

Technical Data Sheet

Centurion®

Water Heater

The PVI Centurion water heater utilizes state-of-the-art technology to easily meet highly diverse, demanding commercial and industrial hot water requirements in a compact and reliable condensing design. The durable, highly reliable AquaPLEX® stainless steel firetube heat exchanger assembly is thermal shockproof, inherently immune to aqueous corrosion and chloride stress corrosion cracking for extended life. The AquaPLEX construction maximizes longevity in the condensing application and the corrugated tubes increase effective heat transfer surface area for optimal thermal efficiencies. Centurion provides safe, instant hot water while mitigating Legionella and scalding risks due to lower set points, continual circulation and minimum water storage as buffer.

The advanced Edge® Controller incorporates dynamic feed-forward sensing for precise modulation of its high turndown air/fuel delivery system. The Edge fires the unit to accurately match load requirements and produce tight hot water outlet temperature control. Edge includes onboard multi-unit sequencing logic for up to 16 units, eliminating a need for a separate sequencing panel. Wasteful overshooting and cycling are virtually eliminated as is the need for storage tanks, mixing valves and other temperature averaging components in most applications.

The set point is adjustable from 50°F to 190°F, and control to $\pm 4^\circ\text{F}$ is easily achieved. With its tight temperature control, high efficiency, reliability and longevity, Centurion is a truly unique and advanced design. Centurion comes standard with an innovative O₂ trim system that self-adjusts and maintains air/fuel ratios at optimum levels for peak efficiency, low emissions and maximum uptime reliability in event of any site condition changes. Oxygen levels can be directly displayed on the unit in real time or be remotely monitored, giving our customers the ability to measure the emissions level and fuel economy of the heater without traditional combustion calibration devices. Sidewall, through-the-roof, and ducted combustion capabilities provide broad installation flexibility. The small footprint, doorway size and quiet operation make it ideal for retrofit. With its tight temperature control, high efficiency, reliability and longevity the Centurion is truly a unique and advanced design.



Features

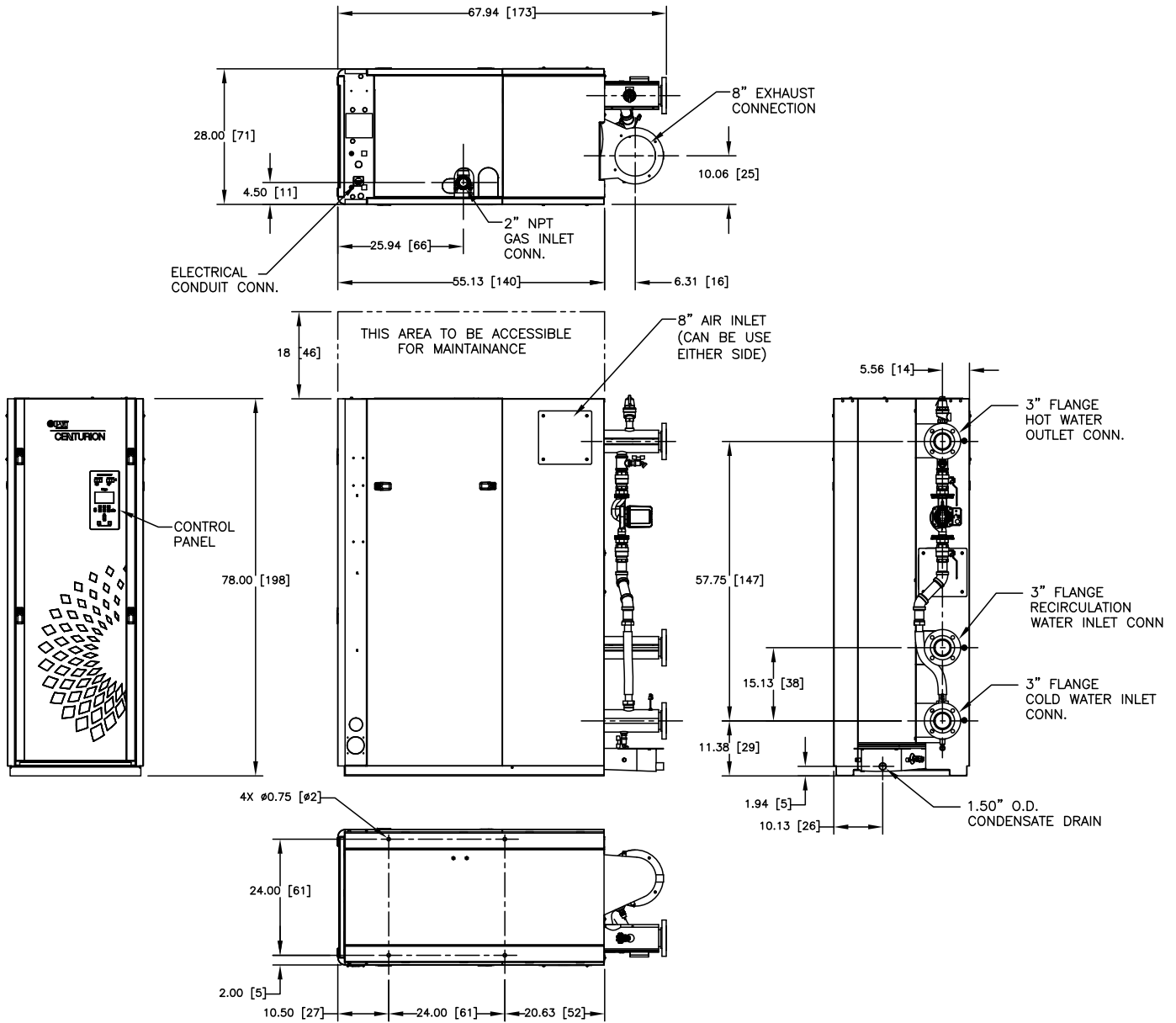
- 2000 MBH with fully modulating, condensing design
- Precise temperature control $\pm 4^\circ\text{F}$
- Advanced Edge Controller with O₂ Trim that self-adjusts and maintains optimal air-fuel ratios for peak efficiency, low emissions and maximum reliability
- Integrated Water Heater Management (WHM) multi-unit sequencing (up to 16 units)
- Corrosion-resistant AquaPLEX duplex stainless steel fire tube heat exchanger backed by a 15-year warranty
- Compact, space efficient design
- Natural gas
- Outlet water temperature of 50° to 190°F
- UL, cUL listed for closet installation on combustible flooring
- 160 PSIG ASME Working Pressure Certified
- Direct or conventional vent with, Polypropylene or AL29-4C materials
- Integrated BACnet IP, BACnet MS/TP, Modbus IP and Modbus RTU communication
- Remote alarm contacts
- Ducted combustion air capable
- UL, cUL listed, FM compliant, ASME section IV (HLW) stamped

Recovery Capacity*

Centurion 2000 (CEN 2000)									
Temperature Rise (°F)	60°	70°	80°	90°	100°	110°	120°	130°	140°
Gallons Per Minute	63.3	54.3	47.5	42.2	38.0	34.5	31.7	29.2	27.1
Gallons Per Hour	3798	3258	2850	2532	2280	2070	1902	1752	1626

*In condensing mode <2000 ft above sea level

Dimensions in inches



Technical Data

	Centurion 2000 (CEN 2000)
Adjustable Temperature Control	50°F to 190°F
Ambient Temperature	0°F to 130°F
Accuracy	+/-4°F
Input	2,000 MBH
Certified Efficiency (DOE 10 CFR Part 431)	95%
Turndown Ratio	20:1
Flue/Air Intake Connections	8" Inch
Flue Material (per local code)	Polypropylene or AL29-4C
Water Inlet, Outlet, and Recirc. Conn.	3" Flanged
Gas Connection - Natural Gas	2" NPT Male
Gas Pressure Requirements (Natural Gas)	14" WC Max
	4" WC Minimum @ Full Load
Maximum Continuous Water Flow	130 GPM
Condensate Trap Connection	3/4 inch NPT Female
Maximum Condensate Flow	16 GPH
Pressure Rating	160 PSIG @ 210°F
NOx Emissions	< 20 ppm NOx. (SCAQMD)
Standard Listing and Approvals	UL, cUL, ASME, (HLW)
Gas Train Options	FM Compliant or Factory Installed DBB (IRI)
Electrical Requirements	208VAC / 3Phase / 60Hz / 20A (10 FLA) 460VAC / 3Phase / 60Hz / 15A (5 FLA)
Water Pressure Drop @ 50 gpm	2.1 psi
Sound Rating	72 dbA
Water Volume	64.0 gallons
Weight, Installed	1,650 lbs. (dry)
	2,203 lbs. (wet)
Weight Shipping	1,850 lbs.



Hot Water Solutions

PVI Industries • Fort Worth, TX 76111
 USA: T: (817) 335-9531 • Toll Free: (800) 784-8326 • PVI.com