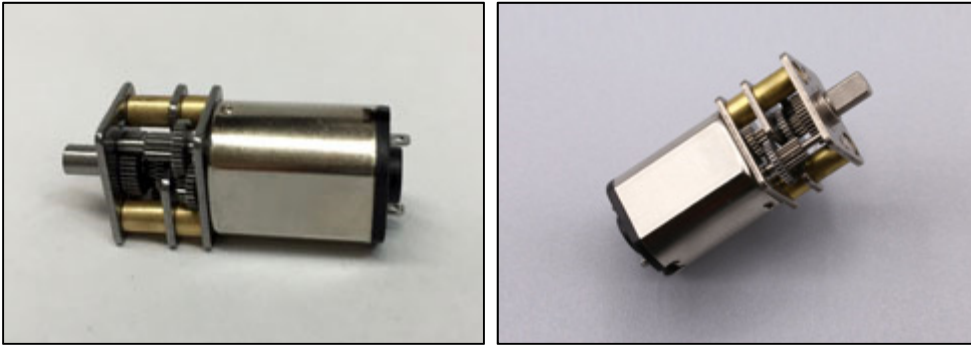


Custom Spur Gear Motor Used in Automated Locking Systems – *Case Study*



Overview: We were asked to provide a high performance, highly reliable version of a common model spur gear motor that would also comply with international security standards within an automated locking system.

Challenge: Our customer came to us with an existing gear motor that only lasted 1,500 – 2,000 cycles in their application. Since these motors would be used in high security lock systems, they needed to have an ultra-high reliability gear motor with a 50,000 cycle life. In addition to the motor's reliability, it also had to conform to newly-tightened international security standards. Another issue was, once the end product was in the field, it would be very costly to field-service and replace these gear motors.

Solution: In a joint effort with our factory, ISL made modifications to the motor to meet the customer's goal of 50,000 cycles. Among some of the innovations, we changed gear material from brass to a high-reliable stainless steel alloy in order to achieve long life and improved dependability.

After further testing, the ISL custom version exceeded 90K cycles before testing was halted. We were also able to do this without any NRE charges.