

American Standard

WATER HEATERS

Advanced Heating
& Hot Water System

Residential Gas Tankless Condensing Water Heater



10 to 1 turndown ratio

Durable high grade stainless
steel heat exchanger

Endless hot water, advanced
temperature control

Advanced modulating
water heater with up
to 0.96 ENERGY FACTOR

Available in
LP and natural gas

Equipped with highly
innovative gas leak detector

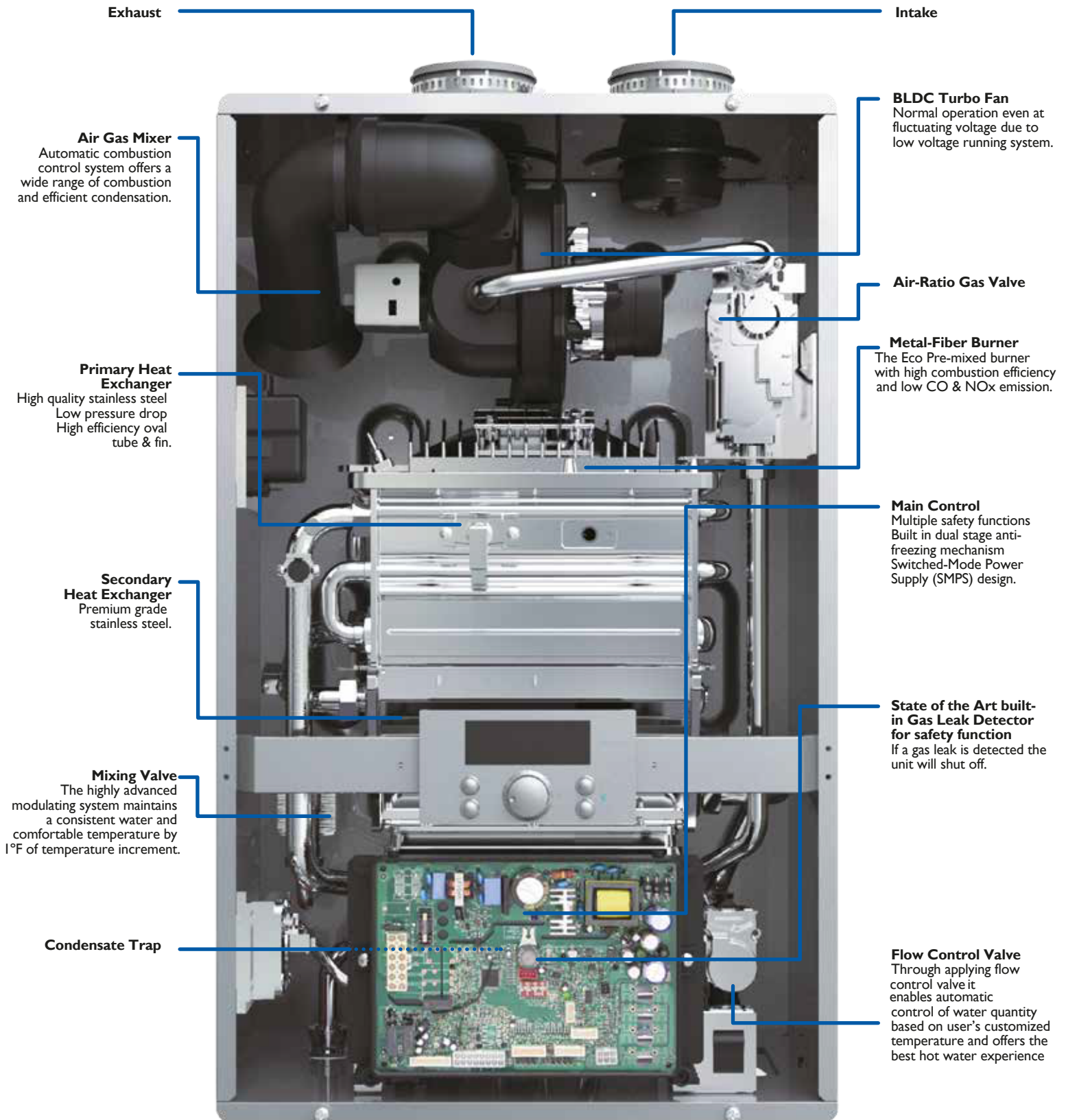
Eco-friendly and Ultra low
NOx combustion system

www.americanstandardwaterheaters.com



3515 Lakeshore Drive, Saint Joseph, MI 49085
(800) 900-9063

A CLOSER LOOK



Exhaust

Intake

Air Gas Mixer

Automatic combustion control system offers a wide range of combustion and efficient condensation.

BLDC Turbo Fan
Normal operation even at fluctuating voltage due to low voltage running system.

Air-Ratio Gas Valve

Primary Heat Exchanger

High quality stainless steel
Low pressure drop
High efficiency oval tube & fin.

Metal-Fiber Burner
The Eco Pre-mixed burner with high combustion efficiency and low CO & NOx emission.

Main Control
Multiple safety functions
Built in dual stage anti-freezing mechanism
Switched-Mode Power Supply (SMPS) design.

State of the Art built-in Gas Leak Detector for safety function
If a gas leak is detected the unit will shut off.

Flow Control Valve
Through applying flow control valve it enables automatic control of water quantity based on user's customized temperature and offers the best hot water experience

Secondary Heat Exchanger

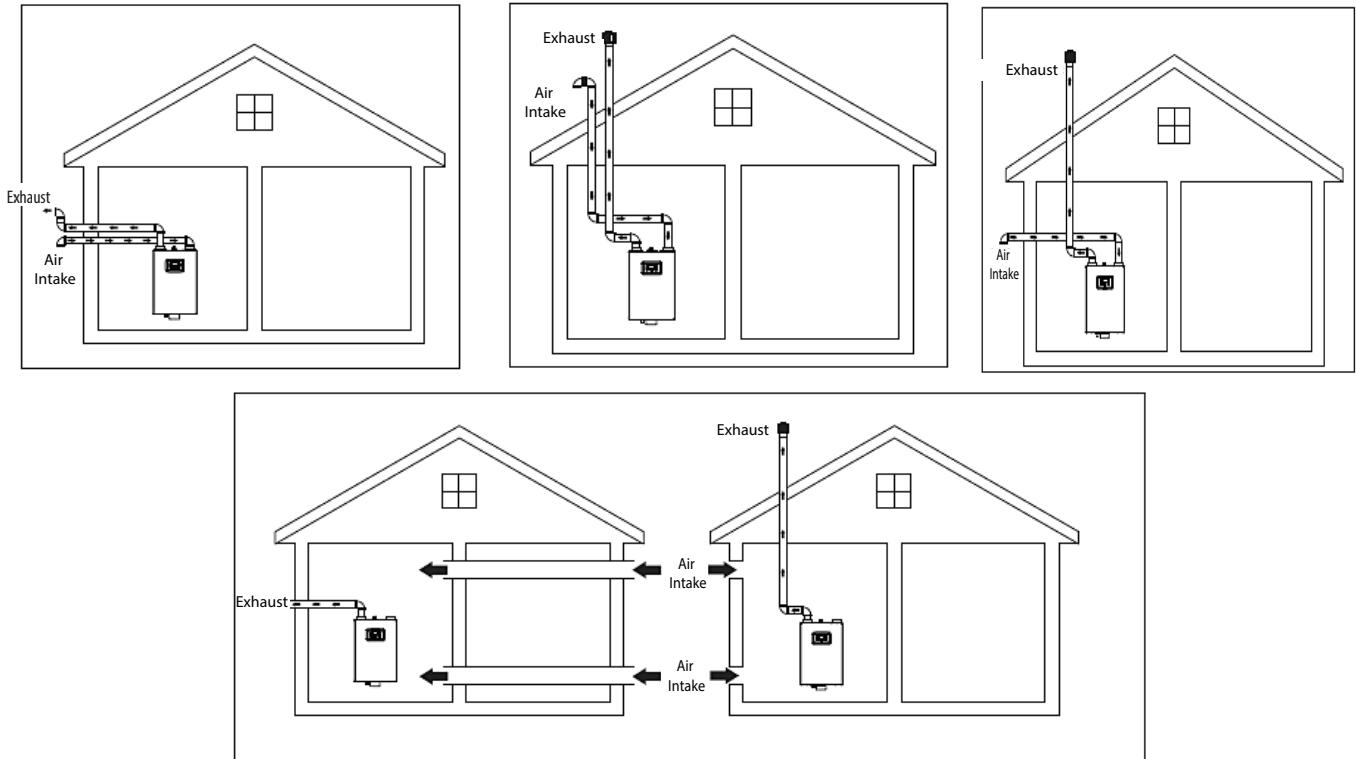
Premium grade stainless steel.

Mixing Valve

The highly advanced modulating system maintains a consistent water and comfortable temperature by 1°F of temperature increment.

Condensate Trap

VENT TERMINATION



Customized Temperature Control

Advanced user friendly technology of FLOW CONTROL, FLOW SENSOR and heat capacity control makes DHW even more comfortable by maintaining constant temperature during usage.

MULTIFUNCTION CONTROL PANEL

Display

Setting/Current Temp
Rupture prevention Current status.

Hot water temperature Control Button

Current Status



Power ON/OFF Button

Up/Down

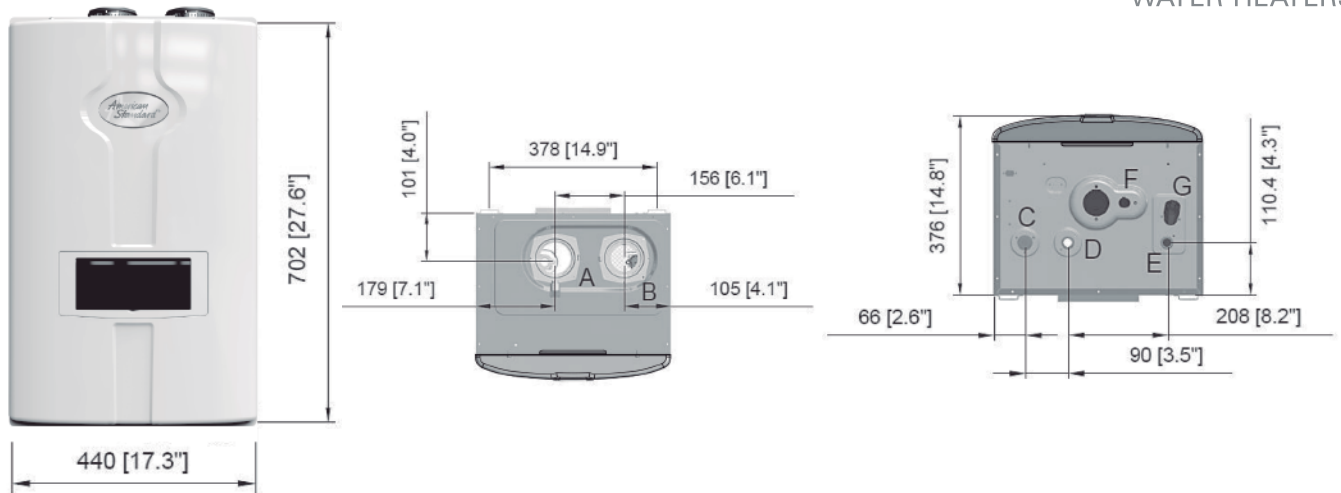
Volume, Button Control/Setting for space heating, Hot water, Timer, Temperature, Vacant.

Heating water temperature Control Button

DIMENSIONS

American Standard[®]

WATER HEATERS



SPECIFICATIONS

MODEL		TCWHI80S-AS	TCWHI99S-AS
Installation		Indoor, Wall Hung, Fully Condensing	Indoor, Wall Hung, Fully Condensing
Minimum / Maximum Input (Btu/Hr)		18,000 / 180,000	19,900 / 199,000
Hot Water Capacity (GPM)	35°F Rise	9.8 Gal	11.0 Gal
	45°F Rise	7.6 Gal	8.5 Gal
	77°F Rise	4.4 Gal	5.0 Gal
Flue System		Sealed Combustion Direct Vent	Sealed Combustion Direct Vent
Vent Run		2" (50 feet), 3" (100 feet), Schedule 40 PVC, CPVC, PP	2" (50 feet), 3" (100 feet), Schedule 40 PVC, CPVC, PP
Weight (Lbs)		88 Lbs.	88 Lbs.
Orifice Size	NG	0.374" (9.5 mm)	.374" (9.5 mm)
	LP	0.275" (7.0 mm)	0.275" (7.0 mm)
Gas Supply Pressure	NG	3.5" to 10.5" WC	
	LP	8.0" to 13.0" WC	
Manifold Pressure	Min Fire (3" VENT)	NG: -0.10 to -0.16"WC : LP: -0.06 to -0.10" WC	
	Max Fire (3" VENT)	NG: -0.11 to -0.17"WC : LP: -0.07 to -0.11"WC	
Power Supply	Main Supply	120V 60 Hz	
	Maximum Power Consumption	135W	
General Operating Conditions		Temperature · Ambient Temperature Range: 33 – 104°F (0.6 – 40°C) · Operating Relative Humidity: Up to 90% at 140°F (40°C) · Shipping and Storage Temperature Range: -4 – 176°F (-20 – 80°C)	
Ignition System		Direct Electronic Ignition / Automatic Flame Sensing	Direct Electronic Ignition / Automatic Flame Sensing
Burner System		Single Orifice Premixed Fuel Modulation Metal Fiber Infrared	Single Orifice Premixed Fuel Modulation Metal Fiber Infrared
Gas Valve System		Air Ratio Valve	8.7 Air Ratio Valve
Minimum Flow Rate		0.5 GPM	0.5 GPM
Internal Pipe Material		Stainless Steel	Stainless Steel
Dimensions		W 17.3" – H 27.6" – D 14.8"	W 17.3" – H 27.6" – D 14.8"
Sub Heat Exchanger Water Capacity (DHW)		Under 2 Gallons	Under 2 Gallons
Main Controller / Control Panel		P-920C / GTH-9500C	P-920C / GTH-9500C
Water Pressure		Min 15 – Max 150 PSI	Min 15 – Max 150 PSI
DHW Setpoint Temperature Range		95°F – 140°F (35°C – 60°C)	95°F – 140°F (35°C – 60°C)
Connection Sizes	Cold Water Inlet / Hot Water Outlet	3/4" NPT	3/4" NPT
	Gas Inlet	3/4" NPT	3/4" NPT
Materials	Cabinet	Cold Rolled Carbon Steel	Cold Rolled Carbon Steel
	Heat Exchanger	Primary Heat Exchanger: Stainless Steel Secondary Heat Exchanger: Stainless Steel	Primary Heat Exchanger: Stainless Steel Secondary Heat Exchanger: Stainless Steel

12 Year Residential & 5 Year Commercial Limited Warranty

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In accordance with our company policy and dedication to continuous improvement, Water Heating Technologies Corp. reserves the right to make changes without prior notice to the above information.

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