## Precision Rolled Ball Screws

### **Column Strength**

Column load strength refers to the ability of the ball screw to withstand compressive forces without buckling. This is determined by the screw's material, length, diameter, and end fixity. Proper design and selection of ball screws ensure they can handle the expected column loads. Exceeding the column load strength can result in deformation and failure of the ball screw.



### Maximum Length (in.)

see next page for descriptions of ABCD end fixity

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# End Fixity

End fixity describes the type of support provided at the ends of the ball screw. Common types include fixed, floating, and supported ends. End fixity affects the screw's critical speed, buckling resistance, and overall stability. Properly selecting and implementing end fixity is crucial for ensuring reliable ball screw operation.



Figure 2

### **BEARING MOUNT CONFIGURATIONS**

Fixed/Free (A)



fixed

free

simple

#### Simple/Simple (B)



simple



Fixed/Simple (C)



fixed

Fixed/Fixed (D)



fixed

fixed