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Rolling Bearings

WD1210-CP3

- Precision Tapered Roller Bearings
- Precision Cylindrical Roller Bearings
- Rolling Mill Bearings
- Bearings for Material Handling System
- Thin Section Bearings
- Spindle Bearings
- YRT Rotary Table Bearings

万泰集团
WD BEARING GROUP

WD BEARING GROUP



A BRIEF INTRODUCTION

Founded in August of 2000, WD is a technology-oriented group, specialized in R&D, manufacturing, sales and service of high quality bearings.

In order to make WD as a symbol of quality, we invested a lot in advanced CNC equipments and the complete set of precision inspection devices, committed ourselves to building a high quality employee team and brought in advanced technique of manufacturing and management from USA, Germany and Italy. We have been strictly implementing ISO 9001 and 14001, as our respect to quality control and environment protection.

Our precision and customized bearings are mainly supplied to OEM customers in many industries, such as gearbox, electric motor, construction machinery, material handling equipment and steel mills, etc.. In the meantime, our complete supply chain makes it possible to supply customer with almost full range of standard bearings from I.D 2.5mm up to O.D 6000mm.

Much more than the product itself, our professional engineering and sales team will be very pleased to take good care of every customer's requirement, and provide cost effective solutions to them as well as our one-stop service.

"Quality Creates Value" now is a motto for every WD member. We are ready to sincerely serve our global customers for long-term and win-win cooperation.

1. C.R-WD Bearing Co., Ltd
2. JIB-WD Precision Co.,Ltd
3. WD Bearing America
4. Xinchang JIB-WD Precision Corporation
5. C.R CUSCINETTI A RULLI srl
6. Wuxi Wanda Industrial Co., Ltd
7. CNC Grinding Lines (P4)
8. Quality Control Department

Rolling Bearings 滚动轴承

专用系列型录

Precision Tapered Roller Bearings
高精度圆锥滚子轴承

Precision Cylindrical Roller Bearings
高精度圆柱滚子轴承

Rolling Mill Bearings
轧机轴承

Bearings for Material Handling System
物流系统轴承

Thin Section Bearings
薄壁轴承

Spindle Bearings
精密主轴轴承

YRT Rotary Table Bearings
YRT回转支承轴承

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For more specific information, please contact our engineering team at: tech@wd-bearing.com

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	Tolerance symbol	Definition
Bore diameter	d	Nominal bore diameter
	d_s	Single bore diameter
	d_{mp}	1. Bore diameter, arithmetical mean of the largest and smallest single bore diameters in one plane. 2. Diameter of the small end of a tapered bore, arithmetical
	Δ_{ds}	Deviation of a single bore diameter from the nominal $\Delta_{ds} = d_s - d$
	Δ_{dmp}	Deviation of the mean bore diameter from the nominal $\Delta_{dmp} = d_{mp} - d$
	V_{dp}	Bore diameter variation; difference between the largest and smallest single bore diameters in one plane
	V_{dmp}	Bore diameter variation; difference between the largest and smallest mean bore diameter.
	d_1	Nominal diameter at theoretical large end of a tapered bore
	d_{tmp}	Diameter at theoretical large end of tapered bore; arithmetical mean of the largest and smallest single bore diameters
	Δ_{dtmp}	Deviation of the mean bore diameter at the theoretical large end of a tapered bore from the nominal $\Delta_{dtmp} = d_{tmp} - d_1$
Outside diameter	D	Nominal outside diameter
	D_s	Single outside diameter
	D_{mp}	Outside diameter; arithmetical mean of the largest and smallest single outside diameters in one plane
	Δ_{Ds}	Deviation of a single outside diameter from the nominal $\Delta_{Ds} = D_s - D$
	Δ_{Dmp}	Deviation of the mean outside diameter from the nominal $\Delta_{Dmp} = D_{mp} - D$
	V_{Dp}	Outside diameter variation; difference between the largest and smallest single outside diameters in one plane
	V_{Dmp}	Outside diameter variation; difference between the largest and smallest mean outside diameters of one ring or washer
Chamfer Limits	r_s	Single chamfer dimension
	r_{amin}	Smallest single chamfer dimension of r_1, r_2, r_3, r_4
	r_1, r_3	Radial direction chamfer dimensions
	r_2, r_4	Axial direction chamfer dimensions
Width or height	B, C	Nominal width of inner ring and outer ring, respectively
	B_s, C_s	Single width of inner ring and outer ring, respectively
	B_{1s}, C_{1s}	Single width of inner ring and outer ring, respectively, of a bearing specially manufactured for paired mounting
	Δ_{Bs}, Δ_{Cs} , etc.	Deviation of single inner ring width or single outer ring width from the nominal $\Delta_{Bs} = B_s - B, \Delta_{Cs} = C_s - C$ $\Delta_{B1s} = B_{1s} - B_1, \Delta_{C1s} = C_{1s} - C_1$

	Tolerance symbol	Definition	
	V_{Bs}, V_{Cs}	Ring width variation; difference between the largest and smallest single widths of inner ring and of outer ring, respectively	
	T	1. Nominal width (abutment width) of tapered roller bearings; Distance between inner ring (cone) back face and outer ring (cup) back face 2. Nominal height (H) of single direction thrust bearing (Except spherical roller thrust bearing, see T_4)	
	T_1	1. Nominal width of taper roller bearing, cone assembled with master cup 2. Nominal height (H) of double direction thrust ball bearing with seating washer	
	T_2	1. Nominal width of tapered roller bearing, cup assembled with master cone 2. Nominal height (H) of double direction thrust bearing	
	T_3	Nominal height (H) of double direction thrust ball bearing with seating washers	
	T_4	Nominal height (H) of spherical roller thrust bearing	
	Δ_{T_s}	1. Deviation of effective width of tapered roller bearing from the nominal 2. Deviation of height of single direction thrust bearing from the nominal (except spherical roller thrust bearing, see T_{4s})	
	$\Delta_{T_{1s}}$	1. Deviation of effective single width of cone from the nominal 2. Deviation of height of single direction thrust ball bearing with seating washer from the nominal	
	$\Delta_{T_{2s}}$	1. Deviation of effective single width of cup from the nominal 2. Deviation of height of double direction thrust bearing from the nominal	
	$\Delta_{T_{3s}}$	Deviation of height of double direction thrust ball bearing with seating washers from the nominal	
	$\Delta_{T_{4s}}$	Deviation of height of spherical roller thrust bearing from the nominal	
	Running accuracy	K_{ia}, K_{oa}	Radial runout of inner ring and outer ring, respectively, of assembled bearing
		S_d	Side face runout with reference to bore (of inner ring)
		S_D	Outside inclination variation; variation in inclination of outside cylindrical surface to outer ring side face
S_{ia}, S_{oa}		Axial runout of inner ring and outer ring, respectively, of assembled bearing	
S_i, S_o		Thickness variation, measured from middle of raceway to back (seating) face of shaft washer and of housing washer, respectively (Axial runout)	

Table T1: Normal tolerances for radial bearings

Inner ring													
d	incl.	$\Delta_{dmp}^{1)}$		V_{dp} Diameter Series			V_{dmp}	Δ_{Bis}		Δ_{Bts}		V_{Bs}	K_{Ia}
		high	low	7,8,9 max	0,1 max	2,3,4 max		high	low	high	low		
over mm		μm		μm	μm	μm	μm	μm	μm	μm	μm	μm	μm
2.5	2.5	0	-8	10	8	6	6	0	-40			12	10
2.5	10	0	-8	10	8	6	6	0	-120	0	-250	15	10
10	18	0	-8	10	8	6	6	0	-120	0	-250	20	10
18	30	0	-10	13	10	8	8	0	-120	0	-250	20	13
30	50	0	-12	15	12	9	9	0	-120	0	-250	20	15
50	80	0	-15	19	19	11	11	0	-150	0	-380	25	20
80	120	0	-20	25	25	15	15	0	-200	0	-380	25	25
120	180	0	-25	31	31	19	19	0	-250	0	-500	30	30
180	250	0	-30	38	38	23	23	0	-300	0	-500	30	40
250	315	0	-35	44	44	26	26	0	-350	0	-500	35	50
315	400	0	-40	50	50	30	30	0	-400	0	-630	40	60
400	500	0	-45	56	56	34	34	0	-450	0	-630	50	65
500	630	0	-50	63	63	38	38	0	-500	0	-800	60	70
630	800	0	-75					0	-750			70	80
800	1000	0	-100					0	-1000			80	90
1000	1250	0	-125					0	-1250			100	100
1250	1600	0	-160					0	-1600			120	120
1600	2000	0	-200					0	-2000			140	140
2000	2500	0	-250					0	-2500			160	160
2500	3150	0	-300					0	-3000			190	180
3150	4000	0	-400					0	-4000			230	200
4000	5000	0	-500					0	-5000			270	230

¹⁾ Tolerances for tapered bores, see table T17 (taper 1:12) and table T19 (taper 1:30)

Table T1: Normal tolerances for radial bearings

Outer ring												
D	incl.	Δ_{Dmp}		$V_{Dp}^{1)}$ Diameter Series			Sealed bearings ²⁾	$V_{Dmp}^{1)}$	$\Delta_{Cs1}\Delta_{Cs1s1}V_{Cs}$	K_{Oa}		
		high	low	7,8,9 max	0,1 max	2,3,4 max					max	max
over mm		μm		μm	μm	μm	μm	μm	μm	μm		
2.5	18	0	-8	10	8	6	10	6	Values are identical to those for inner ring of same bearing ($\Delta_{Bs}\Delta_{Bts1}V_{Bs}$)	15		
18	30	0	-9	12	9	7	12	7		15		
30	50	0	-11	14	11	8	16	8		20		
50	80	0	-13	16	13	10	20	10		25		
80	120	0	-15	19	19	11	26	11		35		
120	150	0	-18	23	23	14	30	14		40		
150	180	0	-25	31	31	19	38	19		45		
180	250	0	-30	38	38	23		23		50		
250	315	0	-35	44	44	26		26		60		
315	400	0	-40	50	50	30		30		70		
400	500	0	-45	56	56	34		34		80		
500	630	0	-50	63	63	38		38		100		
630	800	0	-75	94	94	55		55		120		
800	1000	0	-100	125	125	75		75		140		
1000	1250	0	-125							160		
1250	1600	0	-160							190		
1600	2000	0	-200							220		
2000	2500	0	-250							250		
2500	3150	0	-300							300		
3150	4000	0	-400							350		
4000	5000	0	-500							400		

¹⁾ Applies before bearing is assembled and after removal of internal and/or external snap ring, if used

²⁾ Applies only to bearings of Diameter Series 2, 3 and 4

Table T2: P6 Class tolerances for radial bearings

Inner ring													
d	incl.	$\Delta_{dmp}^{1)}$		V_{dp} Diameter Series			V_{dmp}	Δ_{Bis}		Δ_{Bts}		V_{Bs} K_{Ia}	
		high	low	7,8,9 max	0,1 max	2,3,4 max		high	low	high	low	max	max
over mm		μm		μm	μm	μm	μm	μm	μm	μm	μm	μm	μm
2.5	2.5	0	-7	9	7	5	5	0	-40			12	5
2.5	10	0	-7	9	7	5	5	0	-120	0	-250	15	6
10	18	0	-7	9	7	5	5	0	-120	0	-250	20	7
18	30	0	-8	10	8	6	6	0	-120	0	-250	20	8
30	50	0	-10	13	10	8	8	0	-120	0	-250	20	10
50	80	0	-12	15	15	9	9	0	-150	0	-380	25	10
80	120	0	-15	19	19	11	11	0	-200	0	-380	25	13
120	180	0	-18	23	23	14	14	0	-250	0	-500	30	18
180	250	0	-22	28	28	17	17	0	-300	0	-500	30	20
250	315	0	-25	31	31	19	19	0	-350	0	-500	35	25
315	400	0	-30	38	38	23	23	0	-400	0	-630	40	30
400	500	0	-35	44	44	26	26	0	-450	0	-630	45	35
500	630	0	-40	50	50	30	30	0	-500	0	-800	50	40
630	800	0	-50					0	-750			55	45
800	1000	0	-60					0	-1000			60	50
1000	1250	0	-75					0	-1250			70	60
1250	1600	0	-90					0	-1600			70	70
1600	2000	0	-115					0	-2000			80	80
2000	2500	0	-135					0	-2500			120	90

¹⁾ Tolerances for tapered bores (taper 1:12) see table T17

Table T2: P6 Class tolerances for radial bearings

Outer ring												
D	incl.	Δ_{Dmp}		$V_{Dp}^{1)}$ Diameter Series			Sealed bearings ²⁾	$V_{Dmp}^{1)}$	$\Delta_{Cs}, \Delta_{C1s}, V_{Cs}$	K_{Ba}		
		high	low	7,8,9 max	0,1 max	2,3,4 max					max	max
over mm		μm		μm	μm	μm	μm	μm		max μm		
2.5	18	0	-7	9	7	5	9	5	Values are identical to those for inner ring of same bearing ($\Delta_{Bs}, \Delta_{Bts}, V_{Bs}$)	8		
18	30	0	-8	10	8	6	10	6		9		
30	50	0	-9	11	9	7	13	7		10		
50	80	0	-11	14	11	8	16	8		13		
80	120	0	-13	16	16	10	20	10		18		
120	150	0	-15	19	19	11	25	11		20		
150	180	0	-18	23	23	14	30	14		23		
180	250	0	-20	25	25	15		15		25		
250	315	0	-25	31	31	19		19		30		
315	400	0	-28	35	35	21		21		35		
400	500	0	-33	41	41	25		25		40		
500	630	0	-38	48	48	29		29		50		
630	800	0	-45	56	56	34		34		60		
800	1000	0	-60	75	75	45		45		75		
1000	1250	0	-75							85		
1250	1600	0	-90							100		
1600	2000	0	-115							100		
2000	2500	0	-135							120		

¹⁾ Applies before bearing is assembled and after removal of internal and/or external snap ring, if used

²⁾ Applies only to bearings of Diameter Series 0, 1, 2, 3 and 4

Table T3: P5 Class tolerances for radial bearings

Inner ring														
d	incl.	$\Delta_{dmp}^{1)}$		V_{dp} Diameter Series		V_{dmp} max μm	Δ_{Bbs}		Δ_{B1s}		V_{Bs} max μm	K_{Ba} max μm	S_d max μm	$S_{Ba}^{2)}$ max μm
		high μm	low	7,8,9 max μm	0,1 max μm		high μm	low	high μm	low				
2.5	2.5	0	-5	5	4	3	0	-40	0	-250	5	4	7	7
2.5	10	0	-5	5	4	3	0	-40	0	-250	5	4	7	7
10	18	0	-5	5	4	3	0	-80	0	-250	5	4	7	7
18	30	0	-6	6	5	3	0	-120	0	-250	5	4	8	8
30	50	0	-8	8	6	4	0	-120	0	-250	5	5	8	8
50	80	0	-9	9	7	5	0	-150	0	-250	6	5	8	8
80	120	0	-10	10	8	5	0	-200	0	-380	7	6	9	9
120	180	0	-13	13	10	7	0	-250	0	-380	8	8	10	10
180	250	0	-15	15	12	8	0	-300	0	-500	10	10	11	13
250	315	0	-18	18	14	9	0	-350	0	-500	13	13	13	15
315	400	0	-23	23	18	12	0	-400	0	-630	15	15	15	20
400	500	0	-28	28	21	14	0	-450	0	-630	18	17	18	23
500	630	0	-35	35	26	18	0	-500	0	-800	20	19	20	25
630	800	0	-45				0	-750			26	22	26	30
800	1000	0	-60				0	-1000			32	26	32	30
1000	1250	0	-75				0	-1250			38	30	38	30
1250	1600	0	-90				0	-1600			45	35	45	30
1600	2000	0	-115				0	-2000			55	40	55	30

¹⁾ Tolerances for tapered bores (taper 1:12) see table T17
²⁾ Applies only to deep groove ball bearings

Table T3: P5 Class tolerances for radial bearings

Outer ring													
D	incl.	Δ_{Dmp}		$V_{Dp}^{1)}$ Diameter Series		V_{Dmp} max μm	$\Delta_{Ca} \Delta_{C1s}$	V_{Ca} max μm	K_{Ba} max μm	S_D max μm	$S_{Ba}^{2)}$ max μm		
		high μm	low	7,8,9 max μm	0,1,2,3,4 max μm								
2.5	18	0	-5	5	4	3	Values are identical to those for inner ring of same bearing ($\Delta_{Ba}, \Delta_{B1s}, V_{Bs}$)	5	5	8	8		
18	30	0	-6	6	5	3		5	6	8	8		
30	50	0	-7	7	5	4		5	7	8	8		
50	80	0	-9	9	7	5		6	8	8	10		
80	120	0	-10	10	8	5		8	10	9	11		
120	150	0	-11	11	8	6		8	11	10	13		
150	180	0	-13	13	10	7		8	13	10	14		
180	250	0	-15	15	11	8		10	15	11	15		
250	315	0	-18	18	14	9		11	18	13	18		
315	400	0	-20	20	15	10		13	20	13	20		
400	500	0	-23	23	17	12		15	23	15	23		
500	630	0	-28	28	21	14		18	25	18	25		
630	800	0	-35	35	26	18		20	30	20	30		
800	1000	0	-50	50	29	25		25	35	25	35		
1000	1250	0	-63					30	40	30	45		
1250	1600	0	-80				35	45	35	55			
1600	2000	0	-100				38	55	40	55			
2000	2500	0	-125				45	65	50	55			

¹⁾ Applies before bearing is assembled and after removal of internal and/or external snap ring, if used
²⁾ Applies only to bearings of Diameter Series 0, 1, 2, 3 and 4

Table T6: SP Class tolerances for radial bearings

Inner ring									
d	incl.	$\Delta_{as}^{1)}$		V_{dp}	Δ_{bs}		V_{bs}	K_{sa}	S_d
		high	low		high	low			
over mm		high μm	low	max μm	high μm	low	max μm	max μm	max μm
18	18	0	-5	3	0	-100	5	3	8
18	30	0	-6	3	0	-100	5	3	8
30	50	0	-8	4	0	-120	5	4	8
50	80	0	-9	5	0	-150	6	4	8
80	120	0	-10	5	0	-200	7	5	9
120	180	0	-13	7	0	-250	8	6	10
180	250	0	-15	8	0	-300	10	8	11
250	315	0	-18	9	0	-350	13	8	13
315	400	0	-23	12	0	-400	15	10	15
400	500	0	-27	14	0	-450	17	10	17
500	630	0	-30	15	0	-500	20	12	20
630	800	0	-40	20	0	-750	30	15	23
800	1000	0	-50	25	0	-1000	33	17	30
1000	1250	0	-65	33	0	-1250	40	20	40

¹⁾ SP tolerances for tapered bores (taper 1:12) see table T18

Table T7: UP Class tolerances for radial bearings

Inner ring									
d	incl.	$\Delta_{as}^{1)}$		V_{dp}	Δ_{bs}		V_{bs}	K_{sa}	S_d
		high	low		high	low			
over mm		high μm	low	max μm	high μm	low	max μm	max μm	max μm
18	18	0	-4	2	0	-25	1.5	1.5	2
18	30	0	-5	2.5	0	-25	1.5	1.5	3
30	50	0	-6	3	0	-30	2	2	3
50	80	0	-7	3.5	0	-40	3	2	4
80	120	0	-8	4	0	-50	3	3	4
120	180	0	-10	5	0	-60	4	3	5
180	250	0	-12	6	0	-75	5	4	6
250	315	0	-15	8	0	-100	5	4	6
315	400	0	-19	10	0	-100	6	5	7
400	500	0	-23	12	0	-125	7	5	8
500	630	0	-26	13	0	-125	8	6	9

¹⁾ UP tolerances for tapered bores (taper 1:12) see table T18

Table T6: SP Class tolerances for radial bearings

Outer ring									
D	incl.	Δ_{os}		Δ_{omp}	V_{dp}	Δ_{cs}, V_{cs}	K_{sa}	S_D	
		high	low						high
over mm		high μm	low	high μm	max μm		max μm	max μm	
30	50	0	-7		4	Values are identical to those for innerring of same bearing (Δ_{bs}, V_{bs})	5	8	
50	80	0	-9		5		5	8	
80	120	0	-10		5		6	9	
120	150	0	-11		6		7	10	
150	180	0	-13		7		8	10	
180	250	0	-15		8		10	11	
250	315	0	-18		9		11	13	
315	400	0	-20		10		13	13	
400	500	0	-23		12		15	15	
500	630	0	-28		14		17	17	
630	800			0	-35		18	20	20
800	1000			0	-40		20	23	25
1000	1250			0	-50		25	26	30
1250	1600			0	-65	33	30	35	

Table T7: UP Class tolerances for radial bearings

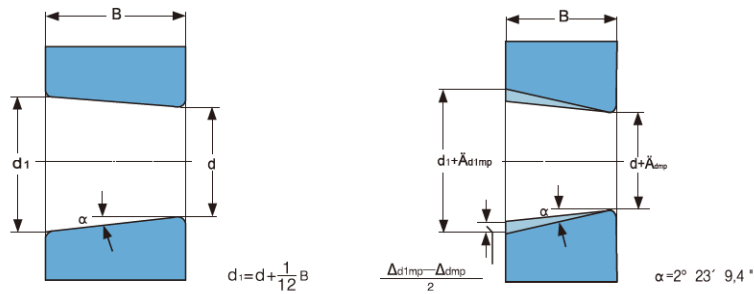
Outer ring									
D	incl.	Δ_{os}		Δ_{omp}	V_{dp}	Δ_{cs}, V_{cs}	K_{sa}	S_D	
		high	low						max
over mm		high μm	low	max	low μm		max μm	max μm	
30	50	0	-5		3	Values are identical to those for innerring of same bearing (Δ_{bs}, V_{bs})	3	2	
50	80	0	-6		3		3	2	
80	120	0	-7		4		3	3	
120	150	0	-8		4		4	3	
150	180	0	-9		5		4	3	
180	250	0	-10		5		5	4	
250	315	0	-12		6		6	4	
315	400	0	-14		7		7	5	
400	500	0	-17		9		8	5	
500	630	0	-20		10		9	6	
630	800			0	-25		13	11	7

Table T17: Normal P6 P5 Tolerances for tapered bores, taper 1:12

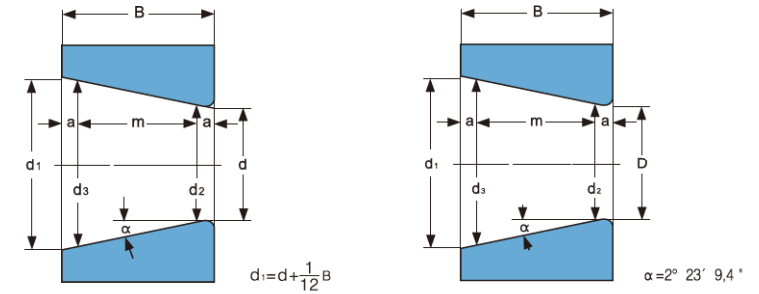
Inner ring		Tolerance classes Normal, P6					Tolerance class P5				
d over mm	incl.	Δ_{dmp}		$V_{dp}^{1)}$ max μm	$\Delta_{d1mp} - \Delta_{dmp}$		Δ_{dmp}		$V_{dp}^{1)}$ max μm	$\Delta_{d1mp} - \Delta_{dmp}$	
		high μm	low		high μm	low	high μm	low		high μm	low
18	30	+21	0	13	+21	0	+13	0	13	+13	0
30	50	+25	0	15	+25	0	+16	0	15	+16	0
50	80	+30	0	19	+30	0	+19	0	19	+19	0
80	120	+35	0	25	+35	0	+22	0	22	+22	0
120	180	+40	0	31	+40	0	+25	0	25	+25	0
180	250	+46	0	38	+46	0	+29	0	29	+29	0
250	315	+52	0	44	+52	0	+32	0	32	+32	0
315	400	+57	0	50	+57	0	+36	0	36	+36	0
400	500	+63	0	56	+63	0	+40	0		+40	0
500	630	+70	0	70	+70	0	+44	0		+44	0
630	800	+80	0		+80	0	+50	0		+50	0
800	1000	+90	0		+90	0	+56	0		+56	0
1000	1250	+105	0		+105	0	+66	0		+66	0
1250	1600	+125	0		+125	0	+78	0		+78	0
1600	2000	+150	0		+150	0	+92	0		+92	0

Table T18: SP UP Tolerances for tapered bores, taper 1:12

Inner ring		Tolerance class SP					Tolerance class UP				
d over mm	incl.	Δ_{d2mp}		V_{dp} max μm	$\Delta_{d3mp} - \Delta_{d2mp}^{1)}$		$\Delta_{d2mp}^{1)}$		V_{dp} max μm	$\Delta_{d3mp} - \Delta_{d2mp}^{1)}$	
		high μm	low		high μm	low	high μm	low		high μm	low
18	30	+10	0	3	+4	0	+6	0	2.5	+2	0
30	50	+12	0	4	+4	0	+7	0	3	+3	0
50	80	+15	0	5	+5	0	+8	0	3.5	+3	0
80	120	+20	0	5	+6	0	+10	0	4	+4	0
120	180	+25	0	7	+8	0	+12	0	5	+4	0
180	250	+30	0	8	+10	0	+14	0	6	+5	0
250	315	+35	0	9	+12	0	+15	0	8	+6	0
315	400	+40	0	12	+12	0	+17	0	10	+6	0
400	500	+45	0	14	+14	0	+19	0	12	+7	0
500	630	+50	0	15	+15	0	+20	0	13	+11	0
630	800	+65	0	20	+19	0	+22	0	17	+13	0
800	1000	+75	0	25	+22	0	+25	0	20	+15	0



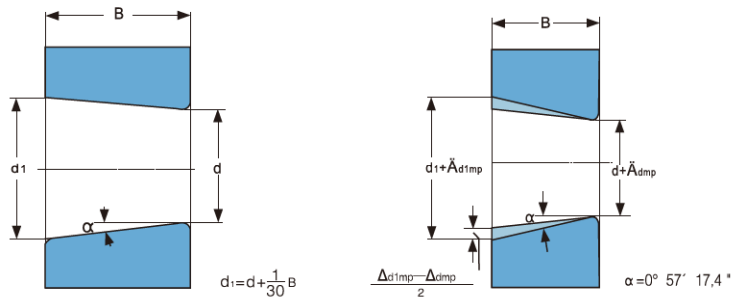
¹⁾ Applies in any single radial plane of the bore



¹⁾ $\frac{\ddot{A}_{d3mp} - \ddot{A}_{d2mp}}{m}$ = angular deviation over measuring length m

Table T19: Tolerances for tapered bores, taper 1:30

Inner ring		Tolerance class Normal				
d	incl.	Δ_{dmp}		$V_{gp}^{1)}$	$\Delta_{d1mp} - \Delta_{dmp}$	
over mm		high μm	low	max μm	high μm	low
80	80	+15	0	19	+30	0
80	120	+20	0	22	+35	0
120	180	+25	0	40	+40	0
180	250	+30	0	46	+46	0
250	315	+35	0	52	+52	0
315	400	+40	0	57	+57	0
400	500	+45	0	63	+63	0
500	630	+50	0	70	+70	0
630	800	+75	0		+100	0
800	1000	+100	0		+100	0
1000	1250	+125	0		+115	0
1250	1600	+160	0		+125	0
1600	2000	+200	0		+150	0



¹⁾ Applies in any single radial plane of the bore

Table T10: Tolerances for metric tapered roller bearings – tolerance classes Normal and CL7C

Inner ring, bearing width and ring widths															
d		Δ_{dmp}		V_{dp}	V_{dmp}	Δ_{Bs}		K_{Ts} Class Normal CL7C		Δ_{Ts}		Δ_{T1s}		Δ_{T2s}	
over mm	incl.	high μm	low	max μm	max μm	high μm	low	max μm	max	high μm	low	high μm	low	high μm	low
10	18	0	-12	12	9	0	-120	15	7	+200	0	+100	0	+100	0
18	30	0	-12	12	9	0	-120	18	8	+200	0	+100	0	+100	0
30	50	0	-12	12	9	0	-120	20	10	+200	0	+100	0	+100	0
50	80	0	-15	15	11	0	-150	25	10	+200	0	+100	0	+100	0
80	120	0	-20	20	15	0	-200	30	13	+200	-200	+100	-100	+100	-100
120	180	0	-25	25	19	0	-250	35		+350	-250	+150	-150	+200	-100
180	250	0	-30	30	23	0	-300	50		+350	-250	+150	-150	+200	-100
250	315	0	-35	35	26	0	-350	60		+350	-250	+150	-150	+200	-100
315	400	0	-40	40	30	0	-400	70		+400	-400	+200	-200	+200	-200
400	500	0	-45	45	34	0	-450	70		+400	-400				
500	630	0	-50	50	38	0	-500	85		+500	-500				
630	800	0	-75	75	56	0	-750	100		+600	-600				
800	1000	0	-100	100	75	0	-1000	120		+750	-750				
1000	1250	0	-125			0	-1250	120		+1000	-1000				
1250	1600	0	-160			0	-1600	120		+1500	-1500				
1600	2000	0	-200			0	-2000	120		+1500	-1500				

Table T10: Tolerances for metric tapered roller bearings – tolerance classes Normal and CL7C

Outer ring									
D		Δ_{Dmp}		V_{Dp}	V_{Dmp}	Δ_{Cs}	K_{es} Class Normal CL7C		
over mm	incl.	high μm	low	max μm	max μm		max μm	CL7C max	
18	30	0	-12	12	9	Values are identical to those for inner ring of same bearing (Δ_{Bs})	18	9	
30	50	0	-14	14	11		20	10	
50	80	0	-16	16	12		25	13	
80	120	0	-18	18	14		35	18	
120	150	0	-20	20	15		40	20	
150	180	0	-25	25	19		45	23	
180	250	0	-30	30	23		50		
250	315	0	-35	35	26		60		
315	400	0	-40	40	30		70		
400	500	0	-45	45	34		80		
500	630	0	-50	50	38	100			
630	800	0	-75	75	55	120			
800	1000	0	-100	100	75	120			
1000	1250	0	-125	125	94	120			
1250	1600	0	-160	160	120	120			
1600	2000	0	-200			120			
2000	2500	0	-250			120			

Table T11: CLN Class tolerances for metric tapered roller bearings

Inner ring, bearing width and ring widths														
d	incl.	Δ_{dmp}		V_{dp}	V_{dmp}	Δ_{Bs}		Δ_{Cs}		K_{sa}	Δ_{T1s}		Δ_{T2s}	
		high	low	max	max	high	low	high	low	max	high	low	high	low
over	mm	μm		μm	μm	μm		μm		μm	μm		μm	
10	18	0	-12	12	9	0	-50	0	-100	15	+100	0	+50	0
18	30	0	-12	12	9	0	-50	0	-100	18	+100	0	+50	0
30	50	0	-12	12	9	0	-50	0	-100	20	+100	0	+50	0
50	80	0	-15	15	11	0	-50	0	-100	25	+100	0	+50	0
80	120	0	-20	20	15	0	-50	0	-100	30	+100	0	+50	0
120	180	0	-25	25	19	0	-50	0	-100	35	+150	0	+50	0
180	250	0	-30	30	23	0	-50	0	-100	50	+150	0	+50	0
250	315	0	-35	35	26	0	-50	0	-100	60	+200	0	+100	0
315	400	0	-40	40	30	0	-50	0	-100	70	+200	0	+100	0

Table T12: P6 Class tolerances for metric tapered roller bearings

Inner ring									
d	incl.	Δ_{dmp}		V_{dp}	V_{dmp}	Δ_{Bs}		K_{sa}	
		high	low	max	max	high	low	high	low
over	mm	μm		μm	μm	μm		μm	
80	120	0	-15	11	8	0	-400		13
120	180	0	-18	14	9	0	-500		18
180	250	0	-22	17	11	0	-600		20
250	315	0	-25	19	13	0	-700		25
315	400	0	-30	23	15	0	-800		30
400	500	0	-35	26	18	0	-900		35
500	630	0	-40	30	20	0	-1000		40
630	800	0	-50	50	25	0	-1500		45
800	1000	0	-60	60	30	0	-2000		50

Table T11: CLN Class tolerances for metric tapered roller bearings

Outer ring						
D	incl.	Δ_{Dmp}		V_{Dp}	V_{Dmp}	K_{sa}
		high	low	max	max	max
over	mm	μm		μm	μm	μm
18	30	0	-12	12	9	18
30	50	0	-14	14	11	20
50	80	0	-16	16	12	25
80	120	0	-18	18	14	35
120	150	0	-20	20	15	40
150	180	0	-25	25	19	45
180	250	0	-30	30	23	50
250	315	0	-35	35	26	60
315	400	0	-40	40	30	70
400	500	0	-45	45	34	80
500	630	0	-50	50	38	100

Table T12: P6 Class tolerances for metric tapered roller bearings

Outer ring							
D	incl.	Δ_{Dmp}		V_{Dp}	V_{Dmp}	Δ_{Cs}	K_{sa}
		high	low	max	max		max
over	mm	μm		μm	μm		μm
120	150	0	-15	11	8	Values are	20
150	180	0	-18	14	9	identical to	23
180	250	0	-20	15	10	those for	25
250	315	0	-25	19	13	inner ring	30
315	400	0	-28	21	14	of same	35
400	500	0	-33	25	17	bearing	40
500	630	0	-38	29	19	(Δ_{Bs})	50
630	800	0	-45	34	23		60
800	1000	0	-60	45	30		75
1000	1250	0	-75	75	38		75
1250	1600	0	-90	90	45		75

Table T15: Tolerances for inch tapered roller bearings

Inner ring					
d		Δ_{ds} Tolerance classes			
over	incl.	Normal, CI2		CI3, CI0	
		high μm	low	high μm	low
	76.2	+13	0	+13	0
76.2	101.6	+25	0	+13	0
101.6	266.7	+25	0	+13	0
266.7	304.8	+25	0	+13	0
304.8	609.6	+51	0	+25	0
609.6	914.4	+76	0	+38	0
914.4	1219.2	+102	0	+51	0
1219.2		+127	0	+76	0

Table T15: Tolerances for inch tapered roller bearings

Outer ring									
D		Δ_{Ds} Tolerance classes				$K_{sa}, K_{sa}, S_{sa}, S_{sa}$ Tolerance classes			
over	incl.	Normal, CI2		CI3, CL0		Normal	CL2	CI3	CI0
mm		high μm	low	high μm	low	max μm	max μm	max μm	max μm
	304.8	+25	0	+13	0	51	38	8	4
304.8	609.6	+51	0	+25	0	51	38	18	9
609.6	914.4	+76	0	+38	0	76	51	51	26
914.4	1219.2	+102	0	+51	0	76		76	38
1219.2		+127	0	+76	0	76		76	

Table T15: Tolerances for inch tapered roller bearings

Abutment width of single row bearing									
d		D		Δ_{fs} Tolerance classes				CI3, CL0,	
over	incl.	over	incl.	Normal		CI2		high	low
mm		mm		high μm	low	high	low	μm	μm
	101.6			+203	0	+203	0	+203	-203
101.6	266.7			+356	-254	+203	0	+203	-203
266.7	304.8			+356	-254	+203	0	+203	-203
304.8	609.6		508	+381	-381	+381	-381	+203	-203
304.8	609.6	508		+381	-381	+381	-381	+381	-381
609.6				+381	-381			+381	-381