PART 1 General

1.1 SYSTEM DESCRIPTION

1.1.1 Provide Jaga Low H20 Mini Canal units where perimeter heating is shown.

1. 1.1.2 Mini Canal (DBE Optional) hydronic heating device shall be concrete proof and suitable for in-suite or commercial ancillary areas. Full internal components shall be removable by provided Top access grilles only.

1.1.3 The water source heating equipment shall be certified for outputs based on EN442 standards

1.2 QUALITY ASSURANCE

1.2.1 Each Units shall be fully tested at the factory.

1. 1.2.2 Insulation and adhesives shall meet NFPA-90A requirements for flame spread and smoke generation

1.2.3 All aluminum components shall be certified to meet ASTM G53 UV-resistance

1.2.4 Surface temperature remains safe at all times based on DHSS DN 4 1992 regulation and subsequent revision.

1.2.5 All units shall be individually packaged and labeled for eased on site locating and installation

PART 2 Mechanical Parts

2.1 Cabinets

1. 2.1.1 The Cabinet shall be fabricated with 18 gauge sendzimir galvanized steel and will be coated with 70% gloss anthracite grey epoxy polyester RAL 7024 baked at 392°F.
2. 2.1.2 The Cabinet shall be fabricated with 6 perforated holes through which piping may be accommodated. Concrete proof plugs shall occupy the holes until required. Two holes per side.
3. 2.1.3 The Top grille shall provide, Top return air and supply and access to facilitate normal unit maintenance and service.
4. 2.1.4 The Cabinet shall be fabricated with heat exchanger support bracket. Standard configuration will be center mounted, optionally available is offset heat exchanger mounting. Offset heat exchanger mounting may provide space for internal pipe chase.

2.1.5 The Cabinet shall have K-values of 45.4 BTU/ft2F and R-Values of 0.022ft2/BTU

1. 2.1.6 The unit shall include leveling legs and contractor shall ensure unit cabinet is plumb.
3. 2.1.7 The frame of the mini canal shall be premounted on the cabinet.
4. 2.1.8 The Cabinet shall be factory Parts Warranted for 10 Years

2.1.09 OPTIONAL The Cabinets shall ship with a Covering Plate of fiber board

2.1.10 OPTIONAL Extended leveling legs shall be installed

2.1.11 OPTIONAL Corners pieces and empty sections shall be fabricated to match on site measurements

2.2 Heat Exchanger

2.2.1 The Heat exchanger shall be of copper and aluminum construction. Shall be composed of round, seamless circulation tubes pure red copper, and two brass collectors.

2.2.2 The Fins shall be connected to the heat exchanger by expansion method only.

2.2.3 The Heat exchanger shall be factory pressure tested to 300 PSI

2.2.4 The Heat exchanger shall be easily removable from cabinet if required.

2.2.5 The Heat exchanger shall be coated with dirt repellent and dust proof lacquer in graphite grey with 70% gloss to match cabinet.

2.2.6 The Heat exchanger shall have ASTM G53 certification.

2.2.7 Each individual heat exchanger shall have EN442 certification. Output Correction factors will not be considered equivalent to establish output capacities.

2.2.8 Each Heat exchanger shall be of ultra low thermal inertia in design.

2.2.9 Each Heat exchanger shall come with ½” NPT connections, 1/8” air vents holes and ½” drain plug holes. NPT to BSP adapters not accepted.

2.2.10 The Heat Exchanger fins shall be corrugated by design.

2.2.11 The Heat Exchanger shall be shipped with vacuum sealed protection.

1. 2.2.12 The Heat Exchanger shall be factory Parts Warranted for 30 Years

2.3 FRAMES

2.3.1 The Frame shall be of aluminum construction.

2.3.2 The Frame shall be reinforced in all 4 corners using stainless steel angles no welds or tacking .

2.3.2 Frame shall come standard as L- design OPTIONALLY available is Z- design.

2.3.3 The Frame shall be lacquered in a scratch resistant epoxy polyester powder. Sprayed electro statically and baked at a temperature of 392°F.

2.3.3 The Frame shall be factory mounted on the mini canal cabinet.

2.3.4 The Frame shall be delivered with removable wooden pieces to prevent deformation during transit.

2.3.5 The Frame shall be delivered with protective tape to prevent damage during construction.

2.3.6 Frames shall be standard natural aluminum in colour OPTIONALLY anodized to others available.

1. 2.3.7 The Frame shall be factory Parts Warranted for 10 Years

2.4 GRILLES

2.4.1 The Grilles shall be of Aluminum / Wooden or Stainless Steel Construction

2.4.2 The Grilles shall be either rigid or roll up.

2.4.3 Rigid grilles shall be fabricated with mechanical connection between two crossway supporting slants. Free flow air arrest value not below 62.5%

2.4.4 Roll up grilles shall be fabricated with a galvanized steel spring covered in natural aluminum coverings. Free flow air arrest value not below 52%.

2.4.5 Stainless Steel grilles shall be fabricated in high grade steel with matching frame with mounted rubber strips along base to eliminate contact noise. Free flow air arrest value not below 60%

2.4.5 The Grilles shall be factory Parts Warranted for 10 Years

PART 2B – ELECTRICAL PARTS (OPTIONAL)

2.5.1 The fan motor shall be ECM and provide 100% variable operation

2.5.2 The DBE system shall come with a 120VAC – 12VDC adaptor.

2.5.3 The fan system shall maintain sound noise pressure levels below 36 dBA at all times.

2.5.4 The fan system shall maintain a maximum electrical consumption of(type 6; 2.7 Watts, type 10-11; 2.8 Watts, Type 15-21; 2.1 Watts)

2.5.5 DBE units come with controls triggering the fans when water temperature through the heat exchanger is above 86F.

2.5.6 DBE fans warranted for standard 2 years.

PART 3 - EXECUTION

* 1. INSTALLATION
     1. Maintain factory installed pipe caps until water connections are made.
     2. Install units in accordance with manufacturer’s instructions and install all accessories specified herein.
     3. Locate units according to the drawings and ensure that mounting position allows full access to the service panels, filters, etc.
     4. In order to totally block off the cold draughts from the window it shall be preferable that the fin tube element covers the full length of the window.
     5. Distance between window and mini canal should allow extra space for window coverings. Which under no circumstance should hang over the mini canal.

END OF SECTION