

Surgical Tool for Eye Surgery

**B0508 SLOTTED BLDC
MOTOR WITH GEARBOX**

PROBLEM

An ophthalmologist requires a steady hand when using surgical tools during cataract surgery. The interocular lens injector (IOL) inserts a new lens into the eye after the occluded lens is removed. The IOL injector is a small hand tool with an incorporated motor/leadscrew combination that pushes a rolled-up lens from a tube into the eye. Once inserted into the eye, the lens then unrolls into the correct position.

SOLUTION

A medical device manufacturer asked Portescap to provide a small motor to incorporate into their IOL injector. The motor needed to be as short as possible, meet the desired speed and load point and survive extensive autoclave cycles. Portescap's array of technologies provided several options to solve this application, and engineers eventually settled on the B0508 slotted brushless DC SMS motor with gearbox to minimize axial length. Designed to support repeated sterilization, the motor delivered the endurance needed to withstand more than 1,000 autoclave cycles while meeting the application's demanding speed and load requirements.



KEY HIGHLIGHTS

- BLDC slotted technology with integrated gearbox
- Withstands 1,000+ autoclave cycles
- High power density
- Reduced axial length
- Easily customizable

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