## 1.1 RELATED WORK

.1 The General Conditions and General Specifications form an integral part of this specification and must be read in conjunction herewith. Read also and be fully cognizant of all Mechanical Sections.

## 1.2 EQUIPMENT IDENTIFICATION

- .1 Manufacturer's Nameplate
  - .1 Provide metal nameplate on each piece of equipment, mechanically fastened with raised or recessed letters.
  - .2 Provide Underwriters Laboratories and/or CSA registration plates, as required by respective agency.
  - .3 Manufacturer's nameplate to indicate size, equipment model, manufacturer's name, serial number, voltage, cycle, phase and power of motors.
  - .4 Locate nameplates so that they are easily read. Do not insulate or paint over plates.
- .2 System Nameplates
  - .1 Provide laminated plastic plates with black face and white centre of minimum size 90 x 40 x 2.5 mm nominal thickness, engraved with 6 mm high lettering. Use 25 mm lettering for major equipment.
  - .2 Fasten nameplates securely in conspicuous place. Where nameplates can not be mounted on cool surface, provide stand-offs.
  - .3 Identify equipment type and number (e.g. Pump No. 2) and service or areas or zone of building served (e.g. South Zone Chilled Water Primary). As per attached index.
  - .4 Submit list of nameplates for review prior to engraving.

## 1.3 PIPING

- .1 Identify medium in piping with markers showing directional flow arrows in accordance with CGSB 24-GP03A.
- .2 Apply primary colours and secondary colour bands on finished piping surfaces, in exposed areas only to indicate type and degree of hazard.
- .3 Manufactured Pipe Markers and Colour Bands:
  - .1 Plastic coated cloth material with protective over coating and waterproof contact adhesive undercoating, suitable for continuous operating temperature of 150°C and intermittent temperature of 200°C. Apply to prepared surfaces.
  - .2 50 mm wide tape single wrap around pipe or pipe covering with ends overlapping one pipe diameter but not less than 25 mm for colour bands.
  - .3 All new pipes to have directional arrows. Direction arrows 150 mm long by 50 mm wide for piping of 75 mm nominal or larger o.d. including insulation and 100 mm long by 20 mm wide for smaller diameters. Use double-headed arrows where direction of flow is reversible.
  - .4 Waterproof and heat resistant plastic marker tags for pipes and tubing 20 mm nominal and smaller.
  - .5 Black pipe marker letters and direction arrows.
  - .6 Where colours differ submit legends with colour classifications to Contract Administrator for approval before ordering
  - .7 Location
    - .1 Locate markers and classify colours on piping systems so they can be seen from floor or platform.
    - .2 Piping runs at least once in each room.
    - .3 Maximum 50 ft (15 m) between identifications in open areas.
    - .4 Both sides where piping passes through walls, partitions and floors.

- .5 At point of entry and leaving, where piping is concealed in pipe chase or other confined space, at each access opening.
- .6 At major manual and automatic valves immediately upstream of valves.
- .7 Identify branch, equipment or building served after valve.
- .8 Table: Pipe and Valve Identification.

Pipe Marker Legend	Valve Tag Legend	Secondary Color	Primary Color
Dom. Hot Water Supp.	D.H.W.S.	Green	None
Pool Water Supply		Light Blue	Black
Pool Water Return		Light Blue	Black

## 1.4 VALVES AND CONTROLLERS

- .1 Provide brass tags with 12 mm stamped code lettering and numbers filled with black point, secure with non-ferrous chains or "S" hooks for valves and operating controllers.
- .2 Provide Contract Administrator with identification flow diagrams for each system. Include tag schedule, designating number, service, function, and location of each tagged item and normal operating position of valves.
- .3 Install in main mechanical room or where otherwise directed one copy of the flow diagram and one Valve Schedule mounted in a glazed frame. Provide one copy in each operating maintenance instruction manual.
- .4 Consecutively number valves in system.