SFT R 025 05 B2 D G C5 P0 1000

Screw axis length(mm)

Axis interval preload pressure grade P0、P1、P2、P3、P4

Lead accuracy grade C0、C1、C2、C3、C5、C7、C10

Process code G：Grind F：turnover build

Type of flange N：no trimming S：single trimming D：double trimming

Ball volume (volumesxrows) volumes：T:1 A:1.5(or 1.7) B:2.5 C:3.5 Eg：(B2=2.5x2)

Lead(mm)

Screw axis outer diameter(mm)

Thread direction R：right L：left

Nut Type
S：S：single nut D：double nuts
F：F：with flange C：without flange
T：T：T type nut I：I type nut D：D type nut E：E type nut K：K type nut U：DIN nut
(SFI、DFI、SFT、DFT、SFE、SFK)

Chart 1 Stroke deviation and variation (Excerpt from GB/T 17587.3-1998)

Item No.	Testing Memory	Symbol	Effective Stroke	Precision Grade						
				1	2	3	4	5	7	10
1	Stroke variation in 2π radian	$V_{2\pi p}$	-	4	5	6	7	8	-	-
2	Stroke variation (±) in any 300 stroke	V_{300p}	-	6	8	12	16	23	52	210
3	Average stroke deviation in effective stroke Lμ (only apply for P type Lead screw)	e_p	≤315	6	8	12	16	23	-	-
			>315?400	7	9	13	18	25	-	-
			>400?500	8	10	15	20	27	-	-
			>500?630	9	11	16	22	32	-	-
			>630?800	10	13	18	25	36	-	-
			>800?1000	11	15	21	29	40	-	-
			>1000?1250	13	18	24	34	47	-	-
			>1250?1600	15	21	29	40	55	-	-
			>1600?2000	18	25	35	48	65	-	-
			>2000?2500	22	30	41	57	78	-	-
			>2500?3150	26	36	50	69	96	-	-
			>3150?4000	32	45	62	86	115	-	-
			>4000?5000	-	-	76	110	140	-	-
			>5000?6300	-	-	-	-	170	-	-
	Average stroke deviation in effective stroke Lμ (only apply for T type Lead screw)	e_p	$e_{p=}\frac{2Lu}{300}V$ 300p	Remarks: (1) Stroke compensation C=0 2 V300p see item NO. 2 in this chart						
4	Average stroke deviation in effective stroke Lμ (only apply for P type Lead screw)	$V_{\mu p}$	≤315	6	8	12	16	23	-	-
			>315?400	6	9	12	18	25	-	-
			>400?500	7	9	13	19	26	-	-
			>500?630	7	10	14	20	29	-	-
			>630?800	8	11	16	22	31	-	-
			>800?1000	9	12	17	24	34	-	-
			>1000?1250	10	14	19	27	39	-	-
			>1250?1600	11	16	22	31	44	-	-
			>1600?2000	13	18	25	36	51	-	-
			>2000?2500	15	21	29	41	59	-	-
			>2500?3150	17	24	34	49	69	-	-
			>3150?4000	21	29	41	58	82	-	-
			>4000?5000	-	-	49	70	99	-	-
			>5000?6300	-	-	-	-	119	-	-
			Remarks: generally do not examine the stroke deviation in effective stroke for T type Lead screw pair.							

Calculation formula for effective stroke Lμ

Lμ-effective stroke， mm L1- Lead screw thread length，mm Le—remained stroke, mm (see chart 2)

nominal leads	4	5	6	8	10	12	16	20
remained stroke (Le)	16	20	24	32	40	45	50	60

>>> Axis interval preload pressure grade

accuracy grade	P0	P1	P2	P3	P4
interval	have	no	no	no	no
preload pressure	no	no	low	medium	high

>>> Reference table of accuracy, interval, preload pressure grade and nut

Accuracy	Preload pressure & interval	Nut type	Screw type
C10	P0(With Axial Play)	Single nut	turnover build screw
C7	P1 or P0 standard: P1	customized	turnover build or grind (standard: grind)
C5	Customized or standard: P2	customized	Grind with Measurement Table
C3	Customized or standard: P2	customized	Grind with Measurement Table

>>> Reference value of common preload pressure

Unit: kg

specification	Single nut spring force	Double nuts spring force
1605	0.1~0.3	0.3~0.6
2005	0.1~0.3	0.3~.6
2505	0.2~0.5	0.3~.6
3205	0.2~0.5	0.5~0.8
4005	0.2~0.5	0.5~0.8
2510	0.2~0.5	0.5~0.8
3210	0.3~0.6	0.5~0.8
4010	0.3~0.6	0.5~0.8
5010	0.3~0.6	0.8~1.2
6310	0.6~1.0	0.8~1.2
8010	0.6~1.0	0.8~1.2

Ball leadscrew Using Notice

Ball leadscrew is precise spare parts, therefore, please pay great attention to the following points and use it carefully.

LUBRICATION CHECK

1.Please check lubrication sutuation before use. Ball leadscrew may lose its function in short time if lubrication is not enough.

2.Use directly when Ball leadscrew is covered with lubrication grease. If there is dust stick in the grease during use, clean it with white kerosene and coat with the same grease as previous one and then use. Don't mix two different lubrications together.

3.Check lubrication 2~3 months after put into use. Wipe out old lubrication and coat with new one when it is dirty. Check grease and lubricants every one year, adjustable wth actual environment situation.

NO DISASSEMBLE

NO SHOCK

1.Please do not disassemble leadscrew, otherwise dust will get inside and cause dispreciseness or break down.

2.Do not reassemble leadscrew by yourself because reassemble will cause disfunction. We provide paid repair and reassemble service.

3.Ball leadscrew axis or nut may fall of because of its self weight. Please be careful from getting hurt. It may be broken or damaged during falling and cause disfunction of the product. We provide paid examination service when broken products are returned to our company.

4.When circle spare parts, outer diameter of axis, or rail is damaged, it will cause poor circulation, and lead to disfunction of the product.

1.Please use ball leadscrew in clean environment. Use dust proof case to avoid dust and dirt getting inside of ball leadscrew, otherwise it will decrease the function of product and cause blockage. Furthermore, damage of the circle spare parts will lead to serious accident such as worktable fall off.

2.Refer to instruction manual information about allowed number of rotation and product specification table. Surpass allowed number of rotation will cause damage of circle spare parts and lead worktable fall off. When use the vertical axis, please use protective structure like safe nut, so as to prerent worktable from falling off. If information about protective structure is needed, please contact with our company.

3.Using ball leadscrew nut in excess of stroke may cause ball fall off, circle spare part damage or pressing mark on rail, which will effect perfumance of product. Keep using will speed up abrasion and circle spare part damage. Do not use in excess of stroke. If it happens, we provide paid examination service.

4.The maximum using temperature of product is under 80C. Please do not over this temperature, otherwise it will cause circle spare part or sealing cover damage. When use product in 80C., please contact us.

DUST PROTECTION

MAXIMUM TEMPERATURE

KEEPING

Keep product in original package. Do not tear inner package off, otherwise dust may get inside and product become rusty which lead to decrese of the product function.

Refer to the following keeping position:

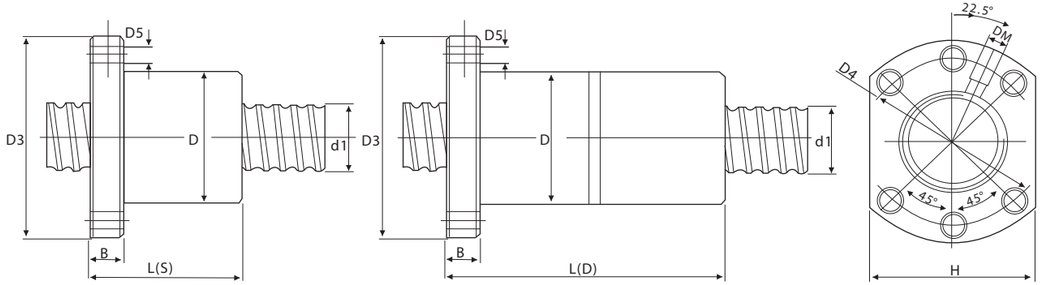
①Keeping horizontally with original package.

②Keeping products horizontally on crossties in clean environment.

③Hanging products in clean environment.

SFU

DFU



Ph:lead Dw: ball diameter N: number of circles Ca: Dynamic loadings(kg) Coa: Static loading (kgf)

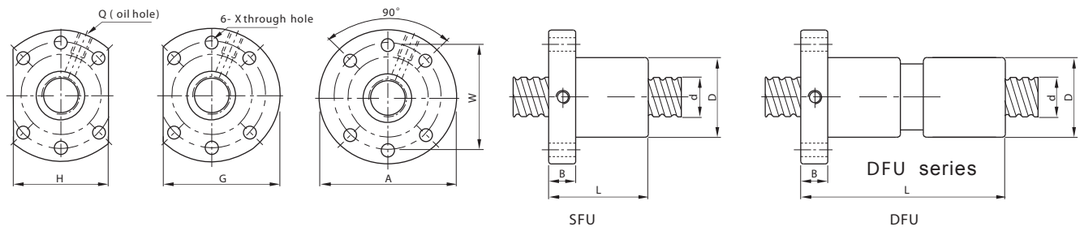
Unit: mm

Type	Ball leadscrew size		Steel ball	number of circles	Inside thread ball nut installation size									Rated load	
	Diameter D1	Lead ph	ball diameter DW	n	D	D3	D4	H	B	single L (S)	double L (D)	DM	D5	Dynamic loadings Ca	Static loading Coa
SFU 1 204	12	4	2.381	3	22	42	32	34	8	36	70	M6	4.5	400	670
SFU 1605-3	16	5	3.175	3	28	48	38	40	10	44	83	M6	5.5	630	1260
SFU 2005-3	20	5	3.175	3	36	58	47	44	10	44	83	M6	6.6	910	1710
SFU 2505-3	25	5	3.175	3	40	62	51	48	10	44	86	M6	6.6	1060	2210
SFU 3205-4	32	5	3.175	4	50	80	65	62	12	52	97	M6	9	1710	4210
SFU 4005-4	40	5	3.175	4	63	93	78	70	14	54	101	M6	9	1850	5710
SFU 5005-4	50	5	3.175	4	71	110	90	85	14	55	102	M6	9	2225	6150
SFU 1610-3	16	10	3.175	3	28	48	38	40	10	46	92	M6	5.5	729	1250
SFU 2010-3	20	10	3.175	3	36	58	47	44	12	46	118	M6	6.6	970	2110
SFU 2510-4	25	10	3.5	2×2	40	62	51	48	10	54	71 108	M6	6.6	1160	2736
SFU 3210-4	32	10	6.35	4	50	80	65	62	12	90	168	M6	9	3390	7170

Remarks: provide installation data for SFU nut, refer to size information on Page 8.

SFU

DFU



I:lead Dw: ball diameter N: number of circles K: rigid(kg/μm)
Ca: Dynamic loading(kg) Coa: Static loading (kgf)

Unit mm

Type	Baseline data for ball screw and nut															
	d	l	Da	D	A	B	L	W	X	G	H	Q	n	Ca	Coa	K
SFU1605-4	16	5	3.175	28	48	10	50	38	5.5	44	40	M6	4	780	1790	20
SFU2005-4	20	5	3.175	36	58	10	50	47	6.6	51	44	M6	4	1130	2380	25
SFU2505-4	25	5	3.175	40	62	10	50	51	6.6	55	48	M6	4	1280	3110	35
SFU4010-4	40	10	6.350	63	93	14	93	78	9	81.5	70	M8	4	3910	9520	50
SFU5010-4	50	10	6.350	75	110	16	95	93	11	97.5	85	M8	4	4450	12500	65
SFU6310-4	63	10	6.350	90	125	18	97	108	11	110	95	M8	4	5070	16600	80

Unit mm

Type	Baseline data for ball screw and nut															
	d	l	Da	D	A	B	L	W	X	G	H	Q	n	Ca	Coa	K
DFU1605-4	16	5	3.175	28	48	10	95	38	5.5	44	40	M6	4	780	1790	36
DFU2005-4	20	5	3.175	36	58	10	95	47	6.6	51	44	M6	4	1130	2380	52
DFU2505-4	25	5	3.175	40	62	10	98	51	6.6	55	48	M6	4	1280	3110	64
DFU4010-4	40	10	6.350	63	93	14	172	78	9	81.5	70	M8	4	3910	9520	99
DFU5010-4	50	10	6.350	75	110	16	175	93	11	97.5	85	M8	4	4450	12500	122
DFU6310-4	63	10	6.350	90	125	18	178	108	11	110	95	M8	4	5070	16600	154

Remarks: provide installation data for SFU and DFU, refer to size information on Page 8.