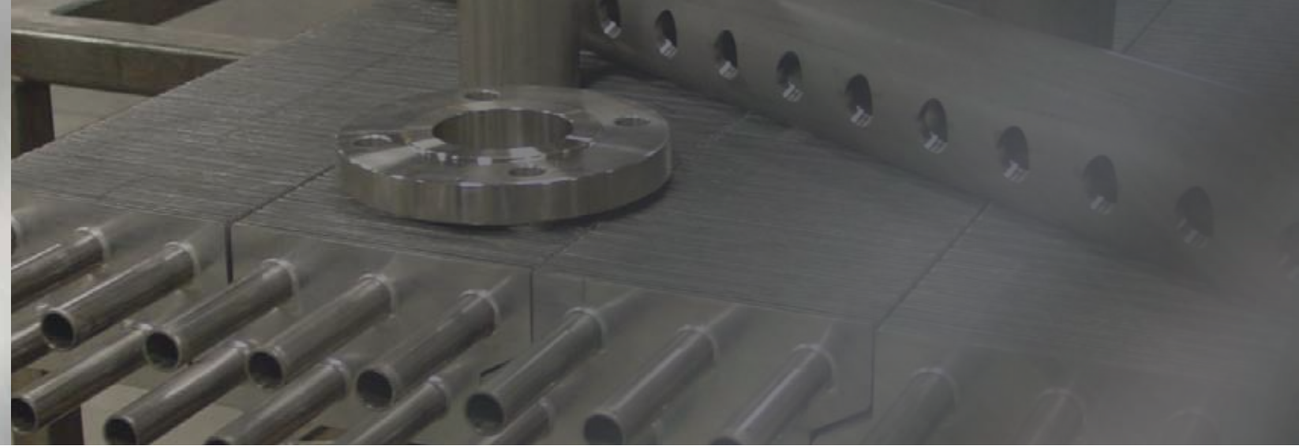

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Our 5-Year Warranty. Durable. Reliable. Proven.

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Advantages of the Segmented Plate Fin Coil

Innovations that dramatically improve the durability and operating life of a coil

The segmented plate fin bundle with our slotted tube sheet is designed to accommodate the high tube stresses that arise from the unequal expansion and contraction between the fin bundle and the coil headers.

Traditionally, when building coils, the tubes are mechanically expanded into the fins creating contact pressure between the tube and the fin. The expansion process is problematic with some materials, especially stainless steel, as they contract slightly after the expansion process.

Instead of expanding the tubes our fins are press fit onto the tubes. The extruded fin collars have a high tensile strength that provides high thermal efficiency and will last the life of the coil, resulting in an exceptional fin bond.

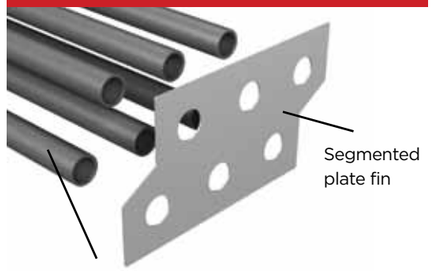
Tube Advantages

- Tubes are never expanded or grooved.
- No work-hardening or induced stress resulting from expanding the tubes.
- When tubes are expanded micro-cracks are formed in the surface layer of the tubes. Cracks and crevices produce areas where corrosive attacks start to the tube.
- Our non-expanded tube is left in its mill-direct & annealed condition providing the most resistance to corrosion.

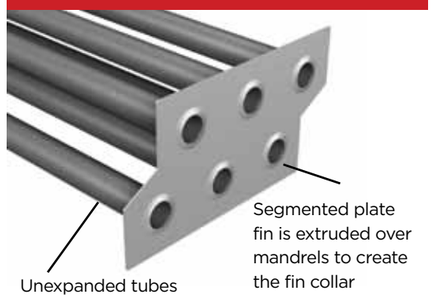
Fin Advantages

- Segmented plate fins give the ability to utilize hardened fin material (3-4 times stronger than conventional fins).
- Ability to run thick fin material (up to 0.040" thick aluminum).
- Ability to utilize heavy-walled tubes (greater than 0.083").
- Capability to produce tight fin spacing.

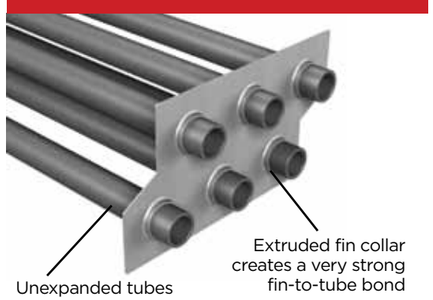
1: Unexpanded Tube and Segmented Fin Section



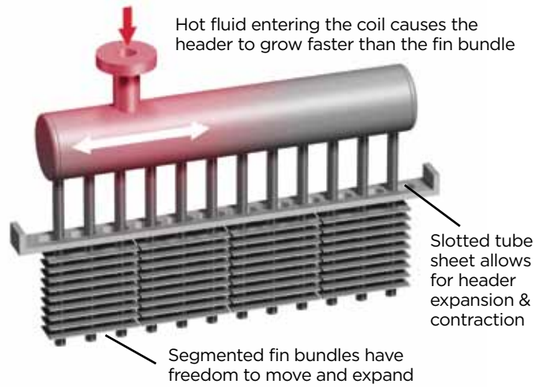
2: Fin Collars Extruded Over Tubes



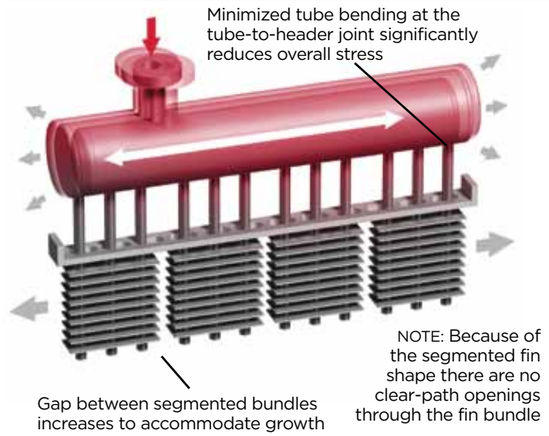
3: Fully Formed Collars on Segmented Fin



4: ACT Free Floating Segmented Fin Bundle at Start-up



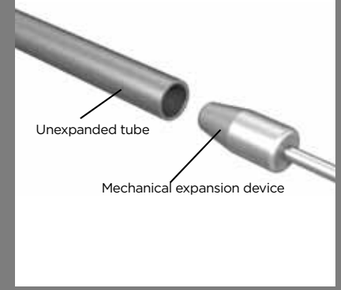
5: ACT Free Floating Segmented Fin Bundle During Operation



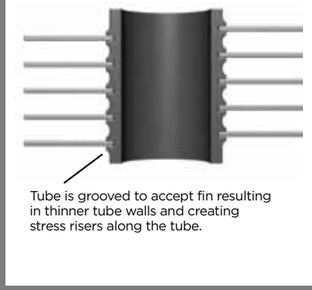
TRADITIONAL COIL CONSTRUCTION

Traditional coils are manufactured using a one-piece fin with tubes that are mechanically expanded. Both add stress to the coils, either during manufacturing or during operation. These stresses cause most coil failures.

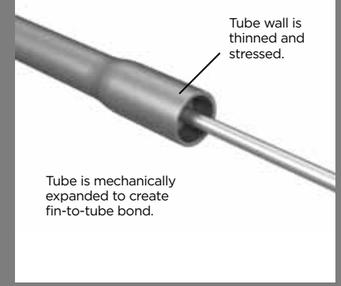
1: Expanded Tube



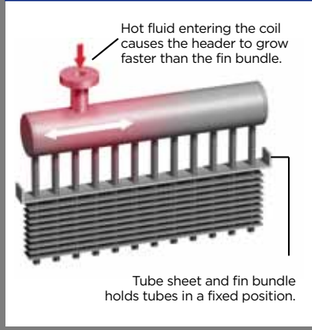
4: Embedded or "G" Fin



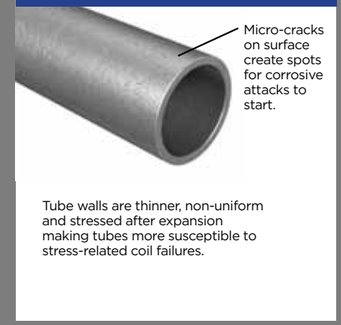
2: Expansion of Tube



5: Traditional One-Piece Plate Fin Design At Start-up



3: Micro Cracks on Expanded Tube Surface



6: Traditional One-Piece Plate Fin Design During Operation