



SCREWTECH®

LINEAR MOTION SYSTEMS & SOLUTIONS

RUNWEI LEAD SCREW



PRODUCT MANUAL

SCREW TECHNOLOGY CO.,LTD.

Transmission parts and supporting mechanical parts.
Linear transmission components, such as single-axis and multi-axis components.
Motors, controllers, sensors, encoders, etc.
Design, assembly and debugging of non-standard automation equipment, etc.

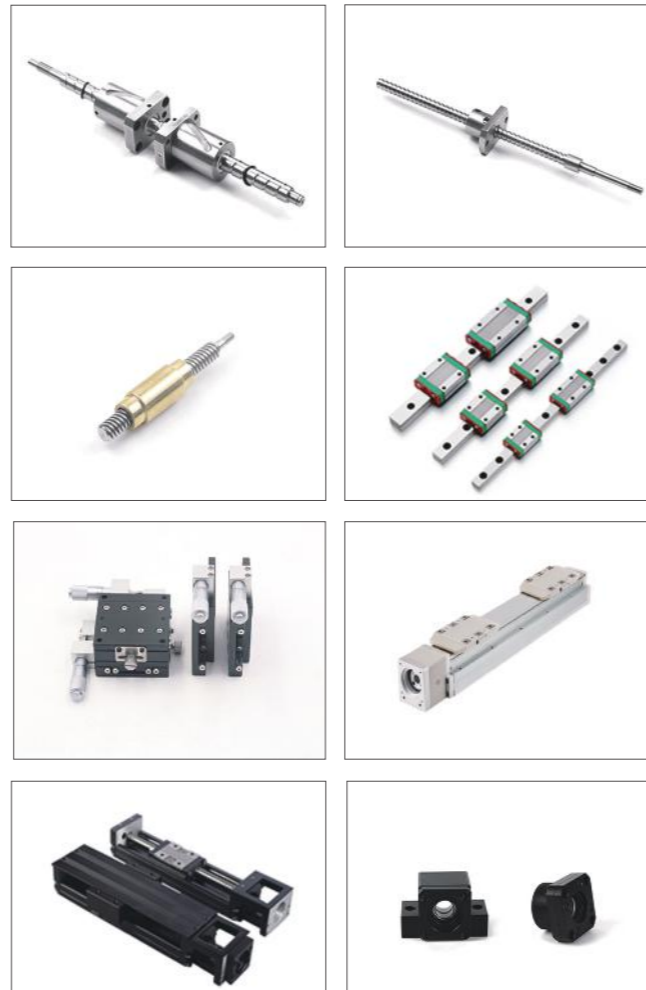
-  Professional Customization
-  Precision Machining
-  High Quality Assurance



<http://www.screw-tech.com/>



MAIN PRODUCTS



ABOUT US

Suzhou runwei precision machinery manufacturing co. LTD.

With more than 10 years of manufacturing experience in Lead Screw, Provide competitive, safe and reliable products, solutions and services in mechanical automation, and continuously create value for customers.

What we're after: High quality and Specialized technical ability. Rapid and professional solution to customer needs is the first goal we pursue, not just the precision and quality of the product.

Actively promoting innovation: Promote technological innovation to lead the industry. Promote process innovation. Focus on expanding automation and simplifying the process, to shorten the lead time and promote management process innovation. Promote production procedures, systematic management, to create real cost-performance value.

Customer satisfaction: Customer satisfaction is the foundation of a company. From the abundant standard specifications, we can quickly select products that meet customers' requirements. Streamline production, and send them to customers with quality and quantity guaranteed at the first time.

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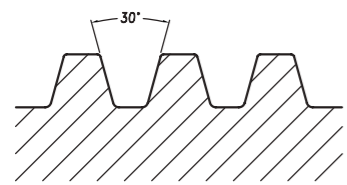
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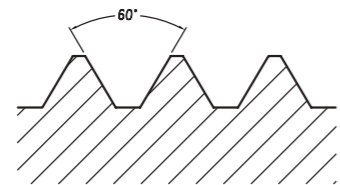
Thread types



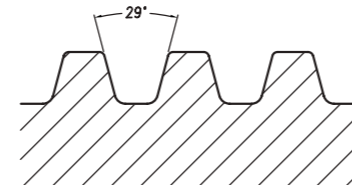
- T ISO Trapezoidal Thread Din103**
 For transmission and position adjustment, widely used in the mechanical industry.
- H High-helix Screws**
 A high-helix leadscrew, speedy multi-start lead screw, or steep lead screw features a high pitch that is used to transform a smaller radial movement into a large axial movement.
- M ISO Metric Thread (60°)**
 The most common form of thread used for fastening and precision transmission.
- A ACME Thread (29°)**
 Inch threads can also be used for fastening connections, but not for high accuracy.
- R Knuckle Thread**
 With the same arc thread as ball screw, the transmission is smoother.
- G Gothic thread**
 Gothic double arc thread, offering the advantages of ball screw, is similar a new kind of lead screw.
- X Self-reversing thread**
 A screw that makes the slide block reciprocate without changing the rotation direction of the spindle.



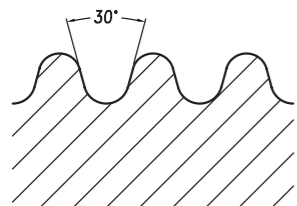
Trapezoidal Thread(DIN103)



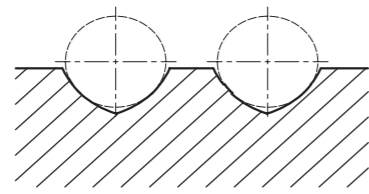
Metric Thread(DIN13)



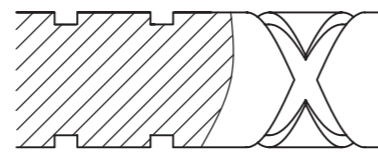
ACME Thread ANSI/ASME B1.5



Knuckle Thread(DIN30295)



Gothic thread



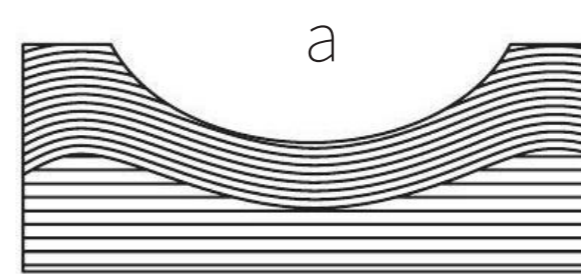
Self-reversing thread

Materials and thread forming

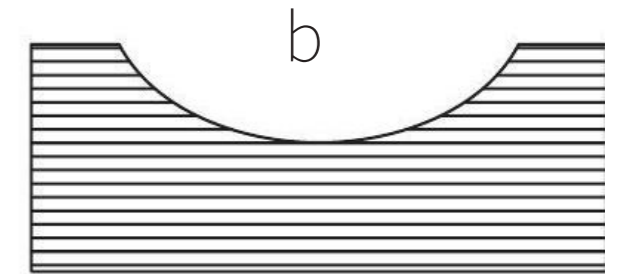
| Process | Regular grade | | | | Precision grade | |
|-------------------|--|--------------------|-----------------------|--------------------|--|--------------------------------------|
| | Rolling | Cutting | | Whirling | Grinding | |
| Precision | 6-10 levels | 7-10 levels | | 6-10 levels | 5-7 levels | |
| Material | SS303,SS304, SS316,S45C, SS440C,40Cr | SS303,SS304, SS316 | S45C,SS440C, 40Cr | SS303,SS304, SS316 | S45C,SS440C, 40Cr | SS303,SS304, SS316,S45C, SS440C,40Cr |
| Heat treatment | - | - | Quenched and tempered | - | Quenched and tempered | Quenched and tempered |
| Surface treatment | Zinc-plated, Nickel plated, Hard chromium plated, Fluorine coated, Tungsten disulfide, Black Chrome plated | | | | Hard chromium plated, Fluorine coated, Tungsten disulfide, Black Chrome plated | |
| Roughness | 0.8-3.2 | 0.8-3.2 | | 1.6-3.2 | 0.8-3.2 | |

| | S45C | SS304 | SS440 | GCr15 | Aluminum alloy and Copper alloy |
|----------|------|-------|-------|-------|---------------------------------|
| Rolling | ○ | ○ | ○ | × | ○ |
| Turning | ○ | ○ | ○ | × | ○ |
| Milling | ○ | ○ | ○ | ○ | ○ |
| Grinding | ○ | ○ | ○ | ○ | × |

Features of thread forming ways



Rolling process



The milling,cutting and grinding process

- Thread cutting**
 It is a traditional way of thread forming. Threads are cut with the (CNC)lathe for accuracy and for versatility. Both inch and metric screw threads can be cut using the (CNC) lathe. Compared to thread rolling, cutting process is used when full thread depth is required, when the quantity is small, when the blank is not very accurate, when threading up to a shoulder is required, when threading a tapered thread, or when the material is brittle.
- Thread grinding**
 Thread grinding is done on a grinding machine using specially dressed grinding wheels matching the shape of the threads. The process is usually used to produce accurate threads or threads in hardened materials;
- Thread rolling**
 The cold working that threads receive during the rolling process strengthens them in tension, shear and fatigue. A Rolled Thread will increase the thread strength by a minimum of 30% verses a cut thread.

Lead screw ordering code structure

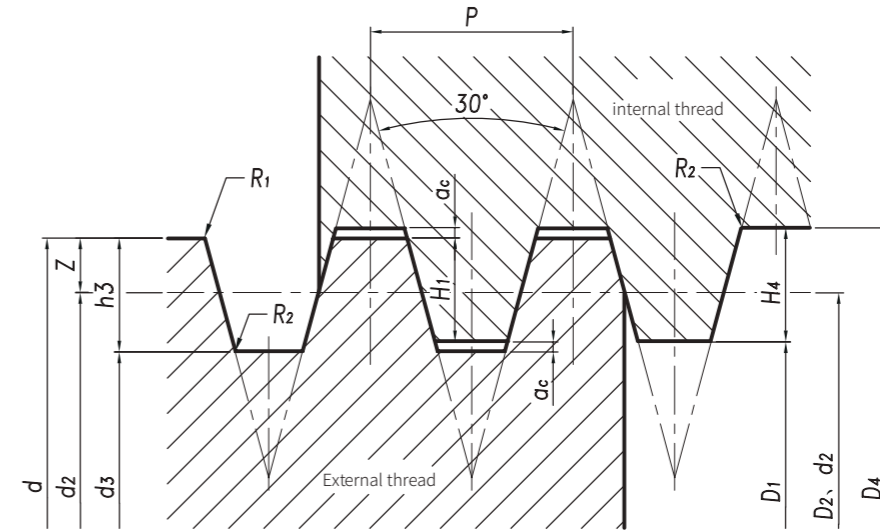
T 6 x 2 (P1) RL - 171 - 236 - S1(TF) - D



| No | On behalf of the name | Labelling | Meaning | Labelling | Meaning |
|-----|-------------------------|-----------|------------------------------------|-----------|--------------------------------------|
| ① | Thread type | T | Trapezoidal Thread | R | Round Thread |
| | | M | Metric Thread | G | Gothic thread |
| | | A | ACME Thread | X | Reciprocating thread |
| ② | Nominal diameter | Figure | Diameter | | |
| ③ | Lead | Figure | Lead | | |
| ④ | Pitch | Figure | Pitch(Single thread is not marked) | | |
| ⑤ | Direction of Thread | R | Right hand(not marked) | RL | Left hand and Right hand |
| | | L | Left hand | | |
| ⑥ | Length of thread | Figure | Length of thread | | |
| ⑦ | Length of screw | Figure | Length of total screw shaft | | |
| ⑧ | Material of screw shaft | S1 | SS304 | U1 | 45 steel |
| | | S2 | SS316 | U2 | 40Cr |
| | | S3 | SS316L | U3 | 20 steel |
| | | S4 | SS440C | U4 | A3 |
| | | G1 | GCR15 | Ti | Titanium alloy |
| ⑨ * | Surface treatment | NI | Nickel plated | BR | Low temperature black chrome plating |
| | | TF | Teflon | ZN | Galvanized |
| | | CR | Chrome | BL | Blackening |
| | | WS | Tungsten Disulfide | PP | Phosphating treatment |
| ⑩ * | End journal | D | With big end journal | G | With gears |
| | | L | With inner hexagon hole | W | With external spline |
| | | N | With internal spline hole | Z | Other special processing |

Note: "*" represents optional items.

Metric trapezoidal thread specifications(DIN103)



| Nominal Diameter (mm) | Lead (mm) | Pitch (mm) | Starts | Thread height (mm) | d1 (mm) | | d2 (mm) | | d3 (mm) | | Direction of thread |
|-----------------------|-----------|------------|--------|--------------------|---------|------|---------|------|---------|------|---------------------|
| | | | | | max | min | max | min | max | min | |
| 2 | 0.5 | 0.5 | 1 | 0.27 | 2.00 | 1.93 | 1.69 | 1.58 | 1.50 | 1.30 | LH/RH |
| | 0.5 | 0.5 | 1 | 0.27 | 3.00 | 2.93 | 2.69 | 2.57 | 2.50 | 2.29 | LH/RH |
| 3 | 1 | 1 | 1 | 0.65 | 3.00 | 2.89 | 2.44 | 2.28 | 2.00 | 1.74 | LH/RH |
| | 3 | 1 | 3 | 0.65 | 3.00 | 2.89 | 2.44 | 2.24 | 2.00 | 1.74 | LH/RH |
| 3.5 | 0.3 | 0.3 | 1 | 0.16 | 3.50 | 3.45 | 3.30 | 3.20 | 3.20 | 3.02 | LH/RH |
| | 0.61 | 0.61 | 1 | 0.32 | 3.50 | 3.42 | 3.14 | 3.00 | 2.89 | 2.67 | LH/RH |
| | 0.8 | 0.8 | 1 | 0.45 | 3.50 | 3.40 | 3.04 | 2.89 | 2.70 | 2.45 | LH/RH |
| | 1 | 1 | 1 | 0.65 | 3.50 | 3.39 | 2.94 | 2.78 | 2.50 | 2.24 | LH/RH |
| | 2 | 1 | 2 | 0.65 | 3.50 | 3.39 | 2.94 | 2.76 | 2.50 | 2.24 | LH/RH |
| 4 | 1.22 | 1.22 | 1 | 0.76 | 3.50 | 3.37 | 2.83 | 2.65 | 2.28 | 2.00 | LH/RH |
| | 4 | 1 | 4 | 0.65 | 3.50 | 3.39 | 2.94 | 2.71 | 2.50 | 2.24 | LH/RH |
| | 1 | 1 | 1 | 0.65 | 4.00 | 3.89 | 3.44 | 3.27 | 3.00 | 2.73 | LH/RH |
| | 2 | 1 | 2 | 0.65 | 4.00 | 3.89 | 3.44 | 3.25 | 3.00 | 2.73 | LH/RH |
| 4.5 | 4 | 1 | 4 | 0.65 | 4.00 | 3.89 | 3.44 | 3.21 | 3.00 | 2.73 | LH/RH |
| | 0.61 | 0.61 | 1 | 0.32 | 4.50 | 4.42 | 4.14 | 4.00 | 3.89 | 3.66 | LH/RH |
| | 0.8 | 0.8 | 1 | 0.45 | 4.50 | 4.40 | 4.04 | 3.89 | 3.70 | 3.45 | LH/RH |
| 5 | 1 | 1 | 1 | 0.65 | 4.50 | 4.39 | 3.94 | 3.77 | 3.50 | 3.23 | LH/RH |
| | 0.5 | 0.5 | 1 | 0.27 | 5.00 | 4.93 | 4.69 | 4.57 | 4.50 | 4.29 | LH/RH |
| | 1 | 1 | 1 | 0.65 | 5.00 | 4.89 | 4.44 | 4.27 | 4.00 | 3.73 | LH/RH |
| | 2 | 1 | 2 | 0.65 | 5.00 | 4.89 | 4.44 | 4.25 | 4.00 | 3.73 | LH/RH |
| | 4 | 1 | 4 | 0.65 | 5.00 | 4.89 | 4.44 | 4.20 | 4.00 | 3.73 | LH/RH |
| 6 | 5 | 1.25 | 4 | 0.78 | 5.00 | 4.87 | 4.31 | 4.05 | 3.75 | 3.46 | LH/RH |
| | 10 | 2.5w | 4 | 1.50 | 5.00 | 4.79 | 3.67 | 3.33 | 2.50 | 2.12 | LH/RH |
| | 15 | 2.5 | 6 | 1.30 | 5.00 | 4.79 | 3.67 | 3.28 | 2.50 | 2.12 | LH/RH |
| | 1 | 1 | 1 | 0.65 | 6.00 | 5.89 | 5.44 | 5.27 | 5.00 | 4.72 | LH/RH |
| | 1.5 | 1.5 | 1 | 0.90 | 6.00 | 5.85 | 5.18 | 4.98 | 4.50 | 4.18 | LH/RH |
| | 2 | 2 | 1 | 1.15 | 6.00 | 5.82 | 4.93 | 4.70 | 4.00 | 3.64 | LH/RH |
| | 3 | 1.5 | 2 | 0.90 | 6.00 | 5.85 | 5.18 | 4.96 | 4.50 | 4.18 | LH/RH |
| | 4 | 2 | 2 | 1.25 | 6.00 | 5.82 | 4.93 | 4.67 | 4.00 | 3.64 | LH/RH |
| | 5 | 2.5 | 2 | 1.50 | 6.00 | 5.79 | 4.67 | 4.39 | 3.50 | 3.11 | LH/RH |
| | 6 | 1.5 | 4 | 0.90 | 6.00 | 5.85 | 5.18 | 4.90 | 4.50 | 4.18 | LH/RH |
| 6.5 | 9 | 2.25 | 4 | 1.38 | 6.00 | 5.81 | 4.80 | 4.47 | 3.75 | 3.38 | LH/RH |
| | 10 | 2.5 | 4 | 1.50 | 6.00 | 5.79 | 4.67 | 4.32 | 3.50 | 3.11 | LH/RH |
| | 12 | 3 | 4 | 2.00 | 6.00 | 5.77 | 4.42 | 4.04 | 3.00 | 2.58 | LH/RH |
| | 3 | 1.5 | 2 | 0.90 | 6.50 | 6.35 | 5.68 | 5.45 | 5.00 | 4.68 | LH/RH |
| 7 | 3 | 1.5 | 2 | 0.90 | 7.00 | 6.85 | 6.18 | 5.95 | 5.50 | 5.18 | LH/RH |

The above data is just for you reference of selection and design. The actual delivery may differ from the above size. If the required thread size is not included in the table, please contact our sales person.

■ Metric trapezoidal thread specifications(DIN103)

| Nominal Diameter (mm) | Lead (mm) | Pitch (mm) | Starts | Thread height (mm) | d1 (mm) | | d2 (mm) | | d3 (mm) | | Direction of thread |
|-----------------------|-----------|------------|--------|--------------------|---------|------|---------|------|---------|-------|---------------------|
| | | | | | max | min | max | min | max | min | |
| 8 | 1 | 1 | 1 | 0.65 | 8.00 | 7.89 | 7.44 | 7.26 | 7.00 | 6.72 | LH/RH |
| | 1.5 | 1.5 | 1 | 0.90 | 8.00 | 7.85 | 7.18 | 6.97 | 6.50 | 6.17 | LH/RH |
| | 2 | 2 | 1 | 1.25 | 8.00 | 7.82 | 6.93 | 6.69 | 6.00 | 5.64 | LH/RH |
| | 3 | 1.5 | 2 | 0.90 | 8.00 | 7.85 | 7.18 | 6.95 | 6.50 | 6.17 | LH/RH |
| | 4 | 2 | 2 | 1.25 | 8.00 | 7.82 | 6.93 | 6.67 | 6.00 | 5.64 | LH/RH |
| | 6 | 1.5 | 4 | 0.90 | 8.00 | 7.85 | 7.18 | 6.89 | 6.50 | 6.17 | LH/RH |
| | 8 | 2 | 4 | 1.25 | 8.00 | 7.82 | 6.93 | 6.60 | 6.00 | 5.64 | LH/RH |
| | 10 | 2.5 | 4 | 1.50 | 8.00 | 7.79 | 6.67 | 6.31 | 5.50 | 5.10 | LH/RH |
| | 12 | 3 | 4 | 1.75 | 8.00 | 7.77 | 6.42 | 6.03 | 5.00 | 4.57 | LH/RH |
| | 14 | 2 | 7 | 1.25 | 8.00 | 7.82 | 6.93 | 6.55 | 6.00 | 5.64 | LH/RH |
| | 15 | 2.5 | 6 | 1.50 | 8.00 | 7.79 | 6.67 | 6.26 | 5.50 | 5.10 | LH/RH |
| | 16 | 2 | 8 | 1.25 | 8.00 | 7.82 | 6.93 | 6.55 | 6.00 | 5.64 | LH/RH |
| | 20 | 2.5 | 8 | 1.50 | 8.00 | 7.79 | 6.67 | 6.26 | 5.50 | 5.10 | LH/RH |
| | 30 | 1.25 | 24 | 0.78 | 8.00 | 7.87 | 7.31 | 7.00 | 6.75 | 6.44 | LH/RH |
| 9 | 4.5 | 1.5 | 3 | 0.90 | 9.00 | 8.85 | 8.18 | 7.92 | 7.50 | 7.17 | LH/RH |
| | 17.5 | 2.5 | 7 | 1.50 | 9.00 | 8.79 | 7.67 | 7.26 | 6.50 | 6.10 | LH/RH |
| 10 | 1 | 1 | 1 | 0.65 | 10.00 | 9.89 | 9.44 | 9.26 | 9.00 | 8.71 | LH/RH |
| | 1.5 | 1.5 | 1 | 0.90 | 10.00 | 9.85 | 9.18 | 8.97 | 8.50 | 8.17 | LH/RH |
| | 2 | 2 | 1 | 1.25 | 10.00 | 9.82 | 8.93 | 8.69 | 8.00 | 7.63 | LH/RH |
| | 3 | 3 | 1 | 1.75 | 10.00 | 9.77 | 8.42 | 8.14 | 7.00 | 6.57 | LH/RH |
| | 3 | 1.5 | 2 | 0.90 | 10.00 | 9.85 | 9.18 | 8.94 | 8.50 | 8.17 | LH/RH |
| | 4 | 2 | 2 | 1.25 | 10.00 | 9.82 | 8.93 | 8.66 | 8.00 | 7.63 | LH/RH |
| | 5 | 2.5 | 2 | 1.50 | 10.00 | 9.79 | 8.67 | 8.38 | 7.50 | 7.10 | LH/RH |
| | 6 | 2 | 3 | 1.25 | 10.00 | 9.82 | 8.93 | 8.63 | 8.00 | 7.63 | LH/RH |
| | 8 | 2 | 4 | 1.25 | 10.00 | 9.82 | 8.93 | 8.59 | 8.00 | 7.63 | LH/RH |
| | 10 | 2.5 | 4 | 1.50 | 10.00 | 9.79 | 8.67 | 8.31 | 7.50 | 7.10 | LH/RH |
| | 10 | 2 | 5 | 1.25 | 10.00 | 9.82 | 8.93 | 8.55 | 8.00 | 7.63 | LH/RH |
| | 12 | 3 | 4 | 1.75 | 10.00 | 9.87 | 8.42 | 8.02 | 7.00 | 6.57 | LH/RH |
| | 14 | 2 | 7 | 1.25 | 10.00 | 9.82 | 8.93 | 8.55 | 8.00 | 7.63 | LH/RH |
| | 15 | 3 | 5 | 1.75 | 10.00 | 9.77 | 8.42 | 7.97 | 7.00 | 6.57 | LH/RH |
| | 16 | 2 | 8 | 1.25 | 10.00 | 9.82 | 8.93 | 8.55 | 8.00 | 7.63 | LH/RH |
| | 20 | 3.33 | 6 | 1.90 | 10.00 | 9.75 | 8.25 | 7.78 | 6.67 | 6.22 | LH/RH |
| 25 | 5 | 5 | 1.50 | 10.00 | 9.67 | 7.39 | 6.84 | 5.00 | 4.46 | LH/RH | |
| 35 | 1.25 | 28 | 0.78 | 10.00 | 9.87 | 9.31 | 8.99 | 8.75 | 8.44 | LH/RH | |

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If the required thread size is not included in the table,please contact our sales person.

■ Metric trapezoidal thread specifications(DIN103)

| Nominal Diameter (mm) | Lead (mm) | Pitch (mm) | Starts | Thread height (mm) | d1 (mm) | | d2 (mm) | | d3 (mm) | | Direction of thread |
|-----------------------|-----------|------------|--------|--------------------|---------|-------|---------|-------|---------|-------|---------------------|
| | | | | | max | min | max | min | max | min | |
| 12 | 2 | 2 | 1 | 1.25 | 12.00 | 11.82 | 10.93 | 10.68 | 10.00 | 9.62 | LH/RH |
| | 2.5 | 2.5 | 1 | 1.50 | 12.00 | 11.79 | 10.67 | 10.41 | 9.50 | 9.09 | LH/RH |
| | 3 | 3 | 1 | 1.75 | 12.00 | 11.77 | 10.42 | 10.13 | 9.00 | 8.56 | LH/RH |
| | 4 | 2 | 2 | 1.25 | 12.00 | 11.82 | 10.93 | 10.66 | 10.00 | 9.62 | LH/RH |
| | 5 | 2.5 | 2 | 1.50 | 12.00 | 11.79 | 10.67 | 10.37 | 9.50 | 9.09 | LH/RH |
| | 6 | 3 | 2 | 1.75 | 12.00 | 11.77 | 10.42 | 10.10 | 9.00 | 8.56 | LH/RH |
| | 8 | 2 | 4 | 1.25 | 12.00 | 11.82 | 10.93 | 10.59 | 10.00 | 9.62 | LH/RH |
| | 9 | 3 | 3 | 1.75 | 12.00 | 11.77 | 10.42 | 10.06 | 9.00 | 8.56 | LH/RH |
| | 10 | 2.5 | 4 | 1.50 | 12.00 | 11.79 | 10.67 | 10.30 | 9.50 | 9.09 | LH/RH |
| | 12 | 2 | 6 | 1.25 | 12.00 | 11.82 | 10.93 | 10.54 | 10.00 | 9.63 | LH/RH |
| | 15 | 3 | 5 | 1.75 | 12.00 | 11.77 | 10.42 | 9.96 | 9.00 | 8.56 | LH/RH |
| | 15 | 2.5 | 6 | 1.50 | 12.00 | 11.79 | 10.67 | 10.25 | 9.50 | 9.09 | LH/RH |
| | 16 | 3.2 | 5 | 1.85 | 12.00 | 11.76 | 10.32 | 9.85 | 8.80 | 8.35 | LH/RH |
| | 18 | 3 | 6 | 1.75 | 12.00 | 11.77 | 10.42 | 9.96 | 9.00 | 8.56 | LH/RH |
| 21 | 4.2 | 5 | 2.35 | 12.00 | 11.69 | 9.80 | 9.28 | 7.80 | 7.29 | LH/RH | |
| 24 | 4 | 6 | 2.25 | 12.00 | 11.72 | 9.91 | 9.39 | 8.00 | 7.50 | LH/RH | |
| 14 | 2 | 2 | 1 | 1.25 | 14.00 | 13.82 | 12.93 | 12.68 | 12.00 | 11.62 | LH/RH |
| | 3 | 3 | 1 | 1.75 | 14.00 | 13.77 | 12.42 | 12.13 | 11.00 | 10.55 | LH/RH |
| | 4 | 4 | 1 | 2.25 | 14.00 | 13.72 | 11.91 | 11.58 | 10.00 | 9.50 | LH/RH |
| | 6 | 3 | 2 | 1.75 | 14.00 | 13.77 | 12.42 | 12.09 | 11.00 | 10.55 | LH/RH |
| | 8 | 4 | 2 | 2.25 | 14.00 | 13.72 | 11.91 | 11.54 | 10.00 | 9.50 | LH/RH |
| | 10 | 2.5 | 4 | 1.50 | 14.00 | 13.79 | 12.67 | 12.29 | 11.50 | 11.08 | LH/RH |
| | 12 | 4 | 3 | 2.25 | 14.00 | 13.72 | 11.91 | 11.50 | 10.00 | 9.50 | LH/RH |
| | 16 | 4 | 4 | 2.25 | 14.00 | 13.72 | 11.91 | 11.86 | 10.00 | 9.50 | LH/RH |
| | 18 | 3 | 6 | 1.75 | 14.00 | 13.77 | 12.42 | 11.95 | 11.00 | 10.55 | LH/RH |
| | 28 | 4 | 7 | 2.25 | 14.00 | 13.72 | 11.91 | 11.38 | 10.00 | 9.50 | LH/RH |
| | 30 | 5 | 6 | 2.75 | 14.00 | 13.67 | 11.39 | 10.82 | 9.00 | 8.45 | LH/RH |
| | 16 | 2 | 2 | 1 | 1.25 | 16.00 | 15.82 | 14.93 | 14.68 | 14.00 | 13.61 |
| 3 | | 3 | 1 | 1.75 | 16.00 | 15.77 | 14.42 | 14.12 | 13.00 | 12.55 | LH/RH |
| 4 | | 4 | 1 | 2.25 | 16.00 | 15.72 | 13.91 | 13.57 | 12.00 | 11.49 | LH/RH |
| 5 | | 2.5 | 2 | 1.50 | 16.00 | 15.79 | 14.67 | 14.37 | 13.50 | 13.08 | LH/RH |
| 8 | | 4 | 2 | 2.25 | 16.00 | 15.72 | 13.91 | 13.53 | 12.00 | 11.49 | LH/RH |
| 9 | | 4.5 | 2 | 2.50 | 16.00 | 15.69 | 13.65 | 13.26 | 11.50 | 10.97 | LH/RH |
| 10 | 2 | 5 | 1.25 | 16.00 | 15.82 | 14.93 | 14.53 | 14.00 | 13.62 | LH/RH | |

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If the required thread size is not included in the table,please contact our sales person.

Metric trapezoidal thread specifications(DIN103)

| Nominal Diameter (mm) | Lead (mm) | Pitch (mm) | Starts | Thread height (mm) | d1 (mm) | | d2 (mm) | | d3 (mm) | | Direction of thread |
|-----------------------|-----------|------------|--------|--------------------|---------|-------|---------|-------|---------|-------|---------------------|
| | | | | | max | min | max | min | max | min | |
| 16 | 16 | 4 | 4 | 2.25 | 16.00 | 15.72 | 13.91 | 13.44 | 12.00 | 11.49 | LH/RH |
| | 21 | 3 | 7 | 1.75 | 16.00 | 15.77 | 14.42 | 13.95 | 13.00 | 12.55 | LH/RH |
| | 25 | 5 | 5 | 2.25 | 16.00 | 15.67 | 13.39 | 12.82 | 11.00 | 10.44 | LH/RH |
| | 35 | 5 | 7 | 2.75 | 16.00 | 15.67 | 13.39 | 12.82 | 11.00 | 10.44 | LH/RH |
| 18 | 2 | 2 | 1 | 1.25 | 18.00 | 17.82 | 16.93 | 16.67 | 16.00 | 15.61 | LH/RH |
| | 4 | 4 | 1 | 2.25 | 18.00 | 17.72 | 15.91 | 15.57 | 14.00 | 13.49 | LH/RH |
| | 8 | 4 | 2 | 2.25 | 18.00 | 17.72 | 15.91 | 15.53 | 14.00 | 13.49 | LH/RH |
| | 16 | 4 | 4 | 2.25 | 18.00 | 17.72 | 15.91 | 15.44 | 14.00 | 13.49 | LH/RH |
| | 18 | 4.5 | 4 | 2.50 | 18.00 | 17.69 | 15.65 | 15.16 | 13.50 | 12.96 | LH/RH |
| | 24 | 3 | 8 | 1.75 | 18.00 | 17.77 | 16.42 | 15.94 | 15.00 | 14.54 | LH/RH |
| | 25 | 2.5 | 10 | 1.50 | 18.00 | 17.79 | 16.67 | 16.23 | 15.50 | 15.08 | LH/RH |
| | 40 | 5 | 8 | 2.75 | 18.00 | 17.67 | 15.39 | 14.81 | 13.00 | 12.44 | LH/RH |
| 20 | 60 | 5 | 12 | 2.75 | 18.00 | 17.67 | 15.39 | 14.81 | 13.00 | 12.44 | LH/RH |
| | 2 | 2 | 1 | 1.25 | 20.00 | 19.82 | 18.93 | 18.67 | 18.00 | 17.61 | LH/RH |
| | 4 | 4 | 1 | 2.25 | 20.00 | 19.72 | 17.91 | 17.57 | 16.00 | 15.48 | LH/RH |
| | 8 | 4 | 2 | 2.25 | 20.00 | 19.72 | 17.91 | 17.53 | 16.00 | 15.48 | LH/RH |
| | 10 | 5 | 2 | 2.75 | 20.00 | 19.67 | 17.39 | 16.98 | 15.00 | 14.43 | LH/RH |
| | 12 | 3 | 4 | 1.75 | 20.00 | 19.77 | 18.42 | 18.00 | 17.00 | 16.54 | LH/RH |
| | 16 | 4 | 4 | 2.25 | 20.00 | 19.72 | 17.91 | 17.43 | 16.00 | 15.48 | LH/RH |
| | 17.5 | 2.5 | 7 | 1.50 | 20.00 | 19.79 | 18.67 | 18.22 | 17.50 | 17.07 | LH/RH |
| | 18 | 6 | 3 | 3.50 | 20.00 | 19.63 | 16.88 | 16.39 | 14.00 | 13.39 | LH/RH |
| | 20 | 4 | 5 | 2.25 | 20.00 | 19.72 | 17.91 | 17.36 | 16.00 | 15.48 | LH/RH |
| | 40 | 5 | 8 | 2.75 | 20.00 | 19.67 | 17.39 | 16.80 | 15.00 | 14.43 | LH/RH |
| | 45 | 5 | 9 | 2.75 | 20.00 | 19.67 | 17.39 | 16.80 | 15.00 | 14.43 | LH/RH |
| | 80 | 5 | 16 | 2.75 | 20.00 | 19.67 | 17.39 | 16.80 | 15.00 | 14.43 | LH/RH |
| | 22 | 3 | 3 | 1 | 1.75 | 22.00 | 21.77 | 20.42 | 20.11 | 19.00 | 18.54 |
| 4 | | 4 | 1 | 2.25 | 22.00 | 21.72 | 19.91 | 19.56 | 18.00 | 17.48 | LH/RH |
| 5 | | 5 | 1 | 2.75 | 22.00 | 21.67 | 19.39 | 19.02 | 17.00 | 16.43 | LH/RH |
| 6 | | 2 | 3 | 1.25 | 22.00 | 21.82 | 20.93 | 20.60 | 20.00 | 19.60 | LH/RH |
| 8 | | 4 | 2 | 2.25 | 22.00 | 21.72 | 19.91 | 19.52 | 18.00 | 17.48 | LH/RH |
| 10 | | 5 | 2 | 2.75 | 22.00 | 21.67 | 19.39 | 18.98 | 17.00 | 16.43 | LH/RH |
| 10 | | 2.5 | 4 | 1.50 | 22.00 | 21.79 | 20.67 | 20.28 | 19.50 | 19.07 | LH/RH |
| 16 | | 4 | 4 | 2.25 | 22.00 | 21.72 | 19.91 | 19.43 | 18.00 | 17.48 | LH/RH |
| 18 | | 3 | 6 | 1.75 | 22.00 | 21.77 | 20.42 | 19.93 | 19.00 | 18.54 | LH/RH |
| 20 | | 4 | 5 | 2.25 | 22.00 | 21.72 | 19.91 | 19.36 | 18.00 | 17.48 | LH/RH |
| 24 | 4 | 6 | 2.25 | 22.00 | 21.72 | 19.91 | 19.36 | 18.00 | 17.48 | LH/RH | |

The above data is just for you reference of selection and design.The actual delivery may differ from the above size.
If the required thread size is not included in the table,please contact our sales person.

Metric trapezoidal thread specifications(DIN103)

| Nominal Diameter (mm) | Lead (mm) | Pitch (mm) | Starts | Thread height (mm) | d1 (mm) | | d2 (mm) | | d3 (mm) | | Direction of thread |
|-----------------------|-----------|------------|--------|--------------------|---------|-------|---------|-------|---------|-------|---------------------|
| | | | | | max | min | max | min | max | min | |
| 22 | 50 | 5 | 10 | 2.75 | 22.00 | 21.67 | 19.39 | 18.80 | 17.00 | 16.43 | LH/RH |
| 24 | 3 | 3 | 1 | 1.75 | 24.00 | 23.77 | 22.42 | 22.11 | 21.00 | 20.53 | LH/RH |
| | 4 | 4 | 1 | 2.25 | 24.00 | 23.72 | 21.91 | 21.56 | 20.00 | 19.48 | LH/RH |
| | 5 | 5 | 1 | 2.75 | 24.00 | 23.67 | 21.39 | 21.02 | 19.00 | 18.42 | LH/RH |
| | 10 | 5 | 2 | 2.75 | 24.00 | 23.67 | 21.39 | 20.97 | 19.00 | 18.42 | LH/RH |
| | 40 | 5 | 8 | 2.75 | 24.00 | 23.67 | 21.39 | 20.79 | 19.00 | 18.42 | LH/RH |
| 25 | 55 | 5 | 11 | 2.75 | 24.00 | 23.67 | 21.39 | 20.79 | 19.00 | 18.42 | LH/RH |
| | 5 | 5 | 1 | 2.75 | 25.00 | 24.67 | 22.39 | 22.02 | 20.00 | 19.42 | LH/RH |
| | 10 | 5 | 2 | 2.75 | 25.00 | 24.67 | 22.39 | 21.97 | 20.00 | 19.42 | LH/RH |
| | 12 | 6 | 2 | 3.50 | 25.00 | 24.63 | 21.88 | 21.43 | 19.00 | 18.38 | LH/RH |
| | 20 | 4 | 5 | 2.25 | 25.00 | 24.72 | 22.91 | 22.35 | 21.00 | 20.47 | LH/RH |
| 26 | 25 | 5 | 5 | 2.75 | 25.00 | 24.67 | 22.39 | 21.79 | 20.00 | 19.42 | LH/RH |
| | 60 | 5 | 12 | 2.75 | 25.00 | 24.67 | 22.39 | 21.79 | 20.00 | 19.42 | LH/RH |
| | 3 | 3 | 1 | 1.75 | 26.00 | 25.77 | 24.42 | 24.11 | 23.00 | 22.53 | LH/RH |
| | 5 | 5 | 1 | 2.75 | 26.00 | 25.67 | 23.39 | 23.01 | 21.00 | 20.42 | LH/RH |
| | 8 | 8 | 1 | 4.50 | 26.00 | 25.55 | 21.87 | 21.41 | 18.00 | 17.29 | LH/RH |
| 28 | 8 | 4 | 2 | 2.25 | 26.00 | 25.72 | 23.91 | 23.52 | 22.00 | 21.47 | LH/RH |
| | 10 | 5 | 2 | 2.75 | 26.00 | 25.67 | 23.39 | 22.97 | 21.00 | 20.42 | LH/RH |
| | 12 | 3 | 4 | 1.75 | 26.00 | 25.77 | 24.42 | 23.98 | 23.00 | 22.53 | LH/RH |
| | 12 | 4 | 3 | 2.25 | 26.00 | 25.72 | 23.91 | 23.47 | 22.00 | 21.47 | LH/RH |
| | 16 | 4 | 4 | 2.25 | 26.00 | 25.72 | 23.91 | 23.42 | 22.00 | 21.47 | LH/RH |
| | 20 | 4 | 5 | 2.25 | 26.00 | 25.72 | 23.91 | 23.35 | 22.00 | 21.47 | LH/RH |
| | 24 | 4 | 6 | 2.25 | 26.00 | 25.72 | 23.91 | 23.35 | 22.00 | 21.47 | LH/RH |
| | 50 | 5 | 10 | 2.75 | 26.00 | 25.67 | 23.39 | 22.79 | 21.00 | 20.42 | LH/RH |
| | 60 | 5 | 12 | 2.75 | 26.00 | 25.67 | 23.39 | 22.79 | 21.00 | 20.42 | LH/RH |
| | 75 | 5 | 15 | 2.75 | 26.00 | 25.67 | 23.39 | 22.79 | 21.00 | 20.42 | LH/RH |
| 28 | 3 | 3 | 1 | 1.75 | 28.00 | 27.77 | 26.42 | 26.11 | 25.00 | 24.53 | LH/RH |
| | 5 | 5 | 1 | 2.75 | 28.00 | 27.67 | 25.39 | 25.01 | 23.00 | 22.42 | LH/RH |
| | 8 | 8 | 1 | 4.50 | 28.00 | 27.55 | 23.87 | 23.40 | 20.00 | 19.28 | LH/RH |
| | 10 | 5 | 2 | 2.75 | 28.00 | 27.67 | 25.39 | 24.97 | 23.00 | 22.42 | LH/RH |

The above data is just for you reference of selection and design.The actual delivery may differ from the above size.
If the required thread size is not included in the table,please contact our sales person.

List of other trapezoidal thread sizes

| Nominal diameter | Lead |
|------------------|-----------------------|
| 30 | 3、6、10、12、28、32、50、70 |
| 32 | 3、5、6、12、20、75 |
| 33 | 15、18 |
| 34 | 16 |
| 36 | 6、12、36、200 |
| 38 | 5 |
| 40 | 7、14、30、40 |
| 43 | 24 |
| 44 | 7、12、14 |
| 45 | 8、20 |

| Nominal diameter | Lead |
|------------------|----------|
| 50 | 8、12 |
| 53 | 30 |
| 55 | 9、14 |
| 60 | 9、14 |
| 70 | 10、16 |
| 80 | 10、16 |
| 90 | 12、18 |
| 100 | 12、16、20 |
| 120 | 14、16、22 |

ACME thread list(ANSI/ASME B1.5-1977)

| Model | Nominal diameter | | lead | | pitch | | starts | Thread height (mm) | d1(mm) | | d2(mm) | | d3(mm) | | Direction of thread |
|----------|------------------|------|-------|-------|-------|-------|--------|--------------------|--------|------|--------|------|--------|------|---------------------|
| | in | mm | in | mm | in | mm | | | max | min | max | min | max | min | |
| 3/16-40 | 3/16 | 4.75 | 0.025 | 0.635 | 0.025 | 0.635 | 1 | 0.32 | 4.75 | 4.67 | 4.38 | 4.24 | 4.12 | 3.89 | LH/RH |
| 3/16-20 | 3/16 | 4.76 | 0.05 | 1.27 | 0.05 | 1.27 | 1 | 0.79 | 4.76 | 4.63 | 4.06 | 3.88 | 3.49 | 3.20 | LH/RH |
| 7/32-22 | 7/32 | 5.5 | 0.180 | 4.58 | 0.045 | 1.15 | 4 | 0.72 | 5.50 | 5.36 | 4.86 | 4.61 | 4.36 | 4.07 | LH/RH |
| | | | 0.378 | 9.59 | 0.045 | 1.15 | 8 | 0.72 | 5.50 | 5.36 | 4.86 | 4.58 | 4.36 | 4.07 | LH/RH |
| 7/32-21 | 7/32 | 5.56 | 0.192 | 4.88 | 0.048 | 1.22 | 4 | 0.76 | 5.56 | 5.43 | 4.89 | 4.63 | 4.34 | 4.05 | LH/RH |
| | | | 0.384 | 9.76 | 0.048 | 1.22 | 8 | 0.76 | 5.56 | 5.43 | 4.89 | 4.59 | 4.34 | 4.05 | LH/RH |
| 1/4-32 | 1/4 | 6.35 | 0.031 | 0.80 | 0.031 | 0.80 | 1 | 0.55 | 6.35 | 6.25 | 5.89 | 5.73 | 5.55 | 5.29 | LH/RH |
| 1/4-16 | 1/4 | 6.35 | 0.063 | 1.59 | 0.063 | 1.59 | 1 | 1.04 | 6.35 | 6.20 | 5.49 | 5.28 | 4.76 | 4.43 | LH/RH |
| | | | 0.125 | 3.18 | 0.063 | 1.59 | 2 | 1.04 | 6.35 | 6.20 | 5.49 | 5.26 | 4.76 | 4.43 | LH/RH |
| | | | 0.250 | 6.36 | 0.063 | 1.59 | 4 | 1.04 | 6.35 | 6.20 | 5.49 | 5.20 | 4.76 | 4.43 | LH/RH |
| 1/4-10 | 1/4 | 6.35 | 0.5 | 12.70 | 0.1 | 2.54 | 5 | 1.52 | 6.35 | 6.14 | 5.00 | 4.60 | 3.81 | 3.42 | LH/RH |
| 5/16-8 | 5/16 | 8 | 0.501 | 12.72 | 0.125 | 3.18 | 4 | 1.84 | 8.00 | 7.76 | 6.33 | 5.93 | 5.70 | 5.26 | LH/RH |
| 11/32-16 | 11/32 | 9 | 0.188 | 4.77 | 0.063 | 1.59 | 3 | 1.04 | 9.00 | 8.85 | 8.14 | 7.87 | 7.41 | 7.08 | LH/RH |
| 11/32-16 | 11/32 | 9 | 0.313 | 7.95 | 0.063 | 1.59 | 5 | 1.04 | 9.00 | 8.85 | 8.14 | 7.79 | 7.41 | 7.08 | LH/RH |
| 3/8-16 | 3/8 | 9.5 | 0.063 | 1.59 | 0.063 | 1.59 | 1 | 1.04 | 9.50 | 9.35 | 8.64 | 8.43 | 7.92 | 7.58 | LH/RH |
| 3/8-10 | 3/8 | 9.5 | 0.1 | 2.54 | 0.1 | 2.54 | 1 | 1.52 | 9.50 | 9.29 | 8.15 | 7.89 | 6.96 | 6.56 | LH/RH |
| | | | 0.2 | 5.08 | 0.1 | 2.54 | 2 | 1.52 | 9.50 | 9.29 | 8.15 | 7.86 | 6.96 | 6.56 | LH/RH |
| 3/8-19 | 3/8 | 9.5 | 0.314 | 7.98 | 0.052 | 1.33 | 6 | 0.82 | 9.50 | 9.36 | 8.77 | 8.45 | 8.17 | 7.85 | LH/RH |
| 3/8-10 | 3/8 | 9.5 | 0.492 | 12.50 | 0.098 | 2.50 | 5 | 1.50 | 9.50 | 9.29 | 8.17 | 7.76 | 7.00 | 6.60 | LH/RH |
| 3/8-8 | 3/8 | 9.5 | 0.501 | 12.72 | 0.125 | 3.18 | 4 | 1.84 | 9.50 | 9.26 | 7.83 | 7.43 | 6.33 | 5.88 | LH/RH |
| 3/8-5 | 3/8 | 9.5 | 1 | 25.40 | 0.2 | 5.08 | 5 | 2.94 | 9.50 | 9.17 | 6.85 | 6.30 | 4.42 | 3.88 | LH/RH |

The above data is just for you reference of selection and design.The actual delivery may differ from the above size.
If the required thread size is not included in the table,please contact our sales person.

ACME thread list(ANSI/ASME B1.5-1977)

| Model | Nominal diameter | | Lead | | pitch | | Starts | Thread height (mm) | d1(mm) | | d2(mm) | | d3(mm) | | Direction of thread |
|----------|------------------|-------|-------|-------|-------|------|--------|--------------------|--------|-------|--------|-------|--------|-------|---------------------|
| | in | mm | in | mm | in | mm | | | max | min | max | min | max | min | |
| 3/8-8 | 3/8 | 9.6 | 0.626 | 15.90 | 0.125 | 3.18 | 5 | 1.84 | 9.60 | 9.36 | 7.37 | 6.91 | 6.43 | 5.98 | LH/RH |
| 3/8-8 | 3/8 | 10 | 0.751 | 19.08 | 0.125 | 3.18 | 6 | 1.84 | 10.00 | 9.76 | 8.33 | 7.87 | 6.83 | 6.38 | LH/RH |
| 7/16-8 | 7/16 | 11 | 0.751 | 19.08 | 0.125 | 3.18 | 6 | 1.84 | 11.00 | 10.76 | 9.33 | 8.86 | 7.83 | 7.38 | LH/RH |
| 7/16-8 | 7/16 | 11.3 | 0.250 | 6.36 | 0.125 | 3.18 | 2 | 1.84 | 11.30 | 11.06 | 9.63 | 9.30 | 8.13 | 7.68 | LH/RH |
| | | | 0.876 | 22.26 | 0.125 | 3.18 | 7 | 1.84 | 11.30 | 11.06 | 9.63 | 9.16 | 8.13 | 7.68 | LH/RH |
| 7/16-10 | 7/16 | 11.39 | 0.886 | 22.50 | 0.098 | 2.50 | 9 | 1.50 | 11.39 | 11.18 | 10.06 | 9.64 | 8.89 | 8.48 | LH/RH |
| 7/16-10 | 7/16 | 11.5 | 0.1 | 2.54 | 0.1 | 2.54 | 1 | 1.52 | 11.50 | 11.29 | 10.15 | 9.89 | 8.96 | 8.55 | LH/RH |
| | | | 0.2 | 5.08 | 0.1 | 2.54 | 2 | 1.52 | 11.50 | 11.29 | 10.15 | 9.85 | 8.96 | 8.55 | LH/RH |
| | | | 0.5 | 12.70 | 0.1 | 2.54 | 5 | 1.52 | 11.50 | 11.29 | 10.15 | 9.73 | 8.96 | 8.55 | LH/RH |
| 7/16-8 | 7/16 | 11.5 | 0.620 | 15.75 | 0.124 | 3.15 | 5 | 1.83 | 11.50 | 11.26 | 9.84 | 9.38 | 8.35 | 7.90 | LH/RH |
| 15/32-16 | 15/32 | 11.9 | 0.250 | 6.36 | 0.063 | 1.59 | 4 | 1.04 | 11.90 | 11.75 | 11.04 | 10.73 | 10.31 | 9.97 | LH/RH |
| | | | 0.376 | 9.54 | 0.063 | 1.59 | 6 | 1.04 | 11.90 | 11.75 | 11.04 | 10.68 | 10.31 | 9.97 | LH/RH |
| 15/32-16 | 15/32 | 11.95 | 0.125 | 3.18 | 0.063 | 1.59 | 2 | 1.04 | 11.95 | 11.80 | 11.09 | 10.84 | 10.36 | 10.02 | LH/RH |
| 1/2-10 | 1/2 | 12.5 | 0.1 | 2.54 | 0.1 | 2.54 | 1 | 1.52 | 12.50 | 12.29 | 11.15 | 10.88 | 9.96 | 9.55 | LH/RH |
| | | | 0.2 | 5.08 | 0.1 | 2.54 | 2 | 1.52 | 12.50 | 12.29 | 11.15 | 10.85 | 9.96 | 9.55 | LH/RH |
| 1/2-8 | 1/2 | 12.7 | 0.125 | 3.18 | 0.125 | 3.18 | 1 | 1.84 | 12.70 | 12.46 | 11.03 | 10.73 | 9.53 | 9.07 | LH/RH |
| | | | 1.002 | 25.44 | 0.125 | 3.18 | 8 | 1.84 | 12.70 | 12.46 | 11.03 | 10.56 | 9.53 | 9.07 | LH/RH |
| 1/2-8 | 1/2 | 12.8 | 0.876 | 22.26 | 0.125 | 3.18 | 7 | 1.84 | 12.80 | 12.56 | 11.13 | 10.66 | 9.63 | 9.17 | LH/RH |
| | | | 2.559 | 65.00 | 0.197 | 5.00 | 13 | 2.75 | 12.80 | 12.47 | 10.19 | 9.63 | 7.80 | 7.25 | LH/RH |
| 9/16-8 | 9/16 | 14 | 1.127 | 28.62 | 0.125 | 3.18 | 9 | 1.84 | 14.00 | 13.76 | 12.33 | 11.81 | 10.83 | 10.37 | LH/RH |
| 9/16-8 | 9/16 | 14.5 | 1.002 | 25.44 | 0.125 | 3.18 | 8 | 1.84 | 14.50 | 14.26 | 12.83 | 12.35 | 11.33 | 10.87 | LH/RH |
| 19/32-16 | 19/32 | 15 | 0.313 | 7.95 | 0.063 | 1.59 | 5 | 1.04 | 15.00 | 14.85 | 14.14 | 13.78 | 13.41 | 13.06 | LH/RH |
| 19/32-16 | 19/32 | 15 | 0.438 | 11.13 | 0.063 | 1.59 | 7 | 1.04 | 15.00 | 14.85 | 14.14 | 13.78 | 13.41 | 13.06 | LH/RH |
| 19/32-5 | 19/32 | 15.14 | 1.575 | 40.00 | 0.197 | 5.00 | 8 | 2.75 | 15.14 | 14.81 | 12.53 | 11.96 | 10.14 | 9.58 | LH/RH |
| 5/8-8 | 5/8 | 15.5 | 1.252 | 31.80 | 0.125 | 3.18 | 10 | 1.84 | 15.50 | 15.26 | 13.83 | 13.35 | 12.33 | 11.87 | LH/RH |
| 5/8-5 | 5/8 | 15.8 | 3.150 | 80.00 | 0.197 | 5.00 | 16 | 2.75 | 15.80 | 15.47 | 13.19 | 12.62 | 10.80 | 10.24 | LH/RH |
| 5/8-8 | 5/8 | 16 | 0.376 | 9.54 | 0.125 | 3.18 | 3 | 1.84 | 16.00 | 15.76 | 14.33 | 13.95 | 12.83 | 12.36 | LH/RH |
| 5/8-11 | 5/8 | 16 | 0.631 | 16.03 | 0.090 | 2.29 | 7 | 1.40 | 16.00 | 15.80 | 14.78 | 14.36 | 13.71 | 12.80 | LH/RH |
| 5/8-8 | 5/8 | 16 | 0.868 | 22.05 | 0.124 | 3.15 | 7 | 1.83 | 16.00 | 15.76 | 14.34 | 13.86 | 12.85 | 12.39 | LH/RH |
| 5/8-8 | 5/8 | 16 | 1.127 | 28.62 | 0.125 | 3.18 | 9 | 1.84 | 16.00 | 15.76 | 14.33 | 13.84 | 12.83 | 12.36 | LH/RH |
| 5/8-5 | 5/8 | 16.72 | 3.346 | 85.00 | 0.197 | 5.00 | 17 | 2.75 | 16.72 | 16.39 | 14.11 | 13.53 | 11.72 | 11.16 | LH/RH |
| 11/16-8 | 11/16 | 17 | 1.377 | 34.98 | 0.125 | 3.18 | 11 | 1.84 | 17.00 | 16.76 | 15.33 | 14.84 | 13.83 | 13.36 | LH/RH |
| 11/16-5 | 11/16 | 17.28 | 1.772 | 45.00 | 0.197 | 5.00 | 9 | 2.75 | 17.28 | 16.95 | 14.67 | 14.09 | 12.28 | 11.72 | LH/RH |

The above data is just for you reference of selection and design.The actual delivery may differ from the above size.
If the required thread size is not included in the table,please contact our sales person.

Metric thread(DIN13)

| lead diameter | 0.25 | 0.35 | 0.4 | 0.45 | 0.5 | 0.7 | 0.75 | 0.8 | 1.0 | 1.25 | 1.5 | 2.0 |
|---------------|------|------|-----|------|-----|-----|------|-----|-----|------|-----|-----|
| 2 | ⊙ | | ○ | | | | | | | | | |
| 2.5 | | ⊙ | | ○ | | | | | | | | |
| 3 | | ⊙ | | | ○ | | | | | | | |
| 4 | | | | | ⊙ | ○ | | | | | | |
| 5 | | | | | ⊙ | | | ○ | | | | |
| 6 | | | | | ⊙ | | ⊙ | | ○ | | | |
| 7 | | | | | ⊙ | | ⊙ | | ○ | | | |
| 8 | | | | | ⊙ | | ⊙ | | | ○ | | |
| 9 | | | | | ⊙ | | ⊙ | | | | ○ | |
| 10 | | | | | ⊙ | | ⊙ | | | | ○ | |

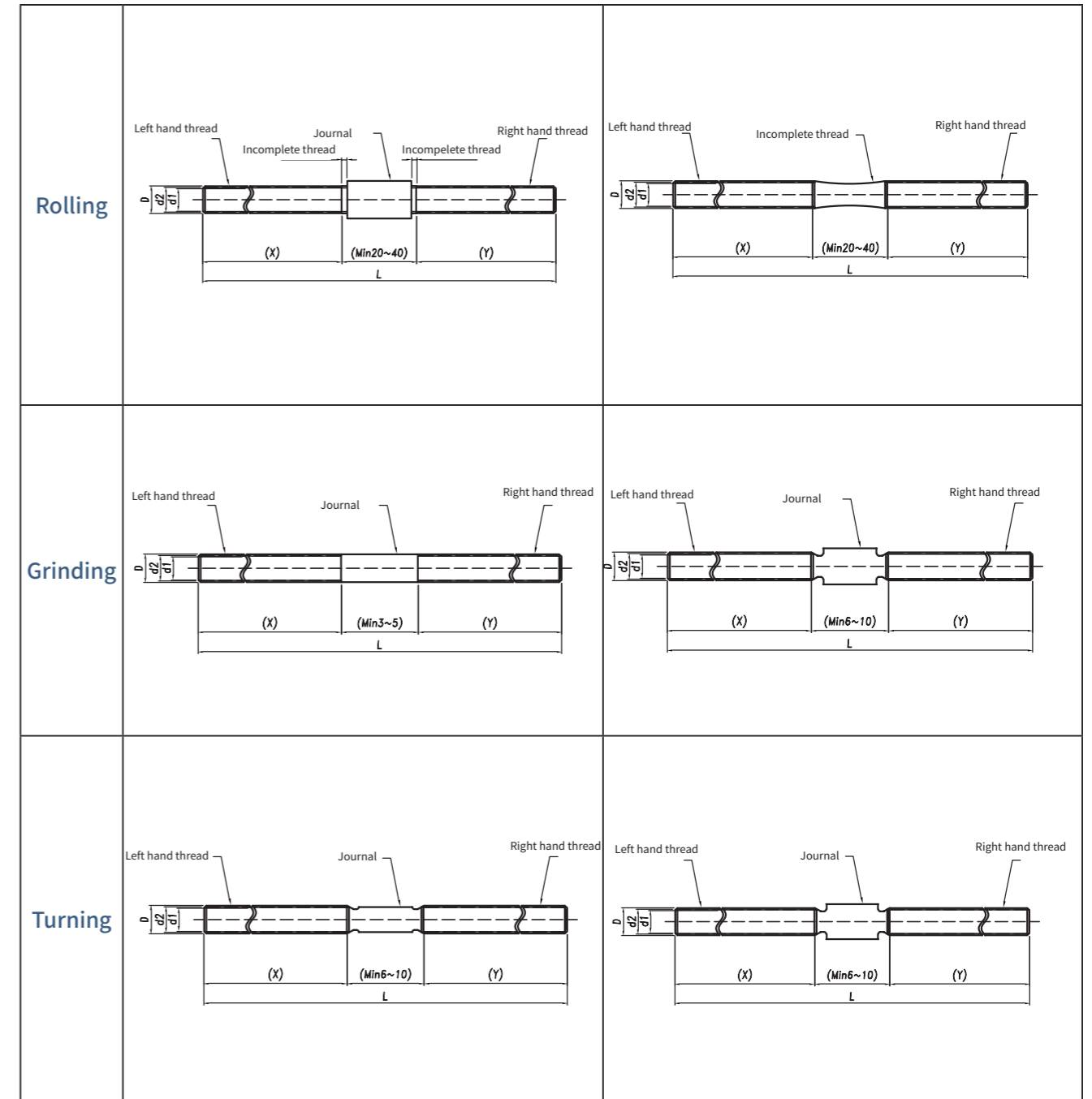
- ⊙ Recommended models including metric fine thread
- Metric coarse thread

Bi-directional thread lead screw

Overall technical specs of threading ways

| The processing technology | Rolling | | Cutting | | Whirlwind & milling | | Grinding |
|--|--|------|---------------------|-----------------------|---------------------|--|--------------------------------------|
| Precision | 6-10 levels | | 7-10 levels | | 6-10 levels | | 5-7 levels |
| Material | SS303,SS304, SS316,45#, SS440C,40Cr | | SS303, SS304, SS316 | 45#, SS440C, 40Cr | SS303, SS304, SS316 | 45#, SS440C, 40Cr | SS303,SS304, SS316,45#, SS440C, 40Cr |
| Min diameter | 4-10mm | 12mm | 2mm | | 16mm | | 4mm |
| Min pitch | 0.3 | 0.5 | 0.5 | | 2 | | 0.3 |
| Neutral(relief groove, incomplete thread) min length | 20 | 40 | 0 | | 0 | | 0 |
| Heat treatment | - | | - | Quenched and tempered | - | Quenched and tempered | Quenched and tempered |
| Surface treatment | Zinc-plated, Nickel plated, Hard chromium plated, Fluorine coated, Tungsten disulfide, Black chorme plated | | | | | Hard chromium plated, Fluorine coated, Tungsten Disulfide, Black chorme plated | |
| Precision grade | 5-10 levels | | 6-10 levels | | 6-8 levels | | 5-7 levels |
| Roughness | 0.8-3.2 | | 0.8-3.2 | | 1.6-3.2 | | 0.8-3.2 |

Thread forming process



Nut ordering code structure

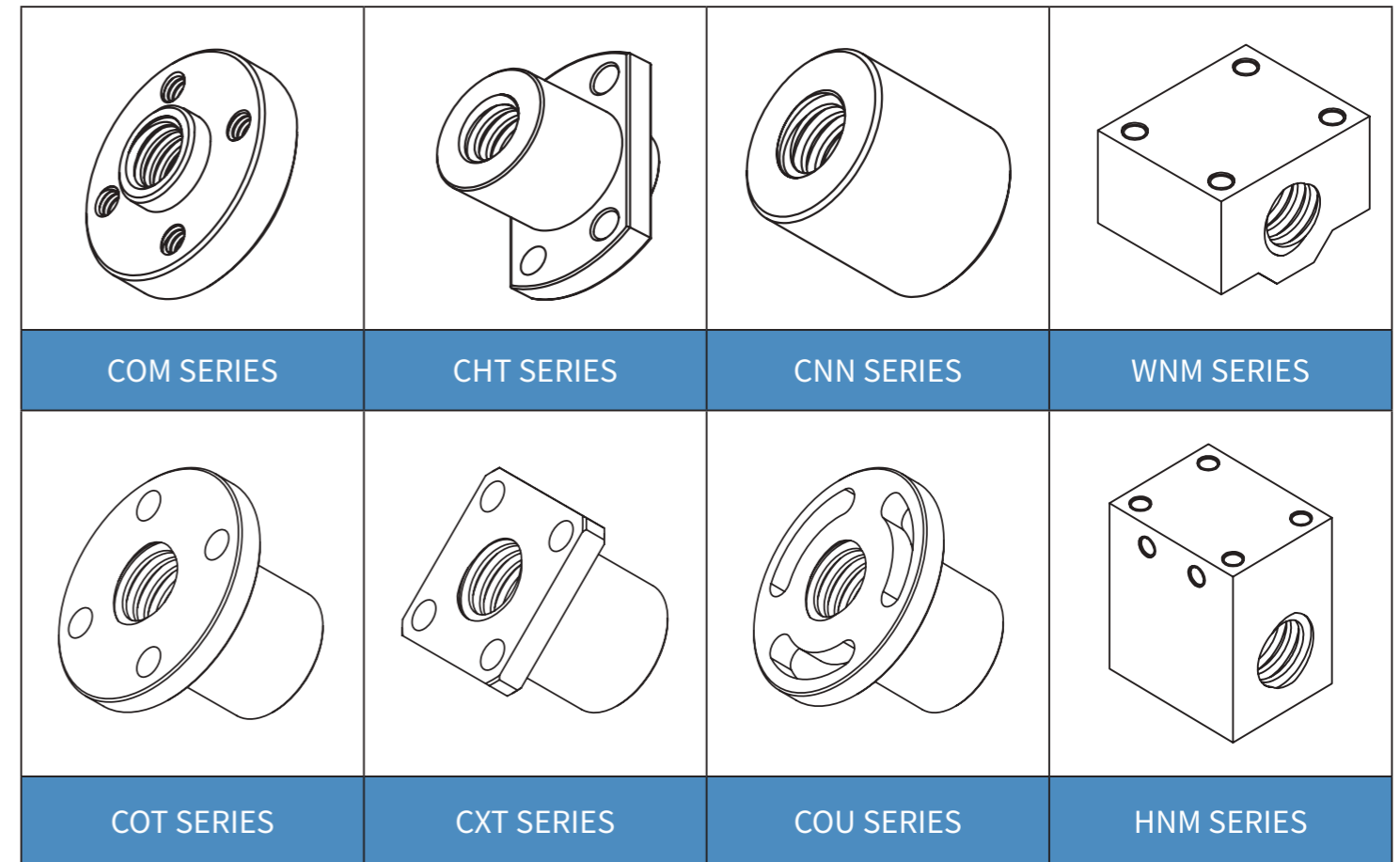
T6.35x6.35(P1.588)L-SNT4-D14F28L25W20B5H24-P1-Z



| No. | On behalf of the name | Labelling | Meaning | Labelling | Meaning | |
|-----|-----------------------|------------|---------------------------------------|------------------------------|-------------------------------------|--|
| ① | Thread | T | Trapezoidal Thread | R | Round Thread | |
| | | M | Metric Thread | G | Goethe thread | |
| | | A | ACME Thread | X | Reciprocating thread | |
| | | | | | | |
| ② | Diameter | Figure | Diameter | | | |
| ③ | Lead | Figure | Lead | | | |
| ④ | Pitch | Figure | Pitch | | | |
| ⑤ | Thread direction | R | Right hand | RL | | |
| | | L | Left hand | | | |
| ⑥ | Nut shape | C | Cylindrical | L | Hexagonal | |
| | | S | Square | D | Cylindrical + flat | |
| | | W | Widen | A | Thread mounting | |
| | | H | Heighten | Z | Other shapes | |
| ⑦ | Shape of the flange | N | Without flange | X | Round flange milling square | |
| | | O | Round flange without milling flat | L | Round flange with six milling flats | |
| | | H | Round flange with double milling flat | D | Round with a flat | |
| | | Y | Triangle | Z | Other shapes | |
| ⑧ | Connection ways | N | Without mounting holes | M | Threaded hole | |
| | | C | Countersunk holes | B | With trunnion | |
| | | T | Through holes | Z | Other mounting holes | |
| | | U | Waist type holes | | | |
| ⑨ | Mounting hole amount | 1-10 | No mounting holes is not marked | | | |
| ⑩ | Nut sizes | Round nut | D | Outer Diameter | W | PCD |
| | | | F | Flange dia | B | Flange thickness |
| | | Square nut | L | Nut length | H | Flange cutting edge width |
| | | | L | Nut length | W | Width |
| ⑪ | Nut material code | B | B1 | Brass | S1 | SS304 |
| | | | B2 | Tin bronze | S2 | SS316 |
| | | | B3 | Phosphor bronze | S3 | SS316L |
| | | | B4 | Aluminum bronze | S4 | SS440c |
| | | P | P1 | POM-C | BP(K/N) | Copper + plastic |
| | | | P2 | POM-H | C | Cast iron, 1045 |
| | | | P3 | POM+PTFE | Q | Self lubrication (no oil) |
| | | K | K1 | PEEK(100%PEEK) | K3 | PEEK(Carbon fiber reinforced) |
| | | | K2 | PEEK(Glass fiber reinforced) | K4 | PEEK(Contains 30% of "carbon fiber + graphite + PTFE") |
| | | N | Nylon | AP | Aluminum alloy + plastic | |
| ⑫* | Surface treatment | J | Lgus J | BC | Copper + steel | |
| | | BL | Black | CR | Chrome plated | |
| | | NI | Nickel plated | WS | Tungsten disulfide | |
| | | TF | Teflon | | | |
| ⑬* | Additional mark | A-Z | Standard nut sequence | J | CNC machining | |
| | | 1-1000 | Prevent duplicate Numbers | Z | Injection molding | |

Note: "*" represents optional items.

Nut ordering code structure



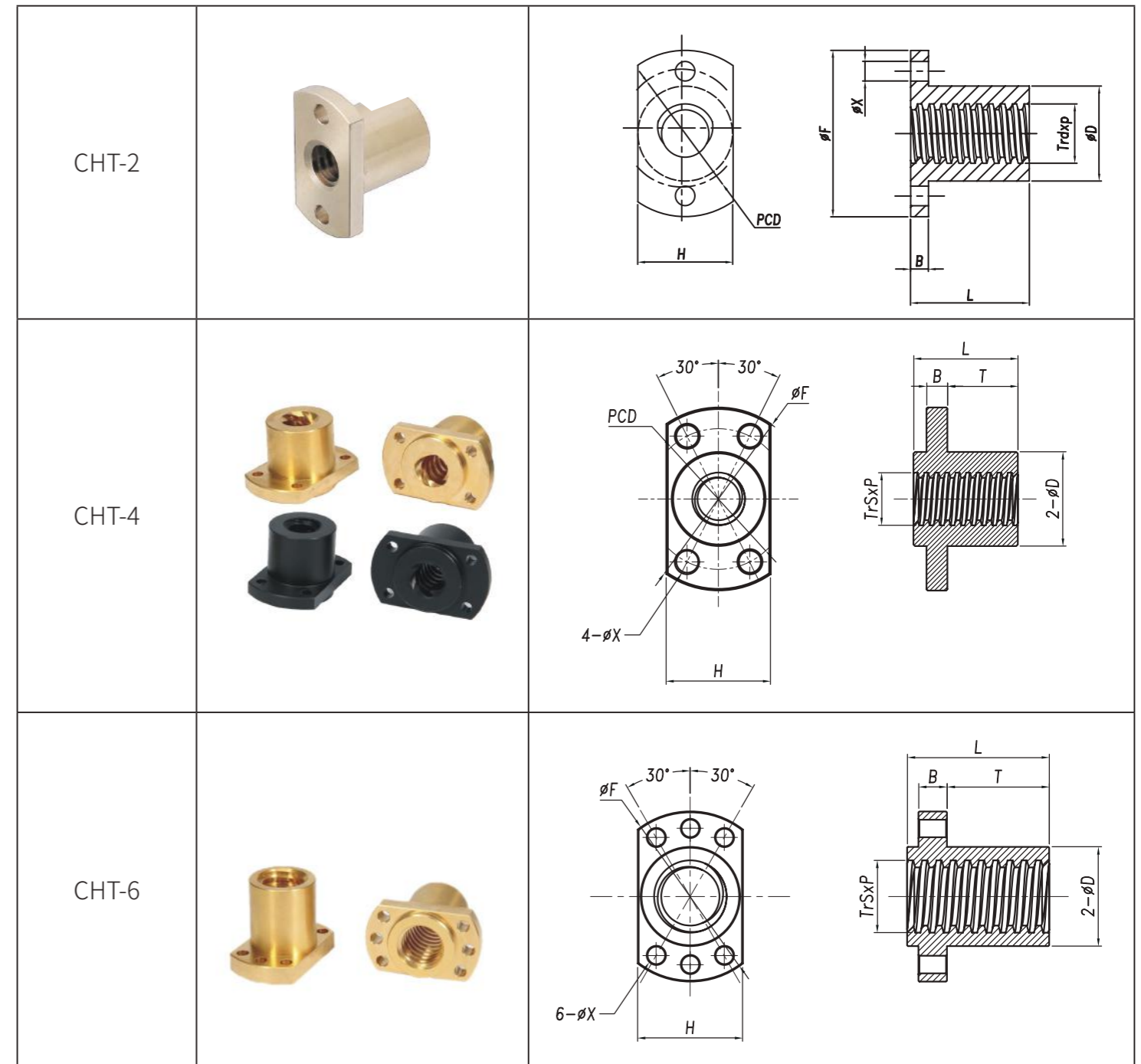
NUT LIST | COM SERIES



| Diameter | Lead | Pitch | Model | Nut outer diameter | The flange diameter | Length of nut | The thickness of the flange | Hole spacing | Aperture | Dynamic allowable thrust (kN) | | | | |
|----------|------|-------|-------|--------------------|---------------------|---------------|-----------------------------|--------------|----------|-------------------------------|-----|----|-------|------|
| d | P | Dw | type | D | F | L | B | PCD | X | | | | | |
| 6 | 1 | 1 | COM-4 | 8 | 19 | 8 | 2.6 | 14 | 4-3.2 | - | | | | |
| | 3 | 1.5 | | | | | 4 | | 4-M3 | - | | | | |
| | | | | | | | 2.6 | | 4-3.2 | - | | | | |
| 4 | 1.5 | 4 | | | | | 4-M3 | | - | | | | | |
| | | 2.6 | | | | | 4-3.2 | | - | | | | | |
| 8 | 1 | 1 | | | | | 10 | | 21 | 10 | 3.5 | 16 | 4-3.2 | - |
| | | | | 5 | 4-M3 | - | | | | | | | | |
| | | | | 3.5 | 4-3.2 | - | | | | | | | | |
| | 2 | 2 | | 12 | 5 | 4-M3 | | - | | | | | | |
| | | | | | 3.5 | 4-3.2 | | - | | | | | | |
| | | | | | 5 | 4-M3 | | - | | | | | | |
| 4 | 2 | 15 | | 15 | 3.5 | 4-3.2 | - | | | | | | | |
| | | | | | 5 | 4-M3 | - | | | | | | | |
| | | | | | 3.5 | 4-3.2 | - | | | | | | | |
| 8 | 2 | 2 | | 15 | 21 | 15 | 5 | 16 | 4-M3 | - | | | | |
| | | | 3.5 | | | | 4-3.2 | | - | | | | | |
| | | | 5 | | | | 4-M3 | | - | | | | | |
| 14 | 3 | 3 | COM-4 | 22 | 44 | 30 | 5 | 31 | 4-M4 | 4.9 | | | | |
| | | | | | | | 16 | | 3 | 3 | 6 | 38 | 4-M5 | 6.67 |
| | | | | | | | | | | | 6 | | 4-M5 | 9.81 |
| 20 | 4 | 4 | | 32 | 56 | 40 | 7 | 47 | 4-M5 | 12.36 | | | | |
| | | | | | | | 7 | | 4-M5 | 14.22 | | | | |
| 22 | 5 | 5 | | 36 | 60 | 50 | 8 | 58 | 4-M6 | 17.95 | | | | |
| | | | | | | | 8 | | 4-M6 | 21.08 | | | | |
| 25 | 5 | 5 | | 36 | 60 | 50 | 8 | 58 | 4-M6 | 17.95 | | | | |
| | | | | | | | 8 | | 4-M6 | 21.08 | | | | |
| 28 | 5 | 5 | | 44 | 76 | 56 | 8 | 58 | 4-M6 | 17.95 | | | | |
| | | | | | | | 8 | | 4-M6 | 21.08 | | | | |
| 32 | 6 | 6 | | 44 | 76 | 56 | 8 | 58 | 4-M6 | 21.08 | | | | |
| | | | | | | | 8 | | 4-M6 | 21.08 | | | | |

Nut shape/material can be customized, please consult sales staff for details.

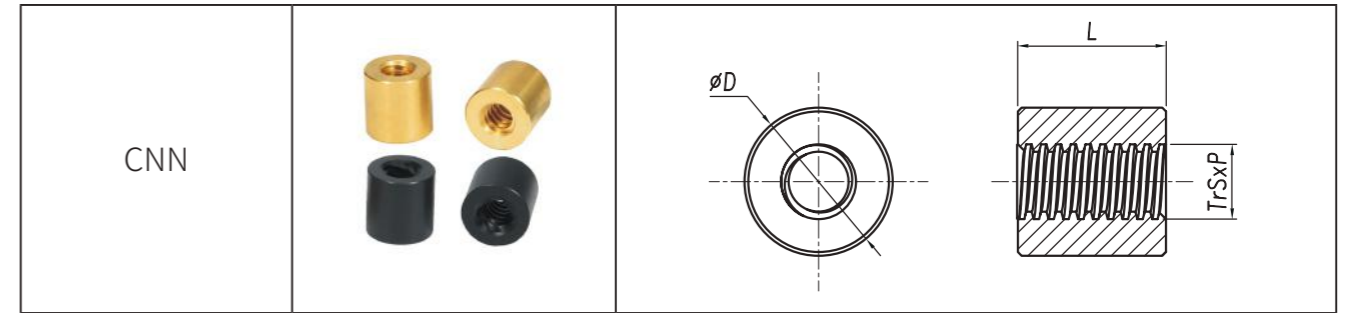
NUT LIST | CHT SERIES



| Diameter | Lead | Pitch | Model | Nut outer diameter | Flange height | The flange diameter | Length of nut | The thickness of the flange | Hole spacing | Aperture | Dynamic allowable thrust (kN) |
|----------|------|-------|-------|--------------------|---------------|---------------------|---------------|-----------------------------|------------------|----------------|-------------------------------|
| d | P | Dw | type | D | H | F | L | B | PCD | X | |
| 10 | 2 | 2 | CHT | 18 | - | 35 | 20 | 4 | 24 | 4-4.2 | - |
| | 2 | 2 | | 20 | 22 | 36 | 24 | 5 | 26 | 4-4.3 2-4.3 | 2.55 |
| 12 | 2 | 2 | | 22 | - | 40 | 25 | 4.5 | 28 | 4-4.2 | - |
| | 2 | 2 | | 22 | 24 | 44 | 30 | 5 | 31 | 4-5.4 2-5.4 | 3.92 |
| | 3 | 3 | | 22 | - | 40 | 25 | 4.5 | 28 | 4-4.2 | - |
| | 5 | 2.5 | | 18 | - | 35 | 20 | 4 | 24 | 4-4.2 | - |
| | 6 | 3 | | 22 | - | 40 | 25 | 4.5 | 28 | 4-4.2 | - |
| | 10 | 2 | | 18 | - | 35 | 20 | 4 | 24 | 4-4.2 | - |
| | 12 | 3 | | 22 | - | 40 | 25 | 4.5 | 28 | 4-4.2 | - |
| | 15 | 2.5 | | 18 | - | 35 | 20 | 4 | 24 | 4-4.2 | - |
| | 20 | 2.5 | | 18 | - | 35 | 20 | 4 | 24 | 4-4.2 | - |
| | 20 | 2.5 | | 22 | - | 40 | 25 | 4.5 | 28 | 4-4.2 | - |
| 14 | 2 | 2 | | 26 | - | 45 | 28 | 5 | 30 | 4-4.2 | - |
| | 3 | 3 | | 26 | - | 45 | 28 | 5 | 30 | 4-4.2 | - |
| | 4 | 4 | | 26 | - | 45 | 28 | 5 | 30 | 4-4.2 | - |
| | 6 | 3 | | 26 | - | 45 | 28 | 5 | 30 | 4-4.2 | - |
| | 8 | 4 | | 26 | - | 45 | 28 | 5 | 30 | 4-4.2 | - |
| | 12 | 3 | | 26 | - | 45 | 28 | 5 | 30 | 4-4.2 | - |
| 16 | 3 | 3 | | 26 | - | 45 | 28 | 5 | 30 | 4-4.2 | - |
| | 4 | 4 | | 28 | - | 48 | 32 | 5.5 | 33 | 4-5.2 | - |
| | 4 | 4 | 28 | - | 48 | 32 | 5.5 | 33 | 4-5.2 | - | |
| | 6 | 3 | 28 | - | 48 | 32 | 5.5 | 33 | 4-5.2 | - | |
| 18 | 3 | 3 | 28 | - | 48 | 32 | 5.5 | 33 | 4-5.2 | - | |
| | 4 | 4 | 30 | - | 52 | 36 | 6 | 36 | 4-5.2 | - | |
| | 4 | 4 | 30 | - | 52 | 36 | 6 | 36 | 4-5.2 | - | |
| 20 | 4 | 4 | 32 | 34 | 56 | 40 | 6 | 42 | 4-6.6 2-6.6 | 8.72 | |
| | 3 | 3 | 32 | - | 55 | 40 | 8 | 38 | 4-6.2 | - | |
| | 4 | 4 | 32 | - | 55 | 40 | 8 | 38 | 4-6.2 | - | |
| | 20 | 4 | 32 | - | 55 | 40 | 8 | 38 | 4-6.2 | - | |
| 25 | 5 | 5 | 32 | - | 55 | 40 | 8 | 38 | 4-6.2 | - | |
| 36 | 6 | 6 | 35 | - | 60 | 50 | 10 | 48 | 6-6.2 | - | |
| 40 | 6 | 6 | 52 | 56 | 84 | 60 | 8 | 66 | 4-9.0 2-9.0 | 25.78 | |
| | | | 58 | 62 | 98 | 70 | 10 | 76 | 4-11.0 2-11.0 | 33.83 | |
| 50 | 8 | 8 | 68 | 72 | 109 | 80 | 10 | 85 | 4-11.0 2-11.0 | 40.31 | |

Nut shape/material can be customized, please consult sales staff for details.

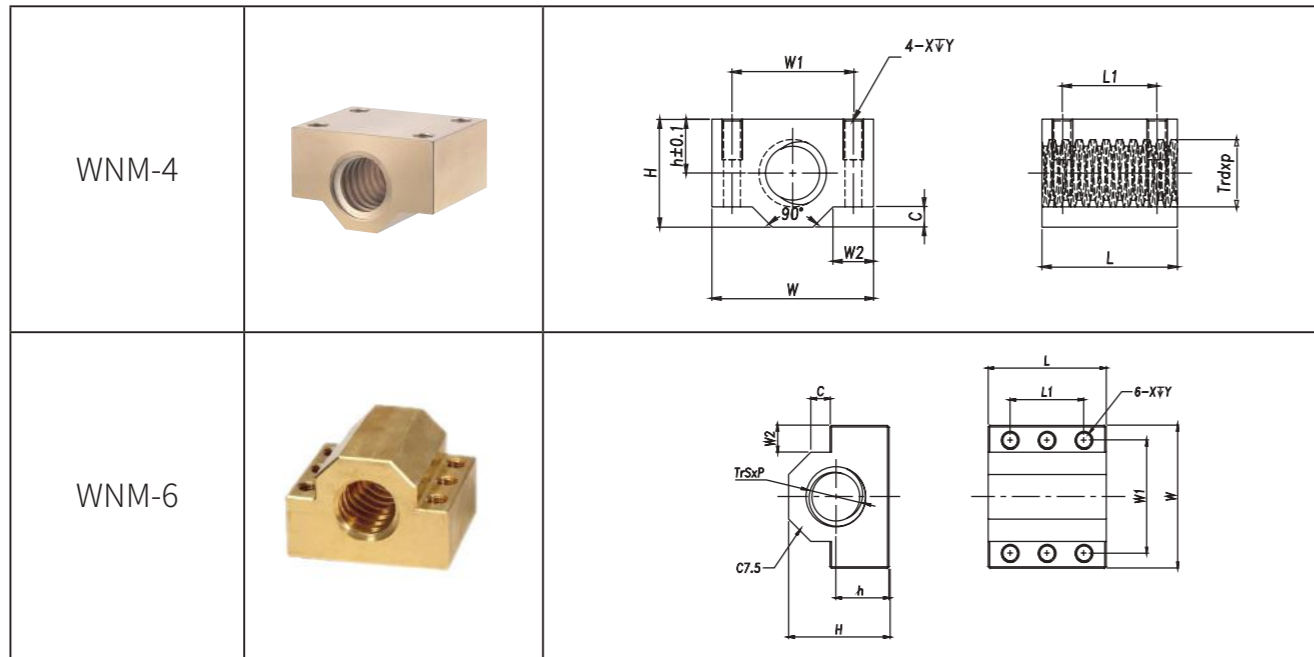
NUT LIST | CNN SERIES



| Diameter | Lead | Pitch | Model | Nut outer diameter | Length of nut | Dynamic allowable thrust (kN) |
|----------|------|-------|-------|--------------------|---------------|-------------------------------|
| d | P | Dw | type | D | L | |
| 10 | 2 | 2 | CNN | 20 | 20 | 2.06 |
| | 5 | 2.5 | | | | - |
| | 10 | 2 | | | | - |
| | 15 | 2.5 | | | | - |
| | 20 | 2.5 | | | | - |
| 12 | 2 | 2 | | 22 | 22 | 2.84 |
| | 3 | 3 | | | | - |
| | 6 | 3 | | | | - |
| | 12 | 3 | | | | - |
| 14 | 2 | 2 | | 25 | 25 | - |
| | 3 | 3 | | | | 2.84 |
| | 4 | 4 | | | | - |
| | 8 | 4 | | | | - |
| | 12 | 3 | | | | - |
| 16 | 3 | 3 | | 28 | 28 | 4.9 |
| | 4 | 4 | | | | - |
| | 8 | 4 | | | | - |
| 18 | 3 | 3 | | 30 | 30 | - |
| | 4 | 4 | | | | 6.86 |
| 20 | 3 | 3 | | 30 | 30 | - |
| | 4 | 4 | 7.65 | | | |
| | 20 | 4 | - | | | |
| | 40 | 5 | - | | | |

Nut shape/material can be customized, please consult sales staff for details.

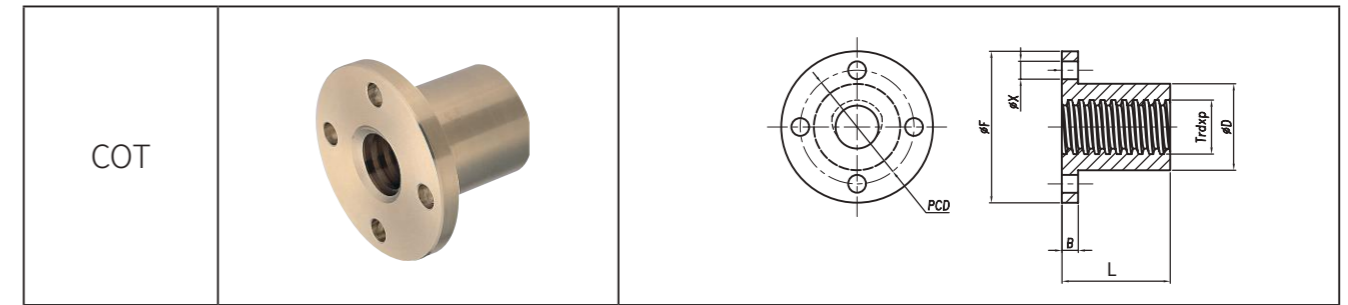
NUT LIST | WNM SERIES



| Diameter | Lead | type | h | W | H | L | L1 | W1 | W2 | C | X | Y | Dynamic allowable thrust (kN) |
|----------|------|-------|----|----|----|----|----|----|----|-----|----|----|-------------------------------|
| d | P | | | | | | | | | | | | |
| 10 | 2 | WNM-4 | 10 | 30 | 20 | 24 | 16 | 20 | 8 | 4 | M4 | 8 | 2.168 |
| 12 | 2 | | 11 | 38 | 22 | 30 | 20 | 26 | 10 | 5 | M5 | 10 | 3.332 |
| 14 | 3 | | 11 | 38 | 22 | 30 | 20 | 26 | 10 | 5 | M5 | 10 | 4.165 |
| 16 | 3 | | 14 | 44 | 28 | 35 | 24 | 32 | 10 | 5 | M5 | 10 | 5.67 |
| 18 | 4 | | 16 | 48 | 32 | 40 | 28 | 36 | 11 | 6 | N6 | 12 | 7.412 |
| 20 | 4 | | 16 | 48 | 32 | 40 | 28 | 36 | 11 | 6 | M6 | 12 | 8.339 |
| 22 | 5 | | 20 | 62 | 38 | 50 | 34 | 46 | 14 | 10 | M8 | 16 | 10.506 |
| 25 | 5 | | 20 | 62 | 38 | 50 | 34 | 46 | 14 | 10 | M8 | 16 | 12.087 |
| 28 | 5 | | 25 | 68 | 47 | 56 | 40 | 52 | 14 | 10 | M8 | 16 | 15.258 |
| 32 | 6 | | 25 | 68 | 47 | 56 | 40 | 52 | 14 | 10 | M8 | 16 | 17.918 |
| 20 | 4 | WNM-6 | 18 | 48 | 34 | 40 | 25 | 38 | 9 | 6.5 | M6 | 20 | |

Nut shape/material can be customized, please consult sales staff for details.

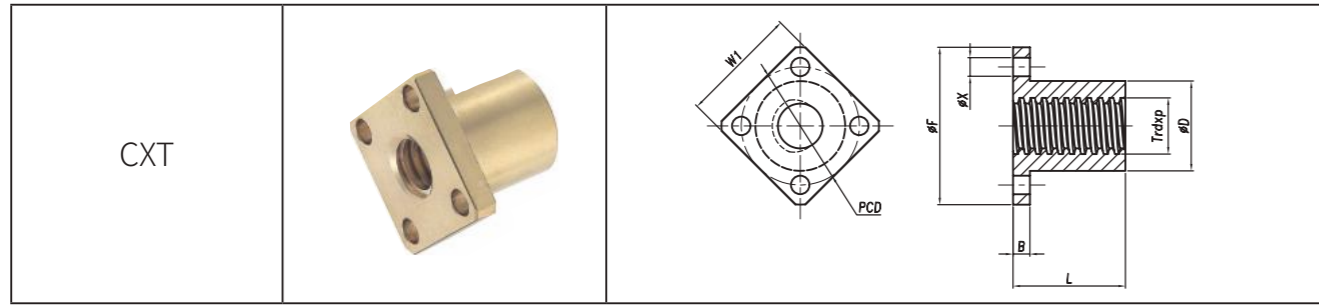
NUT LIST | COT SERIES



| Diameter | Lead | type | Nut outer diameter | The flange diameter | Length of nut | The thickness of the flange | Hole spacing | Aperture | Dynamic allowable thrust (kN) |
|----------|------|-------|--------------------|---------------------|---------------|-----------------------------|--------------|----------|-------------------------------|
| d | P | | D | F | L | B | PCD | X | |
| 8 | 1.5 | COT-4 | 15 | 30 | 20 | 5 | 22 | 4-4.3 | 1.47 |
| 10 | 2 | | 16 | 32 | 19 | 4 | 24 | 4-3.3 | 2.02 |
| 12 | 2 | | 18 | 36 | 24 | 5 | 27 | 4-4.3 | 3.14 |
| 14 | 3 | | 20 | 38 | 24 | 5 | 29 | 4-4.3 | 3.92 |
| 14 | 3 | | 22 | 44 | 30 | 5 | 33 | 4-5.4 | 4.8 |
| 16 | 3 | | 22 | 40 | 28 | 5 | 31 | 4-4.3 | 5.34 |
| 16 | 3 | | 22 | 52 | 35 | 6 | 40 | 4-6.6 | 6.67 |
| 20 | 4 | | 28 | 44 | 32 | 5 | 35 | 4-4.3 | 7.85 |
| 20 | 4 | | 32 | 56 | 40 | 6 | 44 | 4-6.6 | 9.81 |
| 22 | 5 | | 28 | 50 | 40 | 6 | 39 | 4-5.4 | 9.89 |
| 22 | 5 | | 36 | 60 | 50 | 7 | 48 | 4-6.6 | 12.36 |
| 25 | 5 | | 36 | 60 | 50 | 7 | 48 | 4-6.6 | 14.22 |
| 25 | 5 | | 31 | 53 | 40 | 6 | 42 | 4-5.4 | 9.673 |
| 28 | 5 | | 34 | 58 | 45 | 7 | 46 | 4-6.6 | 12.257 |
| 28 | 5 | | 44 | 76 | 56 | 8 | 58 | 4-9.0 | 15.288 |
| 32 | 6 | | 38 | 62 | 45 | 7 | 50 | 4-6.6 | 14.399 |
| 32 | 6 | | 44 | 76 | 56 | 8 | 58 | 4-9.0 | 17.918 |

Nut shape/material can be customized, please consult sales staff for details.

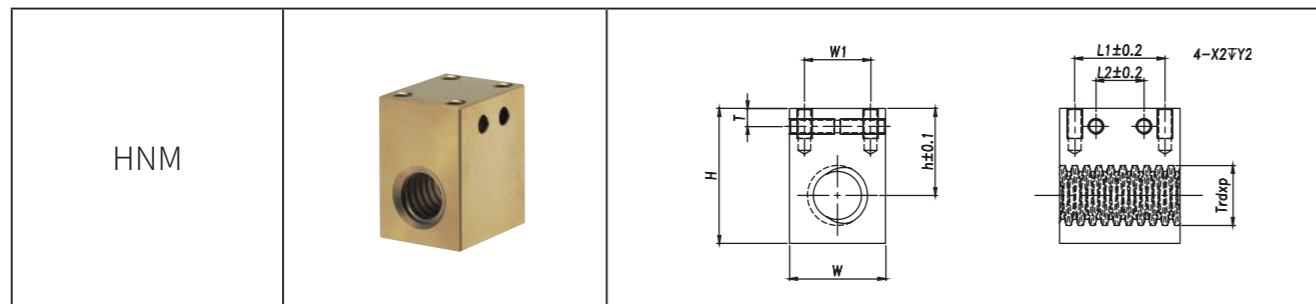
NUT LIST | CXT SERIES



| Diameter | Lead | type | Nut outer diameter | The flange diameter | Length of nut | The thickness of the flange | Hole spacing | Aperture | Flange width | Dynamic allowable thrust (kN) |
|----------|------|-------|--------------------|---------------------|---------------|-----------------------------|--------------|----------|--------------|-------------------------------|
| d | P | | D | F | L | B | PCD | X | W1 | |
| 14 | 3 | CXT-4 | 22 | 44 | 30 | 5 | 31 | 4-5.4 | 33 | 4.9 |
| 16 | 3 | | 28 | 51 | 35 | 6 | 38 | 4-6.6 | 38 | 6.67 |
| 20 | 4 | | 32 | 56 | 40 | 6 | 42 | 4-6.6 | 42 | 9.81 |
| 22 | 5 | | 36 | 61 | 50 | 7 | 47 | 4-6.6 | 47 | 12.36 |
| 25 | 5 | | 36 | 61 | 50 | 7 | 47 | 4-6.6 | 47 | 14.22 |
| 28 | 5 | | 44 | 76 | 56 | 8 | 58 | 9 | 58 | 17.95 |
| 32 | 6 | | 44 | 76 | 56 | 8 | 58 | 9 | 58 | 21.08 |

Nut shape/material can be customized, please consult sales staff for details.

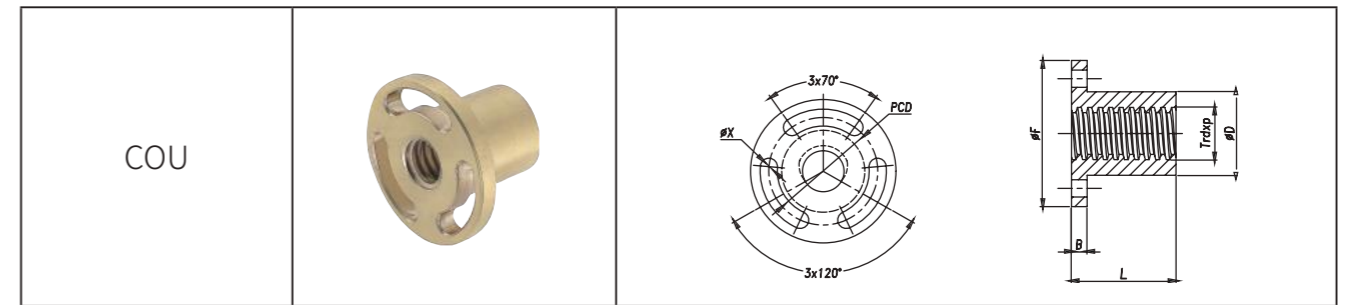
NUT LIST | HNM SERIES



| Diameter | Lead | type | h | W | H | L | L1 | L2 | W1 | X1 | Y1 | X2 | Y2 | T | Dynamic allowable thrust (kN) | |
|----------|------|-------|----|----|----|----|----|----|----|----|----|----|----|---|-------------------------------|--------|
| d | P | | | | | | | | | | | | | | | |
| 10 | 2 | HNM-6 | 20 | 20 | 30 | 24 | 16 | - | 12 | M4 | 8 | - | - | 6 | 2.168 | |
| 12 | | | 23 | 22 | 34 | 30 | 21 | 9 | 13 | M5 | 10 | M5 | 15 | | 3.332 | |
| 14 | 3 | | 27 | 28 | 41 | 35 | 25 | 11 | 18 | M6 | 12 | M6 | 18 | 7 | 4.165 | |
| 16 | | | 29 | 32 | 45 | 40 | 30 | 16 | 22 | | | | | | 5.67 | |
| 18 | 4 | | 30 | 36 | 48 | 50 | 40 | 20 | 26 | M8 | 16 | M8 | 22 | 8 | 7.412 | |
| 20 | | | 38 | 44 | 60 | 62 | 50 | 25 | 32 | | | | | | 8.339 | |
| 22 | 5 | | | | | | | | | | | | | | | 10.506 |
| 25 | | | | | | | | | | | | | | | | 12.087 |
| 28 | | | | | | | | | | | | | | | 17.043 | |
| 32 | 6 | | | | | | | | | | | | | | 19.389 | |

Nut shape/material can be customized, please consult sales staff for details.

NUT LIST | COU SERIES



| Diameter | Lead | type | Nut outer diameter | The flange diameter | Length of nut | The thickness of the flange | Hole spacing | Aperture | Dynamic allowable thrust (kN) |
|----------|------|-------|--------------------|---------------------|---------------|-----------------------------|--------------|----------|-------------------------------|
| d | P | | D | F | L | B | PCD | X | (kN) |
| 14 | 3 | COU-3 | 22 | 44 | 30 | 5 | 31 | 4-5.4 | 4.90 |
| 16 | 3 | | 28 | 51 | 35 | 6 | 38 | 4-6.6 | 6.67 |
| 20 | 4 | | 32 | 56 | 40 | 6 | 42 | 4-6.6 | 9.81 |
| 22 | 5 | | 36 | 61 | 50 | 7 | 47 | 4-6.6 | 12.36 |
| 25 | 5 | | 36 | 61 | 50 | 7 | 47 | 4-6.6 | 14.22 |
| 28 | 5 | | 44 | 76 | 56 | 8 | 58 | 4-9 | 17.95 |
| 32 | 6 | | 44 | 76 | 56 | 8 | 58 | 4-9 | 21.08 |

NUT LIST | ANTI-BACKLASH NUT NOMENCLATURE

■ |Anti-backlash nut ordering code structure

T 8 x 4 (P2) L -K C H T 2 - D16F28L30-B1 - 1

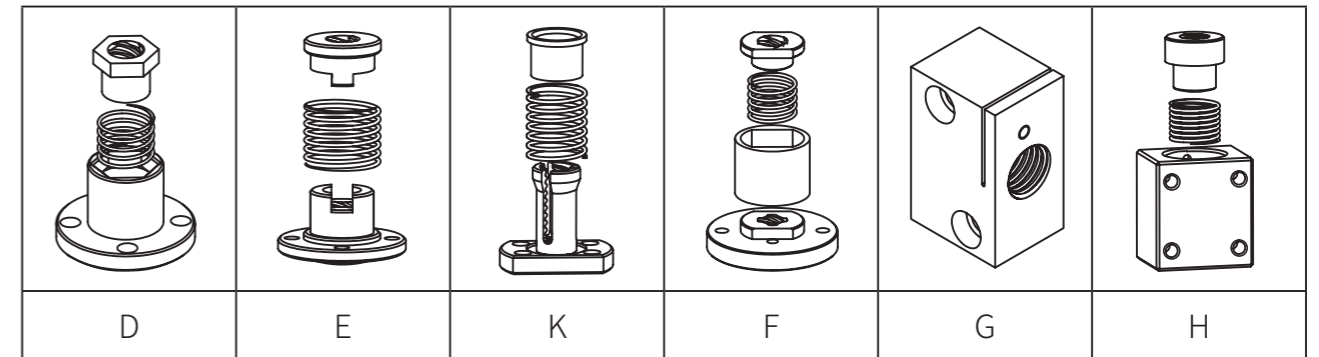
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

| No. | On behalf of the name | Labelling | Meaning | Labelling | Meaning | |
|-----|-----------------------|-------------------------|---------------------------------------|------------------------------|-----------------------------|--|
| ① | Thread | T | Trapezoidal Thread | R | Round Thread | |
| | | M | Metric Thread | G | Goethe thread | |
| | | A | ACME Thread | X | Reciprocating thread | |
| ② | Diameter | The numerical | Diameter | | | |
| ③ | Lead | The numerical | Lead | | | |
| ④ | Pitch | (P numerical) | Pitch | | | |
| ⑤ | Direction of thread | RH | Not marked by default | | | |
| | | L | Left hand | | | |
| ⑥ | Anti-backlash code | The specific appearance | Query the 22 page table | | | |
| ⑦ | Nut shape | C | Cylindrical | L | Hexagonal | |
| | | S | Square | Z | Other shapes | |
| | | W | Widen the square | | | |
| ⑧ | Shape of the flange | H | Heighten the square | | | |
| | | N | Without flange | X | Round flange milling square | |
| | | O | Round flange without milling flat | A | Threaded connections | |
| | | H | Round flange with double milling flat | B | Pin | |
| ⑨ | Mounting hole | Y | Round flange milling three parties | Z | Other shapes | |
| | | N | Without mounting holes | U | Waist type hole | |
| | | C | Countersunk hole | M | Threaded hole | |
| ⑩ | Mounting holes amount | T | Hole | Z | Other mounting holes | |
| | | 1-10 | No mounting hole is not marked | | | |
| ⑪ | Nut shape features | D | Nut OD | W | PCD | |
| | | F | Flange dia | B | Flange thickness | |
| | | L | Nut length | H | Flange cutting edge width | |
| | | L | Nut length | W | Width | |
| | | H | Height | - | - | |
| ⑫ | Nut material | B1 | Brass | S1 | SS304 | |
| | | B2 | Tin bronze | S2 | SS316 | |
| | | B3 | Phosphor bronze | S3 | SS316L | |
| | | B4 | Aluminum bronze | S4 | SS440c | |
| | | P | P1 | POM-C | BP(K/N) | Copper + plastic |
| | | | P2 | POM-H | C | Cast iron, 1045 |
| | | | P3 | POM+PTFE | Q | Self lubrication (no oil) |
| | | K | K1 | PEEK(100%PEEK) | K3 | PEEK(Carbon fiber reinforced) |
| | | | K2 | PEEK(Glass fiber reinforced) | K4 | PEEK(Contains 30% of "carbon fiber + graphite + PTFE") |
| | | N | Nylon | AP | Aluminum alloy + plastic | |
| J | POK | BC | Brass+steel | | | |
| ⑬ * | Final syllable | A-Z | Standard nut sequence | J | CNC machining | |
| | | 1-1000 | Prevent duplicate Numbers | Z | Injection molding | |

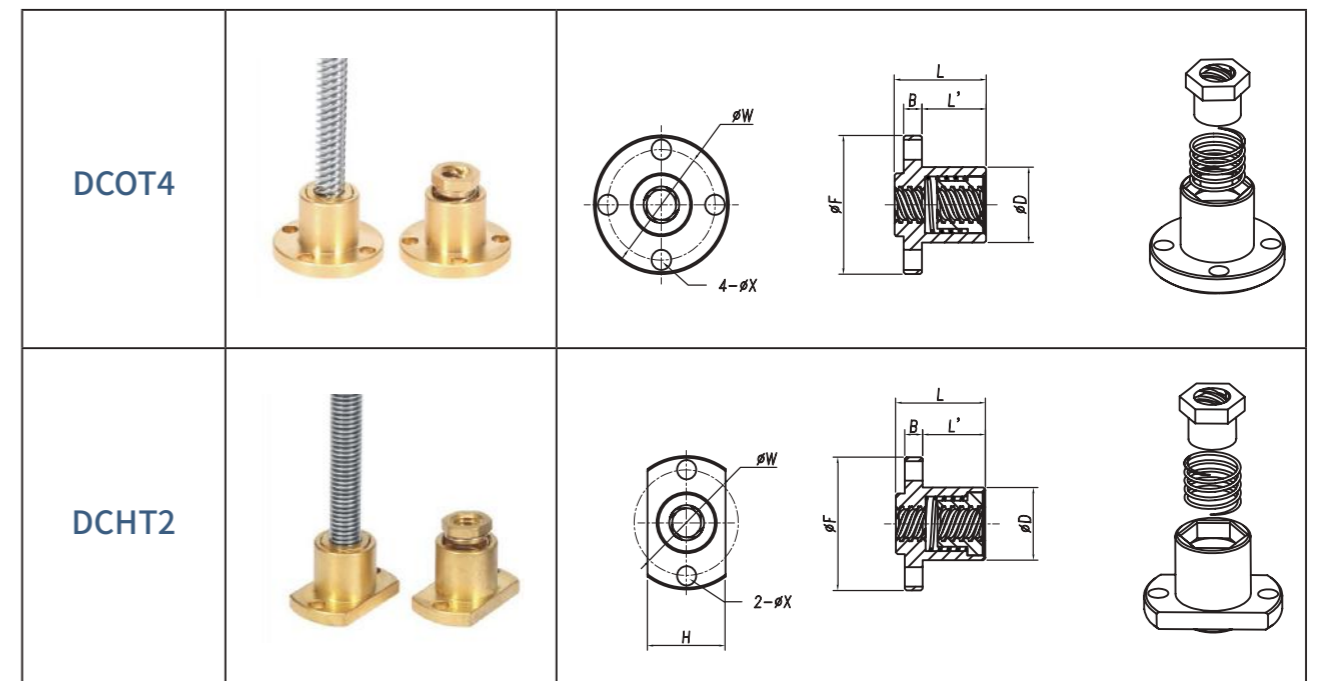
Note: "*" represents optional items.

NUT TYPE LIST | ANTI-BACKLASH NUT CODE NAME AND DCOT4/DCHT2 SERIES

■ |Structures and codes of Anti-backlash Nut



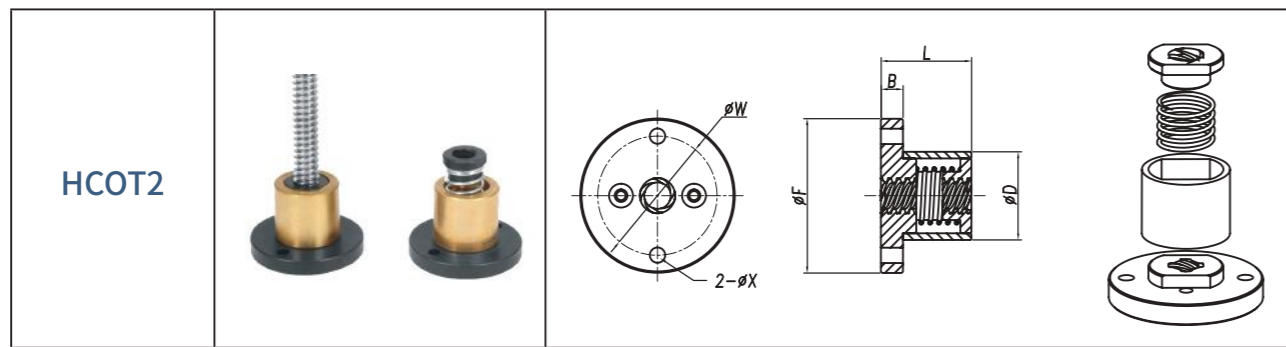
■ |Anti-backlash nut | DCOT4/DCHT2 series



Anti-backlash nut | DCOT4/DCHT2 series

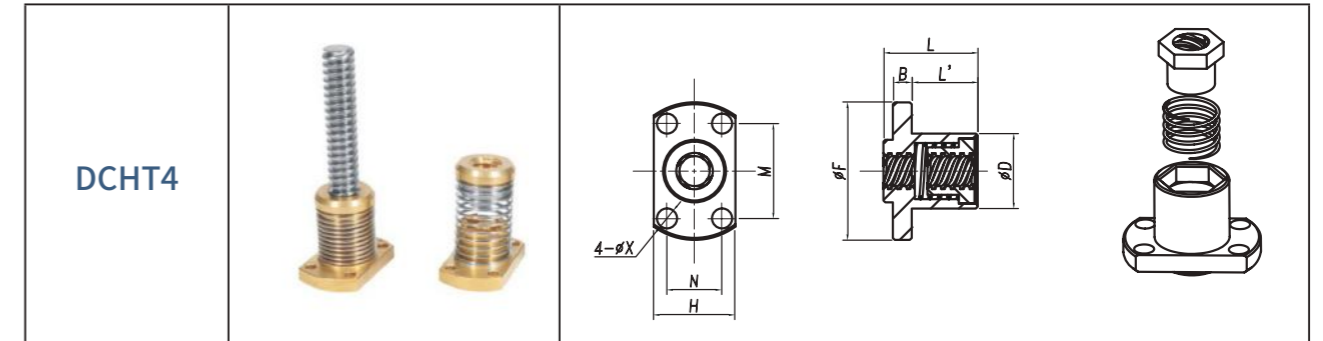
| Thread specification | | | | | Nut shape and size | | | | | | | | | Material | Weight |
|----------------------|----------|------|-------|---------------------|--------------------|-----------|----|----|---|----|------|--------|-----|----------|--------|
| Type | Diameter | Lead | Pitch | Direction of thread | Model | Size (mm) | | | | | | | | | |
| | | | | | | D | F | L | B | H | L' | W(MxN) | X | | |
| T | 6 | 1 | 1 | RH | DCOT4 DCHT2 | 12 | 22 | 15 | 3 | 13 | 10.5 | 17.5 | 3.2 | B2 | 15g |
| T | | 3 | 1.5 | RH | | | | | | | | | | | |
| T | | 6 | 1.5 | RH | | | | | | | | | | | |
| T | 6 | 1 | 1 | RH | | | | | | | | | | | |
| T | | 3 | 1.5 | RH | | | | | | | | | | | |
| T | | 6 | 1.5 | RH | | | | | | | | | | | |
| T | 8 | 2 | 2 | RH | | 17 | 30 | 25 | 4 | 20 | 19 | 23.5 | 3.5 | B2 | 45g |
| T | | 8 | 2 | RH | | | | | | | | | | | |
| T | | 15 | 2.5 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | | 2 | 2 | LH | | | | | | | | | | | |
| T | | 8 | 2 | LH | | | | | | | | | | | |
| T | | 8 | 2 | 2 | RH | 17 | 30 | 25 | 4 | 20 | 19 | 23.5 | 3.5 | P1 | 10g |
| T | | | 8 | 2 | RH | | | | | | | | | | |
| T | | | 15 | 2.5 | RH | | | | | | | | | | |
| T | | | 20 | 2.5 | RH | | | | | | | | | | |
| T | | | 2 | 2 | LH | | | | | | | | | | |
| T | | | 8 | 2 | LH | | | | | | | | | | |

Anti-backlash nut | HCOT2 series



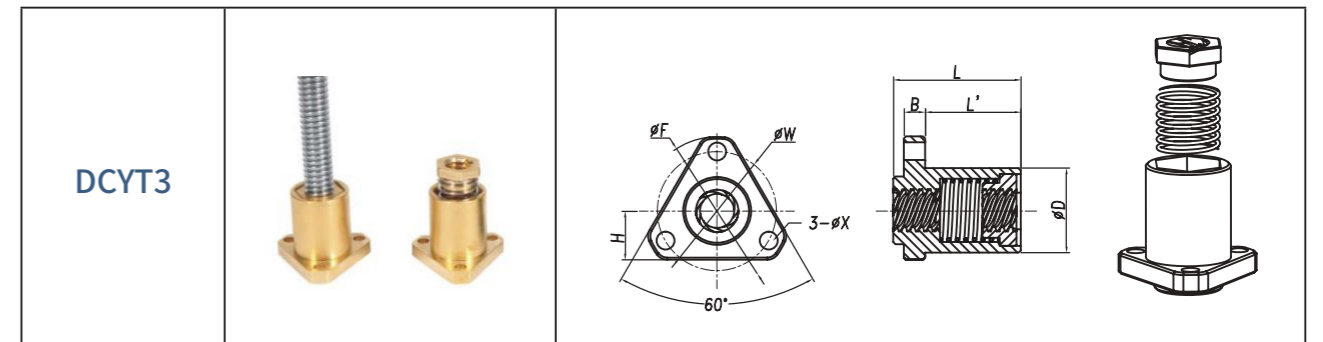
| Thread specification | | | | | Nut shape and size | | | | | | | | | Material | Weight |
|----------------------|----------|------|-------|---------------------|--------------------|-----------|----|------|---|---|------|--------|-----|----------|--------|
| Type | Diameter | Lead | Pitch | Direction of thread | Model | Size (mm) | | | | | | | | | |
| | | | | | | D | F | L | B | H | L' | W(MxN) | X | | |
| T | 8 | 2 | 2 | RH | HCOT2 | 20 | 35 | 20.5 | 5 | / | 15.5 | 26 | 3.5 | P1+B2 | 35g |
| T | | 8 | 2 | RH | | | | | | | | | | | |

Anti-backlash nut | DCHT4 series



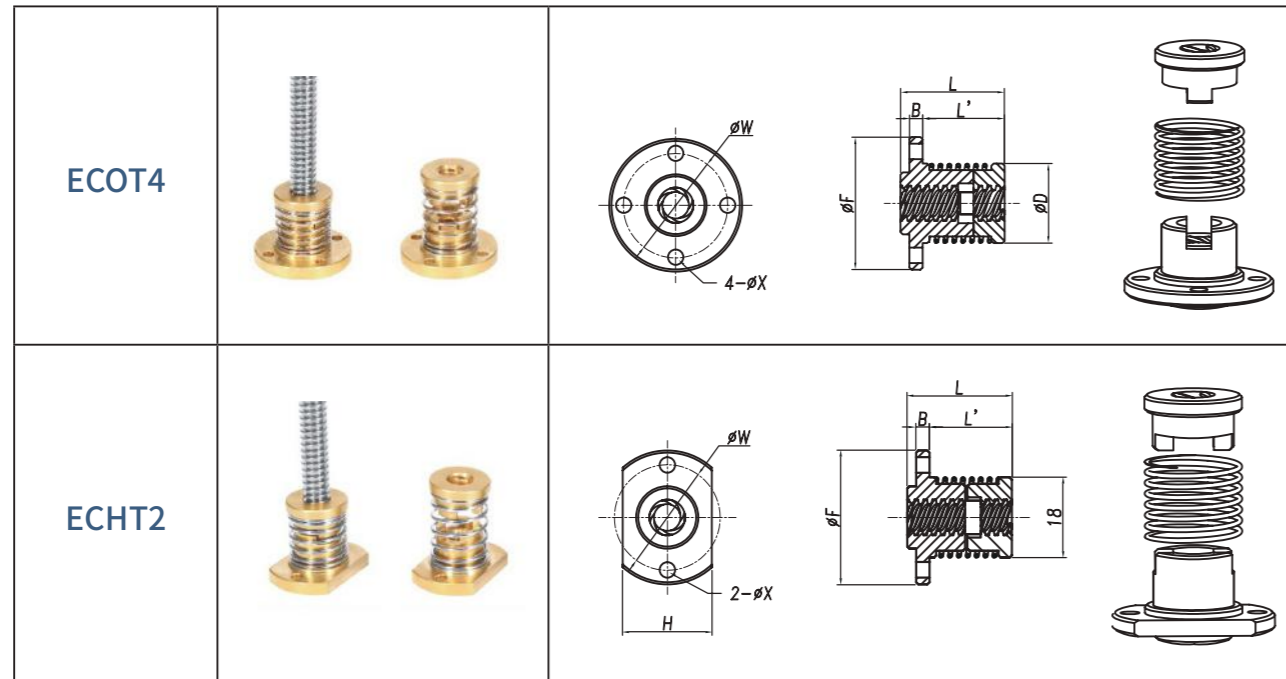
| Thread specification | | | | | Nut shape and size | | | | | | | | | Material | Weight |
|----------------------|----------|------|-------|---------------------|--------------------|-----------|----|----|---|----|------|--------|-----|----------|--------|
| Type | Diameter | Lead | Pitch | Direction of thread | Model | Size (mm) | | | | | | | | | |
| | | | | | | D | F | L | B | H | L' | W(MxN) | X | | |
| T | 10 | 2 | 2 | RH | DCHT4 | 20 | 35 | 30 | 5 | 22 | 22.5 | 25x13 | 4.2 | B2 | 65 |
| T | | 5 | 2.5 | RH | | | | | | | | | | | |
| T | | 10 | 2 | RH | | | | | | | | | | | |
| T | | 15 | 2.5 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | 10 | 2 | 2 | RH | | 20 | 35 | 30 | 5 | 22 | 22.5 | 25x13 | 4.2 | P1 | 14 |
| T | | 5 | 2.5 | RH | | | | | | | | | | | |
| T | | 10 | 2 | RH | | | | | | | | | | | |
| T | | 15 | 2.5 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |

Anti-backlash nut | DCYT3 series



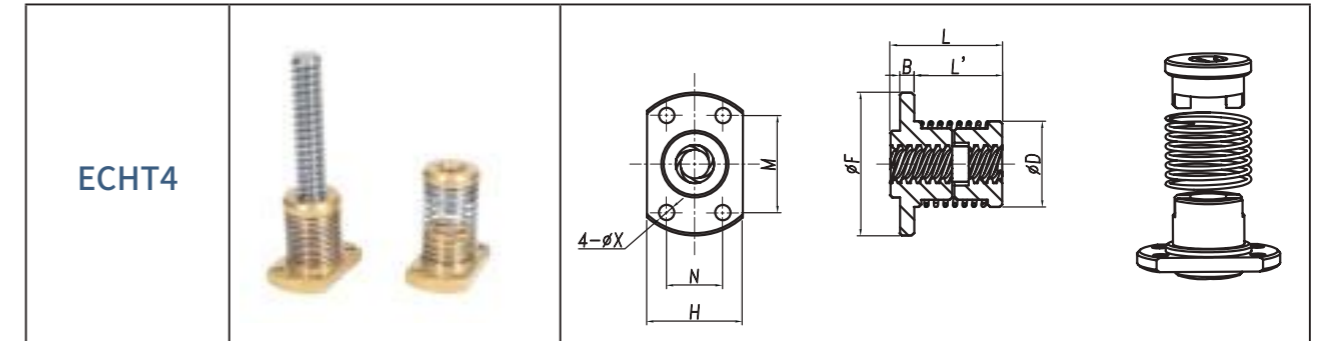
| Thread specification | | | | | Nut shape and size | | | | | | | | | Material | Weight |
|----------------------|----------|------|-------|---------------------|--------------------|-----------|----|------|---|------|----|--------|-----|----------|--------|
| Type | Diameter | Lead | Pitch | Direction of thread | Model | Size (mm) | | | | | | | | | |
| | | | | | | D | F | L | B | H | L' | W(MxN) | X | | |
| T | 10 | 2 | 2 | RH | DCYT3 | 20 | 35 | 29.5 | 5 | 11.5 | 22 | 28 | 4.2 | B2 | 60 |
| T | | 5 | 2.5 | RH | | | | | | | | | | | |
| T | | 10 | 2 | RH | | | | | | | | | | | |
| T | | 15 | 2.5 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | 10 | 2 | 2 | RH | | 20 | 35 | 29.5 | 5 | 11.5 | 22 | 28 | 4.2 | P1 | 15 |
| T | | 5 | 2.5 | RH | | | | | | | | | | | |
| T | | 10 | 2 | RH | | | | | | | | | | | |
| T | | 15 | 2.5 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |

Anti-backlash nut structure | ECOT4/ECHT2 series



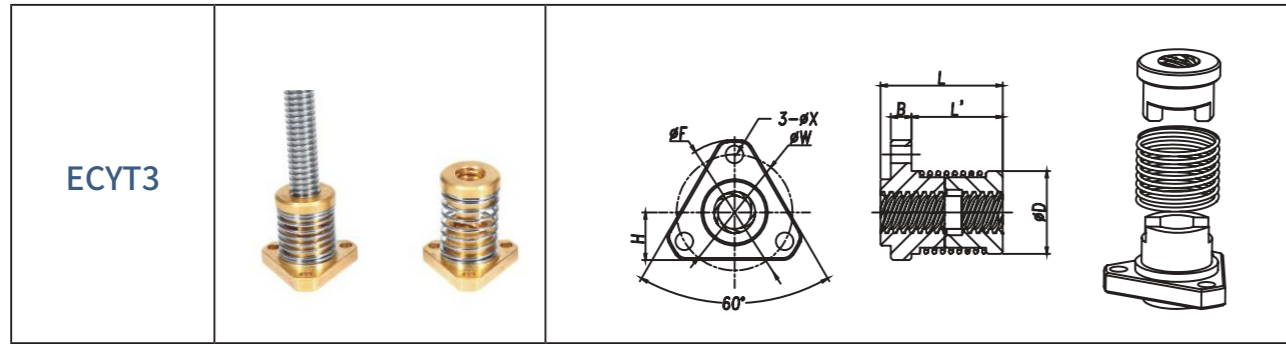
| Thread specification | | | | | Nut shape and size | | | | | | | | Material | Weight | |
|----------------------|----------|------|-------|---------------------|--------------------|-----------|----|----|----|----|------|--------|----------|--------|-----|
| Type | Diameter | Lead | Pitch | Direction of thread | Model | Size (mm) | | | | | | | | | |
| | | | | | | D | F | L | B | H | L' | W(MxN) | X | | |
| T | 6 | 1 | 1 | RH | ECOT4 ECHT2 | 12 | 22 | 15 | 3 | 13 | 10.5 | 17.5 | 3.2 | B2 | 15g |
| T | | 3 | 1.5 | RH | | | | | | | | | | | |
| T | | 6 | 1.5 | RH | | | | | | | | | | | |
| T | 6 | 1 | 1 | RH | | 12 | 22 | 15 | 3 | 13 | 10.5 | 17.5 | 3.2 | P1 | 4g |
| T | | 3 | 1.5 | RH | | | | | | | | | | | |
| T | | 6 | 1.5 | RH | | | | | | | | | | | |
| T | 8 | 2 | 2 | RH | | 17 | 30 | 25 | 4 | 20 | 19 | 23.5 | 3.5 | B2 | 45g |
| T | | 8 | 2 | RH | | | | | | | | | | | |
| T | | 15 | 2.5 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | | 2 | 2 | LH | | | | | | | | | | | |
| T | | 8 | 2 | LH | | | | | | | | | | | |
| T | 8 | 2 | 2 | RH | 17 | 30 | 25 | 4 | 20 | 19 | 23.5 | 3.5 | P1 | 10g | |
| T | | 8 | 2 | RH | | | | | | | | | | | |
| T | | 15 | 2.5 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | | 2 | 2 | LH | | | | | | | | | | | |
| T | | 8 | 2 | LH | | | | | | | | | | | |

Anti-backlash nut | ECHT4 series



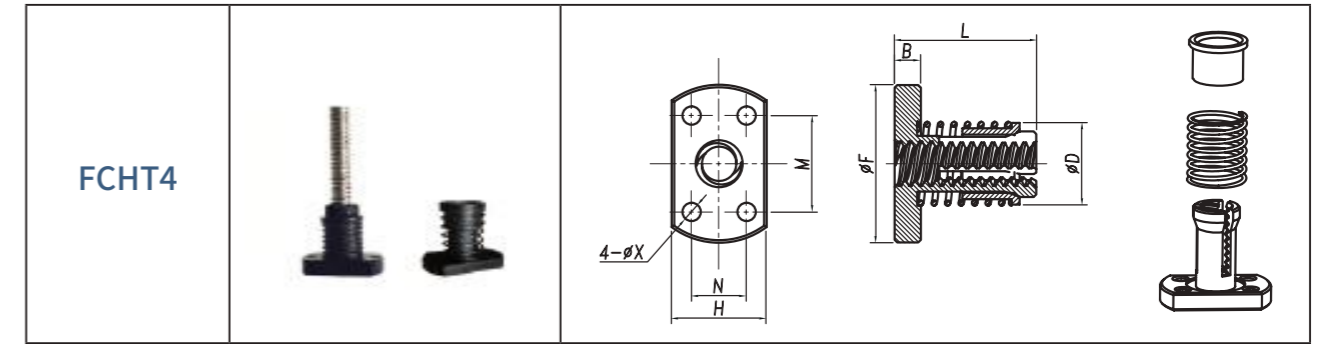
| Thread specification | | | | | Nut shape and size | | | | | | | | Material | Weight | |
|----------------------|----------|------|-------|---------------------|--------------------|-----------|------|------|----|------|-------|--------|----------|--------|----|
| Type | Diameter | Lead | Pitch | Direction of thread | Model | Size (mm) | | | | | | | | | |
| | | | | | | D | F | L | B | H | L' | W(MxN) | X | | |
| T | 10 | 2 | 2 | RH | ECHT4 | 20 | 35 | 30 | 5 | 22 | 22.5 | 25x13 | 4.2 | B2 | 63 |
| T | | 5 | 2.5 | RH | | | | | | | | | | | |
| T | | 10 | 2 | RH | | | | | | | | | | | |
| T | | 15 | 2.5 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | 10 | 2 | 2 | RH | | 20 | 35 | 30 | 5 | 22 | 22.5 | 25x13 | 4.2 | P1 | 15 |
| T | | 5 | 2.5 | RH | | | | | | | | | | | |
| T | | 10 | 2 | RH | | | | | | | | | | | |
| T | | 15 | 2.5 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | 12 | 3 | 2 | RH | | 23 | 40 | 34.5 | 6 | 25 | 25.5 | 27x17 | 4.2 | B2 | 97 |
| T | | 6 | 2.5 | RH | | | | | | | | | | | |
| T | | 12 | 2 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | | 3 | 2.5 | LH | | | | | | | | | | | |
| T | | 12 | 2 | LH | | | | | | | | | | | |
| T | 12 | 3 | 2.5 | RH | 23 | 40 | 34.5 | 6 | 25 | 25.5 | 27x17 | 4.2 | P1 | 24 | |
| T | | 6 | 2 | RH | | | | | | | | | | | |
| T | | 12 | 2.5 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | | 3 | 2.5 | LH | | | | | | | | | | | |
| T | | 12 | 2.5 | LH | | | | | | | | | | | |

Anti-backlash nut | ECYT3 series



| Thread specification | | | | | Nut shape and size | | | | | | | | Material | Weight | |
|----------------------|----------|------|-------|---------------------|--------------------|-----------|------|------|----|------|------|--------|----------|--------|----|
| Type | Diameter | Lead | Pitch | Direction of thread | Model | Size (mm) | | | | | | | | | |
| | | | | | | D | F | L | B | H | L' | W(MxN) | X | | |
| T | 10 | 2 | 2 | RH | ECYT3 | 20 | 35 | 30 | 5 | 11.5 | 22.5 | 28 | 4.2 | B2 | 62 |
| T | | 5 | 2.5 | RH | | | | | | | | | | | |
| T | | 10 | 2 | RH | | | | | | | | | | | |
| T | | 15 | 2.5 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | 10 | 2 | 2 | RH | | 20 | 35 | 30 | 5 | 11.5 | 22.5 | 28 | 4.2 | P1 | 13 |
| T | | 5 | 2.5 | RH | | | | | | | | | | | |
| T | | 10 | 2 | RH | | | | | | | | | | | |
| T | | 15 | 2.5 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | 12 | 3 | 3 | RH | | 23 | 40 | 34.5 | 6 | 13 | 25.5 | 32 | 4.2 | B2 | 92 |
| T | | 6 | 3 | RH | | | | | | | | | | | |
| T | | 12 | 3 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | | 3 | 3 | LH | | | | | | | | | | | |
| T | | 12 | 3 | LH | | | | | | | | | | | |
| T | 12 | 3 | 3 | RH | 23 | 40 | 34.5 | 6 | 13 | 25.5 | 32 | 4.2 | P1 | 24 | |
| T | | 6 | 3 | RH | | | | | | | | | | | |
| T | | 12 | 3 | RH | | | | | | | | | | | |
| T | | 20 | 2.5 | RH | | | | | | | | | | | |
| T | | 3 | 3 | LH | | | | | | | | | | | |
| T | | 12 | 3 | LH | | | | | | | | | | | |

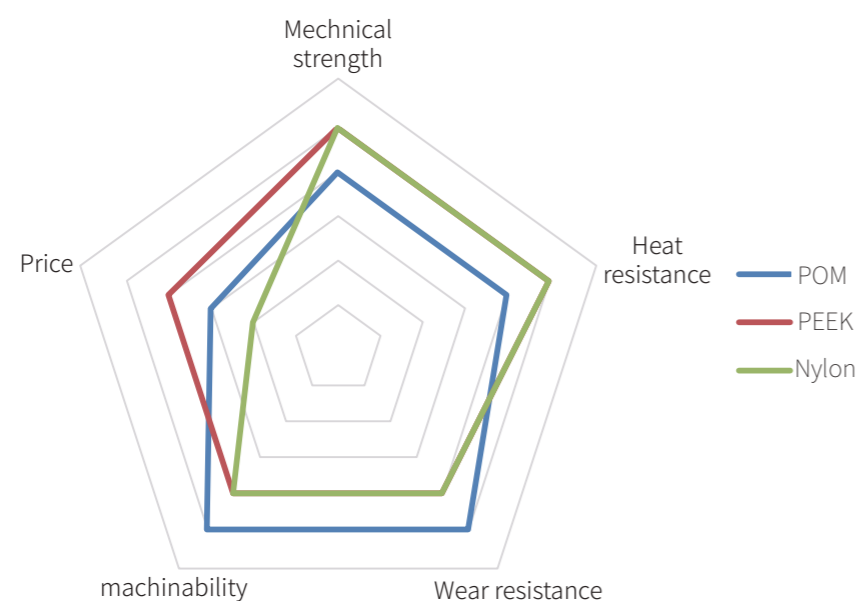
Anti-backlash nut | FCHT4 series



| Thread specification | | | | | Nut shape and size | | | | | | | Material | Weight | |
|----------------------|----------|------|-------|---------------------|--------------------|-----------|----|----|---|----|----|----------|--------|-----|
| Type | Diameter | Lead | Pitch | Direction of thread | Model | Size (mm) | | | | | | | | |
| | | | | | | D | F | L | B | H | W | X | | |
| T | 8 | 2 | 2 | RH | FCHT4 | 16 | 30 | 27 | 5 | 18 | 21 | 3.5 | P1 | 10g |
| T | | 4 | 2 | RH | | | | | | | | | | |
| T | | 6 | 1.5 | RH | | | | | | | | | | |
| T | | 8 | 2 | RH | | | | | | | | | | |
| T | | 10 | 2 | RH | | | | | | | | | | |
| T | | 12 | 2 | RH | | | | | | | | | | |
| T | | 20 | 3.33 | RH | | | | | | | | | | |

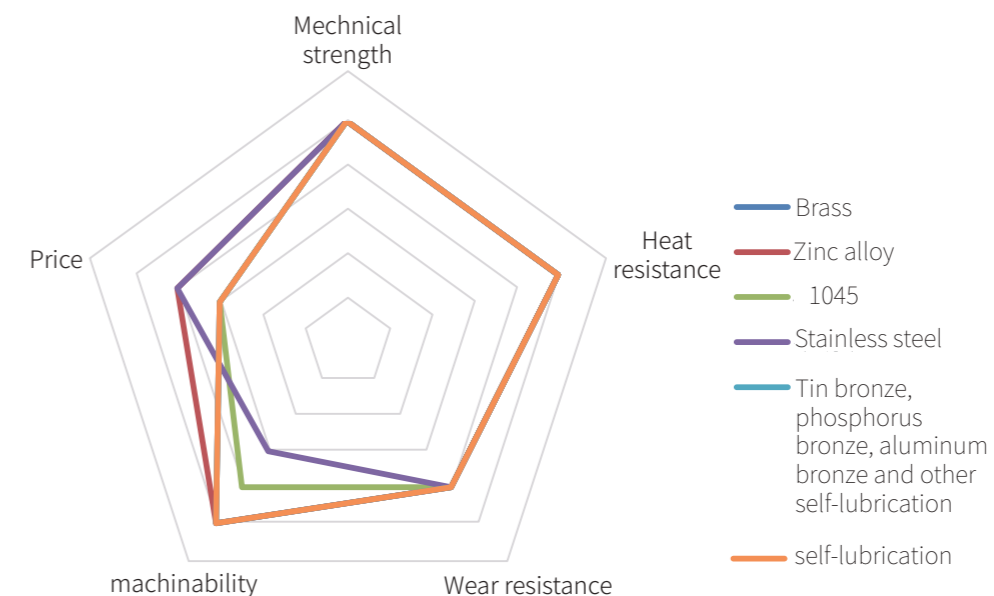
Plastic materials

| The name of the material | POM and modified materials | PEEK and modified materials | Nylon and modified materials | Other high strength wear-resistant plastics |
|--------------------------|--|---|------------------------------|---|
| Material appearance | | | | |
| Using the environment | Conventional environment | Special environment | Conventional environment | |
| Characteristics | Balancing features | Corrosion resistance, solubility resistance, flame retardant, heat resistance | General | |
| Others | According to the modification can be lubricated and conductive | Hygienic quality of food | Insulation | Consult business personnel for detailed |
| Mechanical strength | Standard | Excellent | Excellent | |
| Heat resistance | Standard | Excellent | Excellent | |
| Wear resistance | Excellent | Standard | Standard | |
| Machinability | Excellent | Standard | Standard | |
| Price | General | Higher | General | |



Metal materials

| The name of the material | Brass | Zinc Alloy | 1045, Cast iron | Stainless steel | Tin bronze, phosphorus bronze, aluminum bronze and other selflubrication | Self lubricating (no oil type) |
|--------------------------|-----------------------------------|--------------------------|--------------------------|--------------------------|--|---------------------------------|
| Material appearance | | | | | | |
| Using the environment | Conventional environment | Conventional environment | Conventional environment | Conventional environment | Conventional environment | Conventional environment |
| Characteristics | Corrosion resistant | Corrosion resistant | High strength | Corrosion resistant | Corrosion resistant | Corrosion resistant |
| Others | Good heat dissipation performance | Good cast molding | Easy processing | Hygienic quality of food | All kinds of characteristics | With graphite, self lubricating |
| Mechanical strength | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| Heat resistance | Excellent | Excellent | Excellent | Excellent | Excellent | Excellent |
| Wear resistance | Standard | Standard | Standard | Standard | Standard | Standard |
| Machinability | Excellent | Excellent | Standard | General | Excellent | Excellent |
| Price | General | Higher | General | Higher | General | General |



OTHER TECHNICAL DATA

Clearance

| Category | Nut structure | Features | Applicable nut material | | | | |
|--------------------|--------------------|------------------|---|--|--|--|--|
| Regular grade | General type | Big clearance | Brass, Tin bronze, Phosphor bronze, Aluminum bronze, POM, PEK, nylon, POK, Stainless steel, 1045, Zinc alloy, Brass+Plastic, Aluminum alloy+Plastic, Brass+Steel, Self lubricating(No oil type) | | | | |
| | | Medium clearance | | | | | |
| | | Small clearance | | | | | |
| Anti-backlash type | No clearance | | | | | | |
| Precision grade | General type | Medium clearance | | | | | |
| | | Small clearance | | | | | |
| | | Micro clearance | | | | | |
| | Anti-backlash type | No clearance | | | | | |

| Precision grade | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|-----------------|------------|-----------|-----------|----------|----------|-----------|-----------|
| Axial clearance | 0.015-0.03 | 0.02-0.04 | 0.03-0.06 | 0.06-0.1 | 0.1-0.15 | 0.12-0.18 | 0.16-0.24 |

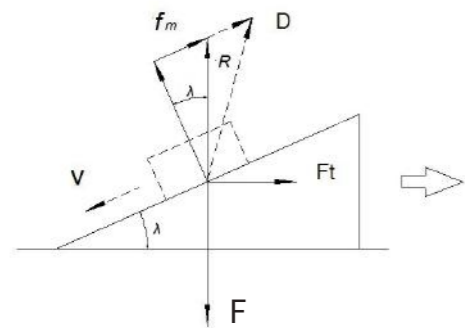
Axial clearance

$$e_p = \frac{2xlu}{300} \times 0.21 \text{ (mm)}$$

lu: Effective length of thread

Self-locking

Because of the thread profile characteristics of trapezoidal screw, So the spiral Angle λ of different specifications screw is not the same, and the equivalent friction coefficient f_v between screw nuts of different materials is also different. Then apply a positive pressure F to the nut at the rated load, The screw and nut cannot slip when the helix Angle λ is less than the equivalent friction Angle R , this condition called self-locking of screw.



$$\lambda = \arctan(S/\pi d)$$

λ : Helix Angle
 S : Thread lead
 π : PI
 d : Thread pitch diameter

$$f_v = f/\cos\beta$$

f_v : Equivalent friction coefficient
 f : friction coefficient
 β : thread form bevel

$$R = \arctan f_v$$

λ : Helix Angle
 f_v : Equivalent friction coefficient
 R : Equivalent friction Angle

$\lambda < R$
 with Self-locking

$\lambda > R$
 without Self-locking

In the vertical lifting system, the screw with self-locking does not need to be equipped with additional locking device, which provides a higher safety factor when the motor stalls, and provides more selection schemes for designers in terms of functions.

End-journal machining

| Typical Journal Ends | Journal ends machining Symbol and Feature | | Diagram |
|----------------------|---|--|---------|
| | Symbol | Features | |
| Fixed end(F) | F | coupling end+thread lock+bearing block | |
| | FM | coupling end(axial threaded hole)+thread lock+bearing block | |
| | FD | coupling end(milling with one cut face)+thread lock+bearing block | |
| | FH | coupling end(milling with two cut faces)+thread lock+bearing block | |
| | FX | coupling end(milling square)+thread lock+bearing block | |
| | FU | coupling end(key way)+thread lock+bearing block | |

| Screw Typical Journal Ends | Screw Journal ends machining Symbol and Feature | | Diagram |
|----------------------------|---|--|---------|
| | Symbol | Features | |
| Support end(S) | S | bearing block | |
| | SM | bearing block+axial threaded hole | |
| | SH | bearing block+milling with one cut face | |
| | SX | bearing block+milling with two cut faces | |
| | SU | bearing block+milling square | |
| | SC | bearing block+keyway | |
| | SD | bearing block+circlip | |

Shaft end processing drawing



Milling Circlip



Processing Thread



Milling Keyway



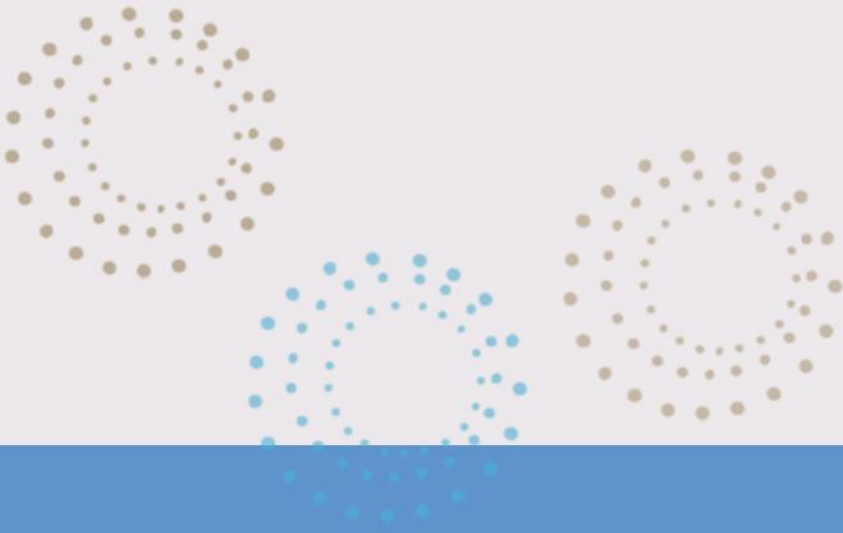
Milling Slotted Drives



Milling Hex Socket



Milling Flat



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