

One of the most common warranty or return concerns is heater assemblies and elements. We often have to give a dealer the bad news that a warranty claim is denied because a heater is dryfired or a water chemistry issue, at which point an argument ensues because the heater appears to be fine. Below is information from Thermcore, an industry leader in replacement heater assemblies and elements.

Some heaters are returned as "bad" or defective and claimed under Thermcore's warranty guidelines. Dry fired heaters (defined as heaters operated with either insufficient or zero water flow) are sometimes returned with no external evidence of overheating. Most heaters that are switched on completely dry develop a blue tint on the outer tube. They may also display burnt and wrinkled labels, melted plastic boxes or wires, or split open elements.

Heaters that are victim of insufficient flow sometimes have a perfectly new looking outer tube. However, the attached picture shows an element removed from a 30 day old heater with a discolored clip & surface chafe. There is no way to see this damage from looking down a heater tube, and removal for inspection is required. Discolored s/s clips and chafe is a tell-tale sign that the element has overheated. All heaters that are returned under warranty are completely disassembled and tested by our techs, and units displaying evidence of dry fire are still denied warranty.

Factoid:

Elements that dry fire will only split their sheaths open if they are weakened by chemistry and/or old age. Titanium elements sheaths will never split open (with some exceptions!). Elements with thin sheaths (typical China construction) or just defective sheath material can split.

