

Technical Data Sheet A WAT Innovation (1600-2000) Water Heaters

The AERCO Innovation 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 stainless steel firetube heat exchanger assembly is thermal shockproof, inherently immune to aqueous corrosion and chloride stress corrosion cracking for extended life. The construction maximizes longevity in the condensing application and the corrugated tubes increase effective heat transfer surface area for optimal thermal efficiencies. Innovation 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 ± 4°F is easily achieved. With its tight temperature control, high efficiency, reliability and longevity, Innovation is a truly unique and advanced design. Innovation comes standard with an innovative AERtrim 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 Innovation is truly a unique and advanced design.









Features

- 1600, 2000 MBH with fully modulating, condensing design
- Precise temperature control ±4°F
- Advanced Edge Controller with AERtrim 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 duplex stainless steel fire tube heat exchanger backed by a 15-year warranty
- Compact, space efficient design
- Natural gas and propane
- 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, PVC, CPVC, 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*

Innovation 1600 (INN 1600)	•					•			•
Temperature Rise (°F)	60°	70°	80°	90°	100°	110°	120°	130°	140°
Gallons Per Minute (gpm)	51.1	43.0	37.6	33.4	30.1	27.3	25.1	23.1	21.5
Gallons Per Hour (gph)	3006	2580	2256	2004	1806	1638	1506	1386	1290
Innovation 2000 (INN 2000)									
Temperature Rise (°F)	60°	70°	80°	90°	100°	110°	120°	130°	140°
Gallons Per Minute (gpm)	64.0	54.9	48	42.7	38.4	34.9	32.0	29.5	27.4
Gallons Per Hour (gph)	3840	3294	2880	2562	2304	2094	1920	1770	1644

*In condensing mode <2000 ft above sea level

Dimensions

Inches (cm)



Technical Data

	INN 1600	INN 2000			
Adjustable Temperature Control	50°F to 190°F				
Ambient Temperature	0°F to 130°F				
Accuracy	+/-4°F				
Input	1,600 MBH	2,000 MBH			
Certified Efficiency (DOE 10 CFR Part 431)	94%	96%			
Turndown Ratio	16:1	20:1			
Flue/Air Intake Connections	8" Inch				
Flue Material (per local code)	PVC, CPVC, Polypropylene or AL29-4C				
Water Inlet, Outlet, and Recirc. Conn.	3" Flanged				
Gas Connection - Natural Gas/Propane	2" NPT Male/1-1/2" NPT Male				
Gas Pressure Requirements - Natural Gas/Propane	14" WC Max/14" WC Max				
Gas Fressure nequirements - Natural Gas/Fropane	4" WC Min/8" WC Min @ Full Load				
Maximum Continuous Water Flow	130 GPM				
Condensate Trap Connection	3/4" 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.				

Accessories & Optional Equipment

Innovation 1600/2000 Natural Gas Trim Kit - PN 58212-1 Innovation 1600/2000 Propane Trim Kit - PN 58212-2 Sequencing Isolation Valve kit (with 3" Flanged Inlet Spool Piece) - PN 24773-1 Sequencing Isolation Valve kit (with 3" Flanged Inlet & Outlet Spool Pieces) - PN 24773-2 Zero-Side Clearance Installation Kit (2-Unit Pairs) - PN 58079-1 Maxitrol RV-91 Gas Pressure Regulator, Up to 14" WC inlet pressure, 2" x 2" conn, 1/2" vent - PN 123628 Jeavons JADDA Gas Pressure Regulator, >14" WC to 1 psi inlet pressure, 2" x 2" conn, 1/4" vent - PN 124261 Jeavons JAB8A Gas Pressure Regulator, >1 psi to 2 psi inlet pressure, 1.25" x 1.25" conn, 1/4" vent - PN 124259 Condensate Neutralizer Tank (Up to 6,400 MBH) - PN 89030 PROTONODE Communications Gateway - Auto Discover – Johnson N2 - PN 69281-1 PROTONODE Communications Gateway - Auto Discover – LonWorks - PN 69281-2 Gateway 120VAC/24VAC Transformer - PN 62010 8" Exhaust Muffler – HeatFab CI Plus - PN 124012 8" Exhaust Muffler – Flanged Ends/Universal - PN 99190



Heating and Hot Water Solutions