

TOUGH JOBS

A **GROSCHOPP**® CASE STUDY



Concrete Vibrator



Construction sites are no place for delicate equipment, and that goes for concrete vibrators as well. Groschopp designed a rugged universal parts set motor with a steel core commutator and custom knurled shaft to perform in the tough environment. The motor had to be able to perform in harsh weather conditions as well as be able to withstand the stress of the tool itself.

The universal motor was designed to work under constant high torque and extreme vibrations. The steel core commutator was used to prevent motor failure due to high amp-draw. Groschopp even did a one meter drop test to prove the design's ability to hold up to the rough handling of tools on the job site.

CHALLENGES:

- ⊕ Constant high torque
- ⊗ Extreme vibration
- ⊕ Withstand a variety of weather conditions: heat, cold, rain, etc.
- ⊗ Equipment is handled roughly on the job site

SOLUTION:

- ⊕ Custom engineered universal parts set motor
- ⊗ Steel core commutator to prevent premature motor failure
- ⊗ Knurled shaft
- ⊕ Drop test to prove durability of the design

