

**Part 1            General**

**1.1            REFERENCES**

- .1    American Society of Mechanical Engineers (ASME).
  - .1        ASME B40.100, Pressure Gauges and Gauge Attachments.
  - .2        ASME B40.200, Thermometers, Direct Reading and Remote Reading.
- .2    Canadian General Standards Board (CGSB).
  - .1        CAN/CGSB-14.4, Thermometers, Liquid-in-Glass, Self Indicating, Commercial/Industrial Type.
  - .2        CAN/CGSB-14.5, Thermometers, Bimetallic, Self-Indicating, Commercial/Industrial Type.

**1.2            SUBMITTALS**

- .1    Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2    Submit shop drawings and product data.
- .3    Submit manufacturer's product data for following items:
  - .1        Thermometers.
  - .2        Pressure gauges.
  - .3        Stop cocks.
  - .4        Syphons.
  - .5        Wells.

**Part 2            Products**

**2.1            GENERAL**

- .1    Design point to be at mid point of scale or range.

**2.2            DIRECT READING THERMOMETERS**

- .1    Industrial, variable angle type, liquid filled, 125mm scale length: to CAN/CGSB14.4.

**2.3            THERMOMETER WELLS**

- .1    Copper pipe: copper or bronze.
- .2    Steel pipe: brass or stainless steel.

**2.4            PRESSURE GAUGES**

- .1    112mm, dial type: to ASME B40.100, Grade 2A, stainless steel bourdon tube having 0.5% accuracy full scale unless otherwise specified.

- .2 Provide:
  - .1 Bronze stop cock.

### **Part 3 Execution**

#### **3.1 GENERAL**

- .1 Install so they can be easily read from floor or platform. If this cannot be accomplished, install remote reading units.
- .2 Install between equipment and first fitting or valve.

#### **3.2 THERMOMETERS**

- .1 Install in wells on piping. Provide heat conductive material inside well.
- .2 Install in locations as indicated and on inlet and outlet of:
  - .1 Water boilers.
- .3 Install wells as indicated only for balancing purposes.
- .4 Use extensions where thermometers are installed through insulation.

#### **3.3 PRESSURE GAUGES**

- .1 Install in following locations:
  - .1 Suction and discharge of pumps.
  - .2 Upstream and downstream of control valves.
  - .3 Outlet of boilers.
  - .4 In other locations as indicated.
- .2 Install gauge cocks for balancing purposes, elsewhere as indicated.
- .3 Use extensions where pressure gauges are installed through insulation.

**END OF SECTION**