

# Model Type UFLT

## Detailed Specifications

### General:

Provide UFLT steel panel radiator elements of lengths and in locations as indicated, and of capacities, style and having accessories as scheduled. The wall hung heating panel radiation shall be of one-piece all-welded steel construction, consisting of flattened water tubes welded to headers at each end. The radiator shall include an integral heavy gauge (0.09" minimum) all-welded perforated top grille. UFLT models to have steel corrugated fins welded to the active water tubes to increase the convective output of the unit. There shall be no less than 32 fins per foot. Fins shall start within 1" of the headers, and shall be spot-welded three times per tube. In addition, there shall be an inactive set of tubes on the front side of the UFLT, so that the front and rear sides of the UFLT look the same.

The radiator's headers shall include all necessary inlet, outlet and vent connections as required. Standard connection sizes are 1/2" NPT tapered thread for supply and return piping, and 1/8" for the vent connection.

The radiant heating panels shall be available in lengths from 2'-0" to 24'-0" in six inch even increments from 2'-0" to 4'-0", and in one foot increments from 4'-0" to 24'-0". The panel radiation shall be capable of being mounted to typical stud wall construction without additional blocking or strapping. Appropriate wall mounting brackets or optional floor post mounting shall be provided with the radiation. Panel radiation expansion shall not exceed 1/64" per foot of radiation at 215°F. The installer shall provide adequate expansion compensation for each radiator.

The panel radiation shall be manufactured in the USA.

### Pressure Ratings:

Pressure ratings for the radiation shall be as follows:

STANDARD: Working pressure-56 PSI maximum, Test Pressure-74 PSI maximum

OR

MEDIUM: Working pressure-85 PSI maximum, Test Pressure-110 PSI maximum

OR

HIGH: Working pressure-128 PSI maximum, Test Pressure 184 PSI maximum

### Finishes:

*The panel radiation shall be cleaned and phosphatized in preparation for the powder coat finish. The radiation is then finish painted with a gloss powder coat finish, for a total paint thickness of 2-3 mils (0.002" - 0.003"). The color shall be selected from Runtal's ten Standard Colors; or Runtal Optional Colors shall be available at and additional cost.*

### Warranty:

*All Runtal radiators are covered by a 5-Year Limited Warranty.*

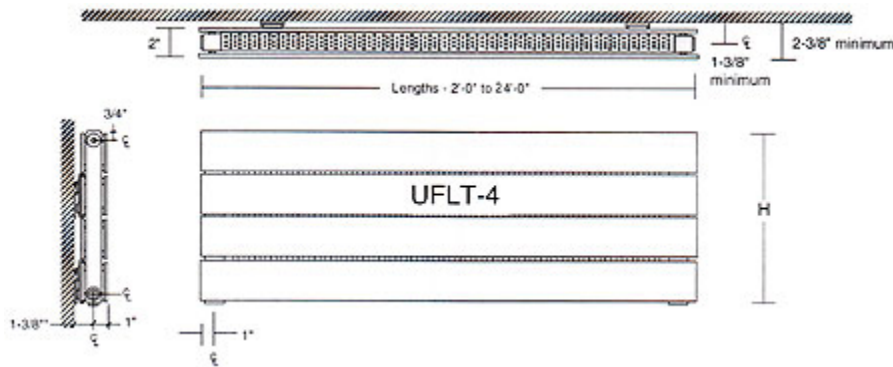
### Manufacturer:

*Subject to compliance with requirements, provide flat tube panel radiation as manufactured by Runtal North America, Inc.*

### **OPTIONAL ITEMS WHICH MAY BE ADDED TO THE SPECIFICATION:**

- 1. Ribbed pipe cover trims, finished to match the radiators shall be provided with the radiation.**
- 2. The radiation manufacturer shall provide combination shutoff valve/union fitting of less than two inches in width for the supply and return to each panel radiator, to be field installed by others.**
- 3. Runtal-Flex connectors shall be used where appropriate to provide expansion compensation for the radiators.**

## Model Type UFLT Quick Specifications



### Panel Radiator Specification

1. Radiators are manufactured of cold rolled low carbon steel, fully welded and consisting of header pipes at each end, connected by flat oval water tubes.
2. Three tube thicknesses are available:
  - Standard Pressure - 0.048" min wall thickness
  - Medium Pressure - 0.058" min wall thickness
  - High Pressure - 0.078" min wall thickness
3. Radiator header pipes are square 0.109" min wall thickness and include all necessary supply, return, and air vent connections. Internal baffling is provided as required.
4. Standard piping connections are 1/2" NPT taper threaded sockets, located in either side, or vertical positions. Optional 3/4" NPT connections are available. Air vent connections are 1/8" NPT taper threaded sockets.
5. Three working pressures are available:
  - Standard Pressure - 56 psi max (Tested at 74 psi)
  - Medium Pressure - 85 psi max (Tested at 110 psi)
  - High Pressure - 128 psi max (Tested at 184 psi)
6. Radiator expansion does not exceed 0.016 inch per linear foot at 215°F. Expansion compensation to be provided in the piping as required, by others.
7. Radiators are cleaned and phosphatized in preparation for the powder coat finish.
8. Radiators are painted with a gloss powder coat finish, for a total paint thickness of 2 to 3 mils (0.002"-0.003"). In harsh environments, anti-corrosion finish paint should be specified.
9. Color of the finish paint shall be selected from available standard or optional colors prior to ordering.
10. Wall mounting brackets are provided with radiators, unless floor posts are specified.
11. Necessary wall support blocking for proper radiator mounting shall be by others.
12. Radiators are manufactured in the USA to the sizes, capacities, and quantities as shown on the plans and schedules.