



CYCLONE[®] HE

The Cyclone[®] HE is a light-duty, power vent, fully condensing commercial gas water heater with an internal helical heat exchanger, similar to the design of A. O. Smith's industry-leading Cyclone[®] models. This helical heat exchanger helps Cyclone[®] HE achieve 90% thermal efficiency and deliver outstanding hot water output.

HELICAL INTERNAL HEAT EXCHANGER

- Completely surrounded by water in tank, provides much greater heat transfer surface than standard straight flue tube
- Operates at 90% thermal efficiency, which saves money on operating costs, increases hot water output compared to standard efficiency water heaters
- Minimizes standby losses by trapping heat in the tank
- Spiral heat exchanger reduces scale and sediment from forming on water-side surface, which can reduce energy efficiency over time

VERSATILE POWER VENT DESIGN

- Vents using inexpensive PVC, CPVC or ABS pipe. Canadian installations require ULC S636 listed PVC or CPVC pipe for venting.
- 2" pipe, vents up to 20 equivalent feet
- 3" pipe, vents up to 60 equivalent feet
- 4" pipe, vents up to 120 equivalent feet

MODULAR BLOWER

- Equipped with 120 volt, 60 Hz electrical system (rating 5 amps or less), 6-foot cord with standard 3-prong connector
- 2" PVC pipe, elbows and condensate drain supplied to connect heat exchanger outlet to blower
- PVC Vent Attenuation Assembly (VAA) supplied for applications where extra-quiet operating environment is essential

HIGH OUTPUT WITH SMALL FOOTPRINT

- 22" diameter, combined with 90% efficiency, 50-gallon tank and 76,000 BTU input means Cyclone HE can be installed in less space than a larger 75-gallon unit, with equal or better performance
- Total height is 70-5/8" to top of unit

SIDE-MOUNTED HOT AND COLD RECIRCULATING TAPS

- Allows Cyclone HE to be installed as part of combination space heating/water heating applications, or any system requiring a recirculating hot water loop
- Plugs for the recirculating taps are factory installed

INTELLI-VENT™* GAS CONTROL

- Equipped with long lasting silicon nitride hot surface ignitor – no standing pilot
- Advanced electronics for more precise control of water temperature and easy-to-understand system diagnostics
- 180°F maximum temperature setting

PERMAGLAS® ULTRA COAT™ GLASS LINING

- A. O. Smith exclusive process provides superior protection against corrosion
- Protects all interior tank surfaces including inside and outside of helical heat exchanger

TWO HEAVY-DUTY ANODE RODS

- Provides advanced protection against corrosion

GREEN CHOICE® GAS BURNER

- Patented "Eco-Friendly" design reduces NOx emissions and meets less than 40 ng/j requirements for low NOx

CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE

MAXIMUM HYDROSTATIC WORKING PRESSURE: 150 PSI

CODES AND STANDARDS

- Design-certified by Underwriters' Laboratories according to ANSI Z21.10.3 - 4.3 CSA standards governing storage-type water heaters
- Meets the thermal efficiency and standby loss requirements of the U.S. Department of Energy and Current Edition of ASHRAE/IESNA 90.1

BTX-80



Series 100

GAS-FIRED



*Intelli-Vent™ is a registered trademark of Emerson Electric Company

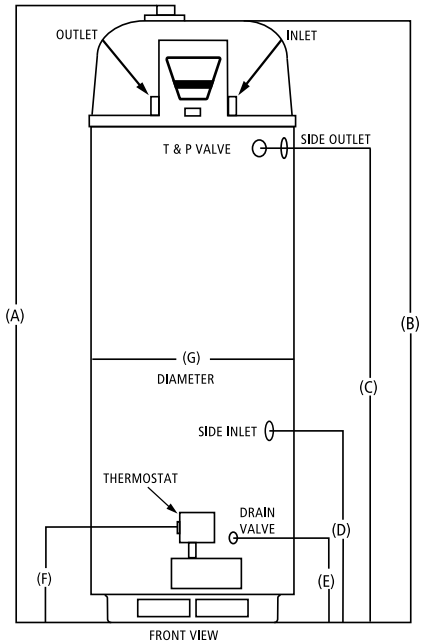
THREE-YEAR LIMITED TANK WARRANTY

■ For complete warranty details, consult written warranty shipped with heater

SPECIFICATIONS

MODEL NUMBER	BTU INPUT PER HOUR	GALLONS OR LITRES	TANK SIZE	GPH OR LPH	RECOVERY - GALLONS OR LITRES PER HOUR AT DEGREE RISE			LBS. OR KG	SHIPPING WEIGHT
					40°F	100°F	140°F		
					22°C	56°C	78°C		
BTX-80	76,000	Gallons	50	GPH	206	83	59	Lbs.	210
		Litres	189	LPH	780	314	223	Kg	95.3

Manifold Pressure: 4.0 inches w.c. (.99 kPa); All models—Maximum Supply Pressure: 14 inches w.c. (3.48 kPa)
 Minimum Supply Pressure Natural Gas: 5.0 inches w.c. (1.24 kPa); Minimum Pressure must be maintained under both load and no-load (dynamic and static) conditions
 Approved for Canada.



Rough-In-Dimensions

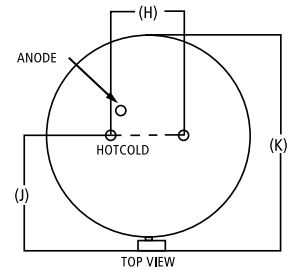
Model	Units	A	B	C	D	E	F	G	H	J	K
BTX-80	Inches	70.62	68.20	51.90	20.90	9.15	12.00	22.00	8.00	15.81	26.92
	cm	179.37	173.23	131.83	53.09	23.24	30.48	55.88	20.32	40.16	68.38

Top/Side Inlet and Outlet: 3/4" NPT
 Gas Inlet: 1/2" NPT

Capacity and Gas and Electrical Characteristics

Model	Approximate Capacity		Manifold Pressure			Electrical Characteristics	
	U.S. Gals.	Liters	Gas Type	"WC	kPA	Volts/Hz	Amperes
BTX-80	50	189	Nat.	4.00	0.99	120/60	<5

All models - Maximum Supply Pressure: 14 inches W.C. (3.48kPa)
 Minimum Supply Pressure Natural Gas: 5.0 inches W.C. (1.24kPa)
 Minimum Pressure must be maintained under both load and no load (static and dynamic) conditions.



* INSTALL IN ACCORDANCE WITH LOCAL CODES

SUGGESTED SPECIFICATION

Natural gas water heater(s) shall be A. O. Smith Cyclone HE model # BTX-80, with 90% thermal efficiency, a storage capacity of 50 gallons, an input rating of 76,000 BTUs per hour, a recovery rating of 83 gallons per hour at 100°F rise and a maximum hydrostatic working pressure of 150 psi. Water heater(s) shall be of power vent design, using 2", 3" or 4" PVC pipe for horizontal and/or vertical vent runs. Water heater(s) shall have: 1: Glasslined steel tank construction and a spiral-shaped heat exchanger placed entirely inside the tank, which shall be glasslined on the flue gas side to protect against acidic condensate. 2: An Intelli-Vent™ gas control system with silicon nitride hot surface ignitor. 3: A 3-year limited warranty against tank leaks. Water heater(s) shall meet the thermal efficiency and standby loss requirements of the U. S. Department of Energy and Current Edition of ASHRAE/IESNA 90.1 and be design-certified by UL (Underwriters Laboratories) according to ANSI Z21.10.3-CSA4.3 standards governing storage tank water heaters.