Booster Coil Guide Specifications

**1.0- General**

All coils shall be constructed with plate fins and seamless tube construction as shown on plans and specifications. They are intended for water or other appropriate transfer fluids. They are designed for maximum performance under specified conditions with minimal air-side pressure drop.

**1-1. Certification**

 All coils shall conform to ARI Standard 410.

**1.2- Tubing**

Seamless copper tubes shall be mechanically expanded into plate aluminum or copper fins to form an everlasting bond between primary and secondary surfaces.

 Tubes shall be 1/2" O.D. with .016” thick seamless copper tube wall and staggered tube pattern.

 Tubes shall be 5/8” O.D. with .020” thick seamless copper tube wall and staggered tube pattern.

**1.3- Fins**

Fins shall be continuous type and shall have full collars to allow for expansion and contraction of fins.

 Fins shall be of aluminum construction with .006” thickness.

**1.4- Headers**

Headers (Manifolds), if required, shall be constructed of round pipe type and shall be constructed of a minimum of .060” wall seamless copper. End caps shall be rounded, to prevent excessive pressure drop. All headers on coils shall be provided with proper went and drain connections.

**1.5- Connections**

Coil connections shall be copper MPT or SWT type and shall be brazed into manifold.

**1.6- Brazing**

All coils are to be brazed with minimum 5% silver content (BCup-3) filler material to insure joint integrity. Low-fuming, flux-coated bronze braze weld material is to be used for ferrous to non-ferrous joints.

**1.7- Casing**

All Hot Water Duct Booster Coils shall be provided with heavy gauge casings, tube sheets, and intermediate supports when applicable. Tube sheets shall be free of sharp edges and have properly sized holes for expansion and contraction of tubes. Intermediate supports are required every 48” of finned length and shall be bolted to top and bottom casing channels.

 Casing shall be of 18-gauge galvanized steel construction.

**1.8- Pressure Testing**

All coils shall be leak tested at 550 PSIG dry nitrogen pressure submerged under water. Dual-operator verification shall determine that all coils are leak-free.

**1.9- Operating Pressures and Temperatures**

Hot Water Duct Booster Coils shall be designed for 250 PSIG water working pressure. All coils shall be guaranteed up to 300°F working temperature.

**1.10- Warranty**

All Hot Water Duct Booster Coils shall have a standard (12) month material and workmanship warranty.

**1.11- Installation**

 Coils are to be installed according to the manufacturer’s instructions and applicable piping codes.

Contact **Coil Company** [**www.coilcompany.com**](http://www.coilcompany.com) **610-251-0257** for specifications concerning other materials of construction.