# SPECIFICATIONS AND PERFORMANCE

# UTIC4 BOILERS



82% AFUE Efficiency

# **Available Heating Capacity of:**

90,000 Btuh through 243,000 Btuh

Application – The PEG-C Series gas-fired steam boilers are available in six sizes with a heating capacity of 90,000 to 243,000 Btuh and an AFUE as high as 82% for electronic ignition and 78% with standing pilot. The PEG-C Steam Series boilers come fully assembled tested and ready to install. Features include a compact design with a low profile draft hood allowing installation in areas with low ceilings, quality cast-iron construction, high efficiency and dependable performance backed by Utica Boiler's years of experience. This makes the PEG-C boiler an ideal replacement or upgrade for homeowners interested in comfort, economy and years of worry-free performance.

# Benefits:

- High efficiency, performance and low operating cost
- · Worry-free performance

Approvals – The cast iron boiler assembly is manufactured and tested in accordance with American Society of Mechanical Engineers (ASME) standards, and certified by Canadian Standards Association (CSA) in the US. The Annual Fuel Utilization Efficiencies (AFUE) and heating capacity are based on US DOE test procedures and FTC labeling regulations. AFUE and I=B=R ratings are certified in accordance with standards set by The Hydronics Institute Division of the Gas Appliance Manufacturers Association (GAMA). The Material and Equipment Acceptance number for the City of New York, is Mea# 17-79.

# PEG-C Series Cast Iron Gas-Fired Steam Boilers

P/N# 240005815, Rev. A [07/08]









Warranty—The PEG-C is covered by a manufacturer's 10-year warranty for residential installations. In addition, your heating system is backed by an American commitment to quality that is synonymous with the Utica Boilers name. Should it be necessary, repair and service parts are readily available though our nationwide distribution network.

# **FEATURES AND BENEFITS**

Cast Iron Boiler Assembly – Boiler sections and push nipples are constructed of long life cast iron. When the boiler is heated, sections and push nipples expand and contract in the same proportion because they are constructed of like material, providing a positive watertight seal.

**Benefit:** Cast iron provides efficient heat transfer, reliability and strength, the cast iron push nipples insure a watertight seal.

# ▲ Cabinet:

- Constructed of heavy gauge steel with a baked-on enamel finish
- Insulated to keep cabinet surface temperatures low.
- Low profile draft hood allows for installation in areas with low ceilings.
- An integrated automatic vent damper closes when the burner shuts off.

**Benefit:** Compact design and low profile draft hood allows for installation in areas with low ceilings

Stainless Steel Burner – Advanced design corrosion resistant stainless steel burners are incorporated into each PEG-C boiler delivering uniform flame patterns that optimize combustion efficiency and quiet operation.

# ▲ Built-In Safety Devices :

- Low water cut-off to constantly monitor water levels and prevent "dry-firing" and potential boiler failure.
- · Sight-glass for easy viewing of water the level
- Two thermally activated safety sensors automatically shut off the gas burners should the chimney or heat exchanger become blocked.

# PEG-C STEAM SERIES CAST IRON GAS-FIRED BOILERS

## **FEATURES AND BENEFITS Continued**

- **Automatic Gas Control** Silent operating control provides 100% safety shut off. A 24 Volt redundant combination gas control valve combines:
  - Automatic safety pilot
  - Manual shut off (On-Off)
  - Pilot filtration
  - Automatic electric valve (dual)
  - Gas pressure regulation
  - Dual valve design provides 100% shut off to the pilot and main burners.
- **▲** Standing Pilot Ignition Manually lighted standing pilot provides dependable and safe burner ignition.
- **Low Water Cut-Off** Provides for safe, reliable operation.
- ▶ Flame Rollout Safety Shutoff A temperature sensitive fusible-link device is furnished as standard and factory installed on the boiler base just outside of the burner assembly. This device prevents unit operation in the event that the passage of combustion products through the flueway is blocked.
- Electronic Ignition Solid-state electronic spark igniter provides positive ignition of pilot burner on each operating cycle. Pilot gas is ignited and burns during each running cycle of the boiler. Main burners and pilot gas are extinguished during the off cycle. Ignition system permits main gas valve to open only when the pilot burner

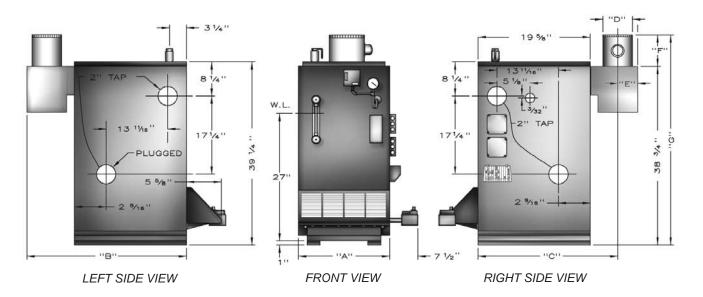
is proven to be lit. Pilot operation is fully automatic on demand for heat. Should a loss of flame occur, the main valve closes, shutting down the unit.

**Benefit:** Pilot is lit automatically and stays lit only when needed, eliminating fuel waste.

- Blocked Vent Safety Shutoff A temperature sensitive snap-disc device prevents unit operation in case of vent or chimney blockage. This device is factory installed at the relief opening on the draft diverter located in the cabinet opening. The switch has a manual reset button to set the boiler back in operation if the switch contacts open because of downdraft.
- Vent Damper Motorized vent damper electrically interlocks with gas ignition system to increase efficiency of heating system by reducing the loss of heated air up the chimney after the burner shut off, reducing infiltration during boiler off cycles. The vent damper is standard equipment.
- Relief Valve Furnished as standard for field installation on top of the boiler. Valve provides for pressure relief of heating system in case of abnormal operating conditions. Valve opens at 15 psig (105 kPa) and is ASME stamped.

PEG-C SERIES STANDARD EQUIPMENT								
Assembled boiler wired and tested	Blocked vent and roll-out safety switches							
Cast iron section and push nipples	Gas valve							
Drafthood	PILOT (a choice of):							
Low water cut-off (probe type)	Standing pilot							
Deluxe insulated cabinet								
Automatic vent damper	Electronic ignition • Intermittent pilot control							
Ported stainless steel burners								
Steam pressure control	Continuous retry     Combination pilot burner     Electrode     Flame sensor							
Pressure gauge								
Gauge glass								
2) 2" Supply tappings	OPTIONAL EQUIPMENT							
2) 2" Return tappings - LH plugged	Electronic water feeder							

# **BOILER RATINGS & CAPACITIES**



RATINGS, DATA, AND DIMENSIONS FOR NATURAL GAS STEAM BOILERS																
Boiler Number	*A.G.A Input Btuh. & Damper	Heating Capacity Btuh.	Net I=B=R** Steam Rating		Inlet Gas	Dimensions						Water Content (Gallon Capacity)		Annual Fuel Utilization Efficiency (AFUE)		
& Damper			Btuh.	Sq. Ft.	Size	A	В	С	D	E	F	G	To Water Line	To LWCO Line	Elect. Ign.	Std. Pilot
PEG112C	112,500	90,000	67,500	281	1/2	14 1/4	27 %	24 1/8	5	3 ½	6	44 ¾	4.8	3.0	82.0	78
PEG150C	150,000	120,000	90,000	375	1/2	17 1/8	28 %	24 %	6	4	6 ½	45 1/4	6.0	3.7	82.0	78
PEG187C	187,000	151,000	113,300	472	1/2	20	29 %	25 1/8	7	4 ½	7	45 ¾	7.0	4.4	82.0	78
PEG225C	225,000	181,000	135,800	556	3/4	22 <sup>13</sup> / <sub>16</sub>	30 %	25 %	8	5	8	46 ¾	8.4	5.0	82.0	78
PEG262C	262,500	212,000	159,000	663	3/4	25 %	30 %	25 %	8	5	8	46 ¾	9.5	5.8	82.0	78
PEG300C	299,999	243,000	182,300	760	3/4	28 1/8	31 %	26 1/8	9	5 ½	10	48 ¾	10.7	6.4	81.0	78

<sup>\*</sup> For altitudes above 2,000 ft. ratings should be reduced at the rate of 4% for each 1,000 ft. above sea level, The MEA number for the PEG series is 17-79.

**Note:** The Ratings marked "Net I=B=R" indicate the amount of equivalent direct cast iron radiation each boiler will take care of under normal conditions and thermostatic control. The Net I=B=R Steam Ratings shown are based on a piping and pickup allowance of 1.333. Proper allowance has been made for piping and pickup in accordance with the factors shown in the I=B=R Standard as published by The Hydronics Institute. Selection of boiler size should be based upon Net Btu per Hour of the connected radiation and piping. The manufacturer should be consulted before selecting a boiler for installations having unusual piping and pickup requirements. In line with it's policy of product improvement, Utica Boilers reserves the right to make changes without notice.

Electrical service to be 120 Volts, 15 Amps, 60 Hz.

<sup>\*\*</sup> For equivalent square feet of radiation, divide I=B=R output by 240.

## PEG-C STEAM SERIES CAST IRON GAS-FIRED BOILERS

BOILER CLEARANCES						
Unit	Minimum Clearance to Combustible	Vent Pipe Minimum Clearance				
Тор	24"					
Front*	Alcove (open)					
Flue Connector	6"	18"				
Rear	8"					
Sides	6"					

\*Alcove - boiler may be installed in an area inclosed on 3 sides with the front open (U shaped).

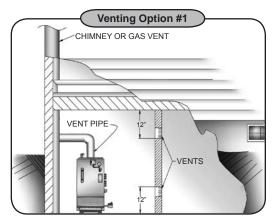
### Notes:

- This unit must be set on a concrete or other noncombustible material base or floor. IT MUST NOT BE INSTALLED ON CARPETING.
- · Allow for greater clearance on access side for servicing.

Ventilation of the boiler room must be adequate to provide sufficient air to properly support combustion

When a boiler is located in an unconfined space in a building of conventional construction frame, masonry or metal, infiltration normally is adequate to provide air for combustion and ventilation. However, in any building which has been altered to conserve energy or to minimize infiltration, the boiler area should be considered as a *confined space*. If there is any doubt, install air supply provisions for combustion and ventilation in accordance with national Flue Gas Code, ANSI Z223.1 section 1.7, the recommendations that follow, or applicable provisions of the local building codes.

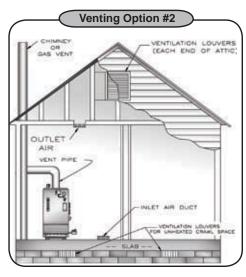
Samples of venting options follow.



When the boiler is installed in a confined space and all air is provided from the outdoors the confined space shall be provided with one or two permanent openings (See PEG-C Series Installation manual for more detailed). When ducts are used, they shall be of the same cross sectional area as the free area of the area of the openings to which they connect. The minimum dimension of rectangular air ducts shall be not less than 3 x 3 inches or 9 square inches. *Venting Option #1* 

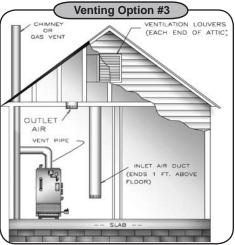
When directly communicating with the outdoors, each opening shall have a minimum free area of 1 square inch per 4,000 Btu per hour of total input rating of all equipment in the enclosure.

**Venting Option #2** 



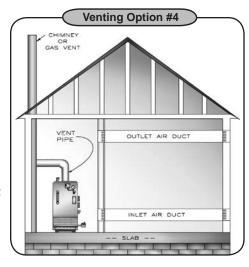
When communicating with the outdoors by means of vertical ducts, each opening shall have a minimum free area 1 square inch per 4,000 Btu per hour of total input rating of all appliances in the enclosed space.

**Venting Option #3** 



If horizontal ducts are used, each opening and duct shall have a minimum free area 1 square inch per 2,000 Btu per hour of total input rating of all appliances in the enclosed space.

Venting Option #4





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