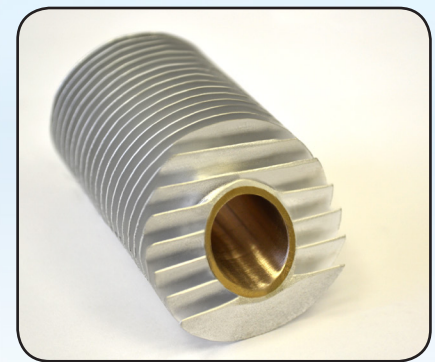
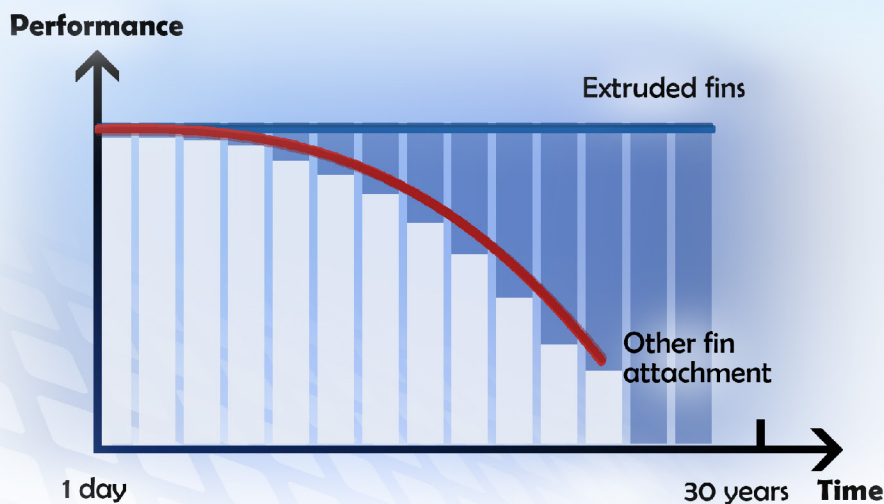


→ Powerfin : The highest quality for finned tubes

THE PERFORMANCE DEGRADATION OF A HEAT EXCHANGER IS ESSENTIALLY DUE TO TWO PHENOMENA WHICH OCCUR OVER TIME :

- Fouling resistance due to impurity accumulation contained in both fluids
- Increased thermal resistance at the tube-to-fin bond due to thermal cycling dilatation of the materials and to corrosion at the fin base or root. These factors creates a loss of contact or bond pressure in between the fins and the tube.



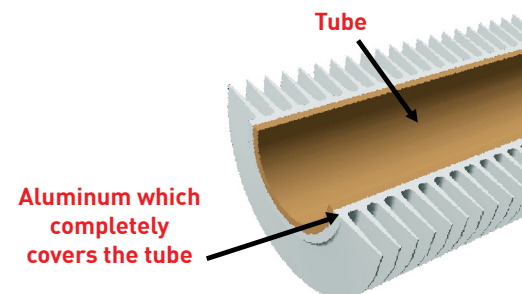
Extruded finned tubes

HOW TO PREVENT LOSS OF PERFORMANCE ?

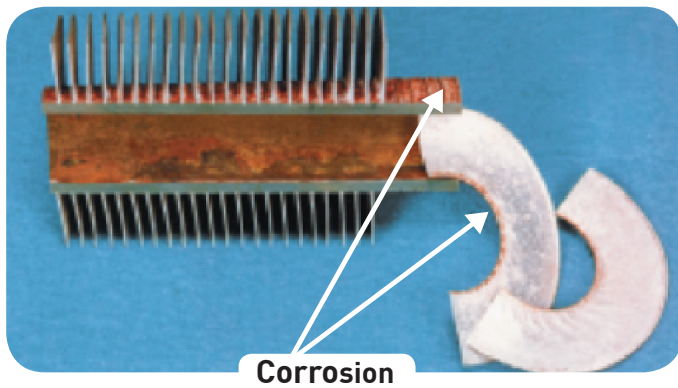
- Fouling impact on heat exchanger performance can be reduced by an internal and external cleaning on a regular basis.
- There is No remedial solution (except tube replacement) for correcting performance degradation due to increased tube-to-fin resistance but **this can be prevented by using aluminum extruded finned tubes.**

WHY POWERFIN ALUMINUM EXTRUDED FINNED TUBES PREVENT LOSS OF PERFORMANCE DUE TO TUBE-TO-FIN BOND RESISTANCE ?

- The aluminum completely encloses the tube material, No gap between fins → No possibility of contaminant accumulation underneath the fins → No possibility of corrosion in between fins and tubes.



Conventional fin attachment*



Extruded aluminum fin attachment*



- More than 1200 psi (>85 bars) applied on aluminum when forming the fins on tubes → Excellent mechanical bond → No risk of fin detachment over the years due to thermal dilatations or vibrations.

OTHER IMPORTANT BENEFIT OF POWERFIN ALUMINUM EXTRUDED FIN TUBES :

- Cold forming finning process → Much more rigid fin than aluminum ribbon of same thickness → Easy maintenance (severe coil cleaning without fin damage)

Did you know ?

EXTRUDED ALUMINUM FINNED TUBES ARE ALSO CALLED :

- Integral aluminum finned tubes due to the fact this is the only fin technology where aluminum is completely covering the tubes.
- Bi-metal finned tubes.

THE FOLLOWING QUOTE FROM ALDO GUCCI PERFECTLY REFLECTS THE VERY ESSENCE OF OUR EXTRUDED FINNED TUBE TECHNOLOGY :

«THE BITTERNESS OF POOR QUALITY IS REMEMBERED LONG AFTER THE SWEETNESS OF A LOW PRICE IS FORGOTTEN»

*Pictures from "Fin tube performance", Chemical Engineering Progress, July 1996

Note: This article is based on several independent scientific articles which may be available upon request.