

Fitzgibbons Boiler Co., Inc.

ESTABLISHED 1886

General Offices: 570 Seventh Avenue, New York City

PRODUCTS

Fitzgibbons Copper Steel Boilers for Steam or Hot Water Heating. Table 1.

Fitzgibbons Copper Steel Smokeless Boilers for Steam or Hot Water Heating. Table 1-B.

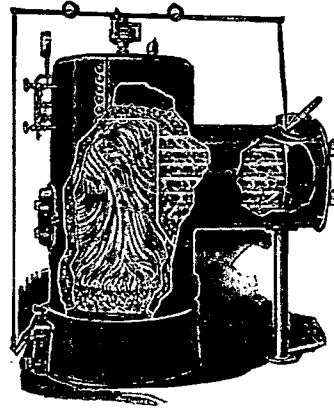
Fitzgibbons (Intermediate Sized) Steel Boilers for Steam or Hot Water Heating. Table 2.

Fitzgibbons All Riveted Steel Boilers for Heating and for Power. Table 3 and Table 4. (Not shown).

Fitzgibbons Steel Boilers: Embodying the original Fitzgibbons cylindrical furnace, entirely free from brickwork, the high combustion chamber, the gas-deflecting arch, the secondary air preheater, and the effective single pass of many relatively small tubes, Fitzgibbons Steel Boilers have, for more than forty years, proved their twin qualities, notable fuel economy and lifetime service, substantially without maintenance expense.

Construction: The cylindrical design of the Fitzgibbons Steel Boiler affords the strongest possible construction with minimum of internal bracing; and the complete water-jacketing of the vertical furnace insures exceptionally long life as well as high efficiency. The entire interior of the Boiler is visible and accessible for inspection or cleaning.

Combustion: Complete combustion of the fuel and its consumable gases is attained with a minimum of excess air. The circular Fitzgibbons grate is free from dead corners and maintains a hot, uniform fire. The wholly visible grate encourages and assists careful firing. The high cylindrical combustion chamber is now recognized as essential to complete combustion. The

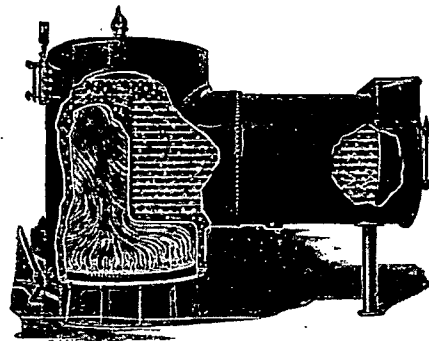


Fitzgibbons Copper-Steel Heating Boiler for small-sized installations, homes, churches, garages, etc.

rear gas-deflecting arch diverts the gases forward into intimate mixture with the preheated secondary air which enters through a port above the firing door. As the air-gas mixture whirls upward combustion is completed before the gases enter the tubes, resulting in very high furnace temperatures, often close to 3000 deg. Fahr. Smokeless combustion of semi-bituminous coal indicates the thoroughness of this combustion.

Conduction and Circulation: The absorption of the heat so effectively generated in the Fitzgibbons furnace is accomplished by the unique design of this time-proved Boiler. The water line is carried in the vertical shell directly above the combustion chamber, the horizontal tube cylinder being completely filled with water. Therefore the circulation of the water is extremely rapid as the boiler steams and the bubbles move along fixed paths toward the steam chamber. This rapid circulation insures heat absorption as effective as the heat generation accomplished in the furnace as is evidenced by (1) the quick-steaming capacity, (2) less than 1 per cent moisture in steam regardless of overload carried, and (3) unusually low flue-gas temperatures.

Detailed Information will be mailed promptly upon request.



Fitzgibbons Steel Heating Boiler. Table 2

TABLES 1 AND 1-B COMBINED—FITZGIBBONS STEEL HEATING & SMOKELESS HEATING BOILERS

Double-Electric-Welded Furnaces

Sizes 300 to 3200 sq. ft. Steam Rating—Built for 15 lb. w.s.p.—A.S.M.E. Code

No. of Boiler	J-6	J-8	H-8	J-10	J-12	H-16	H-20	H-24	H-28	H-32	H-36	H-44	H-50	H-58	H-64
No. of Smokeless Boiler	None	None	B-8	B-10	B-12	B-16	B-20	B-24	B-28	B-32	B-36	B-44	B-50	B-58	B-64
Steam Rating.....sq. ft.	300	400	400	500	600	800	1000	1200	1400	1600	1800	2200	2500	2900	3200
Hot Water Rating.....sq. ft.	500	700	700	800	1000	1300	1600	1900	2200	2600	2900	3500	4000	4600	5100
Heating Surface.....sq. ft.	30	33	35	43	51	67	78	95	108	123	150	192	233	249	295
*Comp. Grate Area.....sq. ft.	2.5	2.5	3.36	3.36	3.36	4.35	4.35	5.84	5.84	7.10	7.10	8.50	8.50	10.00	10.00
Diam. Vertical Shell.....in.	23	23	26	26	26	29	29	33	33	37	37	40	43	43	43
Length Bare Boiler.....ft. in.	3-3	3-3	3-9	4-1	4-5	4-9	5-3	5-8	6-2	6-9	7-7	7-7	8-4	8-4	9-4
Diam. Horizontal Shell.....in.	18	18	18	18	18	21	21	23	23	27	27	31	31	33	33
Water Line.....ft. in.	3-5	3-5	3-7	3-7	3-7	4-0	4-0	4-4	4-4	4-7	4-7	4-11	4-11	5-2	5-2
Diameter Base.....in.	26 1/2	26 1/2	30	30	30	33 1/2	33 1/2	37 1/2	37 1/2	40 1/2	40 1/2	42 1/4	42 1/4	45 3/4	45 3/4
Fire Door Center.....in.	25 1/2	25 1/2	27	27	27	31	31	31	31	31	31	31	31	31	31
Overall Height.....ft. in.	4-2	4-2	4-3	4-3	4-3	4-8	4-8	5-0	5-0	5-5	5-5	5-9	5-9	6-1	6-1
Width of Uptake.....ft. in.	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2	6 1/2	6 1/2	7 1/2	7 1/2	8 1/2	8 1/2	9 1/2	9 1/2	10	10
Length of Uptake.....ft. in.	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	15 1/2	15 1/2	17 1/2	17 1/2	20 1/2	20 1/2	22	22	25	25
Tube Space.....in.	18	18	18	18	18	22	22	24	24	27	27	31	31	35	35
Grate Diameter.....in.	19	19	22	22	22	25	25	29	29	32	32	35	35	38	38
Stack Diameter.....in.	8	8	8	8	8	10	10	12	12	14	14	16	16	18	18
Stack Height.....ft.	35	40	40	45	45	45	45	50	50	50	50	50	60	60	60
Shipping Weight.....lbs.	900	920	1150	1175	1225	1525	1625	2000	2100	2400	2460	3000	3200	3550	3800

TABLE 2—FITZGIBBONS STEEL HEATING BOILERS

Double-Electric-Welded Furnaces

Sizes 3800 to 19000 sq. ft. Steam Rating—Built for 15 lb. w.s.p.—A.S.M.E. Code

No. of Boiler	H-76	H-86	H-98	H-108	H-120	H-132	H-144	H-160	H-170	H-200	H-220	H-250	H-270	H-310	H-330	H-360	H-380
Steam Rating.....sq. ft.	3800	4300	4900	5400	6000	6600	7200	8000	8500	10000	11000	12500	13500	15500	16500	18000	19000
Hot Water Rating.....sq. ft.	6000	6900	7900	8700	9600	10500	11500	13000	14500	16000	17500	20000	21500	25000	26500	29000	30500
Heating Surface.....sq. ft.	354	393	428	478	582	665	674	772	826	920	1048	1109	1308	1372	1511	1571	1711
*Comp. Grate Area.....sq. ft.	12.8	12.8	15.4	15.4	18.8	18.8	21.0	21.0	24.2	24.2	29.4	29.4	32.0	32.0	36.0	36.0	36.0
Diam. Vert. Shell.....ft. in.	4-0	4-0	4-4	4-4	4-9	4-9	4-9	5-0	5-0	5-4	5-4	5-10	5-10	6-2	6-2	6-6	6-6
Length Bare Boiler.....ft. in.	9-1	10-1	9-7	10-7	9-9	10-9	11-9	10-10	11-10	11-10	12-10	12-2	12-8	14-0	14-6	14-3	15-2
Diam. Horiz. Shell.....ft. in.	3-4	3-4	3-6	3-6	4-0	4-0	4-0	4-3	4-3	4-6	4-6	5-0	5-2	5-2	5-6	5-6	5-6
Water Line.....ft. in.	6-0	6-0	6-0	6-0	6-7	6-7	6-7	6-11	6-11	8-3	8-3	8-9	8-9	10-1	10-1	11-1	11-1
Overall Height.....ft. in.	7-1	7-1	7-2	7-2	7-10	7-10	7-10	8-2	8-2	9-5	9-5	10-0	10-0	10-2	10-2	11-0	11-0
Smoke Uptake.....in. x in.	13 1/2 x 26	13 1/2 x 26	14 x 27	14 x 27	14 x 37	14 x 37	14 x 37	14 x 44	14 x 44	15 x 49	15 x 49	16 x 58	16 x 58	17 x 58	17 x 58	18 x 63	18 x 63
Tube Space.....ft. in.	3-10	4-10	3-9	3-9	4-9	4-9	4-9	5-9	5-9	6-7	6-7	7-0	7-0	7-10	7-10	8-4	8-4
Grate Diameter.....in.	43	47	47	47	52	52	55	55	55	59	59	65	65	68	68	72	72
Stack Diameter.....in.	20	22	22	22	24	24	26	26	28	30	30	35	35	32	32	34	34
Stack Height.....ft.	60	65	65	70	70	70	80	80	80	80	85	100	100	100	100	125	125
Shipping Weight.....lbs.	5250	6100	6650	7400	9000	9500	10000	10500	11000	13000	13800	15200	16000	18400	19000	21500	20500

TABLE 3—FITZGIBBONS STEEL HEATING AND POWER BOILERS

All-Riveted Construction—A.S.M.E. Code

Sizes 4200 to 36000 sq. ft. Steam Rating—Heating Boilers Built for 15 lb. w.s.p.

Power Boilers, for Kitchen, Laundry, Drying, Process and Similar High-Pressure Loads, Built for 100 lb. w.s.p.

No. of Boiler	23	24	25	26	27	29	30	31	32	33	34	35	36	37
Horse Power.....	40	50	60	70	80	100	125	150	175	200	225	250	300	350
Steam Rating.....sq. ft.	4200	5400	6400	7500	8500	11000	13500	16500	19000	22000	25000	28000	32000	36000
Hot Water Rating.....sq. ft.	6700	8700	10500	12000	14500	17500	21500	26500	30500	35000	40000	45000	51000	58000
Heating Surface.....sq. ft.	380	456	547	631	721	917	1147	1350	1571	1823	2012	2271	2760	3220
*Comparative Grate Area.....sq. ft.	13.2	15.3	17.4	18.8	21.0	24.2	29.4	33.0	36.0	38.1	40.2	44.5	50.2	57.5
Diameter Vertical Shell.....ft. in.	4-1	4-5	4-8	4-10	5-1	5-5	5-11	6-3	6-7	6-9	6-11	7-3	7-8	8-4
Height Overall.....ft. in.	8-6	8-9	9-2	9-5	9-9	10-1	10-8	11-0	11-11	12-1	12-2	12-6	13-0	13-6
Diam. Horiz. Shell.....ft. in.	9-4	10-6	10-9	12-2	12-3	13-7	13-11	15-2	15-4	16-2	17-5	18-2	19-2	19-6
Diameter Horizontal Shell.....ft. in.	3-5	3-8	3-11	4-1	4-4	4-7	5-1	5-3	5-7	5-9	5-9	6-1	6-6	7-1
Smoke Uptake.....in. x in.	12 x 24	12 x 31	13 x 36	13 x 42	13 x 48	14 x 49	15 x 58	17 x 58	18 x 62 1/2	19 x 65	19 x 65	20 x 68	24 x 73	24 x 80
Space to Draw Tubes.....ft. in.	4-8	5-7	5-6	6-10	6-10	7-9	7-8	8-6	8-4	8-10	10-0	10-0	10-5	11-0
Water Line.....ft. in.	7-1	7-4	7-8	7-11	8-2	8-5	8-11	9-1	9-10	10-1	10-1	10-5	11-4	11-10
Grate Diameter.....in.	43	47	50	52	55	59	65	68	72	74	76	80	85	91
Stack Diameter.....in.	22	22	24	24	26	28	30	32	34	34	38	40	48	48
Stack Height.....ft.	65	70	70	70	80	80	90	100	125	140	140	160	165	190
Shipping Weight.....lbs.	7500	9500	10000	11500	12000	15200	18000	20000	23000	26000	29000	32000	37000	44000

*It has been established that the Circular Grate in the Fitzgibbons Cylindrical Furnace is more effective than a rectangular grate the size of the circumscribed square. Hence, for comparative purposes, the Comparative Grate Area shown in the Tables is the area of the square circumscribed upon a circle the size of the Fitzgibbons Grate.