



INDUSTRIES LIMITED

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Non-Freeze Steam Coils

'Non-freeze' steam coils (which, believe me, *can* freeze) have a tube-in-tube design. The inner tube is designed to distribute the steam evenly along the length of the coil. The outer tube collects the condensate and returns it to the manifold. Most manufacturers use a 3/8" inner tube, and offer either a 5/8" or 1" outer tube.

This type of coil is commonly used in applications where the entering air temperatures are low and the temperature rise and condensate loads are high. If a 5/8" outer tube coil is used in these applications, there is very little room between the inner and outer tubes to handle the high condensate loads. Condensate can back up and prevent steam from getting all the way down the coil.

If you have a high load on a non-freeze steam coil, use a coil with a 1" outer tube. It will be more expensive, but it will work better.

For a more detailed article with specific recommendations, go to www.usacoil.com/newsletters/mar.pdf.

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