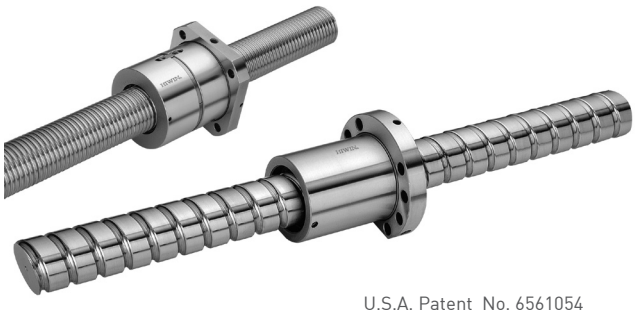
9.5 Super S Series



U.S.A. Patent No. 6561054
Taiwan Patent No. 231845
Taiwan Patent No. 233472
Taiwan Patent No. 245857
Taiwan Patent No. 115652
Japan Patent No. 3117738

• Pattern Nomenclature :

Ex: R40-10K4 -FSC -1200 -1600 - 0.008

- 4 turns
- Cassette type
- Single nut
- Nut with flange

• Performance :

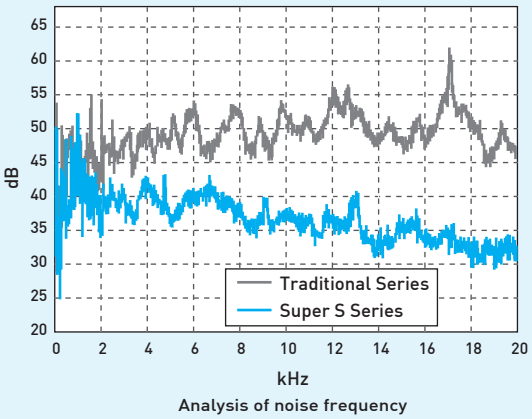
Specification: 2R40 - 40K4 - DFSC - 1200 -1600 - 0.008
Lead: 40 mm
Acceleration: 1g (9.8m/sec^2)
Dm-N Value: 120,000

• Application:

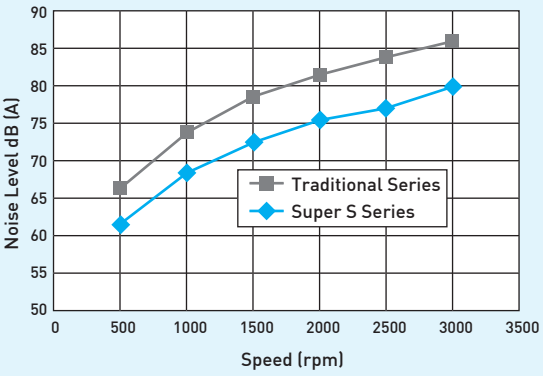
CNC Machinery, Industrial Machinery, Electronic Machinery, Precision Machine and other High Speed Machinery.

• Features :

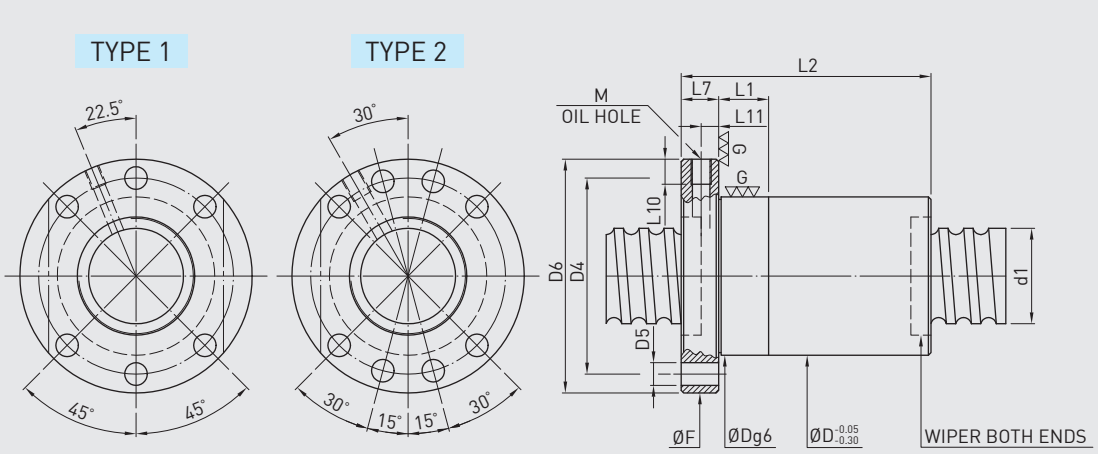
1. **Low noise (5~7dB lower than traditional series)**
   The patent design of return unit can absorb noises caused by the impact of the ballnut's balls, greatly reducing the noise intensity.
2. **Space-saving and weight-lightening design**
   The ballnut diamenter is 18%~32% smaller than traditional series.
3. **Dm-N value up to 220,000**
   The patent design of the return unit can improve the strength of the return structure, achieving a Dm-N value of up to 220,000.
4. **High acceleration and deceleration velocity**
   The pathway of specialized return unit, as well as the ballnut's strengthened design diminish the impact experienced by the balls, Hence, it can sustain peak performance in more rigorous operating environments, such as high acceleration and deceleration.
5. **Accuracy grade**
   Precision ground ballscrews available in JIS Grade C0~C7; Rolled ballscrews available in JIS Grade C6~C10.



Analysis of noise frequency



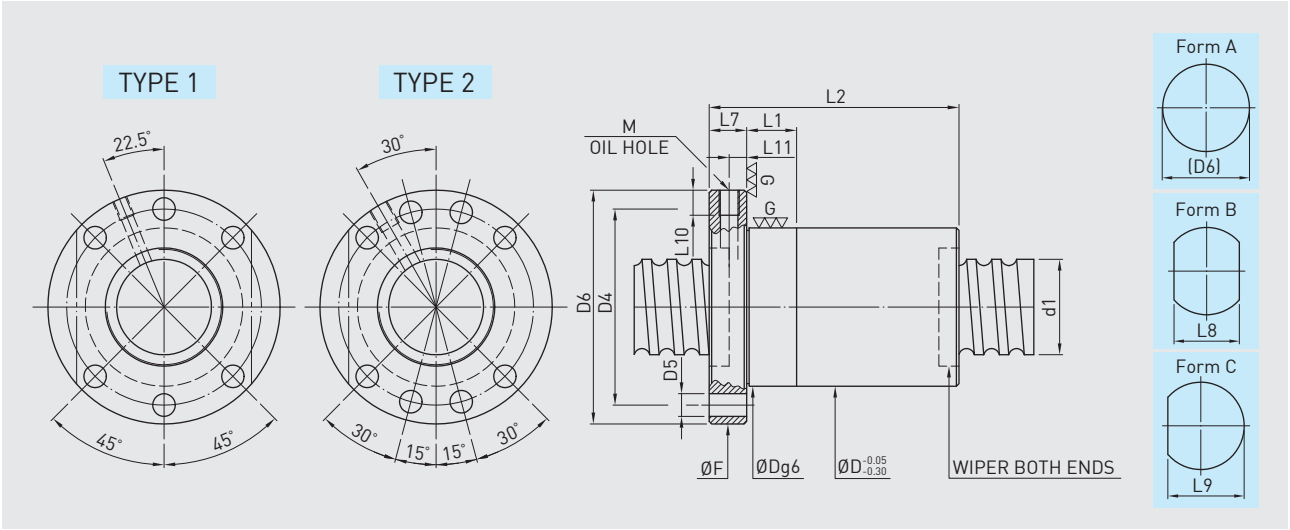
FSC TYPE



Model	Size		PCD	RD	Ball Dia.	Circuits	Rigidity K (kgf/μm)	Dynamic Load C(KN)	Static Load Co(KN)	Nut			Flange							Oil Hole		
	Nominal Dia.	Lead								D	L1	L2	TYPE	Form A (D6)	Form B (L8)	Form C (L9)	L7	D4	D5	M	L10	L11
15-10K3	15	10	15.6	12.324	3.175	3	25	960	1930	34	10	44	1	57	43	50	10	45	5.5	M5×1P	6	5
15-20K2		20				2	15	630	1250		10	50										
20-10K3	20	10	20.6	17.324	3.175	3	32	1130	2660	36	10	47		58	44	51		47	6.6	M6×1P	8	
20-20K2		20				2	21	760	1730		10	56										
25-10K3	25	10	25.6	22.324	3.175	3	38	1260	3370	40	10	50		62	48	55		51				
25-25K2		25				2	25	840	2170		10	69										
25-10K4		10	25.8	21.744	3.969	4	56	2210	5660	45	10	60		65	51	58		54				
25-12K4		12				4	56	2200	5640		10	67										
28-8K5	28	8	29	24.132	4.763	5	79	3690	9780	50	10	62		80	62	71	12	65				6
32-5K4	32	5	32.6	29.324	3.175	4	57	1840	5960	48	10	38		70	54	62		59				
32-6K5		6	32.8	28.744	3.969	5	83	3090	9480	56	10	48		86	65	75.5		71				
32-8K5		8				5	84	3080	9460	50	10	59		80	62	71		65				
32-10K5		10				5	85	3080	9450		10	73										
32-20K3		20				3	52	1900	5430		20	87										
32-32K2		32				2	34	1280	3530		20	87										
32-40K2		40				2	32	1240	3440		20	94										
32-10K5		10	33	28.132	4.763	5	86	3850	10890	56	10	79		86	65	75.5		71				7
32-12K5		12				5	87	3840	10870		20	88										
32-10K5		10	33.4	26.91	6.35	5	90	5640	14480	62	10	77		92	74	83		77				
32-12K5		12				5	90	5620	14450		20	87										
32-16K4		16				4	73	4570	11390		20	92										
32-20K3		20				3	54	3480	8340		20	87										
36-10K5	36	10	37.4	30.91	6.35	5	98	6010	16440	66	20	80	2	96	73	84.5	14	81	9	M8×1P	10	
36-12K5		12				5	99	5990	16420		20	87										
36-16K5		16				5	100	5960	16350		20	109										
36-20K4		20				4	79	4840	12880		20	108										
36-36K2		36				2	39	2540	6240		20	95										
38-8K5	38	8	39	34.132	4.763	5	96	4190	13110	61	20	64		91	68	79.5		76				
38-10K4		10	39.4	32.91	6.35	4	81	5050	13790	63	20	70		93	70	81.5		78				
38-15K4		15				4	83	5020	13740		20	88										
38-16K5		16				5	104	6140	17340		20	108										
38-20K4		20				4	83	4990	13660		25	108										
38-25K4		25				4	83	4940	13560		25	127										
38-40K2		40				2	40	2590	6560		25	103										
40-5K5	40	5	40.6	37.324	3.175	5	85	2470	9490		20	45										
40-6K5		6	40.8	36.744	3.969	5	95	3370	11780		20	52										
40-8K5		8	41	36.132	4.763	5	101	4360	14200		20	64										

Note: 1. Rigidity without preload: The axial load is calculated by 30% of dynamic load.
2. Circuits less than K5 also available.

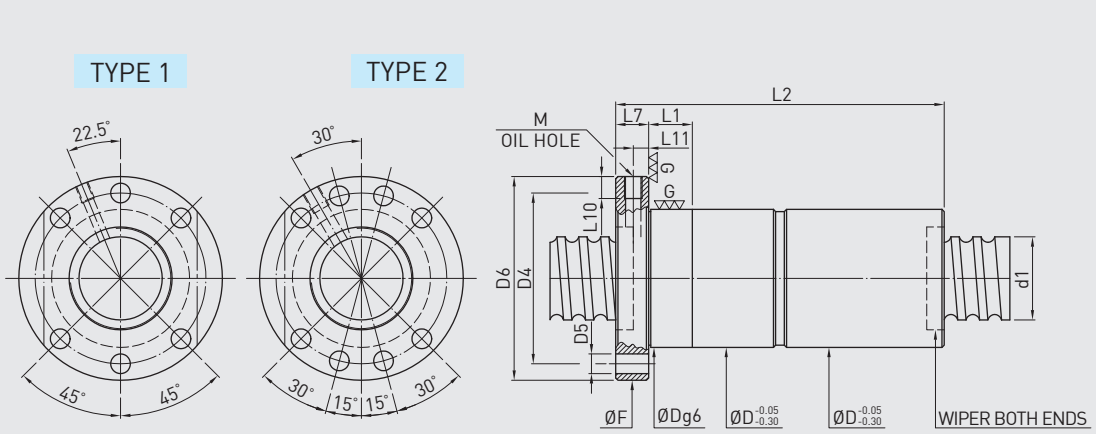
FSC TYPE



Model	Size		PCD	RD	Ball Dia.	Circuits	Rigidity K (kgf/μm)	Dynamic Load C(KN)	Static Load Co(KN)	Nut			Flange							Oil Hole		
	Nominal Dia.	Lead								D	L1	L2	TYPE	Form A (D6)	Form B (L8)	Form C (L9)	L7	D4	D5	M	L10	L11
40-10K5	40	10	41.4	34.91	6.35	5	106	6340	18400	70	20	83	2	100	75	87.5	14	85	9	M8×1P	10	7
40-12K5		12				5	108	6330	18380		20	86										
40-16K5		16				5	109	6300	18320		20	108										
40-20K4		20				4	87	5130	14440		20	110										
40-25K4		25				4	86	5080	14350		25	127										
40-40K2		40				2	42	2660	6940		25	101										
40-12K5		12	41.6	34.299	7.144	5	110	7430	20790		20	90										
45-10K5	45	10	46.4	39.91	6.35	5	118	6810	21320	75	20	78		110	85	97.5	16	93	11			8
45-12K5		12				5	119	6800	21290		20	89					18					9
45-16K5		16				5	121	6780	21240		20	108										
45-20K4		20				4	98	5520	16760		25	108										
45-25K4		25				4	98	5480	16670		25	129										
45-40K3		40				3	71	4100	12020		25	145										
45-16K5		16	46.6	39.299	7.144	5	120	7810	23230		20	119										
50-5K5	50	5	50.6	47.324	3.175	5	95	2700	11940	70	20	45		100	75	87.5		85				
50-10K5		10	51.4	44.91	6.35	5	125	7050	23300	82	25	80		118	92	105		100				
50-12K5		12				5	127	7040	23280		25	90										
50-15K5		15				5	129	7030	23250		25	104										
50-16K5		16				5	129	7020	23230		25	109										
50-20K4		20				4	104	5720	18340		25	106										
50-25K4		25				4	104	5690	18260		25	129										
50-30K4		30				4	104	5650	18170		25	147										
50-35K3		35				3	80	4430	13840		25	133										
50-40K3		40				3	79	4390	13750		25	145										
50-30K2		30	51.6	44.299	7.144	2	53	3560	9960		25	92										
50-16K5		16	51.8	43.688	7.938	5	132	9450	28710	85	25	112		121	95	108		104				
50-20K4		20	52.2	42.466	9.525	4	113	10670	31310	86	25	120										
63-10K5	63	10	64.4	57.91	6.35	5	144	7720	29190	95	25	84		135	100	117.5	20	115	13.5			10
63-12K5		12				5	147	7720	29180		25	94										
63-20K5		20				5	157	7850	30020		25	132										
63-40K2		40				2	62	3310	11100		25	110										
63-12K5		12	64.8	56.688	7.938	5	152	10520	36440	98	25	94		138	103	120.5		118				
63-16K4		16	65.2	55.466	9.525	4	132	11810	39320	107	25	100		147	112	129.5		127				
63-20K5		20				5	168	14410	49590		25	146										
80-10K5	80	10	81.4	74.91	6.35	5	166	8620	37980	110	25	80		150	115	132.5		130				
80-20K5		20	82.2	72.466	9.525	5	205	16170	64500	145	25	142		185	150	167.5	25	165				12.5

Note: 1. Rigidity without preload: The axial load is calculated by 30% of dynamic load.
2. Circuits less than K5 also available.

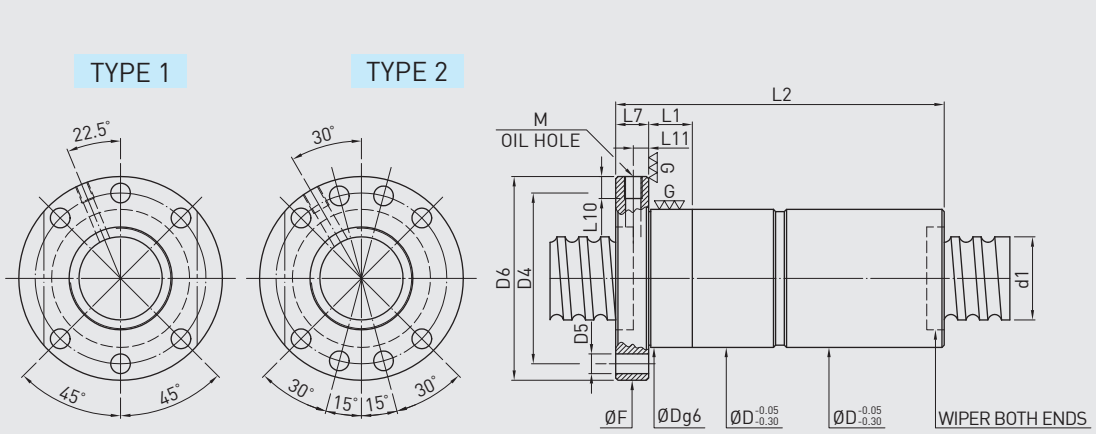
FDC TYPE



Model	Size		PCD	RD	Ball Dia.	Circuits	Rigidity K (kgf/μm)	Dynamic Load C(KN)	Static Load Co(KN)	Nut			Flange							Oil Hole		
	Nominal Dia.	Lead								D	L1	L2	TYPE	Form A (D6)	Form B (L8)	Form C (L9)	L7	D4	D5	M	L10	L11
15-10K3	15	10	15.6	12.324	3.175	3	33	960	1930	34	10	92	1	57	43	50	10	45	5.5	M5×1P	6	5
15-20K2		20				2	20	630	1250		10	104										
20-10K3	20	10	20.6	17.324	3.175	3	42	1130	2660	36	10	98		58	44	51		47	6.6	M6×1P	8	
20-20K2		20				2	27	760	1730		10	116										
25-10K3	25	10	25.6	22.324	3.175	3	50	1260	3370	40	10	104		62	48	55		51				
25-25K2		25				2	32	840	2170		10	142										
25-10K4		10	25.8	21.744	3.969	4	74	2210	5660	45	10	124		65	51	58		54				
25-12K4		12				4	74	2200	5640		10	138										
28-8K5	28	8	29	24.132	4.763	5	104	3690	9780	50	10	128		80	62	71	12	65				6
32-5K4	32	5	32.6	29.324	3.175	4	77	1840	5960	48	10	80		70	54	62		59				
32-6K5		6	32.8	28.744	3.969	5	111	3090	9480	56	10	100		86	65	75.5		71				
32-8K5		8				5	112	3080	9460	50	10	122		80	62	71		65				
32-10K5		10				5	113	3080	9450		10	150										
32-20K3		20				3	68	1900	5430		20	178										
32-32K2		32				2	44	1280	3530		20	178										
32-40K2		40				2	42	1240	3440		20	192										
32-10K5		10	33	28.132	4.763	5	113	3850	10890	56	10	162		86	65	75.5		71				7
32-12K5		12				5	114	3840	10870		20	180										
32-10K5		10	33.4	26.91	6.35	5	119	5640	14480	62	10	158		92	74	83		77				
32-12K5		12				5	119	5620	14450		20	178										
32-16K4		16				4	96	4570	11390		20	188										
32-20K3		20				3	71	3480	8340		20	178										
36-10K5	36	10	37.4	30.91	6.35	5	130	6010	16440	66	20	164	2	96	73	84.5	14	81	9	M8×1P	10	
36-12K5		12				5	131	5990	16420		20	178										
36-16K5		16				5	132	5960	16350		20	222										
36-20K4		20				4	105	4840	12880		20	220										
36-36K2		36				2	51	2540	6240		20	194										
38-8K5	38	8	39	34.132	4.763	5	127	4190	13110	61	20	132		91	68	79.5		76				
38-10K4		10	39.4	32.91	6.35	4	107	5050	13790	63	20	144		93	70	81.5		78				
38-15K4		15				4	109	5020	13740		20	180										
38-16K5		16				5	137	6140	17340		20	220										
38-20K4		20				4	110	4990	13660		25	220										
38-25K4		25				4	109	4940	13560		25	258										
38-40K2		40				2	53	2590	6560		25	210										
40-5K5	40	5	40.6	37.324	3.175	5	114	2470	9490		20	95										
40-6K5		6	40.8	36.744	3.969	5	127	3370	11780		20	109										
40-8K5		8	41	36.132	4.763	5	135	4360	14200		20	133										

Note: 1. Rigidity with proload: The axial load is calculated by 10% of dynamic load.
2. Circuits less than K5 also available.

FDC TYPE



Model	Size		PCD	RD	Ball Dia.	Circuits	Rigidity K (kgf/μm)	Dynamic Load C(KN)	Static Load Co(KN)	Nut			Flange							Oil Hole		
	Nominal Dia.	Lead								D	L1	L2	TYPE	Form A (D6)	Form B (L8)	Form C (L9)	L7	D4	D5	M	L10	L11
40-10K5		10				5	141	6340	18400		20	171										
40-12K5		12				5	142	6330	18380		20	177										
40-16K5		16	41.4	34.91	6.35	5	143	6300	18320	70	20	221		100	75	87.5	14	85	9			7
40-20K4	40	20				4	115	5130	14440		20	225										
40-25K4		25				4	114	5080	14350		25	259										
40-40K2		40				2	56	2660	6940		25	207										
40-12K5		12	41.6	34.299	7.144	5	146	7430	20790		20	185										
45-10K5		10				5	156	6810	21320		20	161					16					8
45-12K5		12				5	158	6800	21290		20	183										
45-16K5		16	46.4	39.91	6.35	5	160	6780	21240	75	20	221		110	85	97.5		93				
45-20K4	45	20				4	129	5520	16760		25	221						93				
45-25K4		25				4	129	5480	16670		25	263										
45-40K3		40				3	93	4100	12020		25	295										
45-16K5		16	46.6	39.299	7.144	5	159	7810	23230		20	243										
50-5K5		5	50.6	47.324	3.175	5	129	2700	11940	70	20	95		100	75	87.5		85				
50-10K5		10				5	166	7050	23300		25	166										
50-12K5		12				5	169	7040	23280		25	186										
50-15K5		15				5	171	7030	23250		25	214					18		11			
50-16K5		16				5	171	7020	23230		25	224										
50-20K4		20	51.4	44.91	6.35	4	138	5720	18340		25	218										
50-25K4	50	25				4	134	5690	18260	82	25	263	2	118	92	105		100		M8×1P	10	9
50-30K4		30				4	136	5650	18170		25	299										
50-35K3		35				3	105	4430	13840		25	271										
50-40K3		40				3	104	4390	13750		25	295										
50-30K2		30	51.6	44.299	7.144	2	70	3560	9960		25	190										
50-16K5		16	51.8	43.688	7.938	5	175	9450	28710	85	25	229		121	95	108		104				
50-20K4		20	52.2	42.466	9.525	4	149	10670	31310	86	25	245										
63-10K5		10				5	192	7720	29190		25	174										
63-12K5		12	64.4	57.91	6.35	5	196	7720	29180	95	25	194		135	100	117.5		115				
63-20K5		20				5	208	7850	30020		25	270										
63-40K2	63	40				2	82	3310	11100		25	226					20		13.5			10
63-12K5		12	64.8	56.688	7.938	5	202	10520	36440	98	25	194		138	103	120.5		118				
63-16K4		16	65.2	55.466	9.525	4	175	11810	39320	107	25	206		147	112	129.5		127				
63-20K5		20				5	222	14410	49590		25	298										
80-10K5	80	10	81.4	74.91	6.35	5	223	8620	37980	110	25	166		150	115	132.5		130				
80-20K5		20	82.2	72.466	9.525	5	272	16170	64500	145	25	289		185	150	167.5	25	165				12.5

Note: 1. Rigidity with proload: The axial load is calculated by 10% of dynamic load.
2. Circuits less than K5 also available.