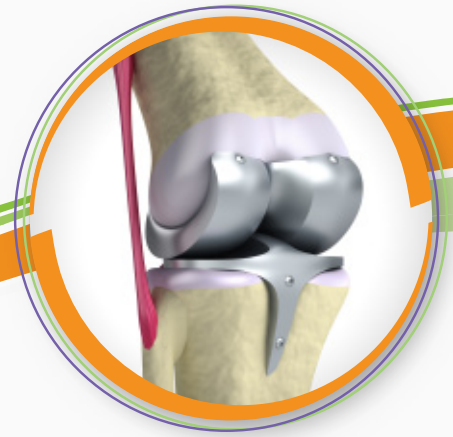
HOUGHTON™
Fluid Partnerships Making a World of Difference



# Medical Implant Manufacturing Case Study

## Houghton solution reduces orthopedic manufacturer's annual coolant usage by 50 percent

### Customer's Unique Situation

- A leading orthopedic implant manufacturer produces joint replacements made from stainless steel, titanium and cobalt steel.
- Typical operations are turning of pins, finishing and polishing of component castings. All products are cleaned and passivated after machining.
- The company felt that its coolant, combined with lack of fluid management, contributed to health, odor and machine cleanliness issues.

### The Houghton Difference

- The Houghton team proposed switching to Hocut® 3380 coolant on the basis of longer sump life with fewer cleanouts, more machine uptime, better odor and less waste.
- Houghton's FLUIDCARE™ chemical management service provided coolant management training sessions for operators, showing them how to monitor and control coolant in-house.
- The customer received regularly scheduled calls from its FLUIDCARE service representative, as well as independent checks on machine conditions.

### Driving Successful Outcomes

- Reduced coolant spend from more than US$46,000 per year to less than US$22,000 per year.
- Customer decreased coolant waste by more than 10,000 gallons per year, saving more than US$3,000 annually in disposal costs.
- 100 fewer machine cleanouts per year.
- Improved quality of parts with less finishing work needed further down the production line.
- More stable coolant with fewer tramp oil-related problems on machines.

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6/2012