SPECIAL APPLICATION NOTES

PREFERRED COIL SIZING

While the face area of a coil is the main determining factor of performance the ratio of length to height can have a significant effect on price. A square coil has more tubes to cut, expand and weld, and longer manifolds than the equivalent face size in a long low coil. A 2:1 aspect ratio provides a reasonable balance between size and price and should be aimed for if space permits.

Coil length parallel to the tubes can be any figure required but we normally round up to the nearest 50mm if possible. Height is tied to the tube pitch of the particular fin pattern being used and in practice tubes often need to be in pairs to allow same end connections that customers normally expect. Certain tube counts should be avoided as they offer very few choices on circuit arrangement. For example a 14 tube coil in 1 row can only be divided into 1 or 7 circuits for same end connections. Tube counts of 22 and 26 should also be avoided.

Stated coils sizes should always be actual working face size or finned area of the coil block and not confused with external frame size or overall size including bends and manifolds. Finned length is in the direction of the tubes and finned height is perpendicular to the tubes, regardless of what orientation the final mounting will be.

Preferred finned heights in millimeters are as follows –

TUBE COUNT	1/2” COILS	5/8” COILS
6	191	229
8	254	305
12	381	457
16	508	610
20	635	762
24	762	914
30	952	1143
32	1016	1219

The 1/2” tube pattern is generally more suited to smaller sizes and duties and has a tube pitch of 31.75mm while our 5/8” coils have a pitch of 38.1mm. These comments are more applicable small cooling coils and 1 and 2 row heating coils than to larger cooling coils that are often full or half parallel or steam coils that should always be full parallel.