

Slim Bearings

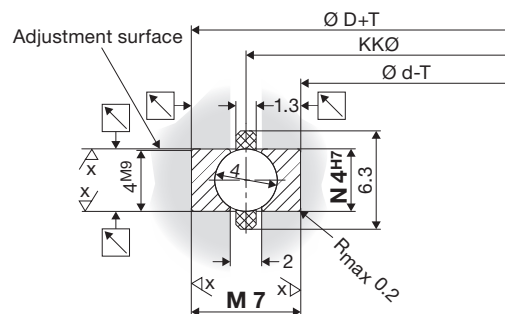
2-ring bearing/profiled raceway

Type LSA

LSA4

New

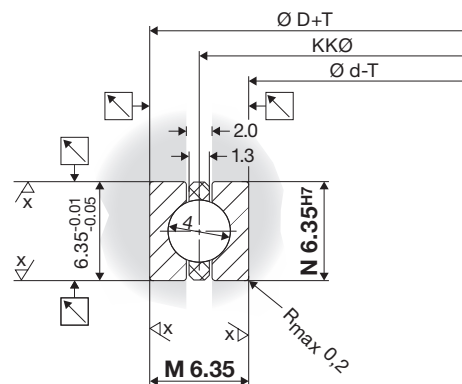
d Inch	Dimensions		Load rating				Stat. moment kNm	Weight
	mm D	d	C _{0a}	C _{0r}	C _a	C _r		
LSA4-3	90.20	76.20	20	9	5	5	0.4	0.04
LSA4-3.5	102.90	88.90	23	11	6	5	0.5	0.05
LSA4-4	115.60	101.60	26	12	6	5	0.7	0.05
LSA4-4.5	128.30	114.30	29	14	6	5	0.8	0.06
LSA4-5	141.00	127.00	33	15	7	6	1.0	0.07
LSA4-5.5	153.70	139.70	36	17	7	6	1.0	0.07
LSA4-6	166.40	152.40	38	18	7	6	1.0	0.08
LSA4-6.5	179.10	165.10	42	20	7	6	2.0	0.08
LSA4-7	191.80	177.80	45	21	7	6	2.0	0.09
LSA4-7.5	204.50	190.50	48	23	8	7	2.0	0.10
LSA4-8	217.20	203.20	51	24	8	7	3.0	0.10
LSA4-8.5	229.90	215.90	54	26	8	7	3.0	0.11
LSA4-9	242.60	228.60	58	27	8	7	3.0	0.12
LSA4-9.5	255.30	241.30	60	28	8	7	4.0	0.12
LSA4-10	268.00	254.00	64	30	8	7	4.0	0.13
LSA4-11	293.40	279.40	70	33	9	7	5.0	0.14
LSA4-12	318.80	304.80	76	36	9	8	6.0	0.15
LSA4-13	344.20	330.20	82	39	9	8	7.0	0.17
LSA4-14	369.60	355.60	89	42	9	8	8.0	0.18
LSA4-15	395.00	381.00	95	45	10	8	9.0	0.19



LSA6

New

d Inch	Dimensions		Load rating				Stat. moment kNm	Weight
	mm D	d	C _{0a}	C _{0r}	C _a	C _r		
LSA6-4.5	127.00	114.30	41	19	6	5	1	0.08
LSA6-5	139.70	127.00	44	21	6	6	1	0.09
LSA6-5.5	152.40	139.70	49	23	7	6	2	0.10
LSA6-6	165.10	152.40	53	25	7	6	2	0.11
LSA6-6.5	177.80	165.10	58	27	7	6	2	0.12
LSA6-7	190.50	177.80	62	29	7	6	3	0.13
LSA6-7.5	203.20	190.50	67	31	8	7	3	0.14
LSA6-8	215.90	203.20	70	33	8	7	3	0.15
LSA6-8.5	228.60	215.90	75	35	8	7	4	0.16
LSA6-9	241.30	228.60	79	37	8	7	4	0.16
LSA6-9.5	254.00	241.30	84	39	8	7	5	0.17
LSA6-10	266.70	254.00	88	41	8	7	5	0.18
LSA6-11	292.10	279.40	97	46	9	7	7	0.20
LSA6-12	317.50	304.80	105	49	9	8	8	0.22
LSA6-13	342.90	330.20	114	54	9	8	9	0.24
LSA6-14	368.30	355.60	123	58	9	8	10	0.25
LSA6-15	393.70	381.00	131	62	10	8	12	0.27



$KK\varnothing \leq 250 \text{ mm } T = IT6$ $KK\varnothing > 250 \text{ mm } T = IT6$ $\sqrt{R_a} = Ra 3.2$

Available infinitely variable in all intermediate diameters.

The table of tolerances, see page 79.



Bearing type

Franke slim bearings of type LSA deliver a convincingly smooth run, require extremely compact mounting space, ensure simple assembly and come at a favorable price.

Characteristics

Slim bearings type LSA consist of one inner and one outer race ring with hardened and profiled raceway and a plastic cage with retained balls. The rolling elements touch the race rings at two points each, hence ensuring the 4-point system. The race rings are separated; their diameter can therefore be altered elastically for mounting.

Mating structure

The bearing element mounted determines the overall construction's load bearing capacity. Hence the mating construction can be made of alternative materials such as steel, aluminium or plastic. Axial and radial accuracy (see diagram below) are defined to a substantial extent by the mating components. These properties can be enhanced by boosting the accuracy of manufacture.

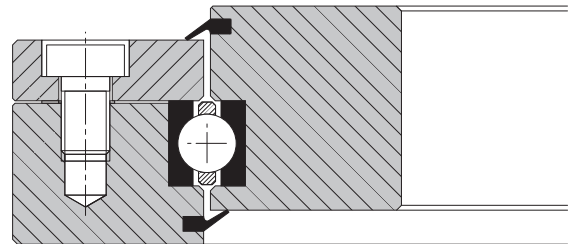
Please find construction examples, special forms, special accuracies and other options of individual tailoring on pages 11 – 19.

Technical details

Material	Ball race rings: 54SiCr6, rolling element: 100Cr6, cage: PA12
Temperature in use	–30 °C to +80 °C, briefly up to +100 °C
Circumferential speed	max. 5 m/s, without seals max. 10 m/s
Lubricant grease	Klüber ISOFLEX TOPAS NCA52
Lubrication schedule	See 'Technical information'.
Tolerance details	See 'Technical information'.

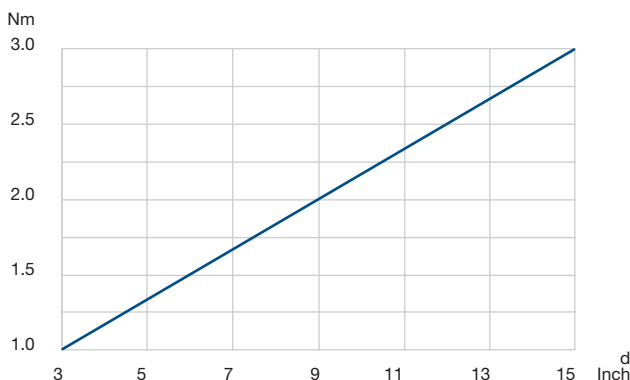
Please find additional data on calculation, mounting and setting in 'Technical information'.

Constructive example



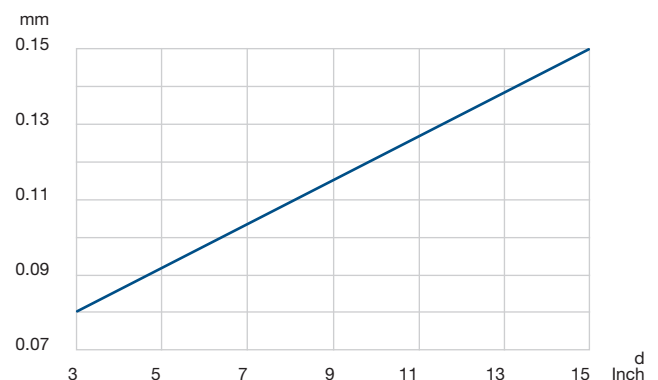
Rotational resistance

The rotational resistance indicates the preload on the bearing assembly. It is dependent on the respective type and the race ring diameter. The values indicated in the diagram are standard values and can be aligned individually.



Radial and axial runout accuracy

The running accuracies indicated in the diagram are maximum values and may be improved by restricting the tolerances.



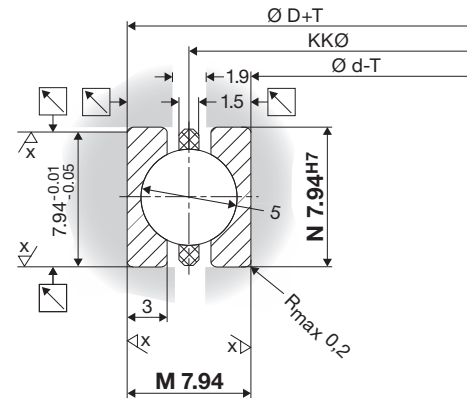
Slim Bearings

2-ring bearing/profiled raceway

Type LSA

LSA8

d	Dimensions		Load rating				Stat.	Weight
Inch	mm	D	kN				moment kNm	
			C _{0a}	C _{0r}	C _a	C _r		
LSA8-5.5	155.58	139.70	55	26	10	9	2	0.13
LSA8-6	168.28	152.40	59	28	10	9	2	0.14
LSA8-6.5	180.98	165.10	65	30	11	9	3	0.16
LSA8-7	193.68	177.80	69	33	11	9	3	0.17
LSA8-7.5	206.38	190.50	76	36	11	10	4	0.18
LSA8-8	219.08	203.20	79	37	11	10	4	0.19
LSA8-8.5	231.78	215.90	84	39	12	10	4	0.20
LSA8-9	244.48	228.60	88	42	12	10	5	0.21
LSA8-9.5	257.18	241.30	93	44	12	10	5	0.22
LSA8-10	269.88	254.00	98	46	12	11	6	0.24
LSA8-11	295.28	279.40	107	50	13	11	7	0.26
LSA8-12	320.68	304.80	117	55	13	11	9	0.28
LSA8-13	346.08	330.20	126	59	13	12	10	0.30
LSA8-14	371.48	355.60	136	64	14	12	12	0.33
LSA8-15	396.88	381.00	146	69	14	12	13	0.35
LSA8-16	422.28	406.40	155	73	15	13	15	0.37
LSA8-17	447.68	431.80	165	78	15	13	17	0.39
LSA8-18	473.08	457.20	174	82	15	13	19	0.42
LSA8-19	498.48	482.60	184	87	15	13	21	0.44
LSA8-20	523.88	508.00	194	91	16	14	24	0.47
LSA8-22	574.68	558.80	213	100	16	14	28	0.52
LSA8-24	625.48	609.60	232	109	17	15	34	0.56
LSA8-26	676.28	660.40	253	119	17	15	40	0.61
LSA8-28	727.08	711.20	270	127	18	15	46	0.66
LSA8-30	777.88	762.00	294	138	18	16	54	0.71



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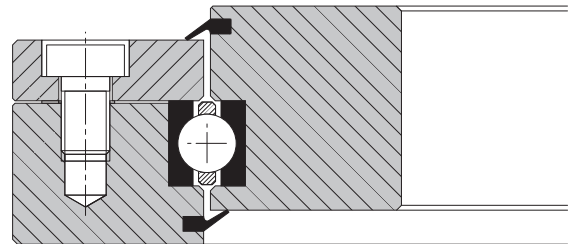
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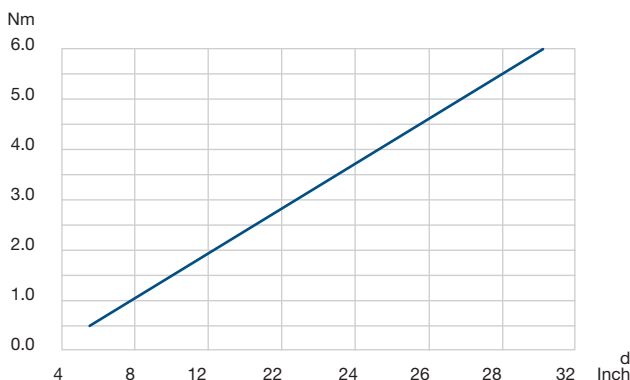
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