

**Customer: Municipal Heating Plant**

**Consultation: M.Sc. Eng. Leszek Kupras - CHESTER MOLECULAR**

**PROBLEM DESCRIPTION:** In the operation of the exhaust draft fans, a clearance appeared between the bearing sleeve and the shaft journal  $\phi$  100. The bearing node required renovation due to the inability to eliminate the backlash by tightening the nut.

**DESCRIPTION OF THE REPAIR:** There were grooves (approx. 12 mm x 2 mm) on the journal, leaving furrows approx. 2 mm wide. After degreasing with **Chester Fast Cleaner F-7**, **Chester Metal Super FE** material was applied. After curing, machining was performed with a "field" lathe. The shaft rotation was achieved by blowing compressed air on the fan blades.

**ACHIEVED EFFECTS:** The shaft with the fan did not require any costly and troublesome disassembly. The possible occurrence of difficult grinding of the lined surface as well as thermo-mechanical stresses and corrosion related to overheating of the shaft disqualified the possibility of traditional repair with padding. The positive effect of the shaft regeneration with Chester Molecular materials fully confirm the validity of the adopted solution.

