

Creep Feed Grinding Success

POWER GENERATION (USA)

Gas and Steam Turbines

Castrol Syntilo® 9918

ANNUAL SAVINGS: \$226,446



THE SITUATION

A major power generation equipment manufacturer was having multiple issues with their current grinding fluid. The issues included odor, poor sump life, elevated coolant usage & concentration, high coolant price, and costly pump maintenance. The customer was replacing about 50 coolant pumps per year on two Mägerle systems, performing creep feed grinding of Inconel and stainless steel turbine components.

BEFORE

- Sump life of 6 months
- Concentration of 12%
- Elevated price per gallon
- Coolant usage: 2,640 gallons annually
- Pump replacement costs of \$150K per year

AFTER

- Sump life of 12+ months
- Concentration of 8%
- Lower price per gallon
- Coolant usage: 1,013 gallons annually
- Reduced pump issues

THE SOLUTION

- **Coolant Usage:** Reduction in usage by about 1,600 gallons per year.
- **Operator Acceptance:** Conversion to Syntilo 9918 eliminated odor complaints. Machine cleanliness was drastically improved; operators can now easily see through machine windows.
- **Maintenance:** Almost eliminated coolant pump replacements. Went from an average of 50 per year to just 2 in our first year in the systems.
- **Sump Life:** Sump life has gone from 6 months to 12+ months. This has eliminated almost 8,000 gallons of diluted coolant from going into the waste stream.

- **Over 60% reduction in coolant usage**
- **More than doubled the sump life**
- **Drastically reduced maintenance costs**

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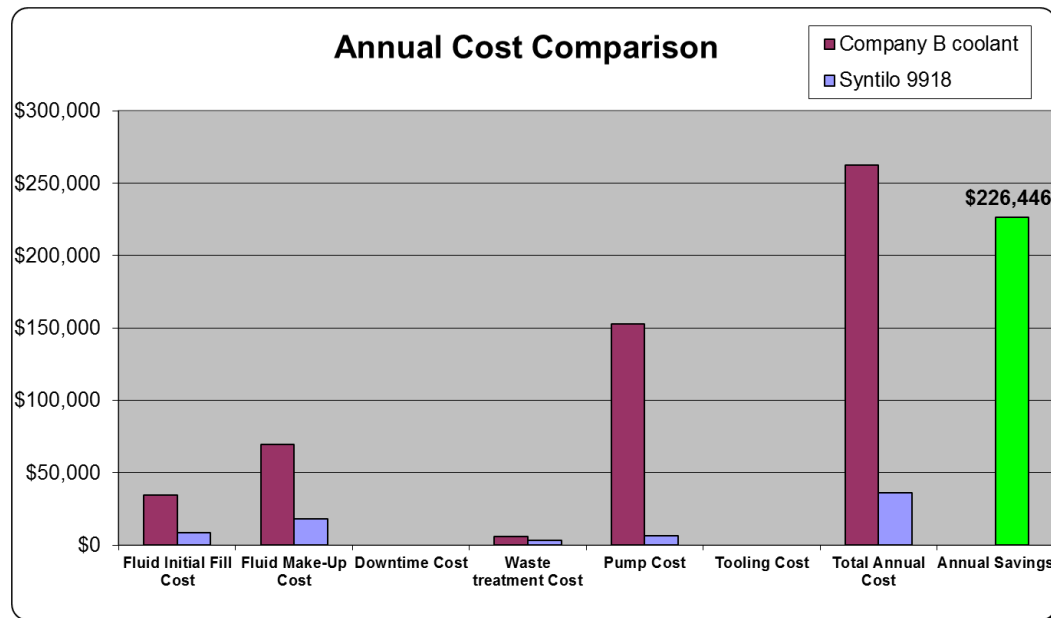
RECOMMENDATIONS

The customer was using a semi-synthetic fluid, but a Castrol full-synthetic coolant was offered. This fluid technology provides superior cooling properties, excellent removal of grinding fines and fast air release. These properties are essential in creep feed grinding operations.

CONCLUSION

Syntilo 9918 has delivered value across the board, from reducing costly maintenance issues and eliminating odors to improving sump life and decreasing fluid usage.

Annual savings were over \$225,000!



OTHER POTENTIAL APPLICATIONS

Syntilo 9918 utilizes high performance lubrication while remaining mild to operators, machines, and workpieces. This makes it a great choice for grinding, drilling, tapping, milling, honing, reaming and broaching on a wide variety of metals.