



Cast Iron Boilers

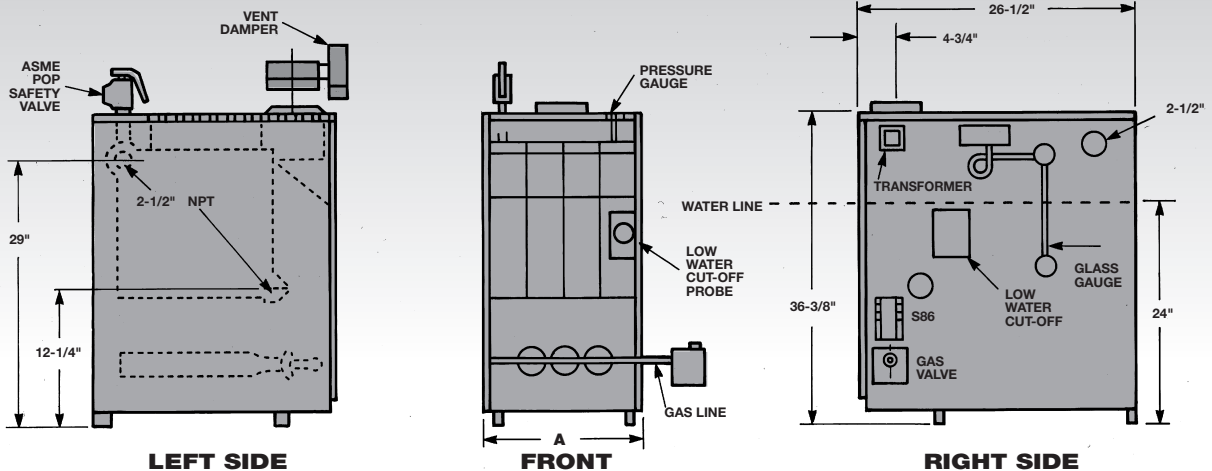
16 SERIES

Gas Fired Steam Boilers

SYSTEM FEATURES

- **High Efficiency** – The 16 Series ranks as one of the highest efficiency steam boilers in the industry as certified by US Department of Energy testing standards.
- **Cast Iron Sections and Push Nipples** – The 16 Series heat exchanger is constructed of heavy-duty cast iron sections and sealed with cast iron push nipples.
- **Integral Draft Diverter** – The diverter is built into the boiler and protects against harmful back drafts to ensure safe operation. Exhaust pipe can be installed directly from the top of the boiler enabling safe installation in sites with low ceiling height.
- **Steam Chest and Supply Tappings** – The 16 Series incorporates a 6" steam chest which allows the boiler to generate ample amounts of steam. The 2 1/2" supply tappings provide easy access for steam to enter your distribution system and heat your home quickly.
- **Safety Controls** – Low water cut-off, pressuretrol and pop safety valve are standard and ensure safe, reliable operation.
- **Electronic Ignition (optional)** – The 16 Series is available with electronic ignition that reduces gas consumption since the fuel is burned only when heat is required.
- **Test Fired** – Every 16 Series boiler is test fired at our factory prior to shipping to ensure safe, reliable operation.
- **American Made** – Pennco boilers are made in the United States by American craftsmen.





16 SERIES STEAM



GAS-FIRED HOT-WATER BOILERS RATINGS & CAPACITIES

BOILER UNIT NO.		NUMBER OF SECTIONS	† NATURAL GAS				† PROPANE GAS				DIMENSIONS		A.F.U.E.	
CONT. PILOT W/DAMPER	E/I PILOT W/DAMPER		AGA INPUT †† MBH	HEATING CAPACITY †† MBH	NET I=B=R †† MBH	NET I=B=R SQ. FT. EDR	AGA INPUT †† MBH	HEATING CAPACITY †† MBH	NET I=B=R †† MBH	NET I=B=R SQ. FT. EDR	FLUE DIAMETER	"A" WIDTH	HSD W/DAMPER	HSD W/DAMPER
1603HSD	1603HSID	3	75	62	47	196	70	58	44	183	5"	11 1/4"	81.1	82.7
1604HSD	1604HSID	4	112	91	68	283	105	85	64	267	6"	14 1/2"	78.8	82.0
1605HSD	1605HSID	5	150	122	92	383	140	114	86	358	6"	17 3/4"	79.2	82.0
1606HSD	1606HSID	6	187	153	115	479	175	143	107	446	7"	21"	79.6	82.0
1607HSD	1607HSID	7	225	183	137	571	210	171	128	533	7"	21 1/4"	80.1	82.0
1608HSD	1608HSID	8	262	214	161	671	245	200	150	625	7"	27 1/2"	80.5	82.0
1609HSD	1609HSID	9	299	245	184	767	280	229	172	717	7"	30 3/4"	80.9	82.0

†† MBH = 1,000 Btuh
Btuh = BRITISH THERMAL UNIT PER HOUR

† FOR ALTITUDES ABOVE 2,000 FEET RATINGS SHOULD BE REDUCED AT THE RATE OF 4% FOR EACH 1,000 FEET ABOVE SEA LEVEL
NEW YORK MEA NUMBER 77-91-E

HEATING CAPACITY BASED ON D.O.E. (DEPARTMENT OF ENERGY STANDARDS)
* ADD 5-1/2" TO HEIGHT FOR VENT DAMPER
EDR= EQUIVALENT DIRECT RADIATION

16 SERIES STANDARD EQUIPMENT

- Assembled boiler with insulated jacket
- Two 2-1/2" supply tappings and two 2-1/2" return tappings
- Integral draft diverter – built into jacket
- 24 volt, 40VA transformer
- Pressure limit control
- Electronic probe type low water cut off
- Flame rollout safety shut-off fuse link and blocked vent safety shut-off switch
- Glass water level gauge
- Steam pressure gauge
- 3/4" boiler drain valve
- 15 lb. ASME pop safety valve
- Two 2-1/2" square head pipe plugs – to plug unused supply and return tappings

- Vent damper
- Complete installation instructions
- Completely installed and wired gas control systems with burners and manifold, consisting of:
 - Titanium burners
 - Automatic redundant combination gas valve, 24 volt, with pilot filter
- ELECTRONIC IGNITION ONLY:**
 - Intermittent Pilot Control, continuous re-try, 100% shut-off
 - Combination pilot/burner/ electrode/flame sensor
- STANDING PILOT ONLY:**
 - Pilot burner and thermocouple

OPTIONAL EQUIPMENT

- Combustible floor plate – 14614032 for 3-6 section; 14614032 for 7-9 section
- Electronic water feeder
- Float type low water cut-off in place of probe type
- Natural to propane conversion kit (when ordering kit, please provide serial number of boiler to be converted)

- The ratings marked Net I=B=R Ratings represent the portion of the heat output that can be applied to heat the radiation or terminal units. The Net I=B=R Ratings shown are based on an allowance of 1.15 in accordance with the factors shown in the I=B=R Code as published by The Hydronics Institute.
- Selection of boiler size should be based upon Net I=B=R Rating being equal to or greater than the installed radiation in square feet EDR

- Consult manufacturer before selecting a boiler for installations having unusual piping and pick-up requirements.
- These gas-fired boilers are sectional cast iron boilers design certified by I.A.S. in the U.S. for use with natural gas and propane gas. They are constructed and hydrostatically tested for a maximum working pressure of 50 psi in accordance with A.S.M.E. (American Society of Mechanical Engineers) Boiler And Pressure Vessel Code Section IV standards for cast iron heating boilers. They are capacity rated in accordance with the code of The Hydronics Institute.



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