



BENNETT ENGINEERING

MECHANICAL • ELECTRICAL
(207) 865-9475

NO EXCEPTIONS TAKEN

MAKE CORRECTIONS NOTED

AMEND & RE-SUBMIT

SUBMIT SPECIFIED ITEM

REJECTED-SEE REMARKS

SEE COMMENTS BELOW

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 DRAWINGS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE, FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATION OF THE WORK WITH THAT OF OTHER TRADES AND THE SATISFACTORY PERFORMANCE OF THE WORK.

Justin M. Valliere, P.E.
SIGNATURE

12/21/16
REVIEW DATE

Project: Carleton Street Housing

Submittal: 230000-15 Boilers

Comments: NONE

BENCHMARK

34 Thomas Drive
Westbrook, ME 04092
Ph: (207)591-7600
Fax: (207)591-7604

Transmittal

To: Archetype Architects
48 Union Wharf # 2
Portland, ME 04101
Ph: (207)772-6022 Fax: (207)772-6022

Transmittal #: 54
Date: 12/19/2016
Job: 10-16-1833 Carleton Street
Apartments

Subject: Submittal 230000-15 Boilers

WE ARE SENDING YOU Attached Under separate cover via
 Shop drawings Prints Plans Samples
 Copy of letter Change order Specifications Submittal

Copies	Date	No.	Description
1		230000-15 Rev 0	Boilers

THESE ARE TRANSMITTED as checked below:

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> For approval | <input type="checkbox"/> Approved as submitted | <input type="checkbox"/> Resubmit ___ copies for approval |
| <input type="checkbox"/> For your use | <input type="checkbox"/> Approved as noted | <input type="checkbox"/> Submit ___ copies for distribution |
| <input type="checkbox"/> As requested | <input type="checkbox"/> Returned for corrections | <input type="checkbox"/> Return ___ corrected prints |
| <input type="checkbox"/> For review and comment | <input type="checkbox"/> Other | <input type="checkbox"/> PLEASE SIGN AND RETURN TO OUR OFFICE |
| <input type="checkbox"/> FOR BIDS DUE | | |

Remarks:

Copy To:

From: Andrew Mosley (BENCHMARK)

BENCHMARK

34 Thomas Drive
Westbrook, ME 04092
Ph: (207)591-7600
Fax: (207)591-7604

Submittal Cover Sheet

Job: 10-16-1833
Carleton Street Apartments
17 Carleton Street
Portland, ME 04101

Spec Section No: 230000
Submittal No: 15
Revision No: 0
Sent Date: 12/19/2016

Submittal Title: Boilers

Contractor:
BENCHMARK
Andrew Mosley

Contractor's Stamp

x Reviewed-No Except

Reviewed for general conformance with the design concept and contract documents. Markings or comments shall not be construed as relieving the Subcontractor from compliance with the Project plans and specifications, nor departure therefrom. The Subcontractor remains responsible for details and accuracy, for conforming and correlating all quantities and dimensions, for selecting fabrication processes, for techniques of assembly, and for performing the work in a safe manner.

BENCHMARK

Architect (Primary):
Archetype Architects

Architect's Stamp

Engineer

Engineer's Stamp

Damon Mechanical Services
Mechanical Engineers and Contractors

<u>SUBMITTAL CERTIFICATE</u>	
PROJECT:	17 Carleton St Senior Housing
LOCATION:	Portland, ME
PROJECT NUMBER:	16038
ENGINEER	Bennett Engineering
SUBCONTRACTOR/VENDOR:	Damon Mechanical Services
SUBMITTED BY:	Damon Mechanical Services
CONTACT/PHONE:	Mike Lowe / 207- 784-7461
SPECIFICATION SECTION:	230000
SUB PARAGRAPH:	2.6
TITLE	Boilers
PREPARED BY:	Mike Lowe, Project Manager
SIGNATURE:	
DATE:	October 17, 2016
SUBMITTED FOR REVIEW:	Yes
CONTAINS VARIATIONS?:	No



PLUMBING, HEATING, COOLING, AND INDUSTRIAL SUPPLIES

SERVING NEW ENGLAND & NEW YORK SINCE 1866

F.W. WEBB COMPANY

**Damon Mechanical Inc.
Carleton St. Apts
Po 16421**

10/18/2016

Jim Senter @ FW Webb Co.

150 Postal Service Way • South Portland, Maine

Phone: (207) 772-8364 Fax: (207) 773-4571



Applied Products Division
300 Pond Street, Randolph, MA 02368
(800) 346-9215 • (781) 986-2000
fax (888) 861-8682

Letter of Transmittal

Date: 10/12/2016
Company:
Attention:
Project: Carleton Street Senior Housing

We are Submitting 1 set (s) of Product Submittals for Approval
Resubmitting Installation Manuals Record Purpose

Remarks: Please be advised that a complete copy of APPROVED submittals MUST be returned in order to process any order. Failure to return will delay order entry.

Best regards,
Brandon Mayer

SUBMITTAL SHEETS *for* APPROVAL

Carleton Street Senior Housing

Portland, ME

Engineer:

Prepared for:

Submitted for Approval by:
Emerson Swan Co. Inc
300 Pond Street
Randolph, MA 02368

Approved

Rejected

Date _____

Received by _____

EQUIPMENT LIST

HEAT TRANSFER PRODUCTS, INC.

QTY	DESCRIPTION
2	<u>B-1,B-2</u> EFT-399 HTP ELITE FT CONDENSING BOILER 399,000BTU INPUT NAT GAS, INCLUDES LP CONVERSION INTEGRATED CONTROL SYSTEM ALL VENT MATERIALS BY OTHERS INCLUDES BOILER PUMP (SHIPS LOOSE FOR FIELD INSTALL) WALL-HUNG
2	7600P-990 LWCO W/ MAN RESET
1	7250P-324 SYSTEM SENSOR
2	7350P-636 MODBUS/BACNET ADAPTER
2	CN4-600 CONDENSATE NEUTRALIZER



Elite
Heating Boiler



Elite FT Heating Boiler

JOB NAME: Carleton Street Senior Housing

LOCATION: Portland, ME

ARCH. / ENGR.:

WHOLESALER: F.W. Webb Co.

MECH. CONTRACTOR:

MODEL NUMBER: EFT-399

TYPE OF GAS: Natural

BTU/HR INPUT LOW - HIGH FIRE: 80,000 - 399,000

NOTES: B-1, B-2

Heat Exchanger

- All Stainless Steel ASME “H” Stamped Construction
- National Board listed
- Low pressure drop, gasketless, vertical tube combustion heat exchanger design – provides maintenance-free operation on internal buildup of material inside the combustion chamber
- 30 PSI Relief Valve, EFT-55 – 199
- 80 PSI Relief Valve, EFT-285 and 399 models

Combustion System

- Modulating burner with up to 5 to 1 turndown
- Up to 96.3% AFUE
- High Grade Burner Design
- Spark Ignition
- Models Available for Natural or LP Gas
- Dual Flame monitoring (Spark and Flame probe)

Integrated Control System

- Digital operating control with 2 line / 20 character LCD text display to program and monitor boiler operation
- Three boiler set point temperature inputs– Boiler Pump – System Pump – DHW Pump / Domestic Hot Water priority with timing
- Programmable settings: Outdoor Reset Curve – DHW Supply Set Point – Step Sequence for delayed response for smart zones – Boost Response - Cascade up to 8 boilers
- Field Connection Board – Line voltage terminal strip with 120 VAC / 60 Hertz power / low voltage terminal strip with multiple contacts - Cascade wiring CAT 5 / CAT 3
- 24 Volt monitoring
- 0-10 VDC input for Building Management System
- Boiler output regulation (Adjustment of boiler output down to 50 percent of rated capacity)
- Low water protection device
- Password Security - Flashing maintenance indicator with optional programmed installer contact information
- Time Clock / Data logging – Last 10 fault codes with date and time
- Customized freeze protection parameters
- Modbus enable through external adapter to monitor or control boiler through BMS system

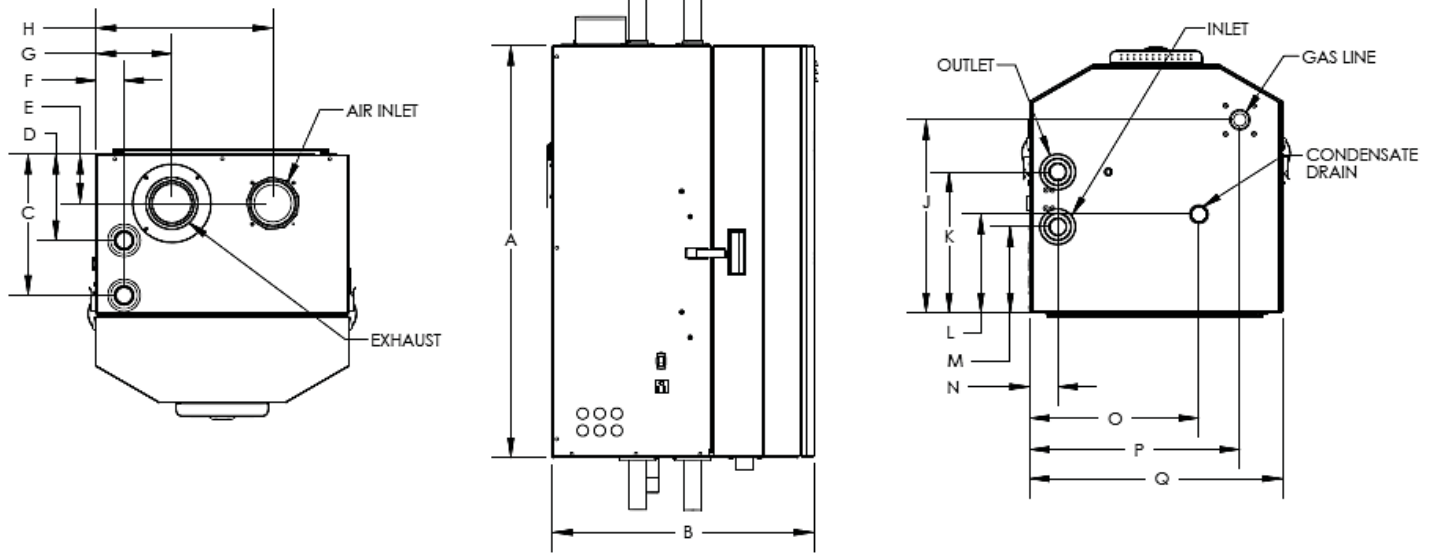
Additional Features

- Superior condensate collection system with overflow protection switch
- Vents in Plastic PVC - CPVC - Stainless Steel – ULC S636 flexible polypropylene vent liner (chimney lining only)
- Vents up to 200 combined equivalent feet
- 12 Year Limited Warranty
- Manual reset high temperature limit
- Dry contact for alarm output
- Included wall mount bracket

Optional

- Condensate Neutralizer (CN4-600)
- System / Pipe Sensor (Part # 7250P-324)
- Modbus (7350P-636)
- U.L. 353 Compliant Low Water Cut-Off Interface Kit w/ Manual Reset (7600P-990 for EFT 155 – 399)

Model EFT-399



MODEL	MAX MBH	MIN MBH	AFUE	HEATING CAP. MBH	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q
EFT-399	399	80	93.2*	367	36-3/8"	23-5/8"	13-5/8"	8-1/2"	4-3/4"	2-3/4"	7-3/8"	18-1/8"	18-3/4"	13-5/8"	9-3/4"	8-1/2"	2-3/4"	16-1/2"	19-1/4"	25-1/2"
MODEL	GAS CONNECTION	WATER CONNECTION	AIR INLET	VENT SIZE	PSI RATING	SHIPPING WT. (LBS)														
EFT-399	1"	1-1/2"	4"	4"	80 PSI	298														

ALL DIMENSIONS ARE APPROXIMATE
* THERMAL EFFICIENCY (NOT AFUE)

LP-387-K2
07/12/13



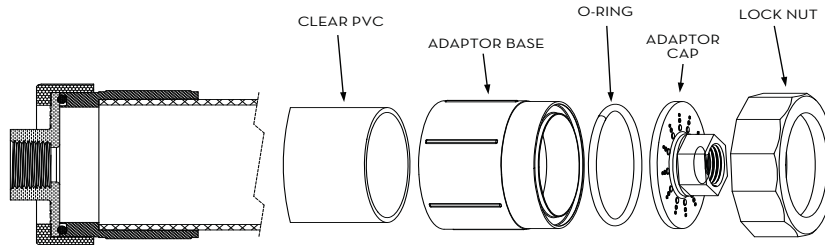
Submittal Data Information

Model CN4-600

Effective: August 1, 2015

Job: Carleton St Sr Housing Engineer: _____ Contractor: _____ Rep: Emerson Swan

Description	Part #	Included
600 MBH Tube Model	CN4-600	(2) 1/2" MNPT x 3/4" PVC Adaptors
600 MBH Recharge Kit	60RCK	(2) Replacement O-rings



THE CARTRIDGE

An effective condensate neutralizer starts with the cartridge—it should be easy to install and allow easy access not just for replacing the media but for periodic visual inspection. Neutra-Safe® condensate neutralizers also incorporate the exclusive, patent pending integrated unions with O-rings. On either end of the cartridge, these lock rings are designed to allow the service technician to easily replace the media without disturbing the drain piping.

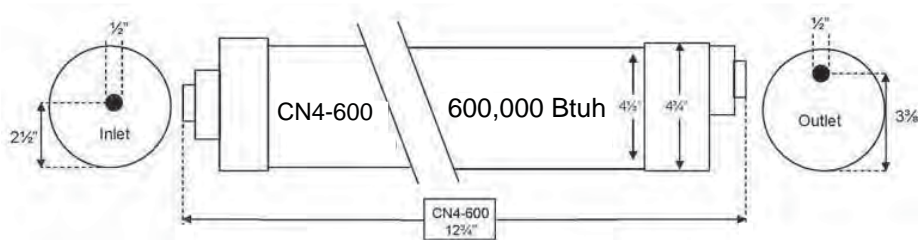


THE MEDIA

Our condensate neutralizers contain clean screened calcite and magnesium oxide. Calcite works by having the acidic aqueous solution come in contact with its surface. It raises the pH by dissolving some of the calcite (calcium carbonate) releasing carbon dioxide and various salts. Some of the salts stay entrained in the aqueous solutions and some may settle to the bottom of the neutralizer. An advantage of calcite is that it is self-limiting and does not over correct causing a high pH condition which is undesirable.



We add granular magnesium oxide (FloMag PWT) to our media for better performance. Calcite and magnesium oxide are used globally in the treatment of potable (drinking) water for raising pH.



All dimensions ± 1/8"



Rockland, MA www.neutrasafe.com