

- K. Provide hot gas bypass.

CONDENSER

- L. Condenser fans shall be direct drive, propeller type designed for low tip speed, vertical air discharge, and include service guards. Fan blades shall be constructed of steel and riveted to a steel center hub. Condenser fan motor shall be direct drive, permanently lubricated "PSC" motors with inherent thermal overload.
- M. Dual circuited systems shall feature condensers fabricated from cast aluminum micro-channel coils. Each condenser coil shall be factory leak tested with high-pressure air under water.
- N. Each refrigerant circuit shall provide 15 degrees of liquid sub-cooling.
- O. Dual circuited systems, one condenser fan shall be controlled to maintain positive head pressure and an ambient thermostat shall be supplied to prevent the refrigeration system from operating below 45°F ambient.
- P. Provide Electrofin® baked epoxy coating with a 5000-hour salt spray test per ASTM B117 on coils.

ELECTRICAL AND CONTROLS

- Q. All wiring shall comply with UL / CUL requirements. The unit shall be provided with a factory wired weatherproof control panel. Unit shall have a single point power terminal block for main power connection. A terminal board shall be provided for low voltage control wiring.
- R. Power and starting components shall include: circuit breaker for each compressor; fusing for the control circuit; compressor starting contactors; unit power terminal block for field connection to a single power supply and control power transformer and main disconnect switch.
- S. Provide unit with terminal strip for connection to field installed controls and BAS interface as per drawings.
- T. Provide 4 stages of cooling.
- U. Supply a non-fused disconnect switch with a through-the-door handle.
- V. Provide phase loss protection.
- W. Provide ground fault protection.

2.22 ACCEPTABLE MANUFACTURES AND SUPPLIERS

- A. Acceptable manufactures and suppliers are as follows:
1. Air handling units
    - (A) Haakon Industries
    - (B) Mafna
    - (C) Ingenia Technologies Inc.
    - (D) Scott Springfield
    - (E) Ventrol