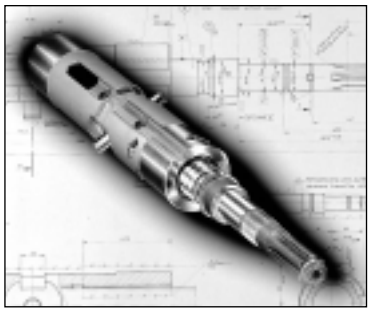
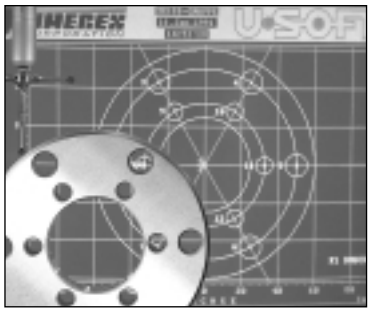
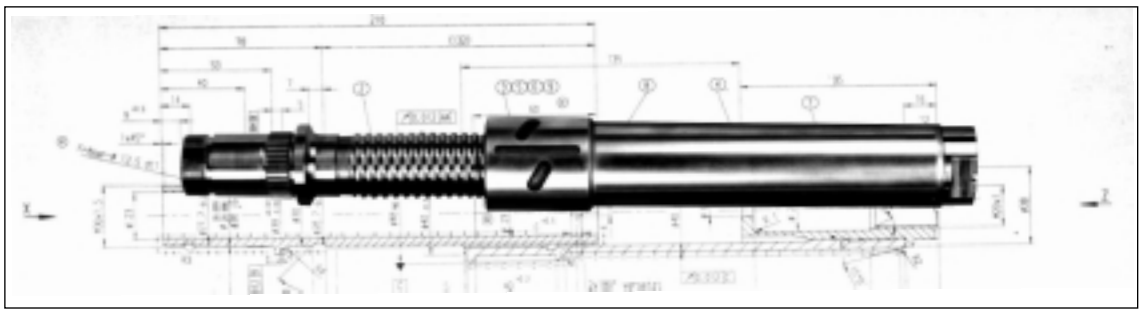
Precision Rolled Ball Screw

ISO 9001





THOMSON looks back on 40 successful years of designing, manufacturing and selling ball screws. Our constant endeavours to meet the most exacting quality standards and the application of advanced technologies have gained us strong international recognition.



PRECISION ROLLED BALL SCREW

The features of Thomson ball screw

▶Qualified technical support and assistance to achieve the best technical and economical solution

▶Guaranteed product quality based on fully integrated production and state-of-the art manufacturing facilities.

▶Quality assurance to DIN-ISO 9001 and to NATO-specification AQAP4

▶We have been approved by the German Federal Aviation Board as manufacturer and refurbisher of aviation equipment.

▶Supply of standard ball screws from stock.

▶Maintenance and overhaul of ball screws.

SPECIAL REQUIREMENTS

Out state-of-the art machinery and test equipment also comprised the world's biggest combined external thread and external diameter grinding cetre. We manufacture ball screws from 10 to 200 mm diameter and a screw length of up to 15 mm in one piece.

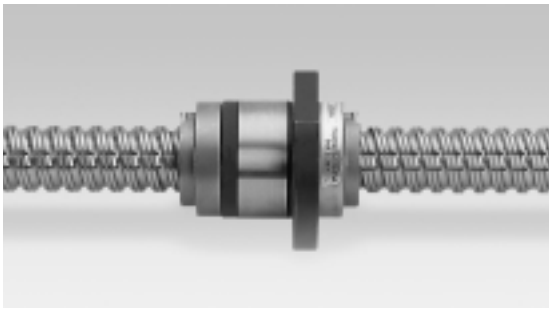
In addition to our standard program we manufacture customized designs :

1)Special material
2)Specific surface treatments
3)Specific machining operations

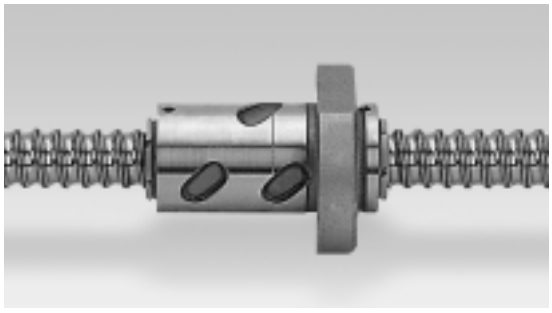
ROLLED BALL SCREW PRODCUT

FK Precision Rolled Ball Screw

FH Long Lead Rolled Ball Screw

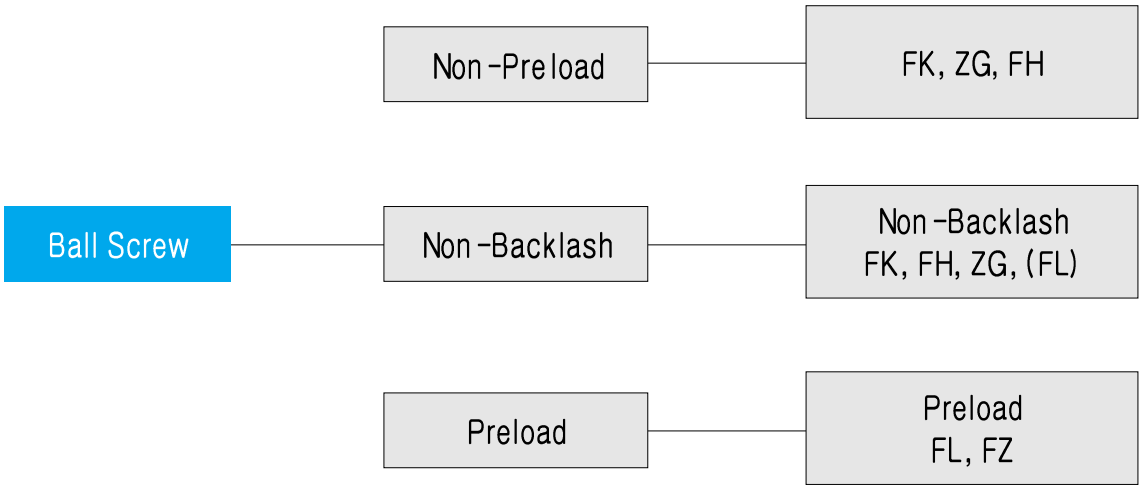


FL Preload Rolled Ball Screw

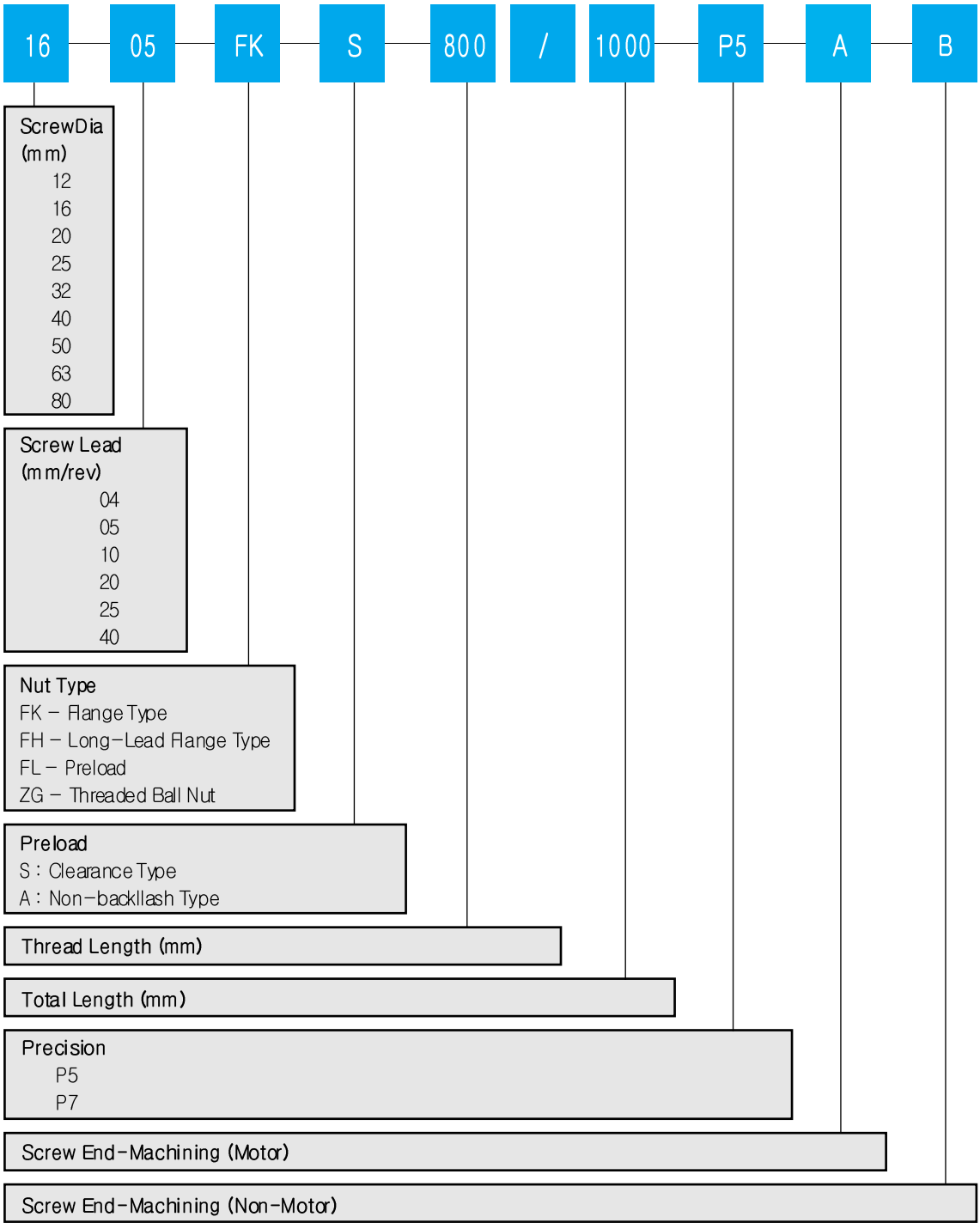


ZG Rolled Ball Screw

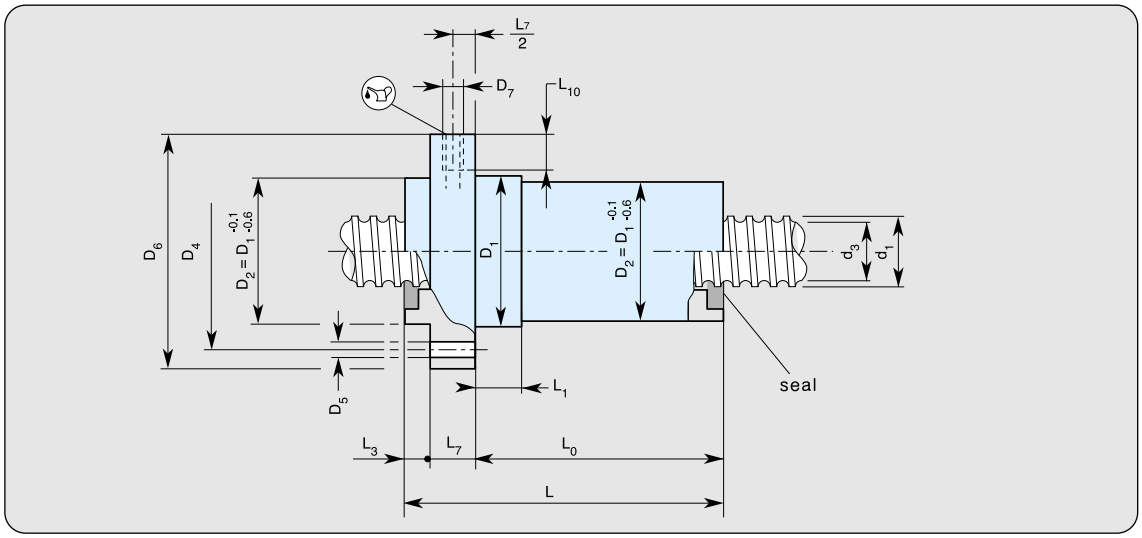
PRODUCT SELECTION



ORDERING EXAMPLE



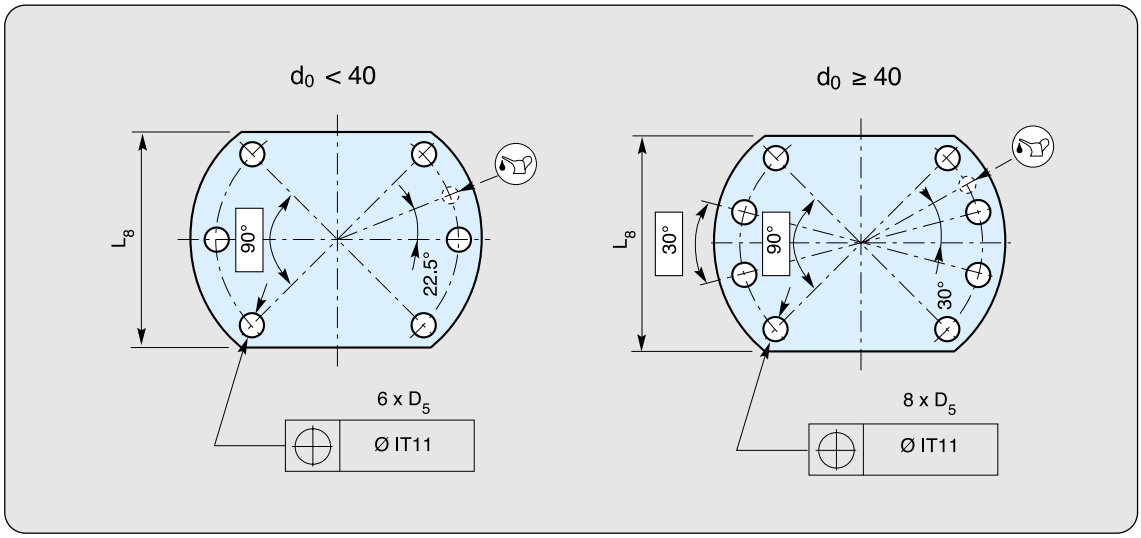
PRECISION ROLLED BALL SCREW FK TYPE



UNIT : mm

Reference	d_1	Lead P_{ho}	Outer Diameter d_0	d_3	Circuit i	Load Capacity		Max Axial backlash S_a	$D_1 g_6$	PCD D_4	D_5	$D_6 h_{13}$
						Cam kN	Coam kN					
FK1605	15.6	05	16	12.7	3	9.5	10.9	0.09	28	38	5.5	48
FK2005	19.6	05	20	16.7	3	11.5	15.5	0.09	36	47	6.6	58
FK2505	24.6	05	25	21.7	3	13.1	20.2	0.09	40	51	6.6	62
FK3205	31.6	05	32	28.7	4	19.3	36.3	0.09	50	65	9	80
FK3210	31.6	10	32	27.1	3	26.4	39.0	0.14	50	65	9	80
FK4005	39.6	05	40	36.7	5	26.3	59.2	0.09	63	78	9	93
FK4010	39.6	10	40	34.0	4	64.9	109.0	0.15	63	78	9	93
FK5010	49.5	10	50	43.8	4	66.41	34.3	0.15	75	93	11	110
FK6310	62.5	10	63	56.9	5	93.8	229.7	0.15	90	108	11	125
FK8010	79.5	10	80	73.9	6	121.9	374.9	0.15	105	125	13.5	145

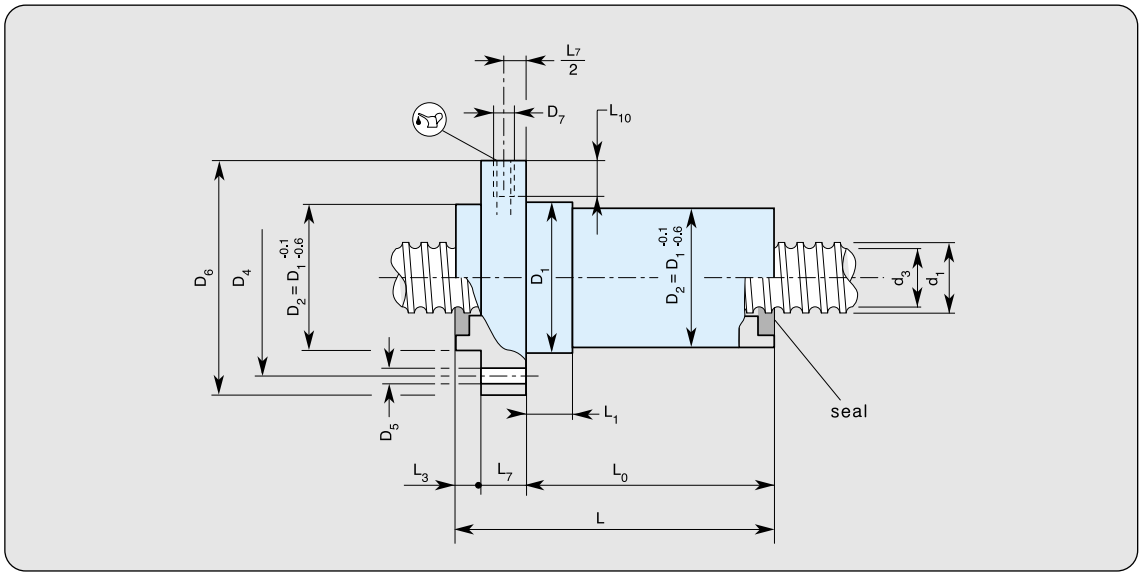
	D_7	L_{10}
$d_0 < 40$	M6	8
$d_0 \geq 40$	M8x1	10



UNIT : mm

L±1	L_0±1	L_1+2	L_3-0.5	L_7h13	L_8h13	Oil Hole		Lmax	Mmu (kg)	Msp (kg/m)	I_{SP} kg·mm²/m
						D_7	L_{10}				
48.5	33.0	10	5.5	10	40	M6	8	3000	0.25	1.2	32
48.5	33.0	10	5.5	10	44	M6	8	4000	0.35	2.0	85
49.0	33.0	10	6.0	10	48	M6	8	5000	0.37	3.3	225
57.0	39.0	10	6.0	12	62	M6	8	6000	0.70	5.6	645
73.0	55.0	16	6.0	12	62	M6	8	6000	0.80	5.3	580
66.0	45.0	10	7.0	14	70	M8×1	10	6000	1.20	9.0	1650
88.5	67.5	16	7.0	14	70	M8×1	10	6000	1.40	8.3	1400
92.0	69.0	16	7.0	16	85	M8×1	10	6000	2.00	13.5	3700
103.5	78.5	16	7.0	18	95	M8×1	10	6000	3.00	22.0	9870
121.0	92.0	16	9.0	20	110	M8×1	10	7000	3.90	36.4	26850

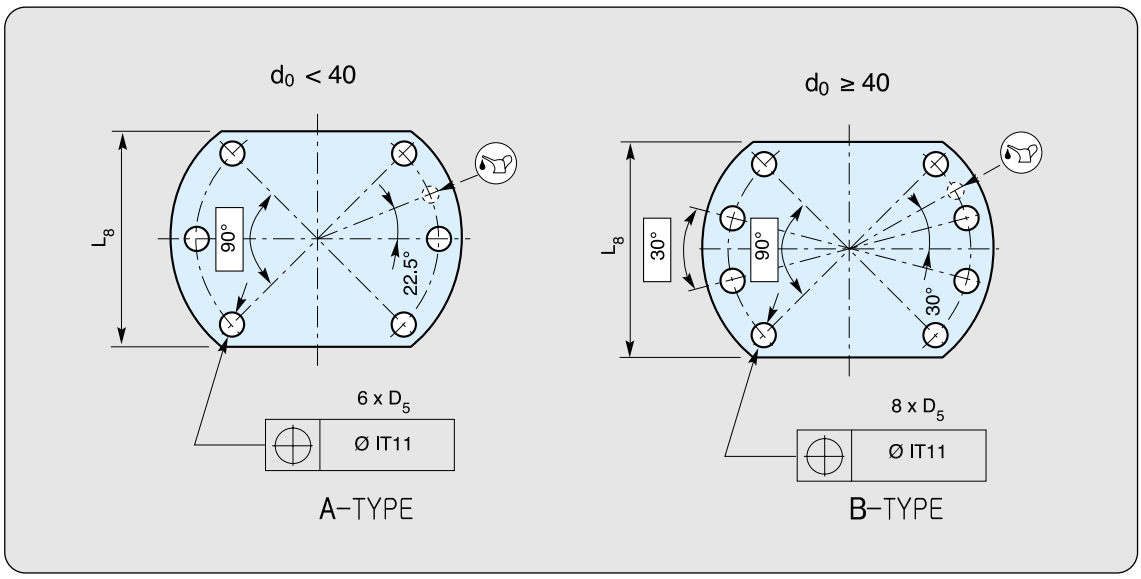
PRECISION ROLLED BALL SCREW FH TYPE



UNIT : mm

Reference	d_1	Lead P_{ho}	Outer Diameter d_0	d_3	Circuit i	Load Capacity		Max Axial backlash S_a	$D_1 g_6$	PCD D_4	D_5	$D_6 h_{13}$
						Cam kN	Coam kN					
FH2020	19.6	20	20	16.7	3.6	11.5	17.5	0.09	36	47	6.6	58
FH2510	24.6	10	25	21.7	5.6	22.9	41.2	0.09	40	51	6.6	62
FH2525	24.6	25	25	21.7	3.6	13.0	22.6	0.09	40	51	6.6	62
FH3220	31.6	20	32	27.1	5.6	47.2	83.2	0.15	56	71	9	86
FH4020	39.6	20	40	35.2	5.6	52.2	103.6	0.15	63	78	9	93
FH4040	39.6	40	40	34.0	3.6	59.7	108.9	0.18	70	85	9	100
FH5020	49.5	20	50	44.6	5.6	78.8	188.7	0.16	75	93	11	110
FH6320	62.5	20	63	56.9	5.6	103.1	270.8	0.18	95	115	13.5	135

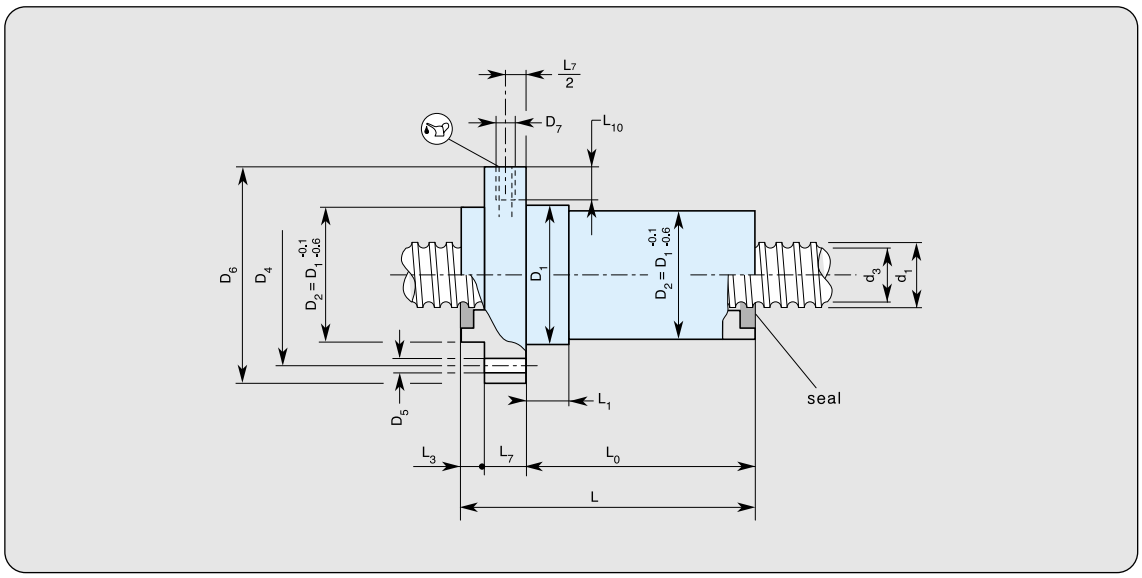
	D_7	L_{10}
$d_0 < 40$	M6	8
$d_0 \geq 40$	M8x1	10



UNIT : mm

L±1	L_0±1	L_1+2	L_3-0.5	L_7h13	L_8h13	Oil Hole		Lmax	Mmu (kg)	Msp (kg/m)	I_{SP} kg·mm²/m
						D_7	L_{10}				
59.0	35.0	20	14.0	10	44	M6	8	4000	0.45	1.9	73
51.0	25.0	9	16.0	10	48	M6	8	5000	0.45	3.3	225
71.0	45.5	20	15.5	10	48	M6	8	5000	0.55	3.3	225
83.0	52.0	25	19.0	12	68	M6	8	6000	1.40	5.3	580
83.0	49.5	16	19.5	14	70	M8×1	10	6000	1.60	7.6	1520
104.0	69.0	25	21.0	14	77	M8×1	10	6000	2.40	8.4	1430
85.0	47.0	16	22.0	16	85	M8×1	10	6000	2.20	13.6	3730
86.0	42.0	18	24.0	20	100	M8×1	10	6000	3.80	22.0	9050

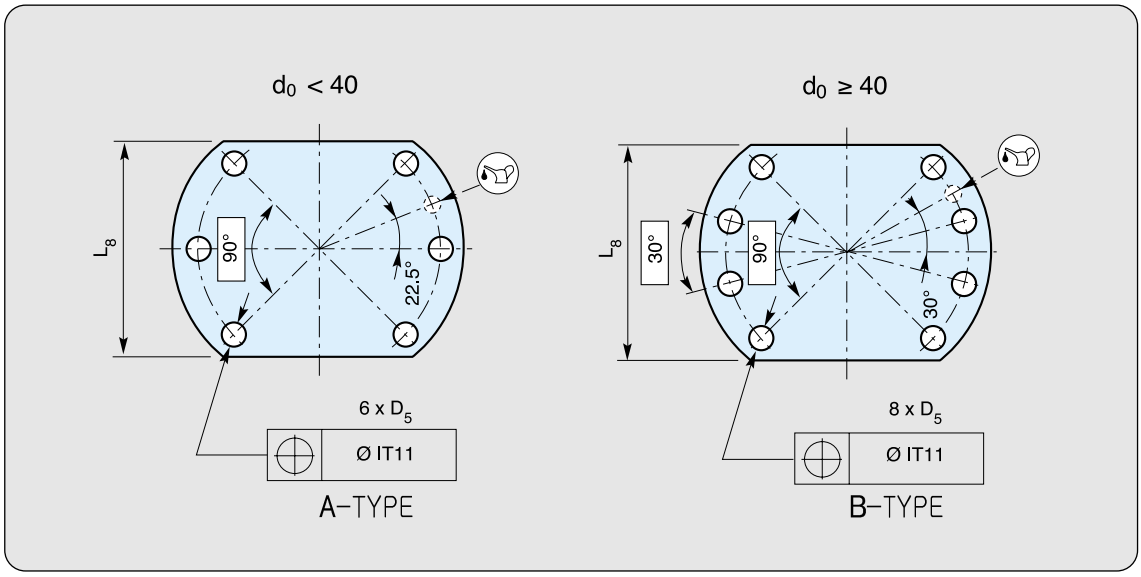
RECISION ROLLED BALL SCREW FL / FZ



UNIT : mm

Reference	d_1	Lead P_{ho}	Outer Diameter d_0	d_3	Circuit i	Load Capacity		Max Axial backlash S_a	$D_1 g_6$	PCD D_4	D_5	$D_6 h_{13}$
						Cam kN	Coam kN					
FL2005	19.6	5	20	16.7	3	11.5	15.5	0.36	36	47	6.6	58
FL2505	24.6	5	25	21.7	3	12.6	19.1	0.36	40	51	6.6	62
FL3205	31.6	5	32	28.7	4	19.3	36.4	0.59	50	65	9	80
FL3210	31.6	10	32	27.1	3	26.4	39.0	0.46	50	65	9	80
FL4005	39.6	5	40	36.7	5	26.3	59.2	0.91	63	78	9	93
FL4010	39.6	10	40	34.0	4	64.9	109.0	0.83	63	78	9	93
FL5010	49.5	10	50	43.8	4	66.4	134.3	1.01	75	93	11	110
FL6310	62.5	10	63	56.9	5	93.8	229.7	1.49	90	108	11	125
FL8010	79.5	10	80	73.9	6	121.9	375.0		105	125	13.5	145

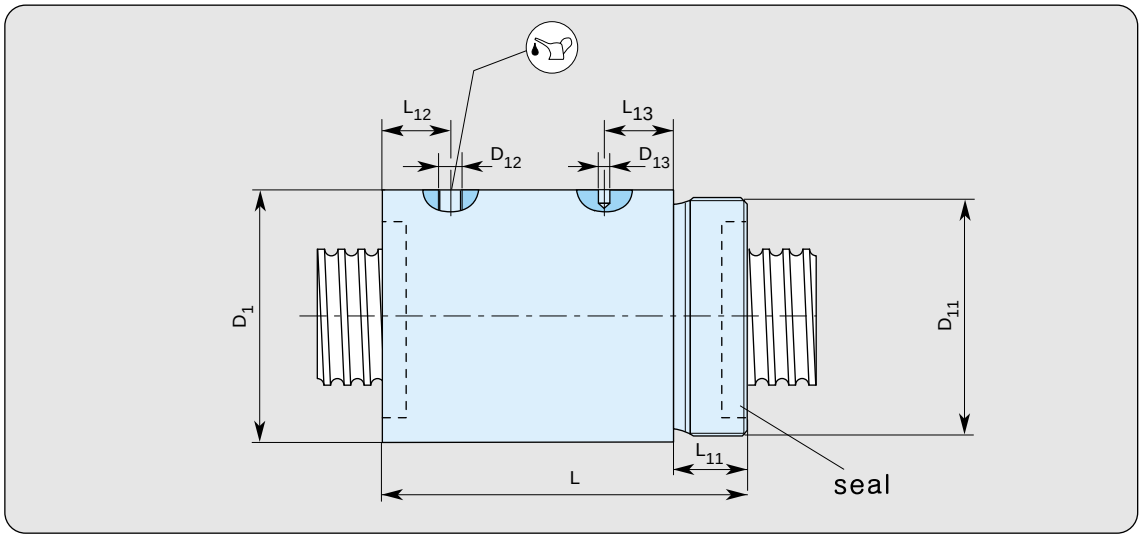
	D_7	L_{10}
$d_0 < 40$	M6	8
$d_0 \geq 40$	M8x1	10



UNIT : mm

L±1	L_0±1	L_1+2	L_3-0.5	L_7h13	L_8h13	Oil Hole		Lmax	Mmu (kg)	Msp (kg/m)	I_{SP} kg·mm²/m
						D_7	L_{10}				
68.5	53.0	10	5.5	10	44	M6	8	4000	0.38	2.0	85
69.5	53.5	10	6.0	10	48	M6	8	5000	0.38	3.3	225
83.0	65.0	10	6.0	12	62	M6	8	6000	0.72	5.6	645
105.5	87.5	16	6.0	12	62	M6	8	6000	0.82	5.3	580
97.0	76.0	10	7.0	14	70	M8×1	10	6000	1.30	9.0	1650
142.0	121.0	16	7.0	14	70	M8×1	10	6000	1.50	8.3	1400
144.0	121.0	16	7.0	16	85	M8×1	10	6000	2.20	13.5	3700
166.0	141.0	16	7.0	18	95	M8×1	10	6000	3.30	22.0	9870
192.0	163.0	16	9.0	20	110	M8×1	10	7000	4.30	36.4	26850

RECISION ROLLED BALL SCREW ZG



UNIT : mm

Reference	d_1	Lead P_{ho}	Outer Diameter d_0	d_3	Circuit i	Load Capacity		Max Axial backlash S_a	$D_1 g_6$	D_5
						Cam kN	Coam kN			
ZG1204	11.6	4	12	9.7	3	3.5	4.0	0.07	25.5	M20×1.0
ZG1605	15.6	5	16	12.7	4	12.1	14.5	0.09	32	M30×1.5
ZG2005	19.6	5	20	16.7	4	14.8	20.7	0.09	38	M35×1.5
ZG2505	24.6	5	25	21.7	5	20.4	33.7	0.09	42	M40×1.5
ZG2510	24.6	10	25	21.7	6	19.9	31.8	0.09	42	M40×1.5
ZG3205	31.6	5	32	28.7	5	23.3	45.5	0.09	52	M48×1.5
ZG3210	31.6	10	32	27.1	4	33.8	52.0	0.15	52	M48×1.5
ZG4005	39.6	5	40	36.7	5	26.3	59.2	0.09	58	M56×1.5
ZG4010	39.6	10	40	34.0	5	78.6	136.2	0.18	65	M60×2.0
ZG5010	49.5	10	50	43.8	6	97.8	213.2	0.18	78	M72×2.0
ZG6310	62.5	10	63	56.9	6	109.7	275.6	0.18	92	M80×2.0
ZG8010	79.5	10	80	73.9	6	121.9	375.0	0.18	120	M110×2.0

UNIT : mm

D_{12}	$L_{13}\pm1$	$L\pm1$	$L_{11}\pm0.5$	$L_{12}\pm2$	$L_{13}\pm2$	Lmax	Mmu (kg)	Msp (kg/m)	I_{SP} kg·mm²/m
3.2		34.0	10.0	12.0		3000	0.10	0.7	
M6×1	4	57.5	16.5	10.5	22.0	3000	0.22	1.2	32
M6×1	4	57.5	16.5	10.5	22.0	4000	0.30	2.0	85
M6×1	4	63.5	17.0	10.5	23.0	5000	0.37	3.3	225
M6×1	4	61	17.0	10.0	21.0	5000	0.38	3.3	225
M6×1	5	65.5	19.0	10.5	23.0	6000	0.55	5.6	645
M6×1	5	85.0	19.0	12.0	43.0	6000	0.65	5.3	580
M8×1	5	67.5	19.0	12.0	22.5	6000	0.60	9.0	1650
M8×1	6	105.5	27.0	13.0	43.0	6000	1.25	8.3	1400
M8×1	6	118.0	29.0	13.0	53.0	6000	1.95	13.5	3700
M8×1	6	118.0	29.0	13.0	53.0	6000	2.40	22.0	9870
M8×1	8	126.0	34.0	15.5	53.0	7000	4.90	36.4	26850