Lead Screw
One End Stepped / One End Double Stepped

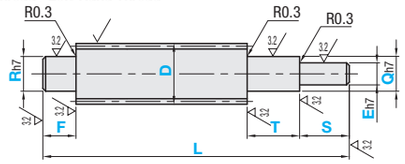
Lead screws that are easy to combine with MISUMI Support Units in **P.791~792**.

Type				Material	Surface Treatment
Right-Hand Thread	Left-Hand Thread	Right and Left-Hand Thread	Precision Right and Left-Hand Thread		
MTSRK	MTSLK	MTSWKA/B	MTSYKA/B	EN 1.1191 Equiv.	-
MTSBRK	MTSBLK	MTSBWKA/B	MTSBYKA/B		Black Oxide
RMTSRK	RMTSLK	RMTSWKA/B	-		LTBC Plating
MTSTRK	MTSTLK	-	-	EN 1.4305 Equiv.	-

・Single Pitch Error ··· ±0.02mm ・Accumulated Pitch Error ··· ±0.15/300mm

Type A or B are available for Right and Left-Hand Thread and Precision Right and Left-Hand Thread.

Right-Hand Thread / Left-Hand Thread

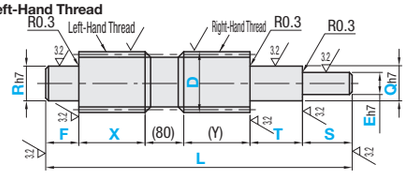


Incomplete Threaded Portion of Right and Left-Hand Thread Type

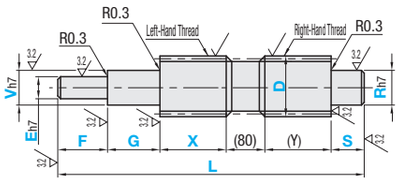
The Center between the right-hand thread and the left-hand thread is an incomplete thread portion (approx. 80mm) resulting from rolling machining.
This portion, including the shaft part enclosed with ◯, is not useable.
When being required to use the center between the right-hand thread and the left-hand thread as the shaft, select the Precision Right and Left-Hand Thread type.

Right and Left-Hand Thread

MTSWKA
MTSBWKA
RMTSWKA



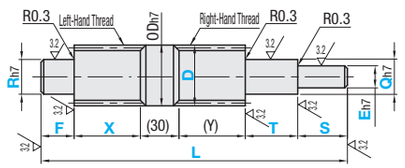
MTSWKB
MTSBWKB
RMTSWKB



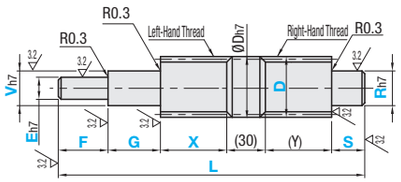
Incomplete threaded portion near the center (80mm) is not useable.

Precision Right and Left-Hand Thread

MTSYKA
MTSBYKA



MTSYKB
MTSBYKB



ØDh7-30mm part includes incomplete thread portion by about 1.5 pitches at both ends (in total about 3 pitches).

Part Number		1mm Increment		V / Q / R	E	Right and Left-Hand Thread / Precision Right and Left-Hand Thread	D	Pitch P
Type	D	L	F, G, T, S		1mm Increment	X 1mm Increment		
(Right-Hand Thread)	12	80~1000	2≤F≤E-Rx7 2≤G≤Vx7 2≤S≤E-Rx7 2≤T≤Qx7 When Q, V, R, and E≤9, F, G, T, S will be 5x or less of Q, V, R, E.	7 8 9	Q/2≤E≤Q-1 V/2≤E≤V-1	When D=12, 14 50≤X≤460<485>-F-G (Y)=L-80<30>-F-G-S-T-X (Y)≤500-S-T-40<15> When D=16 ~ 50 50≤X≤560<585>-F-G (Y)=L-80<30>-F-G-S-T-X (Y)≤600-S-T-40<15> Dimensions in < > are for Precision Right and Left-Hand Thread.	12	2
MTSRK	14			8 9 10			14	3
MTSBRK								
RMTSRK D≤32,L≤1000	16	100~1200		9 10 12			16	
MTSTRK (Stainless Steel)	18			9 10 12			18	4
(Left-Hand Thread)	20			10 12 14 15			20	
MTSLK	22	150~1200		10 12 14 15			22	5
MTSBLK								
RMTSLK D≤32,L≤1000	25			12 14 15 16 17			25	
MTSTLK (Stainless Steel)	28			14 15 16 17 20			28	
(Right and Left-Hand Thread)	32	200~1200		14 15 16 17 20 25			32	6
MTSWKA/B								
MTSBWKA/B								
RMTSWKA/B D≤32,L≤1000	36			17 20 25			36	
(Precision Right and Left-Hand Thread)	40			20 25 30			40	
MTSYKA/B								
MTSBYKA/B	50			25 30 35 40			50	8

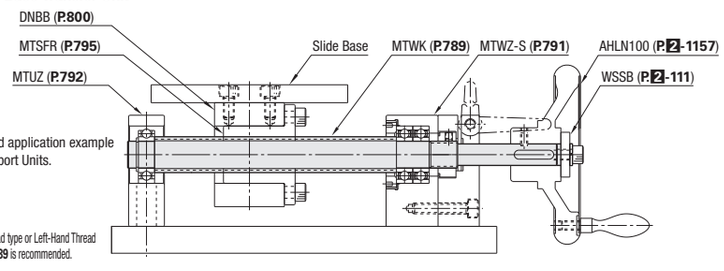
For Precision Right and Left-Hand Thread, D dimension 14, 16, 20, 25, 28 and 32 are available. When combined with the position indicators, Q and V standard dimensions will be 8 ~ 20. **P.811, 812**
D dimension 22, 36, 40 and 50 are not applicable to Stainless Steel. D dimension 25, 28 and 32 are applicable to Right-Hand Thread only.

Example

MTUZ	Lead Screw Support Unit - Support Side
MTSFR	Lead Screw Nut - Flanged
DNBB	Nut Bracket for Lead Screw
MTWK	Lead Screw - For Support Units
MTWZ-S	Lead Screw Support Units Stop Plate Set
AHLN100	Five Spoked Handwheel
WSSB	Metal Washer

When considering adopting support units in combination either with Right-Hand Thread type or Left-Hand Thread type lead screws, ordering of Lead Screws - For Lead Screw Support Unit Type in **P.789** is recommended.

■Slide Base Transfer Unit



Combined application example with Support Units.

Ordering Example

Part Number	L	F	R	T	Q	S	E	X
MTSRK16	456	F37	R10	T20	Q12	S10	E9	
MTSWKA16	456	F37	R10	T20	Q12	S10	E9	X150

Part Number	L	F	E	G	V	S	R	X
MTSBWKB20	582	F10	E10	G15	V12	S25	R15	X200

Unit price for the product is price in the table multiplied by price multiplier.
Price in the table x Price Multiplier = Unit Price

■Right-Hand Thread / Left-Hand Thread

Part Number		Unit Price					
Type	D	Min. L ~ 200	L201~400	L401~600	L601~800	L801~1000	L1001~1200
MTSRK Price in the Table	12						-
	14						-
	16						
	18						
MTSBRK Price in the Table x1.1	20						
	22						
MTSLK Price in the Table x1.02	25						
	28						
	32						
MTSBLK Price in the Table x1.12	36						
	40						
	50						

■Right and Left-Hand Thread

Part Number		Unit Price					
Type	D	Min. L ~ 200	L201~400	L401~600	L601~800	L801~1000	L1001~1200
MTSWKA/B Price in the Table	12						-
	14						-
	16						
	18						
	20						
	22						
MTSBWKA/B Price in the Table x1.12	25						
	28						
	32						
	36						
	40						
	50						

■Right-Hand Thread / Left-Hand Thread, Stainless Steel

Part Number		Unit Price					
Type	D	Min. L ~ 200	L201~400	L401~600	L601~800	L801~1000	L1001~1200
MTSTRK MTSTLK	12						-
	14						-
	16						
	18						
	20						
MTSTRK	25						
	28						
	32						

■Low Temperature Black Chrome Plated Products - Right-Hand Thread / Left-Hand Thread

Part Number		Unit Price				
Type	D	Min. L ~ 200	L201~400	L401~600	L601~800	L801~1000
RMTSRK (Price of MTSRK + Price in the Table)	12					
	14					
	16					
RMTSLK (Price of MTSLK + Price in the Table)	18					
	20					
RMTSWKA/B (Price of MTSWK + Price in the Table)	22					
	25					
	28					
	32					

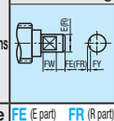
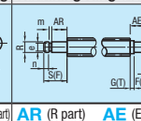
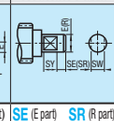
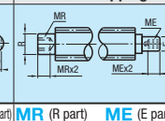
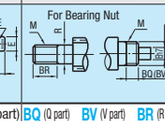
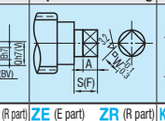
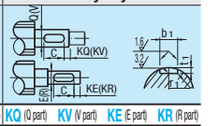
For low temperature black chrome plated products, add the price of low temperature black chrome plating shown above to the non-plated product prices.

■Precision Right and Left-Hand Thread

Part Number		Unit Price					
Type	D	Min. L ~ 200	L201~400	L401~600	L601~800	L801~1000	L1001~1200
MTSYKA/B Price in the Table	14						-
	16						
	20						
	25						
MTSBYKA/B Price in the Table x1.1	28						
	32						

Alterations

Part Number	L	F	R	T	Q	S	E	(AR・SE・MR ··· etc.)
MTSTRK16	456	F37	R10	T20	Q12	S10	E9	MR4

Alterations	Flat Machining	Retaining Ring Groove	Wrench Flats	Coarse Tapping	Threaded	Square Chamfering	Keyway
							
Code	FE (E part) FR (R part)	AR (R part) AE (E part)	SE (E part) SR (R part)	MR (R part) ME (E part)	BQ (Q part) BV (V part) BR (R part)	ZE (E part) ZR (R part)	KQ (Q part) KV (V part) KE (E part) KR (R part)

Spec.

FE,FR,FW,FY= 0.5mm Increment
FE=Applied on E part
FR=Applied on R part
Ordering Code FR5-FW10-FY1
Applicable to either E or R
When E (R)≤25, FY≤1.0
When E (R)≥26, FY≤2.0
3≤FW≤20
FE(FR)=0, or FE≥2

AR, AE=0.1mm Increment
AR(AE)≤S(F)+T(G)-**m-n**
For the m,n value, see the table bellow. (For the m value, consider the tolerance.)
Ordering Code AE13.3
AR=Applied on R part
AE=Applied on E part

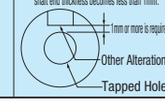
R・E	e Tolerance	m +0.14 0	n Machining Limit
7 4	+0.075 0	0.7	n≥1.2
8 5		0.9	
9 6	0 -0.09		
10 9.6		1.15	n≥1.5
12 11.5	0 -0.11		
14 13.4			
15 14.3			
16 15.2			
17 16.2			
20 19	0 -0.21	1.35	
25 23.9			
30 28.6		1.65	
35 33	0 -0.25		
40 38		1.9	n≥2

SE,SW,SY= 1mm Increment
SE=Applied on E part
SR=Applied on R part.
Ordering Code SE3-SW10-SY7
When E(R)<15, SW≥E(R)-2
When 15≤E(R)≤25, SW≥E(R)-3
When 30≤E(R), SW≥E(R)-5
3≤SY≤20
SE(SR)=0, or SE(SR)≥2

MR=Applied on R part
ME=Applied on E part
Ordering Code MR24

R, E	ME, MR (Selection Range)
5, 6	3
7, 8	3, 4
9, 10	3, 4, 5
11, 12	3, 4, 5, 6
13~15	3, 4, 5, 6, 8
16~24	3, 4, 5, 6, 8, 10
25~30	3, 4, 5, 6, 8, 10, 12, 16
31~39	3, 4, 5, 6, 8, 10, 12, 16, 20
40	3, 4, 5, 6, 8, 10, 12, 16, 20, 24, 30

Not applicable when R, E=4.
When combining with an other alteration, do not specify this alteration in such a way that the shaft end thickness becomes less than 1mm.



Cannot be applied when Q, V, R = 7, 9, 16.
BQ,BV,BR≤Mx3
BQ,BV,BR≥Pitchx3
BQ,BV,BR≤FS,T,G-Pitchx3
Ordering Code BR20
BQ=Applied on Q part
BV=Applied on V part
BR=Applied on R part

Q, V, R	MxPitch
8	M8x1.0
10	M10x1.0
12	M12x1.0
14	M14x1.0
15	M15x1.0
17	M17x1.0
20	M20x1.0
25	M25x1.5
30	M30x1.5
35	M35x1.5
40	M40x1.5

W,A= mm Increment
ZE=Applied on E part
ZR=Applied on R part
Ordering Code ZE12-W10-A8
Applicable to only one of either E or R
Can be combined with Tapped Hole machining only on the same shaft. (See P.787 for machining conditions.)
5≤A≤20
S(F)≥A-2
ZR=R Specified, ZR>W
ZE=E Specified, ZE>W

ZE=E, ZR=R	W 1mm Increment
6~10	5~8
11~14	8~10
15~19	10~14
20~25	14~20
26~30	19~24
31~35	22~28
36~40	26~30

(E, R/2) √2≤W
May not be manufacturable depending on E, R, and W relationships.

KQ,KV,KE,KR,C=0.1mm Increment
C≤60
KQ=Applied on Q part
KV=Applied on V part
KE=Applied on E part
KR=Applied on R part
Ordering Code KQ8-C10
Applicable to only one of Q, V, E, or R
Specify the C dimension not to be bellow b1.
T(G)-C-KQ(KV)≥2
S(F)-C-KE(KR)≥2
KQ(KV, KE, KR)≥2
When KQ(KV, KE, KR)=0, keyway R will be eliminated on the shaft end side.

Applicable Shaft End Dia. Q, V, E R	Keyway Dimension b1 Reference Dimension	b1 Tolerance (N9)	t1 Reference Dimension	t1 Tolerance	r1
6, 7	2	-0.004 -0.029	1.2	+0.1 0	0.08 ~0.16
8~10	3		1.8		
11, 12	4	0 -0.030	2.5		0.16 ~0.25
13~17	5		3.0		
18~22	6		3.5		
23~30	8	0 -0.036	4.0	+0.2 0	0.25 ~0.40
31~38	10		5.0		
39・40	12	0 -0.043	5.0		

Specify an alteration position to be 2mm or more away from the stepped part. (For details, see **P.787**)
Do not specify multiple alterations in such a way that they overlap with each other in the rotating direction on the same shaft. (For details, see **P.787**)
When flat machining, wrench flats, square chamfering and keyway alterations are combined with each other, their orientations will be random. (For details, see **P.787**)
When adding multiple alterations, there must be 2mm or more clearance between each feature. (For details, see **P.787**)