NTN-SNR Ball Screws

Type code BS

Ball screw:	BSC	020	05	R	CI	LL	2	Z	T7	R	Z0	-	1000	-	F115	-	S115	–	A	0	0
	1	2	3	4	5	6	7	8	9	10	11		12		13		14		15	16	17
Ball screw shaft:	BSH	020	05	R	00	T7	R	-	1000	-	F115	-	S115	–	A	0	0				
	1	2	3	4	5	9	10		12		13		14		15	16	17				
Ball screw nut:	BNU	020	05	R	CI	LL	2	Z	Z0	-	A	0									
	1	2	3	4	5	6	7	8	11		15	17									

1	BSC	**Product** **BSC: Ball screw** **BSH:** Ball screw shaft **BNU: Ball screw nut**
2	020	**Nominal diameter [mm]**
3	05	**Pitch [mm]**
4	R	**Pitch direction** **R:** right **L:** left
5	CI	**Nut type** **CI:** Cylindrical single nut **DC:** Compact double nut with flange according DIN 69051 **DU:** Double nut with flange according DIN 69051 **SC:** Compact single nut with flange according DIN 69051 (discontinued) **SD:** Compact single nut with flange according DIN 69051 (replacement of SC) **SH:** Threaded nut **SK:** Miniature single nut with flange **SU:** Single nut with flange according DIN 69051 (discontinued) **SW:** Single nut with flange according DIN 69051 (replacement of SU)
		For ball screw shafts BSH **00:** for nut type CI, DU, SH, SK, SU, SW **01:** for nut type DC, SC, SD
6	LL	**Sealing options** **AA: without seals** **LL:** Labyrinth seals **UU:** Lip seals
7	2	**Number of circuits** (round off decimal places)
8	Z	**Nut design type** **A:** Flange design A according DIN 69051 (round) **B:** Flange design B according DIN 69051 (double-side cut) **C:** Flange design C according DIN 69051 (one-side cut) **Z:** Cylindrical nut
9	T7	**Precision class** **T1, T2, T3, T5, T7, T10:** Precision classes for transport ball screws **P1, P2, P3, P5:** Precision classes for precision ball screws
10	R	**Production method:** **G:** grinded **R:** rolled **W:** whirled
11	Z0	**Preload class** **Z0:** Standard axial clearance **Z1:** without axial clearance **Z2:** light preload **Z3:** medium preload **Z4:** high preload
12	1000	**Total length [mm]**

Ball screw:	BSC	020	05	R	CI	LL	2	Z	T7	R	Z0	-	1000	-	F115	-	S115	–	A	0	0
	1	2	3	4	5	6	7	8	9	10	11		12		13		14		15	16	17
Ball screw shaft:	BSH	020	05	R	0	T7	R	-	1000	-	F115	-	S115	–	A	0	0				
	1	2	3	4	5	9	10		12		13		14		15	16	17				
Ball screw nut:	BNU	020	05	R	CI	LL	2	Z	Z0	-	A	0									
	1	2	3	4	5	6	7	8	11		15	17									

13	F115	**Right side screw end** **F1:** Standard end machining without feather key groove for BK, EK, FK **F2:** Standard end machining with feather key groove for BK, EK, FK **F3:** Standard end machining without feather key groove for BSTK, BSTU **F4:** Standard end machining with feather key groove for BSTK, BSTU **G1:** Standard end machining ng without feather key groove, with hexagon socket for BK, EK, FK **G2:** Standard end machining with feather key groove und hexagon socket for BK, EK, FK **G3:** Standard end machining without feather key groove, with hexagon socket for BSTK, BSTU **G4:** Standard end machining with feather key groove und hexagon socket for BSTK, BSTU **H1:** Standard end machining without feather key groove, with spanner flat for BK, EK, FK **H2:** Standard end machining with feather key groove und spanner flat for BK, EK, FK **H3:** Standard end machining without feather key groove, with spanner flat for BSTK, BSTU **H4:** Standard end machining with feather key groove und spanner flat for BSTK, BSTU **S1:** Standard end machining for Floating bearing for BF, EF, FF **S2:** Standard end machining for Floating bearing for BSTF **0000:** without end machining **xxxx:** Special end machining according drawing
14	S115	**Left side screw end** **F1:** Standard end machining without feather key groove for BK, EK, FK **F2:** Standard end machining with feather key groove for BK, EK, FK **F3:** Standard end machining without feather key groove for BSTK, BSTU **F4:** Standard end machining with feather key groove for BSTK, BSTU **G1:** Standard end machining ng without feather key groove, with hexagon socket for BK, EK, FK **G2:** Standard end machining with feather key groove und hexagon socket for BK, EK, FK **G3:** Standard end machining without feather key groove, with hexagon socket for BSTK, BSTU **G4:** Standard end machining with feather key groove und hexagon socket for BSTK, BSTU **H1:** Standard end machining without feather key groove, with spanner flat for BK, EK, FK **H2:** Standard end machining with feather key groove und spanner flat for BK, EK, FK **H3:** Standard end machining without feather key groove, with spanner flat for BSTK, BSTU **H4:** Standard end machining with feather key groove und spanner flat for BSTK, BSTU **S1:** Standard end machining for Floating bearing for BF, EF, FF **S2:** Standard end machining for Floating bearing for BSTF **0000:** without end machining **xxxx:** Special end machining according drawing
15	A	**Lubricant**
16	0	**Options** **0:** without options **1:** with drive torque protocol **2:** with pitch error protocol **3:** with drive torque and pitch error protocol
17	0	**Special version** **0:** without special options **A...Z:** According to drawing or text description (Index (A...Z) is given from NTN-SNR
		X: Marking of special specifications

Sealing options

Nut type	Sealing option		
	AA	LL	UU
CI	x	S	--
DC	x	S	--
DU	x	S	--
SC	x	S	--
SD	x	--	S
SH	S^1	x^1	
SK	x	S	--
SU	x	S	--
SW	x	--	S

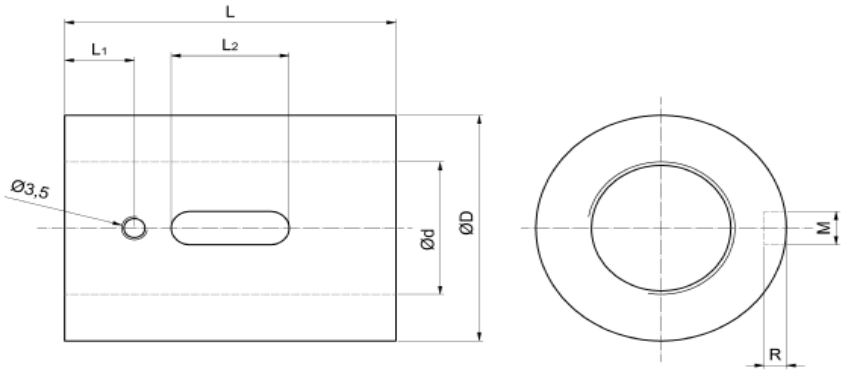
S	Standard
x	on request
--	not available
S^1 / x^1	≥ ø20 LL is standard

Preload classes

Nut type	Preload classes				
	Z0	Z1	Z2	Z3	Z4
CI	S	x	(x)	--	--
DC	--	x	x	x	x
DU	--	x	x	x	x
SC	S	x	(x)	--	--
SD	S	x	(x)	--	--
SH	S	x	(x)	--	--
SK	S	x	--	--	--
SU	S	x	(x)	--	--
SW	S	x	(x)	--	--

S	Standard
x	Preload class possible
(x)	Preload class conditionally possible (on request)
--	not available

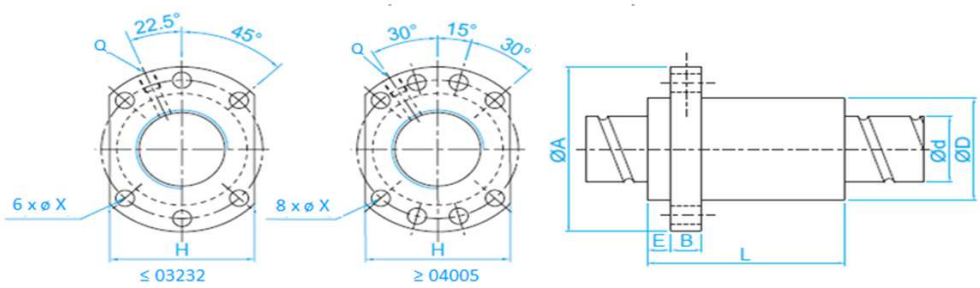
CI



Type	Helix	Dimension									Number of circuits	Load rating		Stiffness
		d [mm]	p [mm]	Kugel ø [mm]	Dg6 [mm]	L [mm]	L1 [mm]	L2 [mm]	M [mm]	R [mm]		C_a [kN]	C_{0a} [kN]	K [N/µm]
CI01604-4	right	16	4	2,381	28	40	9	15	3 ±0,05	1,5	1x4	9,54	23,59	314
CI01605-4	right/left	16	5	3,175	28	45	9	20	5 ±0,05	3,0	1x4	13,53	29,93	314
CI02004-4	right	20	4	2,381	36	40	9	15	3 ±0,05	1,5	1x4	10,45	29,29	328
CI02005-4	right/left	20	5	3,175	36	45	9	20	5 ±0,05	3,0	1x4	15,21	38,00	382
CI02504-4	right	25	4	2,381	40	40	9	15	3 ±0,05	1,5	1x4	11,58	37,22	421
CI02505-4	right/left	25	5	3,175	40	45	9	20	5 ±0,05	3,0	1x4	16,91	48,09	441
CI02510-4	right	25	10	4,762	40	85	13	30	5 ±0,05	3,0	1x4	28,96	71,54	490
CI03204-4	right	32	4	2,381	50	40	9	15	3 ±0,05	1,5	1x4	12,71	47,44	500
CI03205-4	right/left	32	5	3,175	50	45	9	20	5 ±0,05	3,0	1x4	18,85	62,21	530
CI03210-4	right/left	32	10	6,350	50	85	13	30	5 ±0,05	3,0	1x4	47,12	119,72	598
CI04005-4	right/left	40	5	3,175	63	45	9	20	5 ±0,05	3,0	1x4	20,69	78,34	618
CI04010-4	right/left	40	10	6,350	63	85	13	30	5 ±0,05	3,0	1x4	52,95	152,00	716
CI05010-4	right/left	50	10	6,350	75	85	13	30	5 ±0,05	3,0	1x4	58,88	192,35	834
CI06310-4	right	63	10	6,350	90	85	13	30	6 ±0,05	3,5	1x4	65,89	248,68	970
CI08010-4	right	80	10	6,350	105	85	13	30	8 ±0,10	4,5	1x4	72,04	313,36	1.069

Suitable ball screw shaft: BSH_____00T7R___

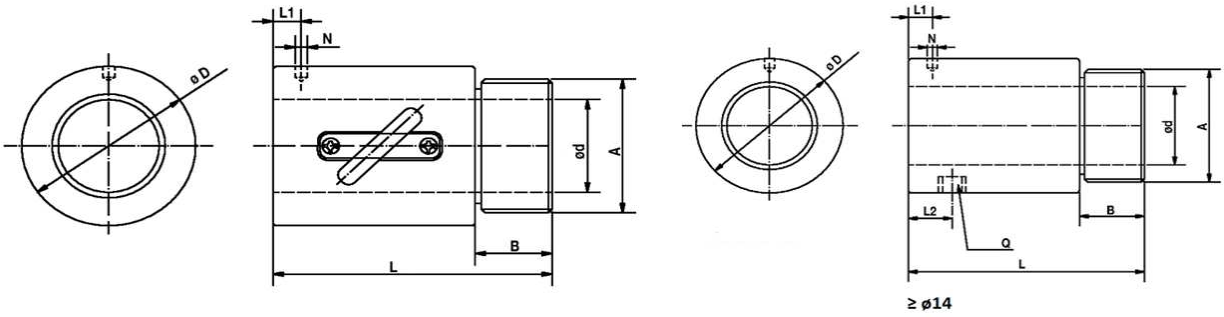
SD



Type	Helix	Dimension												Number of circuits	Load rating		Stiffness
		d [mm]	p [mm]	Ball ø [mm]	Dg6 [mm]	A [mm]	B [mm]	E [mm]	L [mm]	W [mm]	H [mm]	X [mm]	Q		C_a [kN]	C_{0a} [kN]	K [N/µm]
SD01205-2,8	right	12	5	2,500	24	40 ±0,15	10 ±0,10	5,0	30 ±0,15	32 ±0,15	30 ±0,10	4,5		2,8x1	6,49	12,90	186
SD01210-2,8	right	12	10	2,500	24	40 ±0,15	10 ±0,10	5,0	45 ±0,15	32 ±0,15	30 ±0,10	4,5		2,8x1	6,30	12,62	186
SD01605-3,8	right	16	5	2,778	28	48 ±0,15	10 ±0,10	5,0	37 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	3,8x1	10,90	24,59	294
SD01610-2,8	right	16	10	2,778	28	48 ±0,15	10 ±0,10	5,0	45 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	2,8x1	8,23	17,86	226
SD01616-1,8	right	16	16	2,778	28	48 ±0,15	10 ±0,10	5,0	45 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	1,8x1	5,42	11,15	137
SD01616-2,8	right	16	16	2,778	28	48 ±0,15	10 ±0,10	5,0	61 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	2,8x1	7,92	17,34	216
SD01620-1,8	right	16	20	2,778	28	48 ±0,15	10 ±0,10	5,0	58 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	1,8x1	5,43	11,47	137
SD02005-3,8	right	20	5	3,175	36	58 ±0,15	10 ±0,10	7,0	37 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	3,8x1	15,55	36,10	363
SD02010-3,8	right	20	10	3,175	36	58 ±0,15	10 ±0,10	7,0	55 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	3,8x1	14,87	37,59	392
SD02020-1,8	right	20	20	3,175	36	58 ±0,15	10 ±0,10	7,0	54 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	1,8x1	7,96	17,24	186
SD02020-2,8	right	20	20	3,175	36	58 ±0,15	10 ±0,10	7,0	74 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	2,8x1	10,96	26,81	284
SD02505-3,8	right	25	5	3,175	40	62 ±0,15	10 ±0,10	7,0	37 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	3,8x1	16,18	45,68	422
SD02510-3,8	right	25	10	3,175	40	62 ±0,15	12 ±0,10	7,0	55 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	3,8x1	16,06	45,43	441
SD02525-1,8	right	25	25	3,175	40	62 ±0,15	12 ±0,10	7,0	64 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	1,8x1	8,26	21,57	215
SD02525-2,8	right	25	25	3,175	40	62 ±0,15	12 ±0,10	7,0	89 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	2,8x1	12,08	33,55	333
SD03205-3,8	right	32	5	3,175	50	80 ±0,15	12 ±0,10	9,0	37 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	3,8x1	18,03	59,10	500
SD03210-3,8	right	32	10	3,969	50	80 ±0,15	12 ±0,10	9,0	57 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	3,8x1	24,13	71,15	539
SD03220-2,8	right	32	20	3,969	50	80 ±0,15	12 ±0,10	9,0	76 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	2,8x1	18,70	53,76	422
SD03232-1,8	right	32	32	3,969	50	80 ±0,15	12 ±0,10	9,0	80 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	1,8x1	12,33	33,60	265
SD03232-2,8	right	32	32	3,969	50	80 ±0,15	12 ±0,10	9,0	112 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	2,8x1	18,02	52,30	412
SD04005-3,8	right	40	5	3,175	63	93 ±0,15	15 ±0,10	9,0	42 ±0,15	78 ±0,15	62 ±0,15	9,0	M8	3,8x1	19,80	74,42	588
SD04010-3,8	right	40	10	6,350	63	93 ±0,15	14 ±0,10	9,0	60 ±0,15	78 ±0,15	70 ±0,15	9,0	M8	3,8x1	49,37	136,73	657
SD04020-2,8	right	40	20	6,350	63	93 ±0,15	14 ±0,10	9,0	80 ±0,15	78 ±0,15	70 ±0,15	9,0	M8	2,8x1	38,82	105,08	533
SD04040-1,8	right	40	40	6,350	63	93 ±0,15	14 ±0,10	9,0	98 ±0,15	78 ±0,15	70 ±0,15	9,0	M8	1,8x1	25,35	65,19	333
SD04040-2,8	right	40	40	6,350	63	93 ±0,15	14 ±0,10	9,0	138 ±0,20	78 ±0,15	70 ±0,15	9,0	M8	2,8x1	37,07	101,41	510
SD05005-3,8	right	50	5	3,175	75	110 ±0,15	15 ±0,10	10,5	42 ±0,15	93 ±0,15	85 ±0,15	11,0	M8	3,8x1	21,65	93,58	667
SD05010-3,8	right	50	10	6,350	75	110 ±0,15	18 ±0,10	10,5	60 ±0,15	93 ±0,15	85 ±0,15	11,0	M8	3,8x1	55,29	175,07	775
SD05020-3,8	right	50	20	6,350	75	110 ±0,15	18 ±0,10	10,5	100 ±0,15	93 ±0,15	85 ±0,15	11,0	M8	3,8x1	56,38	181,27	853
SD05050-1,8	right	50	50	6,350	75	110 ±0,15	18 ±0,10	10,5	120 ±0,20	93 ±0,15	85 ±0,15	11,0	M8	1,8x1	28,89	85,80	412
SD05050-2,8	right	50	50	6,350	75	110 ±0,15	18 ±0,10	10,5	170 ±0,20	93 ±0,15	85 ±0,15	11,0	M8	2,8x1	42,25	133,47	637

Suitable ball screw shaft: BSH_____**01**T7R___

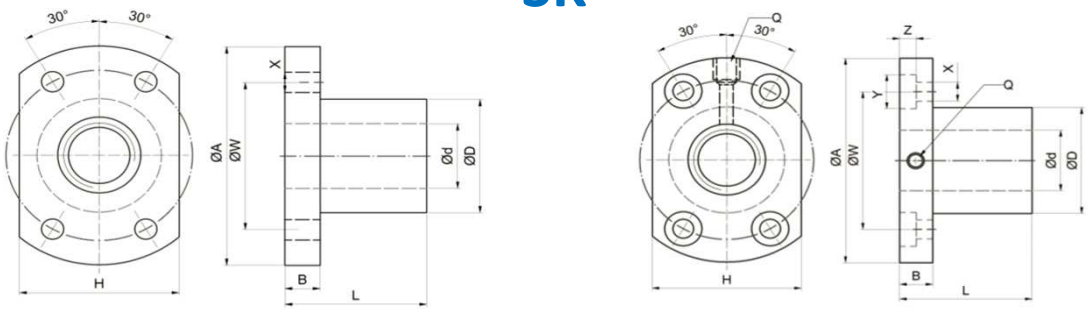
SH



Type	Helix	Dimension d [mm]	p [mm]	Ball ø [mm]	D [mm]	A	B [mm]	L [mm]	L1 [mm]	N [mm]	L2 [mm]	Q	Number of circuits	Load rating C_a [kN]	C_{0a} [kN]	Stiffness K [N/µm]
SH00802.5-2,5	right	8	2,5	1,200	17,5	M15x1	7,5	23,5 ±0,15	10,00	3,0	--	--	2,5x1	1,85	3,73	108
SH01002-3,5	right	10	2	1,200	19,5	M17x1	7,5	22,0 ±0,15	3,00	3,2	--	--	3,5x1	2,72	6,51	167
SH01004-2,5	right	10	4	2,000	25,0	M20x1	10,0	34,0 ±0,15	3,00	3,0	--	--	2,5x1	3,92	7,39	137
SH01204-3,5	right	12	4	2,500	25,5	M20x1	10,0	34,0 ±0,15	13,00	3,0	--	--	3,5x1	7,88	16,16	226
SH01205-3,5	right	12	5	2,500	25,5	M20x1	10,0	39,0 ±0,15	16,25	3,0	--	--	3,5x1	7,85	16,11	235
SH01404-3,5	right	14	4	2,381	32,1	M25x1,5	10,0	35,0 ±0,15	13,00	3,0	--	--	3,5x1	7,88	17,67	255
SH01604-3	right	16	4	2,381	29,0	M22x1,5	8,0	32,0 ±0,15	4,00	3,2	--	--	3x1	7,44	17,68	235
SH01605-3	right	16	5	3,175	32,5	M26x1,5	12,0	42,0 ±0,15	19,25	3,0	--	--	3x1	10,56	22,43	245
SH02005-3	right	20	5	3,175	38,0	M35x1,5	15,0	45,0 ±0,15	20,30	3,0	--	--	3x1	11,87	28,48	294
SH02505-4	right	25	5	3,175	43,0	M40x1,5	19,0	69,0 ±0,15	32,11	3,0	8	M6	4x1	16,89	48,06	363

Suitable ball screw shaft: BSH_____**00**T7R___

SK

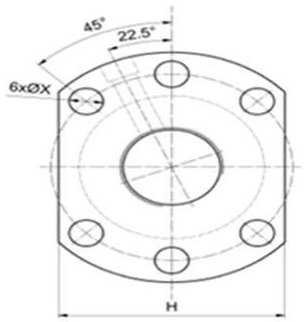


SK01004

Type	Helix	Dimension d [mm]	p [mm]	Ball ø [mm]	Dg6 [mm]	A [mm]	B [mm]	L [mm]	W [mm]	H [mm]	X [mm]	Y [mm]	Z [mm]	Q	Number of circuits	Load rating C_a [kN]	C_{0a} [kN]	Stiffness K [N/µm]
SK00601-3	right	6	1	0,800	12	24	3,5	15	18	16 ±0,10	3,4	--	--	--	1x3	1,09	2,19	88
SK00801-4	right	8	1	0,800	14	27	4,0	16	21	18 ±0,10	3,4	--	--	--	1x4	1,54	3,95	137
SK00802-3	right	8	2	1,200	14	27	4,0	16	21	18 ±0,10	3,4	--	--	--	1x3	2,17	4,49	127
SK00802.5-3	right	8	2,5	1,200	16	29	4,0	26	23	20 ±0,10	3,4	--	--	--	1x3	2,17	4,49	127
SK01002-3	right	10	2	1,200	18	35	5,0	28	27	22 ±0,10	4,5	--	--	--	1x3	2,38	5,58	147
SK01004-3	right	10	4	2,000	26	46	10,0	34	36	28 ±0,10	4,5	8	4,5	M6	1x3	4,59	8,88	167
SK01202-4	right	12	2	1,200	20	37	5,0	28	29	24 ±0,10	4,5	--	--	--	1x4	3,28	8,88	216
SK01402-4	right	14	2	1,200	21	40	6,0	23	31	26 ±0,10	5,5	--	--	--	1x4	3,48	10,30	235

Suitable ball screw shaft: BSH_____00T7R___

SW



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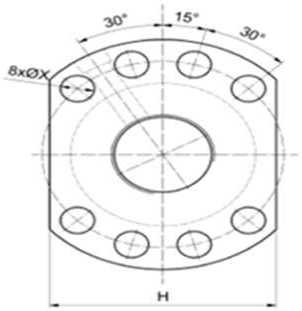
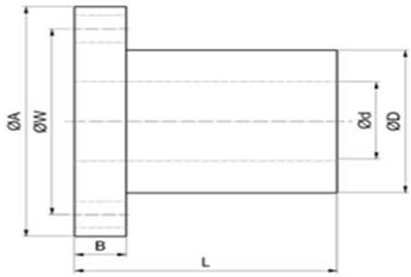


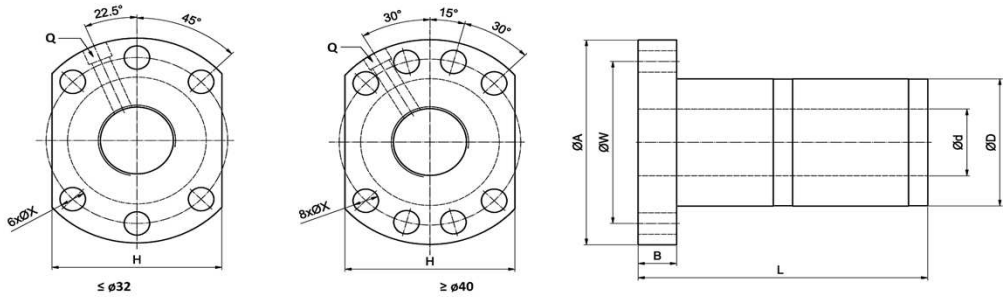
≥ 04005



Type	Helix	Dimension											Number of circuits	Load rating		Stiffness
		d [mm]	p [mm]	Ball ø [mm]	Dg6 [mm]	A [mm]	B [mm]	L [mm]	W [mm]	H [mm]	X [mm]	Q		C_a [kN]	C_{0a} [kN]	K [N/µm]
SW01605-4	right	16	5	3,175	28	48 ±0,15	10 ±0,10	45 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	1x4	13,53	29,92	314
SW01610-3	right	16	10	3,175	28	48 ±0,15	10 ±0,10	57 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	1x3	10,82	23,55	255
SW02005-4	right	20	5	3,175	36	58 ±0,15	10 ±0,10	51 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	1x4	15,21	38,00	382
SW02505-4	right	25	5	3,175	40	62 ±0,15	10 ±0,10	51 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	1x4	16,91	48,09	441
SW02510-4	right	25	10	4,762	40	62 ±0,15	12 ±0,10	80 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	1x4	28,96	71,54	490
SW03205-4	right	32	5	3,175	50	80 ±0,15	12 ±0,10	52 ±0,15	65 ±0,15	62 ±0,15	9	M6	1x4	18,85	62,21	530
SW03210-4	right	32	10	6,350	50	80 ±0,15	12 ±0,10	85 ±0,15	65 ±0,15	62 ±0,15	9	M6	1x4	47,12	119,72	598
SW04005-4	right	40	5	3,175	63	93 ±0,15	14 ±0,10	55 ±0,15	78 ±0,15	70 ±0,15	9	M8	1x4	20,69	78,34	618
SW04010-4	right	40	10	6,350	63	93 ±0,15	14 ±0,10	88 ±0,15	78 ±0,15	70 ±0,15	9	M8	1x4	52,95	152,00	716
SW05010-4	right	50	10	6,350	75	110 ±0,15	16 ±0,10	88 ±0,15	93 ±0,15	85 ±0,15	11	M8	1x4	58,88	192,35	834
SW06310-4	right	63	10	6,350	90	125 ±0,20	18 ±0,10	93 ±0,15	108 ±0,15	95 ±0,15	11	M8	1x4	65,89	248,68	970
SW08010-4	right	80	10	6,350	105	145 ±0,20	20 ±0,10	93 ±0,15	125 ±0,20	110 ±0,15	13,5	M8	1x4	72,04	313,36	1.069

Suitable ball screw shaft: BSH_____00T7R___

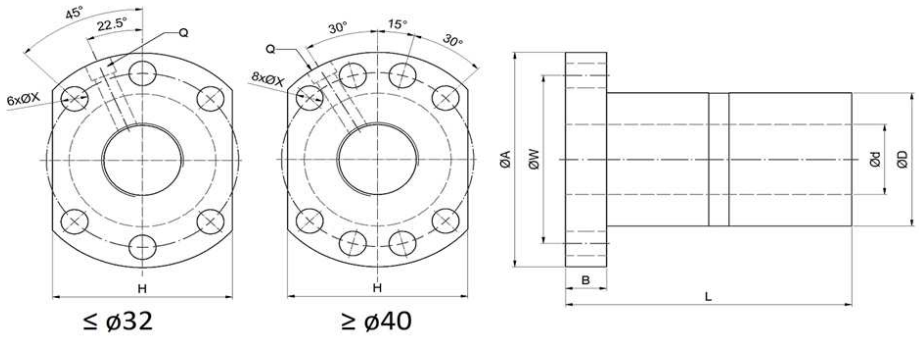
DC



Type	Helix	Dimension d [mm]	p [mm]	Ball ø [mm]	Dg6 [mm]	A [mm]	B [mm]	L [mm]	W [mm]	H [mm]	X [mm]	Q	Number of circuits	Load rating C_a [kN]	C_{0a} [kN]	Stiffness K [N/µm]
DC01605-3,8	right	16	5	2,778	28	48 ±0,15	10 ±0,10	73 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	3,8x1	10,90	24,59	402
DC01610-2,8	right	16	10	2,778	28	48 ±0,15	10 ±0,10	97 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	2,8x1	8,23	17,86	304
DC02005-3,8	right	20	5	3,175	36	58 ±0,15	10 ±0,10	75 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	3,8x1	15,55	36,10	490
DC02010-3,8	right	20	10	3,175	36	58 ±0,15	10 ±0,10	120 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	3,8x1	14,87	37,59	520
DC02505-3,8	right	25	5	3,175	40	62 ±0,15	10 ±0,10	75 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	3,8x1	16,18	45,68	579
DC02510-3,8	right	25	10	3,175	40	62 ±0,15	12 ±0,10	122 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	3,8x1	16,06	45,43	598
DC03205-3,8	right	32	5	3,175	50	80 ±0,15	12 ±0,10	82 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	3,8x1	18,03	59,10	696
DC03210-3,8	right	32	10	3,969	50	80 ±0,15	12 ±0,10	122 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	3,8x1	24,13	71,15	735
DC03220-2,8	right	32	20	3,969	50	80 ±0,15	12 ±0,10	160 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	2,8x1	18,70	53,76	569
DC04005-3,8	right	40	5	3,175	63	93 ±0,15	15 ±0,10	85 ±0,15	78 ±0,15	62 ±0,15	9,0	M8	3,8x1	19,80	74,42	814
DC04010-3,8	right	40	10	6,350	63	93 ±0,15	14 ±0,10	123 ±0,15	78 ±0,15	70 ±0,15	9,0	M8	3,8x1	49,37	136,73	892
DC04020-2,8	right	40	20	6,350	63	93 ±0,15	14 ±0,10	162 ±0,15	78 ±0,15	70 ±0,15	9,0	M8	2,8x1	38,82	105,08	716
DC05005-3,8	right	50	5	3,175	75	110 ±0,15	15 ±0,10	85 ±0,15	93 ±0,15	85 ±0,15	11,0	M8	3,8x1	21,65	93,58	941
DC05010-3,8	right	50	10	6,350	75	110 ±0,15	18 ±0,10	138 ±0,15	93 ±0,15	85 ±0,15	11,0	M8	3,8x1	55,29	175,07	1 069
DC05020-3,8	right	50	20	6,350	75	110 ±0,15	18 ±0,10	218 ±0,15	93 ±0,15	85 ±0,15	11,0	M8	3,8x1	56,38	181,27	1 138

Suitable ball screw shaft: BSH_____01T7R___

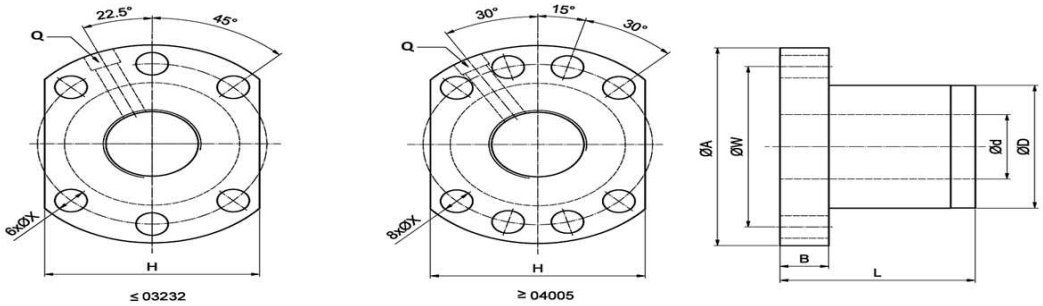
DU



Type	Helix	Dimension											Number of circuits	Load rating		Stiffness
		d [mm]	p [mm]	Ball ø [mm]	Dg6 [mm]	A [mm]	B [mm]	L [mm]	W [mm]	H [mm]	X [mm]	Q		C_a [kN]	C_{0a} [kN]	K [N/µm]
DU01604-4	right	16	4	2,381	28	48 ±0,15	10 ±0,10	80 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	1x4	9,54	23,59	421
DU01605-4	right/left	16	5	3,175	28	48 ±0,15	10 ±0,10	100 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	1x4	13,53	29,93	431
DU01610-3	right	16	10	3,175	28	48 ±0,15	10 ±0,10	118 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	1x3	10,82	23,55	343
DU02004-4	right	20	4	2,381	36	58 ±0,15	10 ±0,10	80 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	1x4	10,45	29,29	500
DU02005-4	right/left	20	5	3,175	36	58 ±0,15	10 ±0,10	101 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	1x4	15,21	38,00	519
DU02504-4	right	25	4	2,381	40	62 ±0,15	10 ±0,10	80 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	1x4	11,58	37,22	588
DU02505-4	right/left	25	5	3,175	40	62 ±0,15	10 ±0,10	101 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	1x4	16,91	48,09	608
DU02510-4	right	25	10	4,762	40	62 ±0,15	12 ±0,10	145 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	1x4	28,96	71,54	657
DU03204-4	right	32	4	2,381	50	80 ±0,15	12 ±0,10	80 ±0,15	65 ±0,15	62 ±0,15	9	M6	1x4	12,71	47,44	696
DU03205-4	right/left	32	5	3,175	50	80 ±0,15	12 ±0,10	102 ±0,15	65 ±0,15	62 ±0,15	9	M6	1x4	18,85	62,21	725
DU03210-4	right/left	32	10	6,35	50	80 ±0,15	12 ±0,10	162 ±0,15	65 ±0,15	62 ±0,15	9	M6	1x4	47,12	119,72	804
DU04005-4	right/left	40	5	3,175	63	93 ±0,15	14 ±0,10	105 ±0,15	78 ±0,15	70 ±0,15	9	M8	1x4	20,69	78,34	853
DU04010-4	right/left	40	10	6,35	63	93 ±0,15	14 ±0,10	165 ±0,15	78 ±0,15	70 ±0,15	9	M8	1x4	52,95	152,00	970
DU05010-4	right/left	50	10	6,35	75	110 ±0,15	16 ±0,10	171 ±0,15	93 ±0,15	85 ±0,15	11	M8	1x4	58,88	192,35	1 147
DU06310-4	right	63	10	6,35	90	125 ±0,20	18 ±0,10	182 ±0,15	108 ±0,15	95 ±0,15	11	M8	1x4	65,89	248,68	1 362
DU06320-4	right	63	20	9,525	95	135 ±0,20	20 ±0,10	290 ±0,20	115 ±0,15	100 ±0,15	13,5	M8	1x4	112,23	359,44	1 490
DU08010-4	right	80	10	6,35	105	145 ±0,20	20 ±0,10	182 ±0,15	125 ±0,20	110 ±0,15	13,5	M8	1x4	72,04	313,36	1 529
DU08020-4	right	80	20	9,525	125	165 ±0,20	25 ±0,10	295 ±0,20	145 ±0,20	130 ±0,20	13,5	M8	1x4	126,61	468,24	1 833

Suitable ball screw shaft: BSH_____00T7R___

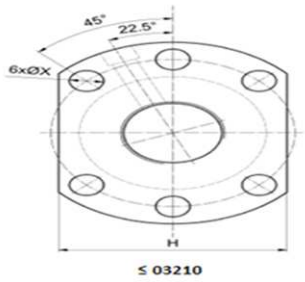
SC (discontinued type)



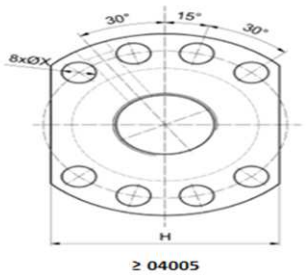
Typ	Helix	Dimension											Number of circuits	Load rating		Stiffness
		d [mm]	p [mm]	Kugel ø [mm]	Dg6 [mm]	A [mm]	B [mm]	L [mm]	W [mm]	H [mm]	X [mm]	Q		C_a [kN]	C_{0a} [kN]	K [N/µm]
SC01205-2,8	right	12	5	2,500	24	40 ±0,15	10 ±0,10	31 ±0,15	32 ±0,15	30 ±0,10	4,5		2,8x1	6,49	12,90	186
SC01605-3,8	right	16	5	2,778	28	48 ±0,15	10 ±0,10	38 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	3,8x1	10,90	24,59	294
SC01610-2,8	right	16	10	2,778	28	48 ±0,15	10 ±0,10	47 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	2,8x1	8,23	17,86	226
SC01616-1,8	right	16	16	2,778	28	48 ±0,15	10 ±0,10	45 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	1,8x1	5,42	11,15	137
SC01616-2,8	right	16	16	2,778	28	48 ±0,15	10 ±0,10	61 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	2,8x1	7,92	17,34	216
SC01620-1,8	right	16	20	2,778	28	48 ±0,15	10 ±0,10	57 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	1,8x1	5,43	11,47	137
SC02005-3,8	right	20	5	3,175	36	58 ±0,15	10 ±0,10	40 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	3,8x1	15,55	36,10	363
SC02010-3,8	right	20	10	3,175	36	58 ±0,15	10 ±0,10	60 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	3,8x1	14,87	37,59	392
SC02020-1,8	right	20	20	3,175	36	58 ±0,15	10 ±0,10	57 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	1,8x1	7,96	17,24	186
SC02020-2,8	right	20	20	3,175	36	58 ±0,15	10 ±0,10	77 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	2,8x1	10,96	26,81	284
SC02505-3,8	right	25	5	3,175	40	62 ±0,15	10 ±0,10	40 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	3,8x1	16,18	45,68	422
SC02510-3,8	right	25	10	3,175	40	62 ±0,15	12 ±0,10	62 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	3,8x1	16,06	45,43	441
SC02525-1,8	right	25	25	3,175	40	62 ±0,15	12 ±0,10	70 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	1,8x1	8,26	21,57	215
SC02525-2,8	right	25	25	3,175	40	62 ±0,15	12 ±0,10	95 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	2,8x1	12,08	33,55	333
SC03205-3,8	right	32	5	3,175	50	80 ±0,15	12 ±0,10	42 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	3,8x1	18,03	59,10	500
SC03210-3,8	right	32	10	3,969	50	80 ±0,15	13 ±0,10	62 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	3,8x1	24,13	71,15	539
SC03220-2,8	right	32	20	3,969	50	80 ±0,15	12 ±0,10	80 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	2,8x1	18,70	53,76	422
SC03232-1,8	right	32	32	3,969	50	80 ±0,15	13 ±0,10	84 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	1,8x1	12,33	33,60	265
SC03232-2,8	right	32	32	3,969	50	80 ±0,15	13 ±0,10	116 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	2,8x1	18,02	52,30	412
SC04005-3,8	right	40	5	3,175	63	93 ±0,15	15 ±0,10	45 ±0,15	78 ±0,15	62 ±0,15	9,0	M8	3,8x1	19,80	74,42	588
SC04010-3,8	right	40	10	6,350	63	93 ±0,15	14 ±0,10	63 ±0,15	78 ±0,15	70 ±0,15	9,0	M8	3,8x1	49,37	136,73	657
SC04020-2,8	right	40	20	6,350	63	93 ±0,15	14 ±0,10	82 ±0,15	78 ±0,15	70 ±0,15	9,0	M8	2,8x1	38,82	105,08	533
SC04040-1,8	right	40	40	6,350	63	93 ±0,15	15 ±0,10	105 ±0,15	78 ±0,15	70 ±0,15	9,0	M8	1,8x1	25,35	65,19	333
SC04040-2,8	right	40	40	6,350	63	93 ±0,15	15 ±0,10	145 ±0,20	78 ±0,15	70 ±0,15	9,0	M8	2,8x1	37,07	101,41	510
SC05005-3,8	right	50	5	3,175	75	110 ±0,15	15 ±0,10	45 ±0,15	93 ±0,15	85 ±0,15	11,0	M8	3,8x1	21,65	93,58	667
SC05010-3,8	right	50	10	6,350	75	110 ±0,15	18 ±0,10	68 ±0,15	93 ±0,15	85 ±0,15	11,0	M8	3,8x1	55,29	175,07	775
SC05020-3,8	right	50	20	6,350	75	110 ±0,15	18 ±0,10	108 ±0,15	93 ±0,15	85 ±0,15	11,0	M8	3,8x1	56,38	181,27	853

Suitable ball screw shaft: BSH_____**01**T7R___

SU (discontinued type)



≤ 03210



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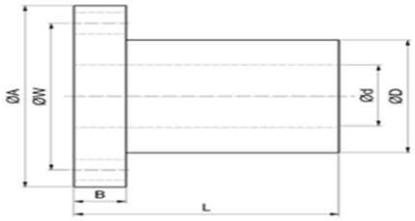


Type	Helix	Dimension											Number of circuits	Load rating		Stiffness
		d [mm]	p [mm]	Kugel ø [mm]	Dg6 [mm]	A [mm]	B [mm]	L [mm]	W [mm]	H [mm]	X [mm]	Q		C_a [kN]	C_{0a} [kN]	K [N/µm]
SU01604-4	right	16	4	2,381	28	48 ±0,15	10 ±0,10	40 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	1x4	9,54	23,59	314
SU01605-4	right / left	16	5	3,175	28	48 ±0,15	10 ±0,10	50 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	1x4	13,53	29,92	314
SU01610-3	right	16	10	3,175	28	48 ±0,15	10 ±0,10	57 ±0,15	38 ±0,15	40 ±0,15	5,5	M6	1x3	10,82	23,55	255
SU02004-4	right	20	4	2,381	36	58 ±0,15	10 ±0,10	42 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	1x4	10,45	29,29	372
SU02005-4	right / left	20	5	3,175	36	58 ±0,15	10 ±0,10	51 ±0,15	47 ±0,15	44 ±0,15	6,6	M6	1x4	15,21	38,00	382
SU02504-4	right	25	4	2,381	40	62 ±0,15	10 ±0,10	42 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	1x4	11,58	37,22	421
SU02505-4	right / left	25	5	3,175	40	62 ±0,15	10 ±0,10	51 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	1x4	16,91	48,09	441
SU02510-4	right	25	10	4,762	40	62 ±0,15	12 ±0,10	85 ±0,15	51 ±0,15	48 ±0,15	6,6	M6	1x4	28,96	71,54	490
SU03204-4	right	32	4	2,381	50	80 ±0,15	12 ±0,10	44 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	1x4	12,71	47,44	500
SU03205-4	right / left	32	5	3,175	50	80 ±0,15	12 ±0,10	52 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	1x4	18,85	62,21	530
SU03210-4	right / left	32	10	6,350	50	80 ±0,15	12 ±0,10	90 ±0,15	65 ±0,15	62 ±0,15	9,0	M6	1x4	47,12	119,72	598
SU04005-4	right / left	40	5	3,175	63	93 ±0,15	14 ±0,10	55 ±0,15	78 ±0,15	70 ±0,15	9,0	M8	1x4	20,69	78,34	618
SU04010-4	right / left	40	10	6,350	63	93 ±0,15	14 ±0,10	93 ±0,15	78 ±0,15	70 ±0,15	9,0	M8	1x4	52,95	152,00	716
SU05010-4	right	50	10	6,350	75	110 ±0,15	16 ±0,10	93 ±0,15	93 ±0,15	85 ±0,15	11,0	M8	1x4	58,88	192,35	834
SU06310-4	right	63	10	6,350	90	125 ±0,20	18 ±0,10	98 ±0,15	108 ±0,15	95 ±0,15	11,0	M8	1x4	65,89	248,68	970
SU06320-4	right	63	20	9,525	95	135 ±0,20	20 ±0,10	149 ±0,15	115 ±0,15	100 ±0,15	13,5	M8	1x4	112,23	359,44	1 098
SU08010-4	right	80	10	6,350	105	145 ±0,20	20 ±0,10	98 ±0,15	125 ±0,20	110 ±0,15	13,5	M8	1x4	72,04	313,36	1 069
SU08020-4	right	80	20	9,525	125	165 ±0,20	25 ±0,10	154 ±0,15	145 ±0,20	130 ±0,15	13,5	M8	1x4	126,61	468,24	1 352

Suitable ball screw shaft: BSH_____00T7R___

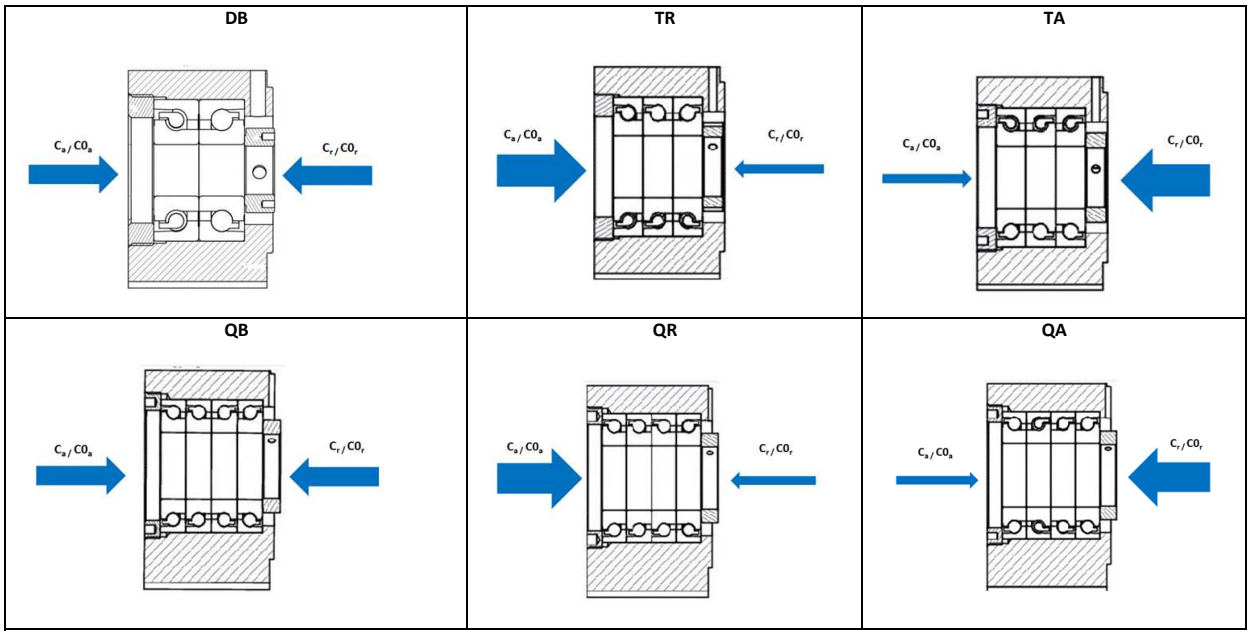
Fixed bearing unit BSTK

Load ratings

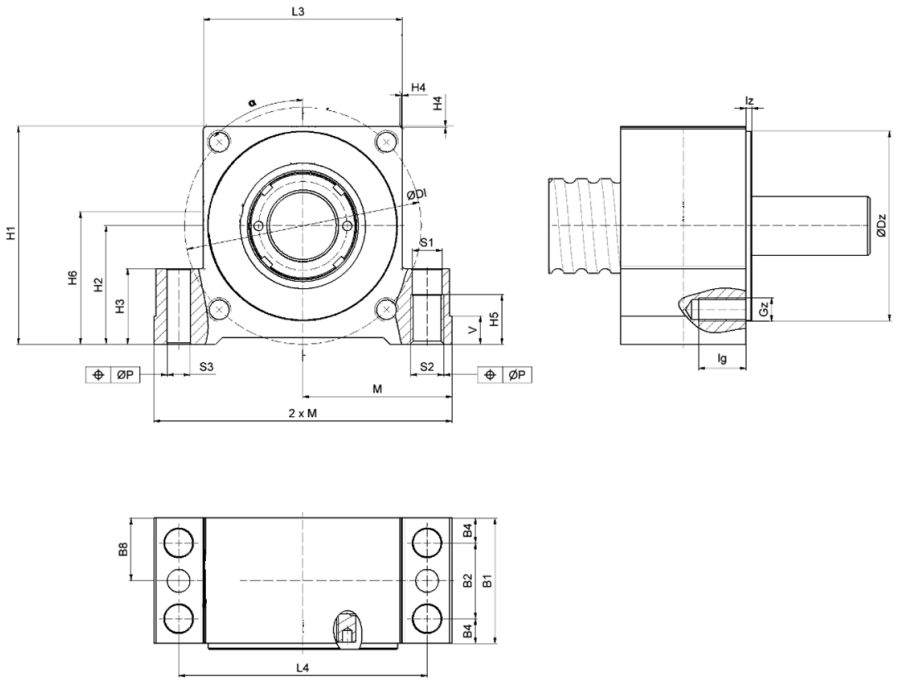
Type	C_a [kN]	C_r [kN]	$C0_a$ [kN]	$C0_r$ [kN]
BSTK17-DB	24,3	24,3	25,7	25,7
BSTK20-DB	24,3	24,3	25,7	25,7
BSTK25-DB	29,2	29,2	40,0	40,0
BSTK30-DB	29,2	29,2	40,0	40,0
BSTK30-QB	47,5	47,5	80,5	80,5
BSTK35-DB	31,0	31,0	47,5	47,5
BSTK35-TA	31,0	50,5	47,5	95,0
BSTK35-TR	50,5	50,5	95,0	47,5
BSTK40-DB	58,5	58,5	88,5	88,5
BSTK40-TA	58,5	95,0	88,5	177,0
BSTK40-TR	95,0	58,5	177,0	88,5
BSTK50-QB	101,0	101,0	208,0	208,0
BSTK50-QA	62,0	134,0	315,0	104,0
BSTK50-QR	134,0	62,0	104,0	315,0

C_a dynamic load rating in direction of pressure
C_r dynamic load rating in tensile direction
$C0_a$ static load rating in direction of pressure
$C0_r$ static load rating in tensile direction

Design versions



Dimension



Type	Spindle diameter	Pitch	H1 [mm]	H2 ±0,02 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L3 [mm]	L4 [mm]	B1 [mm]	B2 [mm]	B4 [mm]	B8 [mm]
BSTK17-DB	25	5/10/25	72	39	27	4	18	66	88	46	29	8,5	23,0
BSTK20-DB	32	10	77	42	27	5	18	70	92	49	29	10,0	24,5
BSTK25-DB	32	4/5/20/32	77	42	27	5	18	71	92	49	29	10,0	24,5
BSTK30-DB	40	5/10/25	90	50	32	3	21	80	105	53	32	10,5	26,5
BSTK30-QB										83	58	12,5	41,5
BSTK35-DB	50	10/20	105	58	38	5	21	92	118	70	43	13,5	35,0
BSTK35-TA													
BSTK35-TR													
BSTK40-DB	50	50	138	73	50	10	31	130	160	85	58	13,5	42,5
BSTK40-TA													
BSTK40-TR													
BSTK50-QB	63 / 80	10/20	165	93	50	9	31	145	175	98	58	20,0	49,0
BSTK50-QA													
BSTK50-QR													

Type	Spindle diameter	Pitch	M js7 [mm]	V [mm]	S1 [mm]	S2	S3 [mm]	DZ g6 [mm]	lz [mm]	Gz	Dl [mm]	lg [mm]	α °
BSTK17-DB	25	5/10/25	54,0	10	10,5 H12	M 12	9,7	55	2,0	M 6	70	12	45
BSTK20-DB	32	10	56,0	10	10,5 H12	M 12	9,7	65	2,0	M 6	75	12	45
BSTK25-DB	32	4/5/20/32	56,0	10	10,5 H12	M 12	9,7	65	2,0	M 8	75	20	45
BSTK30-DB	40	5/10/25	63,0	12	12,5 H7	M 14	9,7	80	2,5	M 10	95	20	45
BSTK30-QB					13,0 H7	M 16							
BSTK35-DB	50	10/20	72,0	12	13,0 H7	M 16	9,7	90	2,5	M 10	110	17	45
BSTK35-TA													
BSTK35-TR													
BSTK40-DB	50	50	95,0	16	13,0 H7	M 16	9,7	110	3,0	M 10	130	17	45
BSTK40-TA													
BSTK40-TR													
BSTK50-QB	63 / 80	10/20	102,5	16	17,5 H7	M 20	11,7	140	3,0	M 12	160	20	45
BSTK50-QA													
BSTK50-QR													