

# Q&A

## Question:

Is it possible to change the lead of V-Z- $\theta$  Actuator?

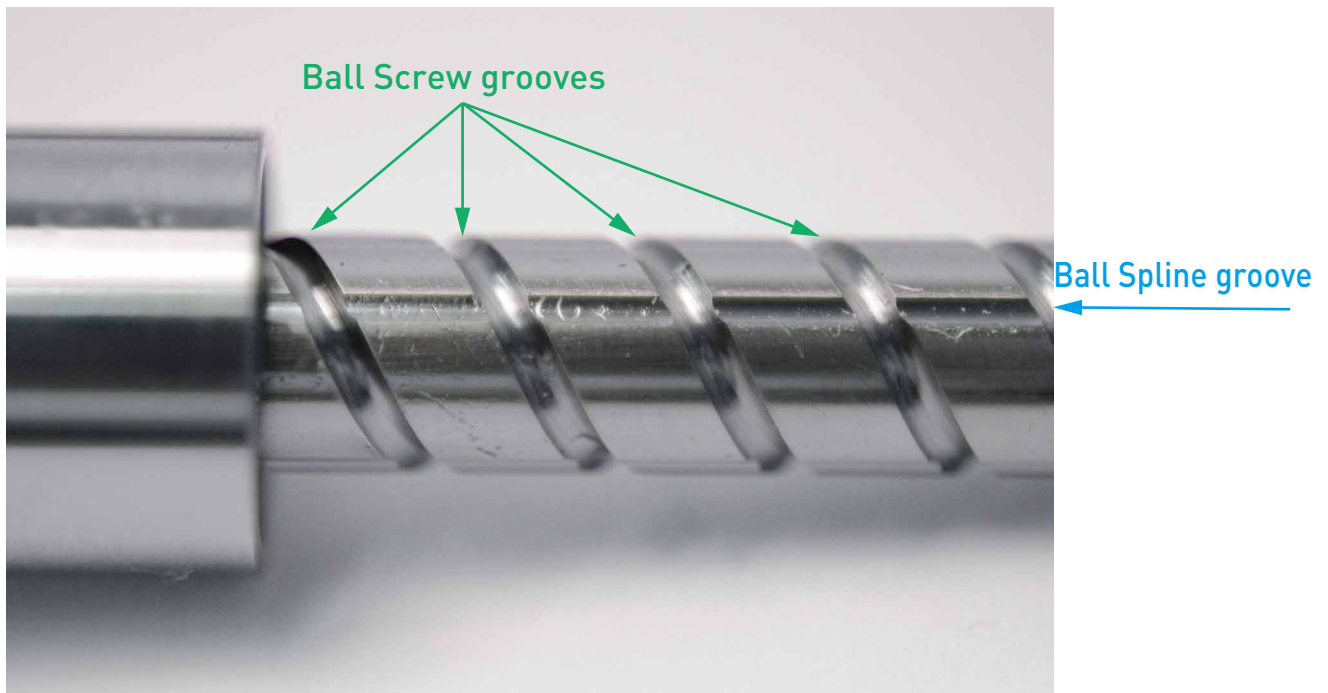
Yes, it is.

However, in some cases it cannot be changed to smaller lead depending on the Ball Screw with Ball Spline (BSSP) type. Direct Drive type Actuator built in Separate type BSSP can be chosen its lead 1 or 2mm, but for Hybrid Drive type and Belt Drive type Actuator which use the Overlap type BSSP cannot be chosen lead 1 or 2mm.

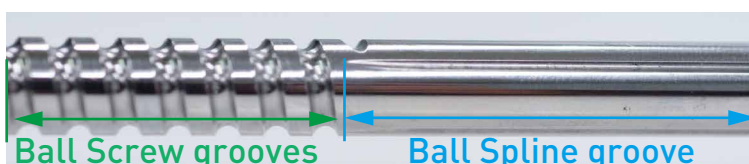
Overlap type BSSP has both Spline and Ball Screw grooves on the same Shaft, and there are intersections which overlapped both grooves. These intersections exist more as if the Screw lead is smaller, which leads to the drastic loss of surface area of the Spline balls to run, and will end up losing the torque transfer and guiding performance of Ball Spline.

Separate type BSSP does not share the same surface over the Shaft and no intersection of the grooves, so that the smaller leads can be applied.

### 【Overlap type BSSP (Ball Screw with Ball Spline)】



### 【Separate type BSSP (Ball Screw with Ball Spline)】



Overlap type BSSP has intersections of each grooves on the Shaft...