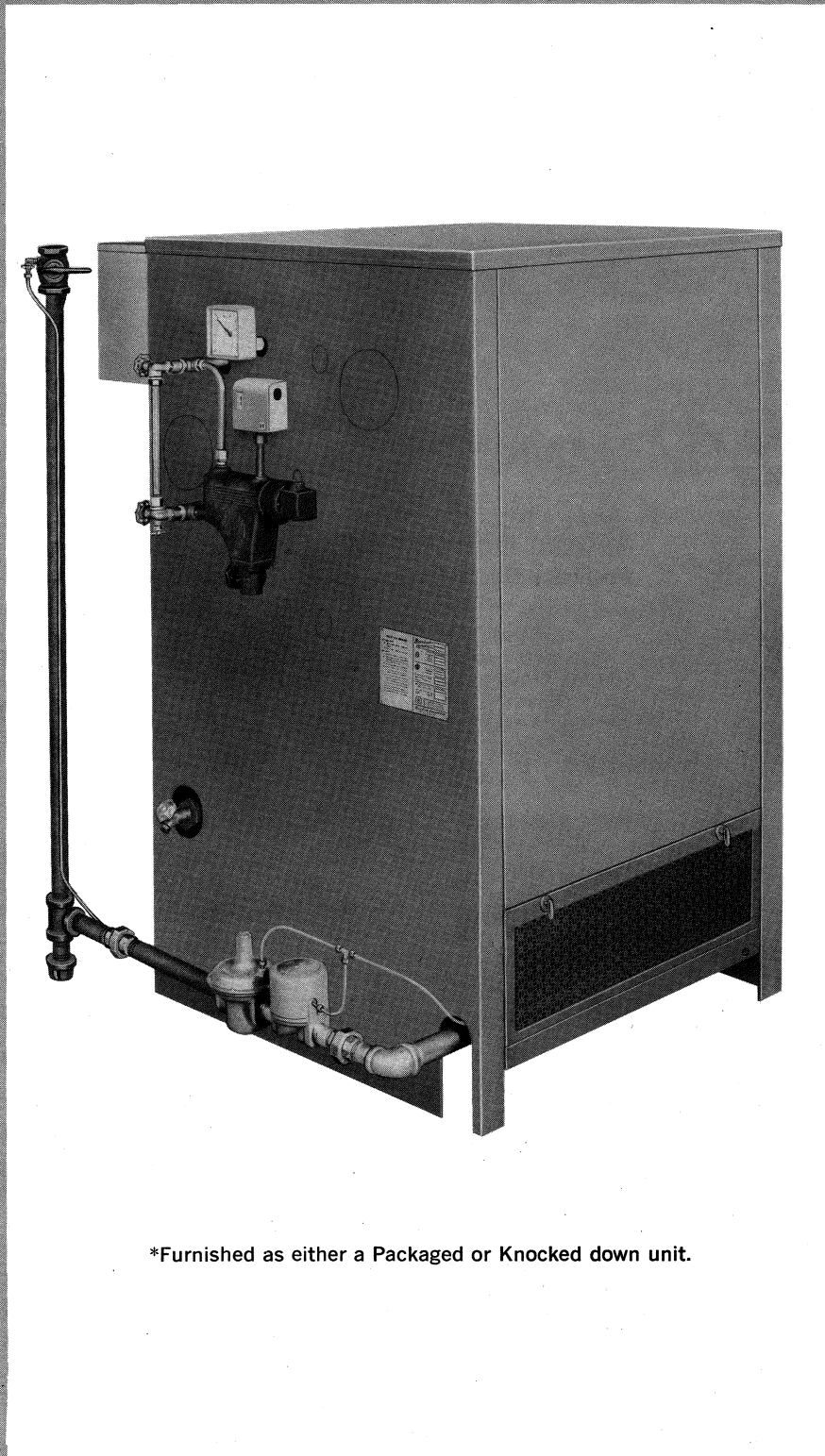


BURNHAM/HOLIDAY 6

ENGINEERING SPECIFICATION SHEET



*Furnished as either a Packaged or Knocked down unit.

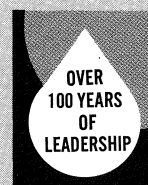
**FOR A
PACKAGED*
CAST IRON
HYDRONIC
HEATING UNIT**

**GAS FIRED
Natural or
Propane**

**SIXTEEN SIZES:
GROSS OUTPUTS—
192,000 to
1,632,000 BTU/HR**



**THE NEWEST LOOK
IN HYDRONICS**



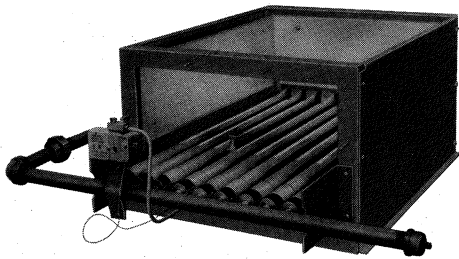
BURNHAM / HYDRONICS

BURNHAM/HOLIDAY 6

A PACKAGED CAST IRON GAS FIRED BOILER DESIGNED FOR ENGINEERED HEATING SYSTEMS

The BURNHAM HOLIDAY 6 feature the latest advances made in engineered gas hydronic heating units. The latest design in cast iron sections, steel burner/base assembly, and more than adequate heater capacities are but a few of the many features that make the HOLIDAY 6 ideally suited for commercial, institutional and high rise residential heating applications.

NOT CERTIFIED FOR INSTALLATION ON COMBUSTIBLE FLOORING



1 ALUMINIZED STEEL BURNER/BASE ASSEMBLY

Completely assembled aluminized steel burner/base assembly offers many advantages.

- POSITIVE IGNITION with less pilots • BETTER FLAME EXTINCTION • BETTER FUEL INJECTION and AIR MIXING • ALUMINIZED STEEL BURNERS FOR LONGER LIFE • THREE BURNERS PER FLUE affords more efficient combustion • BETTER COMBUSTION with MODULATING INPUTS • NO NUISANCE SERVICE because of improper burner alignment • SIMPLIFIED PRIMARY AIR REGULATION • LINEAR ADJUSTMENT is readily accessible with positive lock • INSTALLATION COST is greatly reduced • POSITIVE POSITIONED BURNERS insures highest performance efficiency.

2 INDIVIDUAL STEEL BURNERS

Newly designed Aluminized Steel Burners reduce corrosion and scaling adding years of life to the burner through its durability. Burners are design certified by A.G.A. for both natural and propane gases.

3 FLUE PLATES

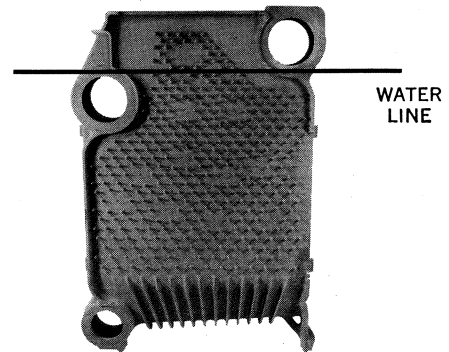
Easily removed for periodic inspection and maintenance of flue ways.

4 SUPPLY TAPPINGS

Top mounted for ease of system connection, lower piping costs and assurance of dry steam or air-free hot water.

5 DRAFT DIVERTER

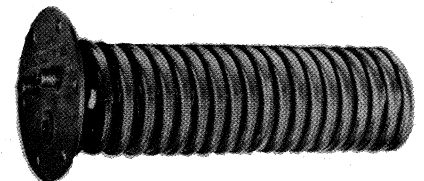
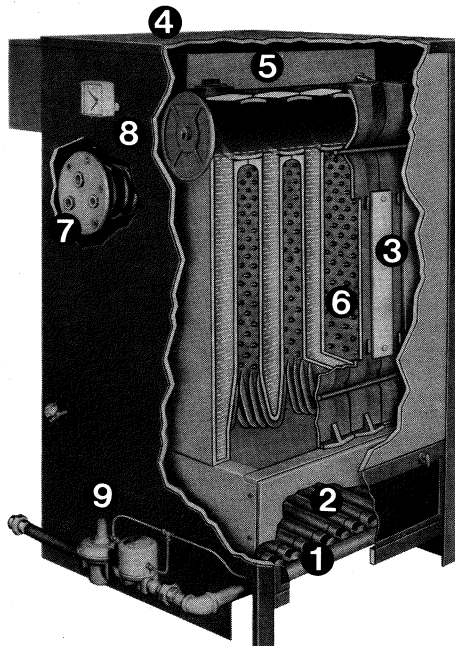
Horizontal rear diverter supplied as standard equipment. Vertical diverter for top mounting available as optional.



6 CAST IRON SECTIONS

Precision Castings through Burnham Knowledge

- VERTICAL FLUE TRAVEL through heat directional pins insuring maximum heat transfer from flue gases • THREE NIPPLE PORTS to guarantee effective internal water circulation • LARGE TOP NIPPLE provides large capacity steam chamber • RIBBED CROWN SHEET distributes flue gases, allowing optimum use of heating surfaces • SLOPING CROWN self-cleans waterways • STANDARD A.S.M.E. CONSTRUCTION for 50 lb. Working Pressure.



7 TANKLESS HEATERS

Provision is made for two high capacity heaters for either hot water or steam units.

8 WATER OR STEAM CONTROLS

Both the left and right end sections are tapped so the water or steam controls can be mounted on either side.

9 GAS CONTROLS

Automatic gas controls may be mounted from either side to provide on-off, staged, or modulated firing.

EXTRA FEATURE — THE BURNHAM HOLIDAY 6 CAN BE SUPPLIED TO YOU AS A COMPLETELY PACKAGED UNIT READY FOR INSTALLATION OR AS A KNOCKED DOWN UNIT.

RATINGS—Natural and Propane Gases

FOR INSTALLATIONS FROM SEA LEVEL TO 2000 FT.■

BOILER SIZE	A.G.A./C.G.A. RATINGS		* NET IBR RATINGS		NET IBR RATINGS STEAM Sq. Ft.	** NET RATINGS WATER Sq. Ft.	BOILER H.P.	† HOT WATER SUPPLY BOILER-CAPACITY			NO. & SIZE FLUE OUTLETS		BREECHING DIAMETER INCHES	ROUND " DIA. x
	INPUT BTU/HR	OUTPUT BTU/HR	STEAM BTU/HR	WATER BTU/HR				GAL./HR.—°F RISE			REAR	TOP		
								60°F	80°F	100°F				
603	240,000	192,000	144,000	167,000	600	1115	5.75	385	290	230	1- 7"	1- 7"	7"	7 x 1
604	360,000	288,000	216,100	250,400	900	1670	8.60	575	430	345	1-10"	1-10"	10"	10 x 1
605	480,000	384,000	288,100	333,900	1200	2225	11.45	765	575	460	1-10"	1-10"	10"	10 x 1
606	600,000	480,000	360,100	417,400	1500	2785	14.35	960	720	575	1-12"	1-12"	12"	12 x 1
607	720,000	576,000	432,100	500,900	1800	3340	17.20	1150	865	690	1-12"	1-12"	12"	12 x 1
608	840,000	672,000	504,100	584,300	2100	3895	20.10	1340	1005	805	2-10"	2-10"	14"	14 x 2
609	960,000	768,000	576,100	667,800	2400	4450	22.95	1535	1150	920	2-10"	2-10"	14"	14 x 2
610	1080,000	864,000	648,200	751,300	2700	5010	25.80	1725	1295	1035	2-12"	1-10" 1-12"	16"	16 x 2
611	1200,000	960,000	720,200	834,800	3000	5565	28.70	1915	1440	1150	2-12"	2-12"	17"	17 x 2
612	1320,000	1056,000	792,200	918,300	3300	6120	31.55	2115	1590	1270	2-12"	2-12"	17"	17 x 2
613	1440,000	1152,000	864,200	1001,700	3600	6680	34.40	2310	1730	1385	2-12"	2-12"	17"	17 x 2
614	1560,000	1248,000	936,200	1085,200	3900	7235	37.30	2510	1875	1500	3-10"	3-10"	18"	18 x 2
615	1680,000	1344,000	1015,100	1168,700	4230	7760	40.15	2690	2020	1615	2-10" 1-12"	2-10" 1-12"	19"	19 x 2
616	1800,000	1440,000	1098,100	1255,700	4565	8370	43.00	2880	2165	1730	3-12"	3-12"	21"	21 x 2
617	1920,000	1536,000	1174,300	1335,700	4895	8905	45.90	3075	2305	1845	3-12"	3-12"	21"	21 x 2
618	2040,000	1632,000	1255,400	1419,100	5230	9460	48.75	3265	2450	1960	3-12"	3-12"	21"	21 x 2

*Net IBR ratings shown are based on normal IBR piping and pick-up allowance of 1.333 for steam and 1.15 for water. Consult the manufacturer for installations having unusual piping and pick-up requirements such as intermittent operation of system, extensive piping systems, etc.

**Based on 170°F average water temperature in radiators (heat emission rate of 150 BTU/Hr./Sq. Ft.). For higher water temperatures, select boiler on basis of net ratings in BTU/Hr.

†Recommended only for use in indirect hot water supply systems (with tankless heater, heater installed in boiler, external heat exchanger, steam to water or water-water submerged in storage tank). Ratings for hot water supply based on gross output of boiler.

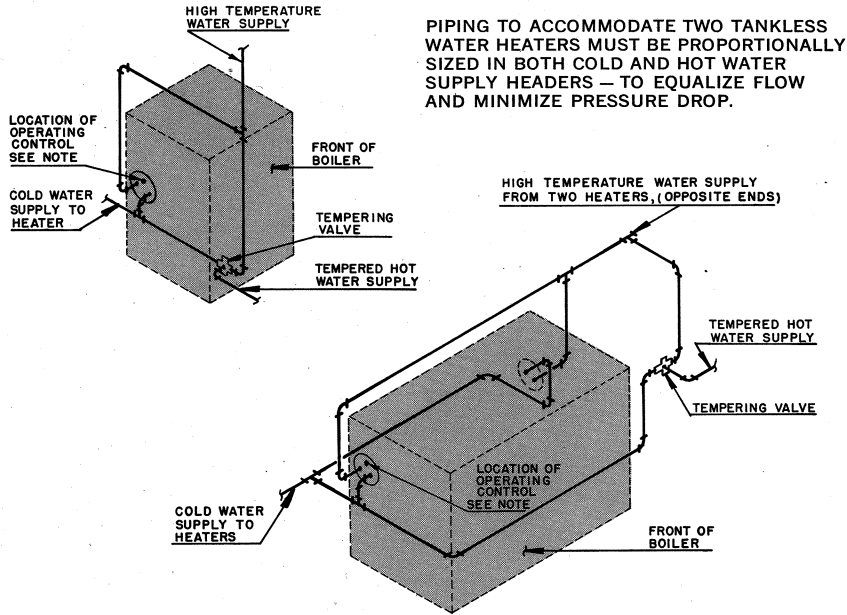
††Recommended chimneys—based on year-round use with breeching not more than one elbow. Chimney height measured from install of chimney. Flue size based on nominal size of unlined chimney. Flue liner, which will fit within these dimensions construed to have effective flue area. Boilers equipped with individual vertical vent flue outlets on draft diverters should not be less than 5' height of draft diverter. For other chimney and breeching combinations

■ For altitudes above 2000 ft:
 USA—Reduce ratings at rate of 4% for each 1000 ft. above sea level.
 CANADA—603 and 604 ratings are 90% of those shown in above table.
 2000-4500 ft. above sea level. 605 thru 618 are certified for 4500 ft. above sea level—each installation, however, must conform with local authorities having jurisdiction.

DIMENSIONS (In Inches)

BOILER SIZE	A	B	C	D _R	D _T	E	F	G	H	J	K	L	M	N	SUPPLY & RETURN CONN. QTY. & SIZE	GAS NAT.
603	18 ³ / ₈	11 ⁵ / ₈	8 ³ / ₈	1- 7	1- 7	12 ¹ / ₈	6 ³ / ₄	—	—	9 ⁵ / ₈	—	—	9 ¹ / ₄	71 ¹ / ₄	2-4	
604	23 ³ / ₈	16 ⁵ / ₈	13 ³ / ₈	1-10	1-10	15 ⁵ / ₈	8 ¹ / ₄	—	—	12 ³ / ₈	—	—	11 ³ / ₄	80 ¹ / ₄	2-4	
605	28 ³ / ₈	21 ⁵ / ₈	18 ³ / ₈	1-10	1-10	15 ¹ / ₈	8 ¹ / ₄	—	—	14 ¹ / ₈	—	—	14 ¹ / ₄	80 ¹ / ₄	2-4	
606	33 ³ / ₈	26 ⁵ / ₈	23 ³ / ₈	1-12	1-12	17 ¹ / ₈	9 ¹ / ₄	—	—	16 ⁵ / ₈	—	—	16 ³ / ₄	85 ³ / ₄	2-4	
607	38 ³ / ₈	31 ⁵ / ₈	28 ³ / ₈	1-12	1-12	17 ⁵ / ₈	9 ¹ / ₄	—	—	19 ¹ / ₈	—	—	19 ¹ / ₄	85 ³ / ₄	2-4	
608	43 ³ / ₈	36 ⁵ / ₈	33 ³ / ₈	2-10	2-10	15 ⁵ / ₈	8 ¹ / ₄	—	20	12 ³ / ₈	—	17 ¹ / ₂	14 ¹ / ₄	80 ¹ / ₄	2-4	
609	48 ³ / ₈	41 ⁵ / ₈	38 ³ / ₈	2-10	2-10	15 ¹ / ₈	8 ¹ / ₄	—	20	14 ¹ / ₈	—	20	14 ¹ / ₄	80 ¹ / ₄	2-4	
610	53 ³ / ₈	46 ⁵ / ₈	43 ³ / ₈	2-12	1-10 1-12	17 ⁵ / ₈	9 ¹ / ₄	—	22 ¹ / ₂	16 ⁵ / ₈	—	22 ¹ / ₂	16 ³ / ₄	85 ³ / ₄	2-4	
611	58 ³ / ₈	51 ⁵ / ₈	48 ³ / ₈	2-12	2-12	17 ⁵ / ₈	9 ¹ / ₄	—	25	16 ⁵ / ₈	—	25	16 ³ / ₄	85 ³ / ₄	2-4	
612	63 ³ / ₈	56 ⁵ / ₈	53 ³ / ₈	2-12	2-12	17 ⁵ / ₈	9 ¹ / ₄	—	27 ¹ / ₂	19 ⁵ / ₈	—	27 ¹ / ₂	19 ¹ / ₄	85 ³ / ₄	2-4	
613	68 ³ / ₈	61 ⁵ / ₈	58 ³ / ₈	2-12	2-12	17 ⁵ / ₈	9 ¹ / ₄	—	30	19 ⁵ / ₈	—	30	19 ¹ / ₄	85 ³ / ₄	2-4	
614	73 ³ / ₈	66 ⁵ / ₈	63 ³ / ₈	3-10	3-10	17 ⁵ / ₈	9 ¹ / ₄	20	22 ¹ / ₂	16 ⁵ / ₈	20	22 ¹ / ₂	16 ³ / ₄	80 ¹ / ₄	2-4	
615	78 ³ / ₈	71 ⁵ / ₈	68 ³ / ₈	2-10 1-12	2-10 1-12	17 ⁵ / ₈	9 ¹ / ₄	20	25	19 ⁵ / ₈	20	25	19 ¹ / ₄	85 ³ / ₄	2-4	
616	83 ³ / ₈	76 ⁵ / ₈	73 ³ / ₈	3-12	3-12	17 ⁵ / ₈	9 ¹ / ₄	25	25	16 ⁵ / ₈	25	25	16 ³ / ₄	85 ³ / ₄	2-4	
617	88 ³ / ₈	81 ⁵ / ₈	78 ³ / ₈	3-12	3-12	17 ⁵ / ₈	9 ¹ / ₄	25	27 ¹ / ₂	19 ⁵ / ₈	25	27 ¹ / ₂	19 ¹ / ₄	85 ³ / ₄	2-4	
618	93 ³ / ₈	86 ⁵ / ₈	83 ³ / ₈	3-12	3-12	17 ⁵ / ₈	9 ¹ / ₄	27 ¹ / ₂	30	19 ⁵ / ₈	27 ¹ / ₂	30	19 ¹ / ₄	85 ³ / ₄	2-4	

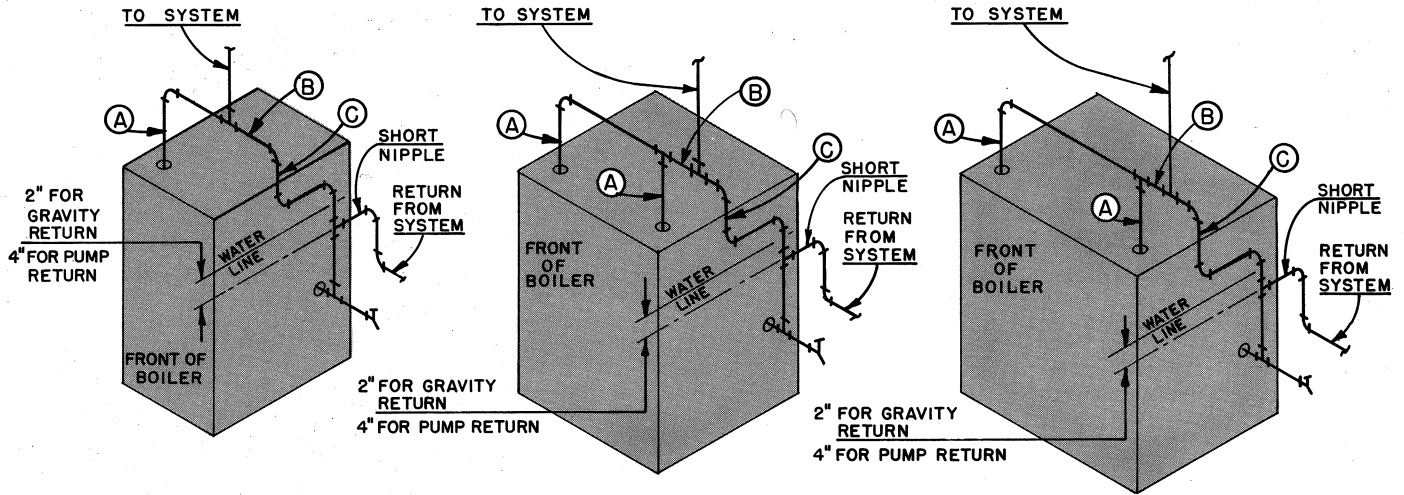
HOLIDAY 6 TANKLESS HEATER DATA



TANKLESS HEATER NUMBER	FOR USE IN BOILERS LISTED BELOW	HEATER RATINGS 40°-140°F RISE w/200° BOILER TEMP.
T-1	All Sizes	3½ GPM
T-2	605 606 thru 618	5¾ GPM 6¼
T-3	605 606 607 thru 618	6 GPM 6¾ 7¼
T-4	608 609 thru 618	9 GPM 9½

All Holiday 6 Boilers are furnished with two Heater ends (Left and Right). It is possible to install a heater in both ends so long as the total number of sections required for the heaters does not exceed the number of sections in Boiler. The required length in number of sections for each Heater is: T-1 Htr-3; T-2 Htr-5; T-3 Htr-6; T-4 Htr-8.

HOLIDAY 6 RECOMMENDED STEAM PIPING



BOILER SIZE	RISER A	HEADER B	EQUALIZER C
603	3"	3"	1½"
604	3"	3"	2½"
605	3"	3"	2½"

BOILER SIZE	RISER A	HEADER B	EQUALIZER C
610	(2) 4"	5"	2½"
611	(2) 4"	5"	2½"
612	(2) 4"	5"	2½"
613	(2) 4"	5"	2½"

BOILER SIZE	RISER A	HEADER B	EQUALIZER C
606	(2) 3"	4"	2½"
607	(2) 3"	4"	2½"
608	(2) 3"	4"	2½"
609	(2) 3"	5"	2½"

BOILER SIZE	RISER A	HEADER B	EQUALIZER C
614	(2) 4"	6"	2½"
615	(2) 4"	6"	2½"
616	(2) 4"	6"	2½"
617	(2) 4"	6"	2½"
618	(2) 4"	6"	2½"

SUBMITTAL INFORMATION

TO: _____

REF: JOB _____
ADDRESS _____
CITY-STATE _____

We hereby submit for approval on the above job, the following Burnham Holiday 6 Heating Unit(s), to be furnished in accordance with specifications listed.

Boiler(s) No. _____

AGA Gross Output, BTU/Hr. _____

Net I-B-R Rating, BTU/Hr., (water) (steam). _____

Net Rating, Sq. Ft., (water) (steam). _____

Boiler(s) will be furnished with Standard Equipment
except as follows: _____

Prepared By _____

Certified By _____

Date _____

SAMPLE SPECIFICATION

Contractor shall furnish and install, as indicated on specifications and drawings, the following:

_____ Burnham Holiday Series 6 Gas Fired Boiler(s); Model No. _____ with an A.G.A. Output rating of _____ BTU/Hr; and a net (water) (steam) rating of _____ sq. ft.

Boiler(s) shall be A.G.A. certified and have I=B=R approved ratings. Boiler(s) shall consist of cast iron sections with vertical flue ways, constructed in accordance with A.S.M.E. requirements for low pressure heating boilers and bear the A.S.M.E. markings. Boiler(s) shall have top supply tappings. Boiler(s) shall have two upper nipples for steam application; one below the normal water line for circulation of boiler water, and one above the normal water line for distribution of steam to supply connections. Boiler(s) shall be furnished with three aluminized steel tubular lanced type burners per flue way. Boiler(s) shall be supplied with insulated steel jacket by manufacturer. Gas control system shall include a safety pilot(s) and provide 100% gas shut off. Gas control train shall consist of a manual shut off valve; gas pressure regulator; and operating gas valve external of the boiler. The burner manifold shall be installed within the boiler jacket. Flue gas collector(s) shall be of two piece steel construction and shall provide for rear horizontal to vertical — or — top verticle draffhood outlet(s). Steam boiler trim shall include a steam safety relief valve. Water gauge set, steam pressure gauge, and low water cut-off. Water Boiler trim shall include a pressure relief valve and a combination temperature and pressure gauge.

(Tankless Heater Operation) — Boiler(s) shall be supplied with the following built-in tankless water heater(s); Burnham No.(s) _____ Tankless heater(s) shall have a capacity of _____ gallons per minute. This capacity is based on water heated from 40° to 140°F with 200°F boiler water temperature.