

## CYCLONE® Xi

### MODELS BTX AND BTXL 100

### 96% THERMAL EFFICIENT POWER DIRECT VENT MODELS.

The Cyclone® Xi is a light-duty, power direct vent, fully condensing commercial gas water heater with an internal helical heat exchanger. This helical heat exchanger helps Cyclone® Xi achieve 96% thermal efficiency and deliver outstanding hot water output.

#### ENERGY STAR® QUALIFIED

#### ADVANCED ELECTRONIC CONTROL

- Exclusive A. O. Smith designed touch display control system.
- Precise temperature control up to 181°F.
- Built-in diagnostics and operational information.

#### CONDENSING DESIGN

- Operates at 96% thermal efficiency, which saves money on operating costs compared to a standard 80% efficient gas water heater.
- Equipped with condensate drain tee.

#### HELICAL INTERNAL HEAT EXCHANGER

- Spiral heat exchanger keeps hot combustion gases in the tank longer to lengthen the heat transfer cycle.
- Positioned in the center of the tank for more even heat distribution.
- Spiral design reduces lime scale formation on the heat exchanger to maintain high efficiency operation over time

#### POWER DIRECT VENT DESIGN

- Combined vertical and horizontal runs terminating through the roof or an outside wall. Vents using PVC, CPVC or polypropylene piping. Canadian installations require ULC S636 approved pipe for venting.
- 2" pipe, vents up to 45 equivalent feet.
- 3" pipe, vents up to 125 equivalent feet.

#### SIDE-MOUNTED HOT AND COLD RECIRCULATING TAPS

- Allows Cyclone® Xi to be installed as part of combination space heating/water heating applications.

#### AVAILABLE IN NATURAL GAS OR PROPANE

#### TOP FIRED ULTRA-LOW NOx GAS BURNER

- Enhanced Ultra-low NOx burner complies with SCAQMD Rule 1146.2 and other Air Quality Management Districts with similar requirements for NOx emissions of less than 14 ng/J or 20 ppm.

#### BLUE DIAMOND® GLASS COATING

- Provides superior corrosion resistance compared to industry-standard glasslining.

#### POWERED ANODES STANDARD

- Provides long-lasting tank protection in varying water conditions
- Powered anodes are non-sacrificial
- Automatically adjusts output needed to properly protect the tank

#### MAXIMUM HYDROSTATIC WORKING PRESSURE: 150 PSI

#### STANDARDS AND CERTIFICATIONS

- Design-certified by Underwriters Laboratories according to ANSI Z21.10.3 - CSA 4.3 Standards.
- These models meet the thermal efficiency and standby loss requirements of NRCan and current edition ASHRAE/IES 90.1.
- CSA certified and ASME rated T&P relief valve.
- Approved for Canada.

#### 3-YEAR LIMITED TANK AND 1 YEAR LIMITED PARTS WARRANTY

- For complete warranty information, consult written warranty or go to [hotwater.com](http://hotwater.com).



BTXL 100

BTX 100

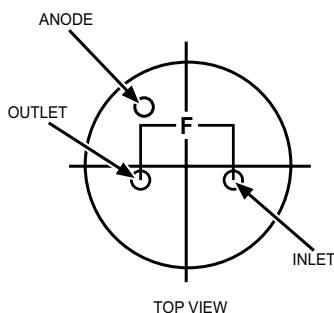
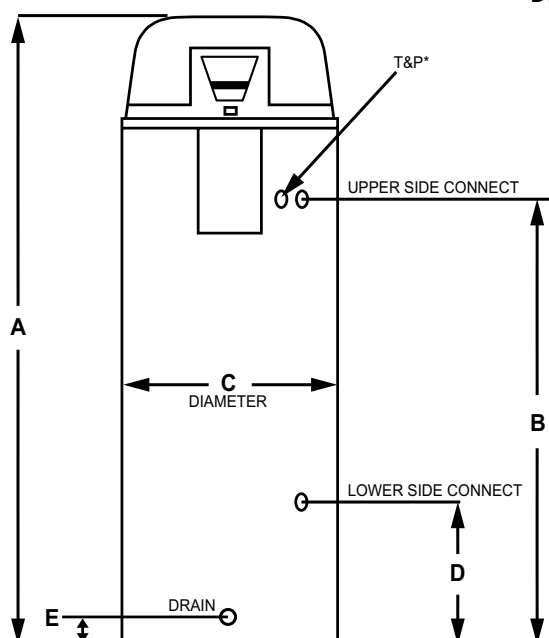
#### SERIES 300/301



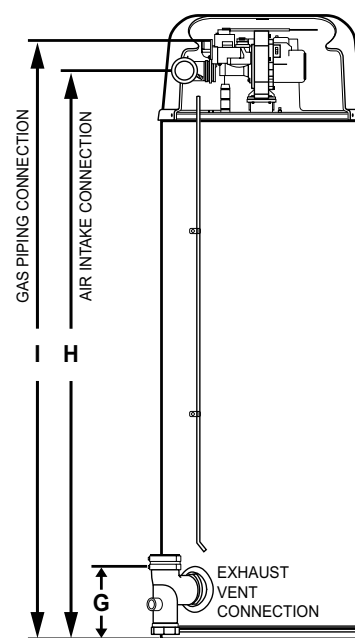


# Commercial Gas Water Heater

## DIMENSIONS FOR BTX-100



\*INSTALL IN ACCORDANCE WITH LOCAL CODES.



## ROUGH-IN DIMENSIONS

Model Number	Approximate Capacity		Units	A	B	C	D	E	F	G	H	I
	U.S. Gals.	Liters										
BTX-100	50	189	Inches	66.75	49.25	22	15.75	3	8	8	62	65
			cm	169.5	125.09	55.88	40	7.62	20.32	20.32	157.48	165.1

Specify when ordering propane (LP) gas.

Standard model certified from sea level to 10,100 ft. elevation.

Optional Concentric Vent Kit (100111100) and Condensate Neutralization Kit (100112380).

Top Inlet and Outlet: 3/4" NPT

Side Inlet and Outlet: 3/4" NPT

Gas Inlet: 1/2" NPT

Condensate drain outlet: 1/2" NPT

Electrical Characteristics: 120V 60Hz <5 amps

The manifold pressure is factory set and is not adjustable. A negative pressure will be seen with just the blower running without the Gas Control Valve open.

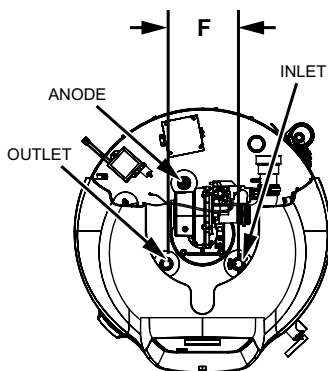
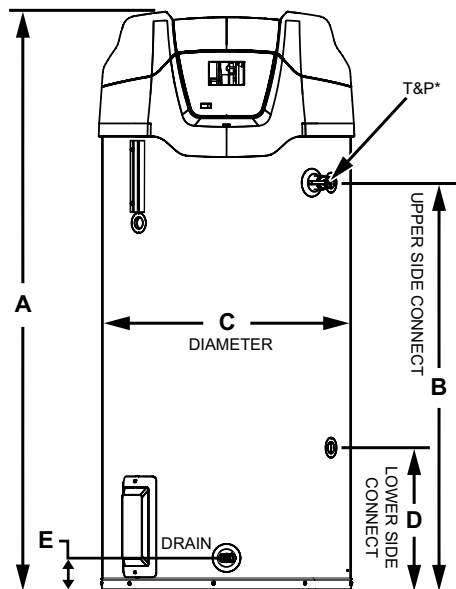
All models - Maximum Supply Pressure: 14 inches W.C. (3.48kPa)

Minimum Supply Pressure for Natural Gas: 3.50" (.87kPa)

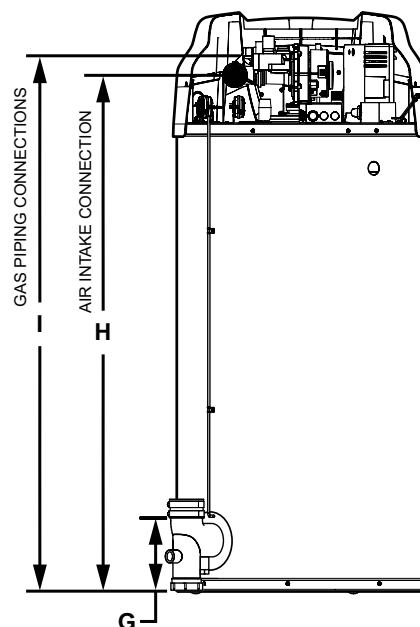
Minimum Supply Pressure for Propane Gas: 8.00" (1.99kPa)

Minimum pressure must be maintained under both load and no load (dynamic and static) conditions.

### DIMENSIONS FOR BTXL-100



\*INSTALL IN ACCORDANCE WITH LOCAL CODES.



### ROUGH-IN DIMENSIONS

Model Number	Approximate Capacity		Units	A	B	C	D	E	F	G	H	I
	U.S. Gals.	Liters										
BTXL-100	75	284	Inches	65.25	45.64	27.75	16	3.71	8	7.93	57.36	58.98
			cm	165.7	115.9	70.5	40.6	9.4	20.32	20.1	145.7	149.8

Specify when ordering propane (LP) gas.

Standard model certified from sea level to 10,100 ft. elevation.

Optional Concentric Vent Kit (100111100) and Condensate Neutralization Kit (100112380).

Top Inlet and Outlet: 1" NPT

Side Inlet and Outlet: 1" NPT

Gas Inlet: 1/2" NPT

Condensate drain outlet: 1/2" NPT

Electrical Characteristics: 120V 60Hz <5 amps

The manifold pressure is factory set and is not adjustable. A negative pressure will be seen with just the blower running without the Gas Control Valve open.

All models - Maximum Supply Pressure: 14 inches W.C. (3.48kPa)

Minimum Supply Pressure for Natural Gas: 3.50" (.87kPa)

Minimum Supply Pressure for Propane Gas: 8.00" (1.99kPa)

Minimum pressure must be maintained under both load and no load (dynamic and static) conditions.



# Commercial Gas Water Heater

## RECOVERY CAPACITIES - BTX AND BTXL

Input		Recovery Capacities													
Rating (BTU/h)	Rating (kW)	Temp Rise	F	30	40	50	60	70	80	90	100	110	120	130	140
			C	17	22	28	33	39	44	50	56	61	67	72	78
		GPH		387	291	233	194	166	145	129	115	106	97	90	83
100,000	29.3	LPH		1465	1102	882	734	628	549	488	439	401	367	341	314

## MAXIMUM VENTING DISTANCE - BTX AND BTXL

Number of 90° Elbows	2" Maximum Pipe-ft. (m)	3" Maximum Pipe-ft. (m)
1	40 (12.19)	120 (36.57)
2	35 (10.66)	115 (35.05)
3	30 (9.14)	110 (33.52)
4	25 (7.62)	105 (32)
5	20 (6.09)	100 (30.48)
6	15 (4.57)	95 (28.95)

Note: See the Instruction Manual for the most current and detailed venting information.

### SUGGESTED SPECIFICATION

(Natural or Propane) gas water heater(s) shall be A. O. Smith Cyclone Xi model with 96% thermal efficiency with storage capacity \_\_\_\_\_; an input rating of 100,000 BTUs per hour, a recovery rating of 116 gallons per hour at 100°F rise and a maximum hydrostatic working pressure of 150 psi. Water heater(s) shall be of power direct vent design, using 2" or 3" PVC, CPVC, or polypropylene pipe for horizontal and/or vertical vent runs. Water heater(s) shall have: 1: Steel tank construction with seamless glass lining 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: Advanced electronic control with LCD touchscreen display and integral diagnostics. 3: A 3-year limited warranty against tank leaks. Water heater(s) shall meet the thermal efficiency and standby loss requirements of NRCan and current edition of ASHRAE/IES 90.1 and be design-certified by CSA International according to ANSI Z21.10.3-CSA 4.3 standards governing storage tank water heaters.

For Technical Information call 888-599-2837. A. O. Smith Enterprises Ltd. reserves the right to make product changes or improvements without prior notice.