Flange Trapezoidal T8 Lead Screw Nut

Flanged bronze nut for four starts trapezoidal lead screws. Manufactured from bronze with good wear resistance and suitable for smooth linear motion applications.

SKU: MCH1178

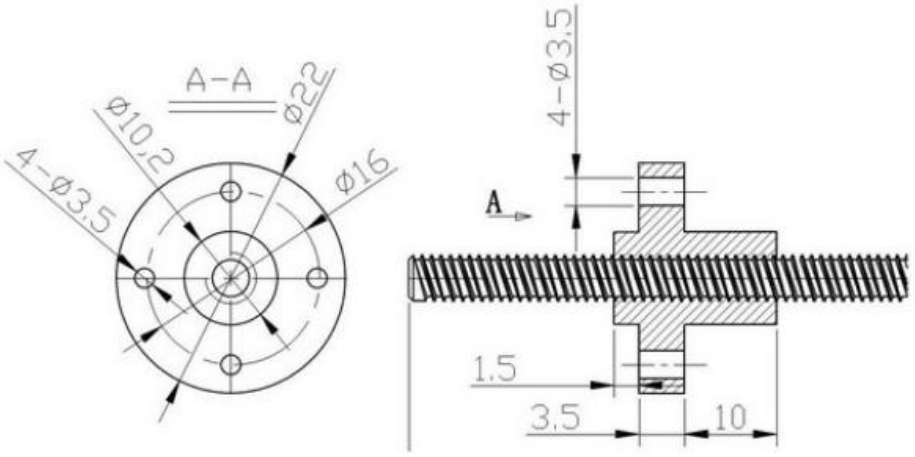
Brief Data:

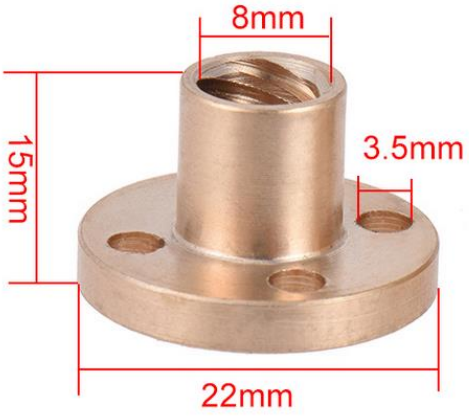
- Lead Screw Nut Type: Flanged Round.
- Tread: Tr8*8-2p (4 starts)
- Lead Pitch: 2mm.
- Number of Start: 4.
- Inner Diameter: Ø8mm.
- Structure: Trapezoidal Spindle Screw.
- Mounting Screw: M3.
- Material: Brass

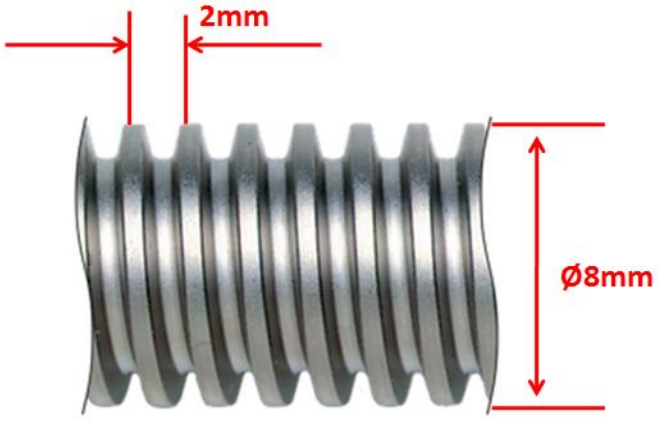
Application:

- 3D Printer
- CNC Machine
- Robotics
- Linear Motion

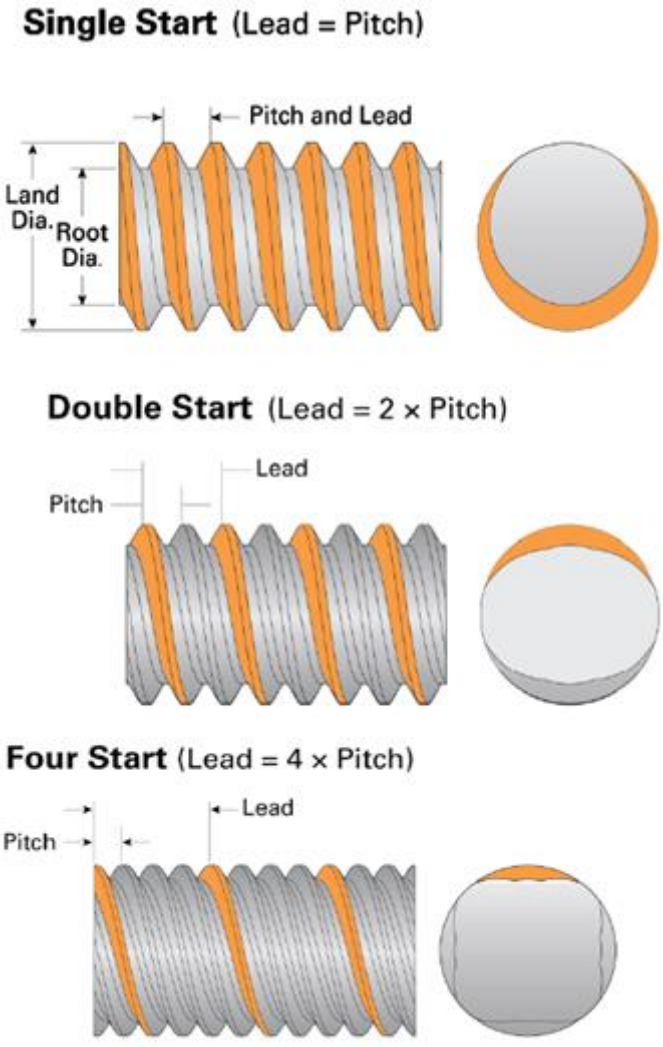
Mechanical Dimension:







What is Number of Starts, Pitch and Lead of Lead/Ball Screw?



Screw Starts

Is the number of independent threads/grooves on the screw shaft; example one, two or four in the figure above.

Pitch

Pitch is the distance between screw grooves and is commonly used with inch sized products and specified as threads per inch.

Lead

Lead is the linear travel the nut makes per one screw revolution and is how lead & ball screws are typically specified. The pitch and lead are equal with single start screws. For multiple start screws the lead is the pitch multiplied by the number of starts.

Stepper Motor Drive Step Calculation:

The motor is a standard 1.8°/step Stepper Motor, with an integral four start 8mm pitch lead-screw with a metric trapezoidal thread. 4-Start means that there are four individual threads along the length of the lead-screw. 8mm Lead Distance means that the center to center distance of the thread is 8mm (or that a nut mounted on the lead-screw will be driven 8mm for one full rotation of the lead-screw).

Using A4988 Stepper Motor Driver with 16-microstepping setting:

For 1.8°/step stepper motor, one full revolution require (360°/1.8°) = 200 Steps.

With stepper motor driver set to 16-microstepping required:

200x16 = 3,200 microsteps = 8mm.

So in order to move the nut mounted on the lead-screw 1mm distance, the Stepper Motor Driver required 3200/8 = 400 Steps. In other word, the controller board need to output 400 pulses in order to move 1mm linear distance.

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