer: **Airedale**

Equipment: ***Finned Tube Radiation***

Spec Section: 235000.2.15

Job Name: **Webster University
Interdisciplinary Science Building**

Engineer: William Tao & Associates

Contractor: **Icon Mechanical**

Purchase Order #: **To Follow**

TMI Ref #: To follow

Contact: Jason Hibbits

SUBMITTAL SCHEDULE FIN TUBE ROUGH IN

Job Name: Webster University ISB
Location: Webster Groves, MO
Submitted by: Thermal Mechanics, Inc.

Job Date: 06/07/2016
Engineer: WM Tao & Associates
Architect: Cannon Design
Contractor: Icon Mechanical

Tag:		FTR				
Element Model:		CP 07534C				
Element Lengths	2.0					
	2.5					
	3.0					
	3.5					
	4.0					
	4.5					
	5.0					
	5.5					
	6.0					
	6.5					
	7.0					
	7.5					
	8.0	14				
	8.5					
	9.0					
	9.5					
	10.0					
	10.5					
	11.0					
	11.5					
	12.0					
Total Element Pcs.		14				
Total Element Length		112.0				
Enclosure Style Reference						
Hanger Strip w/o Backpanel (4ft)						
Hanger Strip w/o Backpanel (8ft)						
Hanger Strip w/Backpanel (4ft)						
Hanger Strip w/Backpanel (8ft)						
Enclosure Wall Support (EWS)						
Enclosure Wall Support w/Cradle						
Element Support Assembly (ESA)						
Return Pipe Hanger (RPH)						
Inverted "S" Enclosure Bracket						
Pedestal Mounting Bracket (PED)						
Expansion Bracket (EB)		40				
Fixed Bracket (FB)						
Row Alignment Bracket (UNI)						
Single Floor Angle (4ft)						
Single Floor Angle (8ft)						
Double Floor Angle (4ft)						
Double Floor Angle (8ft)						
Total Pieces		40				

FIN TUBE GENERAL PERFORMANCE DATA

Job Name: Webster University ISB
Location: Webster Groves, MO
Submitted by: Thermal Mechanics, Inc.

Date:
Engineer: WM Tao & Associates
Architect: Cannon Design
Contractor: Icon Mechanical

Tag:

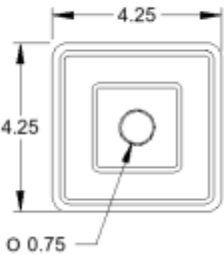
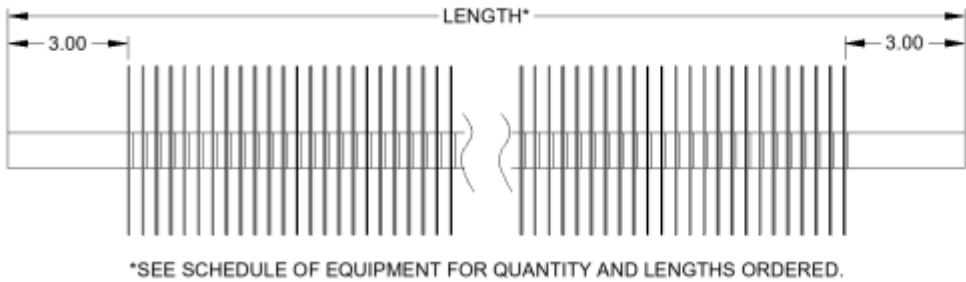
Enclosure Selection Details	
Enclosure Model:	None
Enclosure Description:	CP - Bare Element
Enclosure Height:	"
Enclosure Depth:	"
Element Selection Details	
Element Model:	CP 07534C
Tube Diameter:	0.75"
Tube Material:	Copper
Fin Size:	4-1/4" x 4-1/4"
Fin Density (Fins/Foot):	34
Fin Material:	Aluminum
Element Rows:	1
Total Installed Element Length	112.0'
Active (Finned) Installed Length	105.0'
Total Element Length	112.0'
Entering Conditions Selected	
Entering Air Temp (°F)	65.0
Fluid Type	Hot Water
Fluid Glycol Content	0%
Average Water Temp (°F)	138
Water Flow Rate (GPM)	1.0
Water Velocity (Ft/Sec)	0.60
Output Performance Data	
Btu/Hr/Ft Output (Active Length)	489
Btu/Hr Output Total	51,326
Water Temp Drop (°F/Foot)	0.97



AccuSpec V4.4w5

DIMENSIONS – ELEMENT

Model CP 07534C Element Dimensions

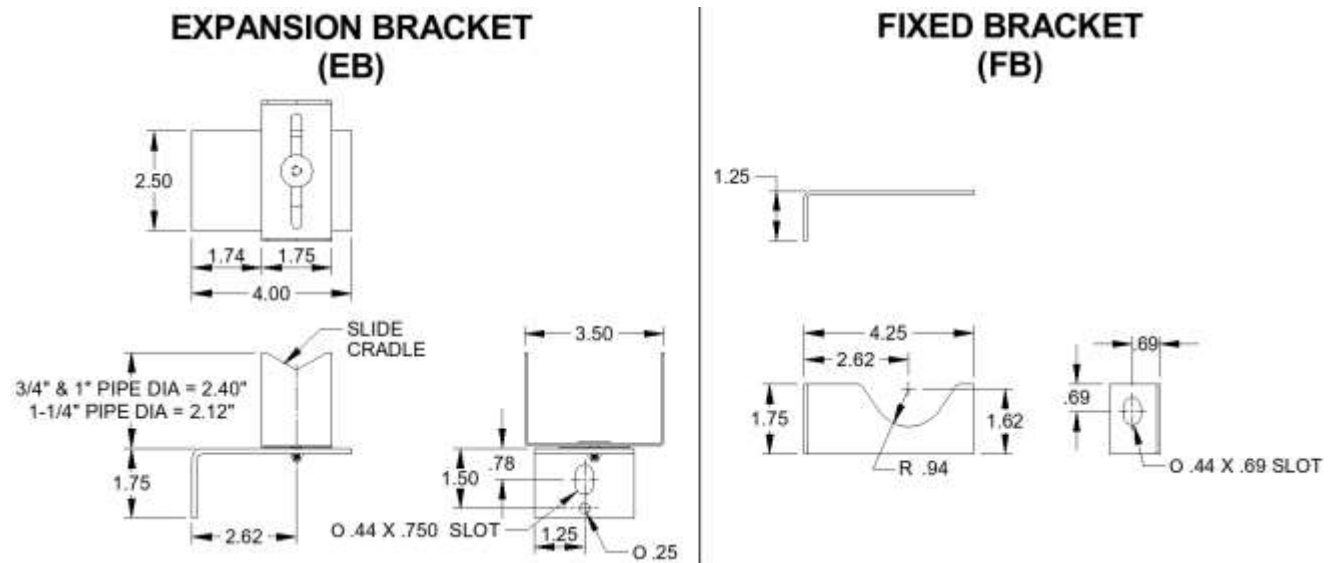


Tag:

Model	Tube	Fins	Fin Spacing	Length
CP 07534C	3/4" Copper	4-1/4" x 4-1/4" Aluminum	34 Fins per Foot	2' to 8' in 6" increments. See Schedule of Equipment for length and quantity ordered.

ELEMENT EXPANSION & FIXED SUPPORT BRACKET DETAILS

Model CP 1 Element Expansion and Fixed Support Bracket Dimensions



Tag:

Items shown for reference only. For actual equipment selection and quantity ordered, refer to the Equipment Schedule.

Specifications

Tag:

General

Contractor shall furnish and install as shown on the plans Airedale brand fin tube heating elements, enclosure, accessories and mounting components.

Heating Elements

Seamless copper tube shall be permanently bonded to 0.018" thick aluminum fins by mechanical expansion of the tube. The tube outside diameter shall be 0.75 with 4-1/4" x 4-1/4" fins spaced at 34 fins per foot. Refer to the equipment schedule for lengths required.

Maximum working pressure for element with 3/4" tube is 250psi at 300°F.

Elements shall be arranged in a single row.

Gates, Devin

Subject: FW: Webster U ISB Re: Substitution Request - Airedale (Modine) in Lieu of Sterling Fin Tube WT 14127.01

Alex,

The Airedale (Modine) is an acceptable manufacturer for the bare element fin-tube in the ceiling cavity.

Thank you,
Mark

Mark Schaefer, P.E.

Vice President, Senior Mechanical Engineer



7955 Manchester Road, Suite 125
St. Louis, MO 63143
O: 314-884-7600
M: 314-348-3574

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From: Alex Chambers <ACHambers@iconmech.com>
To: "Mark Schaefer (mschaefer@wmtao.com)" <mschaefer@wmtao.com>
Date: 8/9/2016 5:15 PM
Subject: Substitution Request - Airedale (Modine) in Lieu of Sterling Fin Tube
Mark,

Do you mind reviewing an alternate for the Sterling underfloor fin tube?

I plan to submit Airedale. Paric is weary of submitting the sub request without a savings to the owner. Devin would like an email confirmation that you don't mind reviewing the substitution.

Let me know if this is an issue.

Thanks

ALEX CHAMBERS
PROJECT MANAGER



1982 INNERBELT BUSINESS CENTER DR.
ST. LOUIS, MO 63114
MOBILE: 618-610-1436