

DOMESTIC WATER HEATERS

1. GENERAL

1.1 Scope

- .1 HX-1, HX-2 and HX-3.

1.2 Related Sections

- .1 Section 23 06 00 – Schedules for HVAC.

1.3 References

- .1 Canadian Standards Association (CSA)
 - .1 CSA B51-09, Boiler, Pressure Vessel, and Pressure Piping Code.
 - .2 ANSI/NSF 61 (R2010): Drinking Water System Components

1.4 Shop Drawings

- .1 Submit shop drawings in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Indicate:
 - .1 Equipment, including connections, fittings, control assemblies and ancillaries, identifying factory and field assembled.

1.5 Closeout Submittals

- .1 Provide maintenance and engineering data for incorporation into manual specified in Section 01 33 00 - Submittal Procedures.

1.6 Warranty

- .1 For the Work of this Section 22 30 05 - Domestic Water Heaters, the warranty period is extended to number of years specified herein for each product.

2. PRODUCTS

2.1 DHW Heater

- .1 Tank:
 - .1 High-carbon steel construction with all joints arc-welded, using the MIG/argon process. The tank shall be wrapped in a glass fibre insulating jacket limiting thermal loss to 0.25°C per hour and have an epoxy-coated outer shell. Supports shall be fully adjustable. The boiler shall be shipped from the plant equipped with a safety relief valve as per the ASME code, adjusted to a 50 psi setting, a thermo-manometer (except models 23, 33) and an automatic air bleeder.

DOMESTIC WATER HEATERS

- .2 Tank shall be equipped with a steel injector inlet, located on top of the tank, and a steel collector, located at the bottom of the tank.
- .3 The tank shall be equipped with a brass drain cock with a maximum operating pressure of 1034 kPa.
- .4 The tank shall have a maximum operating pressure of 1034 kPa and shall undergo a 2068 kPa hydrostatic test prior to shipping.
- .2 Heat Exchanger:
 - .1 Parallel helicoidal copper piping lines welded with lead-free silver solder compound all conforming to the NSF 61 standard from the NSF International Standard Drinking Water Systems Components Health Effects document
 - .2 Maximum operating pressure of 1034 kPa
- .3 Controls
 - .1 The water-heater shall be equipped with a thermostat with adjustable set point, operating at set point minus an adjustable differential (5 to 22°C) and breaks contact when the temperature rises over the set point (35 to 90°C).
- .4 Warranty
 - .1 The water heater shall have a 10-year warranty.
- .5 Standard of Acceptance:
 - .1 Thermo2000 – Turbomax 109

3. EXECUTION

3.1 Installation

- .1 Install in accordance with manufacturer's printed instructions and to the complete satisfaction of the authority having jurisdiction.

3.2 Field Quality Control

- .1 Manufacturer's factory trained, certified Engineer to start up and commission DHW heaters.

3.3 Performance

- .1 Refer to Section 23 06 00 – Schedules for HVAC.

END OF SECTION