

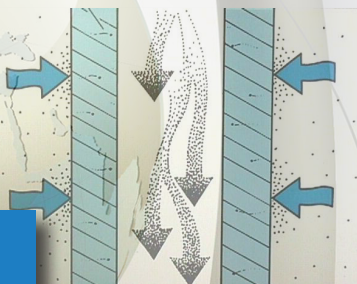
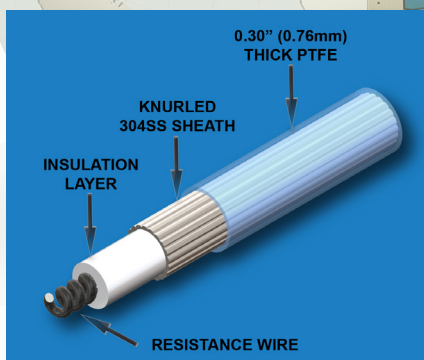
PROCESS TECHNOLOGY

...IN HARD CHROME

A circuit board manufacturer in Hampton, IA, experienced high fluoropolymer immersion heater failure rates on its hard chromic plating line. During an average month, heater failures would cost the company several thousand dollars in replacement costs. Although fluoropolymers have proven to be chemically inert to virtually all chemicals, the material does have absorption and permeation characteristics.

Permeation is not a problem for many bath chemistries. However, highly aggressive chemistries (especially at higher temperatures and pressures) can migrate through the fluoropolymer sheath of an electric heater and attack the stainless steel inner element. As a result, not only is the heater's operating life dramatically shortened, but the process bath can become contaminated through reverse permeation.

Process Technology's patented purged design allows the environment around the heating element to be continuously purged with a flow of gas through the heater. This flow sweeps away internal moisture and /or entrapped corrosive vapors that have formed due to permeation through the heater sheath. Passing this flow through the heater results in a pressure differential between the process bath and the inside of the immersion heater that prevents reverse-flow permeation into the process bath. For the circuit board manufacturer, this design not only resolved the permeability problem but created a longer-life heater. After installing the purged heaters, this customer virtually eliminated its immersion heater failure problems and associated costs.



After installing the purged heaters, our customer virtually eliminated its immersion heater failure problems and saved thousands in monthly replacement costs.

<http://www.processtechnology.com/electric-immersion-heaters-water-chemical.html>

Phone: 800-621-1998 / +1-440-974-1300 ♦ Email: info@process-technology.com