



CYCLONE Xi™

**Commercial Gas
Water Heaters**

A.O. Smith



Think Tank

For years A. O. Smith has set the industry standard for performance and quality in heavy-duty commercial applications. The latest enhancement to the groundbreaking Cyclone family, Cyclone Xi™ has taken water heater functionality, performance and design to a whole new level. Now

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CYCLONE Xi™

with a broader line to choose from, high thermal efficiency, superior tank protection and the **new X-treme intelligent control system**, the Cyclone Xi is not only the benchmark in the high efficiency commercial water heating category—it's simply the smartest water heater ever made.

AT A GLANCE

- Intelligent Control System with LCD display
- 130-gallon models with 300,000, 400,000, and **NOW 500,000** BTU input, up to 96% thermal efficiency
- Five 95% efficient models from 60-gallon/120,000 through 100-gallon/240,000 and 130-gallon/500,000 BTU
- Venting flexibility for versatility and easy serviceability
- Industry-first powered anodes for superior tank protection
- Exclusive PermaGlas® Ultra Coat glass lining

Total Control

Cyclone Xi LCD

The intelligent control system, with easy to navigate menu, provides precise temperature control and unit operating information



- Detailed heater status information: blower, igniter, igniter current, gas valve, flame detection, air inlet restrictions, exhaust vent restrictions, acceptable gas supply pressure
- Precise temperature setting with actual tank temperature at upper and lower probes
- Alerts the user to any potential corrosion-related leak
- Maintains constant log of the number of cycles and burner operating time
- Communicates fault details and gives diagnostic information
- Maintains a log of any fault occurrence and the time a fault occurred

Powered Anodes

The A. O. Smith powered anode system provides the most modern and innovative technology available to provide long-lasting tank protection.

- Does not require maintenance or inspection
- Provides superior tank protection to traditional aluminum or magnesium anodes
- Power level adjusts to changes in water conditions for optimum protection



The Breadth Of Innovation

UNRIVALED VENTING VERSATILITY

The Cyclone Xi features power-vent and power direct-vent design, allowing clean uncontaminated air to be drawn directly

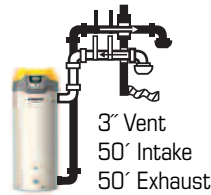
into the unit with the flue gas products vented conventionally through the ceiling or directly through the wall to the outside.

Sealed Direct Vent Vertical



3" Vent
50' Intake
50' Exhaust

Sealed Direct Vent Sidewall



4" Vent
120' Intake
120' Exhaust

Indoor Conventional Vertical



3" Vent
50' Exhaust

Indoor Conventional Sidewall



3" Vent
50' Exhaust

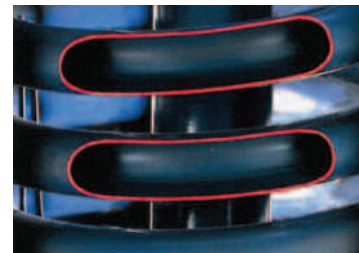
**Chart applies to BTH-120 through BTH-250 models only
4" PVC required on BTH 300-500 for up to 70 equivalent feet of venting

EASIER TO INSTALL

Because installation space today is almost always at a premium, we've designed the Cyclone to install in an absolute minimum of space. The exhaust outlet and fresh air intakes are positioned so the water heater can be placed either in a corner or against a wall.

ADVANCED GLASS LINING TECHNOLOGY

Exclusive PermaGlas® Ultra Coat™ glass lining protects all Cyclone water heaters. PermaGlas Ultra Coat provides superior protection for all inner tank surfaces, as well as for the inside of the heat exchanger, which would otherwise be vulnerable to corrosion from flue gas condensate. The innovative helical coil minimizes weld points to extend tank life.



STRENGTH IN NUMBERS

Cyclone Xi water heaters can be installed in manifolded multiples to serve the highest demand applications in place of boiler systems. For example, four BTH-500s can be manifolded to provide total storage of 520 gallons with an input of 2,000,000 BTUs.

The Innovation That Started It all

REVOLUTIONARY HEAT EXCHANGER AND BURNER SYSTEMS

The helical internal heat exchanger in all Cyclone models swirls the hot gases, like a cyclone, against the heat exchanger walls. This cyclonic action produces an extra-high rate of heat transfer, resulting in extra-high thermal efficiency. All Cyclone Xi models employ an ingenious top-mounted down-fire pre-mix burner, resulting in even higher efficiencies.



Cyclone Xi models use the latest in burner technology.

- A. The pre-mixed burner design delivers maximum efficiency.
- B. When the mixture is ignited by the hot surface igniter, a swirling flame shoots downward into the submerged central combustion chamber.
- C. The resulting hot flue gases are then forced at high velocity through a helical heat exchanger coil.
- D. The spiral shape of the coil keeps the hot gases swirling against the heat exchanger walls, resulting in extra-high thermal efficiency.

This exclusive design delivers 95% thermal efficiency on the BTH-120 through BTH-250 and with the BTH-500. The BTH-300 and BTH-400 boost efficiency to up to 96%.

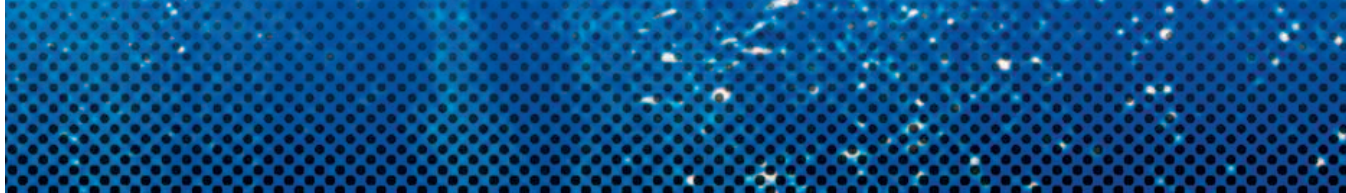
CYCLONE HE®

The light-commercial CYCLONE HE®, is designed to produce more hot water than any comparable commercial gas water heater available today. The power-vent Cyclone HE combines a 50-gallon storage tank with the power of 76,000 BTU input and 90% thermal efficiency. Designed for drive-through or fast food restaurants, offices and other light-duty applications, the Cyclone HE provides the technology and performance that lives up to the A. O. Smith standard.

With as much power as larger water heaters in a standard 50-gallon footprint, the Cyclone HE is the natural choice for upgrading during a renovation.



Cyclone HE provides superior savings on energy costs.



Model	Gallon Capacity	BTU/ Hr. Input		First Hour Delivery		Recovery In GPH @ 100' Rise Δ		Height (Inches)	Diameter (Inches)	Depth (Inches)
		Natural	LP	Natural	LP	Natural	LP			

BTX-80	50	76,000	NA	118	NA	83	NA	70 ⁵ / ₈	22	27
BTH-120	60	120,000	120,000	180	180	138	138	55 ¹ / ₂	27 ³ / ₄	30
BTH-150	100	150,000	150,000	243	243	173	173	75 ¹ / ₂	27 ³ / ₄	30
BTH-199	100	199,000	199,000	300	300	230	230	75 ¹ / ₂	27 ³ / ₄	30
BTH-250	100	240,000	240,000	346	346	276	276	75 ¹ / ₂	27 ³ / ₄	30
BTH-300	130	300,000	300,000	440	440	349	349	75 ¹ / ₂	33 ¹ / ₈	39 ¹ / ₈
BTH-400	130	399,900	399,900	557	557	465	465	75 ¹ / ₂	33 ¹ / ₈	39 ¹ / ₈
BTH-500	130	499,900	499,900	667	667	576	576	75 ¹ / ₂	33 ¹ / ₈	39 ¹ / ₈



Commercial Gas Water Heaters Innovative Solutions For All

The expanded Cyclone line gives you a high-efficiency commercial water heater choice for almost any commercial application.

For complete specifications on Cyclone HE and Cyclone Xi, consult Specification Sheets at www.hotwater.com

A.O. Smith

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