

PART 1 - GENERAL

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| <u>1.1 RELATED SECTIONS</u> | .1 | Submittal Procedures: Section 01 33 00 |
| | .2 | Operations and Maintenance Data: Section 01 78 00 |
| <u>1.2 SHOP DRAWINGS</u> | .1 | Submit shop drawings in accordance with Section 01 33 00. |
| | .2 | Indicate: <ul style="list-style-type: none">.1 Equipment, capacity, piping, and connections..2 Dimensions, internal and external construction details, recommended method of installation with proposed structural steel support, sizes and location of mounting bolt holes..3 Special enclosures. |
| <u>1.3 MAINTENANCE DATA</u> | .1 | Provide maintenance data for incorporation into manual specified in Section 01 33 00. |

PART 2 - PRODUCTS

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| <u>2.1 CAPACITY</u> | .1 | As indicated on drawings, based on 82°C entering water temperature, 16°C temperature drop and 21°C E.A.T. |
| <u>2.2 COMMERCIAL FINNED TUBE RADIATION</u> | .1 | Heating elements: NPS 1-1/4 seamless copper tubing, mechanically expanded into flanged collars of evenly spaced aluminum fins, 100mm x 100mm nominal, 1 or 2 row as indicated on the drawings. |
| | .2 | Element hangers: ball bearings or plastic lined cradle type providing unrestricted longitudinal movement on enclosure brackets. Space brackets 900 mm centres maximum. |
| | .3 | Standard enclosures: 1.214mm (18 ga.) steel complete with components for wall-to-wall or complete with die formed end caps having no knock-outs, with inside corners, outside corners, as indicated. Provide full length channel and sealer strip at top of wall edge. Height as indicated. Joints and filler pieces to be flush with cabinet. Support rigidly top and bottom, on wall mounted brackets. Joints and filler pieces to be clear of grilles and located to provide easy access to valves and vents. Provide access doors for valves and vents. Finish cabinet with factory applied baked on paint. |
| | .4 | Dimensions for enclosures: measure site conditions. Do not scale from Drawing. |
| | .5 | Provide for noiseless expansion of all components. |
| | .6 | Acceptable Manufacturers: Trane; Engineered Air; Modine; Rosemex, Sigma Corp. |

PART 3 - EXECUTION

3.1 INSTALLATION

- .1 Install in accordance with manufacturer's instructions.
- .2 Install in accordance with piping layout and reviewed shop drawings.
- .3 Provide for pipe movement during normal operation.
- .4 Maintain sufficient clearance to permit performance of service maintenance.
- .5 Check final location with the Departmental Representative if different from that indicated prior to installation. Should deviations beyond allowable clearances arise, request and follow Departmental Representative's directive.
- .6 Valves
 - .1 Install valves with stems upright or horizontal unless approved otherwise.
 - .2 Install isolating ball valve on inlet and circuit balancing valve on outlet of each unit.
- .7 Venting:
 - .1 Install standard automatic air vent with mini ball valve on continuous finned tube radiation.
- .8 Clean finned tubes and comb straight.
- .9 Flush, clean and drain interconnecting piping before connecting radiation to system. Provide temporary by-pass loops to ensure thorough cleaning of run-outs.

END OF SECTION