



125 PSI Hot Water Boilers Atmospheric / Natural Gas Fired

PRODUCT DESCRIPTION

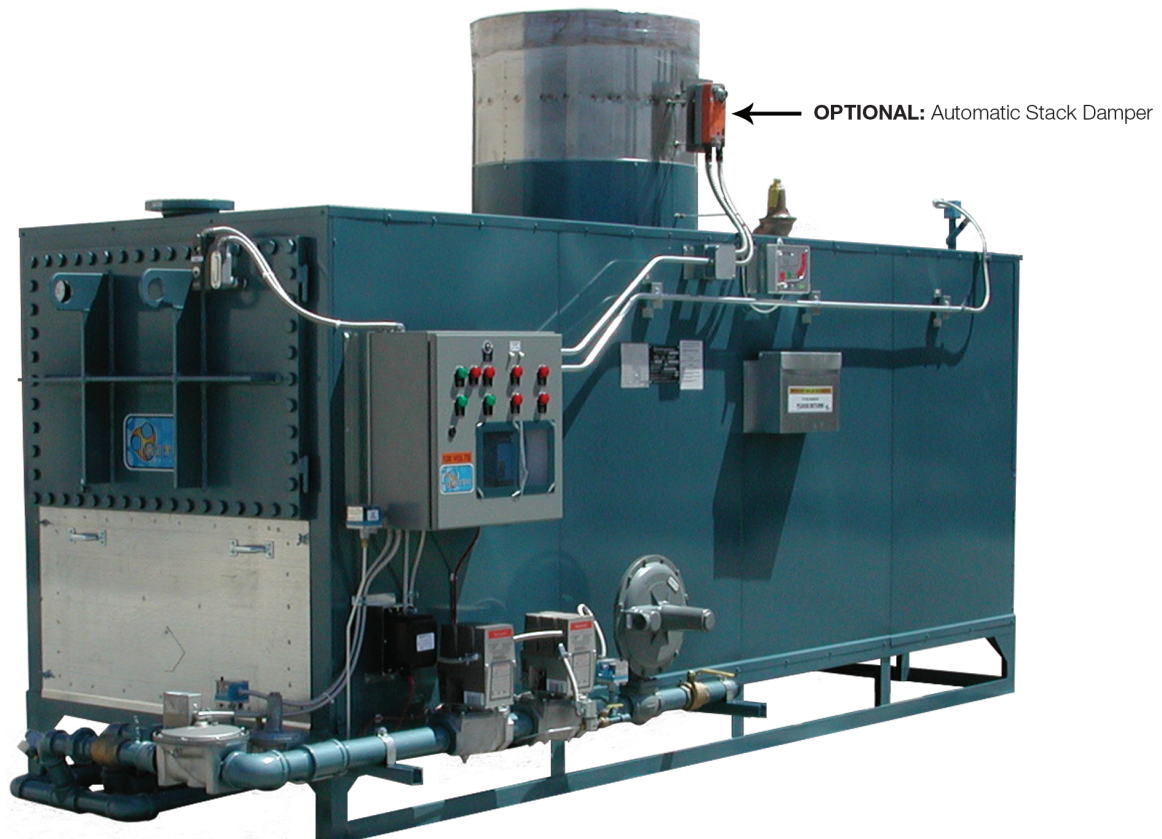
Rite Atmospheric Natural Gas Fired Watertube Boilers are found at the heart of better engineered closed-loop heating systems all over North America. From conventional space heating systems to heat pumps to industrial process loads, Rite offers 47 basic models, ranging from 480 to 12,499 MBH Input (11 – 300 Boiler Horsepower). These heavy duty, long lasting boilers have been providing heat to schools, churches, commercial buildings, metal finishers and silicone chip makers (to name a few) – **Safely and reliably for nearly fifty years.**

So simple to maintain and operate, Rite Boilers feature **complete waterside access** so that virtually all scale and mud deposits can be seen and mechanically cleaned during a single scheduled maintenance shutdown. The result – **Better fuel efficiency and lower operating cost over the life of your boiler investment.** Consider a few of our other standard features: Floating heads that eliminate pressure vessel cracks and broken welds caused by thermal stress cycling (backed by **Rite's 25 year Thermal Shock Warranty**), Single Stacks on models to 7,500,000 BTUH input, Top supply and return water connections, Rugged Heat Exchangers with minimal pressure drop at normal flow rates can also handle the boiler firing under no flow conditions, Rite's bolted/gasketed headplates that eliminate any possibility of hydraulic explosion in the event that safety devices fail – and you have a better boiler by design.

RITE ATMOSPHERIC BURNER FEATURES

Rite Atmospheric Boilers are an excellent choice when: Low NOx emissions are not required, natural gas will be the only fuel used, the installation is indoors (See our line of weatherproof models for outdoor applications), and when lower combustion efficiencies at less than full firing rate are acceptable.

Atmospheric burners are far less expensive than power burners, so when the above criteria is met, then Atmospherics are a strong economical alternative to Rite's outstanding line of power burner fired water boilers. Other factors favoring Atmospherics are: Extremely low electrical power consumption (no energy hogging fan motors), Rapid start-up on demand (No pre-purge blower fan), Lighter weight, Lower height, and Whisper-quiet burner operation.





125 PSI Water Heating Boilers / Atmospheric Models & Ratings / Natural Gas Fired

STACK / DRAFT REQUIREMENTS

- UL listed for use with Type B Vent.
- Minimum stack height including Draft Control is 10 feet.
- The stack should be supported independently of the boiler and an adjustable length section of stack should be installed after the draft control to allow for future separation. All Rite Boilers have internal stack supports to handle the weight of the stack during installation.
- Boilers with barometric damper draft control should draft between -.05" to -.09" W.C. when firing. Boilers with draft diverters will draft between -.02" to -.04" W.C.
- A draft gauge is installed on all boilers equipped with barometric dampers to help set and maintain the draft.

AIR REQUIREMENTS

Adequate Combustion/Ventilation Air is vital for safe, efficient operation. Refer to the latest edition of the Uniform Mechanical Code or consult your local Building and Safety Department for specific requirements.

Warning: Do not install in a room that will develop negative pressure without utilizing a properly sized induced draft fan.

ELECTRICAL REQUIREMENTS

- A Single Point 120/60/1 8 amp supply to the electrical panel.

NATURAL GAS SUPPLY REQUIREMENTS

(STATIC AND AT FLOW)

- Models 48 W * - 76 W * 6" w.c. min. to 14" w.c. max.
- Models 85 W * - 400 W * 7" w.c. min. to 14" w.c. max.
- Models 425 W * - 750 W * 15" w.c. min. to 28" w.c. max.
- Models 840 W * - 1250 W * 20" w.c. min. to 28" w.c. max.
- For other gas pressures, consult factory or your Rite Representative.
*Propane Supply Requirements: 11" w.c. min. to 14" w.c.

WATER TEMPERATURES & PRESSURE DROPS

- Minimum return water temperature is 135° F (after start-up). Lower temperature return factory options available.
- Maximum practical supply water temperature is 235° F. Higher temperature/pressure Rite Boilers available.
- Pressure drop for all models is less than 3 feet of total head.

ELEVATION DERATION

Ratings given below are for elevations up to 2000 feet. Above 2000 feet, ratings should be reduced at the rate of 4% for every 1000 feet above sea level.

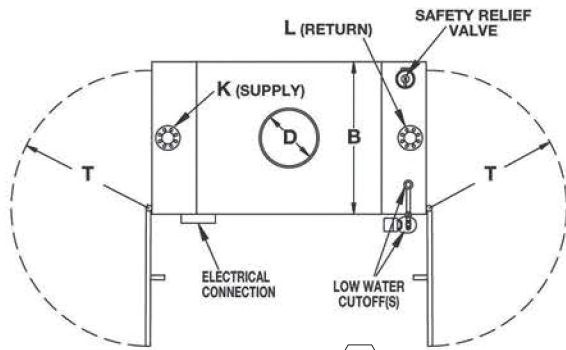
B.T.U. FORMULA

- BTU Output @ 0-2000' elevation = 60 x 8.3 x T x G.P.M.

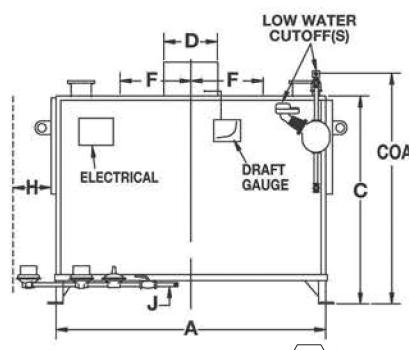
BOILER MODEL	Input MBH	Nominal Output		E.D.R.	Heating Surface Sq. Ft.	Water Content Gallons	G.P.M. 20° F Rise	G.P.H. 100° F Rise	Nominal Shipping Weight (lbs)
		MBH	Boiler Horsepower						
48 W	480	384	11	2400	49	21	38	465	1080
55 W	550	440	13	2750	56	23	44	535	1285
63 W	630	506	15	3162	63	24	51	615	1390
76 W	760	608	18	3800	75	27	61	740	1530
A90 W	900	720	21	4500	89	31	72	875	1700
85 W	850	680	20	4250	88	40	69	830	1735
90 W	900	720	21	4500	88	40	72	875	1735
105 W	1050	840	25	5250	101	43	84	1015	1865
120 W	1200	960	28	6000	115	47	97	1165	2000
135 W	1350	1080	32	6750	131	50	110	1315	2140
150 W	1500	1200	35	7500	145	54	120	1460	2265
165 W	1650	1320	39	8250	159	57	135	1600	2400
180 W	1800	1440	43	9000	174	61	145	1750	2510
200 W	2000	1600	47	10000	192	66	160	1950	2700
A150 W	1500	1200	35	7500	160	71	120	1460	2430
A165 W	1650	1320	39	8250	168	75	135	1600	2550
A180 W	1800	1440	43	9000	190	79	145	1750	2735
A200 W	2000	1600	47	10000	205	83	160	1950	2960
225 W	2250	1800	53	11250	230	89	180	2190	3160
250 W	2500	2000	59	12500	252	94	200	2430	3365
275 W	2750	2200	65	13750	273	100	220	2670	3590
300 W	3000	2400	71	15000	295	105	240	2920	3815
325 W	3250	2600	77	16250	318	111	265	3160	4040
350 W	3500	2800	83	17500	340	116	285	3400	4265
375 W	3750	3000	89	18750	362	122	305	3650	4490
400 W	4000	3200	95	20000	383	127	325	3900	4715
425 W	4250	3400	101	21250	405	133	345	4140	4940
450 W	4500	3600	107	22500	428	139	365	4380	5160
475 W	4750	3800	113	23750	450	145	385	4630	5385
500 W	5000	4000	119	25000	473	151	405	4870	5610
550 W	5500	4400	131	27500	526	190	445	5370	6120
600 W	6000	4800	143	30000	574	213	485	5850	6630
A650 W	6500	5200	155	32500	622	240	520	6250	7040
A700 W	7000	5600	167	35000	670	255	560	6720	7550
A750 W	7500	6000	180	37500	722	270	600	7200	8060
A400 W	4000	3200	95	20000	390	160	325	3900	4900
A450 W	4500	3600	107	22500	440	180	365	4380	5360
A500 W	5000	4000	119	25000	486	195	405	4870	5815
A550 W	5500	4400	131	27500	535	215	445	5370	6275
A600 W	6000	4800	143	30000	584	235	485	5850	6760
650 W	6500	5200	155	32500	632	250	520	6250	7245
700 W	7000	5600	167	35000	680	275	560	6720	7750
750 W	7500	6000	180	37500	730	290	600	7200	8240
840 W	8400	6700	200	41875	800	320	650	7800	8670
940 W	9400	7500	225	46875	900	345	770	9270	9280
1050 W	10500	8400	250	52500	1000	370	810	9740	9945
1150 W	11500	9200	275	57500	1100	395	925	11000	10500
1250 W	12499	9999	300	62494	1200	420	1005	12100	11220



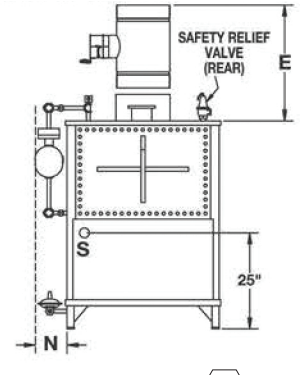
125 PSI Water Heating Boilers / Atmospheric Models & Dimensions / Natural Gas Fired



TOP VIEW ④



RIGHT SIDE VIEW ④



REAR VIEW ④

- DIMENSIONS ARE IN INCHES - SUBJECT TO PRODUCTION TOLERANCES AND CHANGE WITHOUT NOTICE. CERTIFIED DIMENSIONS AVAILABLE UPON REQUEST.
- BOILERS APPROVED FOR INSTALLATION ON NON-COMBUSTIBLE FLOORS ONLY.

- ① Draft Diverters are supplied standard on Models 48W-120W only. Barometric Dampers will be shipped one size smaller than **D** dimension for stacks up to 25 feet of vertical height (as shown below in column **E**), full size (same as **D** dimension) for stacks 25 to 50 feet tall and one size larger for stacks over 50 feet tall. Barometric Damper Tee by others.
- ② May vary - sizes shown are for UL gas trains at standard supply pressures. Gas connections are male NPT pipe thread. All other threaded connections are female NPT except where noted.
- ③ Flanges are ANSI 150 lb SA-105 flat face.
- ④ Standard right hand construction shown illustrated above. Left hand construction available at no extra charge.

BOILER MODEL	A	B	C	COA	D	E ①	F	H	J ②	K ③	L	N	S	T
	Length Jacket	Width Jacket	Height Flush	Height Overall	Stack Dia.	Draft Control (Space Req'd.)	Twin Stacks	Tube Maint.	Gas Conn.	Water Supply	Water Return	Side Space	Drain	Head Swing
48 W	40	26	48	57	9	9 D.D. (33)	-	40	3/4	2 MNPT	2 MNPT	10	1	20
55 W	45	26	48	57	10	10 D.D. (34)	-	45	1	2 MNPT	2 MNPT	10	1	20
63 W	50	26	48	57	10	10 D.D. (34)	-	50	1	2 MNPT	2 MNPT	10	1	20
76 W	58	26	48	57	12	12 D.D. (36)	-	58	1	2 MNPT	2 MNPT	10	1	20
A90 W	68	26	48	57	12	12 D.D. (36)	-	68	1	2 MNPT	2 MNPT	10	1	20
85 W	46	32	52	61	12	12 D.D. (36)	-	46	1	3 FL	3 FL	12	1 1/4	26
90 W	46	32	52	61	12	12 D.D. (36)	-	46	1	3 FL	3 FL	12	1 1/4	26
105 W	52	32	52	61	14	14 D.D. (38)	-	52	1	3 FL	3 FL	12	1 1/4	26
120 W	58	32	52	61	14	14 D.D. (38)	-	58	1 1/4	3 FL	3 FL	12	1 1/4	26
135 W	64	32	52	61	14	12 BARO	-	64	1 1/4	3 FL	3 FL	12	1 1/4	26
150 W	70	32	52	61	14	12 BARO	-	70	1 1/4	3 FL	3 FL	12	1 1/4	26
165 W	76	32	52	61	14	12 BARO	-	76	1 1/4	3 FL	3 FL	12	1 1/4	26
180 W	82	32	52	61	16	14 BARO	-	82	1 1/4	3 FL	3 FL	12	1 1/4	26
200 W	90	32	52	61	16	14 BARO	-	90	1 1/2	3 FL	3 FL	12	1 1/4	26
A150 W	55	42	57	66	14	12 BARO	-	55	1 1/4	4 FL	4 FL	14	1 1/2	34
A165 W	59	42	57	66	14	12 BARO	-	59	1 1/4	4 FL	4 FL	14	1 1/2	34
A180 W	65	42	57	66	16	14 BARO	-	65	1 1/2	4 FL	4 FL	14	1 1/2	34
A200 W	69	42	57	66	16	14 BARO	-	69	1 1/2	4 FL	4 FL	14	1 1/2	34
225 W	73	42	57	66	18	16 BARO	-	73	1 1/2	4 FL	4 FL	16	1 1/2	34
250 W	79	42	57	66	18	16 BARO	-	79	2	4 FL	4 FL	16	1 1/2	34
275 W	85	42	57	66	18	16 BARO	-	85	2	4 FL	4 FL	16	1 1/2	34
300 W	91	42	57	66	20	18 BARO	-	91	2	4 FL	4 FL	16	1 1/2	34
325 W	97	42	57	66	20	18 BARO	-	97	2	4 FL	4 FL	16	1 1/2	34
350 W	103	42	57	66	20	18 BARO	-	103	2	4 FL	4 FL	16	1 1/2	34
375 W	109	42	57	66	20	18 BARO	-	109	2	4 FL	4 FL	16	1 1/2	34
400 W	115	42	57	66	22	20 BARO	-	115	2	4 FL	4 FL	16	1 1/2	34
425 W	121	42	57	66	22	20 BARO	-	121	2	4 FL	4 FL	16	1 1/2	34
450 W	127	42	59	68	22	20 BARO	-	127	2	4 FL	4 FL	16	1 1/2	34
475 W	133	42	59	68	24	20 BARO	-	133	2	4 FL	4 FL	16	1 1/2	34
500 W	139	42	59	68	24	20 BARO	-	139	2	4 FL	4 FL	16	1 1/2	34
550 W	109	51	64	73	26	24 BARO	-	109	2 1/2	4 FL	4 FL	16	2	44
600 W	118	51	64	73	26	24 BARO	-	118	2 1/2	4 FL	4 FL	16	2	44
A650 W	129	51	64	73	28	24 BARO	-	129	2 1/2	5 FL	5 FL	16	2	44
A700 W	138	51	64	73	28	24 BARO	-	138	2 1/2	5 FL	5 FL	16	2	44
A750 W	147	51	64	73	30	28 BARO	-	147	2 1/2	5 FL	5 FL	16	2	44
A400 W	79	63	63	72	22	20 BARO	-	79	2	4 FL	4 FL	16	2	56
A450 W	87	63	63	72	22	20 BARO	-	87	2	4 FL	4 FL	16	2	56
A500 W	95	63	63	72	24	20 BARO	-	95	2	4 FL	4 FL	16	2	56
A550 W	102	63	63	72	26	24 BARO	-	102	2 1/2	4 FL	4 FL	16	2	56
A600 W	109	63	63	72	26	24 BARO	-	109	2 1/2	4 FL	4 FL	16	2	56
650 W	117	63	63	72	28	24 BARO	-	117	2 1/2	5 FL	5 FL	16	2	56
700 W	124	63	63	72	28	24 BARO	-	124	2 1/2	5 FL	5 FL	16	2	56
750 W	132	63	63	72	30	28 BARO	-	132	2 1/2	5 FL	5 FL	16	2	56
840 W	115	77	63	72	(2) 24	(2) 20 BARO	23	115	2 1/2	6 FL	6 FL	18	2	69
940 W	128	77	63	72	(2) 24	(2) 20 BARO	26	128	2 1/2	6 FL	6 FL	18	2	69
1050 W	140	77	63	72	(2) 26	(2) 24 BARO	29	140	2 1/2	6 FL	6 FL	18	2	69
1150 W	152	77	63	72	(2) 26	(2) 24 BARO	32	152	2 1/2	6 FL	6 FL	18	2	69
1250 W	164	77	63	72	(2) 26	(2) 24 BARO	35	164	2 1/2	6 FL	6 FL	18	2	69