


Submittal

Project: ELON HAWK RIDGE POLO RELIEF ES

View Date: 04/11/2022

Submittal No. / Revision: 235223-1 0 Subcontractor/Supplier: Superior Mechanical Systems (Charlotte)	Description: Cast-iron Boilers - Product Data
Submittal Type: Product Data Spec. Section & Paragraph No.: 235223	Required on site by: Required lead time: Status: Received from Sub
Notes: A. Product Data: Include performance data, dimensioned size, weight, operating characteristics, furnished specialties, and accessories. 1. Wiring Diagrams: Power, signal, and control wiring.	

Superior Mechanical Systems (Charlotte)	Balfour Beatty Construction, LLC Stamp
Submittal No. / Revision: 235223-1 0 Description: Cast-iron Boilers - Product Data Subcontractor certifies that review, approval, verification of products required, field dimensions, adjacent construction work, and coordination of information is in accordance with the requirements of the work and contract documents. Submitted By: Ben Wyke Date:	<p style="color: green;">This submittal has been reviewed for general compliance with the plans and specification. This review and the response indicated below does not relieve subcontractor/ supplier of any contractual responsibilities including the furnishing of all items required by the contract documents and the confirmation of all quantities and dimensions.</p> <p style="color: green;">Submittal No.: 235223-1 0 Description: Cast-iron Boilers - Product Data</p> <p style="color: green;">Reviewed by: Aidan Mulligan Date: 04/11/2022</p>

Little Diversified Architectural Consul (Charlotte) Stamp	Consultant Stamp
A/E Response: Date:	<div style="border: 1px solid red; padding: 10px;"> <p style="text-align: center; margin: 0;">SHOP DRAWING REVIEW</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 60%;"> <p><input type="checkbox"/> NO EXCEPTION TAKEN</p> <p><input checked="" type="checkbox"/> APPROVED AS NOTED</p> <p><input type="checkbox"/> REVISE AND RESUBMIT</p> <p><input type="checkbox"/> REJECTED</p> </div> <div style="width: 30%; text-align: center;">  </div> </div> <p style="color: red; font-weight: bold; margin-top: 5px;">See submittal for comments</p> <p style="font-size: 8px; margin-top: 5px;">REVIEW IS FOR GENERAL COMPLIANCE WITH THE INTENT OF THE CONTRACT DOCUMENTS. MECHANICAL CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR CORRECTNESS, DIMENSIONS, DETAILS, QUANTITIES AND ALL COST ASSOCIATED WITH SUBSTITUTED EQUIPMENT, INCLUDING STRUCTURAL AND ELECTRICAL CHANGES, MAINTENANCE ACCESS, CLEARANCES, BUILDING ALTERATIONS, PIPING, SHEET METAL, REPLACEMENT OF OTHER SYSTEM COMPONENTS, ETC.</p> <p style="font-size: 8px; margin-top: 5px;">BY T Hogue DATE 4/20/2022</p> </div>

Consultant Stamp	



Charlotte Office
Commissioning Group
8801 JM Keynes Drive, Suite 240
Charlotte, North Carolina 28262
Phone 704-376-7072

PROJECT: CMS Elon Park Relief ES
ML PROJECT NO: 221.038
SUBMITTAL: 235223-1-0 Cast Iron Boilers PD

DISPOSITION LEGEND

RO REVIEW ONLY

Commissioning Authority neither approves nor disapproves submittal. Notations, if any, are for Designer use.

Reviewer: Kevin Richey

Date: April 15, 2022

1. Manufacturer's piping detail varies from the drawings. Outlet piping is shown to be connected to a bypass with balance of flow between the HWR and system HWS.
2. Factory authorized service startup required.
3. Warranty required:
 - a. Controls – 2 years
 - b. Heat Exchanger – 10 years

End of Comments



SUBMITTAL DATA	
<input type="checkbox"/> For Record	<input checked="" type="checkbox"/> For Approval

PROJECT: CMS Elon Hawk Polo Ridge Relief
Charlotte, NC

ENGINEER: Optima Engineering
Charlotte, NC

CONTRACTOR: Superior Mechanical Systems, Inc.
Charlotte, NC

PEERLESS HEATER COMPANY	TCII Series	50 PSI water
Cast Iron Sectional		

SECTION 23.52.00

Tag: B-1 & 2

Quantity: 2

Model: TCII-08-W

Gross Output, MBH:	1,985
Boiler HP:	59
Gas Input MBH:	2,403 Nat Gas
Net I=B=R Water MBH :	1,726
ASME Code Design PSI:	50
Operating PSI:	50

Gas input higher than scheduled value.
Coordinate with gas installer.
Net Water MBH slightly lower than scheduled value. OK

BURNER MFG	Webster
Burner Model:	JB2G-07
Blower Motor HP:	3/4
Blower Motor, Voltage:	120 / 1 / 60
Blower Motor, RPM:	3450
Control Voltage:	120 / 1 / 60
Firing Mode:	Full Modulation
Agency Approval:	UL / FM / CSD-1



BOILER

Heavy duty cast iron sectional, forced draft fired, 50 PSI Water boiler having a full wet base design to completely surround the combustion chamber, integral cast legs, individual draw rods and unique flexible seals between each section. Standard boiler sections are built in accordance with ASME requirements for 50 PSI maximum working pressure. Boiler assembly includes forced draft burner, “hammer tone” insulated enamel steel jacket, combustion chamber cover plate, observation ports (front & rear), burner mounting plate, integral cast iron flue collector with rear outlet for easy installation, standard trim and controls, as shown below. **Shipped Knocked Down for field assembly.**

Standard Trim and Controls

- Water backed combustion area
- 50 PSI ASME Code pressure relief valve
- Temperature and Pressure gauge
- Modulation Fire Rate Controller
- Burner mounting plate for Webster burner
- High temperature fiberglass rope between hood and section
- Cleanout plates—heavy gauge
- Refractory in front and rear sections
- Heavy gauge steel jacket
- UL labeled forced draft burner with adjustable combustion air supply
- Spark Ignition, flame Sensor and 100% Shut off
- Bacnet Gateway and ProtoNode
- 10 year workmanship and defect warranty

Verify minimum 2 Year warranty on Boiler Controls provided.

Field Assembled Sections

- Pre and Post Purge
- (4) Indicating Lights (power on, flame fail, Call For Heat, ignition on)
- UL/FM/CSD-1 approved gas train and controls
- Main & Pilot Gas Regulators (14" w.c. max)
- (3) Relays for BAS Communication (Status, Alarm, Start/Stop)
- Alarm Horn with silence switch
- Full modulation firing
- Potentiometer for full range firing
- RM7800 Flame Safety Control
- Probe LWCO with Manual Reset
- Factory Approved Startup

Series TCII™

Large Commercial Boilers



Standard Equipment

- > High Efficiency Power Burners*
- > Burner Mounting Plate with Insulation Block
- > Front and Rear Observation Port
- > Graphite Port Connectors
- > Insulated Enameled Steel Jacket
- > Cast Iron Flue Collector with Integral Damper
- > Manual Reset, Limit Control
- > Tankless Coils—For Domestic Hot Water

*Choice of Beckett, Carlin, Power Flame or Riello

Series TCII™ Boiler Features

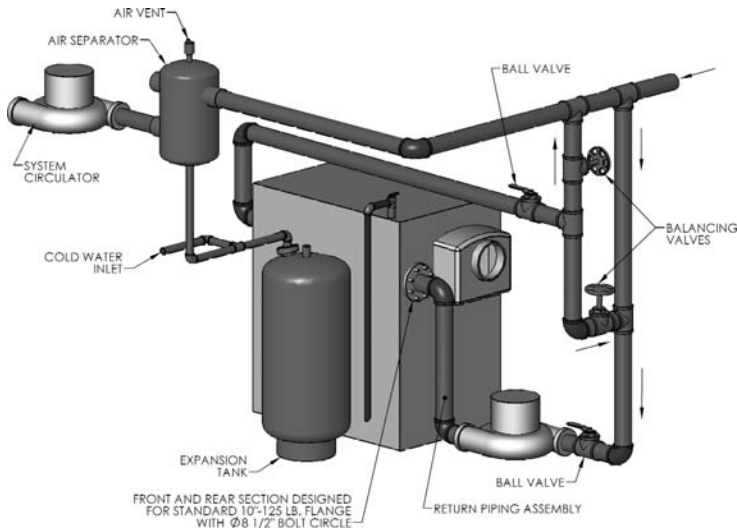
- Redesigned for Higher Efficiencies!
- Equipped with Balanced Return Temperature (Water Boilers)
- Constructed of Rugged, Cast Iron, Wet-Base Sections
- Oil, Gas or Combination Gas/Oil-fired for Hot Water or Steam Systems
- 15 Sizes, 4–18 Sections—Ideal for Large Commercial Applications
- Forced Draft Firing for the Highest Possible Efficiencies

Balanced Return Temperature Technology (For Hot Water Boilers)

- Simplest, Most Effective Method to Reduce or Eliminate Stress Failures in Cast Iron Boilers
- Installation Requires No Additional Controls, Pumps or Piping!
- Easy to Install; Fits into Upper Flow Port
- Completely Self-adjusting and Sized for a Specific TCII™ Boiler Model

All commercial cast iron boilers include a full one-year warranty. A limited, ten-year warranty is provided on the cast iron sections for all commercial hot water and steam boilers. Visit PeerlessBoilers.com for complete details.

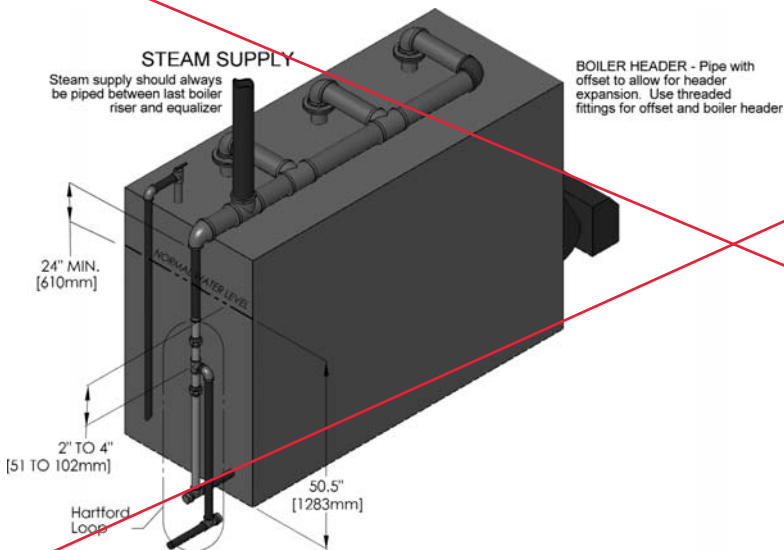
Water Piping



Boiler Piping (Water)

Boiler Model Number	Supply & Return Size
TCII-04 & TCII-05	3"
TCII-06 to TCII-09	4"
TCII-10 to TCII-18	5"

Steam Piping



Boiler Piping (Steam)

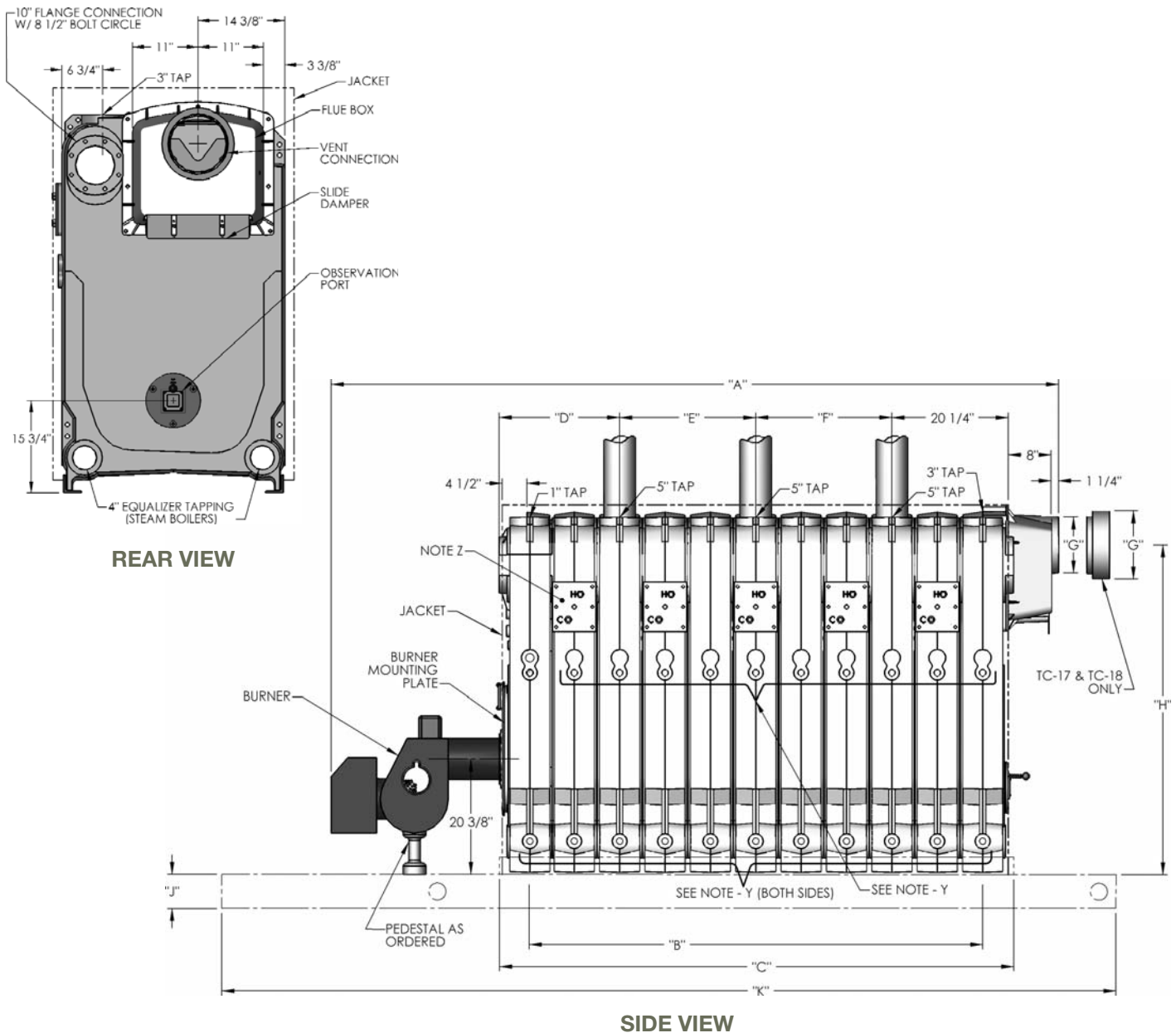
Boiler Model Number	Number of 5" NPT Risers	Header Size (NPT)	Equalizer Size (NPT)
TCII-04 & TCII-05	1	5"	2-1/2"
TCII-06 & TCII-07	2	5"	2-1/2"
TCII-08 to TCII-10	2	6"	4"
TCII-11 to TCII-18	3	8"	4"

Burner Specifications

Boiler Model Number	Burners - Light Oil								Burners - Gas				Burners - Gas/Oil					
	Beckett		Carlin		Power Flame		Riello		Beckett		Power Flame		Riello		Power Flame		Riello	
	Model No.	H.P.	Model No.	H.P.	Model No.	H.P.	Model No.	H.P.	Model No.	H.P.	Model No.	H.P.	Model No.	H.P.	Model No.	H.P.	Model No.	H.P.
TCII-04	CF1400	1/2	702CRD	1/2	C1	1/2	RL28/2	1/2	CG15	1/2	J50A	1/3	RS28	1/2	C1	1/2	RLS28	1/2
TCII-05	CF2300	3/4	702CRD	1/2	C1	1/2	RL38/2	1/2	CG25	3/4	J50A	1/2	RS38	1/2	C1	1/2	RLS38	1/2
TCII-06	CF2300	3/4	801CRD	3/4	C2	1	RL50/2	3/4	CG25	3/4	J50A	1/2	RS50	3/4	C2	1	RLS50	3/4
TCII-07	CF2300	3/4	801CRD	3/4	C2	1	RL50/2	3/4	CG25	3/4	J50A	1/2	RS50	3/4	C2	1	RLS50	3/4
TCII-08	CF2500	3/4	801CRD	3/4	C2	1	RL70/2	1-1/2	CG25	3/4	C2	3/4	RS70	1-1/2	C2	1	RLS70	1-1/2
TCII-09	CF2500	3/4	1050FFD	1	C2	1-1/2	RL70/2	1-1/2	CG50	2	C2	1	RS70	1-1/2	C2	1-1/2	RLS70	1-1/2
TCII-10	CF2500	2	1050FFD	1	C2	1-1/2	RL100/M	2-1/2	CG50	2	C2	1	RS100/M	2-1/2	C2	1-1/2	RLS100	2-1/2
TCII-11	CF3500	2	1150FFD	1-1/2	C3	2	RL100/M	2-1/2	CG50	2	C3	1-1/2	RS100/M	2-1/2	C3	2	RLS100	2-1/2
TCII-12	CF3500	2	1150FFD	1-1/2	C3	2	RL100/M	2-1/2	CG50	2	C3	1-1/2	RS100/M	2-1/2	C3	2	RLS100	2-1/2
TCII-13	CF3500	2	1150FFD	1-1/2	C3	2	RL100/M	2-1/2	CG50	2	C3	1-1/2	RS100/M	2-1/2	C3	2	RLS100	2-1/2
TCII-14	—	—	—	—	C3	2	RL100/M	2-1/2	—	—	C3	1-1/2	RS100/M	2-1/2	C3	2	RLS100	2-1/2
TCII-15	—	—	—	—	C3	3	RL130/M	3	—	—	C3	3	RS130/M	3	C3	3	RLS130	3
TCII-16	—	—	—	—	C3	3	RL130/M	3	—	—	C3	3	RS130/M	3	C3	3	RLS130	3
TCII-17	—	—	—	—	C4	3	RL130/M	3	—	—	C4	3	RS130/M	3	C4	3	RLS130	3
TCII-18	—	—	—	—	C4	5	RL190/M	5-1/2	—	—	C4	3	RS190/M	5	C4	5	—	—

Note: Low-High-Low or Modulation Firing consult the factory.

Your representative should be consulted before selecting boilers for installation having unusual piping and pick-up requirements, such as intermittent system operation, extensive piping systems, etc. For forced hot water heating systems where the boiler and all the piping are within the area to be heated, the boiler may be selected on the basis of its Gross Output.



Note Y: 1-1/2" Inspection tappings when ordered.
 Note Z: Tankless heater sections when ordered.

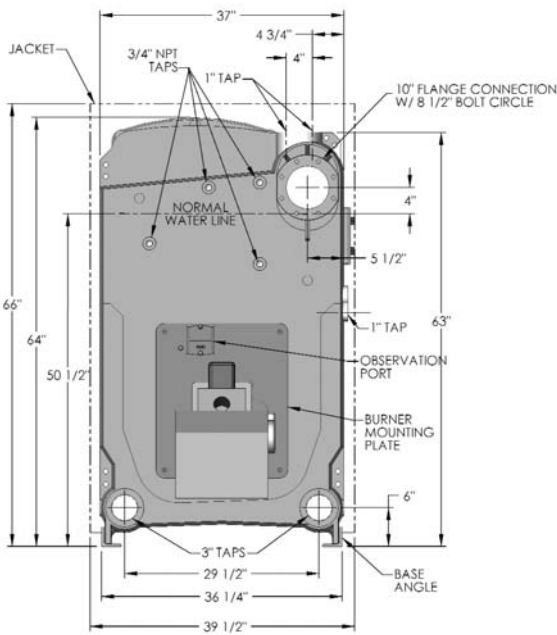
Boiler Dimensions

Boiler Model Number	Overall Length - "A" ¹ (inch)			Optional Packaged Base Dimension "K" (inch)	Firebox Length "B" (inch)	Boiler Length "C" (inch)	Riser Tapping Locations			Dia. Vent Conn. "G" (inch)	Height Vent Conn. "H" (inch)	Base Height "J" (inch)
	Beckett	Carlin	Power Flame				"D" (inch)	"E" (inch)	"F" (inch)			
TCII-04	64-1/4	62-1/4	71-3/4	91-1/4	23-5/16	33	12.5	—	—	10	57.625	6
TCII-05	72-1/4	70-1/4	83-1/4	104-1/4	31-5/16	41	20.5	—	—	10	57.625	6
TCII-06	80-1/4	80-1/4	91-1/4	112-1/4	39-5/16	49	12.5	16	—	10	57.625	6
TCII-07	88-3/4	88-1/4	99-1/4	120-1/2	47-5/16	57	12.5	24	—	12	56.625	6
TCII-08	96-3/4	96-1/4	107-1/4	128-1/2	55-5/16	65	12.5	32	—	12	56.625	6
TCII-09	104-3/4	108-3/4	115-1/4	136-1/2	63-5/16	73	12.5	40	—	14	55.625	6
TCII-10	116-1/2	116-3/4	128-1/4	144-3/4	71-5/16	81	20.5	40	—	14	55.625	6
TCII-11	124-1/2	125-1/4	137-1/4	157-3/4	79-5/16	89	20.5	24	24	14	55.625	6
TCII-12	132-1/2	133-1/4	145-1/4	166-1/4	87-5/16	97	20.5	24	32	14	55.625	6
TCII-13	N/A	141-1/4	153-1/4	173-3/4	95-5/16	105	20.5	32	32	14	55.625	6
TCII-14	N/A	149-1/4	161-1/4	181-3/4	103-5/16	113	20.5	32	40	16	54.625	6
TCII-15	N/A	N/A	169-1/4	189-7/8	111-5/16	121	20.5	40	40	16	54.625	8
TCII-16	N/A	N/A	177-1/4	198-1/4	119-5/16	129	20.5	48	40	16	54.625	8
TCII-17	N/A	N/A	191-1/4	211-1/4	127-5/16	137	20.5	48	48	18	54.625	8
TCII-18	N/A	N/A	199-1/4	219-1/4	135-5/16	145	20.5	56	48	18	54.625	8

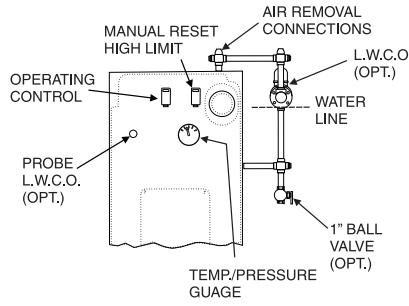
¹ Add 2 3/4" (70 mm) to TCII-17 & TCII-18 for flue outlet adapter.



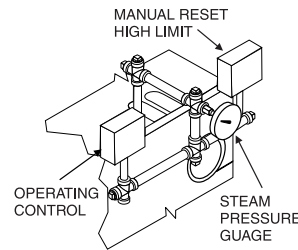
Technical Information



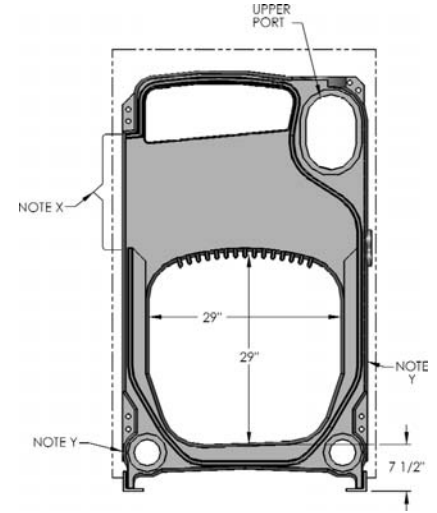
**FRONT VIEW
(Steam Boiler)**



**CONTROL LOCATIONS
(Water Boiler)**



**CONTROL LOCATIONS
(Steam Boiler)**



INTERMEDIATE SECTION

Note X: Flue cleanout opening. Allow 36" clear work space for using flue brush.

Note Y: 1-1/2" inspection tapings when ordered.

Boiler Ratings

Series TCII™



Boiler Model Number	Oil Input ¹		Gas Input ² , MBH	Gross Output MBH	NET ⁴			Oil		Gas		Boiler H.P.	Water Content, gal		Furnace Volume, cuft	Water Working Weight, lbs.	Heating Surface, sqft
	GPH	MBH			Steam sqft	Water, MBH	Combustion Efficiency ⁴ , %	Thermal Efficiency ⁴ , %	Combustion Efficiency ⁴ , %	Thermal Efficiency ⁴ , %	Water		Steam				
TCII-04	7.9	1,106	1,143	931	2,908	698	810	86.2	83.9	83.6	81.4	28	123.4	103.8	12.04	4,215	81.2
TCII-05	10.2	1,428	1,458	1,194	3,733	896	1,038	86.2	84.4	83.6	81.9	36	150.3	125.8	16.14	5,038	105.3
TCII-06	12.2	1,708	1,773	1,458	4,625	1,110	1,268	86.1	84.8	83.5	82.2	44	177.2	147.8	20.24	5,861	129.4
TCII-07	14.4	2,016	2,088	1,722	5,542	1,330	1,497	86.1	85.0	83.5	82.5	51	204.1	169.8	24.34	6,684	153.5
TCII-08	16.6	2,324	2,403	1,985	6,421	1,541	1,726	86.1	85.2	83.5	82.6	59	231.0	191.8	28.44	7,507	177.6
TCII-09	18.8	2,632	2,718	2,249	7,275	1,745	1,956	86.1	85.3	83.5	82.7	67	257.9	213.8	32.54	8,331	201.7
TCII-10	21.0	2,940	3,033	2,513	8,129	1,951	2,185	86.1	85.4	83.5	82.8	75	284.8	235.8	36.64	9,169	225.8
TCII-11	23.0	3,220	3,348	2,776	8,979	2,155	2,414	86.0	85.5	83.5	82.9	83	311.7	257.8	40.74	9,992	249.9
TCII-12	25.5	3,570	3,663	3,040	9,833	2,360	2,643	86.0	85.6	83.5	83.0	91	338.6	279.8	44.84	10,815	274.0
TCII-13	27.5	3,850	3,978	3,304	10,688	2,565	2,873	86.0	85.6	83.5	83.0	99	365.5	301.8	48.94	11,649	289.1
TCII-14	29.5	4,130	4,293	3,567	11,538	2,769	3,102	86.0	85.7	83.5	83.1	107	392.4	323.8	53.04	12,467	322.2
TCII-15	32.0	4,480	4,608	3,831	12,392	2,974	3,331	86.0	85.7	83.4	83.1	114	419.3	345.8	57.14	13,511	346.3
TCII-16	34.0	4,760	4,923	4,095	13,246	3,179	3,561	86.0	85.7	83.4	83.2	122	446.2	367.8	61.24	14,375	370.4
TCII-17	36.5	5,110	5,238	4,358	14,100	3,384	3,790	86.0	85.8	83.4	83.2	130	473.1	389.8	65.34	15,239	394.5
TCII-18	38.5	5,390	5,553	4,622	14,954	3,589	4,019	86.0	85.8	83.4	83.2	138	500.0	411.8	69.44	16,103	418.6

Note: Consult factory before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

- 1 Light oil having a heat content of 140,000 BTU/Gal.
- 2 Gas having a heat content of 1,000 BTU/Cu. Ft., 0.60 specific gravity.
- 3 Combustion and thermal efficiency determined in accordance with BTS 2000 Testing Standard for Heating Boilers.
- 4 Net water ratings are based on an allowance of 1.15. Net steam ratings are based on piping and pick-up factors as follows: 4-5 section = 1.333; 6-7 sections = 1.305; 8-18 sections = 1.288.



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CUT-TCII R1 (9/12-3M)

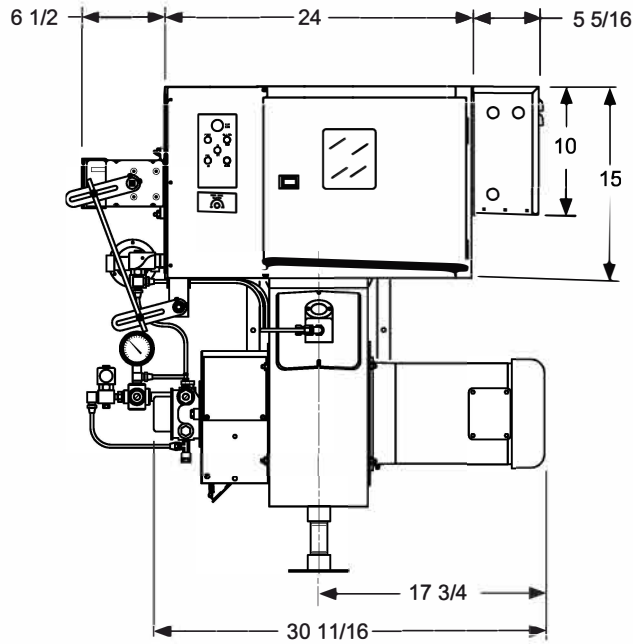
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Fuels Burned and Control Systems

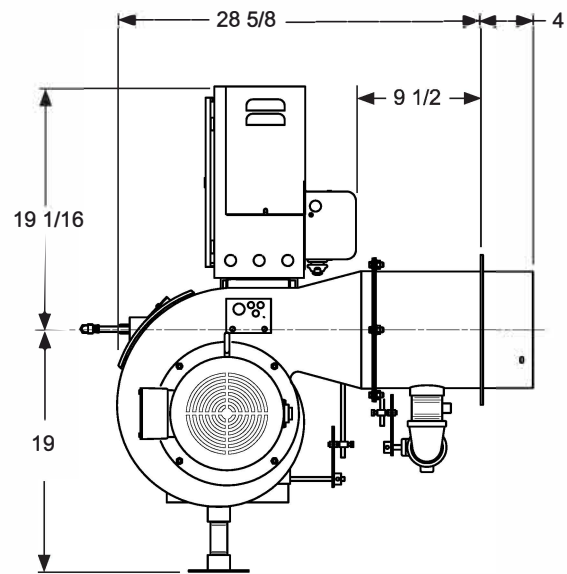
- Natural Gas, Propane, Digester or Mixed Gases
- Light #2 through Heavy #6 Fuel Oil
- Low Fire Start, Low-High-Low, Modulating or Micro Modulation
- Control Circuit Requires 120 vac, 60 Hz, Single Phase Voltage Supply

Check appropriate box to indicate selected version. (Dimensions are +/- 1/4inch)

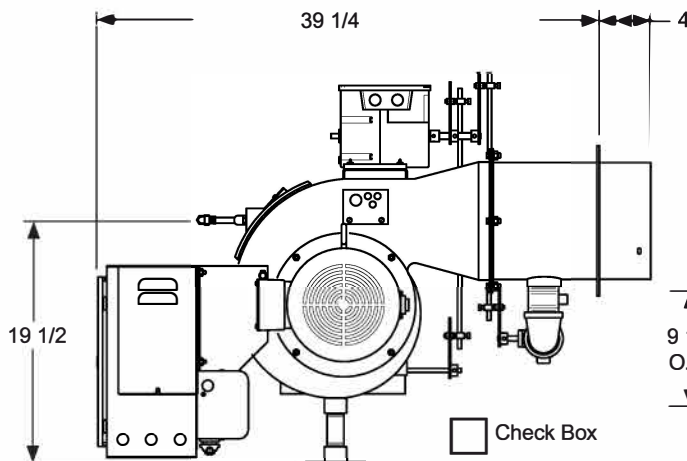


**Standard Arrangement
End View**

Check Box

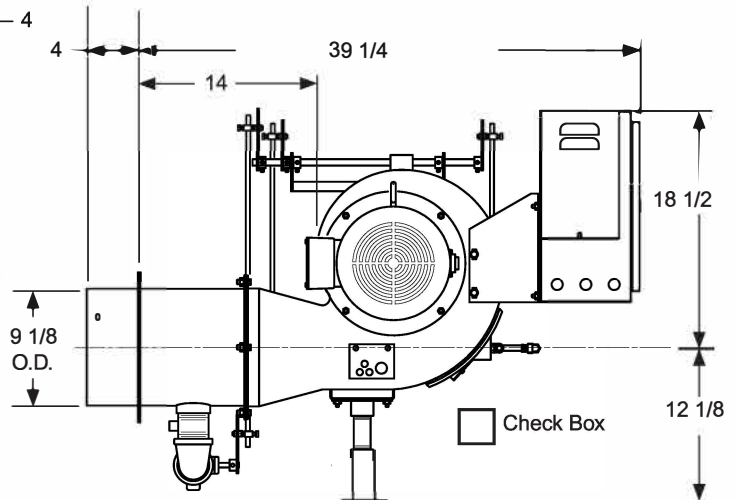


**Standard Arrangement
Elevation
Side View**



**Standard Burner Arrangement
Elevation
W/ Optional Back Mount Control Cabinet
Side View**

Check Box



**Inverted Burner Arrangement
Elevation
Side View**

Check Box

Model JB2 burners are listed by Underwriters Laboratories, Inc. (UL / ULC). Also by the State of Massachusetts Fire Marshal, City of New York Board of Standards and Appeals, State of Minnesota and can be packaged to meet specific requirements of IRI, FM, GE GAP, NFPA, MIL spec. or other special insurance or local code requirements.

(1) STANDARD UL EQUIPMENT AND IMPORTANT OPTIONS		Gas	No. 2 Oil		STANDARD UL EQUIPMENT AND IMPORTANT OPTIONS		Gas	No. 2 Oil	
			Pressure Atomized	Air Atomized				Pressure Atomized	Air Atomized
General	Motor, Fan and Air Inlet Control	X	X	X	Gas Fuel	Main Manual Shutoff Valve	X		
	Air Flow Switch	X	X	X		Main Safety Shutoff Valve	X		
	(2) Burner Mounted Control Panel, Switch and Indicator Lights	X	X	X		Second Safety Shutoff Valve	X		
	Flame Safety Control	X	X	X		Main Gas Regulator	X		
	Ultra Violet Scanner	X	X	X		Gas Checking Valve	X		
	Motor Controller (single phase voltage)	X	X	X		High and Low Gas Pressure Switches	X		
	Motor Starter w/Overloads (3 PH volt)	X	X	X		Metering Valve (modulating systems)	X		
	Fuel Selector Switch	Duel Fuel Burners Only				Normally Open Vent Valve	Opt.		
Ignition	Proven Gas Pilot Ignition	X		X	Oil Fuel	Oil Drawer Assembly with Diffuser		X	X
	(1) JB2-30 and JB2-50	X	X	X		Oil Nozzles		X	X
	Pilot Solenoid Gas Valve	X		X		Integral Oil Pump (JB2-07 to JB2-20)		X	
	Pilot Gas Regulator & Manual Valve	X		X		Remote Oil Pump (JB2-30 to JB2-50)		X	Opt.
	Pilot Gas Ignition Transformer	X		X		Two Safety Shutoff Valves		X	X
	Direct Spark Oil Ignition		(3)			Low Air Atomizing Switch			X
	Direct Spark Oil Ignition Transformer		(3)			Low Oil Pressure Switch (STD when using remote oil pump)		X	X
Options	Inverted Housing	X	X	X		Oil Pressure Gauge		X	X
	Alternate Control Cabinet Positioning	X	X	X		Oil Metering Valve (modulating system)		X	X
	Remote Control Panel	X	X	X		Future Gas Combustion Head		Opt.	Opt.
	Fuel Metering CAM-NETIC II	X	X	X		Air Compressor			X

- The configuration of each unit will vary with specific job requirements such as input rating, electrical specification and special agency approval codes. The above chart shows those items standard to a basic burner plus a few options that may be added.
- Indicator lights are "Power On", "Call for Heat", "Fuel On" and "Flame Fail" for hard wired panels. "Alarm", "Low Water", "Power", "Call for Heat", "Ignition On", and "Fuel On" for circuit board light panels.
- Maximum rate for direct spark is 20 GPH at low fire or 35 GPH at high fire. (standard on straight oil burners, pressure atomized)

Model JB2 - Sizing and Application Data (contact Webster for complete information)

Model Number	Maximum Furnace Pressure	Burner Firing Capability Range		Burner Motor HP	Gas Train			Oil Pump Motor HP		Air Compressor Motor HP
		Gas scfh	#2 Oil gph		Pipe Size	(3) Inlet Press (in wc)		Pressure Atomizing	Air Atomizing	
						LFS, LHL	Modulation			
JB2-07	2	900 / 2800	10 / 20	3/4	1 1/2"	10 / 14"	13"	Integral	N/A	N/A
JB2-10	2	900 / 3500	10 / 25	1	2"	8 / 14"	9 / 14"	Integral	Optional	2
JB2-15	2	900 / 3500	10 / 25	1 1/2	2"	8 / 14"	9 / 14"	Integral	Optional	2
JB2-20	2	1200 / 4200	12 / 30	2	2"	(4) 12 / 14"	(3) 13 / 14"	Integral	Optional	2
JB2-30	2.5	1200 / 5300	12 / 37.8	3	2 1/2"	N/A	13 / 14"	3/4	Optional	2
JB2-50	2.5	1200 / 6000	12 / 42.8	5	2 1/2"	N/A	2-5 psi	3/4	Optional	2

- Lower pressures may apply to reduced inputs.
 - 11-14" with IRI and LFS or LHL. 12-14" with IRI and modulation.
- The above maximum ratings are based on 0 furnace pressure, an altitude of 1000 feet, 90°F air temperature and 60 HZ electrical supply. Use the following corrections for higher temperatures and altitude. Capacity decreases by 17% for 50 Hertz.
- Capacity decreases by 4% for each 1000 feet above 1000 foot altitude.
 - Capacity decreases by 6% for each 1 inch of furnace pressure.
 - Capacity decreases by 2% for each 10°F increase in air temperature over 90°F.
- Gas input ratings based on 1000 BTU/cu ft. and 0.64 specific gravity. Sizes and pressure will vary with different gas properties.
 Oil input ratings are based on 140,000 BTU/gal. for ASTM #2 fuel oil.
 The vessel draft must be between -0.1 and +0.1 wc.

Essential Ordering Information and Data:

Power Supply - Confirm 120-60-1 for control circuit and electrical supply for burner motor(s) (voltage, frequency and phase).
 Describe Boiler or Heater to be Fired - Including the manufacturer, model number, furnace pressure and furnace size.
 Firing Rate - Define firing rates in MBH for gas and GPH for oil.
 Fuel to be Burned - Type of gas and/or oil, including the BTU value.
 Approval Agency - UL, FM, IRI (GE GAP), CSD-1, NFPA, Mil spec and local codes, if applicable.
 Flame Safety Control Preferred - Honeywell or Fireye controls. Gas Train Components Preferred - ASCO/ITT, Honeywell or Landis
 Control System - ON-OFF, Low Fire Start, Low High Low, Modulation, Posi-Control. Required Options - Mounting plate, limit controls, etc.