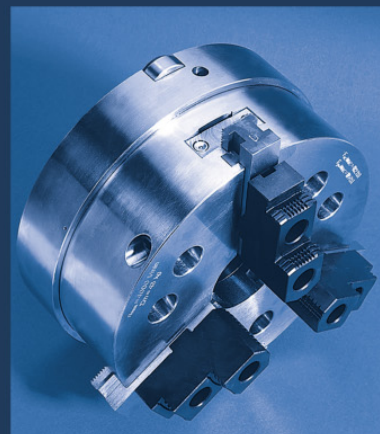
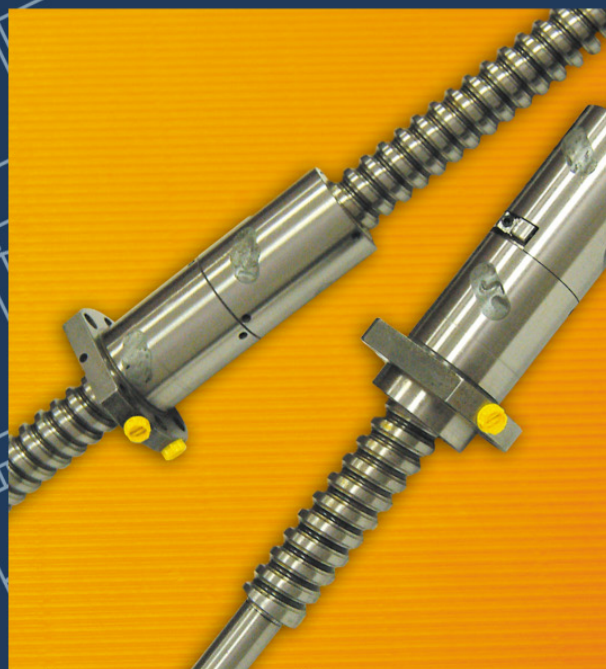


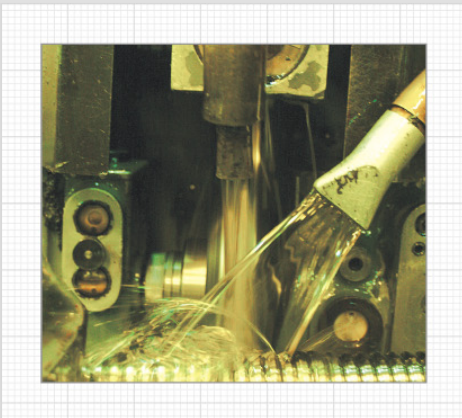
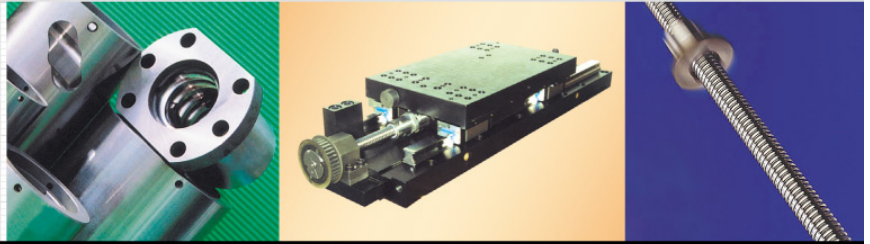
GYÁRTÁS
MANUFACTURING / HERSTELLUNG



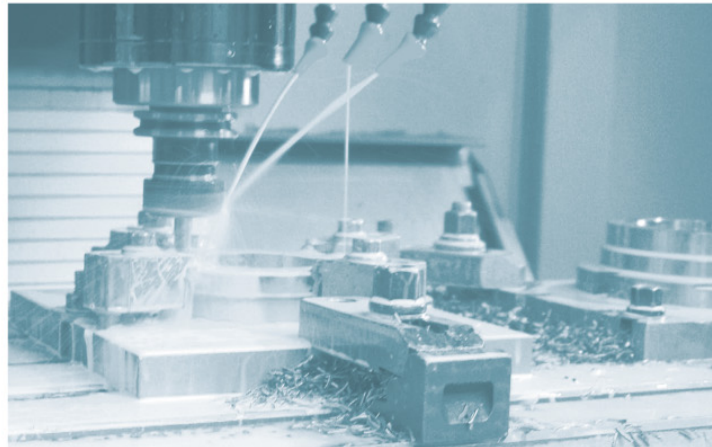
TERVEZÉS
DESIGN / PLANUNG

BALLSCREWS, LINEAR SYSTEMS

Linear systems



The predecessor of our company has started the manufacturing of ballscrews by a new investment in 1979. Our product range being manufactured and distributed owing to the developments during the recent years has continuously increased and today we offer our partners a large variety of linear drive systems and elements.



Ballscrews

For moving the units of modern machine-tools like CNC lathes, machining centres, grinders, industrial, medical, and other devices, for driving linear carriage saddle, where the high positioning accuracy, the loadability, the rigidity, the high efficiency and durability are basic requirements.

Trapezoid spindles

Serving for the actuation duties at traditional machine tools and devices, for the general requirements of machine production, where simple and reliable motion transmission is required.

Linear guides

For the high accuracy, high loadability and high rigidity linear guidance of the moving parts in modern machine tools, equipments and special purpose machines with high efficiency and durability.

Linear motion systems

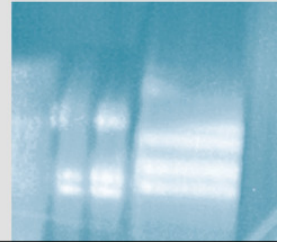
We undertake to design and assemble linear carriage saddles upon our partners' requirements, by using the high precision elements mentioned above for machine tools and the most various types of equipments.

SZIMIKRON

Specifications are subject to change without notice.

Ballscrews

The ballscrew is the motion transmission unit of machine tools and several machinery structures, transforming the rotational motion into linear motion with a high rate of efficiency, ensuring in addition high accuracy, loadability, rigidity and durability. The selection, implementation and utilisation of the appropriate alternative of type, capacity and size requires careful consideration. The preparation of fabrication plans may be based on client drawing, sketching and design data or the provided sample. The short information below is listing only the main design criteria. Our staff will be pleased to provide more detailed information to our clients.



GENERAL CHARACTERISTICS OF THE SZMIKRON BALLSCREWS

Execution, standard: according to DIN 69051

Accuracy rates: 3,5,7 / DIN 69051

Standard lead direction: right

Material (according to DIN)

spindle: 100Cr6, inductively hardened
nut: 16MnCr5, case-hardened

Thread surfaces: hardened, ground;
HRC 60 ± 2

Technical solutions:

- thread profile: gothic
- ball return: internal, by threads
- preload: mechanically adjustable
or glued
- wiper: plastic

Design criteria for defining dimensions and main technical characteristics:

load, r.p.m.

durability

rigidity

preload

accuracy rate

limit of rotation

critical rotation

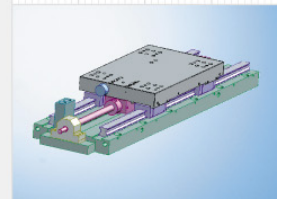
resistance to lateral bending

Design of shaft ends

The shaping of shaft ends is based on the client's drawings. For the specification of shape and position tolerances being appropriate for the given accuracy class, the provisions of standard DIN 69051 are to be followed.

Installation of the ballscrews

The ball screws require precise and rigid installation. Both the tolerance of parallelism between the spindle and the slide, and the tolerance of perpendicularity of the nut installation has to be observed and kept within the minimal values..



Lubrication of the ballscrews

The lubricants being used for the lubrication of the ballscrews are basically the same as those used for roller bearings, just the quantity used is higher. The lubricating material can be oil or grease. In case of oil lubrication, a higher rotation can be allowed than in case of grease lubrication, as the heating of the spindles is lower. In case of grease lubrication, a regular re-lubrication period of 6 months is sufficient after the initial operation cycle.



Designation example:

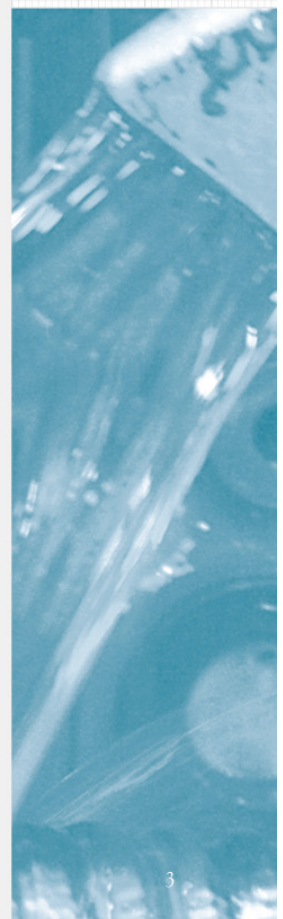
E.g.: the designation of a IT 3 accuracy class ballscrew with a nominal diameter of 40 mm, a right direction thread elevation of 20 mm, mounted with a ball of 7,144 mm diameter, with a threaded length of 1040 mm and total length of 1280 mm, with 4-4 operating threaded flange-cylindrical nut pairs, with wiper at both ends is:
40.20R. 7,144. 1040/1280 (AFV-AZV)/4-T3

Further requirements:

Should the demand for products be different from those listed on the following pages, we are ready to help our partners by:

- additional nut specifications
(e.g. nut pairs being installed into the housing)
- additional nominal sizes:
 $d_o = 6, 8, 10, 12, 16$
 $P = 1, 2, 2,5, 3, 4$ etc.
- left lead direction.

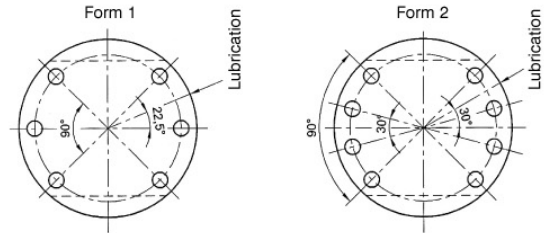
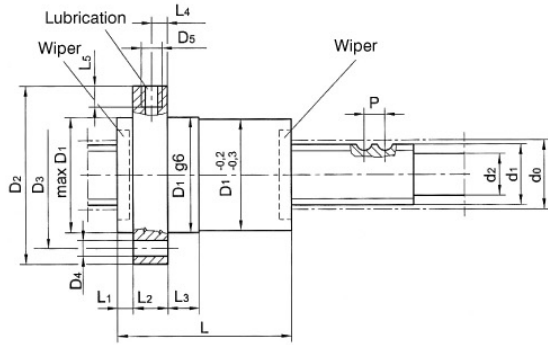
We also undertake the repair works of ballscrews.



Ballscrews

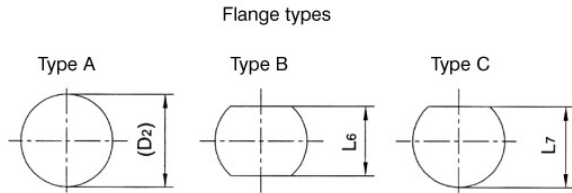
Flange-type single nut, with wipers

AFA – with backlash, AFVA – preloaded



d _s	P	D _w	d ₁	d ₂ max	D ₁ g6	D ₂	D ₃	D ₄ H13	Fixing screw	Form	Nr. of borings	D ₅	L ± 1 Nr. of threads					L ₁
													2	3	4	5	6	
20	5	3,175	19,2	16,2	36	58	47	6,6	M6	1	6	M6	43	49	–	–	–	6
25	5	3,175	24,2	21,2	40	62	51	6,6	M6	1	6	M6	43	49	55	–	–	6
25	10	4	24	20,2	40	62	51	6,6	M6	1	6	M6	58	70	81	–	–	6
32	5	3,175	31,2	28,2	50	80	65	9	M8	1	6	M6	47	53	59	64	69	8
32	6	4	31,2	27,4	50	80	65	9	M8	1	6	M6	–	58	64	71	77	8
32	10	6,35	30,4	24,8	50	80	65	9	M8	1	6	M6	65	77	88	–	–	8
32	15	5,556	31,2	26,2	50	80	65	9	M8	1	6	M6	79	96	112	–	–	10
32	20	6,35	30,4	24,8	50	80	65	9	M8	1	6	M6	93	–	–	–	–	10
32	25	5	31,2	26,6	56	93	78	9	M8	1	6	M8x1	73	–	–	–	–	10
40	5	3,175	39,6	36,6	63	93	78	9	M8	2	8	M8x1	–	55	61	66	71	8
40	6	4	39,6	35,8	63	93	78	9	M8	2	8	M8x1	–	60	67	73	79	8
40	10	6,35	39,6	34	63	93	78	9	M8	2	8	M8x1	67	79	90	100	–	8
40	12	6,35	39,6	34	63	93	78	9	M8	2	8	M8x1	–	86	99	112	124	8
40	15	6	38,2	33	63	93	78	9	M8	2	8	M8x1	–	72	87	102	–	10
40	16	6,35	37,5	32	63	93	78	9	M8	2	8	M8x1	–	74	90	106	–	10
40	20	7,144	39,6	33	63	93	78	9	M8	2	8	M8x1	96	119	141	–	–	10
40	25	6,35	37,5	32	63	93	78	9	M8	2	8	M8x1	75	100	–	–	–	10
40	30	6,35	37,5	32	63	93	78	9	M8	2	8	M8x1	85	115	–	–	–	10
50	5	3,175	49,2	46,2	75	110	93	11	M10	2	8	M8x1	–	59	65	70	75	10
50	10	6,35	48,4	42,8	75	110	93	11	M10	2	8	M8x1	–	83	94	104	115	10
50	12	8	49,2	42	82	125	108	11	M10	2	8	M8x1	–	71	83	95	107	10
50	15	6,35	48,4	42,8	75	110	93	11	M10	2	8	M8x1	–	74	89	104	119	10
50	15	8,731	48,4	40,5	82	125	108	11	M10	2	8	M8x1	–	79	94	109	124	10
50	20	8	49,2	42	75	110	93	11	M10	2	8	M8x1	–	124	146	–	–	10
50	20	8,731	49,2	41,2	85	125	108	11	M10	2	8	M8x1	–	94	114	134	–	10
50	25	8,731	48,4	40,5	82	125	108	11	M10	2	8	M8x1	–	109	134	–	–	10
50	30	8	49,2	42	75	110	93	11	M10	2	8	M8x1	127	162	–	–	–	10
50	30	8	49,2	42	82	125	108	11	M10	2	8	M8x1	90	120	150	–	–	10
63	8	5	62,6	58	90	125	108	11	M10	2	8	M8x1	–	57	65	73	81	10
63	10	6,35	61,4	55,8	90	125	108	11	M10	2	8	M8x1	–	85	96	106	117	10
63	15	8,731	59,6	51,8	95	135	115	13,5	M12	2	8	M8x1	–	81	96	111	126	10
63	20	8,731	59,6	51,8	95	135	115	13,5	M12	2	8	M8x1	–	94	114	134	154	10
80	10	6,35	78,4	72,8	105	145	125	13,5	M12	2	8	M8x1	–	87	98	108	119	10
80	20	8,731	78,4	70,5	125	165	145	13,5	M12	2	8	M8x1	–	–	116	136	156	10

Ballscrews



d_n – nominal dia. (mm)
 P – lead (mm)
 D_w – ball dia. (mm)
 d_2 – max. journal dia. dimension (mm)

Lead: right

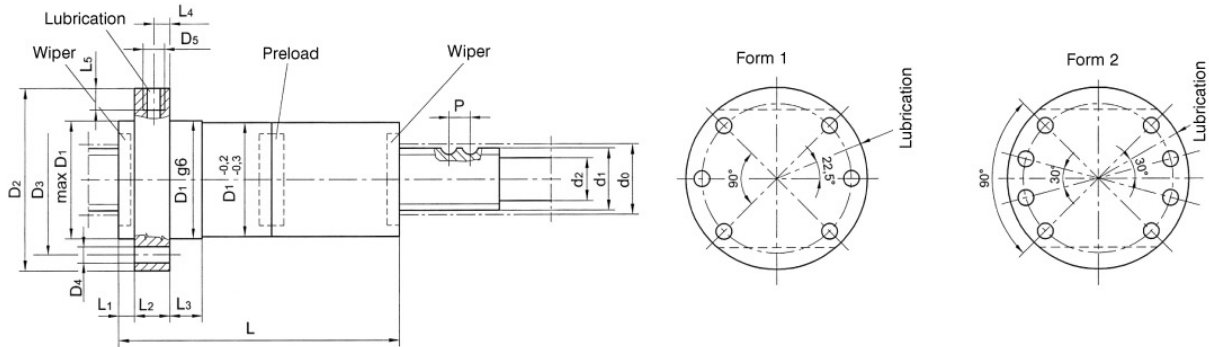
Dimensions in mm

L_2	L_3	L_4	L_5	L_6	L_7	Dynamic load capacity C (kN)					Static load capacity C_0 (kN)					d_n	P	D_w
						Nr. of threads					Nr. of threads							
						2	3	4	5	6	2	3	4	5	6			
10	10	5	8	44	51	8,1	10,7	–	–	–	10,4	15,6	–	–	–	20	5	3,175
10	10	5	8	48	55	8,8	11,7	14,3	–	–	14	21	28	–	–	25	5	3,175
10	16	5	8	48	55	12,5	16,5	20	–	–	16,5	25	33,5	–	–	25	10	4
12	10	6	8	62	71	9,6	12,7	15,6	18,3	20,7	18,5	28	37,5	47	56,5	32	5	3,175
12	10	6	8	62	71	–	18	22	25,5	28,5	–	34	45,5	57	68	32	6	4
12	16	6	8	62	71	28	37	45,5	–	–	34	51	68	–	–	32	10	6,35
12	16	6	8	62	71	24	31,5	38,5	–	–	33	49,5	66	–	–	32	15	5,556
12	25	6	8	62	71	29	–	–	–	–	36	–	–	–	–	32	20	6,35
14	25	7	10	70	81,5	19,5	–	–	–	–	28,5	–	–	–	–	32	25	5
14	10	7	10	70	81,5	–	14	17,2	20	22,5	–	37,5	50	62,5	75	40	5	3,175
14	10	7	10	70	81,5	–	20	24,5	28,5	32	–	47	63	78	94	40	6	4
14	16	7	10	70	81,5	31,5	42	51,5	60	–	49	74	99	124	–	40	10	6,35
14	16	7	10	70	81,5	–	41	50	58	66	–	72	96	120	144	40	12	6,35
14	25	7	10	70	81,5	–	38,5	47	55	–	–	69	92	115	–	40	15	6
14	25	7	10	70	81,5	–	40	49	57,5	–	–	68	90	113	–	40	16	6,35
14	25	7	10	70	81,5	40	53	65	–	–	57	86	115	–	–	40	20	7,144
14	25	7	10	70	81,5	31	41	–	–	–	45	68	–	–	–	40	25	6,35
14	25	7	10	70	81,5	30	40	–	–	–	45	67	–	–	–	40	30	6,35
16	10	8	10	85	97,5	–	15	18,2	21,2	24	–	47	62,5	78	93,5	50	5	3,175
16	16	8	10	85	97,5	–	45	55	64	73	–	96	128	160	192	50	10	6,35
18	16	9	10	95	110	–	68	83	97	110	–	125	167	208	250	50	12	8
16	25	8	10	85	97,5	–	45	55	64,5	73	–	95	127	159	191	50	15	6,35
18	25	9	10	95	110	–	79	96	112	127	–	138	184	230	276	50	15	8,731
16	25	8	10	85	97,5	–	66	80	–	–	–	120	160	–	–	50	20	8
18	25	9	10	95	110	–	75	92	107	–	–	130	174	218	–	50	20	8,731
18	25	9	10	95	110	–	77	94	–	–	–	133	178	–	–	50	25	8,731
16	25	8	10	85	97,5	50	65,5	–	–	–	80	120	–	–	–	50	30	8
18	25	9	10	95	110	50	65,5	79	–	–	80	120	160	–	–	50	30	8
18	16	9	10	95	110	–	33	40,5	47,5	54	–	99	132	165	198	63	8	5
18	16	9	10	95	110	–	49	60	70	80	–	128	171	213	256	63	10	6,35
20	25	10	10	100	117,5	–	85	104	121	137	–	180	240	300	360	60	15	8,731
20	25	10	10	100	117,5	–	81	99	115	130	–	168	224	280	336	63	20	8,731
20	16	10	10	110	127,5	–	54	66	77	87	–	170	226	283	340	80	10	6,35
25	25	12,5	10	130	147,5	–	–	111	130	146	–	–	320	400	480	80	20	8,731

Ballscrews

Preloaded double nuts with wipers

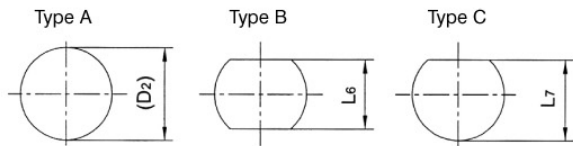
AFV – AZV



d _s	P	D _w	d ₁	d ₂ max	D ₁ g6	D ₂	D ₃	D ₄ H13	Fixing screw	Form	Nr. of borings	D ₅	L ± 1 Nr. of threads					L ₁
													2	3	4	5	6	
20	5	3,175	19,2	16,2	36	58	47	6,6	M6	1	6	M6	84	95	–	–	–	6
25	5	3,175	24,2	21,2	40	62	51	6,6	M6	1	6	M6	84	95	105	–	–	6
25	10	4	24	20,2	40	62	51	6,6	M6	1	6	M6	108	130	152	–	–	6
32	5	3,175	31,2	28,2	50	80	65	9	M8	1	6	M6	88	99	109	120	130	8
32	6	4	31,2	27,4	50	80	65	9	M8	1	6	M6	–	106	118	131	143	8
32	10	6,35	30,4	24,8	50	80	65	9	M8	1	6	M6	126	147	168	–	–	8
32	15	5,556	31,2	26,2	50	80	65	9	M8	1	6	M6	154	186	217	–	–	10
32	20	6,35	30,4	24,8	50	80	65	9	M8	1	6	M6	173	–	–	–	–	10
32	25	5	31,2	26,6	56	93	78	9	M8	1	6	M8x1	148	–	–	–	–	10
40	5	3,175	39,6	36,6	63	93	78	9	M8	2	8	M8x1	–	101	111	122	132	8
40	6	4	39,6	35,8	63	93	78	9	M8	2	8	M8x1	–	108	121	133	146	8
40	10	6,35	39,6	34	63	93	78	9	M8	2	8	M8x1	128	149	170	191	–	8
40	12	6,35	39,6	34	63	93	78	9	M8	2	8	M8x1	–	158	183	208	233	8
40	15	6	38,2	33	63	93	78	9	M8	2	8	M8x1	–	139	169	199	–	10
40	16	6,35	37,5	32	63	93	78	9	M8	2	8	M8x1	–	146	178	210	–	10
40	20	7,144	39,6	33	63	93	78	9	M8	2	8	M8x1	176	219	261	–	–	10
40	25	6,35	37,5	32	63	93	78	9	M8	2	8	M8x1	150	200	–	–	–	10
40	30	6,35	37,5	32	63	93	78	9	M8	2	8	M8x1	175	235	–	–	–	10
50	5	3,175	49,2	46,2	75	110	93	11	M10	2	8	M8x1	–	105	115	126	136	10
50	10	6,35	48,4	42,8	75	110	93	11	M10	2	8	M8x1	–	153	174	195	215	10
50	12	8	49,2	42	82	125	108	11	M10	2	8	M8x1	–	137	161	185	209	10
50	15	6,35	48,4	42,8	75	110	93	11	M10	2	8	M8x1	–	149	179	209	239	10
50	15	8,731	48,4	40,5	82	125	108	11	M10	2	8	M8x1	–	154	184	214	244	10
50	20	8	49,2	42	75	110	93	11	M10	2	8	M8x1	–	223	263	–	–	10
50	20	8,731	49,2	41,2	85	125	108	11	M10	2	8	M8x1	–	184	224	264	–	10
50	25	8,731	48,4	40,5	82	125	108	11	M10	2	8	M8x1	–	209	259	–	–	10
50	30	8	49,2	42	75	110	93	11	M10	2	8	M8x1	246	311	–	–	–	10
50	30	8	49,2	42	82	125	108	11	M10	2	8	M8x1	180	240	300	–	–	10
63	8	5	62,6	58	90	125	108	11	M10	2	8	M8x1	–	109	125	141	157	10
63	10	6,35	61,4	55,8	90	125	108	11	M10	2	8	M8x1	–	155	176	197	217	10
63	15	8,731	59,6	51,8	95	135	115	13,5	M12	2	8	M8x1	–	156	186	216	246	10
63	20	8,731	59,6	51,8	95	135	115	13,5	M12	2	8	M8x1	–	194	234	274	314	10
80	10	6,35	78,4	72,8	105	145	125	13,5	M12	2	8	M8x1	–	157	178	199	219	10
80	20	8,731	78,4	70,5	125	165	145	13,5	M12	2	8	M8x1	–	–	235	275	315	10

Ballscrews

Flange types



d_n – nominal dia. (mm)
 P – lead (mm)
 D_w – ball dia. (mm)
 d_2 – max. journal dia. dimension (mm)

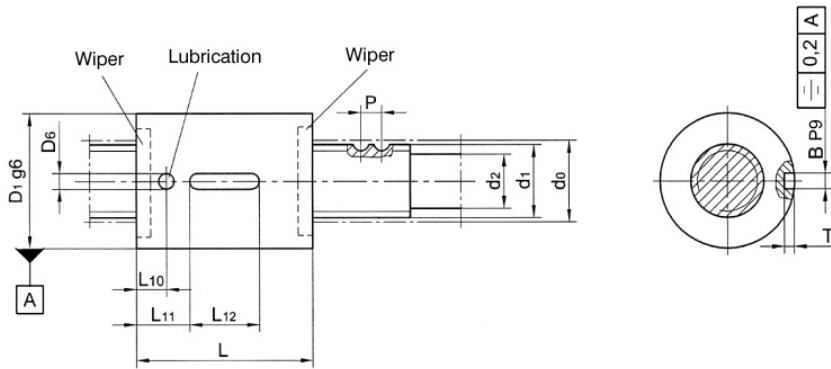
Lead: right

Dimensions in mm

L ₂	L ₃	L ₄	L ₅	L ₆	L ₇	Dynamic load capacity C (kN)					Static load capacity Co (kN)					d _n	P	D _w
						Nr. of threads					Nr. of threads							
						2	3	4	5	6	2	3	4	5	6			
10	10	5	8	44	51	8,1	10,7	–	–	–	10,4	15,6	–	–	–	20	5	3,175
10	10	5	8	48	55	8,8	11,7	14,3	–	–	14	21	28	–	–	25	5	3,175
10	16	5	8	48	55	12,5	16,5	20	–	–	16,5	25	33,5	–	–	25	10	4
12	10	6	8	62	71	9,6	12,7	15,6	18,3	20,7	18,5	28	37,5	47	56,5	32	5	3,175
12	10	6	8	62	71	–	18	22	25,5	28,5	–	34	45,5	57	68	32	6	4
12	16	6	8	62	71	28	37	45,5	–	–	34	51	68	–	–	32	10	6,35
12	16	6	8	62	71	24	31,5	38,5	–	–	33	49,5	66	–	–	32	15	5,556
12	25	6	8	62	71	29	–	–	–	–	36	–	–	–	–	32	20	6,35
14	25	7	10	70	81,5	19,5	–	–	–	–	28,5	–	–	–	–	32	25	5
14	10	7	10	70	81,5	–	14	17,2	20	22,5	–	37,5	50	62,5	75	40	5	3,175
14	10	7	10	70	81,5	–	20	24,5	28,5	32	–	47	63	78	94	40	6	4
14	16	7	10	70	81,5	31,5	42	51,5	60	–	49	74	99	124	–	40	10	6,35
14	16	7	10	70	81,5	–	41	50	58	66	–	72	96	120	144	40	12	6,35
14	25	7	10	70	81,5	–	38,5	47	55	–	–	69	92	115	–	40	15	6
14	25	7	10	70	81,5	–	40	49	57,5	–	–	68	90	113	–	40	16	6,35
14	25	7	10	70	81,5	40	53	65	–	–	57	86	115	–	–	40	20	7,144
14	25	7	10	70	81,5	31	41	–	–	–	45	68	–	–	–	40	25	6,35
14	25	7	10	70	81,5	30	40	–	–	–	45	67	–	–	–	40	30	6,35
16	10	8	10	85	97,5	–	15	18,2	21,2	24	–	47	62,5	78	93,5	50	5	3,175
16	16	8	10	85	97,5	–	45	55	64	73	–	96	128	160	192	50	10	6,35
18	16	9	10	95	110	–	68	83	97	110	–	125	167	208	250	50	12	8
16	25	8	10	85	97,5	–	45	55	64,5	73	–	95	127	159	191	50	15	6,35
18	25	9	10	95	110	–	79	96	112	127	–	138	184	230	276	50	15	8,731
16	25	8	10	85	97,5	–	66	80	–	–	–	120	160	–	–	50	20	8
18	25	9	10	95	110	–	75	92	107	–	–	130	174	218	–	50	20	8,731
18	25	9	10	95	110	–	77	94	–	–	–	133	178	–	–	50	25	8,731
16	25	8	10	85	97,5	50	65,5	–	–	–	80	120	–	–	–	50	30	8
18	25	9	10	95	110	50	65,5	79	–	–	80	120	160	–	–	50	30	8
18	16	9	10	95	110	–	33	40,5	47,5	54	–	99	132	165	198	63	8	5
18	16	9	10	95	110	–	49	60	70	80	–	128	171	213	256	63	10	6,35
20	25	10	10	100	117,5	–	85	104	121	137	–	180	240	300	360	60	15	8,731
20	25	10	10	100	117,5	–	81	99	115	130	–	168	224	280	336	63	20	8,731
20	16	10	10	110	127,5	–	54	66	77	87	–	170	226	283	340	80	10	6,35
25	25	12,5	10	130	147,5	–	–	111	130	146	–	–	320	400	480	80	20	8,731

Ballscrews

Cylindrical nut with wipers AZNA – with backlash, AZNVA – preloaded



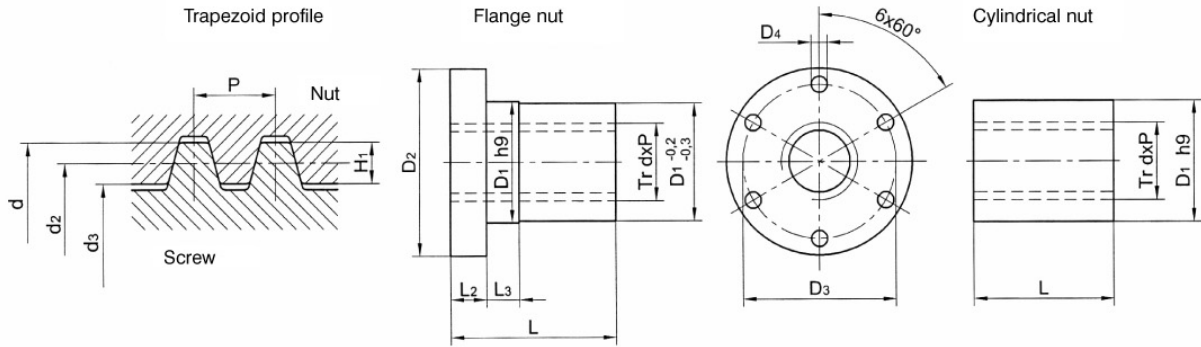
- d_0 – nominal dia. (mm)
- P – lead (mm)
- D_w – ball dia. (mm)
- i – Nr. of threads
- d_2 – max. journal dia. dimension (mm)

Lead: right

Dimensions in mm

d_0	P	D_w	i	d_1	d_2 max	D_1 g6	D_6	L	L_{10}	L_{11}	L_{12}	B P9	T	Capacity	
														dyn. C (kN)	stat. C_0 (kN)
20	5	3,175	3	19,2	16,2	36	4	41	10,5	14,5	12	5	3	10,7	15,6
25	5	3,175	4	24,2	21,2	40	4	47	11	15,5	16	5	3	14,3	28
25	10	4	3	24	20,2	40	4	62	11	21	20	5	3	16,5	25
32	5	3,175	4	31,2	28,2	50	4	47	11	15,5	16	5	3	15,6	37,5
32	6	4	4	31,2	27,4	50	4	52	11	16	20	5	3	22	45,5
32	10	6,35	4	30,4	24,8	50	4	76	11	28	20	5	3	45,5	68
32	15	5,556	4	31,2	26,2	50	4	98	11	39	20	5	3	38,5	66
32	20	6,35	2	30,4	24,8	50	4	79	11	29,5	20	5	3	29	36
32	25	5	2	31,2	26,6	56	4	73	11	26,5	20	5	3	19,5	28,5
40	5	3,175	4	39,6	36,6	63	4	47	11	15,5	16	5	3	17,2	50
40	6	4	4	39,6	35,8	63	4	53	11	16,5	20	5	3	24,5	63
40	10	6,35	4	39,6	34	63	4	76	14	25,5	25	5	3	51,5	99
40	12	6,35	4	39,6	34	63	4	85	14	30	25	5	3	50	96
40	15	6	4	38,2	33	63	4	85	13	30	25	5	3	47	92
40	16	6,35	4	37,5	32	63	4	90	13	32,5	25	5	3	49	90
40	20	7,144	4	39,6	33	63	4	126	14	50,5	25	5	3	65	115
40	25	6,35	3	37,5	32	63	4	100	14	37,5	25	5	3	41	68
40	30	6,35	3	37,5	32	63	4	115	14	45	25	5	3	40	67
50	5	3,175	5	49,2	46,2	75	4	52	11	16	20	5	3	21,2	78
50	10	6,35	5	48,4	42,8	75	4	86	14	27	32	6	3,5	64	160
50	12	8	5	49,2	42	82	4	92	14	30	32	6	3,5	97	208
50	15	6,35	5	48,4	42,8	75	4	101	13	34,5	32	6	3,5	64,5	159
50	20	8	4	49,2	42	75	4	129	14	48,5	32	6	3,5	80	160
50	25	8,731	4	48,4	40,5	82	4	133	14	50,5	32	6	3,5	94	178
50	30	8	3	49,2	42	75	4	145	14	56,5	32	6	3,5	65,5	120
63	8	5	6	62,6	58	90	4	74	11	21	32	6	3,5	54	198
63	10	6,35	6	61,4	55,8	90	4	97	14	32,5	32	6	3,5	80	256
63	15	8,731	6	59,6	51,8	95	4	125	14	42,5	40	6	3,5	137	360
63	20	8,731	6	59,6	51,8	95	4	154	14	57	40	6	3,5	130	336
80	10	6,35	6	78,4	72,8	105	4	97	14	32,5	32	6	3,5	87	340
80	20	8,731	6	78,4	70,5	125	4	155	14	57,5	40	6	3,5	146	480

Trapezoid screws



Dimensions in mm

Tr dxP	Trapezoid profile			Flange nut							Cylindrical nut			
	d ₂	d ₃	H ₁	D ₁ h ₉	D ₂	D ₃	D ₄	L	L	L ₂	L ₃	D ₁	L	L
								short	long			short	long	long
Tr 10x2	9,0	7,5	1,0	25	42	34	5	15	20	10	5	22	15	20
Tr 10x3	8,5	6,5	1,5	25	42	34	5	15	20	10	5	22	15	20
Tr 12x3	10,5	8,5	1,5	28	48	38	6	18	24	12	6	26	18	24
Tr 14x4	12,0	9,5	2,0	28	48	38	6	21	28	12	9	30	21	28
Tr 16x4	14,0	11,5	2,0	28	48	38	6	24	32	12	12	36	24	32
Tr 18x4	16,0	13,5	2,0	28	48	38	6	27	36	12	15	45	27	36
Tr 20x4	18,0	15,5	2,0	32	55	45	7	30	40	12	8	45	30	40
Tr 22x5	19,5	16,5	2,5	32	55	45	7	33	44	12	8	50	33	44
Tr 24x5	21,5	18,5	2,5	32	55	45	7	36	48	12	8	50	36	48
Tr 26x5	23,5	20,5	2,5	38	62	50	7	39	52	14	8	60	39	52
Tr 28x5	25,5	22,5	2,5	38	62	50	7	42	56	14	8	60	42	56
Tr 30x6	27,0	23,0	3,0	38	62	50	7	45	60	14	8	60	45	60
Tr 32x6	29,0	25,0	3,0	45	70	58	7	48	64	16	10	60	48	64
Tr 36x6	33,0	29,0	3,0	45	70	58	7	54	72	16	10	75	54	72
Tr 40x7	36,5	32,0	3,5	63	95	78	9	60	80	16	12	80	60	80
Tr 44x7	40,5	36,0	3,5	63	95	78	9	66	88	16	12	80	66	88
Tr 48x8	44,0	39,0	4,0	72	110	90	11	72	96	18	14	90	72	96
Tr 50x8	46,0	41,0	4,0	72	110	90	11	75	100	18	14	90	75	100
Tr 60x9	55,5	50,0	4,5	88	130	110	13	90	120	20	16	100	90	120

ACME SCREW SHAFT

Thread	Pitch deviation		Material according to DIN
	1. class	2. class	
whirled	0,05 / 300 mm	0,15 / 300 mm	C15, C45, 9SMn28K
rolled	0,1 / 300 mm	0,3 / 300 mm	C15

- Trapezoid profile: DIN 103 / 7e accuracy class

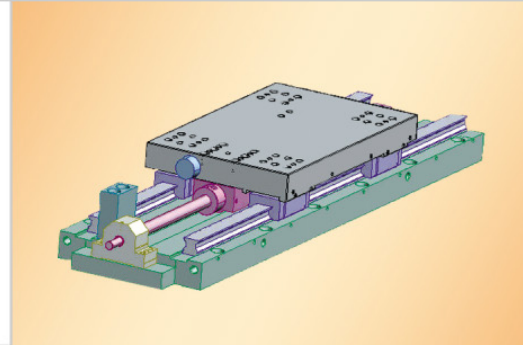
ACME SCREW NUT

- Trapezoid profile: DIN 103 / 7H accuracy class
- Material: CuSn12, Rg7, GGG-25, Plastic according to DIN

Custom made design available

Custom made linear systems

The Szimikron Co. Ltd. – based upon the individual requirements of its customers – undertakes to design and manufacture linear systems using high accuracy Bosch-Rexroth elements, in case of need, including spot survey as well.



TKK type linear sledge systems



High precision sledges for machine-tools

TKK type linear sledge units based on aluminium or steel undercarriage and equipped with high precision ballscrew and guides. The slide unit available in a size range of ballscrew (from 16-40 mm) and the guidance (from 15-35) according to the specific motion requirements. Each size combination can be ordered with aluminium or steel undercarriage subject to accuracy and load requirements. One of the advantages of TKK sledge unit is the suitability for building up machinery instruments independently. The sledge unit is available with slide protector against impurity. Connection panel, limit switch and cable ducts are also available as complementary pieces. We can also supply our units entirely, equipped with clutch and electric motor.

Ball Rail Systems



One Rail System – Many Runner Blocks

A complete system for linear guides with ball bearings, which provides the user with infinite combination possibilities for guide rails and runner blocks: Rexroth ball rail systems are distinguished in all accuracy classes by their high load capacity and high rigidity and are suitable for almost all tasks which demand precise linear motion.

Dimensions: 15, 20, 25, 30, 35, 45, 55, 65

Roller Rail Systems



Accurate Movement of Heavy Loads

Roller Rail Systems make it easy to handle even the heaviest loads with extremely little effort. With high rigidity central to their design principle to meet the needs of powerful machine tools and robots, linear guides with roller bearings are available in various accuracy and preload classes.

Dimensions: 25, 35, 45, 55, 65

Linear Bushings and Shafts



Over 1,000 Designs and Variations

Linear bushing guides can be put together from over 1,000 designs and variations to meet all demands and applications, which means that users can select exactly what they require for every task.

Axis diameters: 5, 8, 10, 12, 16, 20, 25, 30, 40, 50, 60, 80

Linear Motion Systems



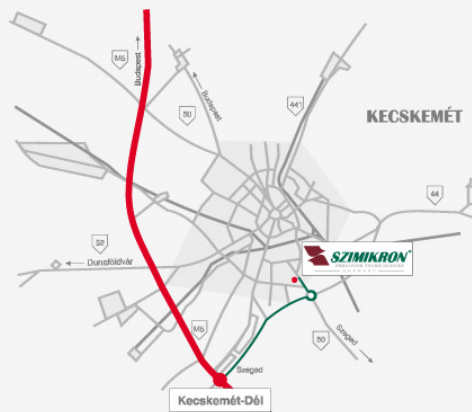
Mounting Made Easy

Our Compact Modules are the most modern representatives of today's linear motion systems. They can be integrated as a finished module without the effort usually needed for balancing the guide and drive element during installation into the machine. This ease of mounting applies to all our linear motion systems. Connection elements simplify assembly even further. So depending on the application, it's easy to optimize individual performance features, such as „accurate load transfer” or „extremely fast motion.”

MANUFACTURING



DESIGN



— **SZIMIKRON Kft.** —

H-6000 Kecskemét, Szegedi út 49.
Tel.: +36 76/484-100 • Fax: +36 76/481-520
szimikron@mail.datanet.hu • www.szimikron.com

Design: Béta PPress Stúdió • www.betapress.hu

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