

**LOCTITE***Adhesives for more  
reliable assemblies***APPLICATION CASE HISTORY****No. 227**

# Loctite® RC™ 620 Retaining Compound Eliminates Hours of Machining and Labor Costs

## *Lengthens Life Cycle of Parts by Eliminating Corrosion*

**Situation:**

A machine shop in British Columbia, Canada repairs and rebuilds pumps for the pulp and paper industry. The units are returned on a regular basis to the machine shop for replacement of screws due to normal wear and tear. Because of corrosion, the time required to disassemble the parts was labor intensive, and the shafts usually need to be machined back to specification. Heat shrinking was necessary for reassembly. These methods, although costly, were accepted as necessary expenses. The machine shop was looking for a better way to serve their customers needs.

**Solution:**

Loctite® RC™ 620 Retaining Compound is a high-temperature, high viscosity liquid. It fixtures in just 30 minutes at room temperature and provides a sheer strength of 3,000 psi on steel. The sealing capabilities of this adhesive helps eliminate corrosion, and allows for temperature ranges from -65°F to 450°F.

Loctite RC 620 is applied to the shaft and the screw. Then, with approximately .005" diameter clearance, the screw is slipped onto the shaft, the key inserted and left to cure.

**Results:**

After the first time using RC 620, the units are returned to the mill for use. When the mill sends them back again for scheduled maintenance, the screw is pressed off the shaft, which is still in excellent condition, and ready for reuse. No machining is required, and heat shrink assembly has been eliminated. The savings on labor and parts have enabled the machine shop to pass on a significant savings to their customers.

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