Del-Tron’s belt-driven DB series actuators operate at speeds up to 5.1 meters per second (MPS) and do not require lubrication or maintenance under normal operating conditions. Del-Tron’s DB series actuators are ideal for use in applications where speed is critical such as pick-and-place applications on high speed automation equipment. Another advantage of the new DB series is that they can provide travel lengths up to 6 meters while maintaining repeatability of +/- 0.025 mm and linear accuracy of +/- 0.083 mm per meter.

New DB series actuators feature a steel-reinforced polyurethane belt that helps deliver repeatable positioning by avoiding belt stretching. The positive timing belt drive provides further improvements in accuracy and speed. A proprietary extrusion design provides long travel, smooth movements, and excellent repeatability. DB series actuators are available standard to accept NEMA 17, 23, and 34 motors and can be configured to accept other sizes.

The DB series planetary gearheads contribute to the performance of the actuators by providing gear geometry optimized for planetary systems using zero helix angle gears to avoid unbalanced forces caused by helical gears. Generously-sized sealed deep-groove ball bearings support the output shaft. All gears are case hardened for high surface hardness and high strength ductile core. The gearhead handles input speeds up to 10,000 rpm and delivers exceptionally high output loads.

Different types of bearings are offered. Steel concave rollers (DBM) riding on chrome-plated steel rails provide excellent positioning accuracy even in applications that require long travel. A plastic coated needle (DBN) bearing assembly offers the highest possible speeds. Finally, plastic bearings (DBP) running on aluminum rails provide the ultimate in durability in tough push-pull applications. The steel bearings are supplied with lifetime lubrication while both types of plastic bearings require no lubrication at all.

Del-Tron applications engineers can help you select the appropriate belt actuator and gear box for your application. Del-Ton can also provide special designs of DB series actuators for nearly any application. To request a quotation please use the form provided.

For more information on Del-Tron’s Belt Drive Actuators, click here.