

**Part 1            General**

**1.1                QUALITY ASSURANCE**

- .1            CSA approved and comply with Provincial Statutes and Codes.

**1.2                SHOP DRAWINGS AND PRODUCT DATA**

- .1            Comply with requirements of Section 01 33 10.

**Part 2            Products**

**2.1                MANUAL AIR VENTS**

- .1            Construct from short vertical section of 50 mm diameter maximum or line size pipe to form air chamber. Provide 3 mm brass needle valve at top of chamber.

**2.2                AUTOMATIC AIR VENTS**

- .1            Provide automatic float type with isolating valve, brass or semi-steel body, copper float stainless steel valve and valve seat, suitable for system operating temperature and pressure.
- .2            Provide automatic washer type, all brass with hydroscopic fibre discs, vent ports, adjustable cap for manual shut-off and integral spring loaded ball check valve to prevent water leakage.

**2.3                RELIEF VALVES**

- .1            Provide ASME rated direct spring loaded type, lever operated non-adjustable factory set discharge pressure as indicated.

**2.4                HANDWHEEL RADIATOR VALVES**

- .1            Provide angle or straight rising stem globe valve with bronze body and renewable composition disc.

**2.5                RADIATOR BALANCING VALVES**

- .1            Provide angle or straight, rising stem, combination, balancing, indicating and shut-off valves.
- .2            Construct body, bonnet, stem and packing nut of bronze or brass.
- .3            Provide stainless steel indicating dial plate and lockable balancing yoke.

**Part 3 Execution**

**3.1 AIR VENTS**

- .1 Provide manual type within ceiling spaces or any other concealed space.
- .2 Install automatic float type at heating units, system high points not readily accessible for servicing, and within all mechanical and fan rooms.
- .3 Install automatic washer type convection type heating units.
- .4 Where large air quantities can accumulate, install enlarged air collection standpipe.

**3.2 RELIEF VALVES**

- .1 Install relief valves at pressure tanks, low pressure side of reducing valves, heating converters, expansion tanks and where indicated.
- .2 Pipe relief valve to nearest floor drain.
- .3 System relief valve capacity shall equal make-up pressure reducing valve capacity. Equipment relief valve capacity shall exceed flow rating of connected equipment.
- .4 Where one line vents several relief valves, cross sectional area shall equal sum of individual vent areas.

**3.3 HANDWHEEL RADIATOR VALVES**

- .1 Provide on water outlet from terminal heating units such as radiation, unit heaters and fan coil units.

**3.4 RADIATOR BALANCING VALVES**

- .1 Provide on water outlet of terminal heating units.

**END OF SECTION**