

Cylindrical Roller Bearing

 **CF BEARING**



Tolerances

Tolerance class of Bearings					
CF BEARING	0	6	5	4	2
ISO	0	6	5	4	2
ANSI	ABEC-1	ABEC-3	ABEC-5	ABEC-7	ABEC-9
SKF	0	P6	P5	P4	P2
DIN	0	P6	P5	P4	P2
JIS	0	6	5	4	

Clearance

Before mounting the bearing to the shaft or housing, fix the inner ring or the outer ring, and move the other unfixed ring in the radial or axial direction, the amount of movement is called the bearing clearance, or the axial clearance.

The amount of clearance while the bearing is rotating (the so-called working clearance) shall have effects on the rolling fatigue life, temperature rise, noise, vibration and other functions.

In order to get the stable value of the clearance, normally a required load is put on the bearing in order to measure the bearing clearance.

Therefore, the measured value is larger than the true clearance (called the theoretical clearance), which means the amount of the elastic deformation caused by the load is increased.

But for roller bearings, this elastic deformation can be ignored since it is comparatively small.

Before the mounting of the bearing, the internal clearance is expressed with the theoretical clearance.

The selection of clearance

If the amount of expansion or contraction of the rings caused by the interference fit when mounting the bearing on the shaft or in the housing is deducted from the theoretical clearance, then we have the "Mounting Clearance".

Furthermore, if the dimensional changes caused by the temperature difference inside the bearing is added to or reduced from the mounting clearance, we have the so-called "Effective Clearance".

When the bearing rotates while carrying a certain magnitude of load in the machine, if the elastic deformation caused by the load is added to the effective clearance, we then have the "Working Clearance".

when the working clearance is a slightly negative, the bearing has the longest service life. But with the negative clearance changing to be positive, the fatigue life shall decrease. Therefore, when choosing the clearance, it is preferred to choose the 0 or slightly positive working clearance.

Bearing Material:

To ensure bearings quality, we only buy bearings material from reputable, authorized, and large steel plant, and each material will be strictly inspection before production. The following materials especially GCr15SiMn are widely used in our bearing series. Chemical Composition of Steels for DWCFQ bearings

Material Chemical Composition									
Element	C	Si	Mn	Cr	Ni	Mo	P	S	Cu
GCr15	0.95-1.05	0.15-0.35	0.25-0.45	1.40-1.64	---	---	<=0.025	<=0.025	---
GCr15SiMn	0.95-1.05	0.45-0.75	0.95-1.25	1.40-1.64	---	---	<=0.025	<=0.025	---
G20CrNi2Mo	0.17-0.23	0.15-0.40	0.40-0.70	0.35-0.65	1.60-2.00	1.60-2.00	<=0.030	<=0.030	<=0.25
G20Cr2Ni4	0.17-0.23	0.15-0.40	0.30-0.60	1.25-1.75	3.25-3.75	---	<=0.030	<=0.030	<=0.25
50Mn	0.48-0.56	0.17-0.37	0.70-1.00	---	---	---	---	---	---
42CrMo	0.38-0.45	0.17-0.37	0.50-0.80	0.90-1.20	---	0.15-0.25	---	---	---

Equivalent Designations of DWCFQ bearings Material			
DWCFQ (China)	ASTM(USA)	DIN(GERMANY)	JIS(JAPAN)
GCr15	AISI 52100	DIN100Cr6	JIS SUJ2
GCr15SiMn		DIN100CrMn67	JIS SUJ3
G20CrNi2Mo	AISI 4320		JIS SNCM415
G20Cr2Ni4	AISI 3316		
50Mn	AISI 1551		
42CrMo		DIN 42CrMo4	JIS SCM 440

Purposes and methods of lubrication.

Lubrication has important effects on the function of the bearing. Whether the lubricant and the method are suitable or not shall influence the bearing life. The advantages of lubrication:

- 1) Reducing the friction and wear by lubricating every part of the bearing.
- 2) Taking away the heat generated inside the bearing caused by friction or other reasons.
- 3) Forming an oil film in the rolling contact surface in order to elongate the bearing life.
- 4) Preventing the bearing from rusting and dust contamination.

The lubricating methods include oil lubrication and grease lubrication. The comparisons of these two methods are given in Table1.

Grease lubrication

Grease put inside the bearing can last a comparatively long time without replenishment, and the sealing device is very simple. Therefore it is extensively applied.

There are two methods for grease lubrication: one is to put the grease inside the sealed bearings in advance, the other is to fill the grease of certain amount inside the housing and refill it or change the grease inside at intervals.

Moreover, for machine with several bearings requiring lubrication, the method of centralized greasing through pipes connecting the places to be lubricated is adopted.

1) Amount of lubricating grease

The amount of lubricating grease to be filled in the housing depends on the structure and volume of the housing. Normally it is preferred to fill the volume by 1/3 to 1/2.

If too much grease is filled, the grease may turn bad, age or soften due to the heat caused by rotation.

But for bearings with low rotation speed, sometimes 2/3 to the whole volume shall be filled with grease in order to avoid the intrusion of foreign matters.

2) The replenishment and change of grease

The replenishment and change of grease is closely related to the lubricating method. No matter which method is applied, the grease must be clean and care be taken to avoid intrusion of dirt. The grease to be replenished with should be of the same brand.

Try to ensure that the replenished grease has entered into the inside space of the bearing.

Oil lubrication Oil lubrication is applied to high-speed and heat-resistant bearings and ineffective for reducing vibration and lowering noise. Mostly it is used in cases where the grease lubrication is not suitable Oil lubrication has the following methods:

- | | | |
|---------------------------------|--------------------------|--------------------------|
| (1) Oil bath lubrication | (2) Oil drip lubrication | (3) Splash lubrication |
| (4) Oil circulating lubrication | (5) Oil jet lubrication | (6) Oil mist lubrication |
| (7) Oil air lubrication | | |

Table1 Comparisons between oil lubrication and grease lubrication		
Item	Grease	Oil
Sealing device	Simple	More complicate, requiring maintenance
Lubricating function	Good	Very good
Rotational speed	Low speed to medium speed	Applicable to high speed
Change of lubricant	Troublesome	Simple
Life of lubricant	Very short	Long
Cooling effects	Without	Possible using forced oil circulation
Elimination of inclusion	Impossible	Easy

Bearing Selection:

Bearing Type		
It is critical to understand the use conditions of the bearing when choosing the type of bearing. Table 1 provides the main factors to be analyzed. Table 1 (1) Selection of bearing type		
Items for analyses		Methods of choice
1) Mounting space	Those can be put in the mounting space	Since the rigidity and strength of the shaft have been considered in the designing, first of all the inner diameter of the bearing must be determined. But there are too many dimensional series and types, the most appropriate type must be chosen.
2) Load	Strength, direction and nature of the load	The load is subject to changes, such as the amount of the load, whether there is only radial load or not, whether the axial load is in single-direction or double direction, the amount of vibration or shock and others. These factors must be considered before choosing the most appropriate bearing type.
		Normally, the radial load carrying capacity of the bearings with the same ID are listed in the following order:
		[deep groove ball bearings < angular contact ball bearings < cylindrical roller bearings < taper roller bearings < spherical roller bearings]
3) Rotating speed	Those are suitable for the mechanical rotations.	The limit speed of the bearing rests with not only the bearing type but also bearing dimensions, cage type, precision, load carrying conditions and lubrication methods. These factors must be considered for the choice.
		The following bearings are applied for high speed rotation:
		[deep groove ball bearings < angular contact ball bearings < cylindrical roller bearings]
4) Rotating precision	Those can satisfy the rotation precision requirements	Machine tool spindles, ages turbines and control machines entail high rotation precision, high speed and low friction. Bearings with precision degree 5 or over should be applied in these cases.
		Normally the following bearings are applied:
		[deep groove ball bearings, angular contact ball bearings, cylindrical roller bearings]

Bearing Type		
It is critical to understand the use conditions of the bearing when choosing the type of bearing. Table 1 provides the main factors to be analyzed. Table 1 (1) Selection of bearing type		
Items for analyses		Methods of choice
5) Rigidity	Those can satisfy the rigidity of mechanical shaft system	In machine tool spindles and final deceleration device of automobiles and other applications, the rigidity of the bearing must be increased when the rigidity of the shaft is increased.
	[When carrying load, the contact surface between the rolling elements and the raceways can have elastic deformation. "High rigidity" means such elastic deformation shall happen at the smaller amount.]	The deformation of roller bearings when carrying load is smaller than that of the ball bearings.
		Rigidity can be increased by applying pre-load (negative clearance). These method is suitable for angular contact ball bearings and taper roller bearings.

Table 1(2) The selection of bearing type		
6) The relative leaning of the inner ring and outer ring	Reason of leading to the relative leaning of the inner ring and outer ring must be analyzed (such as the load-included bending of the shaft, poor precision of the shaft and housing or mounting error) and the bearings that fit these conditions should be chosen.	If the relative leaning between the inner ring and outer ring is too big, the inside load thereof shall do harm to the bearing. So bearing types that can carry this leaning should be chosen. Normally, the allowable sloping angle increases with the following order: [cylindrical roller bearings, taper roller bearings, deep groove ball bearings (angular contact ball bearings), thrust ball (spherical roller) bearings]
7) Mounting and dismounting	Check the frequency and methods of mounting and dismounting of the bearings regularly.	If too much mounting and dismounting, choosing cylindrical roller bearings with separable inner ring and outer ring, needle roller bearings and taper roller bearing is comparatively convenient.
		With adapter or withdrawal sleeve, self-aligning ball bearings with tapered bore and spherical roller bearings with tapered

Bearing Structure		
The variety of machine types, combined with the differences in the application condition leads to different requirements for bearings normally, there will be no less than two bearings applied on one shaft.		
In addition, for the purpose of convenience in fixing axial position, normally one bearing is used to fix one end and the others free on the other end of the shaft. The following table provides the choice on bearings on the fixing end and on the free end of the shaft.		
Table1 Bearings on the fixing end and the free end		
	Content	Applicable bearing types
Bearings on the fixing end	Fix the bearing in the axial direction	Deep groove ball bearings
	Choose bearings that can carry body the radial load and the axial load	Combined angular contact ball bearings
	In order to carry double-direction axial load, strength must be considered according to the amount of the axial load while mounting	Self-aligning ball bearings
		Cylindrical roller bearings with flanges (NUP and NH types)
		Double-row taper roller bearings
		Spherical roller bearings
	Bearing on the free end	The bearing must adapt to the shaft expansion caused by the changes in temperature while working and adjust the bearing position in the axial direction.
Only the bearings with separable inner ring and outer ring that can carry radial load should be chosen.		Non-separable types
With non-separable bearings, there should be a clearance between the outer ring and housing in order to adapt the bearing to the shaft expansion in the axial direction.		Deep groove ball bearings
Sometimes, the adaptation is achieved with the contact surface between the shaft and the inner ring.		Combined angular contact ball bearings (back-to-back arrangement)
		Double-row angular contact ball bearings
		Self-aligning ball bearings
		Double-row taper roller bearings(3700 type)
		Spherical Roller bearings

	Content	Applicable bearing types
Regardless of fixing end or free end	When the distance between the two bearings is small, and the effects of shaft expansion are not important, two angular contact ball bearings or taper roller bearings that can carry axial load can be used together in face-to-face or back-to-back arrangements.	Deep groove ball bearings
	Use screw nut or filling piece to adjust the axial clearance after mounting.	Angular contact ball bearings
		Self-aligning ball bearings
		Cylindrical roller bearings (NJ and NF types)
		Taper roller bearings
Vertical shaft		Spherical roller bearings
	Bearings that can carry both radial load and axial load should be chosen for the fixing end. If the axial load is too big, use the combination of thrust bearing and radial bearing.	For fixing end
	Similarly, only bearings that can carry radial load should be used to adapt to the shaft expansion.	Combined angular contact ball bearing (back-to-back arrangement)
		Double-row taper roller bearings(37000 type)
		Combined thrust bearing and radial bearing arrangements

Cage damage

Broken cage

Possible reasons

- Torque load too big
- High speed rotation or speed changing too frequently
- Poor lubrication
- Intrusion of foreign matter
- Vibration too big
- Bad mounting (mounting in leaning conditions)
- Abnormal increase in temperature (resin cage)

Solutions

- Check application conditions
- Check lubrication conditions
- Re-consider choice of cage
- Pay attention to applications
- Consider rigidity of shaft and bearing box

Cracks

Partial breach and even cracks

Possible reasons

- Shock load too heavy
- Interference too big
- Big peeling off and frictional cracks
- Poor precision of the mounting side (corner circle too big)
- Frictional cracks
- Mal-applications (using copper hammer, intrusion of big foreign matter)

Solutions

- Check the application conditions
- Set proper interference and check material quality
- Improve mounting and application methods
- Prevent frictional cracks (check lubricants)
- Check bearing surrounding design

Burns

Overheat color varying then bearing, leading to failure to rotate

Possible reasons

- Clearance too small (including clearance for the deforming part)
- Insufficient lubrication or inappropriate lubricant
- Load too heavy (pre-load too heavy)
- Skewing rollers

Solutions

- Choose proper clearance (increasing clearance)
- Check lubricant type and ensuring amount
- Check application conditions
- Avoid position error
- Check surrounding design (including lead to bearing)
- Improve the mounting method

Rusting

Rusting on all or part of the surface

Rust on rolling elements in pitch shape

Possible reasons

- Poor maintenance
- Improper packaging
- Insufficient rust-preventive
- Intrusion of moist acid liquid
- Taking the bearing by hands

Solutions

- Maintenance to prevent rusting
- Reinforcing the sealing function
- Check the lubricant regularly
- Pay attention to bearing applications

Corrosion

Red corroded particles in the fit surface

Possible reasons

- Insufficient amount of interference
- Small bearing oscillating angle
- Insufficient lubrication (or without lubrication)
- Not stable load
- Vibration in the transit

Solutions

- Check the interference and the conditions of the lubricant
- Separable packing of inner rings and outer rings when in transit, pre-load shall prevail if the bearings are un-separable
- Re-consider choice of lubricant
- Re-consider choice of bearings

Wear

Surface worn, leading to dimension changes with scratches and traces

Possible reasons

- Foreign matters in the lubricant
- Poor lubrication
- Rollers skewing

Solutions

- Check lubricant and lubrication method
- Reinforce sealing function
- Prevent positioning error

Electric corrosion

Red corroded particles in the fit surface

Possible reasons

- Insufficient amount of interference
- Small bearing oscillating angle
- Insufficient lubrication (or without lubrication)
- Not stable load
- Vibration in the transit

Solutions

- Check the interference and the conditions of the lubricant
- Separable packing of inner rings and outer rings when in transit, pre-load shall prevail if the bearings are un-separable
- Re-consider choice of lubricant
- Re-consider choice of bearings

Dent and bruise

Intrusion of solid foreign matter or pits in the surface caused by shock or scratches from mounting

Possible reasons

- Solid foreign matter intrusion
- Peels inside the bearing
- Shock from mal-mounting peeling off
- Mounting in leaning conditions

Solutions

- Improve mounting and application methods
- Prevent foreign matters from intruding
- Check other parts if caused by metal pieces

Creep deformation

Slippery ID surface and OD surface leading to mirror surface and sometime blocking

Possible reasons

- Insufficient interference at the fit surface
- Sleeve not fastened enough
- Abnormal increase in temperature
- Load too heavy

Solutions

- Re-consider the interference amount
- Consider the application conditions
- Check precision of shaft and bearing box

Peeling off

Peeling off and deformation of the rotational surface

Possible reasons

- Load too heavy or improper applications
- Mal-mounting
- Poor precision of the shaft or bearing box
- Clearance too small
- Intrusion of foreign matters
- Rusting
- Hardness decrease caused by abnormal high temperature

Solutions

- Re-consider the application conditions
- Consider other bearing specifications
- Check the processing precision of the shaft and bearing box
- Consider the surrounding design
- Check the mounting method
- Check the lubricant and lubrication method

Scratches

Rough surface with small deposit

Scratches between the flanges of rings and the side surfaces of the rollers

Possible reasons

- Poor lubrication
- Intrusion of foreign matter
- Skewing rollers caused by leaning
- Axial load too big leading to no lubricant on flange surface
- Roughness of the surface too big
- Big sliding of the rolling elements

Solutions

- Re-consider lubricant and lubricating method
- Check application method
- Set proper pre-load
- Reinforce the sealing function
- Use bearings correctly

Environmental Protection

It is one of the strategies to let our employee and partners know and feel more about environmental protection and finally achieve DWCFQ to be a green corporation. We cognize that the best solution is always keep thinking about environmental protection no matter where we are and what we do.

DWCFQ always commit itself to Environmental Protection. Welcome to join us!

DWCFQ Environmental Protection (EP) Responsibility and Commitment

Saving

Energy Saving

26° C room temperature control

Saving electricity, water and paper

Saving packing material (energy consumed during transportation)

Recycle

Categorizing waste of paper, newspapers, magazines

Categorizing wooden rods, cases and blocks

Collecting waste ink and toner cartridges

Collecting waste batteries

Using recycled paper if possible

Education and Promotion

All staff participation: all staff joining green activities or conferences at least once per year

Announcing this KML EP Responsibility and Commitment to our customers and suppliers

Green Environment

Tree planting every year

Increasing the area of greening zone

Reducing Pollution

Using toxic free ink

Minimizing pollutants during production

EP Management System

factories acquiring ISO14000 certificate

Preferably purchasing from ISO14000 certified suppliers if under the same conditions

Quality System

DWCFQ was awarded ISO 9001: 2000 Quality Management System Certificate in 2005. DWCFQ has undertaken to related parties that it will strictly implement and maintain the established quality management system.

To supply the products that meet the customers' requirements, applicable laws and regulations, based on the requirements of ISO 9001:2000 Standard, DWCFQ will identify, establish, implement and continuously improve the following quality management system processes in the light of the specific conditions of the Company:

A. Management Responsibilities

General Manager is expected to be responsible for the following work:

Making quality policy and quality goal regarding the quality management system to satisfy customers gearing with their needs.

Stating responsibilities and power scopes for administrators, executive persons and identifiers as well as describing their correlation to improve the Company's result by satisfying customers.

Appointing major administrators and organizing inner or external exchange activities to improve the consciousness required by customers as well as the validity of the quality management system. This process will imply orientation and duty for other quality management system process.

Meanwhile, the result will be evaluated to continuously improve the quality management system.

B. Resources Management Process

With this process, General Manager will provide necessary resources to realize other quality management processes' orderly and efficient running, aiming at completing quality policy and quality goal, continuously improve the result of the quality management system.

C. Products Realization Process

With focus on the principle of being orderly and efficient, this process includes such work processes as assembling, processing, sale, procurement, logistics and import and export document treatment. As regards the specific service projects required by customers, the Company will figure out related resolutions in accordance with the requirement of ISO9001: 2001 Standard 7.1

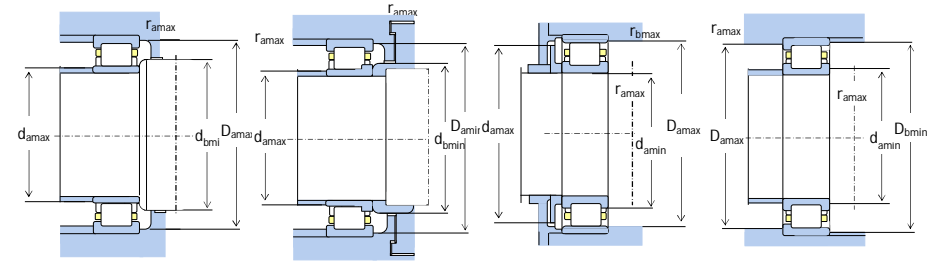
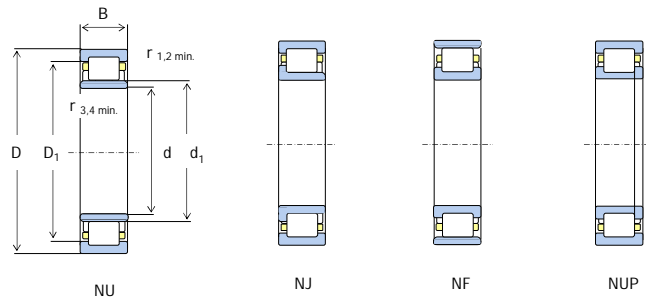
D. Evaluation, Analysis and Improvement Process

General Manager leads and organizes quality system improvement.

Furthermore, customer is the our focus ,we should collect and analyze complain and advices to improve our services .

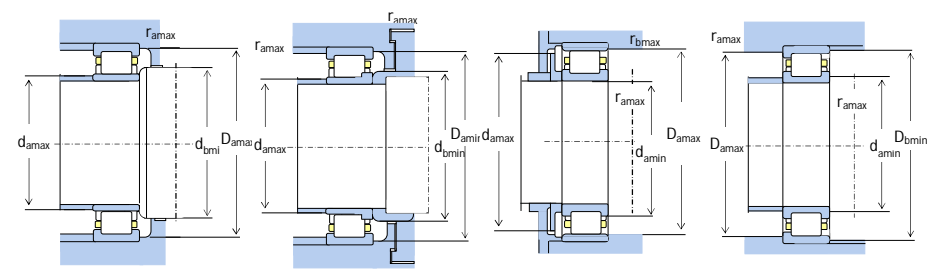
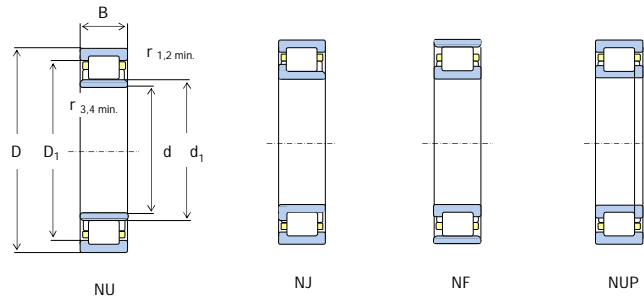
At the same time, company build corresponding control program to manage file ,stuff, record.

Single-row Cylindrical Roller Bearing



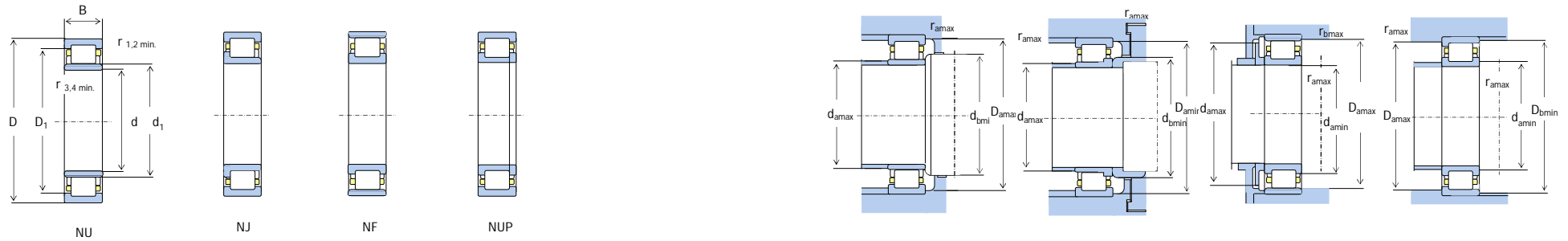
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions						Mass (kg)
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da_min	db_min	Da_max	Db_max	ra_max	r_bmax	Refer.
100	180	34	2.1	2.1		160	190	260	3200	3800	N220M	2220	114			166	2	2	3.45
	180	34	2.1	2.1	119		190	260	3200	3800	NJ220EM			114	169		2	2	3.90
	180	34	2.1	2.1		160	190	260	3200	3800	NF220M	12220	114			166	2	2	3.55
	180	34	2.1	2.1	120		190	260	3200	3800	NU220M	32220		114	169		2	2	5.20
	180	34	2.1	2.1	119		190	260	3200	3800	NJ220EM	42220		114	169		2	2	3.90
	180	46	2.1	2.1	120		260	390	3200	3800	NU2220M	32520		114	169		2	2	5.20
	215	47	3	3	127.5		380	470	2400	3000	NU320EM	32320EH			116	202	2.5	2.5	8.35
	215	47	3	3		191.5	380	470	2400	3000	N320EM	2320EH	116			197	2.5	2.5	9.67
	215	73	3	3	185.5		440	630	2400	3000	N2320M	2620	116			197	2.5	2.5	13.1
	215	73	3	3	129.5		440	630	2400	3000	NU2320M	32620		116	197		2.5	2.5	13.2
	215	73	3	3	129.5		440	630	2400	3000	NJ2320M	42620		116	197		2.5	2.5	13.5
	105	160	26	2	1.1	119.5	145.5	120	176	4000	4800	NF1021M	12121		114	150		2	1
160		26	2	1.1		145.5	120	176	4000	4800	N1021M	2121	117		150	2	1	1.82	
190		36	2.1	2.1		168.8	210	290	3000	3600	N221M	2221	119		175	2	2	4.33	
190		36	2.1	2.1	126.8		210	290	3000	3600	NJ221M	42221		121	179		2	2	4.34
225		49	3	3		201	420	550	2200	2800	N321EM	2321EH	121	121	212	203	2.5	2.5	10.5
225		49	3	3	133		420	550	2200	2800	NU321EM	32321EH					2.5	2.5	10.6
260		60	4	4		220.5	550	700	2200	2800	N421M	2421	121			224	3	3	17.2
170		28	2	1.1		155	148	203	3800	4500	N1022M	2122	122			160			2.31
110	170	28	2	1.1	125		148	203	3800	4500	NU1022M	32122		119	157		2	1	2.32
	170	28	2	1.1	125		148	203	3800	4500	NJ1022M	42122		119	157		2	1	2.39
	200	38	2.1	2.1		178.5	255	340	2800	3400	N222M	2222	124			185	2	2	5.02
	200	38	2.1	2.1	132.5		255	340	2800	3400	NU222M	32222		124	185		2	2	5.05
	200	38	2.1	2.1	132.5		255	340	2800	3400	NJ222M	42222		124	185		2	2	5.10
	200	53			132		380	520	2800	3400	NU2222EC	32522		124	185		2	2	7.73
	240	50	3	3		211	430	540	2000	2600	N322EM	2322EH	126			227	2.5	2.5	11.4
	240	50	3	3	143	207	400	525	2000	2600	NU322M	32322		126	222		2.5	2.5	11.6

Single-row Cylindrical Roller Bearing



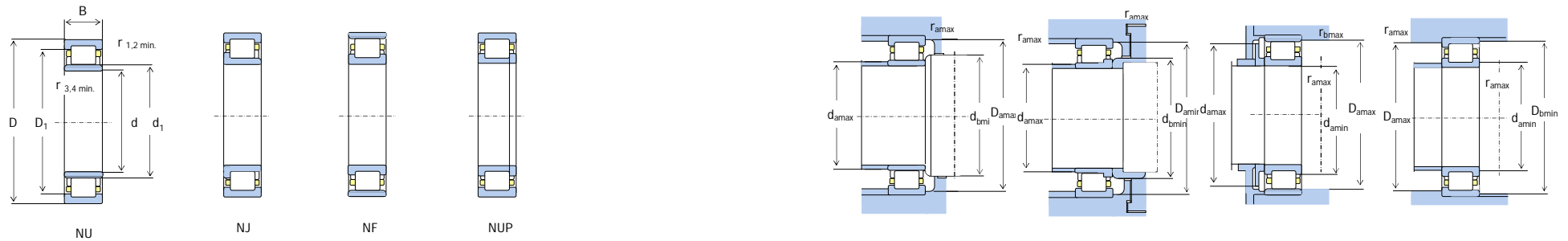
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions						Mass (kg)
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	d _{a min}	d _{b min}	D _{a max}	D _{b max}	r _{a max}	r _{b max}	Refer.
110	240	50	3	3	143	207	400	525	2000	2600	NJ322M	42322		126	222		2.5	2.5	11.8
	240	80	3	3	143		620	800	2000	2600	NU2322EM	32622EH	130	126	222		2.5	2.5	18.3
	280	65	4	4		235	580	735	2000	2600	N422M	2422			252		3	3	21.8
	280	65	4	4	155		580	735	2000	2600	NU422M	32422		135	252		3	3	22.0
	280	65	4	4	155		580	735	2000	2600	NJ422M	42422		135	252		3	3	22.3
120	180	28	2	1.1	135		139	210	3400	4000	NU1024M	32124		130	167		2	1	2.96
	180	28	2	1.1	135		139	210	3400	4000	NJ1024M	42124		130	167		2	1	3.09
	215	40	2.1	2.1		191.5	286	400	2400	3000	N224M	2224	134		199		2	2	6.11
	215	40	2.1	2.1	143.5		335	420	2400	3000	NU224EM	32224EH		134	199		2	2	6.27
	215	40	2.1	2.1	143.5		335	420	2400	3000	NJ224EM	42224EH		134	199		2	2	6.72
	215	58	2.1	2.1		191.5	360	550	2400	3000	N2224M	2524	134		199		2	2	8.92
	215	58	2.1	2.1	143.5		430	585	2400	3000	NU2224M	32524		134	199		2	2	9.31
	215	58	2.1	2.1	143.5		430	585	2400	3000	NJ2224M	42524		134	199		2	2	9.46
	215	58	2.1	2.1		195.5	410	620	2400	3000	NF2224EM	12524EH	130		199		2	2	9.72
	260	55	3	3		226	500	650	1900	2400	N324M	2324	136		242		2.5	2.5	15.1
	260	55	3	3		226	476	605	1900	2400	NF324M	12324	136		242		2.5	2.5	14.3
	260	55	3	3	154		530	610	1900	2400	NU324EM	32324EH		136	242		2.5	2.5	15.4
	260	86	3	3		226	680	980	1900	2400	N2324M	2624	136		242		2.5	2.5	23.9
	260	86	3	3	154		795	1030	1900	2400	NU2324EM	32624EH		136	242		2.5	2.5	23.1
	260	86	3	3	154		795	1030	1900	2400	NJ2324EM	42624EH		136	242		2.5	2.5	23.4
	310	72	5	5		260	710	920	1900	2400	N424M	2424	146		290		4	4	29.0
310	72	5	5	170		710	920	1900	2400	NU424M	32424		146	290		4	4	29.1	
310	72	5	5	170		710	920	1900	2400	NJ424M	42424		146	290		4	4	29.7	
130	200	33	2	1.1		182	180	280	3200	3800	N1026M	2126	142		189		2	1	4.52
	200	33	2	1.1	148		180	280	3200	3800	NU1026M	32126		140	187		2	1	4.66
	230	40	3	3	153.5		345	425	2200	2800	NU226EM	32226EH		146	212		2.5	2.5	7.90
	230	40	3	3	153.5		290	410	2200	2800	NJ226EM	42226		146	212		2.5	2.5	7.38
	230	64	3	3		204	400	630	2200	2800	N2226M	2526	146		212		2.5	2.5	11.6

Single-row Cylindrical Roller Bearing



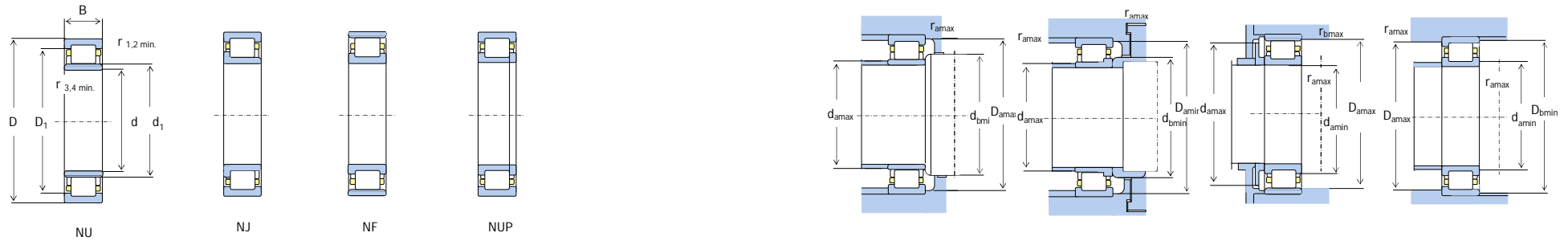
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions						Mass (kg)		
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da min	db min	Da max	Db max	ra max	r bmax	Refer.		
130	230	64	3	3	153.5		530	735	2200	2800	NU2226EM	32526	146	212			2.5	2.5	12.5		
	230	64	3	3	153.5		530	735	2200	2800	NJ2226EM	42526	146	212			2.5	2.5	12.9		
	240	72			158		630	850	2200	2800	NJ2226X3		146	212					14.8		
	280	58	4	4		243	550	720	1800	2200	N326M	2326	149			258	3	3	17.8		
	280	58	4	4	167		615	735	1800	2200	NU326EM	32326EH	149	149	258		3	3	19.3		
	280	58	4	4	167		615	735	1800	2200	NJ326EM	42326EH	149	149	258		3	3	19.5		
	280	93				243	920	1230	1800	2200	N2326EM	2626EH	149			258	3	3	29.0		
	280	93	4	4	167		920	1230	1800	2200	NU2326EM	32626EH		149	258		3	3	28.7		
	280	93	4	4	167		920	1230	1800	2200	NJ2326EM	42626EH		149	258		3	3	28.9		
	280	93	4	4	167		920	1230	1800	2200	NUP2326M	92626		149	258		3	3	30.5		
	140	210	53	2	2	158		330	630	2600	3400	NU3028M	3032128		152	196			2	2	7.64
		225	68	2.1	2.1	162.5		390	625	2600	3400	NU3128M	3032728		155	209			2	2	10.6
250		42	3	3		221	345	490	2400	3000	N228M	2228	157			232	2.5	2.5	9.14		
250		42	3	3	169		395	515	2400	3000	NU228EM	32228EH		157	232		2.5	2.5	9.36		
250		42	3	3	169		395	515	2400	3000	NJ228EM	42228EH		157	232		2.5	2.5	9.43		
250		42	3	3	169		345	490	2400	3000	NUP228M	92228		157	232		2.5	2.5	9.51		
250		68	3	3	169		550	790	2000	2600	NU2228EM	32528EH		157	232		2.5	2.5	15.9		
250		68	3	3	169		475	760	2000	2600	NJ2228M	42528		157	232		2.5	2.5	14.8		
300		62	4	4		263.6	610	805	1900	2400	N328M	2328	160			278	3	3	21.9		
300		62	4	4		260	610	805	1900	2400	NF328M	12328	160			278	3	3	22.8		
300		62	4	4	180		665	880	1800	2200	NU328EM	32328EH		160	278		3	3	23.7		
300		62	4	4	180		610	805	1800	2200	NUP328M	92328		160	278		3	3	24.5		
300		102	4	4		260	880	1300	1800	2200	N2328M	2628	160			278	3	3	34.6		
300		102	4	4	180		1020	1380	1800	2200	NU2328EM	32628		160	278		3	3	35.8		
300		102	4	4	180		1020	1380	1800	2200	NJ2328EM	42628		160	278		3	3	41.0		
360		82	5	5	196		896	998	1700	2000	NJ428M	42428		160	278		4	4	46.3		
150		210	28	2	1.1	165		164	252	2600	3200	NU1930M	1032930		160	196			2	1	2.98

Single-row Cylindrical Roller Bearing



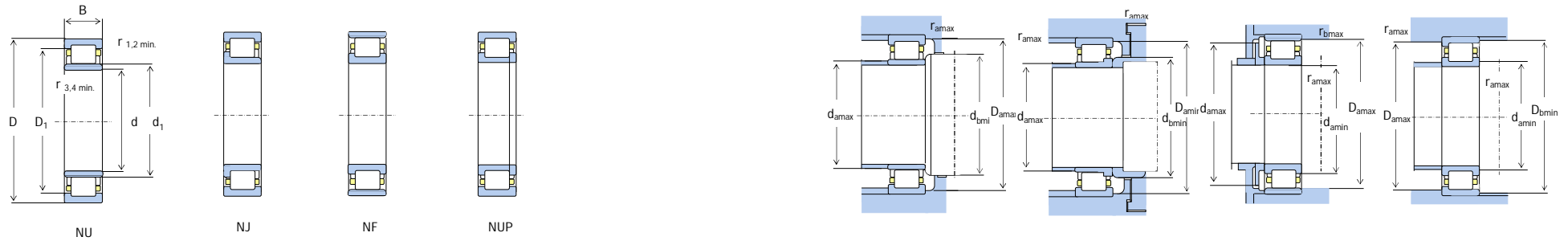
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions						Mass (kg)	
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da min	db min	Da max	Db max	rmax	r bmax	Refer.	
150	210	36	2	1.1	165		204	335	2600	3200	NU2930M	2032930		160	196		2	1	3.83	
	225	35	2.1	1.5	169.5		202	294	2600	3200	NU1030M	32130		162	209		2	1.5	4.94	
	225	35	2.1	1.5	169.5		202	294	2600	3200	NJ1030M	42130		162	209		2	1.5	5.05	
	270	45	3	3		238	395	580	2000	2600	N230M	2230	167			251	2.5	2.5	11.6	
	270	45	3	3	182		450	595	1900	2400	NU230EM	32230EH		167	251		2.5	2.5	12.5	
	270	45	3	3	182		450	595	1900	2400	NJ230EM	42230EH		167	251		2.5	2.5	12.7	
	270	45	3	3	182		450	595	1900	2400	NUP230EM	92230EH		167	251		2.5	2.5	13.0	
	270	73	3	3	182		635	930	1900	2400	NU2230EM	32530EH		167	251		2.5	2.5	19.9	
	270	73/143	3	3	182		635	930	1900	2400	NU2230EWB	32530K		167	251		2.5	2.5	23.3	
	270	73	3	3	182		635	930	1900	2400	NJ2230EM	42530EH		167	251		2.5	2.5	21.4	
		65	4	4			277	715	890	1700	2000	RN330		170				3	3	16.1
		65	4	4			280.8	715	890	1700	2000	N330M	2330	170			297	3	3	26.5
	320	65	4	4	193		750	1020	1700	2000	NU330EM	32330EH			170	297		3	3	26.8
	320	65	4	4	193		750	1020	1700	2000	NJ330EM	42330EH		170	297		3	3	27.2	
	320	65	4	4	193		680	920	1700	2000	NUP330M	92330		170	297		3	3	27.4	
	320	65/108	4	4	193		715	890	1700	2000	NU330-113			170	297		3	3	29.6	
	320	108	4	4	193		1160	1600	1700	2000	NU2330EM	32630EH		170	297		3	3	41.5	
	320	108	4	4	193		1160	1600	1700	2000	NJ2330EM	42630EH		170	297		3	3	42.4	
	320	108	4	4	193		1160	1600	1700	2000	NF2330EM	12630EH		170	297		3	3	43.6	
	320	128	4	4	193		1250	1900	1400	1800	NU3330M	3032330		170	297		3	3	49.9	
320	128	4	4	193		1250	1900	1400	1800	NJ3330M	3042330		170	297		3	3	51		
160	220	36	2	2	173		240	450	2500	3200	NU2932M	2032932		170	206		1.5	1.5	4.08	
	220	36	2	2	173		240	450	2500	3200	NJ2932M	2042932		170	206		1.5	1.5	4.17	
	240	38	2.1	2.1	180		238	340	2400	3000	NU1032M	32132		172	224		2	2	5.96	
	240	38	2.1	2.1	180		238	340	2400	3000	NJ1032M	42132		172	224		2	2	6.13	
	290	48	3	3		257	460	650	1800	2200	N232M	2232	177			271	2.5	2.5	14.3	
	290	48	3	3	193		500	665	1800	2200	NU232EM	32232EH		177	271		2.5	2.5	14.8	

Single-row Cylindrical Roller Bearing



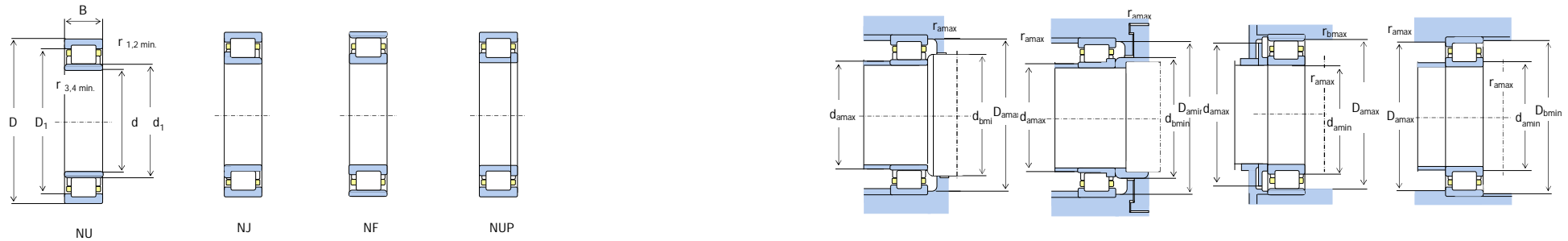
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions						Mass (kg)	
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da min	db min	Da max	Db max	ramax	r bmax	Refer.	
160	290	48	3	3	195		500	665	1800	2200	NJ232EM	42232EH		177	271		2.5	2.5	14.6	
	290	48	3	3	193		500	665	1800	2200	NUP232EM	92232		177	271		2.5	2.5	15.5	
	290	80	3	3	193		810	1190	1800	2200	NU232EM	32532EH		177	271		2.5	2.5	24.2	
	340	68	4	4		292	705	995	1500	1800	N332M	2332	180			317	3	3	30.63	
	340	68	4	4	204		860	1050	1500	1800	NU332EM	32332EH		180	180	317	3	3	33.0	
	340	68	4	4	204		860	1050	1500	1800	NJ332EM	42332EH		180	180	317	3	3	33.6	
	340	114	4	4		292	1080	1650	1500	1800	N2332M	2632	180			317			51.6	
	340	114	4	4	204		1310	1820	1500	1800	NU2332EM	32632EH		180	180	317	3	3	56.5	
	340	136	4	4	208		1240	1850	1500	1800	NU3332M			180	180	317	3	3	63.0	
	170	215	34	1.1	1	181.5		187	385	2500	3200	NU3834M			179	204		1	1	2.99
		230	36	2	1.1	185		211	360	2500	3200	NU2934M	2032934		181	216		2	1	4.24
		260	42	2.1	2.1	193		287	415	2200	2800	NU1034M	32134		185	244		2	2	8.23
260		42	2.1	2.1	193		287	415	2200	2800	NJ1034M	42134		185	244		2	2	8.46	
260		67	2.1	2.1	193		510	875	2200	2800	NU3034M	3032134		185	244		2	2	13.4	
280		88	2.1	2.1	200		665	1080	2000	2400	NU3134M	3032734		185	263		2	2	22	
310		52	4	4		272	520	780	1800	2200	N234M	2234	190			288	3	3	18.2	
310		52	4	4	208		475	635	1800	2200	NU234EM	32234EH		190	190	288	3	3	17.7	
310		52	4	4	208		475	635	1800	2200	NJ234EM	42234EH		190	190	288	3	3	18.1	
310		86	4	4	205		925	1330	1800	2200	NU2234EM	32534EH		190	190	288	3	3	31.5	
310		110	4	4	208		915	1470	1800	2200	NU3234M			190	190	288	3	3	37.9	
360		72	4	4		310	795	1010	1400	1700	N334M	2334	190			337	3	3	37.3	
360		72	4	4	220		795	1010	1400	1700	NU334M	32334		190	190	337	3	3	37.7	
360		72	4	4	220		795	1010	1400	1700	NJ334M	42334		190	190	337	3	3	38.4	
360		86	4	4	205		960	1500	1800	2200	NU2234EM	32534EH		190	190	337	3	3	29.0	
360		120	4	4	220		1220	1750	1400	1700	NU2334M	32634		190	190	337	3	3	63.7	
360		120	4	4	220		1220	1750	1400	1700	NJ2334M	42634		190	190	337	3	3	64.7	
360		140	4	4	220		1350	1980	1400	1700	NU3334M			190	190	337	3	3	72.1	
180	225	34	2.1	2.1	191.5		192	405	2200	2800	NU3836M			189	214		2	2	3.15	

Single-row Cylindrical Roller Bearing



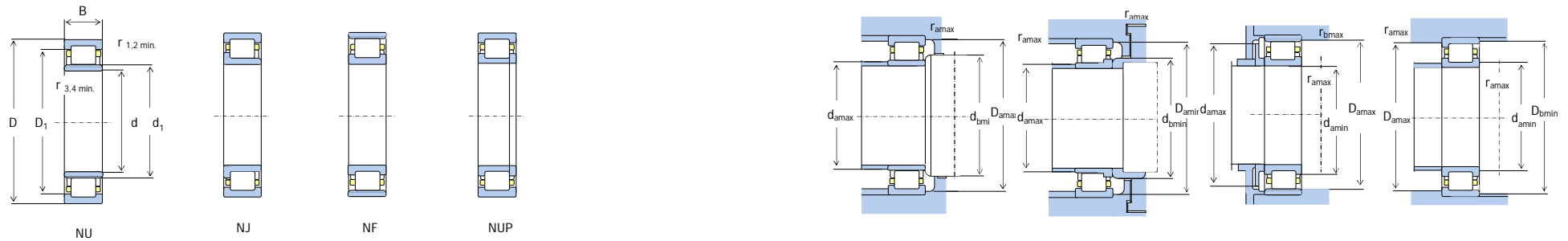
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions					Mass (kg)	
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da min	db min	Da max	Db max	ra max	rb max	Refer.
180	250	33	2.1	2.1	198		219	355	2200	2800	NU1936M	1032936	191	236	2	2			4.92
	250	42	2.1	2.1	198		255	430	2200	2800	NU2936M	2032936	191	236	2	2			6.18
	280	46	2.1	2.1	205		380	565	1800	2400	NU1036EM	32136EH	195	263	2	2			10.2
	280	46	2.1	2.1	205		380	565	1800	2400	NJ1036EM	42136EH	195	263	2	2			10.8
	280	74	2.1	2.1	206		365	955	1800	2400	NU3036M	3032136	195	263	2	2			17.4
	320	52	4	4	217		625	850	1700	2000	NU236EM	32236EH	200	297	3	3			18.0
	320	52	4	4	217		625	850	1700	2000	NJ236EM	42236EH	200	297	3	3			18.6
	320	52	4	4	217		625	850	1700	2000	NUP236EM	92236EH	200	297	3	3			21.4
	320	86	4	4	215		1010	1510	1700	2000	NU2236EM	32536EH	200	297	3	3			30.3
	320	86	4	4	215		1010	1510	1700	2000	NJ2236EM	42536EH	200	297	3	3			31.0
	320	86	4	4	215		960	1580	1700	2000	NUP2236M	92536	200	297	3	3			32.1
	320	112	4	4	218		950	1560	1700	2000	NU3236M	3032236	200	297	3	3			39.6
	380	75	4	4		330	910	1150	1500	1800	N336M	2336	200			356	3	3	39.6
	380	75	4	4	230		910	1150	1500	1800	NU336M	32336		200	356	3	3	43.5	
	380	126	4	4	232		1380	1990	1300	1600	NU2336M	32636		200	356	3	3	68.9	
	380	126	4	4	232		1380	1990	1300	1600	NJ2336M	42636		200	356	3	3	69.5	
	380	150	4	4	232		1600	2410	1300	1600	NU3336M			200	356	3	3	86.4	
	190	240	30	2.1	2.1	203		180	355	2200	2800	NU2838M	2032838	202	227	2	2		
260		42	2.1	2.1	208		260	450	2200	2800	NU2938M	2032938	201	245	2	2			6.42
290		46	2.1	2.1	215		365	535	2000	2600	NU1038M	32138	206	273	2	2			10.7
290		75	2.1	2.1	219		565	1010	1800	2200	NU3038M	3032138	206	273	2	2			18.3
340		55	4	4	230		695	955	1600	1900	NU238EM	32238EH	211	317	3	3			21.6
340		55	4	4	230		695	955	1600	1900	NJ238EM	42238EH	211	317	3	3			22.0
340		55	4	4	230		695	955	1600	1900	NUP238EM	92238EH	211	317	3	3			22.3
340		92	4	4	228		1100	1670	1600	1900	NU2238EM	32538EH	211	317	3	3			39.5
340		120	4	4	231		1070	1780	1400	1600	NU3238M	3032238	211	317	3	3			49.3
400		78	5	5		345	975	1260	1200	1500	N338M	2338	215			372	4	4	48.5
400		78	5	5	245		975	1260	1200	1500	NU338M	32338		215	372	4	4	50.2	

Single-row Cylindrical Roller Bearing



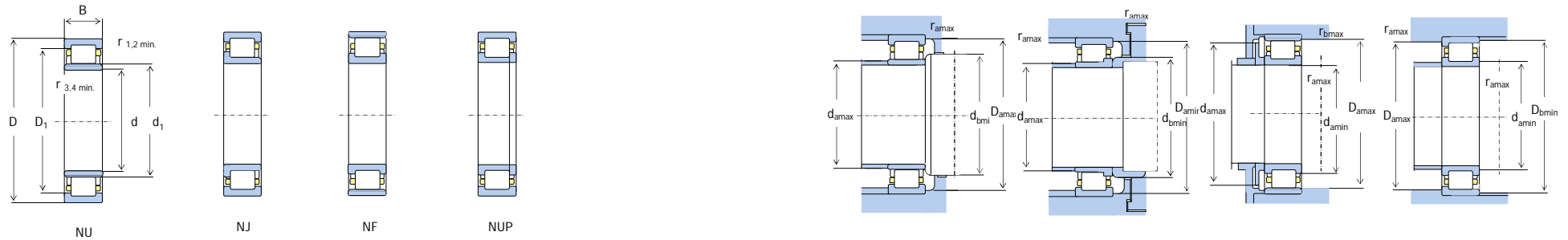
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions						Mass (kg)
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da min	db min	Da max	Db max	ramax	rbmax	Refer.
190	400	78	5	5	245		975	1260	1200	1500	NJ338M	42338		215	372		4	4	49.4
	400	132	5	5	245		1520	2220	1200	1500	NU2338M	32638		215	372		4	4	84.9
	400	155	5	5	245		1730	2630	1200	1500	NU3338M			215	372		4	4	99.2
200	280	38	2.1	2.1	220		268	425	2200	2800	NU1940M	1032940		216	263		2	2	7.22
	280	48	2.1	2.1	220		365	630	2200	2800	NU2940M	2032940		213	263		2	2	9.24
	280	48	2.1	2.1	222		365	630	2200	2800	NJ2940M	2042940		213	263		2	2	9.70
	310	51	2.1	2.1	227		450	720	1900	2400	NU1040M	32140		216	293		2	2	14.3
	310	51	2.1	2.1	227		450	720	1900	2400	NJ1040EM	42140EH		216	293		2	2	14.7
	340	112	3	3	233		1190	1850	1900	2400	NU3140M	3032140		218	320		2.5	2.5	41.4
	360	58	4	4		316	675	995	1500	1800	N240M	2240	221	221	337	337	3	3	26.7
	360	58	4	4	243		765	1060	1500	1800	NU240EM	32240EH		221	337		3	3	26.8
	360	58	4	4	244		765	1060	1500	1800	NJ240EM	42240EH		221	337		3	3	27.1
	360	58	4	4	244		765	1060	1500	1800	NUP240EM	92240EH		221	337		3	3	28.2
220	360	98	4	4	241		1220	1870	1500	1800	N2240EM	2540EH	221	221	337	337	3	3	44.9
	360	98	4	4	244		1220	1870	1500	1800	NU2240EM	32540EH		221	337		3	3	45.1
	360	98	4	4	244		960	1600	1500	1800	NJ2240M	42540		221	337		3	3	45.5
	360	128	4	4	244		1100	1810	1500	1800	NU3240M	3032240		221	337		3	3	58
	420	80	5	5	260		975	1270	1500	1800	NU340M	32340		225	392		4	4	56.8
	420	138	5	5		364	1620	2640	1200	1500	N2340M	2640	225	225	392	392	4	4	94.5
	420	138	5	5	260		1510	2240	1200	1500	NU2340M	32640		225	392		4	4	96.8
	420	165	5	5	260		1730	2660	1200	1500	NU3340M	3032340		225	392		4	4	115
	300	38	2.1	1.5	240		295	495	1900	2400	NU1944M	1032944	236	233	283	286	2	1.5	7.88
	300	48	2.1	1.5	240	280	370	660	1900	2400	NU2944M	2032944	236	233	283	286	2	1.5	9.93
220	340	56	3	3	250		500	750	1800	2200	NU1044M	32144		238	320		2.5	2.5	18.2
	340	56	3	3	250		500	750	1800	2200	NJ1044M	42144		238	320		2.5	2.5	19.6
	400	65	4	4		350	760	1200	1500	1800	N244M	2244	241	241	376	376	3	3	36.7
	400	65	4	4	270		760	1200	1500	1800	NU244M	32244		241	376		3	3	34.7
	400	65	4	4	270		760	1200	1500	1800	NJ244M	42244		241	376		3	3	35.4

Single-row Cylindrical Roller Bearing



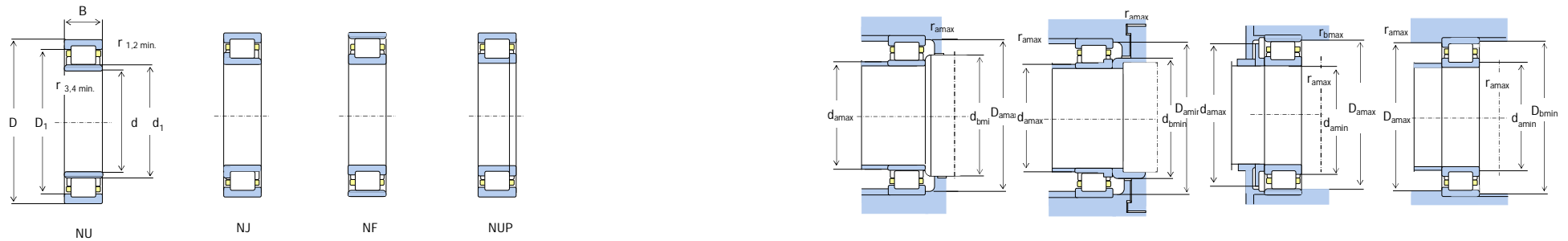
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions						Mass (kg)						
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da min	db min	Da max	Db max	r_max	r_min	Refer.						
220	400	108	4	4	270	407	1140	1810	1300	1600	NU2244M	32544	245	241	376	431	3	3	61.8						
	400	108	4	4	270		1140	1810	1300	1600		NJ2244M								42544	241	376	3	3	63.0
	460	145	5	5			1780	2620	1000	1300										N2344EM	2644EH	4	4	114.0	
	460	145	5	5	284	1780	2620	1000	1300	NU2344EM	32644EH	245	431	4	4	120.0									
	460	180			284	2130	3300	800	1100	NU3344M/HC		245	431	4	4	140.6									
240	320	38	2.1	2.1	260	430	315	550	2000	2400	NU1948M	1032948	266	253	302	470	2	2	8.68						
	320	48	2.1	2.1	260		385	710	2000	2400	NU2948M	2032948								253	302	2	2	10.7	
	360	56	3	3	270		530	820	1700	2000	NU1048M	32148								259	340	2.5	2.5	21.2	
	440	72	4	4	295	985	1540	1300	1600	NU248M	32248	262	415	3	3	46.9									
	440	72	4	4	295	935	1340	1300	1600	NJ248M	42248	262	415	3	3	51.0									
	440	72	4	4	295	935	1340	1300	1600	NUP248M	92248	262	415	3	3	51.4									
	440	120	4	4	295	1440	2320	1000	1300	NU2248M	32548	262	415	3	3	84.9									
	440	120	4	4	295	1440	2320	1000	1300	NJ2248M	42548	266	262	415	3	3	86.7								
	500	95	5	5		1400	2200	1000	1300	N348M	2348	266	470	4	4	94.6									
	500	155	5	5	310	2000	2990	1000	1300	NU348M	32348	266	470	4	4	96.3									
260	360	46	2.1	2.1	286	430	435	760	1900	2200	NU1952M	1032952	266	277	342	470	2	2	14.4						
	360	60	2.1	2.1	286		535	995	1900	2200	NU2952M	2032952								277	342	2	2	18.6	
	400	65	4	4	296		645	1000	1500	1800	NU1052M	32152								282	376	3	3	29.1	
	400	65	4	4	296	645	1000	1500	1800	NUP1052M	92152	282	376	3	3	37.2									
	480	80	5	5	320	985	1800	1100	1400	NU252M	32252	286	450	4	4	67.2									
	480	82	5	5	294	1100	1800	1100	1400	NU2052EM	2032152EH	283	450	4	4	40.5									
	480	130	5	5	320	1710	2770	900	1200	NU2252M	32552	286	450	4	4	111									
	540	102	6	6	336	1540	2090	900	1200	NU352M	32352	292	503	5	5	118									
	540	165	6	6	336	2230	3350	900	1200	NU2352M	32652	292	503	5	5	190									
	280	350	42	2	2	299	430	325	705	1800	2200	NU2856M		266	295	334	470	2	2	9.16					
350		52	2	1.1	298	435		985	1700	2000	NU3856M		293								334	2	1	11.6	
380		46	2.1	2.1	306	450		815	1800	2200	NU1956M	1032956	297								361	2	2	15.2	

Single-row Cylindrical Roller Bearing



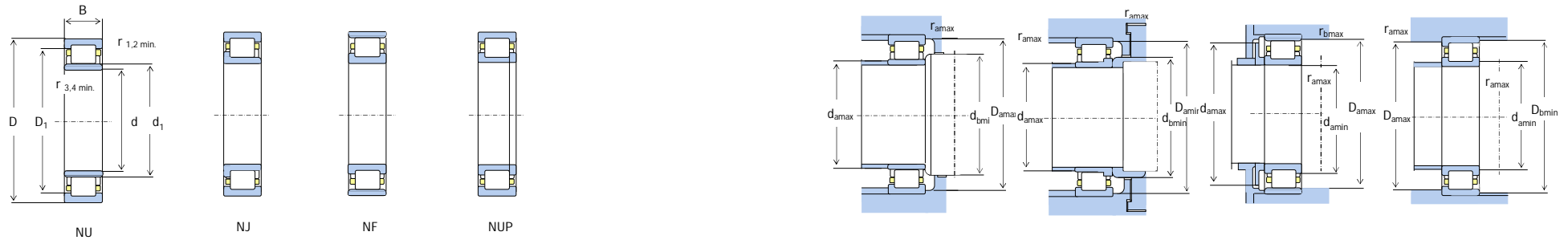
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions						Mass (kg)
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	d _{a min}	d _{b min}	D _{a max}	D _{b max}	r _{a max}	r _{b max}	Refer.
280	380	60	2.1	2.1	307		575	1150	1500	1800	NU2956M	2032956	297	361	2	2			20.2
	420	65	4	4	316		660	1050	1400	1700	NU1056M	32156	302	395	3	3			30.8
	420	65	4	4	316		660	1050	1400	1700	NJ1056M	42156	302	395	3	3			32.2
	500	80	5	5	340		1140	1680	1000	1300	NU256M	32256	306	470	4	4			70.7
	500	130	5	5	340		1770	2950	900	1200	NU2256M	32556	306	470	4	4			117
	580	175	6	6	362		2570	3950	900	1200	NU2356M	32656	313	542	5	5			236
300	420	56	3	3	332		555	975	1600	2000	NU1960M	1032960	320	398	2.5	2.5			24.4
	420	72	3	3	332		725	1370	1400	1700	NU2960M	2032960	320	398	2.5	2.5			30.3
	460	74	4	4	340		885	1400	1200	1500	NU1060M	32160	323	435	3	3			44.9
	460	74	4	4	340		885	1400	1200	1500	NJ1060M	42160	323	435	3	3			46.3
	540	85	5	5	364		1400	2070	1000	1300	NU260M	32260	327	509	4	4			86.9
	540	85	5	5	364		1400	2070	1000	1300	NUP260M	92260	327	509	4	4			90
320	540	140	5	5	365		1960	3200	900	1100	NU2260M	32560	327	509	4	4			145
	620	109	7.5	7.5	385		2200	3350	900	1100	NU360M	32360	357	590	7	7			166
	440	56	3	3	352		580	1050	1100	1400	NU1964M	1032964	340	418	2.5	2.5			25.7
	440	72	3	3	352		755	1470	1100	1400	NU2964M	2032964	340	418	2.5	2.5			33.5
	480	74	4	4	360		905	1470	1100	1400	NU1064M	32164	343	454	3	3			47.8
	480	74	4	4	360		905	1470	1100	1400	NJ1064M	42164	343	454	3	3			47.8
340	480	74	4	4	360		905	1470	1100	1400	NUP1064M	92164	343	454	3	3			49.1
	540	176	5	5	374		2740	4700	800	1200	NU3164M	3032764	347	509	4	4			170
	580	92	5	5	390		1540	2270	900	1200	NU264M	32264	347	548	4	4			112
	580	150	5	5	390		2260	3700	900	1200	NU2264M	32564	347	548	4	4			181
	420	48	2.1	1.5	362		435	1010	1200	1500	NU2868M		355	400	2	1.5			14.9
	420	60	2.1	2.1	362		515	1250	1200	1500	NU3868M		359	400	2	2			18.6
340	460	56	3	3	372		600	1120	1100	1400	NU1968M	1032968	361	438	2.5	2.5			27.1
	460	72	3	3	370		780	1570	1100	1400	NU2968M	2032968	361	438	2.5	2.5			33.7
	520	82	5	5	385		1080	1740	1000	1300	NU1068M	32168	368	490	4	4			61.8
	580	190	5	5	399		3500	6250	700	1000	NU3168M	3032768	368	548	4	4			214

Single-row Cylindrical Roller Bearing



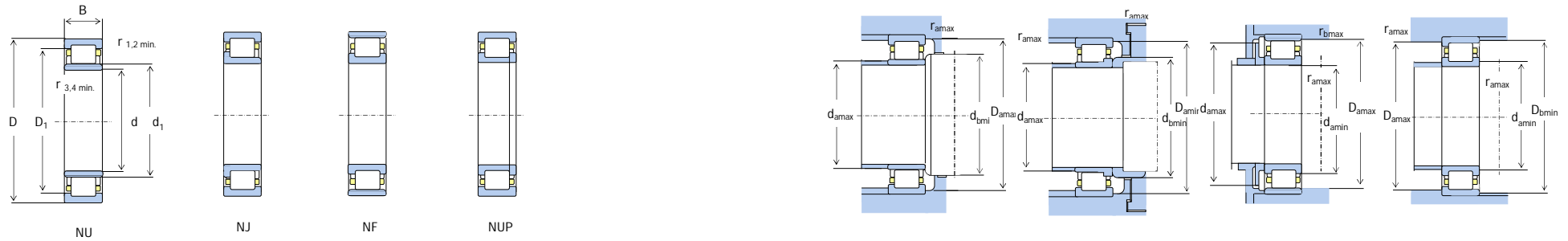
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions					Mass (kg)	
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da min	db min	Da max	Db max	ramax	r bmax	Refer.
340	620	92	6	6	420		1590	2410	900	1200	NU268M	32268	374	582			5	5	128
360	480	56	3	3	392		605	1160	1200	1500	NU1972M	1032972	381	457			2.5	2.5	28.8
	480	72	3	3	392		790	1630	1000	1300	NU2972M	2032972	381	457			2.5	2.5	36.7
	540	82	5	5	405		1110	1830	900	1100	NU1072M	32172	388	509			4	4	64.1
380	650	95	6	6	445		1650	2560	900	1100	NU272M	32272	394	611			5	5	144
	650	170	6	6	435		3500	6050	800	100	NU2272M	32572	394	611			5	5	258
	750	224	7.5	7.5	455		4950	8700	700	850	NU2372M	32672	420	690			7	7	480
	480	60	2.1	2.1	406		550	680	950	1200	NUP2876Q1	2092876Q	396	460			2	2	27.0
	520	65	4	4	418		775	1470	950	1200	NU1976M	1032976	404	493			3	3	41.2
400	560	82	5	5	425		1140	1910	950	1200	NU1076M	32176	408	529			4	4	67.5
	560	135	5	5	433		1740	3600	850	1000	NU3076M	3032176	408	529			4	4	117
	620	194	5	5	440		3350	6400	850	1000	NU3176M	3032776	408	588			4	4	238
	680	95	6	6	470		1700	2700	850	1000	NU276M	32276	415	640			5	5	158
	680	175	6	6	460		3100	5250	750	900	NU2276M	32576	415	640			5	5	290
	500	75	2.1	2.1	427		785	1900	1000	1200	NU3880M		420	479			2	2	34.2
	540	65	4	4	438	502	785	1520	1000	1200	NU1980M	1032980	425	513			3	3	43
420	540	82	4	4	438	502	1060	2250	900	1100	NU2980M	2032980	425	513			3	3	54.9
	600	90	5	5	450	550	1360	2280	900	1100	NU1080M	32180	429	568			4	4	88.2
	600	90	5	5	450	550	1360	2280	900	1100	NJ1080M	42180	429	568			4	4	90.6
	600	148	5	5	458	548	2150	4450	800	950	NU3080M	3032180	429	568			4	4	150
	720	185	6	6	485		4300	7800	800	950	NU2280	32580	435	680			5	5	344
420	520	75	2.1	2.1	447		800	1990	900	1100	NU3884M		440	498			2	2	35.4
	560	65	4	4	458		830	1660	900	1100	NU1984M	1032984	445	533			3	3	45.0
	560	65	4	4	458		830	1660	900	1100	NJ1984M	1042984	445	533			3	3	47.4
	560	82	4	4	458	522	1080	2320	900	1100	NU2984M	2032984	445	533			3	3	58.2
	620	90	5	5	470	570	1390	2380	900	1100	NU1084	32184	449	588			4	4	91.7
	620	150	5	5	478	568	2190	4600	750	900	NU3084	3032184	449	588			4	4	158

Single-row Cylindrical Roller Bearing



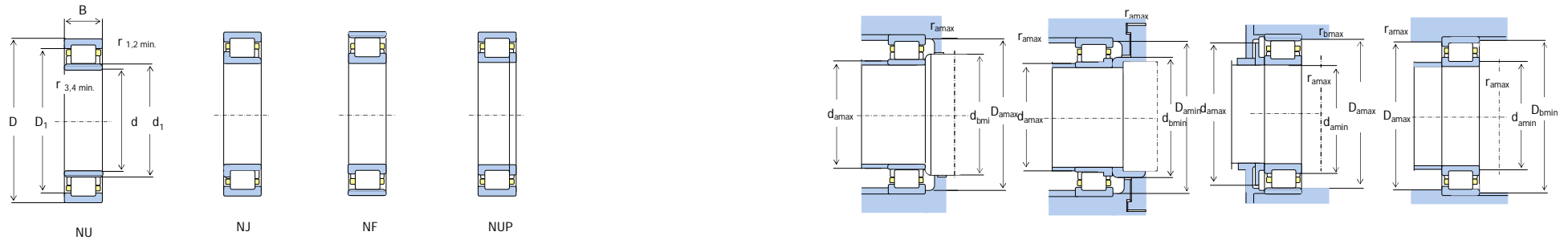
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions					Mass (kg)	
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da min	db min	Da max	Db max	ramax	r bmax	Refer.
420	760	195	7.5	7.5	515		4400	8200	750	900	NU2284	32584	462	713			6	6	406
440	600	95	4	4	484		1300	2760	900	1100	NU2988	2032988	466	572			3	3	79.9
	650	94	6	6	493		1470	2530	850	1000	NU1088	32188	476	611			5	5	105
	720	226	6	6	508		4750	9800	700	850	NU3188	3032788	480	700			5	5	374
	790	200	7.5	7.5	530		4850	8650	700	850	NU2288	32588	482	742			6	6	446
460	620	74	4	4	500		1170	2260	800	950	NU1992	1032992	486	591			3	3	63.2
	620	95	4	4	502		1650	2930	800	950	NU2992	2032992	486	591			3	3	83.1
	620	95	4	4	502		1650	2930	800	950	NUP2992	2092992	486	591			3	3	85.0
480	680	100	6	6	516		1580	2740	800	950	NU1092	32192	496	640			5	5	123
	680	163	6	6	523		2570	5400	600	750	NU3092	3032192	496	640			5	5	207
	760	240	7.5	7.5	531		4950	10400	400	480	NU3192	3032792	506	730			6	6	467
	830	212	7.5	7.5	560		4500	7900	400	480	NU2292	32592	502	782			6	6	521
	650	78	5	5	525		1200	2390	400	480	NU1996	1032996	510	617			4	4	75.0
480	650	100	5	5	525		1600	3450	400	480	NU2996	2032996	510	617			4	4	98.5
	700	100	6	6	536		1620	2860	400	480	NU1096	32196	517	660			5	5	125
	700	165	6	6	543		2620	5600	400	480	NU3096	3032196	517	660			5	5	217
500	670	78	5	5	544		1190	2120	750	900	NU19/500	10329/500	529	648			4	4	79.0
	670	100	5	5	543		1870	4300	750	900	NU29/500	20329/500	529	648			4	4	101
	670	128	5	5	543		2060	4960	700	850	N39/500E	30029/500	529	648			4	4	135
500	720	100	6	6	556		1660	2970	670	800	NU10/500	10321/500	537	680			5	5	131
	720	128	6	6	553		2720	5600	630	750	NU20/500	20321/500	537	680			5	5	180
	720	167	6	6	554		3500	7650	600	700	NU30/500	30321/500	537	680			5	5	232
500	830	264	7.5	7.5	576		6200	1100	500	600	NU31/500E	30327/500	537	680			5	5	595
	920	185	7.5	7.5	604		5180	8450	560	670	NU12/500		533	887			6	6	585
530	650	72	3	3		622	1160	2800	750	900	NF28/530	20128/530	544	636			2.5	2.5	52.2
	650	72	3	3	560.5		1170	2750	750	900	NJ28/530	20428/530	544	636			2.5	2.5	52.0

Single-row Cylindrical Roller Bearing



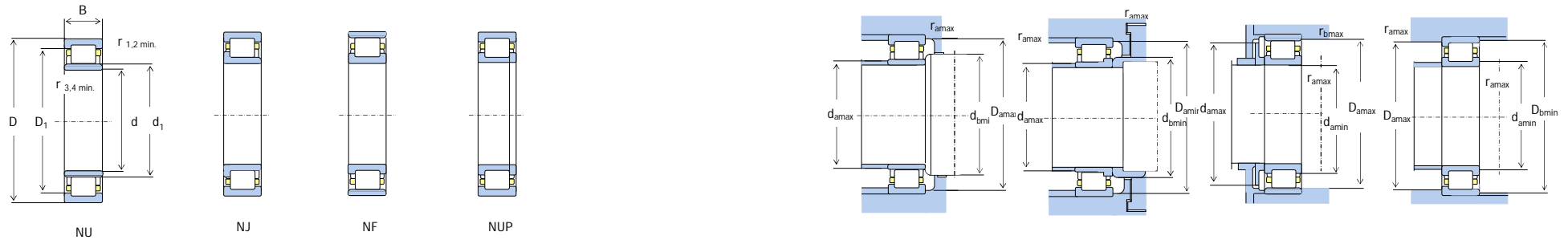
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions						Mass (kg)	
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da_min	db_min	Da_max	Db_max	ra_max	rb_max	Refer.	
530	710	82	5	5	575		1460	2910	750	900	NU19/530	10329/530	566	690			4	4	92.0	
	710	106	5	5	573		2180	4600	750	900	NU29/530	20329/530	566	690			4	4	119	
	710	106	5	5	573		2180	4600	700	850	NUP29/530	20929/530	566	690			4	4	125	
	780	112	6	6	593		2200	4050	670	800	NU10/530	321/530		570	754		5	5	190	
	780	145	6	6	591		3500	7100	560	670	NU20/530	20321/530		570	754		5	5	255	
	780	185	6	6		724	4000	8200	560	670	N30/530	30021/530	587			754	5	5	310	
	870	272	7.5	7.5		801	6500	11200	480	560	N31/530	30027/530	611			834	6	6	680	
	980	355	9.5	9.5	645		9150	17400	420	520	NU32/530	30322/530		582	921		8	8	1230	
	560	680	56	3	3	591		780	1750	700	850	NJ18/560	10428/560		584	647		2.5	2.5	44.5
		680	72	3	3	594		985	2610	700	850	NU28/560	20328/560		585	653		2.5	2.5	55.6
750		85	5	5	608		1510	3100	670	800	NU19/560	10329/560		592	715		4	4	110	
820		115	6	6	625		2120	3980	630	750	NU10/560	321/560		586	794		5	5	210	
820		115	6	6	625		2120	3980	630	750	NJ10/560	421/560		586	794		5	5	210	
820		150	6	6	626		3650	6890	530	630	NU20/560	20321/560		586	794		5	5	290	
1030		206	9.5	9.5	668		6970	10200	480	560	NU12/560	10322/560		600	990		8	8	805	
600		730	60	3	3	632		865	1990	670	800	NU18/600	10328/600		625	716		2.5	2.5	50.5
	730	78	3	3	635		1180	3050	670	800	NU28/600	20328/600		626	716		2.5	2.5	68.0	
	800	90	5	5	655		1590	3400	630	750	NU19/600	10329/600		642	780		4	4	130	
	800	90	5	5	655		1590	3400	630	750	NUP19/600	10929/600		642	780		4	4	140	
	800	90	5	5	655		1590	3400	630	750	NF19/600	10129/600	736		780	780	4	4	135	
	800	118	5	5	649		2760	6500	630	750	NU29/600	20329/600		620	780		4	4	157	
	800	118	5	5	649		2760	6500	630	750	NUP29/600	20929/600		620	780		4	4	165	
	870	118	6	6	661		2650	5050	600	700	NU10/600	321/600		626	844		5	5	245	
	870	155	6	6	661		3970	7800	500	600	NU20/600	20321/600		626	844		5	5	325	
	870	200	6	6		814	4890	9860	500	600	N30/600	30321/600	626			844	5	5	415	
630	780	88	4	4		743	1460	3780	630	750	N28/630	20028/630	646			764	3	3	100	
	780	88	4	4	668		1460	3780	630	750	NU28/630	20328/630		646	764		3	3	98.0	

Single-row Cylindrical Roller Bearing



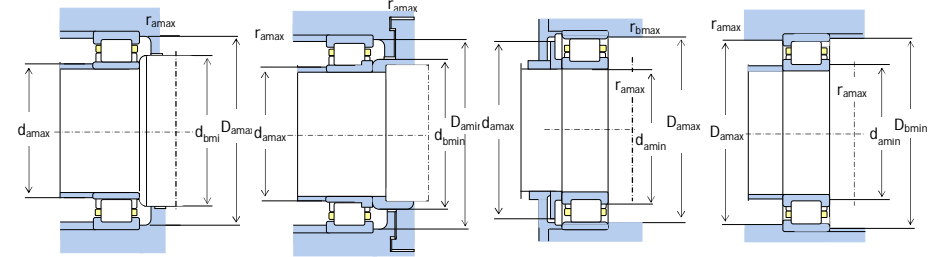
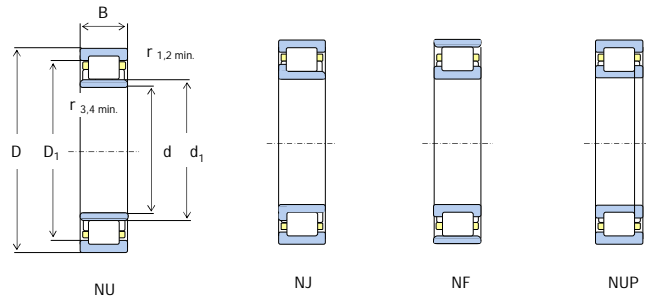
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions						Mass (kg)	
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da min	db min	Da max	Db max	ra max	r bmax	Refer.	
630	780	112	4	4		745	2100	5400	560	670	N38/630	30028/630	646			764	3	3	120	
	780	112	4	4		745	2100	5400	560	670	NF38/630	30128/630	646			764	3	3	125	
	850	100	6	6	688		1850	3900	600	700	NU19/630	10329/630		656	824		5	5	160	
	850	128	6	6	683		3100	6800	600	700	NU29/630	20329/630		656	824		5	5	220	
	850	128	6	6	683		3100	6800	600	700	NUP29/630	20929/630		656	824		5	5	230	
	920	128	7.5	7.5	702		3200	6000	450	530	NU10/630	10321/630		666	887		6	6	285	
	920	128	7.5	7.5	702		3200	6000	450	530	NUP10/630	10921/630		666	887		6	6	285	
	920	170	7.5	7.5	699		4500	9000	480	560	NU20/630	20321/630		666	887		6	6	285	
	920	212	7.5	7.5	699		6230	1420	450	530	NU30/630	30321/630		666	887		6	6	490	
	670	820	69	4	4	708		1190	2540	560	670	NJ18/670	10428/670		700	787		3	3	84.5
		820	88	4	4	711		1500	3950	560	670	NU28/670	20328/670		700	787		3	3	103
		820	112	4	4	711		1920	5200	530	630	NU38/670	30328/670		700	787		3	3	128
900		103	6	6	728		2100	4500	530	630	NU19/670	10329/670		696	874		5	5	195	
900		103	6	6	728		2100	4500	530	630	NUP19/670	10929/670		696	874		5	5	195	
980		136	7.5	7.5	747		3500	5890	430	500	NU10/670	10321/670		703	947		6	6	350	
980		180	7.5	7.5	746		5160	9800	430	500	NU20/670	20321/670		703	947		6	6	480	
980		230	7.5	7.5	744	914	6420	12100	430	500	NU30/670	30321/670		703	947		6	6	600	
710		870	74	4	4	750		1400	3080	530	630	NU18/710	10328/710					3	3	97.5
		870	95	4	4		831	1870	4650	530	630	N28/710	20028/710	726	726	854		3	3	130
	950	106	6	6	770		2350	5500	500	600	NU19/710	10329/710		736	924		5	5	214	
	950	140	6	6	766		3450	8400	500	600	NU29/710	20329/710		736	924		5	5	295	
	950	140	6	6	766		3450	8400	500	600	NUP29/710	20929/710		736	924		5	5	300	
	1030	140	7.5	7.5	778		4500	8500	430	500	NU10/710	321/710		743	997		6	6	415	
710	1030	185	7.5	7.5	787		5600	11200	400	480	NU20/710	20321/710		743	997		6	6	540	
750	920	78	5	5	794		1240	3240	500	600	NU18/750			770	900		4	4	110	
	920	100	5	5	797		1860	5000	500	600	NU28/750			786	882		4	4	145	
	1000	112	6	6		943	2600	5760	480	560	NF19/750		776			974	5	5	265	
	1090	150	7.5	7.5	832		4650	8600	360	430	NU10/750			783	1057		6	6	490	

Single-row Cylindrical Roller Bearing



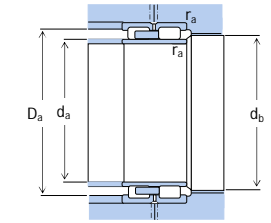
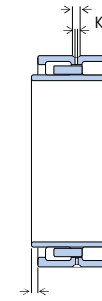
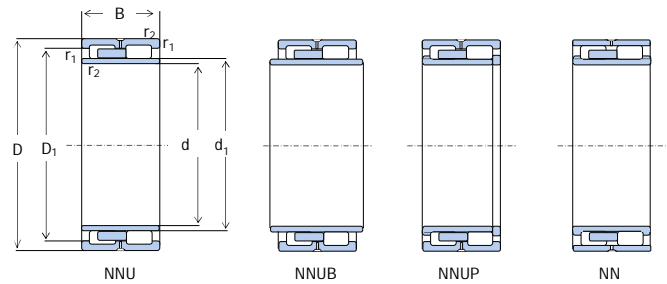
Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions						Mass (kg)	
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da min	db min	Da max	Db max	ramax	rbmax	Refer.	
750	1090	195	7.5	7.5	832		6700	13800	360	430	NU20/750			783	1057		6	6	635	
800	980	82	5	5	848		1650	3980	450	530	NJ18/800			837	940		4	4	145	
	980	136	5	5	848		2530	7050	400	480	NU38/800			837	940		4	4	219	
	1060	115	6	6	870		2760	6150	430	500	NU19/800			843	1013		5	5	282	
	1060	150	6	6	873		3550	8570	400	480	NU29/800			843	1013		5	5	385	
850	1030	106	5	5	900		2130	5950			NU28/850			888	989		4	4	183	
	1120	118	6	6	925		2780	6350			NU19/850			894	1072		5	5	320	
	1120	155	6	6	917		4450	10500			NU29/850			894	1072		5	5	426	
900	1090	85	5	5	949		1890	4500			NU18/900			939	1048		4	4	170	
	1090	112	5	5	950		2580	7100			NU28/900			939	1048		4	4	217	
	1090	140	5	5	950		2990	8600			NU38/900			939	1048		4	4	269	
	1180	165	6	6	969		5000	11000			NU29/900			939	1048		5	5	560	
950	1250	175	7.5	7.5	1024		5160	12000			NU29/950	20329/950		983	1217		6	6	584	
1000	1220	100	6	6	1053		2550	6060			NU18/1000				1026	1194		5	5	265
	1220	128	6	6	1058		3200	8850			NU28/1000			1026	1047	1170		5	5	319
	1220	128	6	6		1165	3220	8880			NF28/1000			1026		1194		5	5	350
	1220	128	6	6	1053		3220	8880			NJ28/1000				1026	1194		5	5	345
1060	1280	128	6	6	1225		3450	10200			N28/1060			1086			1254	5	5	360
	1280	165	6	6	1120		3750	11300			NU38/1060				1108	1228		5	5	427
	1400	195	7.5	7.5	1142		6900	16700			NU29/1060				1093	1367		6	6	870
	1400	250	7.5	7.5	1146		8900	23900			NU39/1060				1093	1367		6	6	1070
1120	1360	106	6	6	1182		3400	8500			NJ18/1120				1146	1334		5	5	335
	1360	140	6	6		1296	3880	10200			N28/1180			1146			1334	5	5	465
	1360	180	6	6	1180		5700	17300			NU38/1120				1169	1307		5	5	547
1180	1420	106	6	6	1242		2960	7180			NJ18/1180				1206	1394		5	5	350

Single-row Cylindrical Roller Bearing



Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (rpm)		Designations		Abutment and Fillet Dimensions						Mass (kg)	
d	D	B	r1.2min	r3.4min	Fw	Ew	Cr	Cor	Grease	Oil	New	Old	da min	db min	Da max	Db max	ramax	r bmax	Refer.	
1180	1540	206	7.5	7.5	1258	1466	8800	20200			NUP29/1180	N39/1180	1213	1213	1507	1474	6	6	1090	
	1540	272	7.5	7.5			10800	27800							6	6	1400			
1200	1520	185	7.5	7.5	1270		7300	18400						1239	1474		6	6	797	
1250	1630	170	7.5	7.5	1350	1635	6300	15400			NU19/1250	N20/1250	1290		1308	1566		6	6	952
	1750	290	9.5	9.5			12600	30200							1710	8	8	2320		
1320	1600	122	6	6	1395		3650	9070			NU18/1320	NUP18/1320	1346	1574	1574	1654	5	5	530	
	1600	122	6	6	3650	9070	5	5									560			
	1720	175	7.5	7.5	7000	17100	6	6									1100			
	1720	230	7.5	7.5	10400	28800											1480			
	1720	300	7.5	7.5	128000	32500											1950			
	1850	400	12	12	1410	1737	20400	52200			N30/1320		1430		1803	10	10	3550		
1400	1700	175	7.5	7.5		1637	6600	18300			N28/1400EM		1628		1646	6	6	860		

Double-row Cylindrical Roller Bearing



s

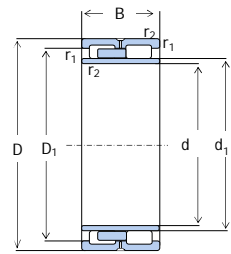
Boundary Dimensions (mm)					Basic Load Ratings (kN)		Speed Ratings (rpm)	Designations	Abutment and Fillet Dimensions				Mass (kg)		
d	D	B/C	r1.2min	r3.4min	Cr	Cor	Speed Ratings	Cylindrical bore	Tapered bore		d _{amax}	D _{amax}	r _{amax}	r _{bmax}	Refer.
100	140	30	1.1	1.1	106	182	6300	NN3920	NN3920K	109	131	1	1	1.32	
	140	40	1.1	1.1	128	255	6300	NNU4920	NNU4920K	111	133.5	1	1	1.90	
	140	40	1.1	1.1	128	255	6300	NN4920	NN4920K	109	131	1	1	1.76	
	140	70/40	1.1	1.1	128	255	4800	NNUB4920-70	-	111	133.5	1	1	2.50	
	140	80/40	1.1	1.1	128	255	4800	NNUB4920-80	-	111	133.5	1	1	2.65	
	150	37	1.5	1.5	151	250	6000	NN3020	NN3020K	111	142	1.5	1.5	2.20	
	165	52	1.1	1.1	234	360	3600	NN3120	-	109	155	1	1	4.38	
	165	52	2	2	234	360	3600	NNU3120	-	112	152	2	2	4.39	
	165	65	2	2	358	570	3600	NNU4120	NNU4120K30	114	155	2	2	5.50	
	105	145	40	1.1	1.1	130	260	6000	NNU4921	NNU4921K	116	138.5	1	1	2.00
		145	40	1.1	1.1	130	260	6000	NN4921	-	114	136	1	1	2.0
		160	41	2	2	190	305	5600	NNU3021	NNU3021K	-	150	2	2	2.80
160		41	2	2	190	305	5600	NN3021	NN3021K	117	147	2	2	2.88	
175		69	2	2	413	670	3400	NNU4121	NNU4121K30	120	165	2	2	6.70	
110	150	30	1.1	1.1	114	207	6000	NN3922	NN3922K	119	141	1	1	1.41	
	150	40	1.1	1.1	132	270	6000	NNU4922	NNU4922K	121	143.5	1	1	2.05	
	150	40	1.1	1.1	132	270	6000	NN4922	NN4922K	119	141	1	1	2.1	
	150	55/40	1.1	1.1	132	270	4500	NNUB4922	-	121	143.5	1	1	2.40	
	170	45	2	2	220	360	5300	NN3022	NN3022K	-	160	2	2	3.55	
	170	45	2	2	220	360	5300	NNU3022	-	122	157	2	2	3.74	
	180	56	1.1	1.1	290	450	3200	NN3122	-	119	170	1	1	5.4	
	180	69	2	2	418	710	3200	NNU4122	NNU4122K30	125	170	2	2	6.95	
	120	165	34	1.1	1.1	138	251	5300	NN3924	NN3924K	130	155	1	1	2.02
		165	45	1.1	1.1	176	340	5300	NNU4924	NNU4924K	133	158.5	1	1	2.80
165		45	1.1	1.1	176	340	5300	NN4924	NN4924K	130	155	1	1	2.87	
180		46	2	2	229	390	5000	NN3024	NN3024K	-	170	2	2	3.85	

Double-row Cylindrical Roller Bearing



Boundary Dimensions (mm)					Basic Load Ratings (kN)		Speed Ratings (rpm)	Designations	Abutment and Fillet Dimensions				Mass (kg)	
d	D	B/C	r1.2min	r3.4min	Cr	Cor	Speed Ratings	Cylindrical bore	Tapered bore	d _{amax}	D _{amax}	r _{amax}	r _{bmax}	Refer.
120	180	46	2	2	229	390	5000	NNU3024	-	132	167	2	2	4.07
	200	62	2	2	355	550	3000	NN3124	NN3124K	132	167	2	2	7.72
	200	80	2	2	523	865	3000	NNU4124	NNU4124K30	137	190	2	2	11.0
	215	130/1002×60°	1.1	1.1	704	1120	2200	NNUB4224X2-130	-	137	209.5	1	1	15.5
130	165	35	1	1	107	238	5000	NN4826	-	138	156	1	1	1.82
	180	37	1.5	1.5	173	325	4800	NN3926	NN3926K	141	168	1.5	1.5	2.59
	180	50	1.5	1.5	187	390	4800	NNU4926	NNU4926K	144	172	1.5	1.5	3.85
	180	50	1.5	1.5	187	390	4800	NN4926	NN4926K	141	169	1.5	1.5	3.84
	200	52	1.1	2	284	475	4500	NN3026	NN3026K	-	190	2	2	5.75
	200	52	2	2	284	475	4500	NNU3026	NNU3026K	142	187	2	2	5.92
	210	64	2	2	360	580	2800	NNU3126	-	142	196	2	2	8.49
	210	80	2	1.1	561	965	2800	NNU4126	NNU4126K30	148	200	2	2	10.5
140	190	37	1.5	1.5	201	375	4500	NN3928	NN3928K	151	179	1.5	1.5	2.78
	190	50	1.5	1.5	190	400	4500	NNU4928	NNU4928K	154	182	1.5	1.5	4.10
	190	50	1.5	1.5	190	400	4500	NN4928	NN4928K	151	179	1.5	1.5	4.07
	210	53	2	2	297	520	4300	NN3028	NN3028K	-	200	2	2	6.20
	210	53	2	2	297	520	4300	NNU3028	-	152	196	2	2	6.38
	225	68	2.1	2.1	400	650	2600	NN3128	-	155	209	2	2	10.1
	225	68	2.1	2.1	400	650	2600	NNU3128	-	155	209	2	2	10.3
	225	85	2.1	2.1	627	1040	2600	NNU4128	NNU4128K30	158	214	2	2	13.0
150	190	40	1.1	1.1	194	450	4500	NN4830	NN4830K	-	182.5	1	1	2.75
	210	45	2	2	262	490	4300	NN3930	NN3930K	163	196	2	2	4.47
	210	60	2	2	330	655	4300	NNU4930	NNU4930K	166	200	2	2	6.25
	210	60	2	2	330	655	4300	NN4930	NN4930K	163	196	2	2	6.36
	225	56	2.1	2.1	330	570	4000	NN3030	NN3030K	-	214	2	2	7.50
	225	56	2.1	2.1	330	570	4000	NNU3030	-	165	209	2	2	7.81
	225	56	2.1	2.1	330	570	4000	NNU3030	-	165	209	2	2	7.81
150	250	80	2.1	2.1	535	860	2400	NN3130	-	165	234	2	2	15.4

Double-row Cylindrical Roller Bearing



NNU



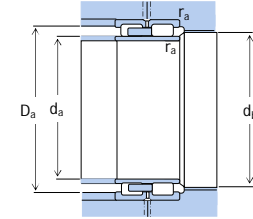
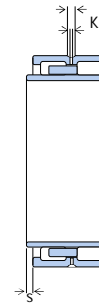
NNUB



NNUP

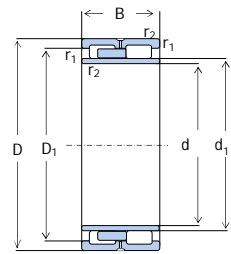


NN



Boundary Dimensions (mm)					Basic Load Ratings (kN)		Speed Ratings (rpm)	Designations	Abutment and Fillet Dimensions				Mass (kg)	
d	D	B/C	r1.2min	r3.4min	Cr	Cor	Speed Ratings	Cylindrical bore	Tapered bore	d _{amax}	D _{amax}	r _{amax}	r _{bmax}	Refer.
160	250	100	2.1	2.1	748	1290	2400	NNU4130	NNU4130K30	174	239	2	2	18.0
	200	40	1	1	150	355	4000	NN4832	-	169	191	1	1	2.95
	220	45	2	2	271	520	4000	NN3932	NN3932K	173	206	2	2	5.02
	220	60	2	2	330	680	4000	NNU4932	NNU4932K	176	210	2	2	6.60
	220	60	2	2	330	680	4000	NN4932	NN4932K	173	206	2	2	6.77
	240	60	2.1	2.1	369	655	3800	NN3032	NN3032K	-	229	2	2	9.10
	240	60	2.1	2.1	369	655	3800	NNU3032	-	175	224	2	2	9.48
	240	80	2.1	2.1	510	985	3800	NN4032	NN4032K	175	224	2	2	12.7
	240	80	2.1	2.1	510	985	3800	NNU4032	-	175	224	2	2	12.7
	270	86	2.1	2.1	620	1000	2200	NN3132	-	175	253	2	2	19.8
	270	109	2.1	2.1	935	1530	2200	NNU4132	NNU4132K30	185	259	2	2	25.0
	170	230	45	2	2	280	550	3800	NN3934	NN3934K	183	216	2	2
230		60	2	2	336	695	3800	NNU4934	NNU4934K	186	220	2	2	6.95
230		60	2	2	336	695	3800	NN4934	NN4934K	183	216	2	2	7.13
230		80	2	2	550	1180	2800	NNU5934	-	183	220	2	2	9.55
260		67	2.1	2.1	450	805	3400	NN3034	NN3034K	-	249	2	2	12.5
260		67	2.1	2.1	450	805	3400	NNU3034	NNU3034K	185	244	2	2	12.9
280		88	2.1	2.1	635	1050	2000	NN3134	-	185	263	2	2	21.1
280		88	2.1	2.1	635	1050	2000	NNU3134	-	185	263	2	2	21.4
280	109	2.1	2.1	968	1630	2000	NNU4134	NNU4134K30	195	269	2	2	26.0	
180	225	45	1	1	225	535	2200	NN4836	-	189	215	1	1	4.15
	250	52	2	2	340	655	3400	NN3936	NN3936K	193	236	2	2	7.2
	250	69	2	2	402	850	3400	NNU4936	NNU4936K	199	240	2	2	10.5
	250	69	2	2	402	850	3400	NN4936	NN4936K	193	236	2	2	10.4
	280	74	2.1	2.1	561	1000	3200	NN3036	NN3036K	-	269	2	2	16.5
	280	74	2.1	2.1	561	1000	3200	NNU3036	-	195	263	2	2	16.9
180	300	118	3	3	1080	1830	1900	NNU4136	NNU4136K30	208	287	2.5	2.5	32.5

Double-row Cylindrical Roller Bearing



NNU



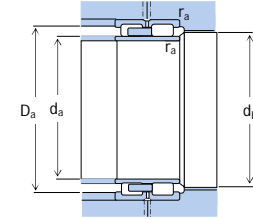
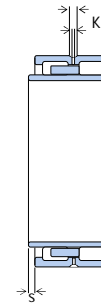
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NNUP



NN



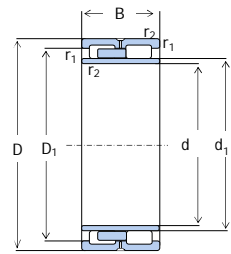
Boundary Dimensions (mm)					Basic Load Ratings (kN)		Speed Ratings (rpm)	Designations	Abutment and Fillet Dimensions				Mass (kg)	
d	D	B/C	r1.2min	r3.4min	Cr	Cor	Speed Ratings	Cylindrical bore	Tapered bore	d _{amax}	D _{amax}	r _{amax}	r _{bmax}	Refer.
190	320	104	3	3	840	1420	1800	NN3138	-	208	300	2.5	2.5	33.8
	260	69	2	2	402	880	3200	NNU4938	NNU4938K	209	250	2	2	11.0
	290	75	2.1	2.1	594	1080	3000	NNU3038	-	206	273	2	2	17.9
	290	75	2.1	2.1	594	1080	3000	NN3038	NN3038K	-	279	2	2	17.0
200	290	100	2.1	2.1	825	1640	3000	NN4038	-	206	273	2	2	24
	320	128	3	3	1320	2200	1800	NNU4138	NNU4138K30	219	307	2.5	2.5	41.0
	250	50	1.5	1.5	242	600	2400	NNU4840	NNU4840K	212	242	1.5	1.5	5.75
	280	60	2.1	2.1	420	815	3000	NN3940	NN3940K	216	263	2	2	10.6
220	280	80	2.1	2.1	484	1040	3000	NNU4940	NNU4940K	222	269	2	2	15.0
	280	80	2.1	2.1	484	1040	3000	NN4940	NN4940K	216	263	2	2	15.3
	310	82	2.1	2.1	644	1140	2000	NN3040	NN3040K	-	299	2	2	22.0
	310	82	2.1	2.1	644	1140	2000	NNU3040	NNU3040K	216	293	2	2	22.9
	310	109	2.1	2.1	890	1730	2000	NN4040	NN4040K	216	293	2	2	30.4
	310	115	2.1	2.1	1010	1860	2000	NNU4040X2	-	225	299	2	2	31.5
	340	140	3	3	1470	2550	1700	NNU4140	NNU4140K30	231	327	2.5	2.5	51.0
	300	60	2.1	2.1	440	895	2800	NN3944	NN3944K	236	283	2	2	11.4
	300	80	2.1	2.1	512	1140	2800	NNU4944	NNU4944K	242	289	2	2	16.5
	300	80	2.1	2.1	512	1140	2800	NN4944	NN4944K	236	283	2	2	16.6
240	300	100	2.1	2.1	897	1930	2200	NNU5944X2	-	236.5	289	2	2	20.5
	340	90	3	3	809	1460	2600	NN3044	NN3044K	-	327	2.5	2.5	28.5
	340	90	3	3	809	1460	2600	NNU3044	-	238	320	2.5	2.5	30
	340	118	3	3	1190	2400	2600	NN4044	NN4044K	238	320	2.5	2.5	39.8
	370	120	4	4	1050	1810	1500	NN3144	-	241	346	3	3	51.9
	370	120	4	4	1050	1810	1500	NNU3144	-	241	346	3	3	52.3
	370	150	4	4	1650	2900	1500	NNU4144	NNU4144K30	254	354	3	3	65.0
	300	60	2	2	358	930	2200	NNU4848	NNU4848K	255	290	2	2	9.90
	300	60	1.1	1.1	358	930	2200	NN4848	-	252	287	1	1	9.77
	320	60	2.1	2.1	460	975	2600	NN3948	NN3948K	257	302	2	2	12.2

Double-row Cylindrical Roller Bearing



Boundary Dimensions (mm)					Basic Load Ratings (kN)		Speed Ratings (rpm)	Designations	Abutment and Fillet Dimensions				Mass (kg)	
d	D	B/C	r1.2min	r3.4min	Cr	Cor	Speed Ratings	Cylindrical bore	Tapered bore	d _{amax}	D _{amax}	r _{amax}	r _{bmax}	Refer.
260	320	80	2.1	2.1	528	1220	2600	NNU4948	NNU4948K	262	309	2	2	17.5
	320	80	2.1	2.1	528	1220	2600	NN4948	NN4948K	257	302	2	2	17.9
	320	100	2.1	2.1	880	1960	1400	NNU5948X2	-	255	293	2	2	22.5
	360	92	3	3	842	1560	2400	NN3048	NN3048K	-	347	2.5	2.5	32.0
	360	92	3	3	842	1560	2400	NNU3048	NNU3048K	259	340	2.5	2.5	30.8
	360	118	3	3	1240	2600	2400	NN4048	NN4048K	259	340	2.5	2.5	39.3
	360	118	3	3	1240	2600	2400	NNU4048	-	259	340	2.5	2.5	42.7
	400	128	4	4	1170	2040	1400	NN3148	NN3148K	262	376	3	3	64.2
	400	160	4	4	1980	3650	1400	NNU4148	NNU4148K30	278	384	3	3	85.0
	360	75	2.1	2.1	670	1380	2400	NN3952	NN3952K	277	342	2	2	21.4
	360	100	2.1	2.1	748	1700	2400	NNU4952	NNU4952K	288	349	2	2	30.5
	360	100	2.1	2.1	748	1700	2400	NN4952	NN4952K	277	342	2	2	28.3
	360	102	2.1	2.1	990	2200	1800	NNU4952X2	-	283	349	2	2	32.0
	400	104	4	4	1020	1930	2200	NNU3052	NN3052K	-	384	3	3	46.0
	400	104	4	4	1030	1920	2200	NN3052	NN3052K	282	376	3	3	47.7
	400	140	4	4	1550	3150	1500	NNU4052	NNU4052K	289	384	3	3	63.5
	400	140	4	4	1550	3150	1500	NN4052	NN4052K	282	376	3	3	59.7
	440	144	4	4	1480	2660	1300	NN3152	NN3152K	282	415	3	3	89.1
	440	180	4	4	2200	3900	1300	NNU4152	NNU4152K30	300	424	3	3	110
	280	350	69	2	2	445	1160	1700	NNU4856	NNU4856K	298	340	2	2
350		69	1.1	1.1	445	1160	1700	NN4856	-	293	336	1	1	15.3
380		75	2.1	2.1	695	1460	2200	NN3956	NN3956K	297	361	2	2	22.7
380		100	2.1	2.1	765	1800	2200	NNU4956	NNU4956K	308	369	2	2	32.5
380		100	2.1	2.1	765	1800	1600	NNUP4956	-	-	369	2	2	33.5
280	380	100	2.1	2.1	765	1800	1600	NN4956	NN4956K	297	361	2	2	32.9
	420	106	4	4	1080	2080	2000	NN3056	NN3056K	-	404	3	3	49.5
	420	106	4	4	1080	2080	2000	NNU3056	-	302	395	3	3	51.4

Double-row Cylindrical Roller Bearing



NNU



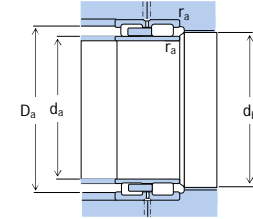
NNUB



NNUP



NN



Boundary Dimensions (mm)					Basic Load Ratings (kN)		Speed Ratings (rpm)	Designations	Abutment and Fillet Dimensions				Mass (kg)	
d	D	B/C	r1.2min	r3.4min	Cr	Cor	Speed Ratings		Cylindrical bore	Tapered bore	d _{amax}	D _{amax}	r _{amax}	r _{bmax}
300	420	140	4	4	1650	3150	1400	NNU4056	NNU4056K	309	404	3	3	66.5
	460	146	5	5	1520	2790	1200	NN3156	NN3156K	306	431	4	4	95.7
	460	180	5	5	2550	4750	1200	NNU4156	NNU4156K30	318	440	4	4	120
	420	80	2.1	2.1	583	1560	1600	NNU4860	NNU4860K	320	369	2	2	22.0
	420	118	3	3	1020	2360	2000	NNU4960	NNU4960K	335	406	2.5	2.5	50.0
	420	118	3	3	1020	2360	2000	NN4960	NN4960K	320	398	2.5	2.5	51.6
	420	150	1.5	1.5	1870	4500	1600	NNU5960X2	-	328	412	1.5	1.5	55.5
	460	118	4	4	1250	2400	1900	NN3060	NN3060K	-	444	3	3	68.5
	460	160	4	4	1920	4100	1300	NNU4060	NNU4060K	333	444	3	3	96.0
320	460	160	4	4	1920	4100	1300	NN4060	NN4060K	323	435	3	3	97.6
	500	160	5	5	1760	3150	1100	NN3160	NN3160K	327	470	4	4	125
	500	160	5	5	1760	3150	1100	NNU3160	-	327	470	4	4	126
	500	200	5	5	2860	5300	1100	NNU4160	NNU4160K30	344	480	4	4	155
	400	80	2.1	2.1	765	2080	1500	NNU4864	NNU4864K	340	389	2	2	23.5
	440	118	3	3	1060	2500	1400	NNU4964	NNU4964K	355	426	2.5	2.5	53.0
	440	118	3	3	1060	2500	1400	NNUP4964	-	-	426	2.5	2.5	55.5
	440	118	3	3	1060	2500	1400	NN4964	NN4964K	340	418	2.5	2.5	50.2
	480	121	4	4	1320	2600	1800	NN3064	NN3064K	-	464	3	3	74.0
	480	121	4	4	1320	2600	1800	NNU3064	NNU3064K	343	454	3	3	76.9
	480	160	4	4	2120	4300	1200	NNU4064	NNU4064K	353	464	3	3	100
	320	480	175	1.5	1.5	2460	5400	1200	NNU4064X2	-	359	472	1.5	1.5
540		176	5	5	2090	3750	1000	NNU3164	NNU3164K	347	509	4	4	154
540		218	5	5	3410	6200	1000	NNU4164	NNU4164K30	365	520	4	4	200
340	420	80	2.1	2.1	644	1830	1400	NNU4868	NNU4868K	360	409	2	2	25.0
	420	80	2.1	2.1	644	1830	1400	NNUP4868	-	-	408	2	2	24.5
	460	90	3	3	905	2020	1700	NN3968	NN3968K	361	438	2.5	2.5	42.9
	460	118	3	3	1100	2650	1700	NNU4968	NNU4968K	375	446	2.5	2.5	56.0

Double-row Cylindrical Roller Bearing



Boundary Dimensions (mm)					Basic Load Ratings (kN)		Speed Ratings (rpm)	Designations	Abutment and Fillet Dimensions				Mass (kg)	
d	D	B/C	r1.2min	r3.4min	Cr	Cor	Speed Ratings	Cylindrical bore	Tapered bore	d _{max}	D _{max}	r _{max}	r _{bmax}	Refer.
	460	118	3	3	1100	2650	1700	NN4968	NN4968K	361	438	2.5	2.5	52.1
	520	133	5	5	1670	3300	1600	NN3068	NN3068K	368	490	4	4	102
340	520	133	5	5	1670	3300	1600	NNU3068	-	368	490	4	4	103
	520	180	5	5	2550	5100	1100	NNU4068	NNU4068K	377	500	4	4	140
	520	305/20	5	5	3300	7100	1100	NNUB4068X2-305	-	374	500	4	4	185
	580	243	5	5	4020	7500	950	NNU4168	NNU4168K30	392	560	4	4	260
360	480	90	3	3	930	2130	1700	NN3972	-	381	457	2.5	2.5	44.9
	480	118	3	3	1120	2800	1700	NNU4972	NNU4972K	395	466	2.5	2.5	58.5
	540	134	5	5	1720	3450	1500	NN3072	NN3072K	-	520	4	4	105
	540	134	5	5	1700	3450	1500	NNU3072	-	388	509	4	4	108
380	540	180	5	5	2530	5450	1100	NNU4072	NNU4072K	397	520	4	4	140
	540	180	5	5	2530	5450	1100	NN4072	NN4072K	388	509	4	4	132
	600	243	5	5	4290	8500	900	NNU4172	NNU4172K30	414	580	4	4	275
	480	100	2.1	2.1	952	2550	1200	NNU4876	NNU4876K	406	469	2	2	44.0
	520	140	4	4	1450	3600	1500	NNU4976	NNU4976K	421	504	3	3	87.5
	520	140	4	4	1450	3600	1500	NN4976	NN4976K	404	493	3	3	81.3
400	560	135	5	5	1680	3450	1500	NN3076	NN3076K	-	540	4	4	110
	560	180	5	5	2650	6200	1000	NNU4076	NNU4076K	417	540	4	4	150
	560	180	5	5	2650	6200	1000	NN4076	NN4076K	408	529	4	4	142
	620	194	5	5	2620	4950	850	NN3176	NN3176K	408	588	4	4	224
400	620	243	5	5	4290	8500	850	NNU4176	NNU4176K30	434	600	4	4	285
	500	100	2.1	2.1	968	2750	1200	NNU4880	NNU4880K	426	489	2	2	46.0
400	500	100	2.1	2.1	968	2750	1200	NNUP4880	-	-	488	2	2	45.5
	540	106	4	4	1290	2890	1500	NN3980	-	425	513	3	3	68.7
	540	140	4	4	1470	3800	1500	NNU4980	NNU4980K	441	524	3	3	91.5
	540	140	4	4	1470	3800	1500	NN4980	NN4980K	425	513	3	3	84.1
	600	148	5	5	2160	4500	1400	NN3080	NN3080K	-	580	4	4	140

Double-row Cylindrical Roller Bearing



Boundary Dimensions (mm)					Basic Load Ratings (kN)		Speed Ratings (rpm)	Designations	Abutment and Fillet Dimensions				Mass (kg)	
d	D	B/C	r1.2min	r3.4min	Cr	Cor	Speed Ratings	Cylindrical bore	Tapered bore	d _{amax}	D _{amax}	r _{amax}	r _{bmax}	Refer.
	600	200	5	5	3470	7200	950	NNU4080	NNU4080K	440	580	4	4	205
	650	250	6	6	4730	9500	800	NNU4180	NNU4180K30	456	624	5	5	325
420	520	100	2.1	2.1	990	2850	1000	NNU4884	NNU4884K	446	509	2	2	48.0
	560	106	4	4	1280	2900	900	-	-	445	533	3	3	71.2
	560	140	4	4	1510	4000	1400	NNU4984	NNU4984K	461	544	3	3	95.5
	560	140	4	4	1510	4000	1400	NN4984	NN4984K	445	533	3	3	87.9
	620	150	5	5	2120	4500	1300	NN3084	NN3084K	-	600	4	4	145
	620	150	5	5	2120	4500	1300	NNU3084	NNU3084K	449	588	4	4	155
	620	200	5	5	3150	7100	900	NNU4084	NNU4084K	460	600	4	4	183
	620	200	5	5	3150	7100	900	NN4084	NN4084K	449	588	4	4	189
	620	260	6	6	4290	10200	900	NNUP5084X2	-	-	594	5	5	280
	650	200	6	6	2770	5400	800	NNU3184	-	435	611	5	5	262
700	280	6	6	5500	11400	750	NNU4184	NNU4184K30	480	674	5	5	440	
440	540	100	2.1	2.1	1010	2900	1000	NNU4888	NNU4888K	464	529	2	2	50.0
	600	160	4	4	2050	5200	1300	NNU4988	NNU4988K	484	584	3	3	130
	650	157	6	6	2360	4900	1200	NN3088	NN3088K	-	624	5	5	170
	650	157	6	6	2360	4900	1200	NNU3088	-	476	611	5	5	178
	650	212	6	6	3910	8300	850	NNU4088	NNU4088K	477	624	5	5	215
	700	224	6	6	3550	6800	800	NNU3184	-	455	660	5	5	347
460	720	280	6	6	5720	11800	700	NNU4188	NNU4188K30	500	694	5	5	450
	580	118	3	3	1190	3250	1000	NNU4892	NNU4892K	489	566	2.5	2.5	75.0
	620	118	4	4	1610	3700	1200	NN3992	NN3992K	486	591	3	3	94.5
460	620	160	4	4	2090	5500	1200	NNU4992	NNU4992K	504	604	3	3	135
	680	163	6	6	2600	5500	1200	-	NN3092K	-	654	5	5	195
	680	218	6	6	4290	9000	800	NNU4092	NNU4092K	503	654	5	5	240
	720	226	6	6	3500	6800	750	NN3192	NN3192K	476	680	5	5	357
	760	300	7.5	7.5	6440	13200	670	NNU4192	NNU4192K30	526	727	6	6	535

Double-row Cylindrical Roller Bearing



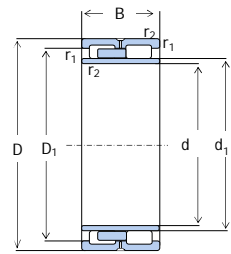
Boundary Dimensions (mm)					Basic Load Ratings (kN)		Speed Ratings (rpm)	Designations	Abutment and Fillet Dimensions				Mass (kg)		
d	D	B/C	r1.2min	r3.4min	Cr	Cor	Speed Ratings	Cylindrical bore	Tapered bore	d _{amax}	D _{amax}	r _{amax}	r _{bmax}	Refer.	
480	650	170	5	5	2330	6100	1200	NNU4996	NNU4996K	528	630	4	4	160	
	650	170	5	5	2330	6100	1200	NN4996	NN4996K	510	617	4	4	164	
	700	165	6	6	2700	5850	1100	NN3096	NN3096K	-	674	5	5	200	
	700	218	6	6	4400	9650	750	NNU4096	NNU4096K	523	674	5	5	275	
	700	260	6	6	5390	12500	750	NNU5096X2	-	527	674	5	5	345	
	790	248	7.5	7.5	4050	8100	630	NN3196	NN3196K	523	742	6	6	447	
	790	308	7.5	7.5	7040	14300	630	NNU4196	NNU4196K30	545	757	6	6	590	
	500	670	170	5	5	2330	6100	1100	NNU49/500	NNU49/500K	548	650	4	4	165
		700	170	5	5	2700	5400	800	NN49/500X1	-	549	680	4	4	210
		720	167	6	6	2580	5600	1100	NN30/500	NN30/500K	-	694	5	5	210
720		167	6	6	2580	5600	1100	NNU30/500	-	537	680	5	5	220	
720		218	6	6	4460	10000	750	NNU40/500	NNU40/500K	543	694	5	5	285	
830		325	7.5	7.5	7480	15000	600	NNU41/500	NNU41/500K30	568	797	6	6	710	
530	710	136	5	5	2040	4900	1000	NNU39/500	-	561	676	4	4	149	
	710	180	5	5	2860	7800	1000	NNU49/530	NNU49/530K	582	690	4	4	200	
	710	180	5	5	2860	7800	1000	NN49/530	NN49/530K	561	676	4	4	202	
	780	185	6	6	3200	6900	1000	NN30/530	NN30/530K	-	754	5	5	270	
	780	185	6	6	3200	6900	1000	NNU30/530	NNU30/530K	568	738	5	5	296	
	780	250	6	6	5500	12200	670	NNU40/530	NNU40/530K	580	754	5	5	420	
	870	335	7.5	7.5	7810	16000	560	NNU41/530	NNU41/530K30	604	837	6	6	790	
	560	750	190	5	5	3190	8650	950	NNU49/560	NNU49/560K	619	730	4	4	235
820		195	6	6	3690	8000	900	NN30/560	NN30/560K	-	794	5	5	315	
560	820	258	6	6	4100	10600	630	NNU40/560	NNU40/560K	615	794	5	5	475	
	820	258	6	6	4100	10600	630	NN40/560	-	598	778	5	5	472	
	920	280	7.5	7.5	6850	13700	530	NNU31/560	-	604	870	6	6	738	
	920	355	7.5	7.5	8800	18300	530	NNU41/560	NNU41/560K30	638	887	6	6	930	
600	800	200	5	5	3580	10200	900	NNU49/600	NNU49/600K	662	780	4	4	280	
	870	200	6	6	3800	8650	850	NN30/600	NN30/600K	-	844	5	5	355	
	870	272	6	6	6820	15600	600	NNU40/600	NNU40/600K	653	844	5	5	530	

Double-row Cylindrical Roller Bearing



Boundary Dimensions (mm)					Basic Load Ratings (kN)		Speed Ratings (rpm)	Designations	Abutment and Fillet Dimensions				Mass (kg)	
d	D	B/C	r1.2min	r3.4min	Cr	Cor	Speed Ratings	Cylindrical bore	Tapered bore	d _{amax}	D _{amax}	r _{amax}	r _{bmax}	Refer.
	980	375	7.5	7.5	9900	21100	480	NNU41/600	NNU41/600K30	682	947	6	6	1100
630	780	150	4	4	2290	7000	800	NNU48/630	-	659	748	3	3	160
	850	218	6	6	4020	11400	850	NNU49/630	NNU49/630K	699	824	5	5	355
	850	218	6	6	4020	11400	850	NN49/630	NN49/630K	670	807	5	5	328
670	920	212	7.5	7.5	4290	9800	800	NN30/630	NN30/630K	-	887	6	6	430
	920	290	7.5	7.5	7650	17500	560	NNU40/630	NNU40/630K	688	887	6	6	635
	1030	400	7.5	7.5	11000	24000	450	NNU41/630	NNU41/630K30	716	997	6	6	1330
670	900	230	6	6	4150	11500	800	NNU49/670	NNU49/670K	732	874	5	5	410
	900	230	6	6	4150	11500	800	NN49/670	-	710	856	5	5	419
	980	230	7.5	7.5	5010	11400	750	NN30/670	NN30/670K	-	947	6	6	530
710	980	308	7.5	7.5	8420	19600	500	NNU40/670	NNU40/670K	733	947	6	6	765
	1090	412	7.5	7.5	12100	25500	430	NNU41/670	NNU41/670K30	756	1057	6	6	1500
710	870	160	4	4	2640	8350	750	NNU48/710	-	741	836	3	3	203
	950	243	6	6	5390	15300	700	NNU49/710	NNU49/710K	776	924	5	5	480
	1030	236	7.5	7.5	5720	13200	670	NN30/710	NN30/710K	-	997	6	6	590
750	1030	315	7.5	7.5	9350	21600	480	NNU40/710	NNU40/710K	772	997	6	6	850
	1150	438	9.5	9.5	13400	28500	380	NNU41/710	NNU41/710K30	800	1110	8	8	1790
750	920	170	5	5	3410	10200	550	NN48/750	NN48/750K	-	904	4	4	240
	1000	250	6	6	5500	16000	670	NNU49/750	NNU49/750K	824	974	5	5	540
	1090	250	7.5	7.5	7040	16000	630	NN30/750	NN30/750K	-	1057	6	6	705
750	1090	335	7.5	7.5	10200	24000	430	NNU40/750	NNU40/750K	816	1057	6	6	925
	1220	475	9.5	9.5	16100	35500	360	NNU41/750	NNU41/750K30	850	1180	8	8	2230
800	1060	258	6	6	5830	17000	380	NNU49/800	NNU49/800K	876	1034	5	5	615
	1150	258	7.5	7.5	7810	18000	360	NN30/800	NN30/800K	-	1117	6	6	790
	1150	345	7.5	7.5	10800	26000	360	NNU40/800	NNU40/800K	871	1117	6	6	1140
	1280	475	9.5	9.5	16500	36500	340	NNU41/800	NNU41/800K30	900	1240	8	8	2390
850	1030	180	5	5	3400	11400	370	NNU48/850	-	888	989	4	4	310

Double-row Cylindrical Roller Bearing



NNU



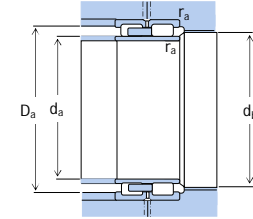
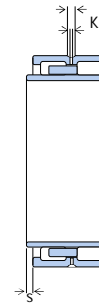
NNUB



NNUP

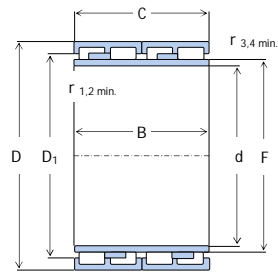


NN

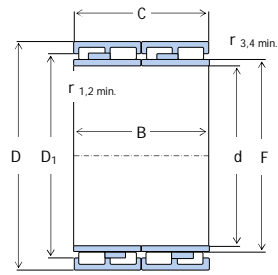


Boundary Dimensions (mm)					Basic Load Ratings (kN)		Speed Ratings (rpm)	Designations	Abutment and Fillet Dimensions				Mass (kg)	
d	D	B/C	r1.2min	r3.4min	Cr	Cor	Speed Ratings		Cylindrical bore	Tapered bore	d _{amax}	D _{amax}	r _{amax}	r _{bmax}
	1120	272	6	6	5940	18000	360	NNU49/850	NNU49/850K	930	1094	5	5	360
	1220	272	7.5	7.5	7920	18600	340	NN30/850	NN30/850K	-	1187	6	6	480
	1220	365	7.5	7.5	11700	28500	340	NNU40/850	NNU40/850K	923	1187	6	6	300
900	1180	280	6	6	6600	20000	340	NNU49/900	NNU49/900K	977	1154	5	5	805
	1280	280	7.5	7.5	8250	20000	320	NN30/900	NN30/900K	-	1257	6	6	1050
	1280	375	7.5	7.5	12800	31500	320	NNU40/900	NNU40/900K	963	1257	6	6	1500
950	1250	300	7.5	7.5	7370	22400	320	NNU49/950	NNU49/950K	1036	1217	6	6	960
	1360	300	7.5	7.5	9130	22400	310	NN30/950	NN30/950K	-	1327	6	6	1300
	1360	412	7.5	7.5	14200	35500	310	NNU40/950	NNU40/950K	1033	1327	6	6	1900
1000	1320	315	7.5	7.5	8580	26000	300	NNU49/1000	NNU49/1000K	1096	1287	6	6	1250
	1320	315	7.5	7.5	8580	26000	300	NN49/1000	NN49/1000K	-	1287	6	6	1200
	1420	308	7.5	7.5	10100	24500	290	NN30/1000	NN30/1000K	-	1387	6	6	1400
	1420	412	7.5	7.5	15400	38000	290	NNU40/1000	NNU40/1000K	1084	1387	6	6	2000
1060	1400	335	7.5	7.5	10500	30500	290	NNU49/1060	NNU49/1060K	1150	1367	6	6	1350
	1500	325	9.5	9.5	11000	27500	290	NN30/1060	NN30/1060K	-	1460	8	8	1650
1120	1460	335	7.5	7.5	10500	31500	270	NNU49/1120	NNU49/1120K	1210	1427	6	6	1450
1180	1540	355	7.5	7.5	11900	36000	260	NNU49/1180	NNU49/1180K	1270	1507	6	6	1650
1320	1720	400	7.5	7.5	13800	42500	230	NNU49/1320	NNU49/1320K	1420	1687	6	6	3100
	1720	400	7.5	7.5	13800	42500	230	NN49/1320	NN49/1320K	-	1687	6	6	3060

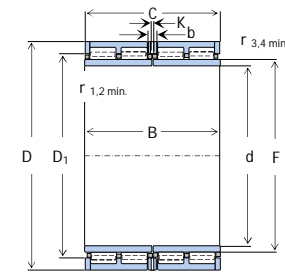
Four Row Cylindrical Roller Bearing



1. FC



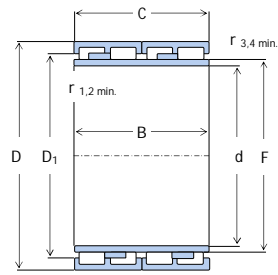
2. FCD



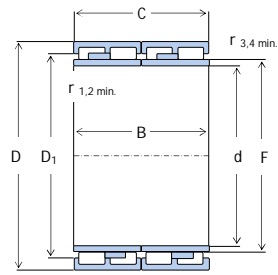
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO
90	140	70	105	1.5	1.1	242	425	FC182870		2	3.78					
	140	74	105	1.5	1.1	247	485	FC182874	672718	2	4.20					
	140	105	105	1.5	1.1	402	739	FC1828105	672718K	2	6.0					
100	135	80	110	1.5	1.1	236	520	FC202780		2	3.0					
	140	70	111	1.5	1.1	238	484	FC202870	672820K	2	3.3					
	140	80	111	1.5	1.1	298	610	FC202880	672720K	2	3.8					
	140	104	111	1.5	1.1	400	820	FC2028104	672820	2	5.3			100RV1401		
	145	70	113	1.5	1.1	253	546	FC202970	672720	2	3.8					20FC1570
	150	74	115	2	2	260	530	FC203074/YA3		1	4.7				4R2035	
110	150	106	113	1.5	1.1	480	857	FC2030106		2	6.6					
	170	90	127	2.0	2.0	376	760	FC223490	672722K	2	7.5					22FC1790
	170	120	127	2.0	2.0	615	1100	FC2234120/YA3	672722	1	10.0			110RV1701		
115	165	90	132	1.1	1.1	398	750	FC233390/YA3		3	6.5					23FC1690
120	165	87	134.5	2.0	2.0	365	725	FC243387/YA3		1	6.0					24FC1787
	165	90	132	2.0	2.0	510	780	FC243390/YA3		1	5.6		537675	120RV1601		
	180	92	137	2.0	2.0	425	797	FC243692	672824	2	8.01				4R2437	
	180	105	136	2.0	2.0	530	880	FC2436105/YA3	672724	1	9.4			120RV1801	4R2438	4CR120
	180	120	136	2.0	2.0	678	1080	FC2436120		2	11.2					
	215	174	147	2.1	2.1	1060	1600	FC2443174/YA3		1	27.2			120RV2101		
130	215	102	148	2.1	2.1	710	1200	FC2443102		2	16.0					
	200	104	149	2.0	2.0	570	950	FC2640104/YA3		1	12.0			130RV2003	4R2628	26FC20104
	200	110	150	2.0	2.0	608	1040	FC2640110/YA3		1	12.7					26FC20110
140	200	125	149	2.0	2.0	700	1190	FC2640125/YA3	672726	1	14.5			130RV2001		26FC20125
	190	119	154	2.0	2.0	574	896	FC2838119		2	9.7					28FC19119W
	210	100	158	2.0	2.0	605	985	FC2842100		2	12.2					
	210	106	158	2.0	2.0	615	1048	FC2842106	672828	2	13.0					

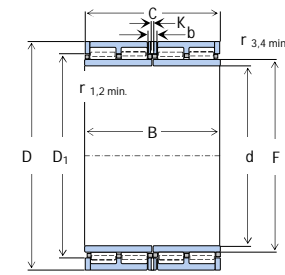
Four Row Cylindrical Roller Bearing



1. FC



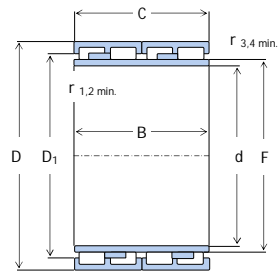
2. FCD



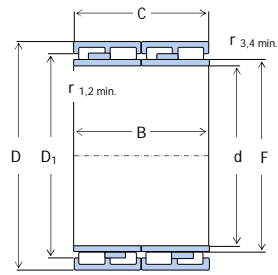
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO
140	210	116	160	2.0	2.0	640	1130	FC2842116/YA3		1	13.9			140RV2101	4R2823	28FC21116A
	210	125	158	2.0	2.0	715	1265	FC2842125	672728	2	14.9					
	210	155	158	2.0	2.0	745	1330	FC2842155		2	18.0					
145	210	155	166	2.0	2.0	735	1560	FC2942155/YA3		1	18.0	314625	511605	145RV2101	4R2906	29FC21155
	225	156	169	2.0	2.0	835	1820	FC2945156/YA3		1	23.0	313924 A	538522	145RV2201	4R2904	29FC21155 313924
	230	156	169	2.0	2.0	886	1827	FC2946156		2	24.7					
150	210	120	166	2.0	2.0	687	1080	FC3042120		2	12.5					
	210	150	165	2.0	2.0	870	1780	FC3042150/YA3		1	15.9					30FC21150
	220	120	167	2.0	2.0	702	1193	FC3044120	672930K	2	15.5					
	220	150	168	2.0	2.0	900	1700	FC3044150/YA3		1	19.3			150RV2201	4R3031	30FC22150A
	225	120	169	2.0	2.0	702	1408	FC3045120	672730K	2	16.2					
	225	136	169	2.0	2.0	820	1460	FC3045136/YA3		1	19.0			150RV2204		
	225	150	168.5	2.0	2.0	960	1810	FC3045150/YA3		1	20.9			150RV2203		
	230	130	174	2.0	2.0	845	1520	FC3046130/YA3		1	19.7			150RV2301	4R3029	30FC23130-1
	230	150	177	2.0	2.0	950	1790	FC3046150		2	22.8					
	230	156	174	2.0	2.0	965	1810	FC3046156/YA3	672730	1	24.0	313891 A	506962	150RV2302	4R3040	313891-1
160	230	168	178	2.0	2.0	845	1950	FC3046168/YA3		1	25.8			4R3042		
	250	150	177	2.5	2.5	885	1640	FC3050150/YA3		1	29.6			4R3039		
	220	180	177	2.1	2.1	940	2560	FC3244180		2	20.2				4R3224	32FC22180
	225	120	177	2.1	2.1	639	1340	FC3245120		2	14.9					
	230	130	178	2.1	2.1	781	1320	FC3246130A/YA3		1	17.7			160RV2301		32FC23130
	230	130	180	2.1	2.1	781	1340	FC3246130/YA3		1	17.0	314190	502894A		4R3226	314190
	230	168	179	2.1	2.1	1040	2170	FC3246168/YA3		1	23.5	315189 A	510150		4R3232	
	230	168	180	2.1	2.1	1040	21700	FC3246168A/YA3	672832	1	23.5			160RV2302	4R3229	32FC23170A
	230	180	178	2.1	2.1	1080	2270	FC3246180		1	24.6			160RV2303		32FC23180
	240	120	183	2.1	2.1	745	1320	FC3248120/YA3		1	18.6			160RV2401		32FC24120W
	240	124	183	2.1	2.1	750	1360	FC3248124	672732K	2	19.6					
	240	145	180	2.1	2.1	920	1600	FC3248145/YA3		1	23.0			160RV2403		

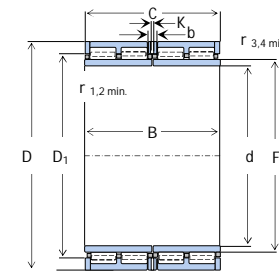
Four Row Cylindrical Roller Bearing



1. FC



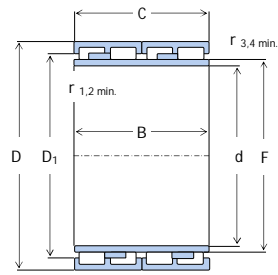
2. FCD



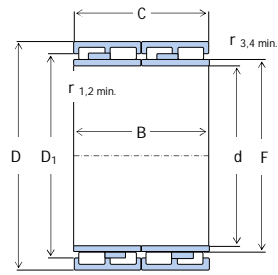
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations					
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO	
160	240	168	183	2.1	2.1	1042	2310	FC3248168	672732	2	26.7						
	240	170	183	2.1	2.1	1080	2050	FC3248170/YA3		1	27.8						
	240	195	182	3	3	1340	2600	FCDP3248195/YA3		9	33.0		514057	160RV2402	4R3225	32FC24170	
170	230	120	187	2.1	2.1	750	1580	FC3446120/YA3		1	14.3				170RV2301	4R3426	34FC23120
	230	130	188.5	2.1	2.1	780	1680	FC3446130		1	15.6	313673	508370				
	230	160	188.5	2.1	2.1	940	2320	FC3446160/YA3		1	18.9		567622				
	230	180	186	2.1	2.1	1040	2690	FC3446180		2	24.5						
	240	130	190	2.1	2.1	920	1830	FC3448130/YA3		1	18.7	BC4B 635122					
	240	156	189	2.1	2.1	983	2070	FC3448156		2	22.2				4R3429	34FC24156	
	240	160	190	2.1	2.1	1000	2130	FC3448160/YA3		1	23.0			170RV2402	4R3423		
	250	150	192	2.1	2.1	980	2016	FC3450150		2	25.0						
	250	168	192	2.1	2.1	1020	2320	FC3450168/YA3		1	28.0				170RV2501		34FC25168
	250	170	192	2.1	2.1	1180	2320	FC3450170/YA3	672734	1	28.6				170RV2502		34FC25170
	255	180	193	2.1	2.1	1300	2500	FC3451180/YA3		1	30.5				170RV2503	4R3425	
	260	120	195	2.1	2.1	860	1752	FC3452120	672734K	2	23						
180	260	150	195	2.1	2.1	1030	1840	FC3452150/YA3		1	28.8				170RV2602		34FC26150
	260	170	195	2.1	2.1	1035	2096	FC3452170		2	32.7						
	260	192	195	2.1	2.1	1090	2240	FC3452192	672734K1	2	36.9						
	260	225	196	2.1	2.1	1650	3360	FC3452225		2	43.6	313587 B	505470		4R3431		
	260	225	193	4	4	2160	4300	FCDP3452225/YA6		10	45.0		535331				
	250	120	200	2.1	2.1	610	1578	FC3650120		2	18.0						
	250	130	200	2.1	2.1	716	1922	FC3650130		2	19.5						
	250	156	198	2.1	2.1	880	2230	FC3650156A		1	23.4						
	250	156	200	2.1	2.1	880	2230	FC3650156/YA3		1	23.4				180RV2501	4R3625	36FC25156A
	250	168	202	2.1	2.1	885	2470	FC3650168/YA3		1	25.6				4R3639		
	260	120	202	2.1	2.1	735	1577	FC3652120	672836	2	21.0						
	260	124	202	2.1	2.1	735	1577	FC3652124		2	21.7						
260	156	198	2.1	2.1	835	2200	FC3652156		2	27.3							

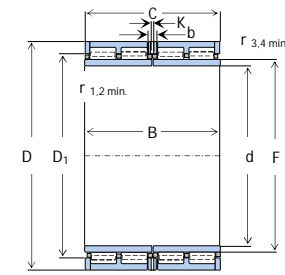
Four Row Cylindrical Roller Bearing



1. FC



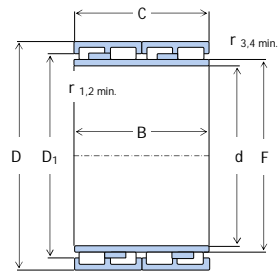
2. FCD



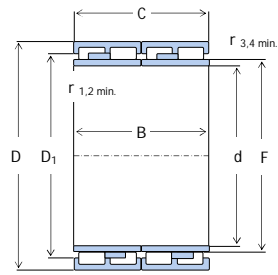
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old			Refer.	SKF	FAG	NSK	NTN
180	260	160	202	2.1	2.1	880	2230	FC3652160		2	28.4					
	260	168	202	2.1	2.1	990	2300	FC3652168/YA3	672736	1	29.5	313812	507536	180RV2601	4R3628	313812W
	265	180	203	2.1	2.1	1180	2395	FC3653180A		1	33.7			180RV2603		36FC27180
	265	180	204	2.1	2.1	1040	2649	FC3653180/YA3		1	33.8			180RV2602	4R3618	
	280	180	206	2.1	2.1	1287	2995	FC3656180/YA3		1	41.0		524372			
	280	180	207	2.1	2.1	1287	2995	FC3656180A		2	41.4					
190	280	200	205	2.1	2.1	1620	2990	FC3656200/YA3		1	45.7					36FC28200
	260	168	208	2.1	2.1	1140	2520	FC3852168A	672838	2	24.9					
	260	168	212	2.1	2.1	1140	2600	FC3852168/YA3		1	27.0	313651	507735	190RV2601	4R3820	38FC26168-1
	265	124	213	2.1	2.1	819	1921	FC3853124		2	21.0					
	270	166	212	2.1	2.1	1034	2460	FC3854166		2	30.4					
	270	168	212	2.1	2.1	1034	2460	FC3854168	672738K	2	30.8					
	270	170	213	2.1	2.1	1240	2910	FC3854170/YA3		1	31.7			190RV2702	4R3818	38FC27170A
	270	200	212	2.1	2.1	1510	3310	FC3854200/YA3	672738	1	37.5	314199 B	508657	190RV2701	4R3821	314199
	280	200	214	2.1	2.1	1720	3370	FC3856200/YA3		1	42.0	314049 A	510199	190RV2801	4R3823	
	200	250	200	215	2.0	2.0	886	2360	FC4050200		2	23.2			200RV2521	
265		180	217	2.0	2.0	1200	2790	FC4053180/YA3		1	26.9					40FC27180
270		120	222	2.1	2.1	617	1630	FC4054120		2	19.6					
270		170	222	2.1	2.1	1170	2580	FC4054170/YA3		1	28.5	314553	522742		4R4039	314553
280		152	222	2.1	2.1	1000	2320	FC4056152		2	29.5				4R4054	40FC28152BW
280		170	222	2.1	2.1	1120	2300	FC4056170/YA3		1	33.5	314385	507344		4R4048	40FC28170
280		170	223	2.1	2.1	1120	2300	FC4056170A		1	33.2		549864	200RV2804		
280		188	222	2.1	2.1	1210	2720	FC4056188	672740K	2	36.0					40FC28188
280		190	223	2.1	2.1	1350	3050	FC4056190/YA3		1	37.1			200RV2803	4R4026	40FC28190A
200		280	200	222	2.1	2.1	1410	3200	FC4056200/YA3		1	39.0	313893	508726	200RV2802	4R4037
	280	200	224	2.1	2.1	1410	3200	FC4056200A/YA3		1	39.4			200RV2801	4R4027	40FC28200
	290	130	226	2.1	2.1	945	1916	FC4058130		2	38.5					
	290	192	226	2.1	2.1	1410	2980	FC4058192/YA3	672740	1	42.8	313811	512580	200RV2901	4R4041	313811

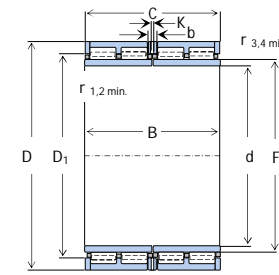
Four Row Cylindrical Roller Bearing



1. FC



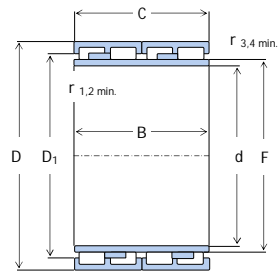
2. FCD



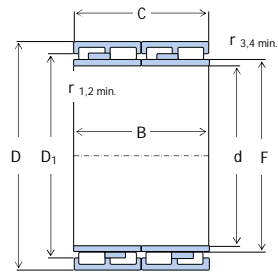
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO
200	290	202	226	2.1	2.1	1540	3110	FC4058202		2	43.4					
	310	130	229	2.1	2.1	1113	2254	FC4062130		2	26.3					
	310	200	229	2.1	2.1	1670	3625	FC4062200/YA3		1	55.8		524373			
	310	230	229	2.1	2.1	1840	3500	FCD4062230/YA3		5	64.0	313639/VJ202	503901	200RV3102		
	310	265	227	3	3	2700	4100	FCDP4062265/YA3		9	73.0		514958			40FC31265W
	320	216	231	2.1	2.1	2120	3900	FC4064216/YA3		1	69.9			200RV3231	4R4028	
210	290	192	234	2.1	2.1	1400	3240	FC4258192		2	38.2					
	290	192	236	2.1	2.1	1400	3300	FC4258192A/YA3		1	41.0	313646	507628	210RV2901	4R4206	42FC29192
	300	170	234	2.1	2.1	1320	2900	FC4260170		2	38.8					
	300	210	234	2.1	2.1	1510	3700	FC4260210	672742	2	47.9					42FC30210
220	290	192	239	2.1	2.1	1190	3350	FC4458192/YA3		1	33.8				4R4413	
	300	160	245	2.1	2.1	1050	2600	FC4460160/YA3		1	32.8				4R4419	
	300	190	240	2.1	2.1	1220	3320	FC4460190		2	39.3					
	300	192	242	2.1	2.1	1220	3320	FC4460192	672944	2	39.7					
	300	200	240	2.1	2.1	1800	3900	FCD4460200		2	41.0					
	310	190	246	2.1	2.1	1320	3450	FC4462190		2	45.0					
	310	192	246	2.1	2.1	1540	3450	FC4462192/YA3	672744	1	46.0	313839	507333		4R4426	313837A
	310	192	247	2.1	2.1	1540	3450	FC4462192A/YA3		1	46.0			220RV3101	4R4410	313837-1
	310	204	247	2.1	2.1	1570	3750	FCD4462204/YA3		1	49.8				4R4425	
	310	215	242	2.1	2.1	1650	3850	FCD4462215/YA3		1	51.5				4R4420	
	310	225	244	2.1	2.1	1740	3900	FCD4462225/YA3		1	54.5	313894 B	514461		4R4449	4CR220W
	310	225	245	2.1	2.1	1740	3900	FCD4462225A/YA3		1	54.9		506869	220RV3102	4R4416	44FC31225
	320	160	245	2.1	2.1	1200	2600	FC4464160/YA3		1	46.5				4R4428	
	320	192	246	2.1	2.1	1600	3450	FC4464192	672744K	2	51.5					
320	210	246	2.1	2.1	1800	3700	FCD4464210/YA3		1	57.0		509216	220RV3203	4R4444	44FC32210	
320	210	248	2.1	2.1	1790	3650	FCD4464210A/YA3		1	56.0			220RV3201	4R4429	44FC32210-1	
330	230	249	2.1	2.1	2050	4000	FCD4466230/YA3		5	68.5	314889/VJ202	541452				
340	180	256	3	3	1500	2750	FC4468180/YA3		1	59.0						44FC34180A

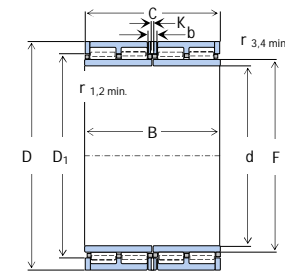
Four Row Cylindrical Roller Bearing



1. FC



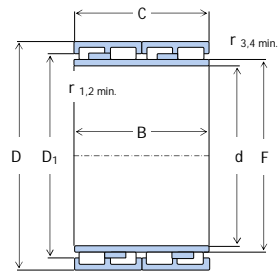
2. FCD



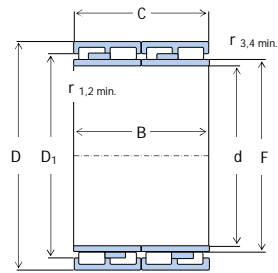
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO
220	340	192	246	2.1	2.1	1820	3600	FC4468192	672844	2	64.2					
	340	210	250	2.1	2.1	1910	3850	FCD4468210		4	70.5					
	340	290	250	2.1	2.1	2980	5010	FCDP4468290		9	96.5		525147			
	345	210	250	2.1	2.1	1910	3850	FCD4469210		4	73.8					
230	330	170	260	2.1	2.1	1150	2970	FC4666170		2	47.4					
	330	206	258	2.1	2.1	1640	3720	FC4666206A/YA3		1	58.6				4R4614	
	330	206	260	2.1	2.1	1620	3690	FC4666206/YA3	672746	1	58.0	313824	508727	230RV3301	4R4610	313824
	340	260	261	2.1	2.1	2100	4590	FC4668260/YA3		1	81.0			230RV3401	4R4611	46FC34260
240	365	250	266	2.1	2.1	2300	4890	FCDP4673250		9	100	313581 A	529113	230RV3601		313581AW
	330	180	265	2.1	2.1	1460	3490	FC4866180/YA4		1	49.5	635194	504547			
	330	220	264	2.1	2.1	1540	3850	FC4866220	672748	1	56.4				4R4819	48FC33220
	330	220	270	2.1	2.1	1500	3700	FC4866220A		2	58.0	313921	508368	240RV3301	4R4811	312943/1YD
	340	192	268	2.1	2.1	1474	3230	FC4868192	672748K	2	55.4					
	340	220	268	3.0	3.0	1670	3530	FC4868220/YA3		1	71.0		513703	240RV3403		48FC34220
	350	220	270	3.0	3.0	1780	3870	FC4870220		2	71.0					
	360	218	270	3.0	3.0	2130	4060	FC4872218/YA3		1	76.8					48FC36218
	360	220	272	3.0	3.0	1920	3920	FC4872220		1	78.8			240RV3601		
	360	220	274	3.0	3.0	1860	3900	FC4872220A		2	79.6					
250	360	290	270	3.0	3.0	2850	5670	FCDP4872290/YA3		9	100.0		514959			48FC35290W
	340	170	274	3.0	3.0	1390	3500	FC5068170		2	45.0					
	340	220	274	3.0	3.0	1330	3120	FC5068220		2	52.8					
	340	230	270	3.0	3.0	1700	4350	FCD5068230		4	65.0					
	350	220	274	3.0	3.0	1670	3640	FC5070220A		4	58.0					
	350	220	278	3.0	3.0	1730	3990	FC5070220/YA3	672750	1	65.0			250RV3501	4R5008	50FC35220
	350	230	278	3.0	3.0	1900	4350	FCD5070230		4	68.7					
	360	220	282	3.0	3.0	1810	4240	FC5072220	672750K	4	73.0					
260	360	192	288	3.0	3.0	1610	3660	FC5272192		2	60.0					52FC36192W
	360	200	287	3.0	3.0	1880	4110	FC5272200/YA3		1	62.0					52FC36200

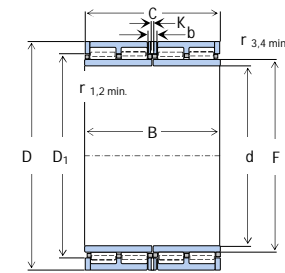
Four Row Cylindrical Roller Bearing



1. FC



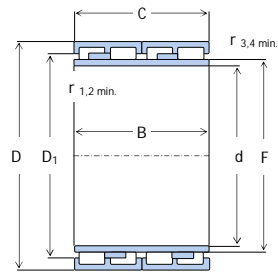
2. FCD



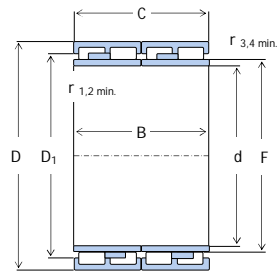
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO
260	360	204	287	3.0	3.0	1690	3850	FCD5272204/YA3		5	64.5	314997/VJ202				
	360	230	292	3.0	3.0	1980	4200	FC5272230/YA3		1	73.5	BC4B320956	533880			
	360	260	287	3.0	3.0	2300	5320	FCD5272260/YA3		5	80.0				4R5231	52FC36260
	370	192	291	3.0	3.0	1670	4010	FC5274192		2	66.0					
	370	200	292	3.0	3.0	1770	4120	FC5274200	672752K	2	68.9					
	370	220	292	3.0	3.0	1950	4140	FC5274220/YA3	672752	1	76.5	313823	507336	260RV3701	4R5208	313823
	370	230	292	3.0	3.0	2020	4450	FC5274230		2	79.3					
	380	220	292	3.0	3.0	2100	4900	FC5276220		2	85.0					
	380	280	294	3.0	3.0	2420	5940	FC5276280/YA3		1	108.0			260RV3801	4R5213	52FC38280
	380	280	295	3.0	3.0	2420	5940	FCD5276280A	672852	4	108.0					
	400	290	296	3.0	3.0	3520	7100	FCDP5280290		9	135.0	313427	518214	260RV4001	4R5218	
	400	300	295	5.0	5.0	3900	7600	FC5280300/YA3		1	145.0		526803			
	400	335	294	3.0	3.0	3750	7340	FCDP5280335/YA3		6	149.0		521065			52FC40335W
265	370	234	300	3.0	3.0	2240	5400	FC5374234/YA3		1	80.0	313922	517423			53FC37234
270	380	230	298	2.1	2.1	2000	5050	FC5476230/YA3	672754	1	81.8			270RV3801		54FC38230
	380	275	298	3.0	3.0	2700	6300	FCD5476275		4	97.8					
	380	280	297	2.5	2.5	2260	5750	FC5476280/YA3		6	101.0				4R5407	
	390	220	306	3.0	3.0	1800	4800	FC5478220		4	86.7					
	390	220	302	3.0	3.0	1800	4800	FC5478220A		4	85.8					54FC39220
	390	240	298	3.0	3.0	2236	5950	FCD5478240		4	94.0					
	400	220	305	3.0	3.0	2410	6100	FC5480220		4	95.5					
280	350	208	298	2.5	2.5	1290	3950	FC5670208/YA3		1	46.4				4R5614	
	375	200	307	3.0	3.0	1500	4310	FC5675200		2	63.5					
	380	170	306	3.0	3.0	1410	3590	FC5676170/YA3		3	55.0					56FC38170W
	380	192	308	3.0	3.0	1560	4580	FC5676192A		2	64.8					
	380	192	310	3.0	3.0	1560	4580	FC5676192		2	64.8					
	380	290	308.53	3.0	3.0	2750	6950	FCDP5676290/YA3		9	75.2	BC4-0001				
	390	220	312	3.0	3.0	2020	4400	FC5678220/YA3	672756	1	81.54	313822	507339	280RV3901	4R5611	313822

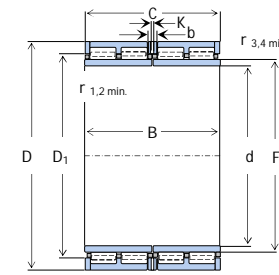
Four Row Cylindrical Roller Bearing



1. FC



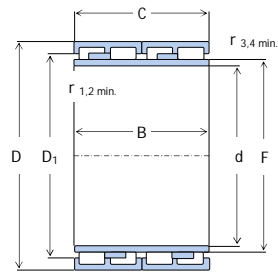
2. FCD



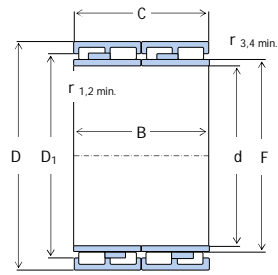
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations					
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO	
280	390	240	312	3.0	3.0	2240	5230	FC5678240/YA3		1	89.4			280RV3902			
	390	275	308	3.0	3.0	2720	6130	FCDP5678275/YA3		9	105	314719 C	527104	280RV3903			
	390	275	312	3.0	3.0	2260	6940	FC5678275/YA3		1	105		513729A		4R5612	56FC38275	
	400	285	316	3.0	3.0	2850	6600	FCD5680285/YA3		5	121	314070/VJ202	513342	280RV4021			
	410	300	313	4.0	4.0	3170	6860	FCD5682300/YA3		5	134	314897/VJ202	510350				
	410	300	314	4.0	4.0	3730	8400	FCDP5682300/YA6		10	137					56FC41300	
	420	280	318	4.0	4.0	2945	7212	FCD5684280		4	137						
	420	290	315	5.0	5.0	3900	9780	FC5684290/YA3		1	140						
	420	300	319	4.0	4.0	3070	6470	FCDP5684300/YA3		9	151	313487	517797 507356				
	420	280	323	4.0	4.0	2945	7212	FC5684280A/YA3		1	137				4R5605		
	290	390	190	316	4.0	4.0	1940	4320	FCD5878190/YA3		5	67.0	635195				
		390	234	320	4.0	4.0	2150	5320	FC5878234/YA3		1	82.2			290RV3901		58FC39234 58FC40180W
400		180	320	4.0	4.0	2070	5120	FC5880180/YA3		1	67.5						
410		240	320	4.0	4.0	2440	5180	FC5882240/YA3	672758	1	101			290RV4101	4R5806	58FC41240	
420		300	327	4.0	4.0	3130	7130	FC5884300/YA3		1	141			290RV4201	4R5805	58FC42300	
440		310	328	4.0	4.0	4130	9210	FC5888310/YA3		1	171		517796				
300	400	300	328	4.0	4.0	2590	6560	FCD6080300/YA3		5	115			300RV4021	4R6014	60FC40300	
	420	180	332	4.0	4.0	2020	6440	FCD6084180		4	92.4						
	420	218	332	4.0	4.0	2014	4950	FC6084218/YA3	672760K	3	94.0					60FC42218	
	420	240	332	4.0	4.0	2540	5460	FC6084240/YA3	672760	3	111			300RV4201	4R6027	60FC42240	
	420	240	334	4.0	4.0	2540	5460	FC6084240A/YA3		1	114				4R6012		
	420	240	336	4.0	4.0	2010	5450	FC6084240A/YA3		1	105				4R6023		
	420	300	332	4.0	4.0	3180	7200	FCDP6084300/YA3		9	131	314484 D	524289B	300RV4221	4R6020	4CR300	
	420	300	334	4.0	4.0	2900	7850	FC6084300/YA3		1	130				4R6015		
	430	240	338	4.0	4.0	2720	5950	FC6086240/YA3		1	115					60FC43240	
	460	270	344	4.0	4.0	2670	5800	FC6092270/YA3		1	162				4R6019		
	460	350	341	4.0	4.0	5500	9700	FCDP6092350/YA3		10	251		517795				

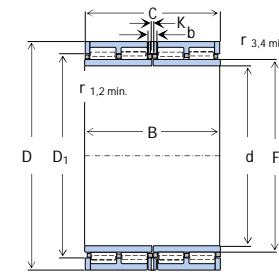
Four Row Cylindrical Roller Bearing



1. FC



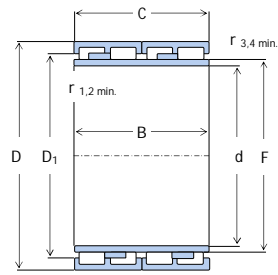
2. FCD



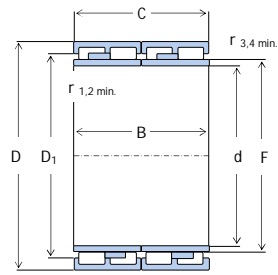
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations					
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO	
310	420	300	338	4.0	4.0	3130	7650	FC6284300/YA3		1	121			310RV4201		62FC42300	
	430	240	344.5	4.0	4.0	2480	5650	FC6286240/YA3		1	109			310RV4301	4R6202	62FC43240	
	440	240	345	4.0	4.0	3250	5700	FCDP6288240/YA3		9	115		574469				
320	440	340	350	4.0	4.0	5100	13200	FCDP6488340/YA6		10	170		532220				
	450	240	358	4.0	4.0	2620	5840	FC6490240/YA3		1	121			320RV4501	4R6411	4CR320	
	450	240	355	4.0	4.0	2600	5750	FC6490240A/YA3		1	116			320RV4502		64FC45240	
	460	300	357	4.0	4.0	2940	8430	FCD6492300		4	164						
	460	240	364	4.0	4.0	2720	7200	FCD6492240/YA3		5	140	BC4B322216/VJ202					
	460	340	360	4.0	4.0	3350	8950	FC6492340/YA3		3	178				4R5412	64FC46340A	
	470	350	357	5.0	5.0	5200	9780	FCDP6494350/YA3		9	225		532592				
	470	350	361.7	5.0	5.0	4150	1090	FCDP6494350A/YA3		9	212				4R6406		
	480	350	364	5.0	5.0	4600	9970	FCDP6496350/YA6		10	232	314274 B	513654A	320RV4811			
	520	475	367	6.0	3.0	9800	21000	FCDP64104475/YA6		10	435		522140				
	330	430	230	358	4.0	4.0	2220	5560	FC6686230/YA3		1	89.6			330RV4301		
		440	200	360	4.0	4.0	2050	4510	FC6688200		2	85.0			330RV4401	4R6603	66FC44200W
460		340	365	4.0	4.0	3400	8200	FCDP6692340/YA3		9	175	313445 C	543447	4R6605			
	460	340	364	4.0	4.0	3400	8200	FCDP6692340A/YA6		10	175					4CR330	
	340	450	250	371	4.0	4.0	2580	6400	FC6890250/YA3		1	111			340RV4501		
		450	250	368	4.0	4.0	2580	6410	FC6890250A		2	111			340RV4502		68FC45250BW
460		260	370	4.0	4.0	2800	7300	FCD6892260		4	125						
	480	280	374	4.0	4.0	3120	8120	FC6896280		2	160						
	480	350	378	4.0	4.0	4580	11100	FCD6896350/YA3		6	211					68FC48350-2	
	480	350	378	4.0	4.0	4400	9830	FCDP6896350/YA3		9	205	314485 A	527634		4R6819	68FC48350D	
	490	300	377	4.0	4.0	3350	8300	FC6898300/YA3		1	187				4R6804		
	490	300	380	4.0	4.0	3500	7600	FC6898300A/YA3		1	187					68FC49300	
	500	370	385	4.0	4.0	4800	10600	FCDP68100370/YA6		10	261	BC4B322261/HB1	517749				
	560	380	396	4.0	4.0	5800	11880	FCDP68120380/YA6		10	350	313404 A	545171				

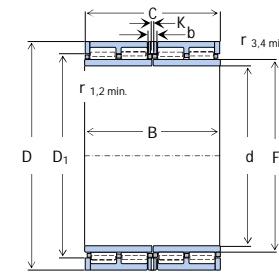
Four Row Cylindrical Roller Bearing



1. FC



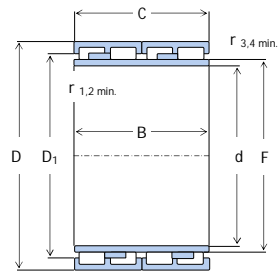
2. FCD



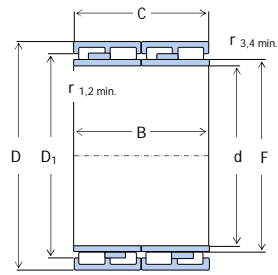
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO
345	480	350	376	4.0	4.0	4180	9780	FCD6996350		4	192			345RV4821		
350	500	380	389	5.0	5.0	4200	10080	FCD70100380		4	240	314563/VJ202	532381.N12BA			
	500	410	388	5.0	5.0	4960	12300	FCDP70100410/YA6		10	285	BC4B322777/HB1	532001			
	500	460	388	5.0	5.0	6570	16500	FCDP70100460/YA3		9						70FC50460
	520	300	401	5.0	5.0	4070	7950	FCD70104300		4	220	BC2B319878/VJ202				
360	520	300	401	5.0	5.0	4290	9000	FCD70104300/HCYA2		8	220	BC4B326909/HA3				
	480	290	392	4.0	4.0	3470	8510	FC7296290/YA3		1	145					72FC48290
	480	290	394	4.0	4.0	3080	7470	FC7296290A/YA3		1	149			360RV4801		
	500	250	394	4.0	4.0	3040	6620	FCD72100250		4	146	BC2B320075A/VJ202				
	510	370	400	4.0	4.0	4250	9600	FC72102370/YA3		1	241			360RV5101	4R7212	72FC51370
	510	380	399	4.0	4.0	5200	12300	FCDP72102380/YA3		9	246					72FC51380
	510	400	397	4.0	4.0	4500	11500	FC72102400		2	260				4R7203	
	520	380	405	4.0	4.0	3350	8300	FCDP72104380/YA6		10	270		562913			72FC52380
540	300	404	4.0	4.0	4310	8680	FCDP72108300/YA6		10	247					72FC54300	
370	480	230	400	4.0	4.0	2100	6250	FC7496230/YA3		1	106				4R7405	
	480	250	385	3.0	3.0	2820	7320	FC7496250		2	115					74FC48250W
	480	250	401	4.0	4.0	2690	6980	FC7496250/YA3		1	120			370RV4801	4R7408	
	520	380	409	4.0	4.0	4680	11790	FCDP74104380/YA3		9	263	314486 A	543975	370RV5211		74FC52380
	520	380	409	4.0	4.0	6400	12900	FCDP74104380/YA6		10	252		524678A			
	520	400	409	4.0	4.0	4680	10500	FCD74104400		1	260				4R7404	
	520	400	413	4.0	4.0	4740	11900	FCD74104400/YA3		6	268					74FC52400W
	540	400	415	4.0	4.0	4990	11400	FC74108400/YA3		1	320			370RV5401		74FC54400A
380	500	290	414	4.0	4.0	3010	7920	FC76100290/YA3		1	153			380RV5001		
	520	280	417	4.0	4.0	3280	7600	FC76104280/YA3		1	174			380RV5202	4R7605	76FC52280
	520	280	426	4.0	4.0	2580	6210	FCD76104280		4	185	NUU4976B/DRW33				
	520	290	418	4.0	4.0	3380	7970	FC76104290/YA3		1	181		576360	380RV5201		76FC52290
	520	300	416	4.0	4.0	3550	9600	FCDP76104300/YA3		9	210				4R7607	

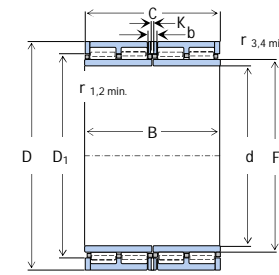
Four Row Cylindrical Roller Bearing



1. FC



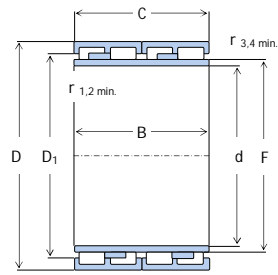
2. FCD



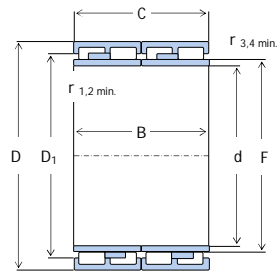
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old			Refer.	SKF	FAG	NSK	NTN
380	540	300	421	4.0	4.0	4260	9900	FCDP76108300/YA6		10	220	313030 A	545768			
	540	340	422	4.0	4.0	4600	10300	FCDP76108340/YA6		10	256				76FC54340W	
	540	340	424	4.0	4.0	4460	10360	FCDP76108340/YA3		9	264			380RV5431		
	540	360	422	4.0	4.0	5480	12900	FCDP76108360/YA3		9	266				76FC54360	
	540	400	422	4.0	4.0	4860	12150	FCDP76108400/YA3		9	295	BC4B313511 B	544794	380RV5411	4R7604	76FC54400BW
	540	400	422	4.0	4.0	6060	14200	FCDP76108400B/YA6		10	305	BC4B326366/HB1			4R7618	76FC54400DW
	540	400	424	5.0	5.0	4790	11400	FC76108400		2	288			380RV5401	4R7613	76FC54400CW
	560	300	424	4.0	4.0	4700	9650	FCDP76112300/YA6		10	260	BC4B322189				
	560	325	428	4.0	4.0	4970	10600	FC76112325B		1	265	BC4B322264/HB1				
	560	360	422	5.0	4.0	5500	1200	FCDP76130360/YA6		10	308					76FC56360
390	510	290	424	4.0	4.0	3230	8550	FC78102290/YA3		1	156			390RV5101		
	540	320	431	4.0	4.0	4750	10980	FCDP78108320/YA6		10	230	BC4B322498	578278			
	550	310	430	4.0	4.0	4680	10440	FCDP78110310/YA6		10	240	313190 A				
	550	400	434	4.0	4.0	4890	11780	FCD78110400		4	304			390RV5521		78FC55400AW
	550	400	434	4.0	4.0	4890	11780	FCD78110400		4	304					
400	520	250	432	5.0	5.0	3000	7700	FC80104250		2	140			400RV5202		80FC52250W
	540	380	436	5.0	5.0	4320	9780	FCDP80108380/YA6		10	273		533426			
	550	300	438	5.0	5.0	4230	9880	FCDP80110300/YA6		10	214					80FC55300
	550	300	441	5.0	5.0	3940	9260	FC80110300/YA3		1	216			400RV5501		
	560	360	441	5.0	5.0	5570	13400	FCDP80112360/YA6		10	277					80FC56360
	560	400	446	5.0	5.0	5370	12920	FCDP80112400/YA6		10	322			400RV5612	4R8007	80FC56400W
	560	410	445	5.0	5.0	5640	13800	FCDP80112410/YA6		10	330	313015 DC	513769A	400RV5613	4R8010	80FC56410
	590	420	450	5.0	5.0	5150	1300	FC80108420/YA3		1	399				4R8011	
	590	440	450	5.0	5.0	6630	14940	FCD80108440/YA3		6	415	315802/VJ202				
	590	440	450	5.0	5.0	6630	14940	FCD80108440/YA3		6	415	315802/VJ202				
410	560	400	450	5.0	5.0	5800	14310	FCDP82112400/YA6		10	321	316689	561005			
	570	450	452	5.0	5.0	6930	17900	FCDP82114450/YA6		10	346					82FC57450W
	600	440	460	5.0	5.0	6880	15750	FCDP82120440/YA6		10	440	313877 B	517436	410RV6011		
420	580	260	468	5.0	5.0	3740	9650	FCD84112260/YA3		5	210	BC2B320074/VAJ202				
	560	280	457	5.0	5.0	3800	9250	FC84112280/YA3		1	196			420RV5601	4R8403	84FC56280
	560	400	458	5.0	5.0	4950	13000	FCD84112400		4	278			420RV5602		84FC56400

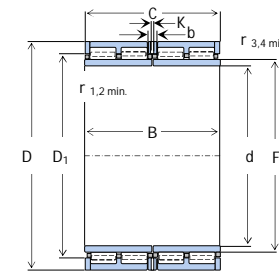
Four Row Cylindrical Roller Bearing



1. FC



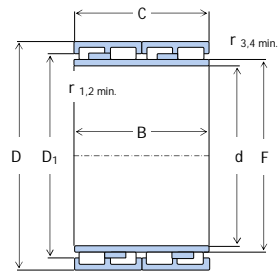
2. FCD



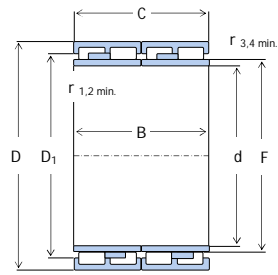
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations					
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO	
420	580	230	466	4.0	4.0	2430	6250	FC84116230/YA3		1	181				4R8408		
	580	320	463	5.0	5.0	4680	10800	FCD84116320/YA3		6	250	313555 B/VJ202	533053				
	600	440	470	5.0	5.0	7100	17200	FCDP84120440/YA3		9	433	313513	545467	420RV6011	4R8407		
	620	300	473	5.0	5.0	520	15800	FCD84124300		4	416						
	620	400	473	5.0	5.0	6930	15600	FCD84124400/YA6		7	430	314391/VJ202					
	620	400	478	5.0	5.0	500	13400	FC84124400		1	410				4R8401		
	430	570	340	465	5.0	5.0	6000	16800	FCDP86114340/YA3		10	260		526415			
		591	420	476	5.0	5.0	5200	13400	FCD86118420/YA3		5	355			430RV5921	4R8605	
	440	590	270	482	5.0	5.0	3620	8460	FC88118270/YA3		3	207					88FC59270W
		620	450	487	5.0	5.0	7350	17800	FCDP88124450/YA6		10	450	314554 B	517454A	440RV6213	4R8801	88FC62450AW
620		450	490	5.0	5.0	7450	19000	FCD88124450/YA3		5	450			440RV6221			
640		420	492	5.0	5.0	7820	18400	FCDP88128420/YA3		9	470					88FC64420	
450	590	435	486	5.0	5.0	5150	14800	FCDP90108435/YA6		10	345		542648				
	630	450	500	5.0	5.0	6950	17500	FCD90126450/YA3		5	440			450RV6321		90FC63450A	
460	610	322	499	5.0	5.0	410	14600	FCDP92122322/YA6		10	290		526420				
	620	320	500	5.0	5.0	4800	16200	FCDP92124320/YA3		9	296		526026				
	620	400	506	5.0	5.0	5500	14700	FC92124400/YA3		1	352			460RV6201			
	620	400	502	5.0	5.0	6400	16600	FCDP92124400/YA6		10	368			460RV6211	4R9223	92FC62400BW	
	620	460	502	5.0	5.0	7100	19100	FCDP92124460/YA6		10	427			460RV6212			
	650	355	509.5	5.0	5.0	6240	14100	FCDP92130355/YA6		10	386	313031 A					
	650	424	510	5.0	5.0	7510	17620	FCDP92130424/YA6		10	458	315196 A	513584 A				
	650	470	509	5.0	5.0	8680	20900	FCDP92130470/YA6		10	523	314560	518846				
	660	475	508	5.0	5.0	11000	35000	FCDP92132475/YA6		10	585		517693	460RV6511	4R9216	92FC65470W	
	670	500	522	5.0	5.0	8900	22700	FCD92134500/YA3		5	601			460RV6721			
700	540	519	5.0	5.0	12000	37500	FCDP92140540/YA3		9	786		529368					
480	600	236	510	3.0	3.0	2620	7850	FC96120236/YA3		1	155				4R9610		

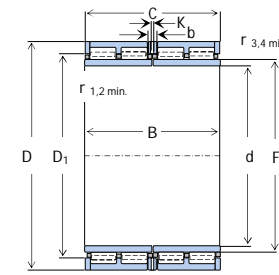
Four Row Cylindrical Roller Bearing



1. FC



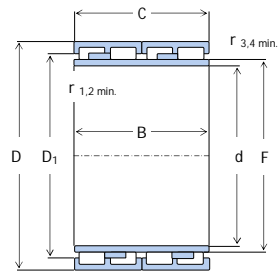
2. FCD



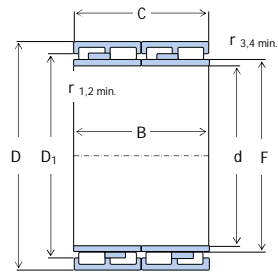
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old			Refer.	SKF	FAG	NSK	NTN
480	650	340	522	5.0	5.0	6550	18400	FCDP96130340/YA3		9	320		525884			
	650	420	522	5.0	5.0	9120	23700	FCDP96130420/YA6		10	440		525912			
	650	450	525	5.0	5.0	7680	21000	FCDP96130450/YA6		11	440	316690 B	547659			
	650	460	526	5.0	5.0	7730	20800	FCDP96130460/YA3		9	443				96FC65460	
	680	420	528	5.0	5.0	7840	19100	FCDP96136420/YA6		10	515	319320	533522			
	680	460	532	5.0	5.0	8620	21300	FCDP96138460/YA6		10	545				96FC68460	
	680	500	528	5.0	5.0	8570	23000	FCDP96136500/YA6		10	605	316624				
	680	500	532	5.0	5.0	8790	23700	FCDP96136500A/YA6		10	585	313516 D	514445 B		4R9604	
	680	500	534	5.0	5.0	9000	23100	FCDP96136500A1/YA6		10	620			480RV6801		96FC68500
	700	400	538	5.0	5.0	7650	17400	FCDP96140500/YA6		10	538			480RV7031		
	700	500	534	5.0	5.0	9200	34200	FCDP96136500/YA6		10	675		546125			
	700	530	536	5.0	5.0	8300	31500	FCDP96140530/YA3		9	720		523399			
	500	650	260	542	6.0	6.0	4020	9750	FCD100130260/YA3		5	225	319254/VJ202			
		670	450	540	6.0	6.0	8300	22300	FCDP100134450/YA6		11	464	316083 A		500RV6712 E	
670		450	556	6.0	6.0	4500	11400	FCDP100134450A/YA6		10	458		533023			
680		450	550	6.0	6.0	5775	21300	FCDP100136450/YA6		10	500	BC4B316515	546335			
690		470	547	6.0	6.0	7650	22500	FCDP100138470/YA6		10	590				4R10016	
690		510	550	6.0	6.0	8850	23900	FCDP100138510/YA6		10	580			500RV6913		
690		510	552	6.0	6.0	9000	24600	FCDP100138510A/YA6		10	580			500RV6921	4R10006	
500	700	500	554	6.0	6.0	11600	38000	FCDP100140500/YA6		10	615		517692			
	700	515	554	6.0	6.0	9100	23800	FCDP100140515/YA6		10	622			500RV7021	4R10011	
	710	480	558	6.0	6.0	8500	21200	FCDP100142480/YA3		9	632	316968 A	530488	500RV7111		
	720	400	558	6.0	6.0	7920	17600	FCDP100144400		9	530	BC4B322066				
	720	530	560	6.0	6.0	9950	25300	FCDP100144530/YA6		10	782			500RV7211		
	720	530	568	6.0	6.0	10800	28500	FCDP100144530A/YA6		10	780	314441 B	513378 A		4R10015	
510	670	320	554	6.0	6.0	4950	12700	FCP102134320/YA6		1	298			510RV6701		10FC67320
	680	500	560	6.0	6.0	8970	24700	FCDP102136500/YA6		10	522	BC4B319411	567725A			
	700	540	558	6.0	6.0	8300	25000	FCDP102140540/YA6		10	690			4R10202		

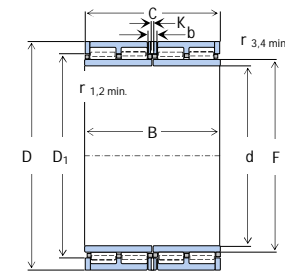
Four Row Cylindrical Roller Bearing



1. FC



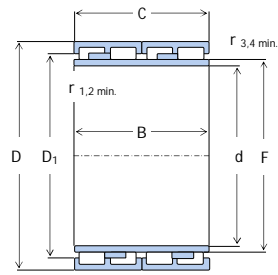
2. FCD



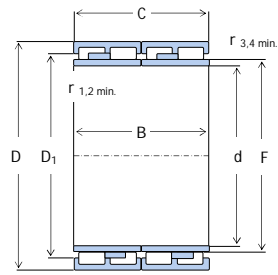
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO
510	730	520	565	6.0	6.0	13400	42000	FCDP102146520/YA6		10	745					
	730	520	569	6.0	6.0	9520	22000	FCD102146520A/YA3		6	750	BC4-8009/HB1	541646			
	760	550	570	6.0	6.0	12100	26500	FCDP102152550/YA6		10	950	BC4-8007/HB1	517690			
520	680	450	562	5.0	5.0	7810	22300	FCDP104136450/YA6		10	435					
	700	540	564	6.0	6.0	8200	25500	FCDP104140540/YA6		10	658				4R10403	10FC68450W
	720	550	566	6.0	6.0	9400	27700	FCDP104144550/YA6		10	715				4R10406	
	735	535	574.5	6.0	6.0	10400	26300	FCDP104147535/YA6		10	750			520RV7331	4R10402	104FC74535
	750	530	576	6.0	6.0	13700	45000	FCDP104150530/YA6		10	785		541647			
530	700	540	574	6.0	6.0	8150	26500	FCDP106140540/YA6		10	626				4R10603	
	760	520	587	6.0	6.0	11700	28500	FCDP106152520/YA6		10	798	314886 A	531597		4R10601	
	760	520	590	6.0	6.0	9150	26700	FCDP106152520A/YA6		10	800					
	780	500	591	6.0	6.0	9350	20200	FCD106156500/YA3		6	805	315040/VJ202				
	780	570	595	6.0	6.0	11800	29200	FCDP106156570/YA6		10	960					
	780	570	601	6.0	6.0	11800	29200	FCDP106156570A/YA6		10	960	314517 A	517689 A	530RV7813	4R10606	106FC78570
	870	670	615	6.0	6.0	21200	67000	FCDP106174670		10	1680		543481	530RV7811	4R10602	
545	810	580	614	6.0	6.0	13500	33400	FCDP109162580/YA6		10	1090					109FC81580
550	740	510	600	6.0	6.0	9150	25700	FCDP110148510/YA6		10	648	316691 B	532843			110FC74510
	740	510	602	6.0	6.0	9150	25700	FCDP110148510A/YA6		10	648			550RV7411 A		
	800	520	612	6.0	6.0	11700	26500	FCD110160520/YA6		10	895	316115/VJ202				
	800	520	622	6.0	6.0	9450	27000	FCDP110160520A/YA6		10	550				4R11001	
	800	560	610	6.0	6.0	12100	28000	FC110160560/YA3		4	930	BC4B322719/HB1	517688			
560	680	360	590	6.0	6.0	4650	16500	FC112136360/YA3		1	265				4R11202	
	800	600	620	6.0	6.0	12400	31500	FCDP112160600/YA6		10	1020			560RV8011		112FC80600
	820	600	625	6.0	6.0	14200	34000	FCDP112164600A/YA6		10	1080	BC4B322930/HA4	517687 A			
	820	630	625	6.0	6.0	14000	452000	FCDP112164630/YA6		10	1240		526708			112FC82630
	920	710	652.5	7.5	4.0	19640	45400	FCDP112184710/YA6		10	2010	313189 A				
570	750	530	622	6.0	6.0	7000	26600	FCDP114150530/YA6	6727/570	10	625					

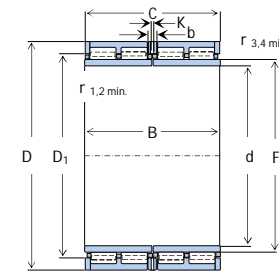
Four Row Cylindrical Roller Bearing



1. FC



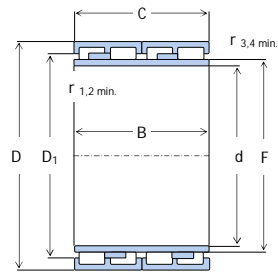
2. FCD



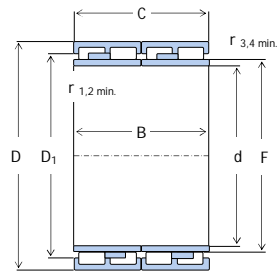
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO
570	800	514	626	6.0	6.0	10200	29200	FCDP114160514/YA6		10	849				4R11404	
	815	594	628	6.0	6.0	13700	33500	FCDP114163594/YA6		10	964				4R11402	114FC81594
	830	600	635	6.0	6.0	17600	67800	FCDP114166600/YA6		10	1210		517686	570RV8111		
580	850	640	648	6.0	6.0	18000	63400	FCDP116170640/YA6		10	1275		517685			
590	820	590	649	6.0	6.0	13100	35100	FCDP118164590/YA6		10	990					118FC82590
600	820	550	660	6.0	6.0	9400	30400	FCDP120164550/YA6		10	900		518780			
	820	575	660	6.0	6.0	12900	35500	FCDP120164575/YA6		10	936	315175 A	528518	600RV8212E	4R12006	120FC82575
	820	575	660	6.0	6.0	12900	35500	FCDP120164575G/YA6		11	936	315175C				
600	870	540	672	6.0	6.0	12080	38500	FCDP120174540/YA6		10	1150	315068 A	533259		4R12002	
	870	640	672	7.5	7.5	15700	40000	FCDP120174640/YA6		10	1320	315513	517684 A	600RV8713	4R12001	120FC87640
	870	640	682	7.5	7.5	15700	40000	FCDP120174640A/YA6		10	1320	314317 A		600RV8711		
	920	680	674	6.0	6.0	23000	67000	FCDP120184680/YA6		10	1810		526235			
610	820	430	665	6.0	6.0	9350	23600	FCDP122164430/YA6		10	656	315257 A				
	850	570	670	6.0	6.0	12600	33000	FCDP122170570/YA6		10	1040			610RV8511		122FC85570
	870	660	680	6.0	6.0	15200	41000	FCDP122174660/YA6		10	1370			610RV8711	4R12202	122FC87660
630	800	360	675	5.0	5.0	6850	19500	FCDP126160360/YA6		10	440					126FC80360
	900	670	698	6.0	6.0	20800	63500	FCDP126180670/YA6		10	1525		517683			
	920	515	700	7.5	7.5	10700	17160	FCDP126184515		10	1182					
650	900	650	704	7.5	7.5	14800	41500	FCDP130180650/YA6		10	1260	BC4-8002/HA6				
	920	670	723	7.5	7.5	16200	44000	FCDP130184670/YA6		10	1470	313007 C	515194 A	650RV9212	4R13005	130FC92670
	920	680	723	7.5	7.5	14800	47000	FCDP130184680/YA6		10	1510				4R13010	
650	920	690	723	7.5	7.5	16600	45000	FCDP130184690/YA6		10	1520			650RV9211	4R13003	
	920	690	724	7.5	7.5	16700	45500	FCDP130184690A/YA6		10	1490					130FC92690
660	820	440	702	7.5	7.5	7260	20960	FCD132164440/YA3		6	536	239509 FA			4R13201	
	880	450	727	7.5	7.5	8390	22000	FCD132176450		4	792	313477/VJ202				
670	870	530	725	6.0	6.0	13700	34500	FCDP134174530/YA6		10	827		533258			
	950	690	740	6.0	6.0	22400	50000	FCDP134190690/YA6		10	1606		517682			

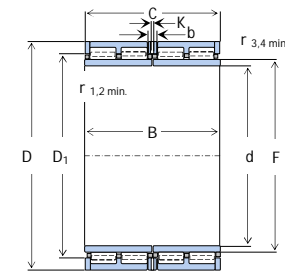
Four Row Cylindrical Roller Bearing



1. FC



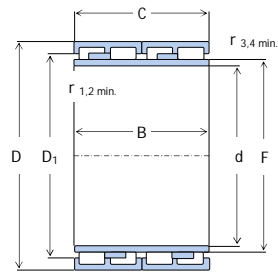
2. FCD



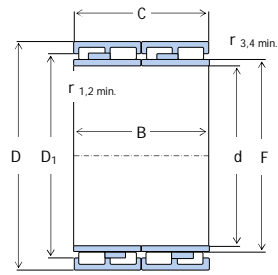
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO
680	940	600	743	7.5	7.5	19000	42500	FCD136188600/YA6		10	1295					
	980	640	760	7.5	7.5	21200	45000	FCDP136196640/YA6		10	1219	313154 C	533683			
	1020	650	803	7.5	7.5	15700	48000	FCDP136204650/YA6		10	1970		524229		4R13603	
	1020	680	775	7.5	7.5	17300	49500	FCDP136204680/YA6		10	2060				4R13604	
690	980	715	767.5	7.5	7.5	17900	48000	FCDP138196715/YA6		10	1790	313008 A	517681	690RV9831	4R13802	138FC98715
	980	750	766	7.5	7.5	19200	53000	FCDP138196750/YA6		10	1880			690RV9812	4R13803	138FC98750A
700	930	620	763	7.5	7.5	12900	38000	FCDP140186620/YA6		10	1200	316967	530487	700RV9311	4R14003	
	980	700	774	7.5	7.5	17800	49000	FCD140196600/YA3		5	1720			700RV9821		140FC98700
	1000	710	770	7.5	7.5	18900	47400	FCDP140200710/YA6		10	1810					140FC100710W
710	1000	715	787.5	7.5	7.5	18700	50500	FCDP142200715/YA6		10	1850	313403 C	517680 A	710RV1011	4R14205	
	1020	710	785	7.5	7.5	19300	49100	FCDP142204710/YA6		10	1940					142FC102710
730	940	500	780	7.5	7.5	12300	42500	FCDP146188500/YA6		10	1000		526447			
	960	620	790	7.5	7.5	15000	44500	FCDP146192620/YA6		10	1250	315982	525438	730RV9611		
	1030	750	809	7.5	7.5	20650	56400	FCDP146206750/YA6		10	2050	314518 B	517679	730RV1011		
750	1000	500	816	7.5	7.5	12100	32000	FCD150200500/YA6		7	1162	314420/VJ202				
	1000	670	813	7.5	7.5	16800	49500	FCDP150200670/YA6		10	1520	315973	524881A	750RV1011		
	1090	615	836	7.5	7.5	21600	43000	FCDP150218615/YA6		10	1966		800494			150FC113670
	1133	670	848	7.5	7.5	21000	50100	FCDP150226670/YA6		10	2460					
760	1030	750	828	7.5	7.5	17300	59500	FCDP152206750/YA6		10	2000				4R15204	152FC103750
	1030	750	834	7.5	7.5	18200	53500	FCDP152206750A/YA6		10	1880			760RV1031		
780	1070	780	853	7.5	7.5	23200	65000	FCDP156214780/YA6		10	2310	BC4-8015/HB1	540088			156FC107780
790	1015.9	610	850	7.5	7.5	15500	48800	FCDP158203610/YA6		10	1290					158FC102610
	1120	810	870	7.5	7.5	30000	69000	FCDP158224810/YA6		10	2605		517678			
800	1080	700	870	7.5	7.5	16500	55000	FCDP160216700/YA6		10	1950				4R16004	
	1080	700	878	7.5	7.5	19600	58000	FCDP160216700A/YA6		10	1950	315599 A	526169	800RV1011		
	1080	750	880	7.5	7.5	18500	56000	FCDP160216750/YA6		10	2050			800RV1012	4R16005	160FC108750
820	1130	800	903	7.5	7.5	23900	66500	FCDP164226800/YA3		10	2540	BC4B320455	803317	820RV1117	4R16406	164FC113800D

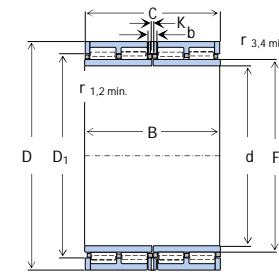
Four Row Cylindrical Roller Bearing



1. FC



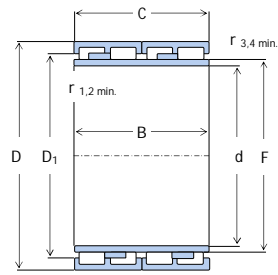
2. FCD



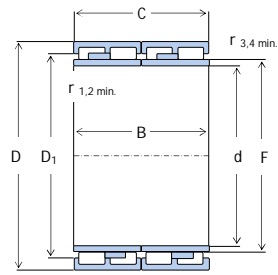
3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO
820	1160	840	911	7.5	7.5	23600	71500	FCDP164232840/YA6		10	2900			820RV1111A	4R16403	164FC116840
830	1080	710	896	7.7	7.7	22800	62000	FCDP166216710/YA6		10	1725		567729		4R16601	166FC108710
840	1160	840	920	7.5	7.5	24700	70800	FCDP168232840/YA6		10	2810			840RV1111	4R16801	168FC116840
850	1150	650	941	7.5	7.5	15700	51000	FCDP170230650/YA6		10	1980				4R17001	
	1150	800	930	7.5	7.5	19700	71000	FCDP170230800/YA6		10	2430				4R17003	
	1150	840	928	7.5	7.5	25300	73100	FCDP170230840/YA6		10	2586	315826 A	545636	850RV1114	4R17009	
1180	650	945	7.5	7.5	19600	53000	FCDP170236650/YA6		10	2260				850RV1133	4R17004	170FC118650
	850	928	7.5	7.5	24100	78500	FCDP170236850/YA6		10	2970				4R17002		
	850	940	7.5	7.5	24600	72000	FCDP170236850A/YA6		10	2850				850RV1111	4R17014	170FC118850B
1220	900	940	7.5	7.5	28000	82400	FCDP170244900/YA6		10	3720			523397			
	1130	670	934	7.5	7.5	18320	56300	FCDP172226670/YA6		10	1792			860RV1132		
860	1140	750	938	7.5	7.5	17200	61000	FCDP172228750/YA6		10	2200				4R17202	172FC114750
	1140	800	946	6.0	6.0	23600	77400	FCDP176228800/YA6		10	2210					176FC114800
900	1220	840	989	7.5	7.5	26100	78600	FCDP180244840/YA6		10	3075	316043	527048	900RV1212		
	1280	930	1000	7.5	7.5	32500	92600	FCDP180256930/YA6		10	4096	313528 C	541812	900RV1213		180FC128930
940	1320	1000	1029	7.5	7.5	41200	95600	FCDP1882641000/YA6		10	4380		517676			
950	1360	975	1075	9.5	9.5	31700	97000	FCDP190272975/YA6		10	4900	BC4B319862				
	1360	1000	1075	9.5	9.5	37200	108000	FCDP1902721000/YA6		10	5020	314520 C	517369A	950RV1311		
980	1310	880	1061.7	9.5	9.5	28300	83560	FCDP196262880/YA6		10	3320	319303	580309			
	1360	1000	1080	9.5	9.5	41500	106000	FCDP1962721000/YA6		10	4675		517740			
990	1360	760	1080	12	12	30500	68000	FCDP198272760/YA6		10	3270		522071			
1000	1310	880	1080	12	12	23400	88500	FCDP200262880/YA6		10	3260				4R20001	
	1360	800	1090	12	12	25000	85000	FCDP200272800/YA6		10	3530				4R20002	
	1360	800	1101	12	12	27300	80800	FCDP200272800A/YA6		10	3574	316234 A	527021			

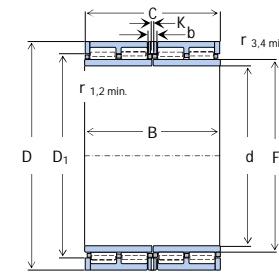
Four Row Cylindrical Roller Bearing



1. FC



2. FCD



3. FCDP

Boundary Dimensions (mm)						Basic Load Ratings (kN)		Designations		Fig	Mass (kg)	Equivalent Designations				
d	D	B	Fw	r1.2 min	r3.4 min	Cr	Cor	New	Old		Refer.	SKF	FAG	NSK	NTN	KOYO
1030	1380	850	1124	12	12	24400	89000	FCDP206276850/YA6		10	3800				4R20601	206FC138850A
1040	1440	1000	1145	12	12	44000	112000	FCDP2082881000/YA6		10	5175		517675			
1060	1360	800	1137	12	12	32500	91500	FCDP212272800/YA6		10	3005		521910			
1100	1500	1000	1194	12	12	47500	116000	FCDP2203001000/YA6		10	5360		517737			
1120	1580	1150	1255	12	12	43300	134100	FCDP2243161150/YA6		10	7420			1120RV1511		
1150	1500	760	1240	12	12	33500	86500	FCDP230300760/YA6		10	3625		518206			
1200	1590	1050	1295	12	12	36000	133000	FCDP2403181050/YA6		10	6220				4R24002	
	1590	1050	1305	12	12	41200	128000	FCDP2403181050A/YA6		10	5970	315494 B	518649			
	1620	1150	1305	12	12	58500	157000	FCDP2403241150/YA6		10	7500		518578			
	1700	1150	1320	12	12	64000	194000	FCDP2403401150/YA6		10	8670		518218			
1250	1650	1000	1360	12	12	48000	162000	FCDP2503301000/YA6		10	6380		534794			
	1750	1150	1370	12	12	65500	210000	FCDP2503501370/YA6		10	9000		525063			
1270	1602	850	1354	12	12	32800	111000	FCDP254320850/YA6		10	4200					254FC160850
1300	1700	1000	1410	12	12	48000	172000	FCDP2603401000/YA6		10	6600		534795			
1350	1850	1150	1470	12	12	68000	198000	FCDP2703701150/YA6		10	10050		525078			
1400	1900	1150	1520	12	12	64000	156000	FCDP2803801150/YA6		10	9470		528717			
	1900	1360	1521	12	12	68000	180000	FCDP2803801360/YA6		10	11300	BC4-8005/HA4				
1480	1830	1000	1569	12	12	50000	162000	FCDP2962661000/YA6		10	6370		525213			
1500	1950	1200	1605	12	12	72000	226000	FCDP3003901200/YA6		10	10150		528807			
	1950	1230	1610	12	12	71000	200000	FCDP3003901230/YA6		10	9880		534900			
1600	1950	1230	1690	12	12	58500	194000	FCDP3203901230/YA6		10	8400		534899			
	2240	1300	1760	15	15	91500	310000	FCDP3204481300/YA6		10	16800		535085			