

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION R 1646

ROLLING BEARINGS

DOUBLE ROW SELF-ALIGNING BALL BEARINGS

RADIAL INTERNAL CLEARANCE

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RADIAL INTERNAL CLEARANCE

1. SCOPE

This ISO Recommendation gives the values of the radial internal clearance for double row self-aligning ball bearings. The radial clearance is defined in ISO Recommendation R 200, *Rolling bearings – Internal clearance in unloaded bearings – Definitions*: section 1. The values for bearings with cylindrical bore are given in Table 1 and those for bearings with tapered bore in Table 2.

2. RADIAL INTERNAL CLEARANCE

TABLE 1 – Radial clearance in unloaded bearings with cylindrical bore

Clearance values in micrometres

Bore diameter <i>d</i> millimetres		Group 2		Normal Group		Group 3		Group 4	
Over	Incl.	Low	High	Low	High	Low	High	Low	High
2.5	6	1	5	5	10	10	15	15	21
6	10	2	6	6	12	12	19	19	27
10	14	2	6	6	13	13	21	21	30
14	18	3	8	8	15	15	23	23	32
18	24	4	10	10	17	17	25	25	34
24	30	5	11	11	19	19	29	29	40
30	40	6	13	13	23	23	34	34	46
40	50	6	14	14	25	25	37	37	50
50	65	7	16	16	30	30	45	45	65
65	80	8	18	18	35	35	54	54	76
80	100	9	22	22	42	42	64	64	89
100	120	10	25	25	50	50	75	75	105
120	140	10	30	30	60	60	90	90	130
140	160	15	35	35	70	70	110	110	150

TABLE 2 – Radial clearance in unloaded bearings with tapered bore

Clearance values in micrometres

Bore diameter <i>d</i> millimetres		Group 2		Normal Group		Group 3		Group 4	
Over	Incl.	Low.	High	Low	High	Low	High	Low	High
18	24	7	13	13	20	20	28	28	37
24	30	9	15	15	23	23	33	33	44
30	40	12	19	19	29	29	40	40	52
40	50	14	22	22	33	33	45	45	58
50	65	18	27	27	41	41	56	56	76
65	80	23	33	33	50	50	69	69	91
80	100	29	42	42	62	62	84	84	109
100	120	35	50	50	75	75	100	100	130
120	140	40	60	60	90	90	120	120	160
140	160	45	65	65	100	100	140	140	180

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