DC servo linear actuation – made to order.

This long ball screw linear actuator driven by a DC servo motor and gearhead is the latest example that shows maxon motor’s ability to provide tailored solutions. Recently supplied by maxon motor in Australia, the unit is made of a high grade stainless steel ball screw, integrated thrust block bearing system, planetary gearhead and DC servo motor.

With a mechanical positioning accuracy of 0.037mm, a 133mm/s linear speed and a rating of over 1000N of mechanical intermittent force over its 600mm length, the device is compact and powerful. The bearing system allows both push and pull at the same rating and maxon are able to manufacture the unit with a linear length to suit the application. Electrically driving the ball screw with a detent free DC servo motor allows the movement of the load to be controlled precisely and smoothly. Based on the pitch of the ball screw and the positioning resolution required, the DC motor can be fitted with high resolution digital encoders and can be controlled with either full position controllers or servo amplifiers within a position control loop. This example is being used with current control of the DC servo motor giving a proportionally controlled force over the movement range. With adjustability of the motor winding, gearhead ratio, actuator pitch and travel length a combination of components can be specified to give the most compact and appropriate servo system.

Contact maxon motor Australia for further information or assistance. Ph: +61 2 9457 7477.