

TOUGH JOBS

A **GROSCHOPP**® CASE STUDY

+ Floor Scrubber

A manufacturer of floor scrubber equipment went to Groschopp with motor shaft problems, and after a complete analysis of the system, found out the underlying cause was actually a control issue causing the motors to overheat. These motors were being “overrun” because the controls the manufacturer was using had “dirty” DC power—this means the motor was ran less efficiently that is was expected to and therefore had to do more work.

Groschopp was able to get the customer with a new motor to fit their existing gearbox design. They combined a PM motor components kit with a universal motor part set to achieve the high speed and torque the application required.

Groschopp also took preventative measures to make sure the manufacturer wouldn't continue having premature failure problems. They heat-treated the shaft (doubling the motor life in testing), switched out grease for synthetic oil, sealed the motor for protection against hot water, dirt, and detergent, and fit the manufacturer with a new and more efficient control. The end result was a quieter motor with twice the life of the customer's previous motor.

CHALLENGES:

- ⊗ High torque in a small package
- ⊗ Protection against harsh chemicals and water used in the application

SOLUTION:

- ⊗ PMDC motor components kit and UM parts set to fit existing gearbox design
- ⊗ Determined gear failure, provided material recommendations, and modified Groschopp motor

