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

ABOUT US

Suzhou runwei precision machinery manufacturing co. LTD.

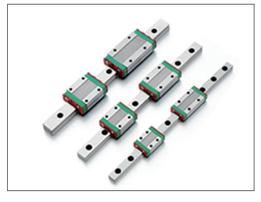
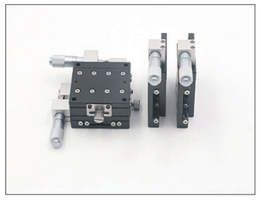
With more than 10 years of manufacturing experience in Lead Screw, Provide competitive, safe and reliable products, solutions and services in mechanical automation, and continuously create value for customers.

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.

MAIN PRODUCTS

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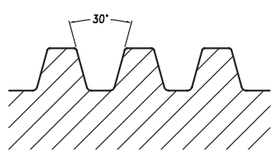
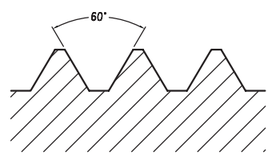
Thread types

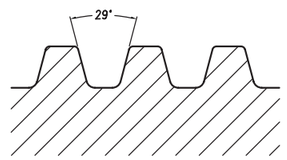
- **T ISO Trapezoidal Thread Din103**
  For transmission and position adjustment, widely used in the mechanical industry.
- **H High-helix Screws**
  A high-helix leadscrew, speedy multi-start lead screw, or steep lead screw features a high pitch that is used to transform a smaller radial movement into 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.



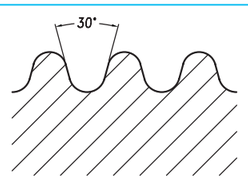
Trapezoidal Thread(DIN103)



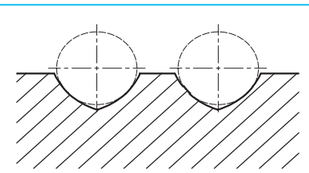
Metric Thread(DIN13)



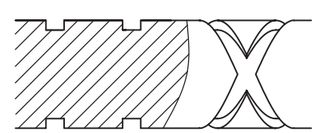
ACME Thread ANSI/ASME B1.5



Knuckle Thread(DIN30295)



Gothic thread



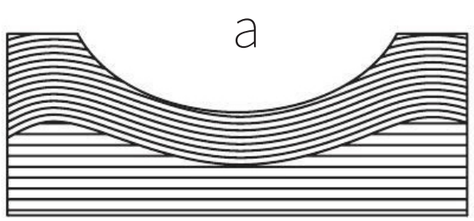
Self-reversing thread

Materials and thread forming

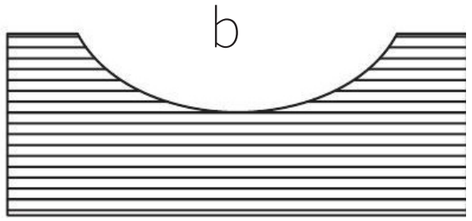
Process	Regular grade					Precision grade
	Rolling	Cutting		Whirling		Grinding
Precision	6-10 levels	7-10 levels		6-10 levels		5-7 levels
Material	SS303,SS304, SS316,S45C, SS440C,40Cr	SS303,SS304, SS316	S45C,SS440C, 40Cr	SS303,SS304, SS316	S45C,SS440C, 40Cr	SS303,SS304, SS316,S45C, SS440C,40Cr
Heat treatment	-	-	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.

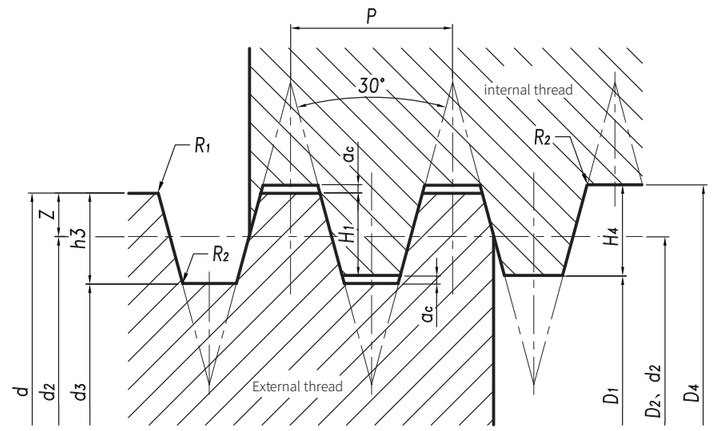
Lead screw ordering code structure

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

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

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
3	0.5	0.5	1	0.27	3.00	2.93	2.69	2.57	2.50	2.29	LH/RH
	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
	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
4	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	1	4	0.65	4.00	3.89	3.44	3.21	3.00	2.73	LH/RH
4.5	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
	1	1	1	0.65	4.50	4.39	3.94	3.77	3.50	3.23	LH/RH
5	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
	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
6	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
	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
6.5	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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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	LH/RH
	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
	60	5	12	2.75	18.00	17.67	15.39	14.81	13.00	12.44	LH/RH
20	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	LH/RH
	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
	55	5	11	2.75	24.00	23.67	21.39	20.79	19.00	18.42	LH/RH
25	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
	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
26	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
	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

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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

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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

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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					◎		◎				○	

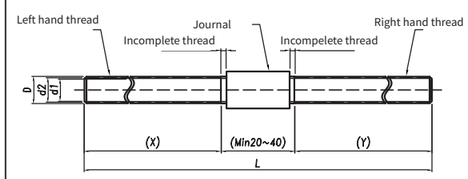
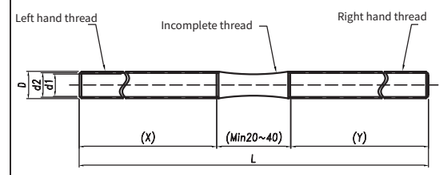
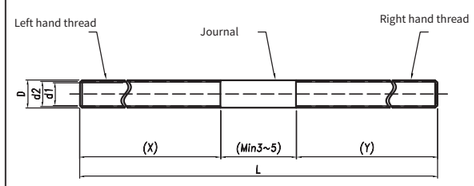
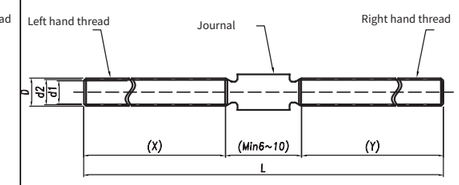
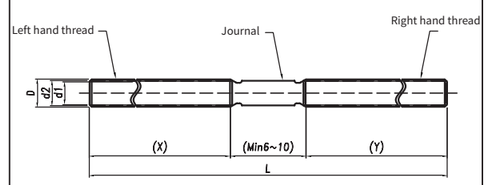
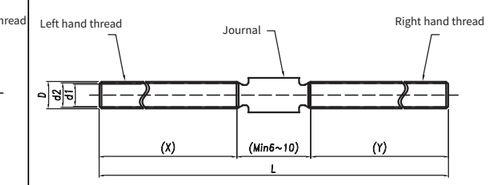
◎ Recommended models including metric fine thread
○ Metric coarse thread

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

Rolling		
Grinding		
Turning		

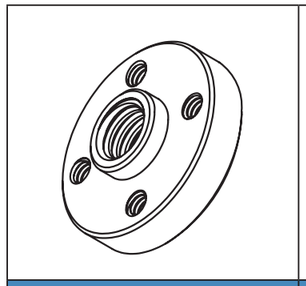
Nut ordering code structure

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

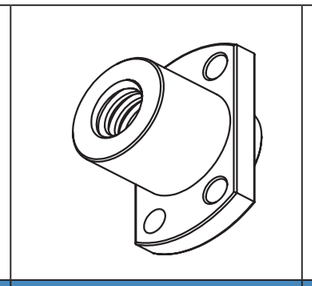
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

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		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
			L		Nut length	H	Flange cutting edge width
		Square nut	L		Nut length	W	Width
			H		Height	-	–
⑪	Nut material code		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		Lgus J	BC	Copper + steel
⑫ *	Surface treatment		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.							

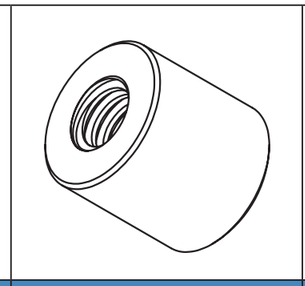
Nut ordering code structure



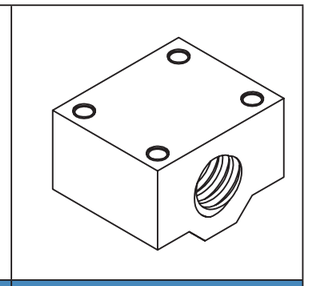
COM SERIES



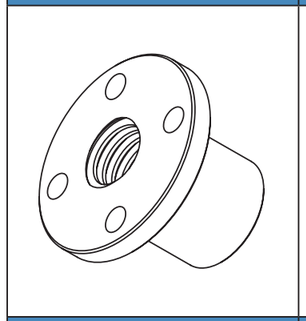
CHT SERIES



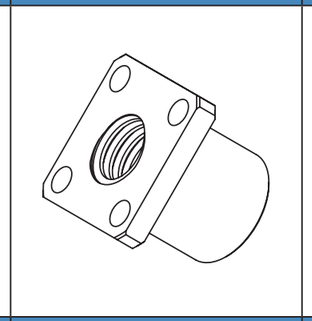
CNN SERIES



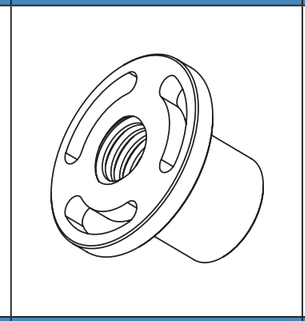
WNM SERIES



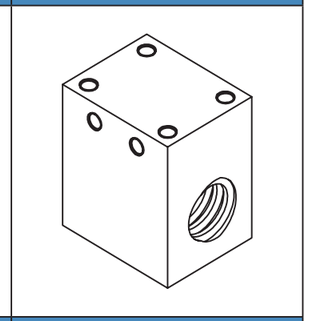
COT SERIES



CXT SERIES

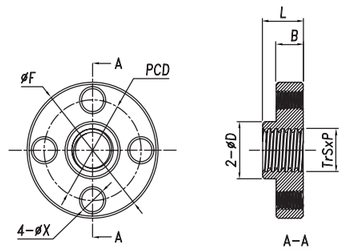


COU SERIES



HNM SERIES

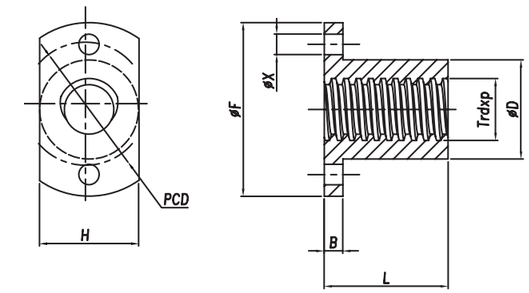
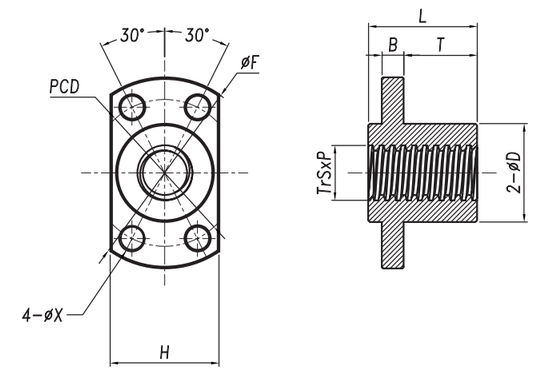
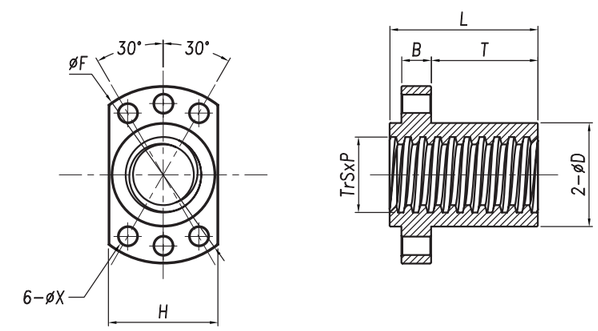
NUT LIST | COM SERIES

COM		

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	-
							4		4-M3	-
	3	1.5					2.6		4-3.2	-
							4		4-M3	-
	6	1.5					2.6		4-3.2	-
							4		4-M3	-
8	1	1		10	21	10	3.5	16	4-3.2	-
							5		4-M3	-
	2	2				12	3.5		4-3.2	-
							5		4-M3	-
	4	2					3.5		4-3.2	-
							5		4-M3	-
	8	2					3.5		4-3.2	-
							5		4-M3	-
	15	2.5				15	3.5		4-3.2	-
							5		4-M3	-
	20	2.5					3.5		4-3.2	-
							5		4-M3	-
14	3	3		22	44	30	5	31	4-M4	4.9
16	3	3		28	51	35	6	38	4-M5	6.67
20	4	4		32	56	40	6	42	4-M5	9.81
22	5	5		36	60	50	7	47	4-M5	12.36
25	5	5		36	60	50	7	47	4-M5	14.22
28	5	5		44	76	56	8	58	4-M6	17.95
32	6	6		44	76	56	8	58	4-M6	21.08

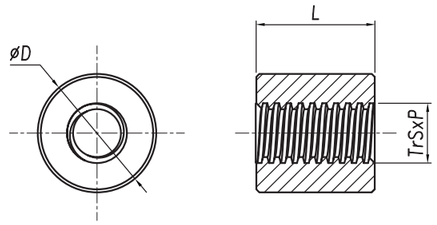
Nut shape/material can be customized, please consult sales staff for details.

NUT LIST | CHT SERIES

CHT-2		
CHT-4		
CHT-6		

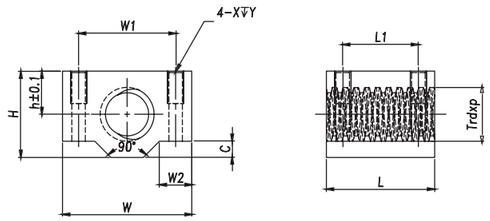
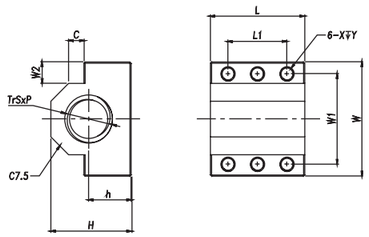
Diameter	Lead	Pitch	Model	Nut outer diameter	Flange height	The flange diameter	Length of nut	The thickness of the flange	Hole spacing	Aperture	Dynamic allowable thrust (kN)
d	P	Dw	type	D	H	F	L	B	PCD	X	
10	2	2	CHT	18	-	35	20	4	24	4-4.2	-
	2	2		20	22	36	24	5	26	4-4.3 2-4.3	2.55
12	2	2		22	-	40	25	4.5	28	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	-
	20	4		26	-	45	28	5	30	4-4.2	-
16	3	3		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	-
	8	4		28	-	48	32	5.5	33	4-5.2	-
18	3	3		30	-	52	36	6	36	4-5.2	-
	4	4		30	-	52	36	6	36	4-5.2	-
	4	4		32	34	56	40	6	42	4-6.6 2-6.6	8.72
20	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	-
	40	5		32	-	55	40	8	38	4-6.2	-
25	5	5		35	-	60	50	10	48	6-6.2	-
36	6	6		52	56	84	60	8	66	4-9.0 2-9.0	25.78
40	6	6		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

CNN		

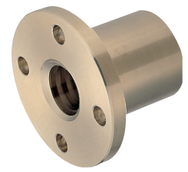
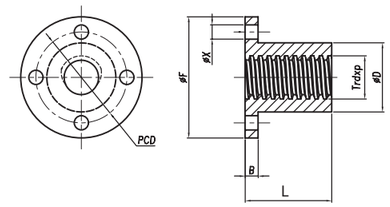
Diameter	Lead	Pitch	Model	Nut outer diamete	Length of nut	Dynamic allowable thrust (kN)
d	P	Dw	type	D	L	
10	2	2	CNN	20	20	2.06
	5	2.5				-
	10	2				-
	15	2.5				-
	20	2.5				-
12	2	2		22	22	2.84
	3	3				-
	6	3				-
	12	3				-
	20	2.5				-
14	2	2		25	25	-
	3	3		22	22	2.84
	4	4		25	25	-
	8	4				-
	12	3				-
	20	4				-
16	3	3		28	26	4.9
	4	4			28	-
	8	4				-
18	3	3		30	30	-
	4	4		32	31	6.86
20	3	3		30	30	-
	4	4		32	31	7.65
	20	4		30	30	-
	40	5				-
Nut shape/material can be customized, please consult sales staff for details.						

NUT LIST | WNM SERIES

WNM-4		
WNM-6		

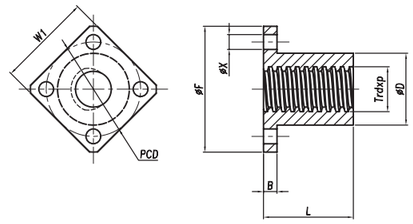
Diameter d	Lead P	type	h	W	H	L	L1	W1	W2	C	X	Y	Dynamic allowable thrust (kN)
10	2	WNM-4	10	30	20	24	16	20	8	4	M4	8	2.168
12	2		11	38	22	30	20	26	10	5	M5	10	3.332
14	3		11	38	22	30	20	26	10	5	M5	10	4.165
16	3		14	44	28	35	24	32	10	5	M5	10	5.67
18	4		16	48	32	40	28	36	11	6	N6	12	7.412
20	4		16	48	32	40	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

COT		

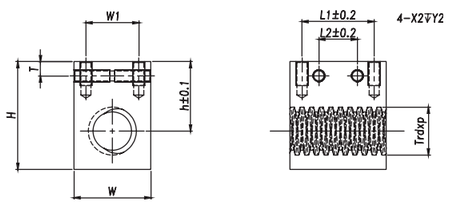
Diameter d	Lead P	type	Nut outer diameter D	The flange diameter F	Length of nut L	The thickness of the flange B	Hole spacing PCD	Aperture X	Dynamic allowable thrust (kN)
8	1.5	COT-4	15	30	20	5	22	4-4.3	1.47
10	2		16	32	19	4	24	4-3.3	2.02
12	2		18	36	24	5	27	4-4.3	3.14
14	3		20	38	24	5	29	4-4.3	3.92
14	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

CXT		

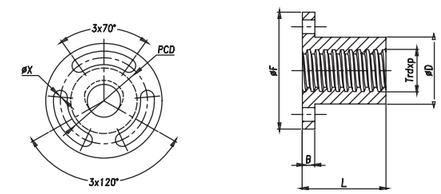
Diameter d	Lead P	type	Nut outer diameter D	The flange diameter F	Length of nut L	The thickness of the flange B	Hole spacing PCD	Aperture X	Flange width W1	Dynamic allowable thrust (kN)
14	3	CXT-4	22	44	30	5	31	4-5.4	33	4.9
16	3		28	51	35	6	38	4-6.6	38	6.67
20	4		32	56	40	6	42	4-6.6	42	9.81
22	5		36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

HNM		

Diameter d	Lead P	type	h	W	H	L	L1	L2	W1	X1	Y1	X2	Y2	T	Dynamic allowable thrust (kN)
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														4.165
16			27	28	41	35	25	11	18	M6	12	M6	18	7	5.67
18	4		29	32	45	40	30	16	22						7.412
20															8.339
22	5		30	36	48	50	40	20	26						10.506
25															12.087
28			38	44	60	62	50	25	32	M8	16	M8	22	8	17.043
32	6														19.389
Nut shape/material can be customized, please consult sales staff for details.															

NUT LIST | COU SERIES

COU		

Diameter d	Lead P	type	Nut outer diameter D	The flange diameter F	Length of nut L	The thickness of the flange B	Hole spacing PCD	Aperture X	Dynamic allowable thrust (kN) (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

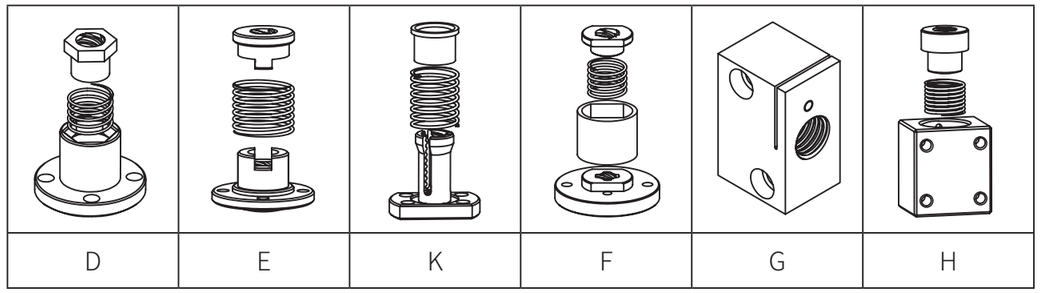
T 8 x 4 (P2) L -K C H T 2 - D16F28L30-B1 - 1

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬

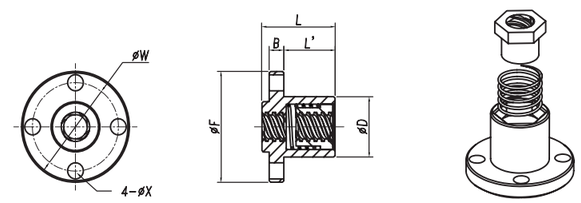
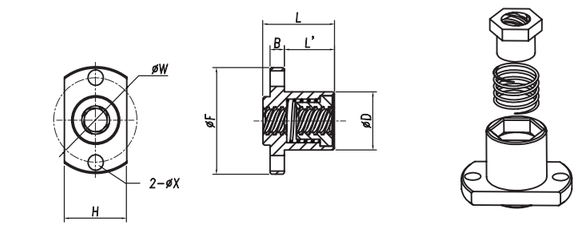
No.	On behalf of the name		Labelling		Meaning	Labelling	Meaning
①	Thread		T		Trapezoidal Thread	R	Round Thread
			M		Metric Thread	G	Goethe thread
			A		ACME Thread	X	Reciprocating thread
②	Diameter		The numerical		Diameter		
③	Lead		The numerical		Lead		
④	Pitch		(P numerical)		Pitch		
⑤	Direction of 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		
			H		Heighten the square		
⑧	Shape of the flange		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
			Y		Round flange milling three parties	Z	Other shapes
⑨	Mounting hole		N		Without mounting holes	U	Waist type hole
			C		Countersunk hole	M	Threaded hole
			T		Hole	Z	Other mounting holes
⑩	Mounting holes amount		1-10		No mounting hole is not marked		
⑪	Nut shape features	Round nut	D		Nut OD	W	PCD
			F		Flange dia	B	Flange thickness
			L		Nut length	H	Flange cutting edge width
		Square nut	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

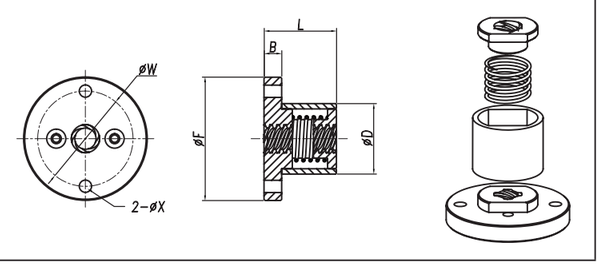
DCOT4		
DCHT2		

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		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 | HCOT2 series

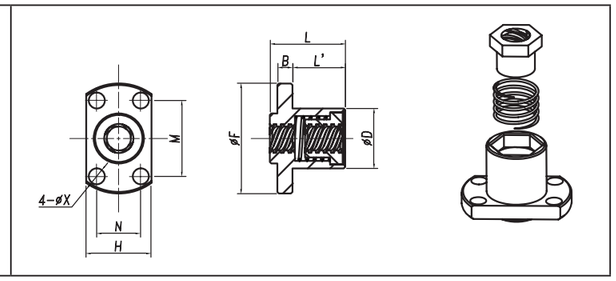
HCOT2



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

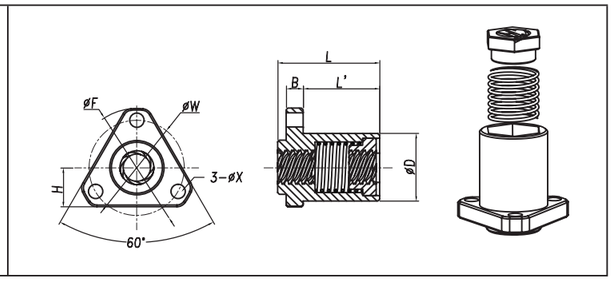
DCHT4



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											

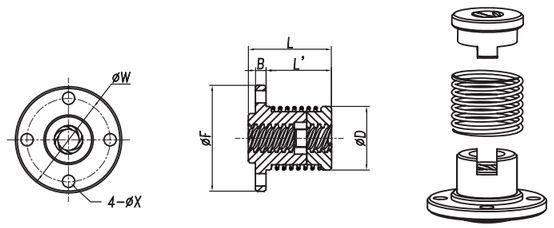
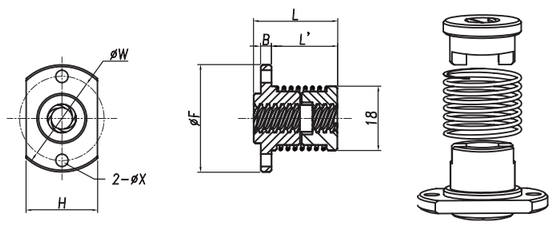
Anti-backlash nut | DCYT3 series

DCYT3



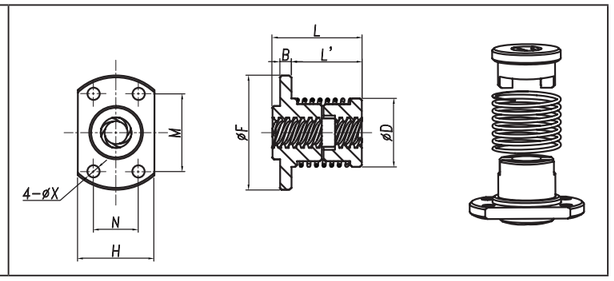
Thread specification					Nut shape and size									Material	Weight
Type	Diameter	Lead	Pitch	Direction of thread	Model	Size (mm)									
						D	F	L	B	H	L'	W(MxN)	X		
T	10	2	2	RH	DCYT3	20	35	29.5	5	11.5	22	28	4.2	B2	60
T		5	2.5	RH											
T		10	2	RH											
T		15	2.5	RH											
T		20	2.5	RH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

ECOT4		
ECHT2		

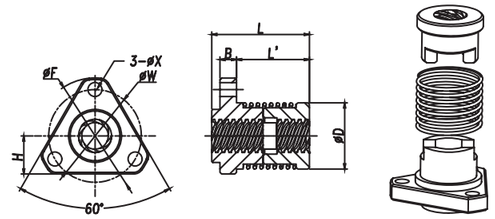
Thread specification					Nut shape and size									Material	Weight
Type	Diameter	Lead	Pitch	Direction of thread	Model	Size (mm)									
						D	F	L	B	H	L'	W(MxN)	X		
T	6	1	1	RH	ECOT4 ECHT2	12	22	15	3	13	10.5	17.5	3.2	B2	15g
T		3	1.5	RH											
T		6	1.5	RH											
T	6	1	1	RH		12	22	15	3	13	10.5	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

ECHT4		

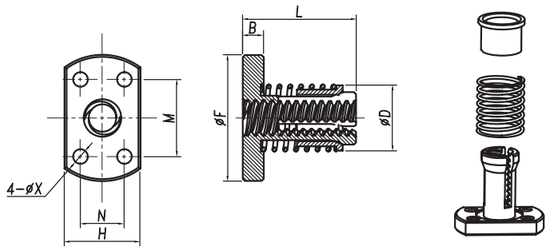
Thread specification					Nut shape and size									Material	Weight
Type	Diameter	Lead	Pitch	Direction of thread	Model	Size (mm)									
						D	F	L	B	H	L'	W(MxN)	X		
T	10	2	2	RH	ECHT4	20	35	30	5	22	22.5	25x13	4.2	B2	63
T		5	2.5	RH											
T		10	2	RH											
T		15	2.5	RH											
T		20	2.5	RH											
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

ECYT3		

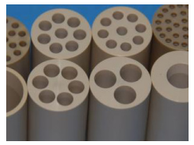
Thread specification					Nut shape and size									Material	Weight
Type	Diameter	Lead	Pitch	Direction of thread	Model	Size (mm)									
						D	F	L	B	H	L'	W(MxN)	X		
T	10	2	2	RH	ECYT3	20	35	30	5	11.5	22.5	28	4.2	B2	62
T		5	2.5	RH											
T		10	2	RH											
T		15	2.5	RH											
T		20	2.5	RH											
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											

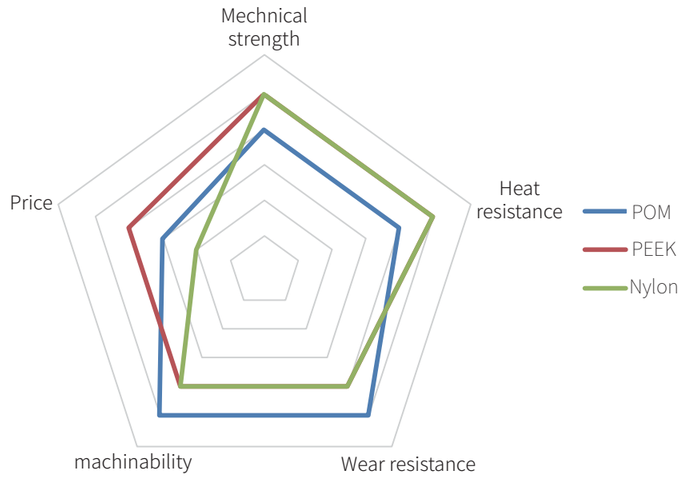
Anti-backlash nut | FCHT4 series

FCHT4		

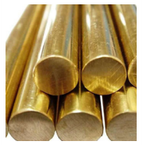
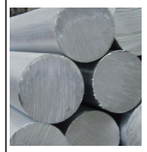
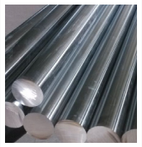
Thread specification					Nut shape and size									Material	Weight
Type	Diameter	Lead	Pitch	Direction of thread	Model	Size (mm)									
						D	F	L	B	H	W	X			
T	8	2	2	RH	FCHT4	16	30	27	5	18	21	3.5		P1	10g
T		4	2	RH											
T		6	1.5	RH											
T		8	2	RH											
T		10	2	RH											
T		12	2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

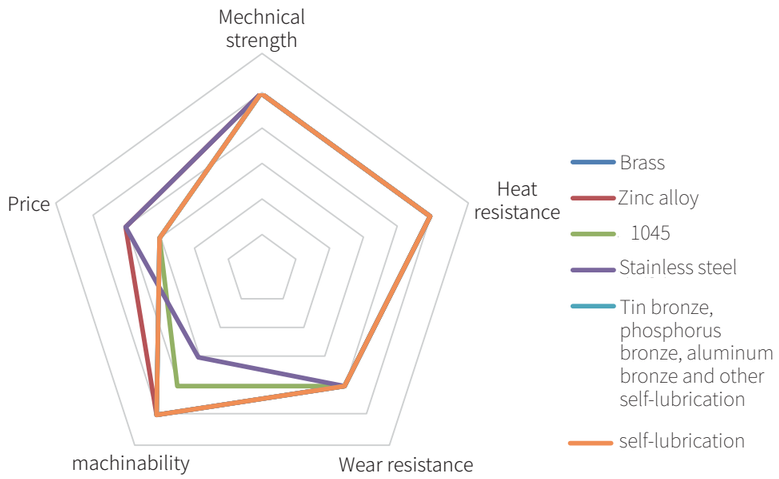
Plastic materials

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				Consult business personnel for detailed
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	
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

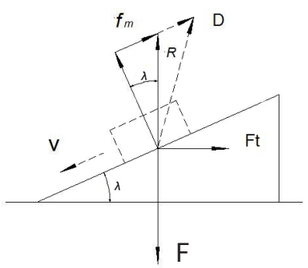
Axial clearance

$$ep=\frac{2xlu}{300}x0.21\ (mm)$$

lu：Effective length of thread

Self-locking

Because of the thread profile characteristics of trapezoidal screw, So the spiral Angleλof different specifications screw is not the same, and the equivalent friction coefficient fv 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

$$fv=f/\cos\beta$$

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

$$R=\arctan fv$$

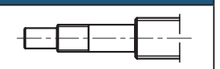
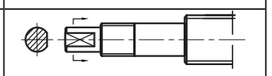
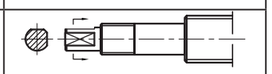
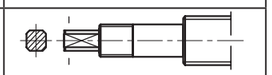
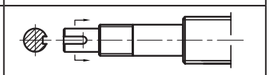
λ：Helix Angle
fv：Equivalent friction coefficient
R：Equivalent friction Angle

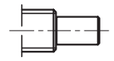
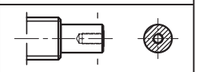
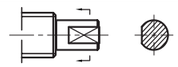
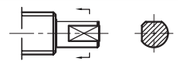
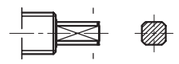
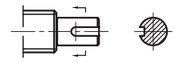
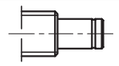
λ<R
with Self-locking

λ>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	

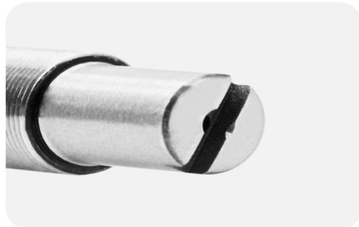
Screw Typical Journal Ends	Screw Journal ends machining Symbol and Feature		Diagram
	Symbol	Features	
Support end(S)	S	bearing block	
	SM	bearing block+axial threaded hole	
	SH	bearing block+milling with one cut face	
	SX	bearing block+milling with two cut faces	
	SU	bearing block+milling square	
	SC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