



PIONEER

**Advanced Heating
& Hot Water Systems**

A Trailblazing Appliance that Installs
Like a Mid-Efficiency Boiler with the
Performance of a High-Efficiency Product

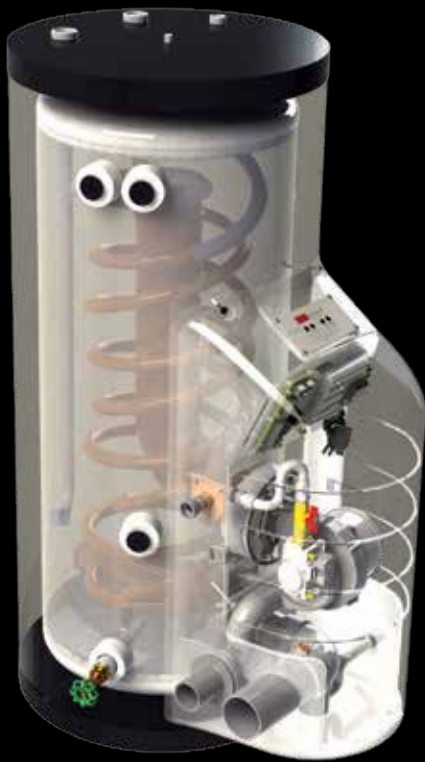


Up to 95% Efficient • 5:1 Turndown Ratio • Single Loop Installation

The **Pioneer** is a trailblazing heating appliance that installs like a mid-efficiency boiler with the performance of a high-efficiency product.



FEATURES AND BENEFITS



High Efficiency

With up to 95 % operating efficiency, this product uses less energy to meet desired heating loads and significantly reduces energy costs.

The Alternative to Mid-Efficiency Products

With ample thermal mass and no primary/secondary piping required, this unit is a replacement for mid-efficiency units.

Hydronic Stabilization

Stored hot water, or "thermal mass", in the stainless steel tank provides a buffer against cycling during low load conditions.

Low Maintenance Design

The advanced hybrid cupronickel/stainless steel heat exchanger eliminates scale buildup through rapid thermal expansion / contraction, and its "down fire" characteristics allow for rapid removal of acidic condensate.

Single Loop Installation

The heat exchanger, constantly surrounded by water, is protected against "flashing" due to low flow conditions, eliminating the need for a primary/secondary piping setup. The Pioneer's low pressure drop eliminates the expense of high head boiler circulators.

PIONEER



COMPETITIVE EDGE



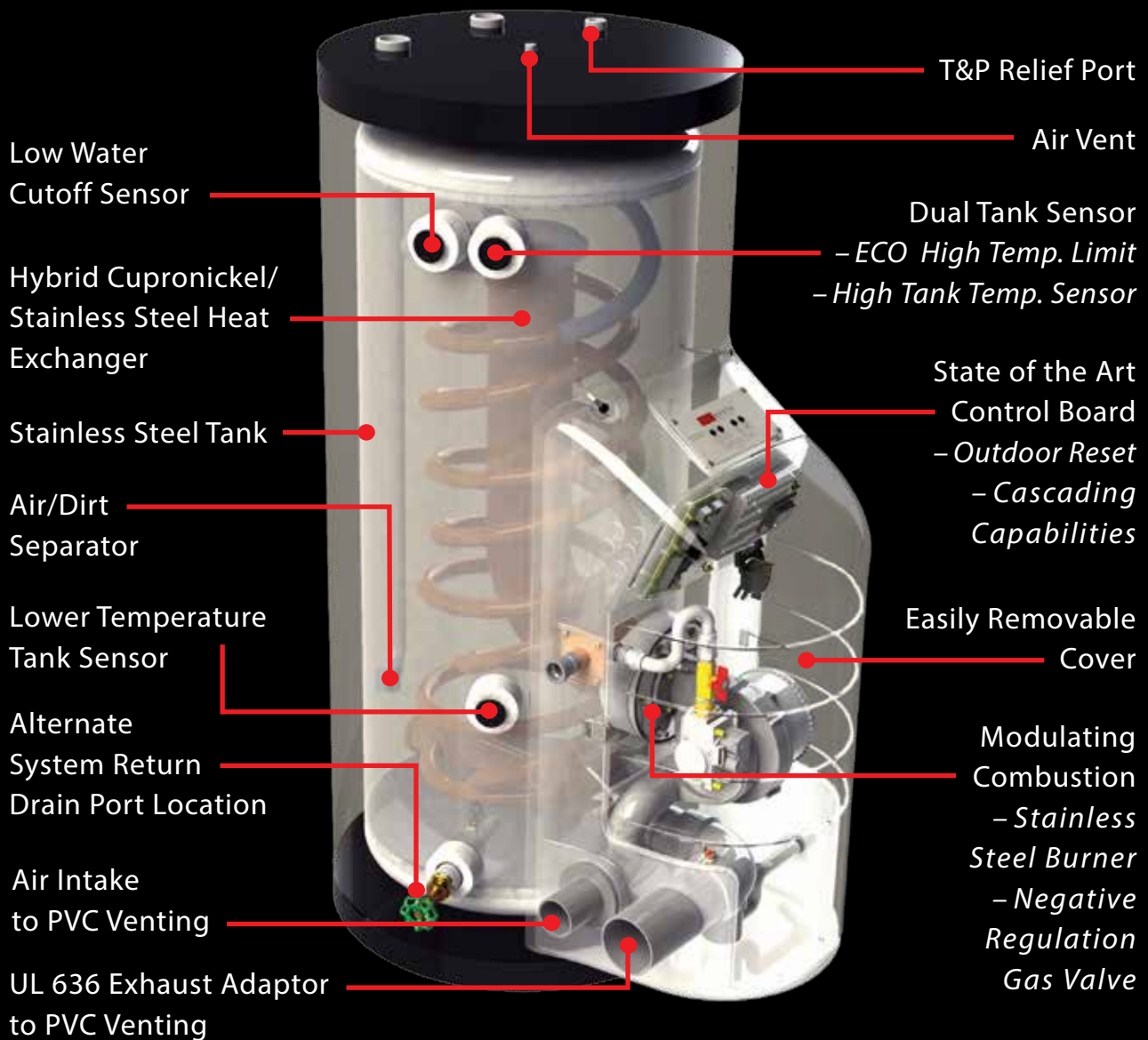
	Pioneer Boiler	Atmospheric Cast Iron Boilers	Atmospheric Copper Fin Boilers	Power Vented Non-Condensing Cast Iron Boilers	Condensing Low Mass Boilers
Efficiency	★ Up To 95%	≤ 85%	< 85%	≤ 87%	★ ≥ 90%
Modulation	★ YES	NO	NO	NO	★ YES
Vent Category	★ IV	I	I	★ II or IV	★ IV
Required Vent Materials	★ PVC or AL29-4C Stainless Steel	Type "B" Materials or lined chimneys	Type "B" Materials or lined chimneys	AL29-4C Stainless Steel	★ PVC or AL29-4C Stainless Steel
Controls	★ Modulating	On/Off	On/Off or Staged	On/Off or Staged	★ Modulating
Piping Setup	★ Single Loop	★ Single Loop	Primary/Secondary	★ Single Loop	Primary/Secondary
Built in Air/Dirt Separator	★ YES	NO	NO	NO	NO
Thermal Mass for System Stabilization	★ YES	★ YES	NO	★ YES	NO
Eligible for Federal Tax Credit	★ YES	NO	NO	NO	★ YES

The Pioneer meets or exceeds the competition in all 9 of the categories highlighted in the chart above. The cutting-edge features, technological advancements, ease of serviceability, and energy savings make The Pioneer a superior alternative to mid-efficiency cast iron and copper fin boilers.

The figures above are based on averages. Data was collected from various competitor sources.

Changing the Course of Hydronics...

A Closer Look At HTP's Pioneer Heating Appliance



Maintenance and Service Made Easy

Low maintenance heat exchanger design: 5" diameter combustion tube which connects to 1-1/8" down firing spiral tubes.

The Pioneer's combustion and control system can be accessed by removing a light, molded cover.

Easy access to control board, display and field connection board without the need for tools.

The gas valve/burner assembly is detached by removing 6 simple nuts and one end of the flexible gas line to the valve.

EASE OF INSTALLATION



Space Heating Appliance and
Buffer Tank In One

No Boiler Loop Required

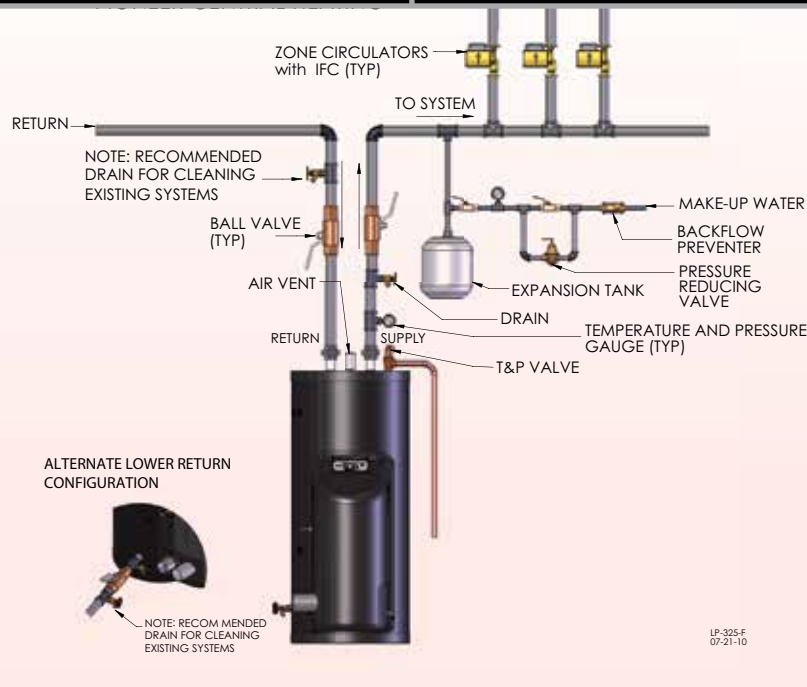
Direct Connection to the Primary
Heating Loop

Low Pressure Drop

PVC Venting Material
- Easier Installation
- Reduced Cost

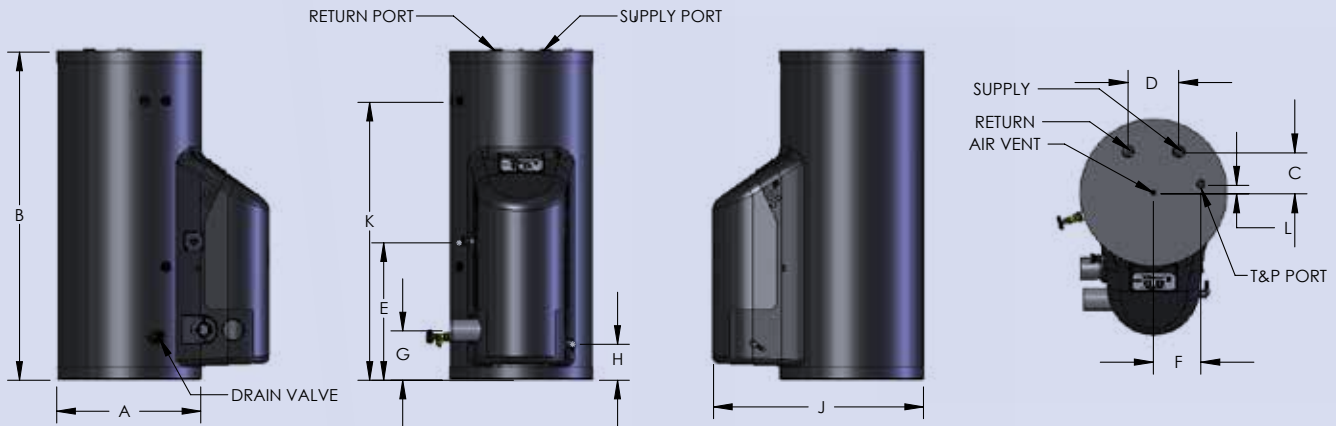
Simplified Retro Fitting for Cast Iron
Boiler Replacements

Combustion Air: Direct Vent / Room Air Intake



Advancing Hydronics
Technology...

Pioneer Heating Appliance Dimensions and Specifications



PIONEER DIMENSIONS AND SPECIFICATIONS										
MODEL #	MODULATION RANGE	AIR INTAKE/ EXHAUST VENT SIZE	SUPPLY/ RETURN SIZE	AIR VENT	GAS CONN.	SHIPPING WT. (lbs.)	GAL.			
PHR100-55	35,000- 100,000	2"	1-1/4" NPT	1/8" NPT	3/4"	260	55			
PHR130-55	35,000- 130,000	2"				260				
PHR160-55	40,000- 160,000	3"				260				
PHR199-55	40,000- 199,000	3"				260				
A	B	C	D	E	F	G	H	J	K	L
23"	53"	6-1/2"	8"	22"	7-1/2"	8"	6"	34"	45"	1-1/4"

All standard Pioneers are built to fire on Natural gas. LP conversion kits are included with the product..

STANDARD FEATURES

- Modulating Burner
- 5:1 Turndown Ratio
- Venting Options
 - Room Air Intake
 - Concentric
 - Flexible Vent Pipe
 - Up to 200 combined ft.
- Single Loop Installation
- 12 Year Limited Warranty

INCLUDED IN THE BOX

- Pressure and Temperature Gauge
- 30 PSI Temperature and Pressure Relief Valve
- Intake PVC Tee w/ Screens
- Exhaust PVC Coupling w/ Screens
- Installation Manual
- Outdoor Sensor

OPTIONAL EQUIPMENT

- System Sensor
- Indirect Tank Sensor
- 3", 4", 6" Stainless Steel Outside Termination Vent Kit
- 3" PVC Concentric Vent Kit
- U.L. 353 Compliant Low Water Cutoff w/ Manual Reset
- Alarm System to Monitor Failures
- PC Connection Kit
- Condensate Neutralizer

Pioneer Model

Thermal Efficiency

PHR-100-55	95%
PHR-130-55	94%
PHR-160-55	95%
PHR-199-55	95%



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