

**PROCESS
TECHNOLOGY**

...Tytan in Implant Manufacturing

Cleaning in implant manufacturing is of utmost importance, as failure to clean properly can result in serious health consequences and economic impact. For example, in 2000, Sulzer Orthopedics had a \$1B recall due to improper cleaning of machining oils off of the surfaces of their artificial hip implants. The machine oil inhibited the bone growth needed to bond the implant to the pelvic bone. This resulted in over 2,300 revision surgeries and many more claims due to pain and suffering. (http://biomed.brown.edu/Courses/BI108/BI108_2007_Groups/group05/pages/sulzer.html)

Orthopedic implant companies need to make sure to use the best practices in order to minimize the risk of contamination. This not only makes sense from an economic perspective (reducing risk of recall), but also from a patient morbidity and mortality perspective. Process Technology's Tytan™ deionized water heater can be a significant part of these best practices for cleaning, as hot deionized water is a great solvent and does not leave potentially harmful residues.

The Tytan is currently being used for the final cleaning stages in a major medical implant manufacturer's production lines. The Tytan provides clean, reliable heat for their cleaning processes and provides high flow rates of heated deionized water (80°C at 3 gallons per minute). This heated deionized water ensures consistent cleaning of the oils and particulates left on the implants from machining and processing. This company has been happy with their Tytan heaters and has experienced exceptional reliability with the 10 units that have been running for up to 8 years. They noted, "The units are reliable and perform as indicated."

"The Tytan™ units are reliable and perform as indicated"

<http://www.processtechnology.com/inline-water-heaters.html>

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