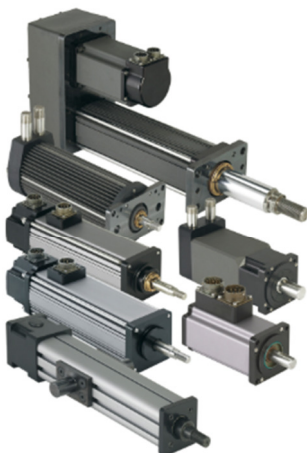


## What are the benefits of Electric Roller Screw actuators over their Ball Screw Equivalents?

- Roller Screw actuators require **very little maintenance**. There are no ball bearings to replace or lose. Typically depending on duty cycle – re-greasing which takes 20 minutes should be completed every 1-3 years. Exlar offers **2 year product warranty**.
- **No risk of Brunnelling or pitting** of the recirculating ball bearing groove during repeated pressing / sealing applications applying forces in the same position.
- In most applications, Roller Screw actuators have a **lifetime of over 10 years**. This makes them a significantly better investment than previous technology.
- Roller Screws typically last **15 times longer** than an equivalent ball screw in the X grade and 5 times longer life in the M grade. Budget K series give 2-3 times travel life.
- The Roller Screw actuator design is such that is it generally **more compact** than a ball screw.
- Roller Screws have a **lower inertia** than ball screws, which allows equivalent results to be achieved with smaller motors.
- Roller Screw actuators are available as part of a **fully integrated solution**. Ball screws typically require an external motor, drive and coupling, all of which can potentially be eliminated. GSX range are fully integrated, Tritex II includes the servo drive & positioner.
- Roller Screw actuators are much **more robust** than ball screws and can withstand greater shock loads.
- Roller Screw actuators produce **less noise** than equivalent ball screws, which is beneficial from the perspectives of noise pollution and H&S. Also they save some energy since they are more mechanically efficient.
- Roller Screw actuators have **extensive customisation options**, which are unavailable with ball screw equivalents, including front protective bellows, integrated load cell option, grease zerks/nipples, different coating options, custom travel lengths, limits switches, preloaded follower for zero backlash option, special greases food grade / low temp, integrated planetary gearbox option, 2:1 or custom pulley ratio parallel drive mount
- Preloaded **angular contact thrust bearings** with zero backlash, shrunk in, not glued in like with some ball screw actuators.
- Roller Screw Actuators can produce **faster cycle rates** than ball screws up to 1.5m/s.
- **Flexibility** to adapt to any motor shape / design into the I series or FT series actuators with compression drive coupling supplied or high capacity bellows coupling. GSX is integrated.
- **High Forces** are available up to 450kN.
- **Longer Travel Lengths** are available up to 3m.
- **Wide option of mounting possibilities**, Trunnion, Side mount, front flange, rear clevis and custom mounting / client requested tailored front flange dimensions.
- **Ancillary options** are available like clevis pins, front spherical rod eyes, trunnion blocks.



Inverted Roller Screw Design

Satellite Roller Screw Design

