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› ELLANA T6 Trapezoidal Lead Screw Nut User Manual

ELLANA T6 Trapezoidal Lead Screw Nut (Pitch 1mm lead 1mm)

ELLANA T6 Trapezoidal Lead Screw Nut User Manual

Model: T6 Trapezoidal Lead Screw Nut (Pitch 1mm lead 1mm)

INTRODUCTION

This manual provides essential information for the proper use, installation, and maintenance of your ELLANA T6 Trapezoidal Lead Screw Nut. Please read this manual thoroughly before using the product to ensure optimal performance and longevity.

The T6 Trapezoidal Lead Screw Nut is designed for precision linear motion applications, offering smooth operation and durability. It is commonly used in various industrial and scientific settings.

PRODUCT OVERVIEW

The ELLANA T6 Trapezoidal Lead Screw Nut is a high-quality brass component designed to convert rotational motion into linear motion when paired with a compatible trapezoidal lead screw. Its robust construction ensures reliable performance in demanding environments.



Image 1: Front view of the ELLANA T6 Trapezoidal Lead Screw Nut, showcasing its brass construction and threaded bore.



T6 Lead 1mm 2mm 4mm 6mm 12mm

Image 2: A selection of T6 lead screw nuts, illustrating different lead sizes (1mm, 2mm, 4mm, 6mm, 12mm) available for various applications.

Key Features:

- **Type:** Trapezoidal Nut
- **Material:** High-quality Brass
- **Precision:** Clear lines, smooth cut, and smooth operation
- **Durability:** Rust protection, corrosion resistance, and high-temperature resistance
- **Versatility:** Suitable for stepper motor drive guide rails, machine tools, 3D printers, engraving machines, and similar linear motion systems.

SETUP AND INSTALLATION

Proper installation is crucial for the optimal performance and lifespan of the T6 Trapezoidal Lead Screw Nut. Ensure all mating components are clean and free of debris before assembly.

Installation Steps:

1. **Prepare Components:** Ensure the trapezoidal lead screw and the mounting surface for the nut are clean and free of any burrs or foreign particles.
2. **Align Nut:** Carefully align the T6 Trapezoidal Lead Screw Nut with the end of the trapezoidal lead screw.
3. **Thread On:** Gently thread the nut onto the lead screw. Do not force it. If resistance is met, check for misalignment or debris.
4. **Mounting:** Secure the flange of the nut to its intended mounting point using appropriate fasteners (not included). Ensure the nut is seated flush and securely fastened to prevent wobble or misalignment during operation.
5. **Lubrication:** Apply a suitable lubricant to the lead screw and nut assembly before initial operation. Refer to the Maintenance section for lubrication guidelines.



Image 3: A row of four T6 lead screw nuts, demonstrating their uniform design and readiness for installation.

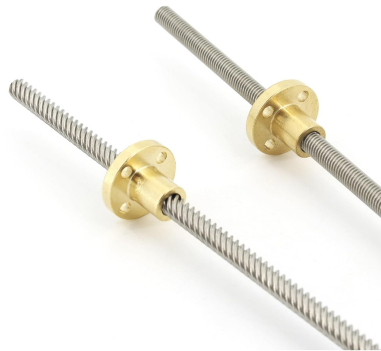


Image 4: Two T6 lead screw nuts shown with compatible lead screws, illustrating the proper engagement for linear motion.

OPERATING PRINCIPLES

The T6 Trapezoidal Lead Screw Nut operates by converting the rotational motion of a trapezoidal lead screw into precise linear movement. The lead of the screw determines the linear distance traveled per revolution of the nut.

- **Pitch 1mm, Lead 1mm:** For every full rotation of the nut, the screw advances 1 mm.
- **Pitch 1mm, Lead 2mm:** For every full rotation of the nut, the screw advances 2 mm.
- **Pitch 1mm, Lead 4mm:** For every full rotation of the nut, the screw advances 4 mm.
- **Pitch 1mm, Lead 6mm:** For every full rotation of the nut, the screw advances 6 mm.
- **Pitch 2mm, Lead 12mm:** For every full rotation of the nut, the screw advances 12 mm.

Ensure that the lead screw and nut are properly aligned and lubricated to minimize friction and wear during operation. Excessive force or misalignment can lead to premature wear or damage.

MAINTENANCE

Regular maintenance is essential to ensure the longevity and consistent performance of your T6 Trapezoidal Lead Screw Nut.

Lubrication:

Apply a suitable lubricant (e.g., lithium grease or specialized lead screw lubricant) to the lead screw and nut interface periodically. The frequency of lubrication depends on the operating environment and usage intensity. In dusty or high-cycle environments, more frequent lubrication may be required.

Cleaning:

Keep the lead screw and nut assembly clean from dust, debris, and contaminants. Use a soft cloth to wipe away any accumulated dirt. Avoid using harsh chemicals that could damage the brass material.

Inspection:

Periodically inspect the nut and lead screw for signs of wear, such as excessive backlash, scoring, or discoloration. If significant wear is observed, consider replacement to maintain precision.

TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your T6 Trapezoidal Lead Screw Nut.

| Problem | Possible Cause | Solution |
|--------------------------------|---|--|
| Excessive Backlash / Play | Wear on nut threads; insufficient lubrication; misaligned lead screw. | Apply lubricant; check lead screw alignment; replace nut if wear is significant. |
| Sticking / Binding | Lack of lubrication; dirt/debris in threads; bent lead screw; misalignment. | Clean and lubricate; inspect lead screw for straightness; check alignment of components. |
| Unusual Noise during Operation | Insufficient lubrication; foreign objects; worn components. | Lubricate thoroughly; inspect for debris; check for wear on nut or screw. |

SPECIFICATIONS

Detailed technical specifications for the ELLANA T6 Trapezoidal Lead Screw Nut (Pitch 1mm lead 1mm).

| Attribute | Value |
|--------------------------|---|
| Type | Trapezoidal Nut |
| Material | Brass |
| Model Number | ELLANA (Specific variant: Pitch 1mm lead 1mm) |
| Item Weight | 100 g |
| Package Dimensions | 3 x 2 x 1 cm |
| Color | One Color (Brass) |
| Number of Pieces | 1 |
| Pitch (for this variant) | 1 mm |
| Lead (for this variant) | 1 mm |

WARRANTY INFORMATION

Specific warranty details for the ELLANA T6 Trapezoidal Lead Screw Nut are not provided in the product information. Please refer to the seller's return policy or contact the seller directly for warranty inquiries.

Note: The product information indicates a return policy of 30 days for refund/replacement.

SUPPORT

For technical support, questions, or further assistance regarding your ELLANA T6 Trapezoidal Lead Screw Nut, please contact the seller directly through the platform where the product was purchased. Ensure you have your order details ready for faster service.

Seller Name: [JIUQIBAIHUO](#)



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This manual is for informational purposes only. Product specifications are subject to change without notice.