



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® XHE 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
- Produces 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

- Uses inexpensive PVC, CPVC or ABS pipe for intake and exhaust. Canadian installations require ULC S636 listed PVC or CPVC pipe for intake and exhaust.
- 2" pipe, vents up to 25 equivalent feet
- 3" pipe, vents up to 65 equivalent feet
- 4" pipe, vents up to 128 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 or exceeds the thermal efficiency and standby loss requirements of the U.S. Department of Energy and Current Edition of ASHRAE/IESNA 90.1

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

## BTX-80



### THREE-YEAR LIMITED TANK WARRANTY

- For complete warranty details, consult written warranty shipped with heater or contact A. O. Smith

### 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

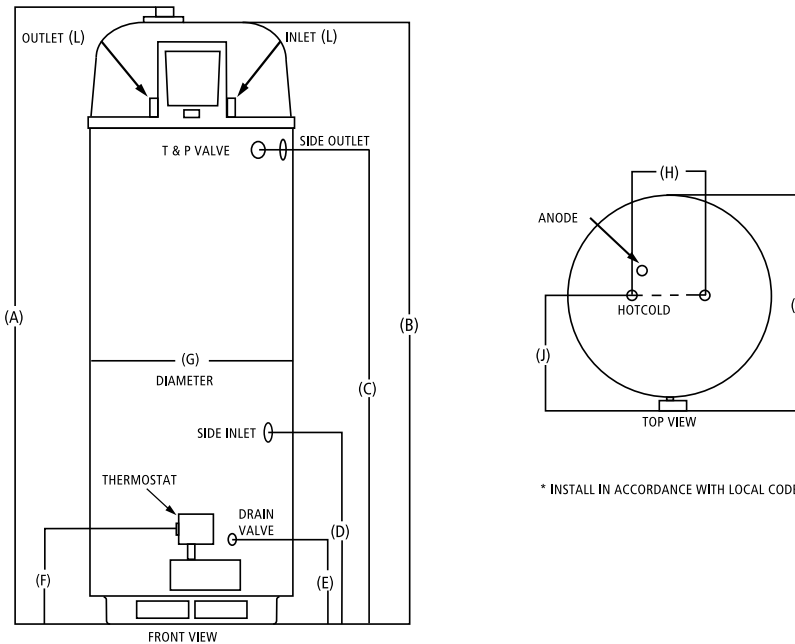
Manifold Pressure: 4.0 inches w.c. (.99 kPa); All models—Maximum Supply Pressure: 14 inches w.c. (3.48 kPa)  
 Minimum Supply Pressure Natural Gas: 5.0 inches w.c. (1.24 kPa); Minimum Pressure must be maintained under both load and no-load (static and dynamic) conditions

Approved for Canada.

### DIMENSIONS

BTX-80	A	B	C	D	E	F	G	H	J	K
INCHES	70-5/8	68-1/4	52	21	9-1/8	12	22	8	15-3/4	27
CM	179-3/8	173-1/5	131-4/5	53-3/10	23-1/5	30-1/2	55-9/10	20-3/10	40	68-6/10

Top inlet and outlet: 3/4" male NPT  
 Side inlet and outlet: 3/4" female NPT  
 Gas inlet: 1/2" NPT



\* 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: Seamless, glass lined steel tank construction and a spiral-shaped heat exchanger placed entirely inside the tank, which shall be glass lined 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 or exceed 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.

For Technical Information and Automated Fax Service, call 800-527-1953. A. O. Smith Corporation reserves the right to make product changes or improvements without prior notice.