

# 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

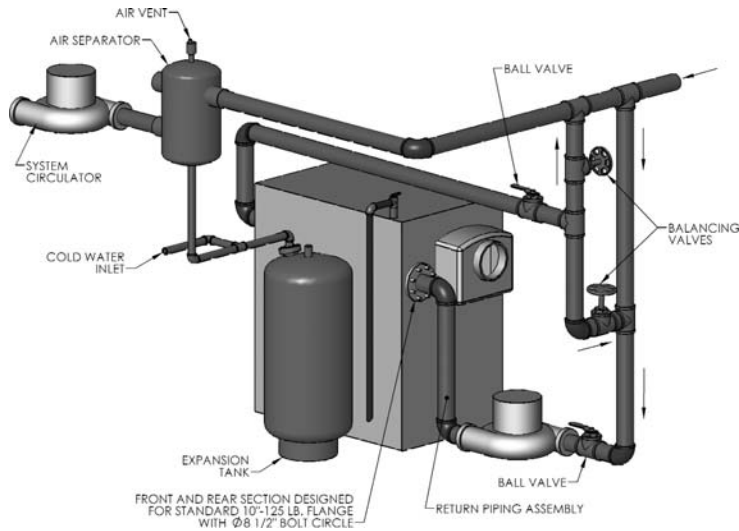
- Redesigned for Higher Efficiencies!
- Equipped with Balanced Return Temperature (Water Boilers)
- Constructed of Rugged, Cast Iron, Wet-Base Sections
- Oil, Gas or Combination Gas/Oil-fired for Hot Water or Steam Systems
- 15 Sizes, 4–18 Sections—Ideal for Large Commercial Applications
- Forced Draft 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](http://PeerlessBoilers.com) for complete details.**

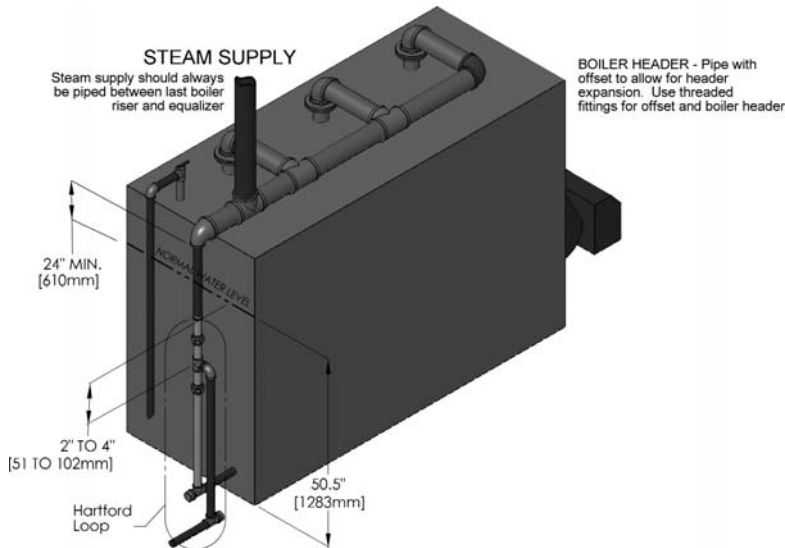
## Water Piping



## 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)

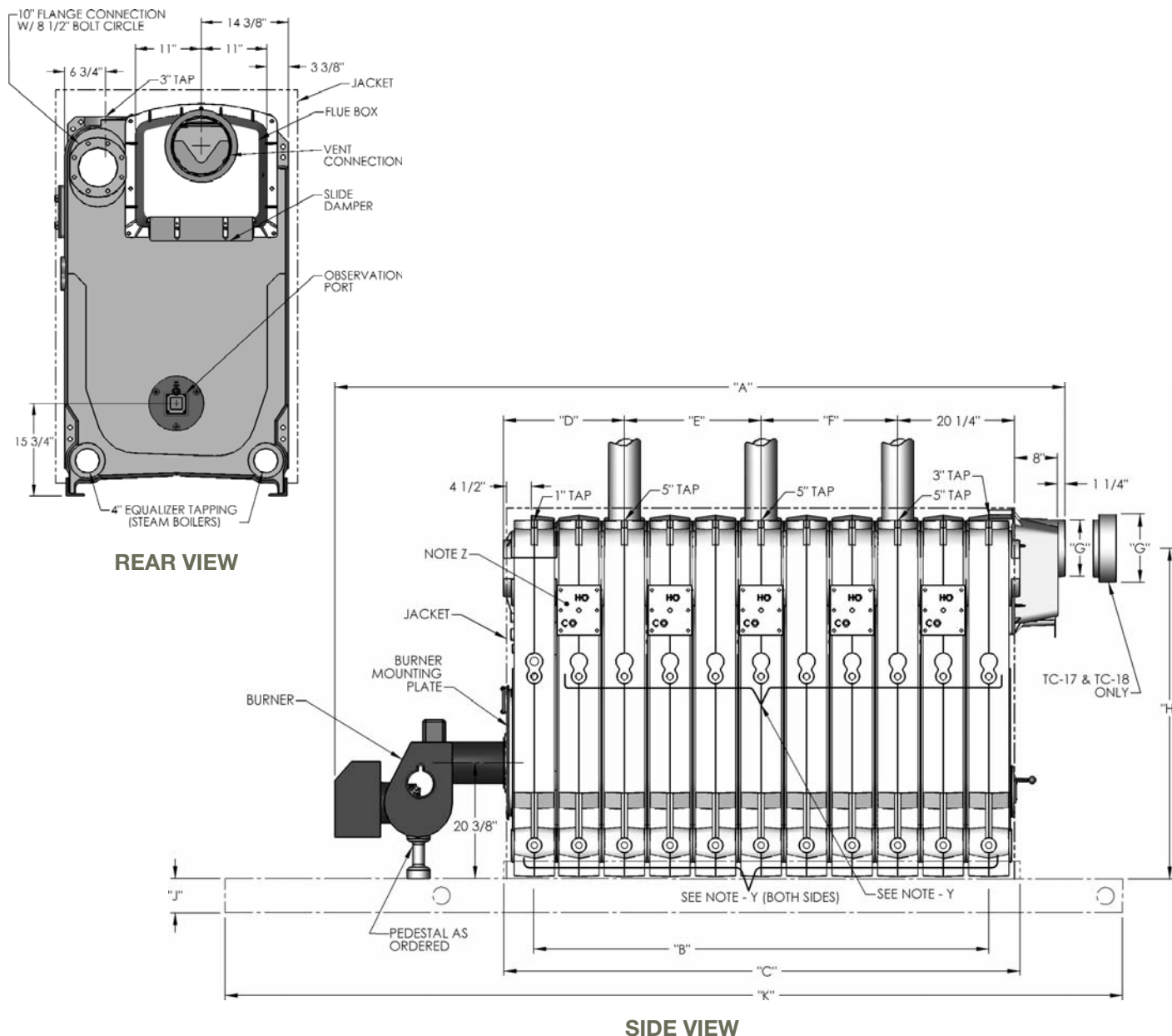
Boiler Model Number	Number of 5" NPT Risers	Header Size (NPT)	Equalizer Size (NPT)
TCII-04 & TCII-05	1	5"	2-1/2"
TCII-06 & TCII-07	2	5"	2-1/2"
TCII-08 to TCII-10	2	6"	4"
TCII-11 to TCII-18	3	8"	4"

## 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.

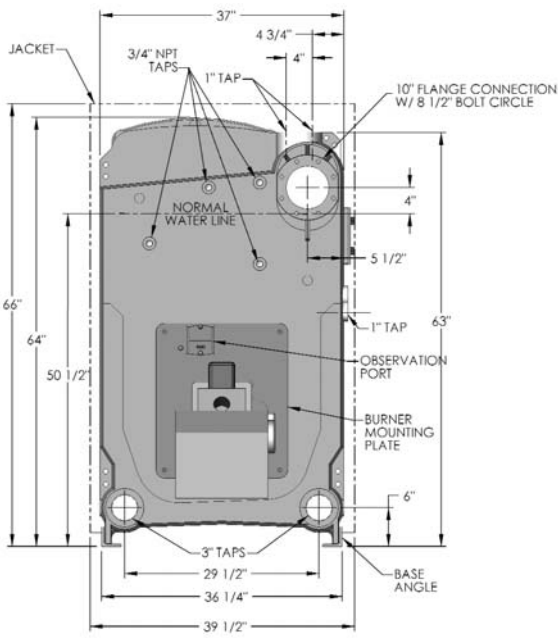
### Boiler Dimensions

Boiler Model Number	Overall Length – "A" <sup>1</sup> (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

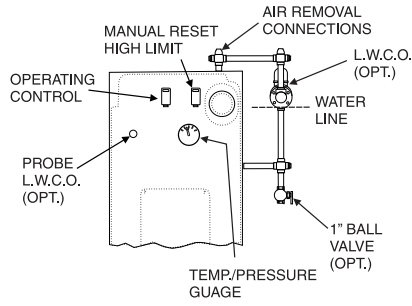
1 Add 2 3/4" (70 mm) to TCII-17 & TCII-18 for flue outlet adapter.



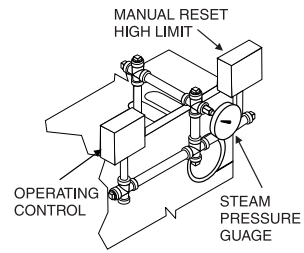
# Technical Information



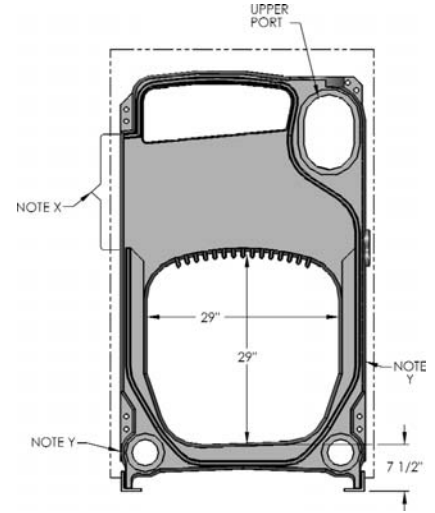
**FRONT VIEW  
(Steam Boiler)**



**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 <sup>1</sup>		Gas Input <sup>2</sup> , MBH	Gross Output MBH	NET <sup>4</sup>			Oil		Gas		Boiler H.P.	Water Content, gal		Furnace Volume, cuft	Water Working Weight, lbs.	Heating Surface, sqft
	GPH	MBH			Steam	Water, MBH	Combustion Efficiency <sup>4</sup> , %	Thermal Efficiency <sup>4</sup> , %	Combustion Efficiency <sup>4</sup> , %	Thermal Efficiency <sup>4</sup> , %	Water		Steam				
	sqft	MBH	MBH														
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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