

1. Features of the Ball Spline

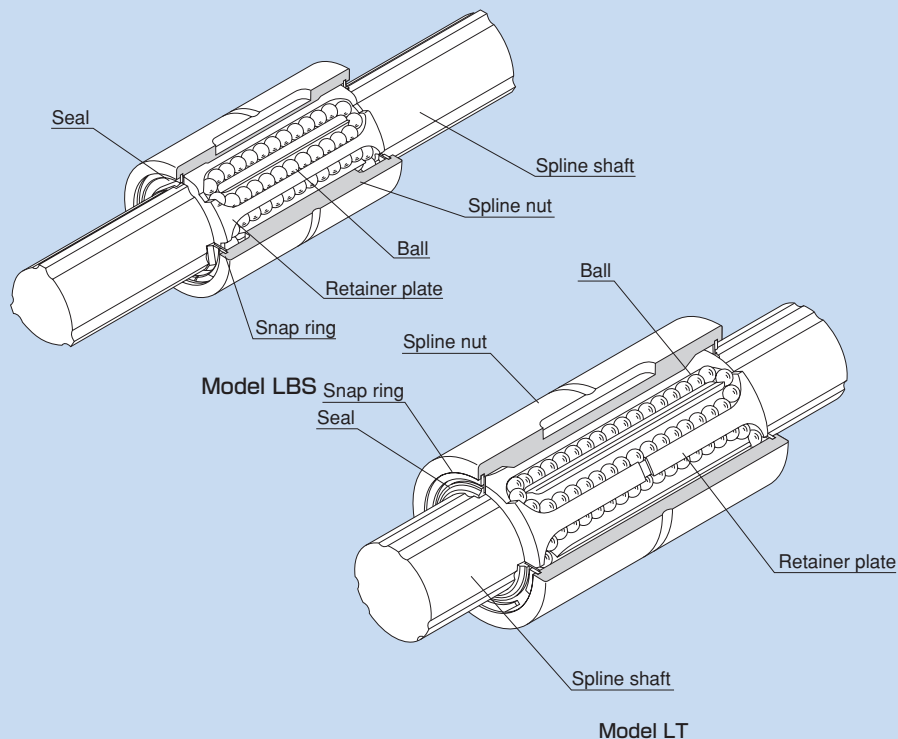


Fig. 1 Structure of Ball Spline Models LBS and LT

The Ball Spline is an innovative linear motion system in which balls accommodated in the spline nut transmit torque while linearly moving on precision-ground raceways on the spline shaft.

Unlike the conventional structure, a single spline nut can provide a preload with THK's Ball Spline. As a result, the Ball Spline demonstrates high performance in service environments subject to vibrations and impact loads, locations where a high level of positioning accuracy is required or areas where high-speed kinetic performance is required.

In addition, even when used as an alternative to a linear bush, the Ball Spline achieves a rated load more than 10 times greater than the linear bush with the same shaft diameter, allowing it to compactly be designed and used in locations where an overhung load or a moment load is applied. Thus, the Ball Spline provides a high degree of safety and long service life.