TOUGH JOBS

A GROSCHOPP CASE STUDY

Livestock Feeder

Overview

An agricultural equipment manufacturer came to Groschopp looking for a more reliable motor for their livestock feeding equipment. Their existing motor was struggling under heavier loads, and they needed a more powerful option for a larger version of the equipment. So Groschopp worked with them to develop a gearmotor better suited for the application.

Challenges

- **High starting torque**: Heavy loads created high startup demand, which caused the existing motor to struggle under load.
- **Variable load demands**: The motor needed to operate consistently as loads changed during operation.
- **Harsh operating conditions**: The gearmotor needed to perform in an agricultural environment with dust, vibration, and changing outdoor conditions.

Groschopp's Solution

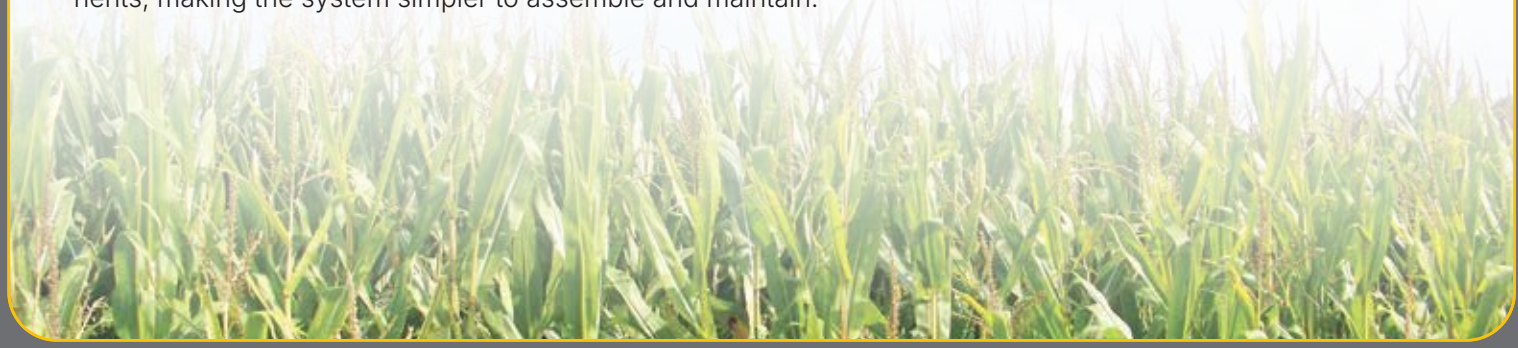
Groschopp worked with the customer to test the existing setup and evaluate how the motor performed under load. Based on those findings, Groschopp developed a custom PMDC planetary gearmotor better suited for the application.

Key features included:

- Custom 4-pole PMDC motor designed for high startup torque
- Integrated planetary gearbox to achieve the required operating speed
- Simplified drive configuration that reduced the need for external sprockets and chains
- Real-world testing to evaluate motor performance under load
- Electrical protection recommendations to support reliable operation

Results

The PMDC gearmotor provided the additional torque needed for the larger application and handled startup loads more effectively. Integrating the motor and gearbox also reduced the need for external drive components, making the system simpler to assemble and maintain.



GROSCHOPP
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