National Radiator Corporation

General Offices: **Johnstown, Pa.**

Sales and Service Through These Branch Offices and Warehouses

BALTIMORE BOSTON BUFFALO CHICAGO CINCINNATI
CLEVELAND LEBANON MILWAUKEE NEW YORK
PHILADELPHIA PITTSBURGH RICHMOND WASHINGTON

National Cast Iron Oil Heating Boilers



Available in either standard jacket, or extended—which provides rear cabinet for burner and controls. Built-in Taco heater—large steam space, water capacity, heating surface, and combustion chamber volume. Red, black and aluminum finish.

	Series 018					
Boiler Size—Sections	5	6	7	8	9	10
Bonded Rating—Steam	335	410	490	565	645	720
Bonded Rating—Water	535	655	785	905	1030	1150
Heating Surface—Sq. Ft.	26.6	32.1	38.3	43.8	50.1	55.6

Bonded Ratings are based on 4500 B.t.u. per Hour per Sq. Ft. of Heating Surface Heat Transmission Rate.

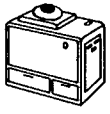
National Premier Vertical Steel Boilers



For either oil or stoker firing. Extended jacket providing front cabinet for burner, or standard. Rated under S.H.B.I. Code. Equipped with built-in Taco copper coils for domestic hot water. Finished in French Grey. Quality throughout.

Boiler Size	VP23	VP26
S.H.B.I. Ratings—Steam	540	680
S.H.B.I. Ratings—Water	860	1090
Heating Surface—Sq. Ft.	33	40

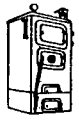
National Gas Boilers



Beautiful in appearance, splendidly engineered. French grey enamel finish chromium base and dome.

	Series No. 3							Series No. 4								
Boiler Size—Sections	3	4	5	6	7	8	9	4	5	6	7	8	9	10	11	12	13
Certified A.G.A. Rating—Steam	360	450	600	750	900	1050	1200	560	750	940	1130	1310	1500	1690	1880	2060	2250
Certified A.G.A. Rating—Water	480	720	960	1200	1440	1680	1920	900	1200	1500	1800	2100	2400	2700	3000	3300	3600

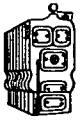
National Bonded Jacketed Square Boilers



Red baked-enamel jacket, black base and doors. Made in a variety of sizes to meet needs of every modern home. Burns any fuel.

	Series No. 2				Series No. 3				Series No. 4					
Boiler Size—Section	4	5	6	7	8	9	5	6	7	8	5	6	7	8	9
Bonded Ratings—Steam	200	290	380	470	560	650	480	600	720	840	700	875	1050	1225	1400
Bonded Ratings—Water	330	480	630	780	930	1080	790	990	1190	1390	1150	1440	1730	2020	2310
Grate Area—Sq. Ft.	1.5	2.0	2.5	3.0	3.5	4.0	3.12	3.91	4.70	5.49	4.78	5.95	7.12	8.29	9.46

National Bonded Novus Sectional Boilers



An established favorite. Series 48 has divided sections, for easy portability and erection. Long fire travel, burns any fuel.

	Series No. 20				Series No. 25					Series No. 48					
Boiler Size—Sections	5	6	7	8	5	6	7	8	9	6	7	8	9	10	11
Bonded Rating—Steam	480	600	720	840	700	875	1050	1225	1400	3500	4200	4900	5600	6300	7000
Bonded Rating—Water	790	990	1190	1390	1150	1440	1730	2020	2310	5750	6900	8050	9200	10350	11500
Grate Area—Sq. Ft.	3.12	3.91	4.70	5.49	4.78	5.95	7.12	8.29	9.46	17.85	21.30	24.75	28.20	31.65	35.10

National Bonded Imperial Sectional Boilers



Originally marketed under the name of the Utica Imperial Sectional Boiler. Arched ribs give large amount of prime heating surface. Highly efficient with any type of fuel.

	Series No. 32					Series No. 42										
Boiler Size—Sections	5	6	7	8	9	6	7	8	9	10	11	12	13	14	15	16
Bonded Rating—Steam	1200	1500	1800	2100	2400	2200	2700	3200	3700	4200	4700	5100	5500	5900	6300	6700
Bonded Rating—Water	1980	2475	2970	3465	3960	3625	4450	5225	6100	6925	7750	8400	9050	9700	10350	11000
Grate Area Sq. Ft.	7.32	9.10	10.87	12.65	14.42	12.03	14.38	16.73	19.08	21.43	23.77	26.12	28.47	30.82	30.82	30.82

(*Maximum grate area which can be furnished. Unless otherwise ordered, No's. 12 and 13 are shipped with grate areas of 21.43 sq. ft. No's. 14, 15 and 16 with areas of 23.77 sq. ft.)

See also Page 872

National Radiator Corporation

HEATING EQUIPMENT

National Bonded Super-Smokeless Boilers

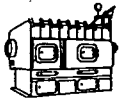


Have established an enviable reputation in the smokeless boiler field. Efficiently burn low grades of fuel. Noted for long, rotative fire travel.

	Series No. 24					Series No. 33					
Boiler Size—Sections	5	6	7	8	9	5	6	7	8	9	10
Bonded Rating—Steam	750	1000	1250	1500	1750	1300	1650	2000	2350	2700	3050
Bonded Rating—Water	1250	1650	2050	2450	2850	2150	2725	3300	3875	4450	5025
Grate Area—Sq. Ft.	5.00	6.25	7.50	8.75	10.00	7.32	9.10	10.87	12.65	14.42	16.20

	Series No. 40																		
Boiler Size—Sections	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Bonded Rating—Steam	2300	2800	3300	3800	4300	4800	5300	5800	6300	6800	7300	7800	8300	8700	9100	9500	9900	10300	10700
Bonded Rating—Water	3795	4620	5445	6270	7095	7920	8745	9570	10395	11220	12045	12870	13695	14355	15015	15675	16335	16995	17655
Grate Area—Sq. Ft.	12.03	14.38	16.73	19.08	21.43	23.77	21.43	21.43	23.77	23.77	23.77	23.77	23.77	23.77	23.77	23.77	23.77	23.77	23.77

National Bonded Low Water Line Boilers

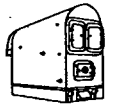


Will solve the head-room problem, in tide-water country, in theatre work, and everywhere where head-room is limited. Also available in smokeless type.

	Series No. 30								Series No. 40										
Boiler Size—Sections	5	6	7	8	9	10	11	12	6	7	8	9	10	11	12	13	14	15	16	17	18
Bonded Rating—Steam	850	1100	1350	1600	1850	2100	2350	2600	1800	2200	2600	3000	3400	3800	4200	4600	5000	5400	5800	6200	6600
Bonded Rating—Water	1400	1815	2230	2645	3060	3475	3890	4305	2970	3630	4290	4950	5610	6270	6930	7590	8250	8910	9570	10230	10890
Grate Area—Sq. Ft.	5.83	7.29	8.75	10.21	11.67	13.13	14.59	16.05	9.79	11.73	13.68	15.62	17.57	19.51	21.43	26.40	25.40	25.34	27.34	31.17	33.12

NOTE—A National Boiler Bond, issued and backed by a great independent surety company, guarantees material, workmanship, and the published Bonded Ratings of all National Bonded Boilers.

National Premier Steel Boilers



Commercial series: 19 sizes, four types—Oil, or gas; stoker; direct hand fired; smokeless hand fired. Residential series: 11 sizes, three types—Oil or gas; stoker; and direct draft hand fired. Welded construction; A.S.M.E. Code; 15 lbs. W.P.

Number of Boiler	317	318	374	375	376	434	435	436	494	495	553	554	613	673	674	753	793	853	854
Steam Ratings S.H.B.I. Type DB and SB—Sq. Ft.	1800	2200	2600	3000	3500	4000	4500	5000	6000	7000	8500	10000	12500	15000	17500	20000	25000	30000	35000
Type OB and MB—Sq. Ft.	2190	2680	3160	3650	4250	4860	5470	6080	7290	8500	10330	12150	15180	18220	21250	24290	30360	36430	42500
Water Ratings S.H.B.I. Type DB and SB—Sq. Ft.	2880	3520	4160	4800	5600	6400	7200	8000	9600	11200	13600	16000	20000	24000	28000	32000	40000	48000	56000
Type OB and MB—Sq. Ft.	3500	4280	5050	5840	6800	7770	8750	9720	11660	13600	16520	19440	24280	29150	34000	38860	48570	58280	68000
Heating Surface—All Types	129	158	186	215	250	286	322	358	429	500	608	715	893	1072	1250	1429	1786	2143	2500
Grate Area—Type DB and SB	7.9	8.9	9.7	10.5	11.4	12.2	13.4	14.5	16.4	18.1	20.5	22.5	25.6	28.4	30.9	33.2	37.4	41.2	44.7
Furnace Volume—Type OB and MB	17.6	21.4	25.3	29.2	34.0	38.9	43.8	48.7	58.4	68.0	82.7	97.2	121.5	145.8	170.0	194.3	242.9	291.5	340.0
Width Overall—All Types	32½	32½	39¼	39¼	39¼	45¼	45¼	45¼	51¼	51¼	57⅜	57⅜	63⅜	69½	69½	75½	81⅝	81⅝	87⅝
Boiler Length—Type DB, SB and OB	5-5½	6-5½	5-5½	6-1½	7-0½	6-11½	7-6½	8-3½	7-0½	8-0½	8-4½	9-8½	9-3½	10-2½	11-0½	11-11½	13-7½	12-6½	14-4½
Type MB	5-5½	6-5½	5-5½	6-1½	7-0½	6-11½	7-8½	8-5½	7-0½	8-0½	8-3½	9-5½	9-0½	9-11½	11-3½	11-7½	13-1½	12-0½	13-8½
Boiler Length Overall Type DB, SB and OB	6-6⅝	7-6⅝	6-5⅝	7-1⅝	8-0⅝	7-11⅝	8-8⅝	9-5⅝	8-2⅝	9-2⅝	9-6⅛	10-10⅝	10-6⅜	11-6⅜	13-0⅜	13-7⅝	15-3⅜	14-2½	16-0⅝
Type MB	6-6⅝	7-6⅝	6-5⅝	7-1⅝	8-0⅝	7-11⅝	8-8⅝	9-5⅝	8-2⅝	9-2⅝	9-5⅝	10-7⅝	10-3⅜	11-3⅜	12-7⅜	13-3⅝	14-9⅛	13-8⅝	15-4⅝
Boiler Height Overall Type DB, SB and OB	5-7½	5-7½	6-7	6-7	6-7	7-0	7-0	7-0	8-2	8-2	8-6	8-6	9-4	9-6	9-6	9-10	10-2	11-5	11-5
Type MB	5-7½	5-7½	6-8½	6-10	6-10½	7-2½	7-3½	7-3½	8-6½	8-8	9-0½	9-3	10-4	10-7	10-10½	11-3½	12-0½	13-11½	14-6½
Steam Outlet Size	6	6	6	6	6	6	6	6	8	8	8	8	8	8	8	8	10	10	10
Return Inlet Size	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	6	6	6
Safety Valve Size	1½	1½	2	2	2	2	2	2½	2½	2½	3	3	2-2	2-2½	2-2½	2-2½	2-2½	2-3	2-3
Water Line Height Type DB, SB and OB	4-10	4-10	5-8½	5-8½	5-8½	5-8½	5-11	5-11	6-9	6-9	7-1	7-1	7-11	8-0	8-0	8-3½	8-5½	9-7½	9-7½
Type MB	4-10	4-10	5-10	5-11½	6-0	6-1½	6-2½	6-2½	7-1½	7-3	7-7½	7-10	8-11	9-1	9-4½	9-9	10-4	12-2	12-9