

Paragon Products Summary

Challenges

- Adapting a pump designed for fuel to pump cold motor oil
- Working with General Electric engineers to meet their very detailed specifications
- Designing the FDL120 to run at higher pressures and electrical loads required a substantial redesign of the cooling system, electrical system, and electrical system packaging

Highlights

- After extensive testing, research, and analysis, the performance of the standard 7gpm pump was increased by 10% with a very simple and cost effective change
- The FDL 120 was designed and tested to satisfy customer higher pressure requirements
- Paragon's first oil prelude pump was designed, thoroughly tested in-house, vendor tested, and approved by GE
- Grit test stand, thermal cycle chamber, and other longevity test equipment was designed and built

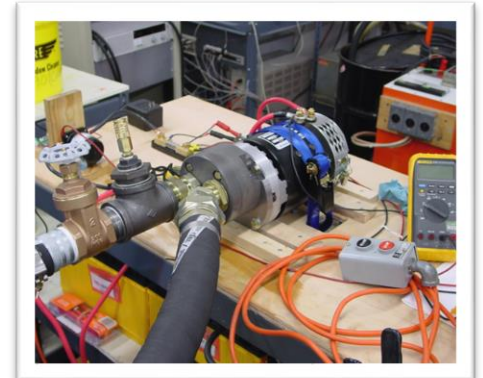


Oil Prelube pump provides 30gpm at 150 psi

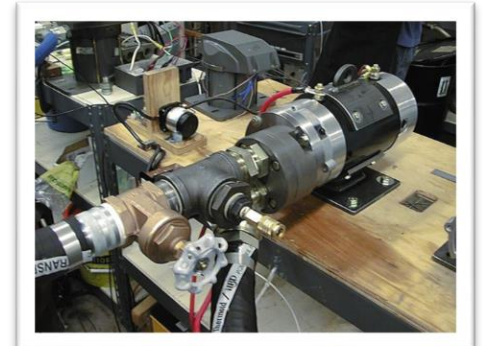
FDL120 provides 7gpm at 120 psi



Standard fuel pump provides 7gpm at 90 psi



Initial prototype with stock motor



Second round prototype with custom motor and 2nd gen machined parts

Pump with steel bearings



Grit test stand to validate ceramic bearings

Pump with ceramic bearings

ISO certified grit



Final oil prelude pump