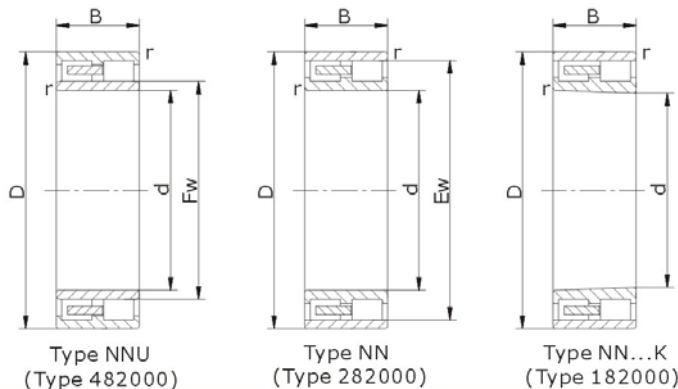


Double-row cylindrical roller bearings

Double-row cylindrical roller bearings have two structures of cylindrical and tapered bore. These bearings have compact structures, high stiffness, high loading capacity and little deformation, and are especially as main shaft bearings of machine tools. Type NN has inner ring with two ribs and outer ring with no ribs. Type NNU has outer ring with two ribs and inner ring with no ribs. The two types of bearings don't limit axial displacement of shafts or housings, so they are used as nonlocating bearings.

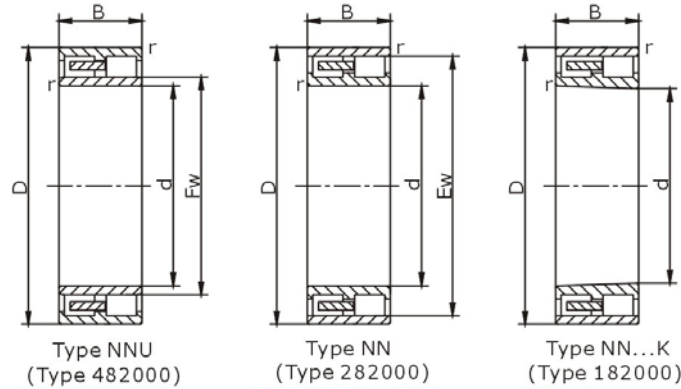
Machined solid cages are usually used in double-row cylindrical roller bearings.

Double-row cylindrical roller bearings



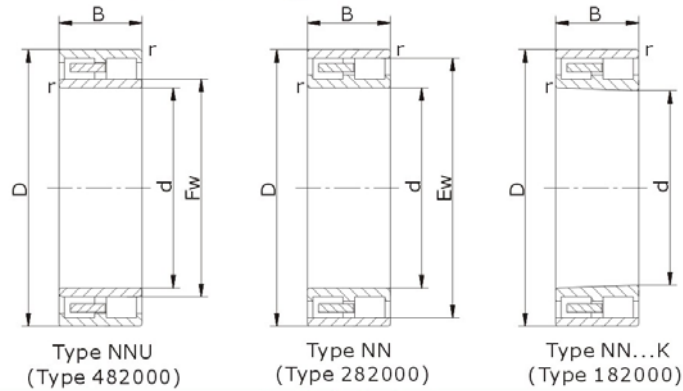
Boundary dimensions					Basic load ratings			Designations		Mass
mm					kN			Current	Original	kg
d	D	B	r _{min}	Fw	Ew	Cr	Cor			
200	280	60	2.1	-	259	420	815	NN3940	3282940	10.6
	280	80	2.1	-	259	484	960	NN4940K/W20	4182940Y	14.1
	280	80	2.1	-	259	570	1220	NN4940	4282940	15.3
	280	80	2.1	225	-	570	1220	NNU4940	4482940	15.3
	310	82	2.1	-	282	655	1170	NN3040	3282140	22.7
	310	82	2.1	232	-	655	1170	NNU3040	3482140	22.7
	310	109	2.1	-	282	890	1730	NN4040	4282140	30.4
220	300	60	2.1	-	279	440	895	NN3944	3282944	11.4
	300	80	2.1	-	279	600	1330	NN4944	4282944	16.6
	300	80	2.1	245	-	600	1330	NNU4944	4482944	16.6
	340	90	3	-	310	815	1480	NN3044	3282144	29.6
	340	90	3	254	-	815	1480	NNU3044	3482144	30
	340	118	3	-	310	1190	2400	NN4044	4282144	39.8
	370	120	4	-	331	1050	1810	NN3144	3282744	51.9
	370	120	4	263	-	1050	1810	NNU3144	3482744	52.3
240	300	60	1.1	-	283	405	1030	NN4848	4282848	9.77
	300	60	1.1	259	-	358	930	NNU4848	-	9.9
	320	60	2.1	-	300	460	975	NN3948	3282948	12.2
	320	80	2.1	-	300	625	1450	NN4948	4282948	17.9
	320	80	2.1	263	-	625	1450	NNU4948	4482948	18
	360	92	3	-	330	855	1600	NN3048	3282148	32.7
	360	92	3	274	-	855	1600	NNU3048	3482148	32.7
	360	118	3	-	330	1240	2600	NN4048	4282148	39.3

Double-row cylindrical roller bearings



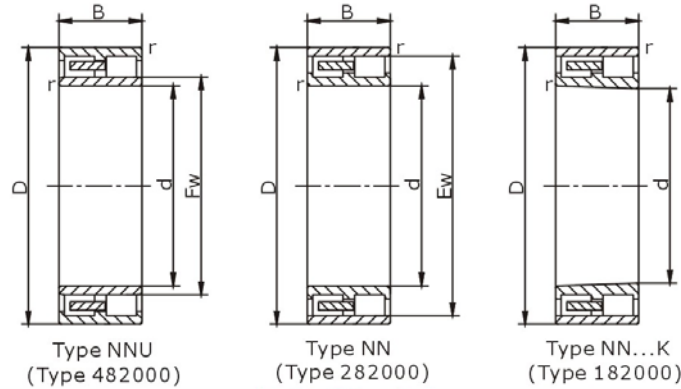
Boundary dimensions						Basic load ratings		Designations		Mass
mm						kN		Current	Original	kg
d	D	B	r_{min}	Fw	Ew	Cr	Cor			
240	360	118	3	274	-	1240	2600	NNU4048	4482148	42.7
	400	128	4	-	358	1170	2040	NN3148	3282748	64.2
	400	160	4	282	-	1880	3530	NNU4148	4482748	85
260	360	75	2.1	-	335	670	1380	NN3952	3282952	21.4
	360	100	2.1	-	335	711	1540	NN4952K	4182952	29.2
	360	100	2.1	-	335	935	2100	NN4952	4282952	28.3
	360	100	2.1	292	-	935	2100	NNU4952	4482952	31.1
	400	104	4	-	364	969	1810	NN3052K	3182152	47.1
	400	104	4	-	364	969	1810	NN3052	3282152	48.5
	400	140	4	-	364	1550	3250	NN4052	4282152	59.7
	400	140	4	300	-	1550	3250	NNU4052	4482152	65
	440	144	4	-	393	1480	2660	NN3152	3282752	89.1
	440	180	4	306	-	2200	4000	NNU4152	4482752	113
280	350	69	1.1	-	329	445	1160	NN4856	4282856	15.3
	350	69	2	303	-	457	1200	NNU4856K	-	15.5
	380	75	2.1	-	355	695	1460	NN3956	3282956	22.7
	380	100	2.1	-	355	960	2230	NN4956	4284956	32.9
	380	100	2.1	312	-	960	2230	NNU4956	4482956	33
	420	106	4	-	384	1020	1950	NN3056K	3182156	49.1
	420	106	4	-	384	1020	1950	NN3056	3282156	49.9
	420	106	4	320	-	1080	2080	NNU3056	-	51.4
	460	146	5	-	413	1520	2790	NN3156	3282756	95.7
300	380	80	2.1	324	-	690	1760	NNU4860	4482860	21.7
	420	118	3	-	388	1230	2870	NN4960	4282960	51.6
	420	118	3	339	-	1230	2870	NNU4960	4482960	51.9
	460	118	4	-	418	1180	2250	NN3060	3282160	71.7
	460	118	4	-	418	1180	2250	NN3060K	3182160	69.6
	460	160	4	-	418	1920	4100	NN4060	-	97.6
	500	160	5	-	448	1760	3150	NN3160	3282760	125
	500	160	5	358	-	1760	3150	NNU3160	3482760	126
320	400	80	2.1	346	-	700	1840	NNU4864	4482864	22.8
	440	118	3	-	408	1260	3050	NN4964	4282964	50.2
	440	118	3	-	408	1260	3050	NN4964K	4182964	52
	440	118	3	359	-	1260	3050	NNU4964	4482964	54.9
	480	121	4	-	438	1350	2670	NN3064	3282164	76.6
	480	121	4	366	-	1350	2670	NNU3064	3482164	76.9
	480	160	4	367	-	1960	4300	NNU4064	4482164	103
	540	176	5	384	-	2090	3750	NNU3164	3482764	154
340	460	90	3	-	428	905	2020	NN3968	3282968	42.9
	460	118	3	-	428	1040	2450	NN4968K	4182968	53.8
	460	118	3	-	428	1350	3400	NN4968	4282968	52.1

Double-row cylindrical roller bearings



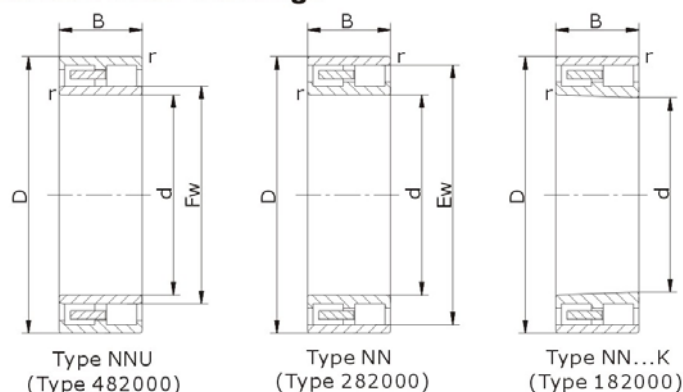
Boundary dimensions					Basic load ratings			Designations		Mass kg
mm					kN			Current	Original	
d	D	B	r _{min}	Fw	Ew	Cr	Cor			
340	460	118	3	379	–	1350	3400	NNU4968	4482968	57.8
	520	133	5	–	473	1560	3020	NN3068K	3182168	101
	520	133	5	–	473	1560	3020	NN3068	3282168	104
	520	133	5	387	–	1560	3020	NNU3068	3482168	104
	520	180	5	385	–	2420	5350	NNU4068	4482168	141
360	480	90	3	–	448	930	2130	NN3972	3282972	44.9
	480	118	3	399	–	1390	3550	NNU4972	4482972	60.6
	540	134	5	–	493	1630	3240	NN3072	3282172	106
	540	134	5	–	493	1630	3240	NN3072K	3182172	106
	540	134	5	413	–	1630	3240	NNU3072	3482172	108
	540	180	5	–	496	2530	5450	NN4072	3282172	132
	600	243	5	422	–	4000	8000	NNU4172	4482772	282
380	520	140	4	–	485	1880	4600	NN4976	4282976	81.3
	520	140	4	426	–	1880	4600	NNU4976	4482976	88.8
	560	135	5	–	513	1590	3240	NN3076K	3182176	110
	560	135	5	–	513	1590	3240	NN3076	3282176	114
	620	194	5	–	559	2620	4950	NN3176	3282776	224
	620	194	5	449	–	2620	4950	NNU3176	3482776	228
400	500	100	2.1	430	–	905	2540	NNU4880	4482880	45.7
	540	106	4	–	504	1240	2400	NN3980K	318980	71.3
	600	148	5	–	549	1980	3660	NN3080K	3182180	143
	600	148	5	–	549	1980	3660	NN3080	3282180	147
	650	200	6	474	–	2770	5400	NNU3180	3482780	262
420	560	106	4	–	522	1280	2900	NN3984	3282984	71.2
	560	140	4	–	525	2000	5150	NN4984	4282984	87.9
	560	140	4	466	–	2000	5015	NNU4984	4482184	97.2
	620	150	5	–	568	2130	4450	NN3084	3282184	154
	620	150	5	478	–	2130	4450	NNU3084	3482184	155
	620	200	5	–	571	3150	7100	NN4084	4282184	189
	620	200	5	469	–	3400	7850	NNU4084	4482184	209
	700	224	6	501	–	3550	6800	NNU3184	3482784	347
440	540	100	2.1	470	–	950	2790	NNU4888	4482888	49.5
	650	157	6	–	596	2360	4900	NN3088	3282188	177
	650	157	6	500	–	2360	4900	NNU3088	3482188	178
	720	226	6	–	649	3500	6800	NN3188	3282788	357
460	580	118	3	497	–	1200	3600	NNU4892	4482892	76
	620	118	4	–	578	1610	3700	NN3992	3282992	94.5
	620	160	4	510	–	2400	6200	NNU4992	4482992	140
	680	163	6	–	624	2470	5070	NN3092K	3182192	204
	680	163	6	–	624	2470	5070	NN3092	3282192	204

Double-row cylindrical roller bearings



Boundary dimensions						Basic load ratings		Designations		Mass
mm						kN		Current	Original	kg
d	D	B	r _{min}	Fw	Ew	Cr	Cor			
480	650	170	5	–	607	2690	7000	NN4996	4282996	164
	700	165	6	–	643	2600	5550	NN3096	3282196	211
	700	218	6	533	–	4300	8600	NNU4096	4482196	273
	790	248	7.5	–	708	4050	8100	NN3196	3282796	447
500	670	170	5	554	–	2720	7200	NNU49/500	44829/500	171
	720	167	6	–	664	2580	5600	NN30/500	32821/500	205
	720	167	6	563	–	2580	5600	NNU30/500	34821/500	220
530	710	136	5	–	663	2040	4900	NN39/530	32829/530	149
	710	180	5	588	–	2900	7050	NNU49/530	44829/530	202
	780	185	6	–	715	3200	6900	NN30/530	32821/530	296
560	750	140	5	–	705	2370	4860	NN39/560	32829/560	188
	750	190	5	623	–	3250	8700	NNU49/560	44829/560	239
	780	180	8	–	725	2400	6400	NN6/560	2872/560	266
	820	195	8	–	756	2460	6560	NN30/560K	31821/560	341
	820	258	6	–	745	4100	10600	NN40/560	42821/560	472
	820	258	6	626	–	5720	13100	NNU40/560	44821/560	420
600	920	280	7.5	650	–	6850	13700	NNU31/560	34827/560	738
	800	200	5	666	–	3850	10500	NNU49/600	44829/600	284
	800	200	5	–	755	3450	7180	NN49/600K	41829/600	257
	870	200	6	–	803	3420	7785	NN30/600	32821/600	355
	870	272	6	664	–	6138	14040	NNU40/600	44821/600	530
630	980	375	7.5	699	–	8910	18990	NNU41/600	44827/600	1100
	780	150	4	676	–	2290	7000	NNU48/630	44828/630	160
	850	218	6	–	793	4200	11400	NN49/630	42829/630	328
	850	218	6	704	–	4000	10800	NNU49/630	44829/630	356
	920	212	7.5	–	845	3860	8820	NN30/630	32821/630	430
	920	290	7.5	699	–	6885	15750	NNU40/630	44821/630	635
670	1030	400	7.5	734	–	9900	21600	NNU41/630	44827/630	1330
	900	230	6	–	838	4450	12330	NN49/670	42829/670	419
	900	230	6	738	–	4950	13100	NNU49/670	44829/670	430
	980	230	7.5	–	901	4620	10260	NN30/670K	31821/670	597
	980	308	7.5	744	–	7578	17640	NNU40/670	44821/670	765
710	1090	412	7.5	774	–	10890	22950	NNU41/670	44827/670	1500
	870	160	4	759	–	2640	8350	NNU48/710	44828/710	203
	950	243	6	782	–	4850	13770	NNU49/710	44829/710	480
	1030	236	7.5	–	951	5148	11880	NN30/710	32821/710	590
750	1030	315	7.5	784	–	8415	19440	NNU40/710	44821/710	850
	1150	438	9.5	820	–	12060	25650	NNU41/710	44827/710	1790
	920	170	5	–	879	3070	9180	NN48/750	42828/750	240
1000	250	6	831	–	4950	14400	NNU49/750	44829/750	540	

Double-row cylindrical roller bearings



Boundary dimensions					Basic load ratings			Designations		Mass kg
mm					kN			Current	Original	
d	D	B	r _{min}	Fw	Ew	Cr	Cor			
750	1090	250	7.5	–	1007	6336	14400	NN30/750	32821/750	705
	1090	335	7.5	830	–	9180	21600	NNU40/750	44821/750	925
	1220	475	9.5	871	–	14490	31950	NNU41/750	44827/750	2230
800	1060	258	6	884	–	5247	15300	NNU49/800	44829/800	615
	1150	258	7.5	–	1065	7029	16200	NN30/800	32821/800	790
	1150	345	7.5	885	–	9720	23400	NNU40/800	44821/800	1140
	1280	475	9.5	921	–	14850	32850	NNU41/800	44827/800	2390
850	1030	180	5	905	–	3400	11400	NNU48/850	44828/850	310
	1120	272	6	939	–	5346	16200	NNU49/850	44829/850	715
	1220	272	7.5	–	1130	7128	16740	NN30/850	32821/850	940
	1220	365	7.5	940	–	10530	25650	NNU40/850	44821/850	1340
	1360	500	12	976	–	19080	40500	NNU41/850	44827/850	2900
900	1180	280	6	986	–	5940	18000	NNU49/900	44829/900	805
	1280	280	7.5	–	1185	7425	18000	NN30/900	32821/900	1050
	1280	375	7.5	990	–	11520	28350	NNU40/900	44821/900	1500
	1420	515	6	1032	–	19800	42750	NNU41/900	44827/900	3180
950	1250	300	7.5	1046	–	6633	20160	NNU49/950	44829/950	960
	1360	300	7.5	–	1255	8217	20160	NN30/950	32821/950	1300
	1360	412	7.5	1050	–	12780	31950	NNU40/950	44821/950	1900
	1500	545	12	1092	–	22950	51300	NNU41/950	44827/950	3830
1000	1320	315	7.5	1103	–	7722	23400	NNU49/1000	44829/1000	1250
	1320	315	7.5	–	1238	8580	25200	NN49/1000	42829/1000	1200
	1420	308	7.5	–	1316	9090	22050	NN30/1000	32821/1000	1400
	1420	412	7.5	1101	–	13860	34200	NNU40/1000	44821/1000	2000
	1580	580	12	1154	–	24750	55800	NNU41/1000	44827/1000	4270
1060	1400	335	7.5	1160	–	9450	27450	NNU49/1060	44829/1060	1350
	1500	325	9.5	–	1391	9900	24750	NN30/1060	32821/1060	1650
	1660	600	15	1214	–	27270	62550	NNU41/1060	44827/1060	5070
1120	1460	335	7.5	1220	–	9450	28350	NNU49/1120	44829/1120	1450
	1750	630	15	1279	–	30240	68850	NNU41/1120	44827/1120	5600
1180	1540	355	7.5	1285	–	10710	32400	NNU49/1180	44829/1180	1650
	1850	670	15	1350	–	33210	76500	NNU41/1180	44827/1180	7200
1250	1950	710	15	1426	–	37620	88200	NNU41/1250	44827/1250	8000
1320	1720	400	7.5	1440	–	12420	38250	NNU49/1320	44829/1320	3100
	1720	400	7.5	–	1620	13800	42500	NN49/1320	42829/1320	3060
	2060	750	15	1507	–	41130	95400	NNU41/1320	44827/1320	9400
1400	2180	775	19	1598	–	44550	104400	NNU41/1400	44827/1400	10700
1500	2300	800	19	1709	–	47520	118800	NNU41/1500	44827/1500	12300