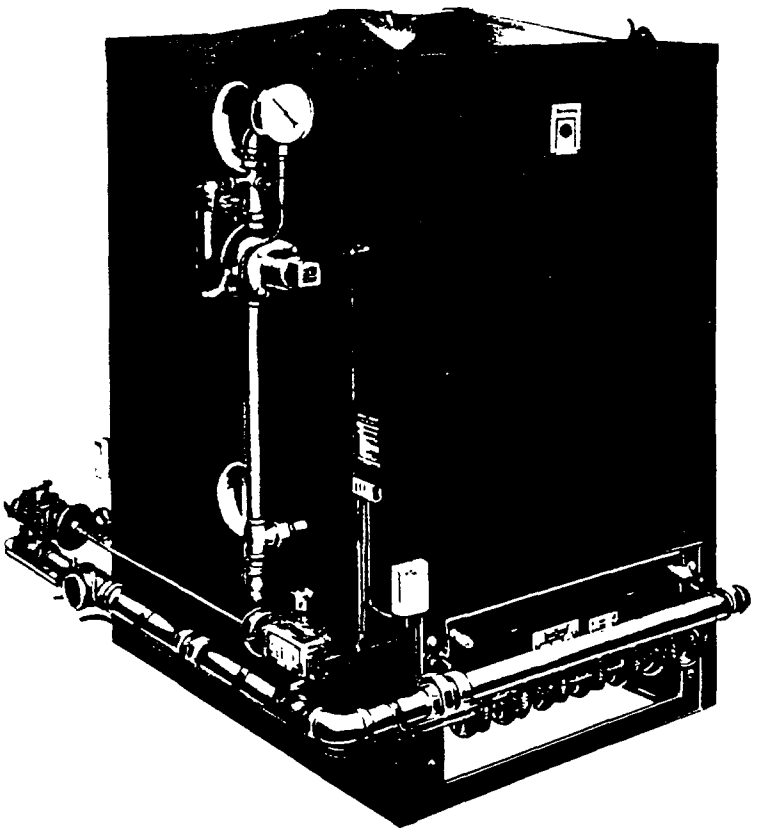
A FILE No. 30-C-1
(uary, 1951)

1-G and 4-G

STANDARD
BOILERS
by
AMERICAN-Standard



4-G
(6 to 11 Sections)

▶ **DESIGNED SPECIFICALLY FOR** *Gas*

▶ **DURABLE CAST IRON CONSTRUCTION**

AMERICAN-Standard
First in heating . . . first in plumbing

PLAINTIFF'S EXHIBIT
tabbies
ASI-260

00100

(February, 1951)

STANDARD BOILERS

TYPES 1-G and 4-G

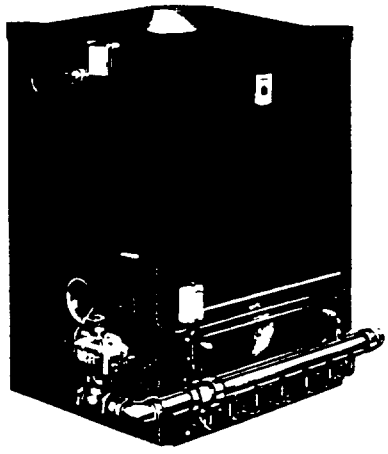
for every kind of gas

EXCLUSIVELY FOR GAS

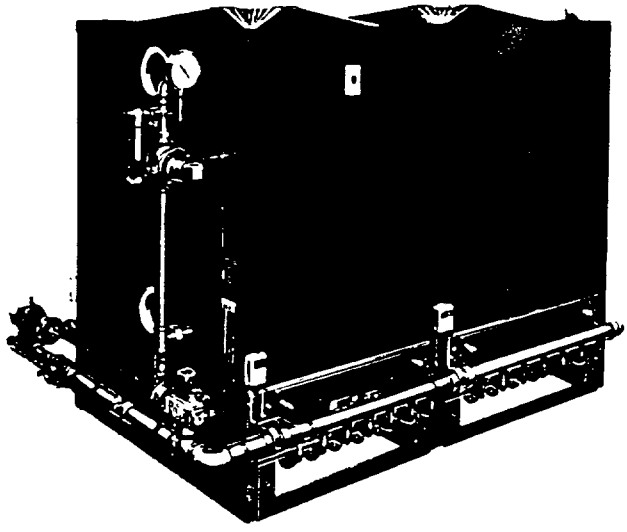
THE quality which has made American-Standard Heating Equipment first choice for over half a century is built into every inch of the 1-G and 4-G Standard Boilers. Manufactured specifically for gas fuel, they embody the most modern engineering developments for efficient, completely automatic firing.

Designed by experts in the field of gas heating, Standard Boilers feature the ideal coordination of effective heating surface, precision-made burners, and automatic controls for low-cost, trouble-free operation. Pin-type cast iron sections, manifold assemblies, mixer tubes, gas valves . . . all are built into the Standard Boiler to assure top-notch performance with every type of gas. A glance at the construction details shown on the next page tells how effectively all these refinements have been combined into a compact heating unit.

Handsome Forge Red jackets, with an attractive hammer finish that's easy to clean, add greatly to the appearance of the installation. Standard Boilers take up surprisingly little space. And with their durable cast iron construction, they can be relied upon to give long years of satisfactory service.



STANDARD BOILER TYPE 1-G



STANDARD BOILER TYPE 4-G (13 SECTIONS AND UP)

COMPLETELY AUTOMATIC

No matter how large the installation, the 1-G and 4-G Standard Boilers can be precisely and easily regulated with their dependable automatic controls. Gas is supplied to the burners through the A.G.A. listed Detroit 569 Thermotor Automatic Gas Valve, which is operated by a room thermostat to provide accurate temperature control. This quality valve has a mechanical limit feature, and can be manually operated in the event of power failure. Regular equipment on Standard Boilers also includes automatic pilot switches, which quickly shut off the flow of gas to main burners if the pilot flame is extinguished.

FOR ALL BUILDINGS

TYPES 1-G and 4-G Standard Boilers come in a wide range of sizes to provide effortless heating in larger homes . . . apartment and office buildings . . . hospitals . . . and various commercial and industrial buildings. These sturdy boilers can be used in batteries for large installations to provide an extremely flexible heat source, giving greatly increased economy during mild weather periods.

ASK YOUR CONTRACTOR

THERE is an American-Standard gas fired boiler to meet your heating requirements. For further information on the complete line, or for details of cost and installation, consult your Heating Contractor. He is qualified by training and experience to give you practical advice on your heating problems.

00101

. for Efficiency . . . Economy . . . Durability

RESETTING LOW WATER CUT-OFF—On steam boilers, shuts off main burner gas supply electrically if boiler water reaches low point.

CANOPY—Sealed into putty-filled groove to form gas-tight connection between boiler flue passages and draft hood.

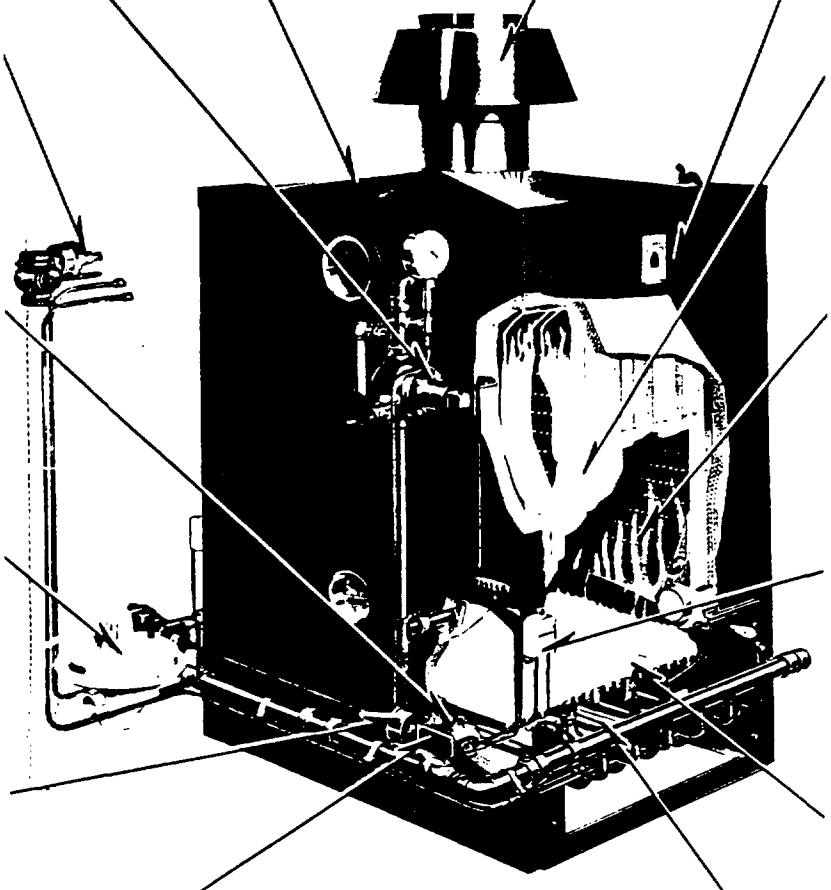
DRAFT HOOD—Prevents either excessive drafts or down-drafts from affecting proper combustion.

JACKET—Sturdy metal in the striking Forge Red hammer finish, backed by a heavy layer of insulation.

PILOT GAS FILTER—Prevents dirt, gum, or other foreign matter from clogging pilot tube or pilot.

CLEANOUTS—Removable cover plates provide easy access for cleaning flue surfaces.

AUTOMATIC GAS VALVE—Operated electrically by the room thermostat. Also regulates gas flow according to steam pressure or water temperature of boiler. Has sure-acting mechanical upper limit. Can be manually operated. Recycles automatically on current interruptions. Electric ignition optional on 1-G Boilers.



PINTYPE SECTIONS—Of durable cast iron. Flue surfaces are studded with projections which absorb maximum heat from the rising gases, transferring this heat to boiler water. Machine-ground surfaces require no cement where sections are joined.

PRESSURE REGULATOR—Equipped with safety vent, regulator maintains fixed gas pressure.

AUTOMATIC PILOT—Prevents flow of gas to main burners if pilot goes out. Special control for 100% safety shut-off for LP-gas and butane-air gas (525 Btu, 1.16 sp gr).

PRESSURE LIMIT CONTROL—4-G Steam Boilers are provided with a pressure limit control. When steam pressure reaches predetermined point, gas supply is shut off. 4-G Water Boilers have an immersion control located in boiler water to perform this function.

EFFICIENT BURNERS—Precision-made for quiet, economical operation with each type of gas. Raised rib, drilled port burners regularly furnished. Ribbon burners for manufactured gas optional.

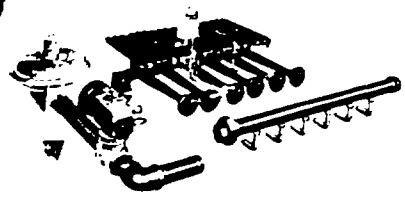
THROTTLING CONTROL—Steam pressure or water temperature *throttles gas flow gradually* as boiler temperature rises to maintain desired room conditions with utmost economy.

VENTURI MIXER TUBE—Induces proper velocity to gas and primary air, and obtains the correct mixture of gas and air.

4-G STANDARD STEAM BOILER

00102

SUB-ASSEMBLIES



THE STANDARD gas fired cast iron sectional boiler is scientifically engineered and precision-machined to facilitate quick and easy assembly. Individual sections and parts will pass through boiler room doors without difficulty. For time and labor saving installation, controls, valves, and control piping are factory-assembled as far as practicable. Such assemblies vary with different boilers due to size, number of valves, etc. The illustration shows a typical sub-assembly, consisting of nine separate items of control equipment . . . ready for attachment to the manifold union collar . . . all of which have been accurately pre-assembled at the factory.

TIME PAYMENTS

STANDARD BOILERS, like all American-Standard Heating Equipment and Plumbing Fixtures, can be purchased for modernization work on the American-Standard easy payment plan. Your Heating Contractor will handle all the details. See him for full information on the payment plan, and also on the complete American-Standard line of quality heating and plumbing products for your other modernization requirements.

1-G AND 4-G

STANDARD BOILERS

by

AMERICAN-Standard

RATINGS AND DATA—4-G—FOR HOT WATER OR STEAM

For installations at sea level and elevations up to 2000 ft

Standard Boiler Model Number	A.G.A. Input MBH	A.G.A. Output MBH	STEAM		Standard Boiler Model Number	WATER			Size of Gas Connections (inches—IPS)				
			A.G.A. Steam Rating (sq ft)	Installed Radiation (sq ft)		A.G.A. Water Rating (sq ft)	Installed Radiation		Mfd Gas	Nat Gas	Mxd Gas	LP-Gas	Butane-Air Gas (525 Btu, 1.16 sp gr)
	Steam or Water		Mfd, Nat, Mixed, LP-Gas, or Butane-Air Gas (525 Btu, 1.16 sp gr)			Mfd, Nat, Mixed, LP-Gas, or Butane-Air Gas (525 Btu, 1.16 sp gr)	MBH	sq ft					
4-GS-6	600	480	2000	1390	4-GW-6	3200	360	2400	2	2	2	1	
4-GS-7	720	576	2400	1690	4-GW-7	3840	432	2880	2	2	2	1	
4-GS-8	840	672	2800	1995	4-GW-8	4480	503	3355	2½	2	2	1	2½
4-GS-9	960	768	3200	2300	4-GW-9	5120	575	3835	2½	2	2	1	2½
4-GS-10	1080	864	3600	2610	4-GW-10	5760	647	4315	2½	2	2	1	2½
4-GS-11	1200	960	4000	2935	4-GW-11	6400	719	4795	2½	2	2	1¼	2½
4-GS-13	1440	1152	4800	3570	4-GW-13	7680	864	5760	2½	2-2	2-2	1¼	2½
4-GS-15	1680	1344	5600	4230	4-GW-15	8960	1015	6765	2-2½	2-2	2-2	1¼	2-[illegible]
4-GS-17	1920	1536	6400	4895	4-GW-17	10240	1174	7825	2-2½	2-2	2-2	1¼	2
4-GS-19	2160	1728	7200	5565	4-GW-19	11520	1334	8895	2-2½	2-2	2-2	1½	2-2½
4-GS-21	2400	1920	8000	6205	4-GW-21	12800	1488	9920	2-2½	2-2	2-2	1½	2-2½
4-GS-22	2520	2016	8400	6520	4-GW-22	13440	1565	10435	2-2½	4-2	4-2	1½	2-2½
4-GS-25	2880	2304	9600	7455	4-GW-25	15360	1786	11905	2-2½	4-2	4-2	2-1¼	2-2½
4-GS-28	3240	2592	10800	8385	4-GW-28	17280	2011	13405	4-2½	4-2	4-2	2-1¼	4-2½
4-GS-3[illegible]	3600	2880	12000	9315	4-GW-31	19200	2232	14880	4-2½	4-2	4-2	2-1¼	4-2½
4-GS-33	3840	3072	12800	9940	4-GW-33	20480	2381	15875	4-2½	4-2	4-2	2-1¼	4-2½
4-GS-3[illegible]	4320	3456	14400	11180	4-GW-37	23040	2676	17840	4-2½	4-2	4-2	2-1½	4-2½
4-GS-41	4800	3840	16000	12420	4-GW-41	25600	2976	19840	4-2½	4-2	4-2	2-1½	4-2½

For installations at elevations 2000 ft to 5000 ft

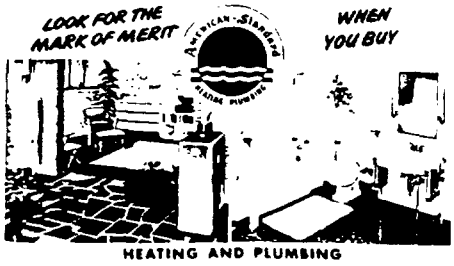
Standard Boiler Model Number	A.G.A. Input MBH		A.G.A. Output MBH		STEAM				Standard Boiler Model Number	WATER					
					A.G.A. Steam Rating (sq ft)		Installed Radiation (sq ft)			A.G.A. Water Rating (sq ft)		Installed Radiation			
	Steam or Water		Steam or Water									Mfd, Nat, Mxd, or Butane-Air Gas*		LP-Gas	
	Mfd, Nat, Mxd, or Butane-Air Gas*	LP-Gas	Mfd, Nat, Mxd, or Butane-Air Gas*	LP-Gas	Mfd, Nat, Mxd, or Butane-Air Gas*	LP-Gas	Mfd, Nat, Mxd, or Butane-Air Gas*	LP-Gas		Mfd, Nat, Mxd, or Butane-Air Gas*	LP-Gas	MBH	sq ft	MBH	sq ft
4-GS-6	550	480	440	384.0	1833	1600	1265	1095	4-GW-6	2933	2560	328	2185	287	1915
4-GS-7	660	576	528	460.8	2200	1920	1540	1330	4-GW-7	3520	3072	396	2640	345	2300
4-GS-8	770	672	616	537.6	2567	2240	1815	1570	4-GW-8	4107	3584	460	3065	401	2670
4-GS-9	880	768	704	614.4	2933	2560	2100	1810	4-GW-9	4693	4096	527	3510	460	3065
4-GS-10	990	864	792	691.2	3300	2880	2380	2055	4-GW-10	5280	4608	594	3960	517	3445
4-GS-11	1100	960	880	768.0	3667	3200	2665	2300	4-GW-11	5867	5120	659	4390	575	3835
4-GS-13	1320	1152	1056	921.6	4400	3840	3250	2810	4-GW-13	7040	6144	792	5280	690	4600
4-GS-15	1540	1344	1232	1075.2	5133	4480	3845	3315	4-GW-15	8213	7168	923	6155	805	5365
4-GS-17	1760	1536	1408	1228.8	5867	5120	4450	3835	4-GW-17	9387	8192	1068	7120	920	6135
4-GS-19	1980	1728	1584	1382.4	6600	5760	5060	4360	4-GW-19	10560	9216	1214	8095	1046	6975
4-GS-21	2200	1920	1760	1536.0	7333	6400	5675	4895	4-GW-21	11733	10240	1358	9055	1174	7825
4-GS-22	2310	2016	1848	1612.8	7700	6720	5970	5160	4-GW-22	12320	10752	1430	9535	1238	8255
4-GS-25	2640	2304	2112	1843.2	8800	7680	6830	5955	4-GW-25	14080	12288	1637	10915	1426	9505
4-GS-28	2970	2592	2376	2073.6	9900	8640	7685	6710	4-GW-28	15840	13824	1843	12285	1608	10720
4-GS-31	3300	2880	2640	2304.0	11000	9600	8540	7455	4-GW-31	17600	15360	2050	13665	1786	11905
4-GS-33	3520	3072	2816	2457.6	11733	10240	9110	7950	4-GW-33	18773	16384	2184	14565	1906	12765
4-GS-37	3960	3456	3168	2764.8	13200	11520	10250	8945	4-GW-37	21120	18432	2460	16400	2146	14365
4-GS-41	4400	3840	3520	3072.0	14667	12800	11385	9940	4-GW-41	23467	20480	2724	18160	2381	15875

For altitudes above 5000 ft high altitude ratings should be reduced at the rate of 4% for each 1000 ft above 5000 ft.

*Butane-Air Gas, 525 Btu, 1.16 sp gr.

COMPLIES WITH A.S.M.E. STANDARDS

COMPLIES WITH NATIONAL SAFETY REQUIREMENTS—APPROVED BY AMERICAN GAS ASSOCIATION



AMERICAN RADIATOR & Standard Sanitary
CORPORATION
PITTSBURGH 30, PA.

AMERICAN-Standard products, including the Standard Boiler, are all built to the same uniformly high quality and backed by the technical and manufacturing skill of the American Radiator & Standard Sanitary Corporation, a name synonymous with health and comfort.

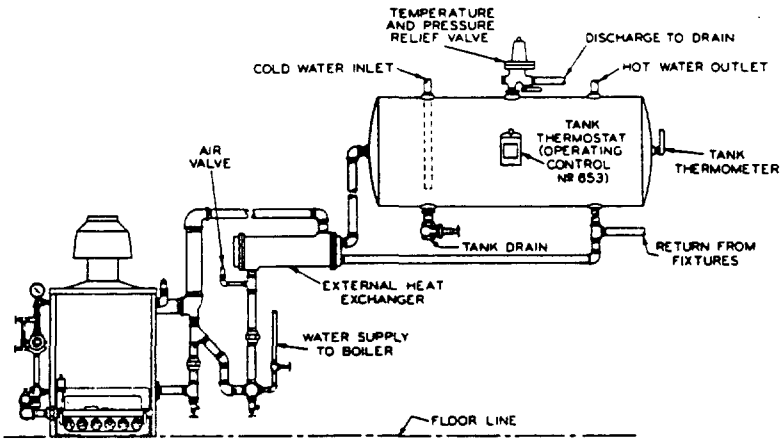
00103

HOT WATER SUPPLY

LOW COST . . . ABUNDANT

WHEREVER there is a demand for large quantities of really hot water . . . office buildings, schools, stores, factories . . . that demand can be efficiently and economically supplied with a 1-G or 4-G Standard Boiler. Connected to a storage tank system as shown at right, with an external heat exchanger, the Standard Steam Boiler is especially suited to localities where it is not advisable to permit the domestic water being heated to pass directly through the boiler.

American-Standard gas fired boilers for hot water supply feature the same accurate, completely automatic controls for which the regular line of gas boilers is famous. Ratings of the 1-G and 4-G Standard Boilers are shown on this page. For smaller system requirements, or direct type boilers, consult other American-Standard literature, or see your Heating Contractor.



STANDARD STEAM BOILERS FOR INDIRECT TYPE ("IS") SYSTEMS

THE above drawing illustrates a typical installation of the 1-G Steam Boiler in an indirect type hot water supply hook-up. The complete system is controlled by the Detroit 569 Thermotor Automatic Gas Valve, which operates in response to the temperature demands of an immersion operating control inserted in the storage tank. The immersion control is electrically connected to the main gas valve, and can be easily set to desired degree of temperature, with a range from 90° to 210°, by an adjustment on the outside of the control.

For data on regular control equipment furnished, see the current Price Book.

RATINGS AND DATA—STANDARD 1-G AND 4-G BOILERS WITH "IS" EQUIPMENT

1-G—GALLONS WATER PER HOUR

Standard Boiler Model Number	Mfd. Nat. Mixed and LP-Gas; Butane-Air Gas (525 Btu, 1.16 sp gr)		
	60° Rise	80° Rise	100° Rise
For installations at sea level and elevations up to 2000 ft			
1-GS-4	290	215	175
1-GS-5	385	290	230
1-GS-6	480	360	290
1-GS-7	575	430	345
1-GS-8	670	505	405
1-GS-9	770	575	460
1-GS-10	865	650	520
For installations at elevations of 2000 ft to 5000 ft			
1-GS-4	230	175	140
1-GS-5	310	230	185
1-GS-6	385	290	230
1-GS-7	460	345	275
1-GS-8	540	405	320
1-GS-9	615	460	370
1-GS-10	690	520	415

4-G—GALLONS WATER PER HOUR

Standard Boiler Model Number	For installations at sea level and elevations up to 2000 ft: Mfd. Nat. Mixed and LP-Gas; Butane-Air Gas (525 Btu, 1.16 sp gr)			For installations at elevations 2000 ft to 5000 ft: Mfd. Natural and Mixed Gas; Butane-Air Gas (525 Btu, 1.16 sp gr)			For installations at elevations 2000 ft to 5000 ft: LP-Gas		
	60° Rise	80° Rise	100° Rise	60° Rise	80° Rise	100° Rise	60° Rise	80° Rise	100° Rise
4-GS-6	960	720	570	880	660	530	770	580	460
4-GS-7	1150	860	690	1060	790	630	920	690	550
4-GS-8	1340	1010	810	1230	920	740	1070	810	650
4-GS-9	1540	1150	920	1410	1060	850	1230	920	740
4-GS-10	1730	1300	1040	1580	1190	950	1380	1040	830
4-GS-11	1920	1440	1150	1760	1320	1060	1540	1150	920
4-GS-13	2300	1730	1380	2110	1580	1270	1840	1380	1100
4-GS-15	2690	2020	1610	2460	1850	1480	2150	1610	1290
4-GS-17	3080	2300	1840	2820	2110	1690	2460	1840	1470
4-GS-19	3460	2600	2080	3170	2380	1900	2760	2060	1660
4-GS-21	3840	2880	2300	3520	2640	2110	3070	2300	1840
4-GS-22	4040	3020	2420	3700	2780	2220	3230	2420	1930
4-GS-25	6410	3480	2760	4220	3170	2540	3690	2770	2220
4-GS-28	5190	3890	3110	4750	3560	2860	4140	3110	2490
4-GS-31	5760	4320	3460	5280	3960	3170	4610	3460	2760
4-GS-33	6150	4610	3680	5640	4220	3380	4910	3690	2950
4-GS-37	6920	5190	4150	6340	4750	3800	5520	4140	3320
4-GS-41	7690	5750	4600	7040	5280	4220	6140	4610	3790

For altitudes above 5000 ft high altitude ratings should be reduced at the rate of 4% for each 1000 ft above 5000 ft.

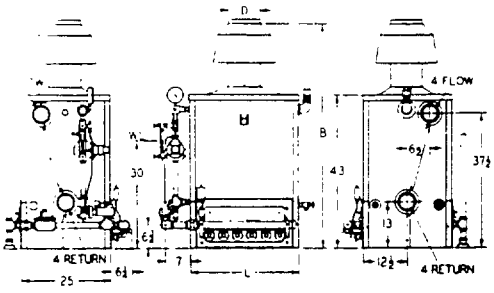
00104

FLUE SIZE RECOMMENDATIONS

Standard Boiler Model No	Chimney Height in Feet: 10*	20	40	80	Standard Boiler Model No	Chimney Height in Feet: 10*	20	40	80	Standard Boiler Model No.	Chimney Height in Feet: 10*	20	40	80	Standard Boiler Model No.	Chimney Height in Feet: 10*	20	40	80
	Diameter (Inches)					Diameter (Inches)					Diameter (Inches)					Diameter (Inches)			
1-G-4	6	6	6		4-G-9	12	11	11	10	4-G-28	20	19	18	17	4-G-33	30	28	28	26
1-G-5	7	7	6		4-G-10	13	12	11	11	4-G-31	22	20	19	18	4-G-37	32	30	28	28
1-G-6	8	7	7		4-G-11	13	12	12	11	4-G-33	22	20	19	19	4-G-41	34	32	30	28
1-G-7	8	8	7		4-G-13	14	13	13	12	4-G-37	24	22	20	20					
1-G-8	9	8	8	8	4-G-15	15	14	13	13	4-G-41	24	24	22	20		THREE BOILERS			
1-G-9	9	9	8	8	4-G-17	16	15	14	14		TWO BOILERS				4-G-28	—	32	30	30
1-G-10	9	9	9	8	4-G-19	17	16	15	14	4-G-22	26	24	22	22	4-G-31	—	34	32	30
4-G-6	10	9	9	9	4-G-21	18	17	16	15	4-G-25	26	26	24	22	4-G-33	—	36	32	32
4-G-7	11	10	10	9	4-G-22	18	17	16	16	4-G-28	28	26	26	24	4-G-37	—	38	34	34
4-G-8	11	11	10	10	4-G-25	19	18	17	16	4-G-31	30	28	26	26	4-G-41	—	40	36	34

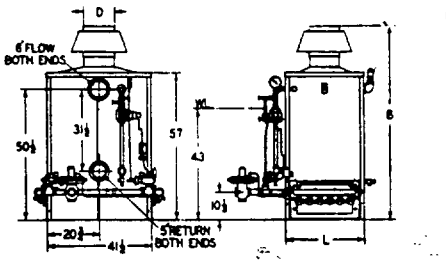
*Flue sizes for 10' chimneys are for special installations where greater height is impossible or impractical.

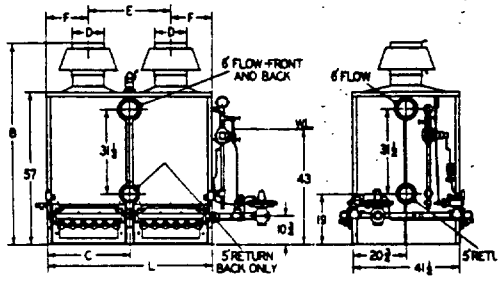
1-G STANDARD DATA AND DIMENSIONS



Dimensions (inches)			
Model Number	B	D	L
1-G-4	57⅜	6	19
1-G-5	59¾	7	23
1-G-6	60¼	8	27
1-G-7	62⅜	9	31
1-G-8	63¼	9	35
1-G-9	65	10	39
1-G-10	65⅜	10	43

4-G STANDARD DATA AND DIMENSIONS

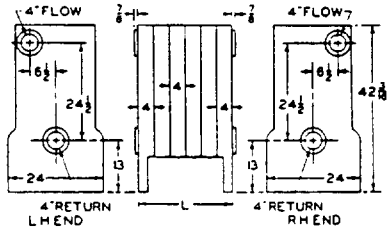




LAYOUT OF TAPPINGS

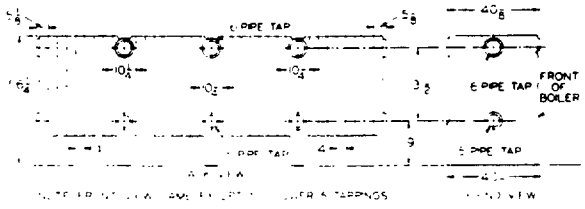
An outstanding feature of larger Standard Boilers is the number of flow tappings provided. For example, types 4-G-13 to 4-G-21 have four 6", types 4-G-22 to 4-G-31 have six 6", and types 4-G-33 to 4-G-41 have eight 6" flow tappings. Their use slows steam velocity and helps prevent entrainment of water.

Illustrated below are typical section assemblies of the 1-G and 4-G. The drawings show the flow and return tappings of the 1-G-6, and flow and return tappings and top connecting nipple opening of the 4-G-33. These accurately machined sections are easily handled and assembled.



LEFT: 1-G

BELOW: 4-G



4-G DIMENSIONS (INCHES)							
Model Number	No. of Burners	B	C	D	E	F	L
4-G-6	10	74	—	11	—	—	27
4-G-7	12	75	—	12	—	—	31
4-G-8	14	77	—	13	—	—	35
4-G-9	16	77¼	—	14	—	—	39
4-G-10	18	79½	—	15	—	—	43
4-G-11	20	80	—	16	—	—	47
4-G-13	24	75	30⅝	12	30¾	15⅜	61
4-G-15	28	77	34⅜	13	34¾	17⅛	69
4-G-17	32	77¼	38⅜	14	38¾	19⅛	77
4-G-19	36	79½	42⅜	15	42¾	21⅜	85
4-G-21	40	80	46⅜	16	46¾	23⅜	93
4-G-22	42	77	34⅜	13	34¾	17⅜	103
4-G-25	48	77¼	38⅜	14	38¾	19⅛	115
4-G-28	54	79½	42⅜	15	42¾	21⅜	127
4-G-31	60	80	46⅜	16	46¾	23⅛	139
4-G-33	64	77¼	38⅜	14	38¾	19⅛	153
4-G-37	72	79½	42⅜	15	42¾	21⅛	169
4-G-41	80	80	46⅜	16	46¾	23⅛	185

RATINGS AND DATA—1-G—FOR HOT WATER OR STEAM

For installations at sea level and elevations up to 2000 ft									Size of Gas Connection (inches-IPS)				
Standard Boiler Model Number	A.G.A. Input MBH	A.G.A. Output MBH	STEAM		Standard Boiler Model Number	WATER			Mfd Gas	Nat Gas	Mxd Gas	LP-Gas	Butane-Air Gas (525 Btu, 1.16 sp gr)
	Steam or Water		A.G.A. Steam Rating (sq ft)	Installed Radiation (sq ft)		A.G.A. Water Rating (sq ft)	Installed Radiation MBH	Installed Radiation sq ft					
			Mfd, Nat, Mixed, LP-Gas, or Butane-Air Gas (525 Btu, 1.16 sp gr)			Mfd, Nat, Mixed, LP-Gas, or Butane-Air Gas (525 Btu, 1.16 sp gr)							
1-GS-4	180	144	600	395	1-GW-4	960	107	715	1	¾	¾	¾	1
1-GS-5	240	192	800	530	1-GW-5	1280	144	960	1¼	1	1	¾	1¼
1-GS-6	300	240	1000	670	1-GW-6	1600	180	1200	1¼	1	1	¾	1¼
1-GS-7	360	288	1200	810	1-GW-7	1920	216	1440	1½	1¼	1¼	¾	1½
1-GS-8	420	336	1400	950	1-GW-8	2240	251	1675	2	1¼	1¼	¾	2
1-GS-9	480	384	1600	1095	1-GW-9	2560	287	1915	2	1¼	1¼	1	2
1-GS-10	540	432	1800	1240	1-GW-10	2880	324	2160	2	1½	1½	1	2

For installations at elevations 2000 ft to 5000 ft								
Standard Boiler Model Number	A.G.A. Input MBH	A.G.A. Output MBH	STEAM		Standard Boiler Model Number	WATER		
	Steam or Water		A.G.A. Steam Rating (sq ft)	Installed Radiation (sq ft)		A.G.A. Water Rating (sq ft)	Installed Radiation MBH	Installed Radiation sq ft
			Mfd, Nat, Mixed, LP-Gas, or Butane-Air Gas (525 Btu, 1.16 sp gr)			Mfd, Nat, Mixed, LP-Gas, or (Butane-Air Gas (525 Btu, 1.16 sp gr)		
1-GS-4	144	115.2	480	310	1-GW-4	768	86	570
1-GS-5	192	153.6	640	420	1-GW-5	1024	115	765
1-GS-6	240	192.0	800	530	1-GW-6	1280	144	960
1-GS-7	288	230.4	960	640	1-GW-7	1536	173	1150
1-GS-8	336	268.8	1120	755	1-GW-8	1792	201	1340
1-GS-9	384	307.2	1280	865	1-GW-9	2048	230	1535
1-GS-10	432	345.6	1440	980	1-GW-10	2304	259	1725

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For altitudes above 5000 ft high altitude ratings should be reduced at the rate of 4% for each 1000 ft above 5000 ft.

COMPLIES WITH NATIONAL SAFETY REQUIREMENTS—APPROVED BY AMERICAN GAS ASSOCIATION