

# APPLICATION PROFILE

## LASER FOCUS MECHANISM - LASER CUTTING SYSTEM



Laser cutting machines require precise laser control to achieve the desired cutting results. A critical part of the cutter is the laser focus mechanism located within the laser head. This axis focuses the laser to provide optimal and accurate cutting.

A fiber laser manufacturer specializing in industrial laser systems approached Portescap to develop a custom solution that would increase acceleration with high efficiency. The Portescap Quick Prototype Team identified a potential solution using an Ultra EC™ 16ECP slotless brushless DC motor. An integrated encoder was also required to ensure control of the closed-loop positioning system. Since the standard ribbon cable exiting the encoder would not withstand the frequent motion of the laser head, Portescap engineers improved the lead exit design with a more robust, discrete flexible wire. The customer stated that they are pleased with the customized solution and that it provides the positional control and robustness they needed for their application.



### Motor Highlights

- High acceleration
- Integrated encoder
- High efficiency

#### Application Assistance

Complete list of global sales offices: [portescap.com/en/contact-portescap](http://portescap.com/en/contact-portescap)

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