Failure mechanisms

Failure	Probable cause	Control
Loose fin	Thermal cycling, poor attachment or differential expansion	Correct attachment type and bond testing
Under-fin corrosion	Moisture, crevices and contamination	Compatible materials, coating and drainage
Galvanic corrosion	Dissimilar metals in a conductive environment	Evaluate the metal couple and environment
Bent or crushed fins	Poor handling or inappropriate washing	Packing and controlled cleaning
Weld cracking or separation	Weld parameters, vibration or thermal fatigue	Qualified process and vibration analysis
Surface blockage	Dust, salt, oil or biological material	Suitable fin spacing and washing program

Source / basis: https://niktrd.com/fin-tube