**CSI 3-Part Specification for BTX-100**

1. **General**
   1. **Summary**
      1. Related Documents
         1. Drawings and general provisions of the Subcontract apply to this Section.
         2. Review these documents for coordination with additional requirements and information that apply to the work under this section.
      2. Section Includes
         1. Water Heater
   2. **References**
      1. General
         1. The following documents form part of the Specifications to the extent stated. Where differences exist between codes and standards, the one affording the greatest protection shall apply.
         2. Unless otherwise noted, the referenced standard edition is the current one at the time of commencement of the Work.
         3. Refer to Division 01 Section "General Requirements" for the list of applicable regulatory requirements.
   3. **Submittals**
      1. Submit shop drawings/product data sheets for all products specified in Part 2 of this Section.
   4. **Quality Assurance**
      1. All materials shall meet or exceed all applicable referenced standards, federal, Province/State and local requirements, and conform to codes and ordinances of authorities having jurisdiction.
2. **Products**
   1. **Water Heater**
      * 1. Commercial water heater (Natural or Propane) gas water heater(s) shall be A. O. Smith Cyclone Xi model BTX-100, minimum 96% thermal efficiency, a storage capacity of 50 gallons (189 Liters), an input rating of 100,000 BTUs per hour, a recovery rating of 116 gallons per hour (gph) at 100°F rise and a maximum hydrostatic working pressure of 150 psi.
        2. Helical internal heat exchanger.
        3. Powered anodes that are non-sacrificial and maintenance free.
        4. Steel tank construction with seamless glass lining 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.
        5. Advanced electronic control with LCD touchscreen display and integral diagnostics.
        6. Have foam insulation and a CSA Certified and ASME rated T&P relief valve
        7. Have a down-fired power burner designed for precise mixing of air and gas for optimum efficiency, requiring no special calibration on start-up
        8. 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.
        9. Operation of the water heater(s) in a closed system where thermal expansion has not been compensated for (with a properly sized thermal expansion tank) will void the warranty.

Basis of Design:

* + - * 1. A.O. Smith BTX-100

1. **Certifications & Regulatory Compliance**
   1. All models are designed certified by Underwriters Laboratories (UL), Inc., to ANSI Z21.10.3- CSA 4.3 Standards
   2. All models meet the thermal efficiency and standby loss requirements of NRCan and current edition ASHRAE/IES 90.1
   3. Approved for Canada
2. **Execution**
   1. **Demolition**
      1. Refer to demolition requirements specified in Section entitled Demolition and Revision Work.
   2. **Installation**
      1. Installed in accordance with manufacturer’s instructions.

**End of Section**