Tapered Roller 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 file 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 id 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

Talbe1 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.Table1 provides the main factors to be analyzed.Table1 (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.Table1 provides the main factors to be analyzed.Table1 (1) Selection of bearing type		
Items for analyses		Methods of choice
5)Rigidity	Those can satisfy the rigidity of mechanical shaft system	In machine too 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.

Table1(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.	Separable cylindrical roller bearings (NU or N type)
	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
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
		Spherical roller bearings
Vertical shaft	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:

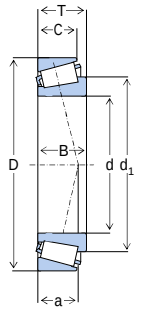
Making quality policy and quality goal regarding the quality management system to satisfy customers gearing with their needs.
Stating responsibilities and power scopes for administrators, executive persons and identifiers as well as describing their correlation to improve the Company's result by satisfying 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.

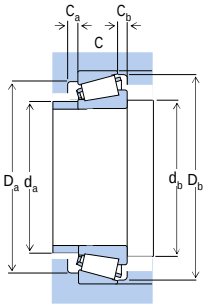
B. Resources Management Process
With this process, General Manager will provide necessary resources to realize other quality management processes' orderly and efficient running, aiming at completing quality policy and quality goal, continuously improve the result of the quality management system.

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 Tapered Roller Bearing - Metric





Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (kN)		Load Center Spacing	Designations		Abutment and Fillet Dimensions						Calculation Factors			Mass (kg)
d	D	T	B	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	a	New	Old	damax	dbmin	Damax	Dbmin	ramax	rbmax	e	Y	Y0	Refer.
100	140	25	25	20	1.5	1.5	117	205	2000	3000	24.2	32920	2007920	112	106	131	136	1.5	1.5	0.33	1.8	1	1.18
	150	32	32	24	2	1.5	176	294	2000	3000	32.5	32020X	2007120	115	106	138	146	2	1.5	0.46	1.3	0.72	1.95
	150	39	39	32.5	2	1.5	224	390	2000	3000	29	33020	3007120	109	109	135	143	1.5	1.5	0.28	2.1	1.1	2.4
	165	52	52	40	2.5	2	325	523	2000	3000	40.1	33120	3007720	112	12	142	159	2	2	0.41	1.48	0.81	4.29
	180	37	34	29	3	2.5	255	330	1900	2800	36.1	30220	7220E	121	110	163	172	2.5	2	0.42	1.4	0.79	3.78
	180	49	46	39	3	2.5	325	450	1800	2600	41.5	32220	7520E	122	110	161	174	2.5	2	0.42	1.4	0.79	5.05
	180	63	63	48	3	2.5	429	655	1700	2400	43	33220	3007220	112	112	151	168	2	2	0.4	1.5	0.8	6.95
	215	51.5	47	39	4	3	365	435	1700	2400	41.7	30320	7320E	130	116	193	204	3	2.5	0.35	1.7	0.95	7.94
	215	56.5	51	35	4	3	374	465	1600	2200	65	31320	27320E	121	114	168	202	2.5	2.5	0.83	0.72	0.4	8.6
	215	77.5	73	60	4	3	565	755	1600	2200	53.2	32320	7620E	130	114	190	206	3	2.5	0.35	1.7	0.96	12.7
105	145	25	25	20	1.5	1.5	119	212	1700	2400	25.3	32921	2007921	117	111	136	141	1.5	1.5	0.34	1.8	0.96	1.23
	160	35	35	26	2.5	2	204	340	1900	2800	34.3	32021X	2007121	122	112	146	155	2	2	0.44	1.4	0.74	2.48
	160	43	43	34	2.5	2	246	430	1900	2800	31	33021	3007121	115	117	150	153	2	2	0.28	2.1	1.1	3.05
	175	56	56	44	2.5	2	360	607	1700	2400	43.2	33121	3007721	117	116	150	169	2	2	0.4	1.48	0.82	5.33
	190	39	36	30	3	2.5	280	365	1800	2600	38.1	30221	7221E	127	116	172	182	2.5	2	0.42	1.4	0.79	4.52
	190	53	50	43	3	2.5	360	510	1800	2600	44.8	32221	7521E	128	115	170	183	2.5	2	0.42	1.4	0.79	6.26
	190	68	68	52	3	2.5	497	790	1800	2600	48.8	33221	3007221	119	117	159	182	2.5	2	0.4	1.49	0.82	8.43
	225	53.5	49	41	4	3	395	470	1600	2200	43.5	30321	7321E	136	121	202	214	3	2.5	0.35	1.7	0.95	9.11
	225	58	53	36	4	3	397	489	1600	2200	70.3	31321	27321E	123	126	193	211	3	2.5	0.83	0.73	0.4	9.72
	225	81.5	77	63	4	3	585	780	1500	2000	55	32321	7621E	137	119	199	215	3	2.5	0.35	1.7	0.95	14.2
106	160	35	35	26	6.4	2	201	335	1900	2800	34	320/106		127	116	150	154	6	2	0.44	1.35	0.8	2.3
110	150	25	25	20	1.5	1.5	123	224	2000	3000	26.5	32922	2007922	122	116	141	146	1.5	1.5	0.36	1.7	0.93	1.29
	170	38	38	29	2.5	2	236	390	1800	2600	35.9	32022X	2007122	128	117	156	165	2	2	0.43	1.4	0.77	3.09
	170	47	47	37	2.5	2	281	500	1800	2600	34	33022	3007122	120	123	160	161	2	2	0.28	2.1	1.1	3.85
	180	56	56	43	2.5	2	369	630	1800	2600	44	33122	3007722	120	121	170	174	2	2	0.43	1.4	0.8	5.55
	200	41	38	32	3	2.5	315	420	1700	2400	40.1	30222	7222E	134	121	181	192	2.5	2	0.42	1.4	0.79	5.28
	200	56	53	46	3	2.5	400	565	1700	2400	47.2	32222	7522E	135	121	179	193	2.5	2	0.42	1.4	0.79	7.35
	240	54.5	50	42	4	3	485	595	1600	2200	45.1	30322	7322E	143	129	216	228	3	2.5	0.35	1.7	0.96	11

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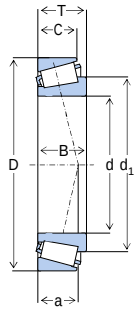
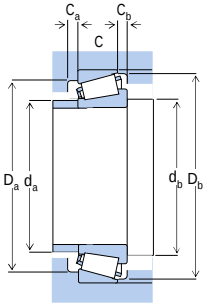
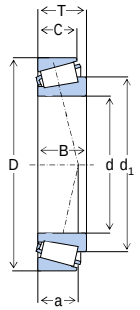
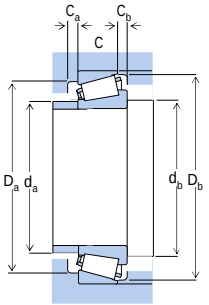




Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (kN)		Load Center Spacing	Designations		Abutment and Fillet Dimensions						Calculation Factors			Mass (kg)
d	D	T	B	C	$r_{1,2min}$	$r_{3,4min}$	C_r	C_{or}	Grease	Oil	a	New	Old	d_{amax}	d_{amin}	D_{amax}	D_{bmin}	r_{amax}	r_{bmax}	e	Y	Y_0	Refer.
110	240	63	57	38	4	3	457	585	1400	1900	72	31322	27322E	124									12
	240	84.5	80	65	4	3	675	910	1400	1900	58.5	32322	7622E	144	127	213	229	3	2.5	0.35	1.7	0.96	17.1
120	165	29	29	23	1.5	1.5	157	283	1700	2400	29.2	32924	2007924	133	126	155	161	1.5	1.5	0.35	1.7	0.95	18
	180	38	38	29	2.5	2	242	405	1700	2400	39.7	32024X	2007124	138	127	165	175	2	2	0.46	1.3	0.72	3.27
	180	48	48	38	2.5	2	292	540	1800	2600	36	33024	3007124	130	132	170	171	2	2	0.31	1.97	1.08	4.2
	200	62	62	48	2.5	2	462	785	1700	2400	47.8	33124	3007724	132	133	172	192	2	2	0.4	1.51	0.83	7.73
	215	43.5	40	34	3	2.5	335	450	1600	2200	44.4	30224	7224E	145	132	195	206	2.5	2	0.44	1.4	0.76	6.28
	215	61.5	58	50	3	2.5	440	635	1600	2200	52	32224	7524E	146	131	192	208	2.5	2	0.44	1.4	0.76	9
	260	59.5	55	46	4	3	535	655	1500	2000	50	30324	7324E	155	139	234	247	3	2.5	0.35	1.7	0.96	13.9
	260	68	62	42	4	3	530	735	1200	1700	82	31324	27324E	134	145	246	244	2.5	2.5	0.83	0.7	0.4	16
	260	90.5	86	69	4	3	770	1060	1300	1800	62.4	32324	7624E	155	137	230	248	3	2.5	0.35	1.7	0.96	21.8
130	180	32	32	25	2	1.5	198	365	1700	2400	31	32926	2007926	139	141	167	173	1.5	1.5	0.33	1.8	1	2.4
	200	45	45	34	2.5	2	320	535	1600	2200	43.9	32026X	2007126	151	139	184	195	2	2	0.43	1.4	0.76	5.06
	200	55	55	43	2.5	2	390	705	1500	2000	42.5	33026	3007126	142	143	178	192	2	2	0.34	1.76	0.97	6.19
	230	43.75	40	34	4	3	330	435	1500	2000	42.8	30226	7226E	158	145	211	222	3	2.5	0.39	1.5	0.85	6.83
	230	67.75	64	54	4	3	495	740	1500	2000	53.5	32226	7526E	158	141	206	222	3	2.5	0.39	1.5	0.85	11
	280	63.75	58	49	5	4	545	675	1300	1800	53.9	30326	7326E	169	152	251	265	4	3	0.36	1.7	0.92	16.6
	280	72	66	44	5	4	600	830	1100	1600	87	31326	27326E	148	157	262	261	5	4	0.83	0.7	0.4	19.4
	280	98.75	93	78	5	4	830	1150	1100	1600	69.2	32326	7626	172	150	248	269	4	3	0.36	1.7	0.92	26.6
140	190	32	32	25	2	1.5	205	390	1600	2200	33	32928	2007928	149	150	181	184	1.5	1.5	0.35	1.7	0.9	2.55
	195	29	27	21	3	3	194	325	1600	2200	40	32928X3		152	151	180	181	2	2.5	0.5	1.2	0.7	2.4
	210	45	45	34	2.5	2	325	555	1600	2200	46.6	32028X	2007128	161	148	193	205	2	2	0.46	1.3	0.72	5.32
	210	56	56	44	2.5	2	406	758	1500	2000	45.6	33028	3007128	152	152	186	202	2	2	0.36	1.67	0.92	6.61
	250	45.75	42	36	4	3	390	515	1400	1900	48.9	30228	7228E	169	154	228	240	3	2.5	0.44	1.4	0.76	8.74
	250	71.75	68	58	4	3	610	915	1400	1900	60.5	32228	7528E	171	152	224	242	3	2.5	0.44	1.4	0.76	14.3
	300	67.75	62	53	5	4	600	740	1200	1700	57.4	30328	7328E	180	162	269	284	4	3	0.36	1.7	0.92	20.1
	300	77	70	47	5	4	670	950	1000	1500	94	31328	27328E	158	169	282	280	3	3	0.83	0.7	0.4	23.8
	300	107.75	102	85	5	4	985	1440	950	1400	76.4	32328	7628E	185	161	265	288	4	3	0.37	1.6	0.88	33.9

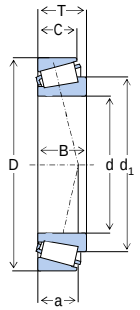
Single-row Tapered Roller Bearing - Metric

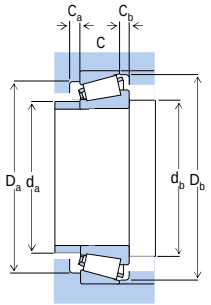




Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (kN)		Load Center Spacing	Designations		Abutment and Fillet Dimensions						Calculation Factors			Mass (kg)
d	D	T	B	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	a	New	Old	damax	dbmin	Damax	Dbmin	ramax	rbmax	e	Y	Y0	Refer.
150	210	38	38	30	2.5	2	270	500	1500	2000	36	32930	2007930	171	148	193	205	2	2	0.33	1.8	1	3.88
	225	48	48	36	3	2.5	375	650	1500	2000	49.8	32030X	2007130	173	159	206	219	2.5	2	0.46	1.3	0.72	6.6
	225	59	59	46	3	2.5	457	865	1500	2000	48	33030	3007130	162	164	213	217	2.5	2	0.37	1.6	0.9	8.15
	270	49	45	38	4	3	435	570	1300	1800	50.2	30230	7230E	180	165	246	259	3	2.5	0.43	1.4	0.77	10.7
	270	77	73	60	4	3	595	900	1200	1700	64	32230	7530E	184	166	242	260	3	2.5	0.4	1.5	0.82	17.1
	320	72	65	55	5	4	690	860	1100	1600	61.4	30330	7330E	193	174	288	304	4	3	0.36	1.7	0.92	24.2
	320	82	75	50	5	4	765	1080	950	1400	100	31330	27330E	168	181	302	300	3	3	0.83	0.7	0.4	28.9
	320	114	108	90	5	4	1120	1700	950	1400	81.5	32330	7630E	198	173	282	306	4	3	0.37	1.6	0.88	41.4
160	220	38	36	31	2.5	2	250	455	1100	1600	39.3	32932	2007932	178	168	206	215	2	2	0.35	1.7	0.95	4.06
	240	51	51	38	3	2.5	425	750	1300	1800	53	32032X	2007132	184	169	221	234	2.5	2	0.46	1.3	0.72	7.93
	290	52	48	40	4	3	470	610	1100	1600	55	30232	7232E	195	178	266	279	3	2.5	0.43	1.4	0.77	13.1
	290	84	80	67	4	3	725	1120	1100	1600	70.1	32232	7532E	197	177	261	281	3	2.5	0.4	1.5	0.82	22.1
	340	75	68	58	5	4	765	960	1000	1500	64.6	30332	7332E	205	185	307	323	4	3	0.36	1.7	0.92	28.4
	340	87	79	54	5	4	850	1220	1000	1500	107	31332	27332E	205	185	307	323	4	3	0.83	0.7	0.4	34.5
	340	121	114	95	5	4	1210	1770	950	1400	87.1	32332	7632E	210	183	301	327	4	3	0.37	1.6	0.88	48.3
170	230	38	36	31	2.5	2	258	485	1200	1700	41.6	32934	2007934	188	178	216	225	2	2	0.36	1.6	0.9	4.3
	260	57	57	43	3	2.5	505	890	1200	1700	56.6	32034X	2007134	196	180	239	253	2.5	2	0.44	1.4	0.74	10.6
	310	57	52	43	5	4	525	690	1000	1500	59.8	30234	7234E	207	189	282	297	4	3	0.43	1.4	0.77	16.1
	310	91	86	71	5	4	835	1320	1000	1500	73.9	32234	7534E	210	188	278	299	4	3	0.4	1.5	0.82	27.6
	360	80	72	62	5	4	845	1080	950	1400	70.1	30334	7334E	219	198	326	344	4	3	0.37	1.6	0.9	33.5
	360	92	84	56	5	4	965	1400	950	1400	113	31334	27334E	219	198	326	344	4		0.83	0.7	0.4	40.9
	360	127	120	100	5	4	1370	2050	900	1300	91.3	32334	7634E	222	194	319	346	4	3	0.37	1.6	0.88	57
180	250	45	42	36	2.5	2	310	570	1200	1700	48.5	32936	2007936	200	189	234	244	2	2	0.37	1.6	0.88	6.22
	280	64	64	48	3	2.5	640	1130	1100	1600	60.4	32036X	2007136	208	192	257	272	2.5	2	0.42	1.4	0.78	14.3
	320	57	52	43	5	4	520	695	1000	1500	62.1	30236	7236E	215	199	291	306	4	3	0.44	1.4	0.74	16.6
	320	91	86	71	5	4	875	1380	950	1400	75.2	32236	7536E	221	198	289	310	4	3	0.4	1.5	0.82	28.5
	380	83	75	64	5	4	935	1230	950	1400	72.4	30336	7336E	230	209	343	360	4	3	0.36	1.7	0.92	39.3
	380	97	88	60	5	4	1040	1530	950	1400	119	31336	27336E	230	209	343	360	4	3	0.83	0.7	0.4	47.7

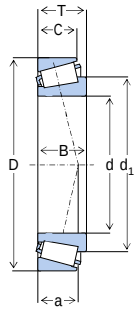
Single-row Tapered Roller Bearing - Metric

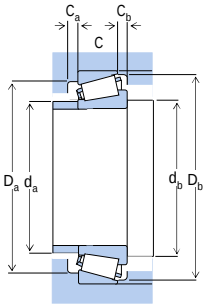




Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (kN)		Load Center Spacing	Designations		Abutment and Fillet Dimensions						Calculation Factors			Mass (kg)
d	D	T	B	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	a	New	Old	damax	dbmin	Damax	Dbmin	ramax	rbmax	e	Y	Yo	Refer.
180	380	134	126	106	5	4	1520	2290	950	1400	96.6	32336	7636E	232	205	336	364	4	3	0.37	1.6	0.88	66.8
190	260	45	42	36	2.5	2	335	645	950	1400	49.9	32938	2007938	210	199	244	254	2	2	0.39	1.5	0.85	6.59
	290	64	64	48	3	2.5	650	1170	1000	1500	63.3	32038X	2007138	219	202	267	283	2.5	2	0.44	1.4	0.75	14.9
	340	60	55	46	5	4	580	790	950	1400	62.7	30238	7238E	230	212	311	326	4	3	0.4	1.5	0.82	24
	400	101	92	65	5	4	1120	1630	900	1300	115	31338	27338E	249	220	355	385	5	4	0.73	0.8	0.5	54.1
	400	140	132	109	6	5	1660	2580	850	1200	102.7	32338	7638E	249	220	355	385	5	4	0.37	1.6	0.88	78.9
200	280	51	51	39	3	2.5	475	950	1000	1500	54	32940	2007940	212	217	268	271	2.5	2	0.4	1.5	0.8	9.39
	360	64	58	48	5	4	645	890	900	1300	65.5	30240	7240E	242	224	329	345	4	3	0.4	1.5	0.82	23.8
	360	104	98	82	5	4	1090	1750	900	1300	85	32240	7540E	244	219	322	347	4	3	0.4	1.5	0.82	42
	420	89	80	67	6	5	1030	1390	850	1200	81.4	30340	7340E	251	229	372	391	5	4	0.37	1.6	0.88	52.3
	420	107	97	70	5	4	1320	1900	850	1200	130	31340	27340E	251	229	372	391	5	4	0.79	0.8	0.4	65.1
	420	146	138	115	6	5	1820	2870	800	1100	106.7	32340	7640E	260	229	372	403	5	4	0.37	1.6	0.88	90.9
220	300	51	51	39	3	2.5	475	1000	900	1300	59	32944	2007944							0.43	1.4	0.8	10.1
	340	76	76	57	4	3	885	1610	900	1300	73.6	32044X	2007144	254	234	313	331	3	2.5	0.43	1.4	0.77	24.4
	400	72	65	54	5	4	810	1150	850	1200	74.6	30244	7244E	266	246	365	381	4	3	0.4	1.5	0.82	33.6
	400	114	108	90	5	4	1340	2210	800	1100	93	32244	7544E	270	242	360	386	4	3	0.4	1.5	0.82	57.4
	460	97	88	73	6	5	1430	1990	750	1000	85.3	30344	7344E	277	254	414	434	5	4	0.36	1.7	0.92	72.4
	460	154	145	122	6	5	2020	3200	700	950	114.9	32344	7644E	281	250	405	438	5	4	0.37	1.6	0.88	114
240	320	51	51	39	3	2.5	490	1080	900	1300	65	32948	2007948	252	255	308	311	2	2	0.46	1.3	0.7	10.9
	360	76	76	57	4	3	920	1730	850	1200	79.1	32048X	2007148	274	253	332	351	3	2.5	0.46	1.3	0.72	26.2
	440	79	72	60	5	4	990	1400	800	1100	85.1	30248	7248E	290	267	401	422	4	3	0.44	1.4	0.74	45.2
	440	127	120	100	5	4	1630	2730	750	1000	102.5	32248	7548E	296	265	397	426	4	3	0.4	1.5	0.82	78
	500	105	95	80	6	5	1660	2340	750	1000	92.8	30348	7348E	300	277	449	471	5	4	0.36	1.7	0.92	92.6
	500	165	155	132	6	5	2520	4100	700	950	123.2	32348	7648E	307	273	444	479	5	4	0.37	1.6	0.88	145
260	360	63.5	63.5	48	3	2.5	710	1500	900	1300	70	32952	2007952	294	253	332	351	44		0.41	1.5	0.8	18.8
	400	87	87	65	5	4	1160	2160	800	1100	86.3	32052X	2007152	300	276	368	389	4	3	0.43	1.4	0.76	38.5
	480	89	80	67	6	5	1190	1700	700	950	94.5	30252	7252E	318	291	438	461	5	4	0.44	1.4	0.74	60.7

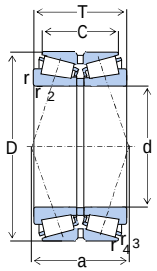
Single-row Tapered Roller Bearing - Metric





Boundary Dimensions (mm)							Basic Load Ratings (kN)		Speed Ratings (kN)		Load Center Spacing	Designations		Abutment and Fillet Dimensions						Calculation Factors			Mass (kg)
d	D	T	B	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	a	New	Old	damax	dbmin	Damax	Dbmin	ramax	rbmax	e	Y	Yo	Refer.
260	480	137	130	106	6	5	1900	3300	670	900	116	32252	7552E	319	286	426	460	5	4	0.45	1.3	0.73	103
	540	113	102	85	6	6	2120	3050	630	850	97	30352	7352E	286	325	512	493	5	5	0.35	1.7	0.9	110
280	380	63.5	63.5	48	3	2.5	710	1560	800	1100	75	32956	2007956	292	298	368	368	2.5	2.5	0.43	1.4	0.8	19.9
	420	87	87	65	5	4	1180	2240	750	1000	91.6	32056X	2007156	320	295	386	409	4	3	0.46	1.3	0.72	40.6
	500	89	80	67	6	5	1240	1900	700	950	98.5	30256	7256E	336	313	456	478	5	4	0.44	1.4	0.74	66.3
300	420	76	76	57	4	3	930	2040	700	950	80	32960	2007960	314	324	406	405	3	2.5	0.39	1.5	0.8	31.3
	460	100	100	74	5	4	1440	2700	670	900	98.4	32060X	2007160	344	317	423	447	4	3	0.43	1.4	0.76	56.6
	540	96	85	71	6	5	1440	2100	650	920	105.1	30260	7260E	357	331	493	517	5	4	0.44	1.4	0.74	80.6
	540	149	140	115	6	5	2220	3700	600	800	131.6	32260	7560E	364	329	486	524	5	4	0.46	1.3	0.72	132
320	440	76	76	57	4	3	1000	2320	670	900	86	32964	2007964	334	343	428	426	3	2.5	0.42	1.4	0.8	33.6
	480	100	100	74	5	4	1510	2910	630	850	104.5	32064X	2007164	365	338	443	468	4	3	0.46	1.3	0.72	60
	580	104	92	75	6	5	1640	2420	600	800	113.7	30264	7264E	382	354	529	554	5	4	0.44	1.4	0.74	99.3
	580	159	150	125	5	5	2620	4650	550	750	142	32264	7564E	342	369	473	551	4	4	0.47	1.27	0.7	172.1
340	460	76	76	57	4	3	1040	2450	530	850	91	32968	2007968	357	361	440	446	3	2.5	0.44	1.4	0.8	35.4
	520	112	106	90	5	5	1650	3150	500	720	103.5	32068		362	374	452	496	4	4	0.37	1.6	0.88	78.7
360	480	76	76	57	4	3	1020	2400	600	800	97	32972	2007972	377	380	464	466	3	2.5	0.46	1.3	0.7	36.8
	540	112	106	90	5	5	1740	3300	500	720	106	32072X	2007172	382	394	476	519	4	4	0.37	1.6	0.88	83.7
	680	165	150	125	7.5	7.5	3690	6300	480	630	172	30272	7272E	394	416	551	646	6	6	0.6	1	0.6	260
380	520	87	82	71	5	4	1210	2550	530	850	95.2	32976	2007976	418	396	487	508	4	3	0.39	1.6	0.86	49.5
	560	112	106	90	5	5	1920	3800	500	720	109.5	32076X	2007176	402	413	495	539	4	4	0.37	1.6	0.88	89.3
400	540	87	82	71	5	4	1250	2700	500	720	100.8	32980		439	417	508	530	4	3	0.4	1.5	0.82	52.7
	600	125	118	100	6	5	1960	4050	480	630	115.3	32080		453	424	553	580	5	4	0.36	1.7	0.92	116
420	560	87	82	72	5	4	1300	2810	480	630	106.1	32984		458	436	528	550	4	3	0.41	1.5	0.81	54.8
	620	125	118	100	6	5	2000	4200	450	600	120	32084		473	444	572	600	5	4	0.37	1.6	0.88	121
440	600	100	95	82	4	4	1600	3450	450	600	106	32988		458	473	543	581	3	3	0.35	1.7	0.93	76
	650	130	122	104	6	6	2230	4600	400	550	126.3	32088		496	467	602	630	5	5	0.36	1.7	0.92	136
	650	130	122	104	6	6	2230	4600	400	550	126.3	32088		496	467	602	630	5	5	0.36	1.7	0.92	136

Double-row Taper Roller Bearing



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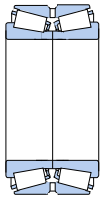
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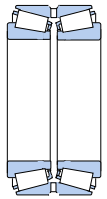
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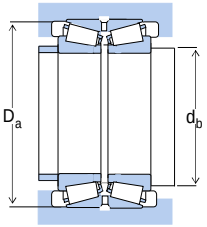
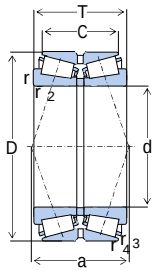


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
100	140	60	50	0.6	0.3	201	410	1800	2300	100TDO140-1		1	111	136	0.3	0.6	0.33	2	3.1	2	2.6
	150	46	37	2.5	0.6	180	293	1800	2300	100TDO150-1		1	110	141.5	0.6	2	0.35	1.95	2.9	1.91	2.53
	150	55	39.05	2.5	0.8	209	337	1800	2300	100TDO150-2		1	110	141.5	0.8	2	0.65	1.1	1.5	1	3
	150	76.2	61.976	3.5	0.6	282	513	1800	2300	100TDO150-3		1	110	141.5	0.6	2	0.4	1.7	2.5	1.6	4.25
	165	52	46	2.5	0.6	222	340	1700	2200	100TD165-1		1	115	156	0.6	2	0.33	2	3	2	4.04
	165	65	52	2.5	0.6	295	480	1700	2200	100TD165-2		1	118	158	0.6	2	0.39	1.7	2.6	1.7	5
	170	92	70	3	0.6	385	698	1700	2200	100TDO170-1		1	114	156.5	0.6	2	0.47	1.43	2.14	1.4	7.83
	180	83	67	3	1	395	570	1600	2200		97820	1	118	170	1	2.5	0.42	1.6	2.4	1.6	8.11
	180	105	85	3	1	490	765	1600	2200	100TDO180-1		1	121	172	1	2.5	0.42	1.6	2.4	1.6	10.3
	180	111	92	3	0.8	610	1080	1700	2200		97520EK	1	121	172	0.8	2.5	0.42	1.6	2.4	1.6	11.6
	180	140	115	2.5	1	585	1090	1700	2200	100TDO140-1		1	112	168.5	1	2	0.33	2.1	3.1	2	13.8
	190	125	100	3	1.3	580	1100	1500	2000		37720	2	114	179.5	1	2.5	0.33	2	3	2	14.9
	200	116	80	4	1.5	540	850	1500	2000	100TDO200-1		1	131	186	1.5	3	0.63	1.1	1.6	1	15.1
	215	112	87	4	1	700	995	1500	2000	100TDO215-1		1	130	204	1	3	0.35	1.9	2.9	1.9	18.4
	215	115	74	3	1	510	680	1500	2000	100TDO215-2		1	114	202	1	2.5	0.81	0.8	1.2	0.8	18.2
	215	143	118	3	1.5	975	1620	1500	2000	100TDO215-3		1	132	206	1.5	2.5	0.33	2.1	3.1	2	24.6
	215	162	127	4	1	980	1540	1400	1900	100TDO215-4		1	118	200	1	3	0.35	1.96	2.91	1.91	26.5
	304.8	184.16	127	SP	SP	1190	1630	1300	1800	100TDO304-1A		1	117	285	2	4	0.8	0.85	1.26	0.83	70
105	190	88	70	3	1	435	635	1500	2000	105TD190-1		1	123	181	1	2.5	0.42	1.6	2.4	1.6	9.21
	190	117	96	3	1	580	920	1500	2000		97521EK	1	128	183	1	2.5	0.42	1.6	2.4	1.6	12.7
	225	170	133	3	1	1090	1730	1500	2000	105TDO225-1		1	123	209	1	3	0.35	1.96	2.9	1.91	30.9
	240	110	75	3	1	585	790	1500	2000	105TDO240-1		1	119	227.5	1	2.5	0.81	0.8	1.2	0.8	23.6
110	150	80	60	0.6	0.3	210	450	1500	2000	110TDO1501		1	121	147	0.3	0.6	0.36	1.9	2.8	1.9	3.6
	160	57.5	47.5	1.5	0.5	218	450	1500	2000	110TDO160-1		1	118.5	146	0.5	1.5	0.36	1.9	2.8	1.9	3.41
	170	45	40	2.5	0.6	175	304	1500	2000	110TDO170-1		1	122	157.2	0.6	2	0.35	1.95	2.9	1.91	3.58
	170	70	55	2.5	0.6	300	500	1500	2000	110TNA170-1		2	127	165	0.6	2	0.41	1.7	2.5	1.6	5
	180	56	50	2.5	0.6	264	400	1500	2000	110TDO180-1		1	125	172	0.6	2	0.39	1.7	2.6	1.7	5.11
	180	70	56	2.5	0.6	340	555	1500	2000	110TDO180-2		1	125	172	0.6	2	0.39	1.7	2.6	1.7	6.33

Double-row Taper Roller Bearing



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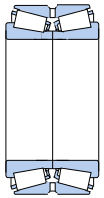
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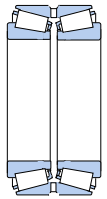
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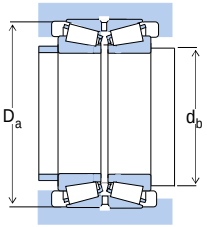
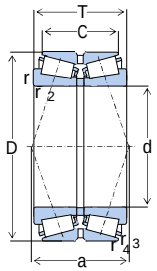


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
110	180	94	72	2	0.6	401	761	1500	2000	110TDO180-3		1	120	170.2	0.6	2	0.52	1.31	1.95	1.28	8.82
	180	95	76	2	0.6	450	920	1500	2000	352122	2097722	1	120	170	0.6	2	0.52	1.31	1.95	1.28	9.1
	180	125	100	2.5	0.6	515	980	1500	2000	110TDO180-4		1	122	168	0.6	2	0.26	2.6	3.8	2.5	11.2
	200	124	102	3	0.6	620	1200	1500	2000		97522EK	1	128	191	0.6	2.5	0.42	1.61	2.39	1.57	16.5
	200	90	72	3	1	532	760	1400	1900	110TDO200-1		1	128	191	1	2.5	0.43	1.6	2.3	1.6	11
	200	92	74	3	1	555	865	1400	1900	110TDO200-2		1	128	193	1	2.5	0.42	1.6	2.4	1.6	10.7
	200	120	100	3	1	640	1020	1400	1900	110TDO200-3		1	135	194	1	2.5	0.42	1.6	2.4	1.6	14.6
	200	121	101	3	1	640	1020	1400	1900	110TDO200-4		1	128	194	1	2.5	0.42	1.6	2.4	1.6	14.4
	200	125	105	3	1	610	965	1400	1900	110TDO200-5		1	134	194	1	2.5	0.42	1.6	2.4	1.6	14.8
	220	145	115	4	1	820	1350	1400	1900	110TDO2201		1	142	211	1	3	0.37	1.8	2.7	1.8	23.6
	240	118	81	4	1	580	815	1400	1900	110TDO240-1		1	148	227	1	3	0.81	0.83	1.2	81	21.8
	240	118	93	4	1	700	955	1400	1900	110TDO240-2		1	143	227	1	3	0.35	1.9	2.9	1.9	22.5
	240	119	74	3	1	585	790	1400	1900	110TDO240-3		1	124	223.5	1	2.5	0.81	0.8	1.2	0.8	25
	240	181	142	3	1	1190	1890	1300	1800	110TDO240-4		1	128	222	1	3	0.35	1.96	2.91	1.91	37.3
115	190	106	80	4	1.5	510	925	1400	1900	115TNA190-1		2	137	182	1.5	3	0.42	1.6	2.4	1.6	10.7
	210	143	118	4	1.5	975	1620	1400	1900	115TNA210-1		2	141	204	1.5	3	0.33	2.1	3.1	2	20
	230	116	84	3	1.5	645	1060	1400	1900	115TDO230-1		1	151	220	1.5	2.5	0.74	0.92	1.4	0.9	20.7
	330	228	124	6	1.5	1490	2150	1400	1900	115TDO330-1		1	180	309	1.5	5	1.3	0.51	0.76	0.5	92.6
120	165	68	56	1.5	0.6	236	495	1400	1900	120TDO165-1		1	134	161	0.5	1	0.4	1.7	2.5	1.6	3.9
	180	46	41	2.5	0.6	184	296	1500	2000	120TDO180-1		1	135	172	0.6	2	0.4	1.7	2.5	1.6	3.75
	180	58	46	2.5	0.6	260	450	1500	2000	120TDO180-2		1	135	172	0.6	2	0.39	1.7	2.6	1.7	4.64
	180	86	68	2.5	0.8	397	788	1500	2000	120TDO180-3		1	135	172	0.6	2	0.46	1.5	2.2	1.4	7.1
120	200	62	55	2.5	0.6	310	500	1400	1800	120TDO200-1		1	135	190	0.6	2	0.39	1.7	2.6	1.7	7.35
	200	78	62	2.5	0.6	415	690	1400	1900	120TDO200-2		1	135	190	0.6	2	0.39	1.7	2.6	1.7	8.97
	200	100	84	2.5	0.6	515	885	1400	1900	120TDO200-3		1	142	194	0.6	2	0.37	1.8	2.7	1.8	11.3
	200	109	90	2.5	0.6	536	1020	1400	1900	120TDO200-4		1	132	182.5	0.6	2	0.43	1.58	2.35	1.55	12.8
	200	110	90	2	0.6	536	1020	1100	1500	352124	2097724	1	132	182.5	0.6	2	0.3	2.25	3.43	2.2	12.6
	215	94	75	3	1	540	800	1300	1800	120TDO215-1		1	145	208	1	2.5	0.42	1.6	2.4	1.6	12.6
120	215	97	78	3	1	540	800	1300	1800	120TDO215-1		1	138	207	1	2.5	0.42	1.6	2.4	1.6	12.8

Double-row Taper Roller Bearing



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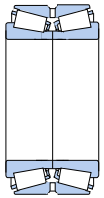
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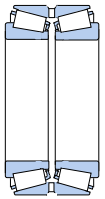
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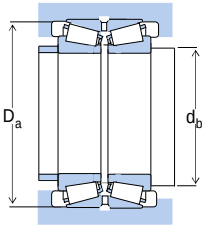
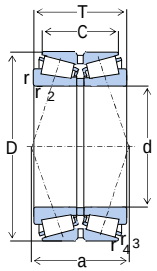


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
	215	132	109	3	1	720	1170	1300	1800		97524K	1	138	208	1	2.5	0.42	1.6	2.4	1.6	18.3
	215	132	106	3	1	720	1170	1300	1800		97524	1	138	208	1	2.5	0.41	1.64	2.44	1.6	19.6
	260	86	60	4	1	775	1100	1200	1700	120TNA260-1		2	156	246	1	2.5	0.44	1.5	2.3	1.5	27
	260	128	101	3	1	976	1430	1200	1700	120TDO260-1		1	138	239	1	3	0.35	1.96	2.91	1.91	30.6
	260	130	87	4	1	730	1060	1200	1700	120TDO260-2		1	159	249	1	3	0.81	0.83	1.2	0.81	28.5
	260	140	112	4	1	815	1130	1200	1700	120TDO260-3		1	155	246	1	3	0.35	1.9	2.9	1.9	30.4
	260	188	145	4	1	1400	2270	1200	1700	120TDO260-2		1	138	239	1	3	0.35	1.96	2.91	1.91	47
	280	185	155	5	1.5	1180	1770	1100	1600	120TDO280-1		1	162	266	1.5	3	0.39	1.7	2.6	1.7	51.6
125	180	85	75	3	0.6	390	885	1100	1600	125TNA180-1		2	143	176	0.5	2	0.31	2.2	3.3	2.2	7
	210	110	88	4	1	560	1030	1100	1600	125TDO210-1		1	151	202	1	3	0.43	1.6	2.3	1.5	14.5
	230	116	84	4	1.5	645	1060	1100	1600	125TDO230-1		1	157	220	1.5	3	0.74	0.92	1.4	0.9	19
	235	142	114	4	1.5	875	1580	1100	1600	125TNA230-1		2	159	226	1	2.5	0.37	1.8	2.7	1.8	25.6
	235	145	115	4	1.5	875	1580	1100	1600	125TNA230-2		2	159	226	1	2.5	0.37	1.8	2.7	1.8	25.9
128	229	116	74	4	1	560	1010	1100	1600	128TDO229-1		1	162	218	1	2.5	1.1	0.64	0.96	0.63	18.6
130	180	69	55	2	0.6	322	663	1200	1700	130TDO180-1		1	140	174.9	0.6	2	0.33	2.03	3.02	1.98	4.77
	180	70	56	2	0.6	322	663	1400	1900		2097926	1	140	174.9	0.6	2	0.27	2.49	3.71	2.43	4.87
	200	52	46	2.5	0.6	266	445	1300	1800	130TDO200-1		1	145	190	0.6	2	0.39	1.7	2.6	1.7	5.46
	200	65	52	2.5	0.6	320	540	1300	1800	130TDO200-1		1	145	192	0.6	2	0.39	1.7	2.6	1.7	6.45
	200	95	75	2.5	0.7	450	880	1300	1800		2097126	1	145	192	0.6	2	0.35	1.94	2.88	1.89	9.72
	210	64	57	2.5	0.6	340	530	1300	1700	130TDO210-1		1	145	202	0.6	2	0.37	1.8	2.7	1.8	7.78
	210	80	64	2.5	0.6	455	765	1300	1700	130TDO210-2		1	145	201	0.6	2	0.39	1.7	2.6	1.7	9.6
	210	109	90	2.5	0.6	550	980	1300	1700	130TDO210-3		1	152	204	0.6	2	0.39	1.7	2.6	1.7	13
	210	110	90	2.5	0.6	550	980	1300	1700	352126	2097726	1	152	204	0.6	2	0.39	1.7	2.6	1.7	13
	214	115	98	3	1	625	1140	1300	1700	130TDO214-1		1	154	207	1	2.5	0.35	1.9	2.9	1.9	15
	214	115.6	98	3	1	625	1140	1300	1700		97826U	1	154	207	1	2.5	0.35	1.9	2.9	1.9	15
	230	95	75	3	1	560	840	1200	1600	130TDO230-1		1	144	215.5	1	2.5	0.43	1.6	2.3	1.5	15
	230	98	78.5	4	1	570	870	1200	1600	130TDO230-2		1	151	221	1	3	0.39	1.7	2.6	1.7	15
130	230	100	80.5	4	1	570	870	1200	1600	130TDO230-3		1	158	222	1	3	0.39	1.7	2.6	1.7	15
	230	142	114.5	4	1	850	1480	1200	1600	130TDO230-4		1	158	222	1	3	0.39	1.7	2.6	1.7	22.7

Double-row Taper Roller Bearing



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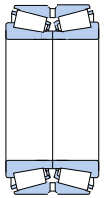
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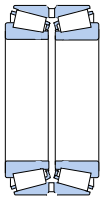
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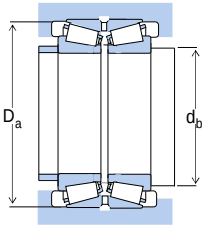
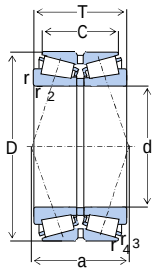


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
	230	145	117.5	4	1	850	1480	1200	1600	130TDO230-6		1	151	221	1	3	0.39	1.7	2.6	1.7	23
	230	146	118.5	4	1.5	904	1615	1200	1600	130TDO230-7		1	151	221	1	3	0.43	1.6	2.3	1.6	23.5
	230	149	120	3	1	905	1630	1300	1700		97526EK	1	144	220	1	2.5	0.44	1.6	2.3	1.5	23.6
	230	150	120	4	1	850	1480	1300	1700	130TDO230-8		1	158	222	1	3	0.39	1.7	2.6	1.7	23.6
	235	145	115	4	1	850	1480	1300	1700		37726	2	158	224	1	3	0.39	1.7	2.6	1.7	24.5
	280	137	107.5	5	1.5	940	1350	1200	1600	130TDO280-1		1	169	265	1.5	4	0.36	1.9	2.8	1.8	35
	280	137	87.5	5	1.5	845	1210	1200	1600	130TDO280-2		1	172	262	1.5	4	0.83	0.81	1.2	0.79	34.7
	280	205	163.5	4	1.5	1530	2470	1200	1600	130TDO280-3		1	148	264	1.5	3	0.35	1.9	2.9	1.9	55.5
	299	137	87.5	5	1.5	845	1210	1200	1600	130TDO299-1		1	172	278	1.5	4	0.83	0.81	1.2	0.79	40.6
133	216	106	81	3.5	1.5	495	985	1200	1600	133TDO216-1		1	160	208	1.5	3.5	0.49	1.4	2.1	1.4	14
135	200	100	85	3	1	495	1010	1200	1600	135TDO200-1		1	153	193	1	2	0.34	2	2.9	1.9	9.8
	210	66	53	2.5	1	305	530	1200	1600	135TDO210-1		1	157	203	1	2	0.4	1.7	2.5	1.6	7.5
	225	85	68	3	1	490	850	1200	1600	135TDO225-1		1	161	217	1	2.5	0.39	1.7	2.6	1.7	12.4
140	190	74	60	1	0.6	296	600	1200	1600	140TDO190-1		1	153	185	0.5	1	0.38	1.8	2.7	1.7	5.3
	200	93.665	73.025	5	1	445	988	1200	1600	140TDO200-1		1	163	195	1	5	0.33	2	3	2	9.3
	200	94.02	73.08	6	1	390	915	1200	1600	140TDO200-2		1	163	195	1	5	0.34	2	3	2	8.8
	210	53	47	2.5	0.6	282	495	1200	1700	140TDO210-1		1	155	202	0.6	2	0.39	1.7	2.6	1.7	6.02
	210	66	53	2.5	1	305	530	1200	1700	140TDO210-2		1	155	202	1	2	0.4	1.7	2.5	1.6	7.02
	210	69	69	2.5	0.6	380	675	1200	1700	140TDO210-3		1	157	202	0.6	2	0.2	3.4	5.1	3.3	8.1
	210	95	75	2.5	0.6	630	970	1200	1700		2097128	1	158	202	0.6	2.5	0.35	1.94	2.88	1.89	8.36
	210	106	94	2.5	0.6	555	1200	1200	1700	140TDO210-4		1	160	203	0.6	2	0.33	2	3	2	
	210	110	88	1	0.6	555	1200	1200	1700	140TDO210-5		1	159	203	0.6	1	0.33	2	3	2	12.4
	225	68	61	3	1	400	630	1200	1600	140TDO225-1		1	158	216	1	2.5	0.39	1.7	2.6	1.7	9.31
	225	84	68	3	1	490	850	1200	1600	140TDO225-2		1	158	215	1	2.5	0.39	1.7	2.6	1.7	11.6
	225	85	68	3	1	490	850	1200	1600	140TDO225-3		1	163	217	1	2.5	0.39	1.7	2.6	1.7	11.7
140	225	115	90	3	1	580	1180	1200	1700		2097728	1	165	220	1	2.5	0.34	2	2.98	1.96	15.5
	230	120	94	3	1	685	1270	1200	1700	140TDO230-1		1	166	222	1	2.5	0.33	2	3	2	17.6
	230	124	105	3	1	650	1240	1200	1700	140TDO230-2		1	164	221	1	2.5	0.42	1.6	2.4	1.6	18.6

Double-row Taper Roller Bearing



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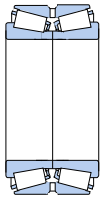
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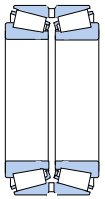
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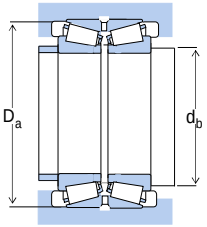
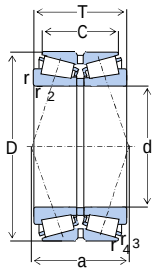


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
	230	140	110	3	1	820	1550	1100	1500	140TDO230-3		1	165	222	1	2.5	0.35	1.9	2.9	1.9	20.7
	240	132	106	4	1.5	685	1360	1100	1500	140TDO240-1		1	170	230	1.5	3	0.44	1.5	2.3	1.5	22.7
	250	100	80.5	4	1	630	970	1100	1500	140TDO250-1		1	169	240	1	3	0.39	1.7	2.6	1.7	18.1
	250	102	82.5	4	1	630	970	1100	1500	140TDO250-2		1	161	237	1	3	0.39	1.7	2.6	1.7	18.3
	250	153	125.5	4	1	940	1670	1100	1500	140TDO250-3		1	161	241	1	3	0.4	1.7	2.5	1.6	29
	250	153	110	4	1	910	1700	1200	1600	140TDO250-4		1	174	242	1	3	0.55	1.2	1.8	1.2	29.8
	250	157	128	4	1	1050	2100	1200	1600		97528EK	1	174	242	1	3	0.44	1.55	2.31	1.52	31.7
	260	120	84	3	1.5	735	1210	1200	1600	140TDO260-1		1	154	245	1.5	2.5	0.74	0.9	1.4	0.9	26.6
	260	155	120	1.5	4	1050	1900	1200	1600	140TDO260-2		1	158	243.2	1.5	3	0.4	1.68	2.5	1.64	34.4
	270	120	95	4	3	870	1440	1200	1600	140TDO270-1		1	174	253	2.5	2.5	0.33	2	3	2	29.3
	300	102	77	2.5	1	645	1010	1200	1600	140TDO300-1		1	152	264	1	2	0.55	1.2	1.8	1.2	31.6
	300	145	115.5	5	1.5	1030	1480	1200	1600	140TDO300-2		1	180	284	1.5	4	0.36	1.9	2.8	1.8	42.6
	300	223	177.5	4	1.5	1690	2740	1200	1500	140TDO300-3		1	158	282	1.5	3	0.35	1.9	2.9	1.9	69
145	225	70	56	3	1	395	685	1200	1500	145TDO225-1		1	168	217	1	2	0.35	1.9	2.9	1.9	9.4
	240	135	110	4	1	775	1440	1200	1500	145TNA240-1		2	171	229	1	2.5	0.32	2.1	3.2	2.1	22.1
150	210	80	62	3	1	350	795	1200	1500		2057930	3	168	198	1	2.5	0.27	2.48	2.69	2.42	9.12
	210	80	62	3	1	350	795	1200	1500		2097930	1	168	198	1	2.5	0.27	2.48	2.69	2.42	9.12
	225	56	50	3	1	300	545	1200	1600	150TDO225-1		1	168	213	1	2.5	0.35	1.9	2.9	1.9	7.41
	225	70	56	3	1	395	685	1200	1600	150TDO225-2		1	168	215	1	2.5	0.35	1.9	2.9	1.9	8.7
	225	107	78	5	1	648	1254	1200	1600	150TDO225-3		1	168	215	1	2.5	0.46	1.5	2.2	1.4	14.5
	225	112	88	3	1	1000	1690	1200	1500		97830	1	168	215	1	2.5	0.39	1.73	2.58	1.69	14.1
	245	108	80	4	1	570	1020	1200	1500	150TDO245-1		1	177	235	1	3	0.35	1.9	2.9	1.9	17.1
	250	80	71	3	1	510	810	1100	1400	150TDO250-1		1	168	240	1	2.5	0.4	1.7	2.5	1.6	14.2
	250	100	80	3	1	630	1090	1100	1400	150TDO250-2		1	168	238	1	2.5	0.39	1.7	2.6	1.7	17.8
	250	115	95	3	1	745	1320	1100	1400	150TDO250-3		1	177	241	1	2.5	0.37	1.8	2.7	1.8	20.9
150	250	137	112	3	1	816	1510	1100	1400	150TDO250-4		1	164	238	1	2.5	0.41	1.66	2.47	1.62	24.3
	250	138	112	4	0.6	865	1630	1100	1500	352130	2097730	1	181	244	0.6	3	0.25	2.74	4.08	2.68	25.8
	250	140	115	4	0.6	865	1630	1100	1500	150TDO250-5		1	181	244	0.6	3	0.41	1.6	2.4	1.6	25.4

Double-row Taper Roller Bearing



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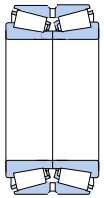
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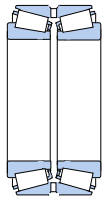
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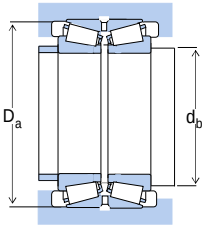
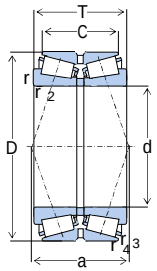


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
	250	142	112	4	1.5	885	1630	1100	1500	150TDO250-6		1	181	243	1.5	3	0.41	1.7	2.5	1.6	25
	250	145	115	4	1.5	850	1580	1100	1500	150TNA250-1		2	181	243	1.5	3	0.41	1.7	2.5	1.6	26.5
	255	144	110	5	1	909	1700	1100	1500	150TDO255-1		1	172	232.4	1	4	0.24	2.84	4.23	2.78	27.2
	260	150	115	4	1	815	1520	1100	1500	150TDO260-1		1	181	248	1	3	0.43	1.6	2.3	1.5	30
	270	108	76	4	1	740	1140	1000	1400	150TDO270-1		1	180	258	1	3	0.43	1.6	2.3	1.5	22.7
	270	109	87	4	1	740	1140	1000	1400		97730	1	171	254	1	3	0.44	1.55	2.31	1.52	24.5
	270	162	128	4	1	1020	1800	1000	1400	150TDO270-2		1	184	260	1	3	0.4	1.7	2.5	1.6	35.6
	270	164	130	4	1	1020	1800	1000	1400	150TDO270-3		1	171	257	1	3	0.4	1.7	2.5	1.6	36.1
	270	169	138	4	1	1200	2400	1100	1500		97530EK	1	171	257	1	3	0.44	1.55	2.31	1.52	39.4
	280	160	104	4	1	1010	1710	1100	1500	150TDO280-1		1	189	265	1	3	0.81	0.84	1.2	0.82	38.5
	320	154	120	5	1.5	1180	1720	1100	1500	150TDO320-1		1	193	304	1.5	4	0.36	1.9	2.8	1.8	51.9
	330	180	120	5	1.5	1350	2210	1100	1500	150TDO330-1		1	177	313	1.5	4	0.81	0.8	1.2	0.8	70.5
152.4	257	142.88	111.13	3.5	1.5	885	1660	1100	1500	152TNA257-1A		2	182	246	1.5	3.5	0.41	1.7	2.5	1.6	26.9
155	200	66	54	1.5	0.6	242	589	1100	1500	155TDO200-1		1	208	195	0.6	1.5	0.35	1.9	2.9	1.8	4.85
	330	180	120	6	1.5	1300	2120	1100	1500	155TDO330-1		1	208	310	1.5	5	0.81	0.84	1.2	0.82	68.5
159	230	80	56	2.5	0.6	400	755	1100	1500	159TDO230-1		1	180	224	0.6	2	0.52	1.3	1.9	1.3	9.4
	290	155	117	4	1	1060	1900	1100	1500	159TDO290-1		1	198	280	1	3	0.55	1.2	1.8	1.2	40.3
160	220	82	65	2.5	0.6	430	910	1100	1500		2097932	1	178	215	0.6	2	0.27	2.51	3.74	2.45	8.15
	220	90	71	2.5	0.6	430	910	1100	1500	160TDO220-1		1	178	215	0.6	2	0.35	1.9	2.9	1.9	9.1
	240	60	53	3	1	355	580	1100	1500	160TDO240-1		1	178	231	1	2.5	0.37	1.8	2.7	1.8	8.56
	240	75	60	3	1	395	710	1100	1500	160TDO240-2		1	178	230	1	2.5	0.4	1.7	2.5	1.6	10.5
	240	110	90	3	1	650	1290	1100	1500	160TDO240-3		1	183	233	1	2.5	0.38	1.8	2.6	1.7	16.2
	240	114	84	5	1	752	1482	1100	1500	160TDO240-4		1	183	229	1	2.5	0.46	1.5	2.2	1.4	16.5
	240	115	90	3	0.9	750	1480	1100	1500		2097132	1	183	229	0.6	2.5	0.35	1.94	2.88	1.89	16.5
	262	140	120	3	1	865	1780	1000	1250	160TDO262-1		1	191	255	1	2.5	0.44	1.5	2.3	1.5	28.3
160	270	86	76	3	1	540	885	1000	1300	160TDO270-1		1	178	255	1	2.5	0.4	1.7	2.5	1.6	18.6
	270	108	86	3	1	775	1380	1000	1300	160TDO270-2		1	178	256	1	2.5	0.39	1.7	2.6	1.7	23.1
	270	110	86	2.5	1	785	1360	1000	1300	160TDO270-3		1	172	250.5	1	2	0.31	2.2	3.3	2.2	22.9
	270	140	110	3	1	1600	2620	1000	1400		37732	2	191	261	1	2.5	0.36	1.86	2.76	1.81	26.7

Double-row Taper Roller Bearing



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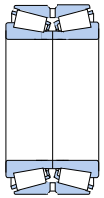
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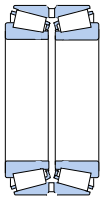
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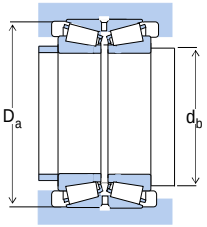
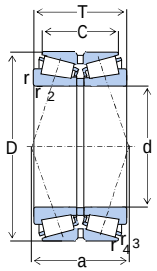


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
	270	140	120	3	1	990	1880	1000	1400	352132X2/HA		1	191	262	1	2.5	0.32	2.12	3.15	2.07	31.8
	270	149	120	3	1	990	1880	1000	1400	160TDO270-4		1	191	261	1	2.5	0.39	1.7	2.6	1.7	31.7
	270	150	120	4	1	990	1880	1000	1400	352132	2097732	1	191	259	1	3.5	0.36	1.86	2.76	1.81	28.3
	280	140	120	3	1	990	1880	1000	1400	160TDO280-1		1	191	267	1	2.5	0.39	1.7	2.6	1.7	34.7
	280	150	125	4	1	1100	2020	1000	1400	160TDO280-2		1	194	270	1	3	0.32	2.1	3.2	2.1	35.9
	290	115	91	4	1	800	1220	950	1300	160TDO290-1		1	181	275	1	3	0.43	1.6	2.3	1.5	28.2
	290	178	144	4	1	1240	2240	950	1300	160TDO290-2		1	181	278	1	3	0.4	1.7	2.5	1.6	46.2
	290	180	140	4	1	1240	2240	950	1300		97532	1	181	278	1	3	0.4	1.7	2.53	1.66	46.2
	340	160	126	5	1.5	1310	1920	950	1300	160TDO340-1		1	205	323	1.5	4	0.36	1.9	2.8	1.8	60.4
165	225	95	70	4	0.6	410	1080	950	1300	165TNA225-1		2	186	219	0.6	3	0.38	1.8	2.6	1.7	10.7
	290	143	111	4	1.5	930	1880	920	1200	165TNA290-1		2	203	278	1	2.5	0.47	1.4	2.1	1.4	38.3
	290	150	125	4	1	1140	2130	920	1200		97833U	1	199	278	1	3	0.31	2.2	3.27	2.15	41.1
	350	146	108	7.5	1.5	1220	1980	1000	1400	165TDO350-1		1	201	308.5	1.5	6	0.34	2	3	2	61.2
170	230	82	65	3	1	420	900	1000	1400		2097934	1	193	220	1	2	0.28	2.39	3.56	2.34	8.11
	250	85	65	3	1	435	845	1000	1400	170TDO250-1		1	193	242	1	2	0.44	1.5	2.3	1.5	12.3
	260	67	60	3	1	400	700	1000	1300	170TDO260-1		1	188	248	1	2.5	0.4	1.7	2.5	1.6	11.8
	260	84	67	3	1	575	1030	1000	1300	170TDO260-2		1	188	249	1	2.5	0.39	1.7	2.6	1.7	14.4
	260	90	65	3	1	575	1030	1000	1300	170TDA260-1		2	194	251	0.8	2	0.39	1.7	2.6	1.7	15.1
	260	120	95	3	1	685	1550	1000	1400		2097134	1	188	266	1	2.5	0.31	2.18	3.24	2.13	20.4
	260	120	95	3	1	685	1550	1000	1400		2057134	1	188	266	1	2.5	0.31	2.18	3.24	2.13	20
	280	88	78	3	1	630	1040	950	1300	170TD280-1		1	188	266	1	2.5	0.39	1.7	2.6	1.7	19.7
	280	110	88	3	1	820	1450	950	1300	170TD280-2		1	188	268	1	2.5	0.39	1.7	2.6	0.7	24.2
	280	110	90	3	1	820	1450	950	1300	170TD280-2		1	200	271	1	2.5	0.39	1.7	2.6		24.3
	280	123	100	3	1	810	1660	950	1300	170TD280-3		1	195	262	1	2	0.38	1.8	2.6	1.7	28.5
	280	134	106	3	1	855	1790	950	1300	170TD280-4		1	184	250.5	1	2.5	0.44	1.5	2.3	1.5	29.2
170	280	150	130	3	1	1110	2160	1000	1300	170TD280-5		1	200	271	1	2.5	0.39	1.7	2.6	1.7	34.6
	280	150	120	3	1	1110	2160	1000	1300		2097734	1	200	271	1	2.5	0.38	1.78	2.65	1.74	35.6
	310	122	94	5	1.5	900	1380	900	1200	170TDO310-1		1	207	297	1.5	4	0.43	1.6	2.3	1.5	34.1
	310	125	97	5	1.5	900	1380	900	1200	170TDO310-2		1	197	291	1.5	4	0.43	1.6	2.3	1.5	34.9
	310	192	152	5	1.5	1430	2640	900	1200	170TDO310-3		1	197	296	1.5	4	0.4	1.7	2.5	1.6	57.3

Double-row Taper Roller Bearing



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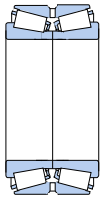
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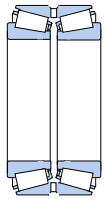
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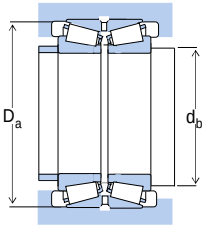
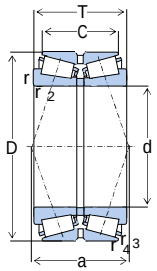


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
	310	195	150	5	1.5	1540	2890	900	1200	170TNA310-1		2	209	297	1	3	0.33	2	3	2	59.6
	320	180	140	5	1.5	1410	2510	900	1200	170TDO320-1		1	215	309	1.5	4	0.43	1.6	2.3	1.5	59.8
178	289	143	111	5.5	1.6	1050	1870	1000	1300	178TNA289-1		2	209	278	1.6	5.5	0.32	2.1	3.2	2.1	31.7
180	250	94	76	2.5	0.6	607	1310	1000	1300	180TDO250-1		1	192	238.9	0.6	2	0.37	1.8	2.69	1.76	13
	250	95	74	2.5	0.6	607	1310	1000	1300		2097936	1	192	238.9	0.6	2	0.37	1.84	2.74	1.8	13
	270	109.54	84.138	5	1	648	1520	900	1300	180TDO270-1		1	198	265	0.6	2	0.48	1.4	2.1	1.4	22.5
	280	74	66	3	1	455	810	900	1300	180TDO280-1		1	198	255	1	2.5	0.4	1.7	2.5	1.6	15.4
	280	93	74	3	1	655	1220	900	1200	180TDO280-2		1	198	265	1	2.5	0.35	1.9	2.9	1.9	19.5
	280	134.5	108	2.5	1	885	1800	900	1200	180TDO280-3		1	192	266	1	2	0.37	1.8	2.7	1.8	27
	280	134	108	2.5	1	885	1800	1000	1300		2097136	1	192	266	1	2	0.28	2.43	3.61	2.37	28.5
	285	108	79.4	2.5	2.3	720	1200	940	1300		37736	2	212	265	1.5	5.5	0.35	1.95	2.9	1.91	23.2
	290	143	111	5.5	1.5	930	1880	940	1300	180TNA290-1		2	212	278	1.5	5.5	0.47	1.4	2.1	1.4	33.6
	290	150	120	3	1	1140	2260	940	1300	180TDO290-1		1	210	280	1	2.5	0.4	1.7	2.5	1.6	35.7
	300	96	85	4	1.5	725	1210	900	1200	180TDO300-1		1	201	284	1.5	3	0.39	1.7	2.6	1.7	24.8
	300	120	96	4	1.5	940	1690	850	1200	180TDO300-2		1	201	287	1.5	3	0.39	1.7	2.6	1.7	31.1
	300	163	134	4	1	1210	2240	850	1200	180TDO300-3		1	198	281.7	1	3	0.33	2.03	3.02	1.98	42.2
	300	164	134	4	1	1210	2240	940	1300		2097736	1	198	281.7	1	3	0.26	2.46	3.93	2.58	39.9
	320	127	99	5	1.5	895	1390	850	1200	180TDO320-1		1	207	300	1.5	4	0.44	1.5	2.3	1.5	36.5
	320	190	145	5	1.5	1500	2760	850	1100		97536	1	207	308	1.5	4	0.36	1.85	2.76	1.81	52.4
	320	192	152	5	1.5	1500	2760	850	1100		97536K	1	207	308	1.5	4	0.36	1.85	2.76	1.81	60
	340	108	140	5	1.5	1410	2510	850	1100	180TDO340-1		1	220	319	1.5	4	0.43	1.6	2.3	1.5	68.1
	340	170	140	5	1.5	1540	2530	850	1100	180TDO340-2		1	202	313.8	1.5	4	0.32	2.12	3.15	2.07	63.2
	340	180	140	4	1.5	1390	2590	840	1100		97736	1	198	302	1.5	3	0.35	1.96	2.91	1.91	71.9
190	260	94	76	2.5	0.6	580	1290	940	1300	190TDO260-1		1	210	254	0.6	2	0.39	1.7	2.6	1.7	13.5
	260	95	76	2.5	0.6	580	1290	940	1300	352938X2	2097938	1	210	254	0.6	2	0.38	1.76	2.62	1.72	13.3
	290	75	67	3	1	490	845	850	1200	190TDO290-1		1	208	279	1	2.5	0.39	1.7	2.6	1.7	16.2
	290	94	75	3	1	670	1230	900	1200	190TDO290-2		1	208	279	1	2.5	0.4	1.7	2.5	1.6	20.1
	290	134	104	3	1	845	1860	890	1200		2097138	1	208	279	1	2.5	0.37	1.83	2.72	1.79	28.8
	320	104	92	4	1.5	800	1380	800	1100	190TDO320-1		1	211	301	1.5	3	0.4	1.7	2.5	1.6	30.9

Double-row Taper Roller Bearing



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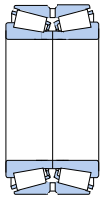
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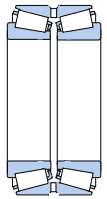
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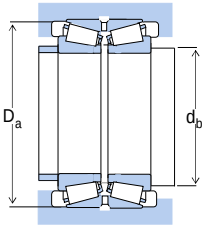
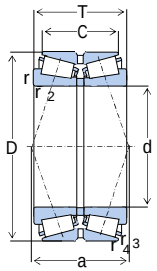


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
	320	130	104	4	1.5	1070	1960	800	1100	190TDO320-2		1	211	302	1.5	3	0.39	1.7	2.6	1.7	39
	320	170	130	3	1	1330	2530	840	1100		2097738	1	225	308	1	3	0.31	2.15	3.2	2.1	52
	320	171	134	4	1	1330	2530	840	1100	190TDO320-3		1	225	308	1	3	0.38	1.8	2.7	1.8	50.1
	340	133	105	5	1.5	990	1580	800	1100	190TDO340-1		1	217	320	1.5	4	0.4	1.7	2.5	1.6	43.9
	340	204	160	5	1.5	1680	3100	800	1100	190TDO340-2		1	217	327	1.5	4	0.4	1.7	2.5	1.6	70.8
200	280	110	85	3	1	610	1530	900	1200		2097940	1	228	268	1	2.5	0.39	1.72	2.56	1.68	18.1
	290	121.45	88	6	1	765	1720	800	1100	200TDO290-1		1	228	279	0.8	4	0.4	1.7	2.5	1.6	23.7
	310	82	73	3	1	585	1070	800	1100	200TDO310-1		1	218	295	1	2.5	0.4	1.7	2.5	1.6	21.2
	310	103	82	3	1	775	1400	850	1100	200TDO310-2		1	218	296	1	2.5	0.43	1.6	2.3	1.5	25.1
	310	151	118	3	1	910	2180	840	1100	352040X2-1		1	230	300	1	2.5	0.37	1.8	2.7	1.8	38
	310	151	120	3	1	910	2180	840	1100	352040X2		1	230	300	1	2.5	0.39	1.72	2.56	1.68	38.9
	310	152	123	3	1	1100	2280	840	1100	200TDO310-3		1	230	300	1	2.5	0.39	1.72	2.56	1.68	38.3
	310	170	140	3	1	1240	2730	750	1000	200TDO310-4		1	214	291.4	1	2.5	0.33	2.03	3.02	1.98	44.9
	320	146	110	5	1.5	990	2120	750	1000	200TDO320-1		1	236	307	1.5	4	0.52	1.3	1.9	1.3	41.6
	330	180	140	5	1.5	1390	2730	750	1000	200TDO330-1		1	237	319	1.5	4	0.42	1.6	2.4	1.6	54.4
	340	112	100	4	1.5	940	1670	750	1000	200TDO340-1		1	221	321	1.5	3	0.4	1.7	2.5	1.6	38.8
	340	140	112	4	1.5	1260	2250	750	1000	200TDO340-2		1	221	324	1.5	3	0.39	1.7	2.6	1.7	47
	340	183	150	4	1	1580	3050	800	1100	200TDO340-3		1	237	328	1	3	0.36	1.9	2.8	1.8	61.9
	340	184	150	4	1	1650	3400	800	1100		2097740	1	237	328	1	3	0.25	2.74	4.08	2.68	63.8
	350	140	112	4	1.5	1260	2250	750	1000	200TDO350-1		1	237	333	1.5	3	0.39	1.7	2.6	1.7	51.9
	356	152	111	6	1.5	1190	2470	750	1000	200TDO356-1		1	249	341	1.5	5	0.33	2	3	2	59.8
	360	142	110	5	1.5	1100	1780	750	1000	200TDO360-1		1	227	338	1.5	4	0.4	1.7	2.5	1.6	52.6
	360	218	174	5	1.5	1860	3500	750	1000		97540E	1	227	342	1.5	4	0.4	1.7	2.5	1.6	87.2
205	320	146	111	5	1.5	990	2120	940	1100	205TNA320-1		2	238	307	1.5	4	0.52	1.3	1.9	1.3	40.2
	320	150	110	4	1.5	990	2120	940	1100		37741	2	238	307	1.5	4	0.39	1.72	2.56	1.68	40.2
206	283	102	83	4	1.5	580	1430	1000	1300	206TDO283-1		1	231	275	1.5	3	0.51	2	0.51	1.3	18.1
210	300	110	85	1	1	735	1550	940	1100	210TDO300-1		1	233	291	0.8	0.8	0.38	1.8	2.6	1.7	22.6
	355	116	103	4	1.5	905	1520	920	1050	210TDO355-1		1	248	342	1.5	3	0.46	1.5	2.2	1.4	41.7
	360	190	160	5	1.5	1620	3200	920	1050	210TDO360-1		1	251	348	1	3	0.39	1.8	2.6	1.7	74.7

Double-row Taper Roller Bearing



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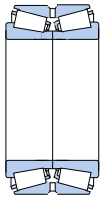
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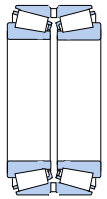
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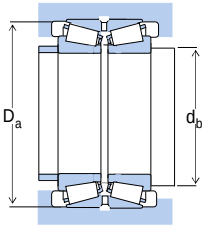
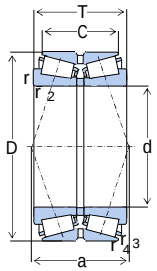


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
220	300	110	88	3	1	730	1710	810	1100		2097944	1	244	293	1	2.5	0.37	1.8	2.7	1.8	21.2
	340	90	80	4	1.5	695	1280	750	1000	220TDO340-1		1	241	324	1.5	3	0.4	1.7	2.5	1.6	27.9
	340	113	90	4	1.5	920	1830	750	1000	220TDO340-2		1	241	327	1.5	3	0.4	1.7	2.5	1.6	34.7
	340	130	110	4	1.5	920	1830	750	1000	220TNA340-1		2	255	330	1	2.5	0.4	1.7	2.5	1.6	39.7
	340	158	130	4	1	1340	2750	750	1000	220TDO340-1		1	238	324	1	3	0.33	2	3	2	46.7
	340	164	130	4	1	1567	3182	750	1000	220TDO340-2		1	234	323	1	2.5	0.43	1.6	2.3	1.6	50
	340	165	130	4	1	1567	3182	750	1000		2097144	1	234	323	1	2.5	0.43	1.6	2.3	1.6	50
	370	120	107	5	1.5	1235	2166	710	950	220TDO370-1		1	247	345	1.5	4	0.4	1.7	2.5	1.7	49
	370	150	120	5	1.5	1460	2760	710	950	220TDO370-2		1	247	349	1.5	4	0.39	1.7	2.6	1.7	60.2
	370	195	150	4	1.5	1530	3200	760	1000		2097744	1	247	349	1	2.5	0.37	1.83	2.72	1.79	76.3
	400	150	114	5	1.5	1390	2300	670	900	200TDO400-1		1	266	381	1.5	4	0.4	1.7	2.5	1.6	70.9
	400	158	122	5	1.5	1390	2300	670	900	200TDO400-2		1	247	371	1.5	4	0.4	1.7	2.5	1.6	74.2
	420	130	100	5	2.5	1160	1820	760	1000	220TDO420-1		1	242	378	2	4	0.4	1.7	2.5	1.6	73.1
225	360	146.5	111	3	1	1160	1820	760	1000		37745	2	259	335	1	12.5	0.36	1.87	2.79	1.83	48.2
230	355	145	110	6	1.5	1160	2370	760	1000		37746	2	264	340	1	4	0.36	1.87	2.79	1.83	49
	355	146	111	6	1.5	1160	2370	760	1000	230TNA355-1		2	264	340	1	4	0.33	2	3	2	48.2
	355.64	144	110	6	1.5	1250	2590	760	1000	230TDO355-2A		1	258	331.4	1.5	5	0.35	1.95	2.9	1.91	47.5
	380	175	115	5	1.5	1470	2890	760	1000	230TDO380-1		1	276	365	1.5	4	0.8	0.85	1.3	0.83	69.9
	380	200	160	5	1.5	1930	3800	760	1000	230TDO380-2		1	270	367	1.5	4	0.33	2	3	2	80.9
	400	188	136	7.5	1.5	1620	3000	710	950	230TDO400-1		1	274	379	1	6	0.44	1.5	2.3	1.5	85.9
	410	180	120	5	1.5	1770	3150	710	950	230TDO410-1		1	278	395	1.5	4	0.55	1.2	1.8	1.2	91.5
230	420	200	160	5	1.5	1960	3630	710	950	230TDO420-1		1	252	390.4	1.5	4	0.47	1.43	2.12	1.4	114
	430	215	130	6	1.5	2040	3700	710	950	230TDO430-1		1	291	416	1.5	5	0.86	0.79	1.2	0.77	128
	450	265	164	6	1.5	2730	4850	710	950	230TDO450-1		1	295	433	1.5	5	0.87	0.78	1.2	0.76	175
240	320	105	82	3	1	830	1960	760	1000		2097948	1	254	312	1	2.5	0.32	2.12	3.15	2.07	22.3
	320	109	90	3	1	830	1960	760	1000	240TDO320-1		1	254	312	1	2.5	0.46	1.47	2.19	1.44	24
	320	110	87	3	1	795	1890	760	1000		2097948K	1	252	314	1	2	0.32	2.12	3.15	2.07	23
	320	110	90	2.5	1	795	1890	760	1000	240TDO320-2		1	252	314	1	2	0.46	1.5	2.2	1.4	21.6

Double-row Taper Roller Bearing



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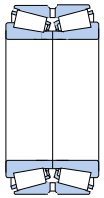

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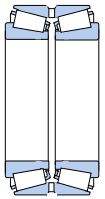

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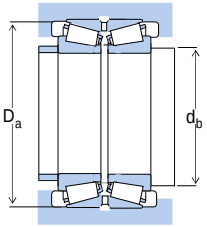
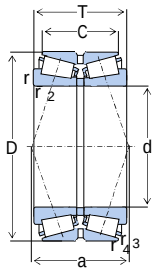


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
	360	92	82	4	1.5	780	1490	670	950	240TDO360-1		1	261	344	1.5	3	0.39	1.7	2.6	1.7	30.1
	360	115	92	4	1.5	1020	2040	670	950	240TDO360-2		1	261	344	1.5	3	0.39	1.9	2.9	1.9	37.3
	360	164	130	3	1	1420	3050	670	950	240TDO360-3		1	254	356	1	2.5	0.32	2.1	3.2	2.1	51.9
	360	165	130	3	1	1420	3050	690	920		2097148	1	254	356	1	2.5	0.32	2.1	3.2	2.1	52.8
	360	170	142	4	1	1350	2870	690	920	240TDO360-4		1	274	351	1	3	0.39	1.7	2.6	1.7	54.1
	400	128	114	5	1.5	1180	2190	630	850	240TDO400-1		1	267	380	1.5	4	0.43	1.6	2.3	1.5	60
	400	160	128	5	1.5	1620	3050	630	850	240TDO400-2		1	267	378	1.5	4	0.39	1.7	2.6	1.7	73.6
	400	209	168	4	1.5	2140	4350	630	850	240TDO400-3		1	258	376	1.5	3	0.32	2.1	3.2	2.1	94.1
	400	210	163	4	1.5	2140	4350	630	850		2097748	1	258	376	1.5	3	0.32	2.1	3.2	2.1	94
	407	216	185	6	1.5	2220	4450	630	850	240TDO407-1		1	285	393	1.5	5	0.33	2	3	2	106
	440	165	127	4	1.5	1680	2960	630	850	240TDO440-1		1	258	406	1.5	3	0.49	1.4	2.1	1.4	100.4
	440	266	212	4	1.5	2920	5500	630	850	240TDO440-2		1	258	421.5	1.5	3	0.43	1.6	2.3	1.5	164.8
	500	282	168	6	1	3060	5000	600	850	240TDO500-1		1	268	481	1	5	0.94	0.72	1.07	0.7	250
250	380	98	87	4	1	795	1460	600	850	250TDO380-1		1	285	369	1	3	0.4	1.7	2.5	1.6	35.5
	480	210	180	6	2	2400	3900	600	850	250TDO480-1		1	278	447.2	2	5	0.4	1.68	2.5	1.64	156
260	360	105	76	3	1	940	1900	670	900	260TDO360-1		1	274	346	1	2.5	0.35	1.9	2.9	1.8	28
	360	133	109	3	1	1100	2630	670	900	260TDO360-2		1	274	346	1	2.5	0.43	1.57	2.34	1.53	38.6
	360	134	108	3	1	1100	2630	670	900		2097952	1	274	346	1	2.5	0.43	1.57	2.34	1.53	39
	390	146	112	5	1.5	1260	2440	630	850	260TNA390-1		2	295	379	1.5	4	0.39	1.7	2.5	1.7	52.3
	400	104	92	5	1.5	1064	1976	630	850	260TDO400-1		1	287	379	1.5	4	0.4	1.7	2.5	1.6	44
	400	130	104	5	1.5	1210	2460	600	850	260TDO400-2		1	287	382	1.5	4	0.4	1.7	2.5	1.6	54.1
260	400	146	108	6	1.5	1300	2570	600	850	260TDO400-1		1	288	374	1.5	5	0.39	1.71	2.54	1.67	65
	400	149	110	6	1.5	1270	2600	600	850	260TDO400-2		1	288	371.4	1.5	5	0.35	1.95	2.9	1.91	61.6
	400	150	110	6	1.5	1280	2630	630	840		37852	2	288	371.4	1.5	5	0.35	1.95	2.99	1.91	60.3
	400	155	108	9.5	1.6	1260	2440	630	840	260TDO400-3		1	300	383	1.6	9.5	0.39	1.7	2.5	1.7	58
	400	185	146	4	1.5	1720	3650	630	840	260TDO400-4		1	278	376	1.5	3	0.29	2.3	3.4	2.3	75.1
	400	186	146	4	1.5	1720	3650	630	840		2097152	1	278	376	1.5	3	0.29	2.3	3.4	2.3	76
	430	179	130	7.5	1.5	1820	3710	630	840	260TDO430-1		1	296	395	1.5	6	0.35	1.95	2.9	1.91	94.3
	430	180	130	7.5	1.5	1820	3710	630	840		37752	2	296	395	1.5	6	0.35	1.95	2.9	1.91	87.9

Double-row Taper Roller Bearing



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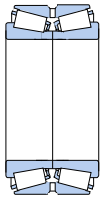

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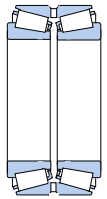

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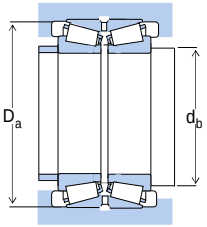
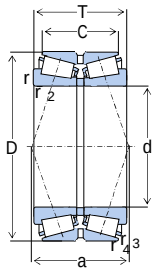


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Damax	rb max	ra max	e	Y1	Y2	Y0	Refer.
	440	172	145	5	1.5	1860	3500	560	800	260TDO440-2		1	305	422	1.5	4	0.38	1.8	2.6	1.7	98.1
	440	180	144	5	1.5	2110	4150	560	800	260TDO440-3		1	287	416	1.5	4	0.39	1.7	2.6	1.7	104
	440	224	180	5	1.5	2700	5350	580	770	260TDO440-4		1	282	408.5	1.5	4	0.24	2.84	4.23	2.78	130
	440	225	180	5	1.5	2200	4800	580	770		2097752	1	282	408.5	1.5	4	0.24	2.84	4.23	2.78	131
	445	144	128	5	1.5	1540	2760	580	770	260TDO445-1		1	306	426	1.5	4	0.39	1.7	2.6	1.7	86
	480	284	220	5	1.5	3819	6982	580	770	260TDO480-1		1	322	515	1.5	4	0.43	1.6	2.3	1.6	210
	530	275	163.9	6	2.5	3150	5650	560	740	260TDO530-1		1	337	510	2	5	0.94	0.72	1.1	0.7	259
270	355	120	95	3	1.5	890	2260	560	740	270TDO355-1		1	295	347	1	2.5	0.35	1.9	2.9	1.9	29.3
280	380	134	108	3	1	940	2650	620	820		2097956	1	315	368	1	3	0.32	2.1	3.13	2.05	44
	400	150	120	6	1.5	1290	2870	620	820	280TDO400-1		1	315	389	1.5	5	0.39	1.8	2.6	1.7	54.2
	420	106	94	5	1.5	915	1820	620	820	280TDO420-1		1	318	406	1.5	4	0.44	1.5	2.3	1.5	46.7
	420	133	106	5	2	1350	2760	620	820	280TDO420-2		1	319	407	2	4	0.4	1.7	2.5	1.6	59.7
	420	186	146	5	1.5	1800	4100	620	820		2097156	1	319	442	1.5	4	0.37	1.83	2.72	1.79	81.5
	425	133	106	5	2	1350	2760	620	820	280TDO425-1		1	319	409	2	4	0.4	1.7	2.5	1.6	62.3
	460	146	130	6	2	1660	3000	580	770	280TDO460-1		1	323	440	2	5	0.39	1.7	2.6	1.7	88.2
	460	183	146	6	1.5	2170	4250	580	770	280TDO460-2		1	327	442	1.5	5	0.39	1.7	2.6	1.7	109
	470	250	180	6.4	1.5	3296	6080	580	770	280TDO470-1		1	330	450	1.5	5	0.46	1.5	2.2	1.4	155
	500	195	145	6	1.5	2470	4500	580	770	280TDO500-1		1	335	479	1.5	5	0.45	1.5	2.2	1.5	155
289	422	186	146	6	1.5	2040	4650	580	770	289TDO422-1		1	326	410	1.5	5	0.31	2.2	3.2	2.1	82.3
290	400	120	90	5	1.5	1050	2380	580	770	290TDO400-1		1	322	389	1.5	4	0.41	1.6	2.4	1.6	40.7
	405	165	130	5.5	1	1530	3650	580	770	290TDO405-1		1	324	395	1	5.5	0.34	2	3	2	59.9
	430	150	135	4	1.5	1350	3200	580	770	290TDO430-1		1	308	407	1.5	3	0.39	1.7	2.6	1.7	73.5
300	420	148	118	5	2	1290	2960	580	770	300TDO420-1		1	335	408	2	4	0.41	1.6	2.4	1.6	58.9
	420	160	128	4	1	1600	3610	580	770	352960X2		1	318	481	1	4	0.28	2.39	3.56	2.34	60.8
	440	139	100	4	0.6	1360	2870	560	740	300TDO440-1		1	318	411.9	0.6	3	0.37	1.8	2.69	1.76	63.8
	460	118	105	5	1.5	1130	2180	560	740	300TDO460-1		1	344	446	1.5	4	0.42	1.6	2.4	1.6	64.8
	460	148	118	5	1.5	1570	3300	560	740	300TDO460-2		1	347	448	1.5	4	0.42	1.6	2.4	1.6	83.3
	460	210	165	5	1.5	2100	4800	560	740		2097160	1	347	484	1.5	4	0.36	1.85	2.76	1.81	118

Double-row Taper Roller Bearing



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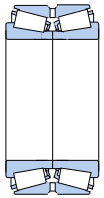
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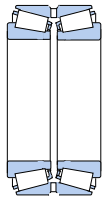
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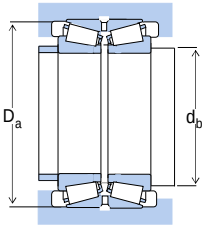
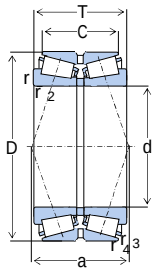


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
	500	160	142	6	2	1970	3600	530	710	300TDO500-1		1	350	481	2	5	0.39	1.7	2.6	1.7	115
	500	179	125	7.5	1.5	1980	3760	530	710	300TDO500-2		1	336	455	1.5	5	0.26	2.55	3.8	2.5	122
	500	200	160	6	2	2530	5000	530	710		97860	1	352	481	2	5	0.39	1.7	2.6	1.7	146
	500	203	152	5	1.5	2670	4850	530	710	300TDO500-3		1	352	481	1.5	4	0.4	1.7	2.5	1.6	140
	500	205	152	5	1.5	2670	4850	530	710		1097760	1	352	481	1.5	4	0.4	1.7	2.5	1.6	140
	502	200	160	6	2	2530	5000	530	710	300TDO502-1		1	352	482	2	5	0.39	1.7	2.6	1.7	148
	540	208	158	5	2.5	2440	450	500	660	300TDO540-1		1	322	498	2	4	0.49	1.4	2.1	1.4	184
	560	170	50	5	5	3200	3800	500	660		370660/HC	1	322	536	4	4	0.81	0.823	1.23	0.81	197
	600	310	220	6	1.5	4450	7900	500	660	300TDO600-1		1	370	571	1.5	4	0.35	1.9	2.9	1.9	357
305	560	223	130	5	2.5	2530	4700	500	660	305TDO560-1		1	327	530	2	4	1.09	0.6	0.9	0.6	227
310	470	200	148	9.5	1.5	2230	4800	530	710	310TDO470-1		1	359	456	1.5	8	0.4	1.7	2.5	1.6	11
320	480	121	108	5	1.5	1310	2550	530	710	320TDO480-1		1	359	462	1.5	4	0.4	1.7	2.5	1.6	70.9
	480	151	121	5	1.5	1750	3700	530	710		97764	1	362	464	1.5	4	0.4	1.7	2.5	1.6	88
	480	215	163	5	1.5	2580	5850	530	710	320TDO480-2		1	365	468	1.5	4	0.46	1.5	2.2	1.4	125
	480	220	186	5	1	2580	5850	530	710	352064	2097164	1	365	468	1.5	4	0.46	1.47	2.19	1.44	134
	540	176	130	6	2	2360	4450	530	710	320TDO540-1		1	375	516	2	4	0.39	1.7	2.6	1.7	153
	540	176	157	6	2	2430	4600	530	710	320TDO540-2		1	375	520	2	5	0.39	1.7	2.6	1.7	153
	540	220	176	6	2	3050	6100	530	710	320TDO540-3		1	379	520	2	5	0.39	1.7	2.6	1.7	190
	550	240	180	5	2.5	3300	6500	530	710	320TDO550-1		1	342	514	2	4	0.4	1.7	2.5	1.6	222
330	500	190	150	6	1.5	2360	5200	500	660	330TDO500-1		1	377	485	1.5	5	0.39	1.7	2.6	1.7	125
330.25	528	292	210	特殊	1	3250	7250	500	660	330TDO528-1A		1	393	513	1	--	0.43	1.6	2.3	1.5	221
340	460	160	128	3	1	1950	4650	500	660		2097968	1	354	441	1	2.5	0.31	2.2	3.3	2.2	71
	500	150	120	2	6	1780	3630	500	660	340TDO500-1		1	368	475.3	2	5	0.42	1.62	2.42	1.59	91.4
	500	154	110	1.5	6	1780	3630	500	660	340TDO500-2		1	368	477	1.5	5	0.42	1.62	2.42	1.59	99
	500	249	203	5	1.5	2690	6200	500	660	340TDO500-3		1	362	481	1.5	4	0.33	2	3	2	147
	500	249.22	203.2	5	1.5	2950	6850	500	660	340TDO500-4		1	381	485	1.5	4	0.28	2.4	3.6	2.4	149
	520	133	118	6	2	1580	3150	500	660	340TDO520-1		1	387	501	2	5	0.37	1.8	2.7	1.8	94.9

Double-row Taper Roller Bearing



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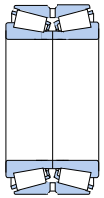
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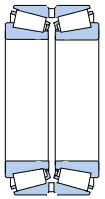
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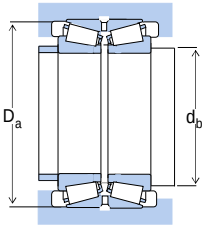
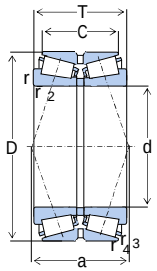


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
	520	165	133	6	2	2140	4300	460	620	340TDO520-2		1	386	503	2	5	0.39	1.7	2.6	1.7	118
	580	190	169	6	2	2690	5150	460	620	340TDO580-1		1	399	554	2	5	0.39	1.7	2.6	1.7	194
	580	238	190	6	2	3450	7050	460	620	340TDO580-2		1	401	557	2	5	0.39	1.7	2.6	1.7	240
	580	241	170	6	1.5	3480	6890	460	620	340TDO580-3		1	368	540	1.5	5	0.43	1.57	2.34	1.53	237
	580	242	170	6	1.5	3480	6890	460	620		1097768	1	368	540	1.5	5	0.43	1.57	2.34	1.53	238
	580	305	241	6	2	4700	10200	460	620	340TDO580-4		1	401	557	2	4	0.33	2	3	2	323
360	480	160	128	4	1	1950	4750	510	680		2097972	1	405	460	1	3	0.33	2	3	2	74.7
	540	134	120	6	2	1690	3300	460	620	360TDO540-1		1	405	522	2	5	0.39	1.7	2.6	1.7	97.6
	540	169	134	6	2	2280	4800	460	620		97872	1	409	524	2	5	0.39	1.7	2.6	1.7	123
	540	184	140	6	1.5	2400	4980	460	620	360TDO540-2		1	388	510	1.5	5	0.29	2.32	3.45	2.26	131
	540	185	140	6	1.5	2400	4980	460	620		97172	1	388	510	1.5	5	0.29	2.32	3.45	2.26	132
	560	300	240	6	2	4100	9500	400	520	360TDO560-1		1	410	540	2	4	0.28	2.4	3.6	2.4	254
	600	192	171	6	2	2860	5750	400	520	360TDO600-1		1	420	577	2	5	0.41	1.6	2.4	1.6	214
	600	240	192	6	2	3850	8000	400	520	360TDO600-2		1	420	577	2	5	0.39	1.7	2.6	1.7	260
	600	242	170	6	2	3200	7100	400	520		1097772	1	420	577	2	5	0.44	0.54	2.3	1.51	221
	605	192	171	6	2	2860	5750	400	520	360TDO605-1		1	420	579	2	5	0.41	1.6	2.4	1.6	220
370	680	280	188	7.5	4	4400	8500	380	500	370TDO680-1		1	452	652	3	6	0.7	0.97	1.4	0.94	417
380	508	139.7	88.9	6.4	1.5	920	2270	380	500	380TDO508-1		1	408	483	1.5	5	0.53	1.3	1.9	1.2	69.5
	520	145	105	4	1	1950	3950	530	710		1097976	1	424	502	1	3	0.38	1.77	2.64	1.73	78.8
	520	148	112	4	1.5	2050	4280	530	710	380TDO520-1		1	424	502	1.5	3	0.3	2.3	3.4	2.2	80.2
380	560	135	122	6	2	1830	3700	530	710	380TDO560-1		1	424	541	2	5	0.37	1.8	2.7	1.8	110
	560	171	135	6	2	2480	5450	530	710	380TDO560-2		1	428	543	2	5	0.37	1.8	2.7	1.8	136
	560	190	140	6	2	2700	6400	410	540		97176	1	428	543	2	5	0.39	1.75	2.61	1.71	137
	620	194	173	6	2	2560	4850	410	540	380TDO620-1		1	437	596	2	5	0.39	1.7	2.6	1.7	206
	620	241	170	5	2	3700	7400	410	540	380TDO620-2		1	402	582	2	4	0.46	1.5	2.2	1.4	253
	620	242	170	6	2	3950	8550	410	540		1097776	1	443	599	2	5	0.46	1.47	2.18	1.43	256
	620	243	194	6	2	3950	8550	410	540	380TDO620-3		1	443	599	2	5	0.39	1.7	2.6	1.7	276
	660	380	310	14	3.5	7270	15200	410	540	380TDO660-1		1	443	622	3	12	0.33	2	3	2	520
385	550	220	180	6	1.5	3150	8000	410	540	385TDO550-1		1	429	534	1.5	5	0.33	2	3	2	162

Double-row Taper Roller Bearing



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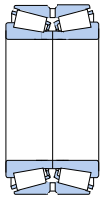
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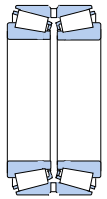
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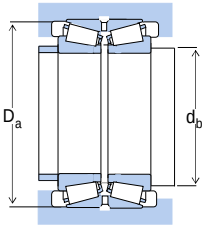
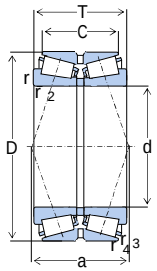


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
390	600	185	130	5	1.5	2470	5300	410	540	390TDO600-1		1	442	575	1.5	4	0.37	1.8	2.7	1.8	178
	600	310	220	6	1.5	3800	8750	410	540	390TDO600-2		1	444	581	1	4	0.35	1.9	2.9	1.9	279
	630	254	170	1.5	6	3460	7490	410	540	390TDO630-1		1	418	601	1.5	5	0.76	0.88	1.31	0.86	290
400	540	140	100	6	1	1400	3300	410	540	400TDO540-1		1	440	527	1	5	0.48	1.4	2.1	1.4	78.4
	590	185	123	6	1	2400	5100	410	540	400TNA590-1		2	419	560	1	5	0.32	2.12	3.15	2.07	150
	600	148	132	6	2	2080	4250	410	540	400TDO301		1	450	579	2	5	0.37	1.8	2.7	1.8	135
	600	185	148	6	2	2710	5950	410	540	400TDO600-1		1	453	581	2	5	0.37	1.8	2.7	1.8	173
	600	195	148	6	2	3070	6430	410	540	400TDO600-2		1	428	560	2	5	0.32	2.12	3.15	2.07	177
	600	205	150	6	1.5	2830	6270	410	540	400TDO600-3		1	428	560	1.5	5	0.4	1.68	2.5	1.64	187
	600	206	150	6	1.5	2830	6270	410	540	351080		1	428	560	1.5	5	0.38	1.78	2.65	1.74	179
	650	200	178	6	3	3300	6750	410	540	400TDO650-1		1	458	622	2.5	5	0.39	1.7	2.6	1.7	253
	650	250	200	6	3	4200	9150	410	540	400TDO650-2		1	462	625	2.5	5	0.39	1.7	2.6	1.7	309
	650	255	200	6	3	4200	9150	360	480		1097780	1	462	625	2.5	5	0.41	1.66	2.47	1.63	279
	650	280	180	6	2.5	3800	8400	360	480	400TDO650-3		1	478	628	2	5	0.87	0.78	1.2	0.76	340
	820	295	180	7.5	4	5300	8950	360	480	400TDO820-1		1	498	775	3	6	0.61	1.1	1.7	1.1	638
420	600	150	134	6	2	2240	4750	360	480	420TDO600-1		1	467	588	2	5	0.39	1.7	2.6	1.7	131
	620	150	134	6	2	2240	4750	360	480	420TDO620-1		1	467	598	2	5	0.39	1.7	2.6	1.7	151
	620	188	150	6	2	2850	6450	360	480	420TDO620-2		1	471	600	2	5	0.39	1.7	2.6	1.7	184
	620	190	125	6	2	2060	4380	360	480	420TDO620-3		1	448	583	1.5	5	0.35	1.95	2.91	1.91	184
420	620	205	150	6	2	2870	6160	360	480	420TDO620-4		1	448	585	1.5	5	0.4	1.68	2.5	1.64	180
	620	206	150	6	2	2870	6160	360	480	351084		1	448	585	1.5	5	0.41	1.64	2.44	1.6	191
	622.3	240	135	7.5	1.5	2720	6350	360	480	420TDO622-1A		1	493	610	1.5	6	1.3	0.54	0.8	0.52	232
	700	224	200	6	3	3950	8200	360	480		373184	1	486	670	2.5	5	0.32	2.12	3.15	2.07	382
	700	274	200	6	2.5	4650	9600	360	480	420TDO700-1		1	486	669	2	5	0.32	2.1	3.2	2.1	390
	700	275	200	6	2.5	4650	9600	360	480		1097784	1	486	669	2	5	0.32	2.12	3.15	2.07	376
	700	280	224	6	3	5150	11500	360	480	420TDO700-1		1	493	673	2.5	5	0.39	1.7	2.6	1.7	422
440	650	157	140	6	3	2540	5600	360	480	440TDO650-1		1	493	628	2.5	5	0.37	1.8	2.7	1.8	175
	650	196	157	6	3	3500	7270	360	480	440TDO650-2		1	497	630	2.5	5	0.37	1.8	2.7	1.8	203
	650	211	152	6	2.5	3150	6900	360	480	440TDO650-3		1	468	615	2	5	0.43	1.57	2.34	1.53	211

Double-row Taper Roller Bearing



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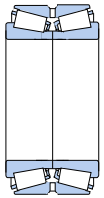
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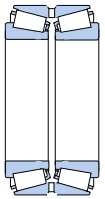
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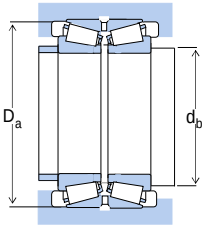
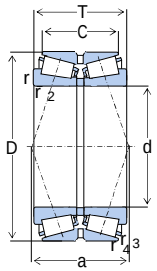


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
	655	196	157	6	3	3100	7300	360	480	440TDO655-1		1	497	633	2.5	5	0.37	1.8	2.7	1.8	220
	720	226	201	6	3	4100	8500	340	460	440TDO720-1		1	505	691	2.5	5	0.39	1.7	2.6	1.7	355
	720	283	226	6	3	5300	11700	340	460	440TDO720-2		1	511	694	2.5	5	0.39	1.7	2.6	1.7	438
457	537	170	135	6	2.5	1760	5250	320	400	457TDO537-11		1	493	561	2	5	0.4	1.7	2.5	1.7	91.8
460	620	169	131	5	1.5	2260	5450	320	400	460TDO620-1		1	501	605	1.5	4	0.4	1.7	2.5	1.6	132
	640	200	160	6	2.5	2350	6350	320	400	460TDO640-1		1	517	627	2	5	0.47	1.4	2.1	1.4	185
	680	163	145	6	3	2680	5900	320	400	460TDO680-1		1	515	657	2.5	5	0.4	1.7	2.5	1.6	199
	680	204	163	6	3	3400	7950	320	400	460TDO680-2		1	518	659	2.5	5	0.4	1.7	2.5	1.6	244
	680	229	175	6	3	3430	7390	320	400	460TDO680-3		1	488	645	2	5	0.32	2.12	3.15	2.07	251
	760	240	214	7.5	4	3650	7100	320	400	460TDO760-1		1	532	728	3	6	0.39	1.7	2.6	1.7	421
	760	300	240	7.5	4	5850	13100	320	400	460TDO760-2		1	538	732	3	6	0.39	1.7	2.6	1.7	522
480	615	120	94	3	1	1340	3400	360	480	480TDO615-1	1097996	1	514	600	1	2.5	0.35	1.9	2.9	1.9	80.5
	650	180	130	5	1.5	1980	5200	360	480			1	538	615	1.5	4	0.42	1.61	2.4	1.58	159
	700	165	147	6	3	2850	6150	300	380	480TDO700-1		1	534	678	2.5	5	0.39	1.7	2.6	1.7	207
	700	206	165	6	3	3550	8100	300	380	480TDO700-2		1	536	678	2.5	5	0.39	1.7	2.6	1.7	253
	700	275	200	6	3	4320	10300	300	380	480TDO700-3		1	508	676	2.5	5	0.55	1.24	1.84	1.21	350
	790	248	221	7.5	4	4800	10000	300	380	480TDO790-1		1	553	757	3	6	0.39	1.7	2.6	1.7	472
	790	310	248	7.5	4	6300	14100	300	380	480TDO790-2		1	559	760	3	6	0.39	1.7	2.6	1.7	579
490	640	179	144	7.5	2	2430	6480	320	400	490TDO640-1		1	526	615	2	6	0.37	1.8	2.69	1.76	139
500	670	180	130	5	2	2400	6100			3519/500/HC		1	522	637	2	4	0.4	1.7	2.5	1.6	157
	720	167	149	6	3	2730	6100			500TDO720-1		1	552	696	2.5	5	0.39	1.7	2.6	1.7	216
	720	209	167	6	3	3600	8700			500TDO720-2		1	557	698	2.5	5	0.39	1.7	2.6	1.7	266
	720	236	180	6	3	3600	8700				971/500		557	698	2	6	0.32	2.08	3.1	2.04	276
	830	264	235	7.5	4	5400	11500			500TDO830-1		1	577	793	3	6	0.39	1.7	2.6	1.7	563
	830	330	264	7.5	4	7000	16000			500TDO830-2		1	583	797	3	6	0.39	1.7	2.6	1.7	692
	910	360	260	7.5	4	7300	14900			500TDO910-1		1	599	868	3	6	0.55	1.2	1.8	1.2	929
505	660	235	180	6	1.5	3250	9000			505TDO660-1		1	546	645	1.5	5	0.31	2.2	3.3	2.1	193
506	636	187	147	7	2	2360	7000			506TDO636-1		1	546	625	2	7	0.35	1.9	2.8	1.9	128

Double-row Taper Roller Bearing



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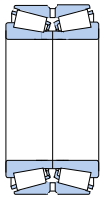
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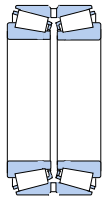
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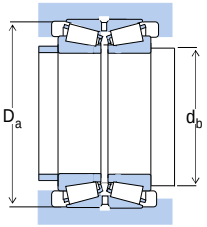
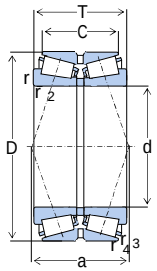


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	New	Oil	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
515	720	180	140	6	3	2730	6100			515TDO720-1		1	560	693	2.5	5	0.39	1.7	2.6	1.7	204
520	740	189	120	6	3	2580	5320			520TDO740-1		1	534	695	2.5	2	0.48	1.42	2.11	1.39	215
530	710	189	136	6	1.5	3100	7590			530TDO710-1		1	558	680	1.5	5	0.4	1.68	2.5	1.64	189
	710	190	136	6	1.5	3100	7590				10979/530	1	558	680	1.5	5	0.4	1.68	2.5	1.64	190
	780	185	163	6	3	3600	8200			530TDO780-1		1	589	752	2.5	5	0.37	1.8	2.7	1.8	295
	780	231	185	6	3	4450	10700			530TDO780-2		1	593	754	2.5	5	0.37	1.8	2.7	1.8	362
	870	272	239	7.5	4	5850	12500			530TDO870-1		1	610	834	3	6	0.39	1.7	2.6	1.7	620
	870	340	272	7.5	4	7300	16600			530TDO870-2		1	614	836	3	6	0.39	1.7	2.6	1.7	771
540	850	300	200	7.5	4	5750	12500			540TDO850-1		1	623	824	3	6	0.65	1	1.5	1	575
560	735	225	180	6.4	1.5	3950	11200			560TDO735-1		1	608	719	1.5	6.4	0.35	1.9	2.9	1.9	244
	740	190	140	6.4	1.5	3000	7800			560TDO740-1		1	606	720	1.5	6.4	0.34	2	2.9	1.9	200
	750	212	156	6.4	1.5	3290	8250			560TDO750-1		1	588	720	1.5	6.4	0.43	1.57	2.34	1.53	234
	820	195	173	6	3	3700	8650			560TDO820-1		1	622	790	2.5	5	0.39	1.7	2.6	1.7	342
	820	244	195	6	3	4900	12400			560TDO820-2		1	627	793	2.5	5	0.39	1.7	2.6	1.7	423
	920	280	246	7.5	4	6300	13400			560TDO920-1		1	643	881	3	6	0.39	1.7	2.6	1.7	724
	920	350	280	7.5	4	8100	18600			560TDO920-2		1	649	885	3	6	0.39	1.7	2.6	1.7	891
570	815	345	265	6	3	6850	18600			570TDO815-1		1	633	791	2.5	5	0.33	2	3	2	551
580	800	300	235	6	3	5900	15600			580TDO800-1		1	635	781	2.5	5	0.33	2.1	3.1	2	430
	900	300	200	7.5	4	5950	13400			580TDO900-1		1	667	873	3	6	0.7	0.97	1.4	0.94	634
590	780	255	178	5	2.5	3900	10500			590TDO780-1		1	612	754	2	4	0.39	1.7	2.6	1.7	291
	990	400	270	7.5	4	8600	19300			590TDO990-1		1	695	954	3	6	0.67	1	1.5	0.98	1140
600	800	205	156	5	1.5	3200	9400				3519/600	1	666	770	1.5	4	0.33	2.05	3.05	2	247
	870	200	176	6	3	4150	9650			600TDO870-1		1	666	841	2.5	5	0.39	1.7	2.6	1.7	387
	870	250	200	6	3	5350	13400			600TDO870-2		1	669	844	2.5	5	0.39	1.7	2.6	1.7	497
	870	269	198	6	3	5650	13500			600TDO870-3		1	628	830	2	5	0.4	1.68	2.5	1.64	494
	980	300	264	7.5	4	7350	16300			600TDO980-1		1	688	938	3	6	0.37	1.8	2.7	1.8	882
	980	388	300	7.5	4	9700	23200			600TDO980-2		1	696	943	3	6	0.37	1.8	2.7	1.8	1120

Double-row Taper Roller Bearing



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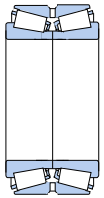
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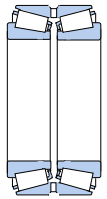
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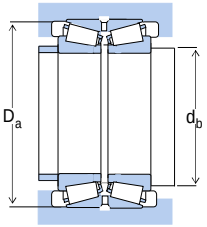
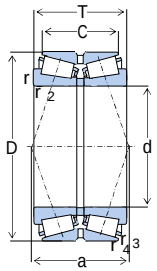


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
620	825	190	145	6	1.5	2860	7850			620TDO825-1		1	668	793	1.5	5	0.33	2.1	3.1	2	247
630	800	180	140	6	1.5	2960	8310			630TDO800-1		1	658	775	1.5	5	0.37	1.8	2.69	1.76	210
	920	212	186	7.5	4	4650	11100			630TDO920-1		1	702	887	3	6	0.36	1.9	2.8	1.8	464
	920	265	212	7.5	4	5850	15000			630TDO920-2		1	705	889	3	6	0.36	1.9	2.8	1.8	574
	1030	315	277	7.5	4	8050	28000			630TDO1030-1		1	730	962	3	6	0.37	1.8	2.7	1.8	1000
	1030	389	315	7.5	4	10100	23000			630TDO1030-2		1	725	992	3	6	0.37	1.8	2.7	1.8	1230
650	820	205	160	6	1	3450	10400			650TDO820-1		1	697	804	1	5	0.35	1.9	2.8	1.9	245
	920	210	185	5	2	4650	11100			650TDO920-1		1	709	889	2	4	0.36	1.9	2.8	1.8	428
660	830	180	140	6	2.5	3050	8700			660TDO830-1		1	705	813	2	5	0.39	1.7	2.6	1.7	213
670	880	185	130	5	2	3300	8550			670TDO880-1		1	721	857	2	4	0.45	1.5	2.2	1.5	278
	980	230	202	7.5	4	5300	12300			670TDO980-1		1	743	946	3	6	0.37	1.8	2.7	1.8	571
	980	288	230	7.5	4	6900	16200			670TDO980-2		1	742	948	3	6	0.37	1.8	2.7	1.8	706
	1090	336	295	7.5	4	8750	19600			670TDO1090-1		1	760	1037	3	6	0.37	1.8	2.7	1.8	1210
	1090	392	336	7.5	4	10300	24300			670TDO1090-2		1	764	1042	3	6	0.37	1.8	2.7	1.8	1390
700	980	350	270	7.5	4	8200	22500			700TDO980-1		1	772	953	3	6	0.33	2	3	2	782
700	980	350	270	7.5	4	8100	21300			700TDO980-2		1	736	950	3	6	0.39	1.74	2.59	1.7	763
	1030	250	210	7.5	4	5250	12600			700TDO1030-1		1	786	1004	3	6	0.7	0.97	1.4	0.94	674
	1030	280	210	7.5	4	6050	15100			700TDO1030-2		1	790	1004	3	6	0.7	0.97	1.4	0.94	749
	1030	380	310	7.5	4	7850	19700			700TDO1030-3		1	784	998	3	6	0.35	1.9	2.8	1.9	1040
	1070	348	240	7.5	4	8310	19700			700TDO1070-1		1	736	1010	3	6	0.55	1.24	1.84	1.21	1040
710	950	238.5	175	6	2.5	4600	11400			710TDO950-1	10979/710	1	766	926	2	5	0.46	1.5	2.2	1.4	421
	950	240	175	6	2.5	4600	11400					1	766	926	2	5	0.46	1.47	2.19	1.44	445
	1030	236	208	7.5	4	57500	14000			710TDO1030-1		1	788	995	3	6	0.36	1.9	2.8	1.8	642
	1030	295	236	7.5	4	7100	17200			710TDO1030-2		1	787	999	3	6	0.39	1.7	2.6	1.7	774
	1150	345	303	9.5	5	9470	20100			710TDO1150-1		1	754	1092	4	8	0.39	1.74	2.59	1.7	1350
	1150	393	345	9.5	5	10700	25000			710TDO1150-2		1	812	1103	4	8	0.37	1.8	2.7	1.8	1550
740	1110	340	270	7.5	4	9200	22100			740TDO1100-1		1	827	1072	3	6	0.33	2	3	2	1100

Double-row Taper Roller Bearing



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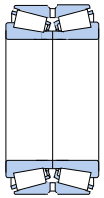
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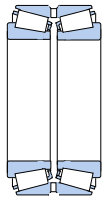
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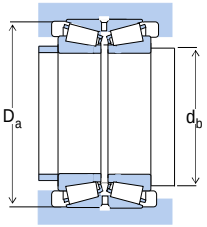
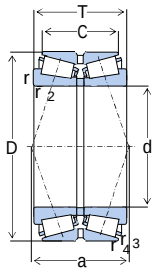


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
750	1090	250	220	7.5	4	6450	15300			750TDO1090-1		1	835	1030	3	6	0.37	1.8	2.7	1.8	749
	1090	313	250	7.5	4	8000	20000			750TDO1090-2		1	833	1055	3	6	0.37	1.8	2.7	1.8	931
	1000	255	190	4	2.5	5400	15100			3519/750X2/HC		1	833	1065	2	3	0.45	1.5	2.24	1.47	535
	1000	264	194	4	2.5	4900	15600			3519/750		1	833	1065	2	3	0.45	1.5	2.24	1.47	546
	1220	365	321	9.5	5	10600	24000			750TDO1220-1		1	870	1140	4	8	0.37	1.8	2.7	1.8	1620
	1220	395	365	9.5	5	12000	28200			750TDO1220-2		1	870	1155	4	8	0.37	1.8	2.7	1.8	1750
780	1150	330	210	7.5	4	7450	18500			780TDO1150-1		1	874	1109	3	6	0.67	1	1.5	0.98	1040
800	1060	270	204	6	2.5	6250	15200				10979/800	1	881	1040	2	5	0.35	1.93	2.87	1.88	606
	1150	258	227	7.5	4	6550	15700			800TDO1150-1		1	881	1113	3	6	0.39	1.7	2.6	1.7	843
	1150	323	258	7.5	4	8500	22700			800TDO1150-2		1	887	1113	3	6	0.37	1.8	2.7	1.8	1050
	1150	350	256	7.5	4	9350	24200			800TDO1150-3		1	836	1093	3	6	0.37	1.8	2.7	1.8	1119
	1280	375	330	9.5	5	11000	23800			800TDO1280-1		1	844	1207	4	8	0.39	1.74	2.59	1.7	1780
	1280	397	375	9.5	5	11800	26200			800TDO1280-2		1	844	1218	4	8	0.39	1.74	2.59	1.7	1910
850	1120	266	190	6	2.5	6340	17100			850TDO1120-1		1	878	1080	2	5	0.46	1.47	2.19	1.44	641
	1120	268	188	6	2.5	6340	17100			3519/850		1	878	1080	5	2	0.46	1.47	2.19	1.44	645
	1220	272	239	7.5	4	7450	18800			850TDO1220-1		1	945	1155	3	6	0.37	1.8	2.7	1.8	988
850	1220	340	272	7.5	4	9850	25000			850TDO1220-1		1	937	1183	3	6	0.37	1.8	2.7	1.8	1240
	1250	360	235	7.5	4	8650	21300			850TDO1250-1		1	949	1209	3	6	0.65	1	1.5	1	1320
	1360	400	352	SP	12	12400	27300			850TDO1360-1		1	904	1284	10	SP	0.39	1.74	2.59	1.7	2170
	1360	500	400	SP	12	16000	37700			850TDO1360-2		1	904	1287	10	SP	0.39	1.74	2.59	1.7	2710
870	1120	210	155	6	2.5	4800	13100			870TDO1120-1		1	929	1092	2	5	0.4	1.7	2.5	1.7	484
880	1080	200	140	6	2.5	4100	12900			880TDO1080-1		1	935	1061	2	5	0.46	1.5	2.2	1.4	379
900	1180	275	205	6	2.5	6950	21300			3519/900	10979/900	1	995	1135	2	5	0.37	1.8	2.69	1.76	763
	1280	280	246	7.5	4	8150	20600			900TDO1280-1		1	995	1210	3	6	0.37	1.8	2.7	1.8	1110
	1280	350	280	7.5	4	10100	26300			900TDO1280-2		1	989	1240	3	6	0.39	1.7	2.6	1.7	1350
950	1250	272	174	7.5	4	6270	17500			950TDO1250-1		1	1010	1200	2.5	12	0.73	0.92	1.37	0.9	786
	1250	298	220	7.5	4	7660	21900			950TDO1250-2		1	986	1190	2.5	6	0.33	2.03	3.02	1.98	896
	1280	280	246	7.5	4	7600	19800			950TDO1280-1		1	1028	1250	3	6	0.4	1.7	2.5	1.6	971
	1360	300	264	7.5	4	9250	23700			950TDO1360-1		1	1055	1290	3	6	0.37	1.8	2.7	1.8	1360

Double-row Taper Roller Bearing



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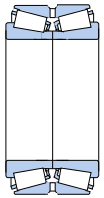
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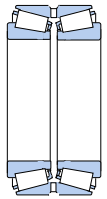
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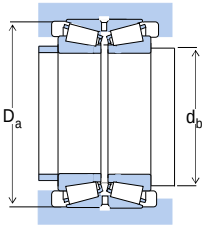
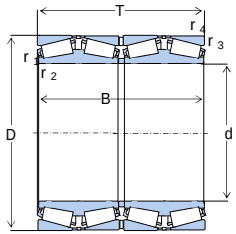


Boundary Dimensions (mm)						Basic Load Ratings (kN)		Speed Ratings (kN)		Designations		Design	Abutment and Fillet Dimensions				Calculation Factors				Mass (kg)
d	D	T	C	r1.2min	r3.4min	Cr	Cor	Grease	Oil	New	Old		da min	Da max	rb max	ra max	e	Y1	Y2	Y0	Refer.
	1360	375	300	7.5	4	11800	32500			950TDO1360-2		1	1055	1300	3	6	0.37	1.8	2.7	1.8	1700
	1360	375	300	7.5	4	11600	29600			950TDO1360-3		1	986	1297	3	6	0.39	1.74	2.59	1.7	1670
	1500	540	380	9.5	4	15500	44500			950TDO1500-1		1	1120	1467	3	8	0.8	0.84	1.3	0.82	3510
980	1200	150	100	6	3	2580	8350			980TDO1200-1		1	1046	1177	2.5	5	0.68	0.99	1.5	0.97	341
1000	1180	240	190	6	1.5	5100	19700			1000TDO1180-1		1	1047	1160	1.5	5	0.32	2.1	3.2	2.1	451
1040	1290	350	270	6	2.5	8850	30000			1040TDO1290-1		1	1068	1260	2	5	0.4	1.7	2.5	1.6	976
1050	1390	300	215	7.5	4	8550	24300			1050TDO1390-1		1	1132	1352	3	6	0.37	1.8	2.7	1.8	1140
	1390	350	280	7.5	4	10100	29600			1050TDO1390-2		1	1134	1357	3	6	0.35	1.9	2.9	1.9	1360
1115	1460	300	220	5	2.5	8200	24000			1115TDO1460-1		1	1137	1397	2	4	0.47	1.4	2.1	1.4	1255
1120	1360	250	180	7.5	4	6050	20700			1120TDO1360-1		1	1185	1335	3	6	0.49	1.4	2	1.3	718
	1480	400	296	12	4	12730	36100			1120TDO1480-1	10979/1120	1	1185	1452	3	10	0.44	1.5	2.3	1.4	1760
	1460	335	250	7.5	3	9000	29500					1	1185	1394	3	6	0.35	1.93	2.87	1.88	1350
1150	1420	250	200	7.5	4	6100	19900			1150TDO1420-1		1	1223	1394	3	6	0.47	1.4	2.1	1.4	808
1160	1540	400	290	12	4	13490	36100			1160TDO1540-1		1	1238	1464	3	10	0.44	1.5	2.3	1.4	1900
1180	1600	390	250	7.5	4	12300	33700			1180TDO1600-1		1	1216	1540	3	6	0.7	0.97	1.44	0.94	2220
1250	1500	250	190	6	1.5	7000	21280			1250TDO1500-1		1	1284	1460	1.5	5	0.35	1.9	2.9	1.8	795
1370	1605	210	150	7.5	4	5600	20300			1370TDO1605-1		1	1430	1575	3	6	0.4	1.7	2.5	1.6	688
1400	1850	360	260	9.5	5	12300	36000			1400TDO1850-1		1	1509	1800	4	8	0.52	1.3	1.9	1.3	2410
1450	1900	460	280	9.5	2	15000	48000			1450TDO1900-1		1	1582	1868	2	8	0.83	0.81	1.2	0.79	3240

Four Row Tapered Roller Bearing



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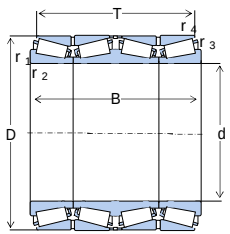
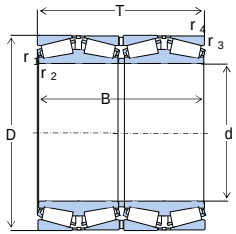


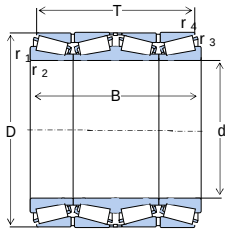
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
100	140	104	100TQO140-1		1	0.29	2.3	3.4	2.3	2.01	4.9
	165	112	100TQO165-1		1	0.35	1.95	2.9	1.91	1.67	8.6
	170	155	100TQO170-1		1	0.32	2.1	3.2	2.1	1.82	14
105	150	110	105TQO150-1		1	0.4	1.7	2.5	1.7	1.46	6.2
	160	100	105TQO160-1		1	0.47	1.43	2.12	1.4	1.24	6.9
	160	150	105TQO160-1		1	0.37	1.8	2.7	1.8	1.58	10.8
	190	210	105TQO190-1		1	0.35	1.9	2.9	1.9	1.67	26
107.95	146.05	106.365	L521949DE/L521910/L521910DE		1	0.39	1.7	2.6	1.7	1.50	5.1
110	150	150	110TQO150-1		1	0.18	3.66	5.46	3.58	3.24	7.1
	155	114	110TQO155-1		1	0.29	2.3	3.4	2.3	2.01	6.6
	160	115	110TQO160-1		1	0.43	1.6	2.3	1.5	1.36	7.4
	180	120	110TQO180-1		1	0.39	1.7	2.6	1.7	1.50	12.1
	180	154	110TQO180-2		1	0.39	1.74	2.59	1.7	1.50	15.4
	180	170	110TQO180-3		1	0.33	2.03	3.02	1.98	1.77	16.7
114.3	190.5	207.963	71451D/71750/71751D		1	0.42	1.62	2.42	1.59	1.39	23.3
115	160	120	115TQO160-1		1	0.39	1.7	2.6	1.7	1.50	7.4
120	170	124	120TQO170-1		1	0.32	2.1	3.2	2.1	1.82	8.5
	180	100	120TQO180-1		1	0.4	1.7	2.5	1.7	1.46	8.5
	200	132	120TQO200-1		1	0.39	1.7	2.6	1.7	1.50	16.5
	210	174	120TQO210-1		1	0.33	2.03	3.02	1.98	1.77	24.6
120.65	161.925	106.365	L624549D/L624514/L624514D		1	0.43	1.6	2.3	1.5	1.36	6.1
	174.625	139.703	M224749DW/M224710/M224710D		1	0.33	2	3	2	1.76	11
127	182.562	158.75	48290DW/48220/48220D		1	0.3	2.3	3.4	2.2	1.91	14
	183	160	127TQO183-1		1	0.31	2.21	3.29	2.16	1.88	13.8
	196.85	193.675	67388D/67322/67322D		1	0.34	1.96	2.92	1.92	1.72	21.6
130	184	134	130TQO184-1		1	0.31	2.2	3.2	2.1	1.88	11.1
	190	170	130TQO190-1		1	0.33	2.03	3.02	1.98	1.77	16
	200	112	130TQO200-1		1	0.4	1.7	2.5	1.7	1.46	12.5

Four Row Tapered Roller Bearing



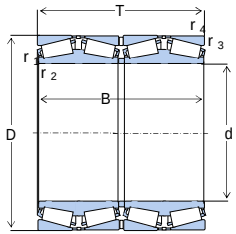
1 (TQO)



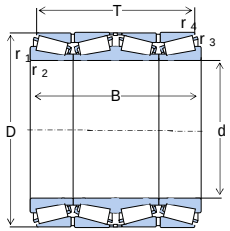
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
130	210	136	130TQO210-1		1	0.39	1.7	2.6	1.7	1.50	17.2
130.175	196.85	200.025	67391D/67322/67323D		1	0.34	1.96	2.92	1.92	1.72	21.1
	222.25	127	73512D/73875/73876D		1	0.44	1.54	2.3	1.51	1.33	19.8
133.35	196.85	193.675	67390D/67322/67322D		1	0.34	1.96	2.92	1.92	1.72	19.4
135	180	160	135TQO180-1		1	0.28	2.4	3.6	2.4	2.08	11.1
	185	140	135TQO185-1		1	0.29	2.3	3.4	2.3	2.01	10.9
	195	160	135TQO195-1		1	0.33	2.03	3.02	1.98	1.77	15.4
136.525	190.5	161.925	48393D/48320/48320D		1	0.32	2.1	3.13	2.06	1.82	14.2
139.7	200.025	160.338	48685D/48620/48620D	77928	1	0.33	2	3	2	1.74	15.5
139.7	200.025	160.34	48680DW/48620/48620D		1	0.34	2.0	3.0	1.9	1.74	17
140	198	144	140TQO198-1		1	0.43	1.6	2.3	1.5	1.36	13.6
	210	111	140TQO210-1		1	0.4	1.7	2.5	1.7	1.46	13
	210	114	140TQO210-2		1	0.4	1.7	2.5	1.7	1.46	13.8
	210	115	140TQO210-3		1	0.4	1.7	2.5	1.7	1.46	13.3
	225	145	140TQO225-1		1	0.4	1.7	2.5	1.7	1.46	20.9
	270	290	140TQO270-1		1	0.55	1.2	1.8	1.2	1.06	75.5
145	195	130	145TQO195-1		1	0.31	2.2	3.3	2.1	1.88	10.7
146.05	244.475	187.325	81576D/81962/81963D		1	0.35	1.93	2.88	1.89	1.67	34.1
150	210	155	150TQO210-1		1	0.4	1.7	2.5	1.7	1.46	16.2
	210	165		2077930	1	0.27	2.5	3.7	2.4	2.16	21.2
	210	190	150TQO210-2		1	0.39	1.7	2.5	1.7	1.50	20.3
	212	155	150TQO212-1		1	0.4	1.7	2.5	1.7	1.46	17
	225	120	150TQO225-1		1	0.4	1.7	2.5	1.7	1.46	16.3
	225	136		77730	1	0.33	2.03	3.02	1.98	1.77	18.2
	250	170	150TQO250-1		1	0.4	1.7	2.5	1.7	1.46	32.2
152.4	222.25	174.625	M231649D/M231610/M231610D		1	0.33	2.03	3.02	1.98	1.77	22.5
152.4	244.475	187.325	81601D/81962/81963D		1	0.35	1.93	2.88	1.89	1.67	31.9

Four Row Tapered Roller Bearing



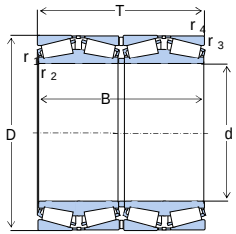
1 (TQO)



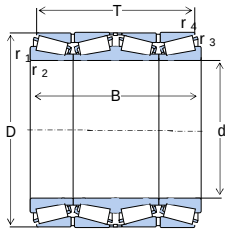
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
152.781	244.475	187.325	81603D/81962/81963D		1	0.35	1.93	2.88	1.89	1.67	31.7
158.75	304.8	233.365	EE280625D/281200/281201D		1	0.36	1.87	2.79	1.83	1.62	78.2
160	226	165	160TQO226-1		1	0.29	2.3	3.4	2.3	2.01	20.5
	240	130	160TQO240-1		1	0.4	1.7	2.5	1.7	1.46	19.9
	240	145	160TQO240-2		1	0.33	2.03	3.02	1.98	1.77	22.2
	250	145	160TQO250-1		1	0.33	2.03	3.02	1.98	1.77	25.3
	265	173	160TQO265-1		1	0.4	1.7	2.5	1.7	1.46	36.2
	270	180	160TQO270-1		1	0.4	1.7	2.5	1.7	1.46	40.3
165	270	240	165TQO270-1		1	0.36	1.9	2.8	1.8	1.62	55
165.1	225.425	168.275	46791D/46720/46720D		1	0.38	1.77	2.63	1.73	1.54	19.8
168.275	247.65	192.088	67782D/67720/67721D		1	0.44	1.54	2.29	1.5	1.33	31.7
170	230	175	170TQO230-1		1	0.34	2	2.9	1.9	1.72	20.6
	240	175	170TQO240-1		1	0.4	1.7	2.5	1.7	1.46	24.5
	260	230		2077134	1	0.31	2.2	3.2	2.1	1.88	43
	260	144	170TQO260-1		1	0.4	1.7	2.5	1.7	1.46	25.7
	260	160	170TQO260-2		1	0.39	1.7	2.6	1.7	1.50	29.5
	280	181	170TQO280-1		1	0.4	1.7	2.5	1.7	1.46	42.3
	280	185	170TQO280-2		1	0.4	1.7	2.5	1.7	1.46	43
177.8	247.65	188.913	67790D/67720/67720D		1	0.44	1.54	2.29	1.5	1.33	27.5
	247.65	192.088	67790DW/67720/67721D		1	0.44	1.5	2.3	1.4	1.33	29
	273.05	234.947	82681D/82622/82622D		1	0.52	1.29	1.92	1.26	1.12	46.9
	279.4	234.947	82681D/82620/82620D		1	0.52	1.29	1.92	1.26	1.12	51.9
	285.75	222.245	EE91700D/91112/91113XD		1	0.43	1.57	2.34	1.53	1.36	53.7
	288.925	263.525	94706D/94113/94114D		1	0.47	1.44	2.15	1.41	1.24	67.4
	288.925	266.7	HM237545D/HM237510/HM237511XD		1	0.32	2.12	3.15	2.07	1.82	64.9
177.8	298.45	263.525	94706D/94118/94118D		1	0.47	1.44	2.15	1.41	1.24	76.4
	304.8	233.362	EE280700D/281200/281201D		1	0.36	1.9	2.8	1.8	1.62	68

Four Row Tapered Roller Bearing



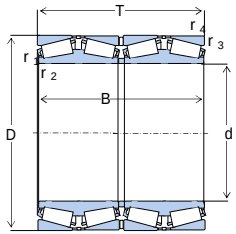
1 (TQO)



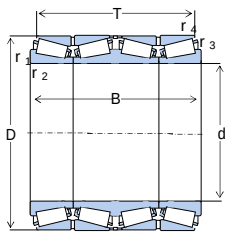
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
180	250	185	180TQO250-1		1	0.44	1.5	2.3	1.5	1.33	27.9
	254	185	180TQO254-1		1	0.47	1.4	2.1	1.4	1.24	29.2
	260	160	180TQO260-1		1	0.37	1.8	2.7	1.8	1.58	27.1
	260	200	180TQO260-2		1	0.35	1.9	2.8	1.9	1.67	34.1
	280	158	180TQO280-1		1	0.35	1.9	2.9	1.9	1.67	35.4
	280	180		77736	1	0.45	1.5	2.2	1.5	1.30	39.6
	280	181	180TQO280-2		1	0.33	2.03	3.02	1.98	1.77	39.3
	300	202	180TQO300-1		1	0.4	1.7	2.5	1.7	1.46	54.5
	300	280	180TQO300-2		1	0.34	2	3	1.9	1.72	79.8
180.975	269.875	211.138	M238843D/M238810/M238810D		1	0.33	2.03	3.02	1.98	1.77	42.2
187.325	269.875	211.138	M238849D/M238810/M238810D		1	0.33	2.03	3.02	1.98	1.77	39.6
187.325	282.575	190.05	67975D/67920/67921XD		1	0.51	1.33	1.97	1.3	1.14	43.2
190	260	200	190TQO260-1		1	0.36	1.9	2.8	1.8	1.62	29
	268	196	190TQO268-1		1	0.4	1.7	2.5	1.7	1.46	34.1
	270	160	190TQO270-1		1	0.4	1.68	2.5	1.64	1.46	28
	270	190	190TQO270-2		1	0.4	1.7	2.5	1.7	1.46	34.7
	290	160	190TQO290-1		1	0.39	1.7	2.6	1.7	1.50	36.1
	292.1	225.425	M241538D/M241510/M241510D		1	0.33	2.03	3.02	1.98	1.77	55.2
	320	218	190TQO320-1		1	0.4	1.7	2.5	1.7	1.46	71.2
190.5	266.7	188.913	67885D/67820/67820D		1	0.48	1.42	2.11	1.38	1.22	32.4
	368.3	327.025	EE420750D/421450/421451D		1	0.4	1.68	2.5	1.64	1.46	163
198.438	284.163	225.425	M240648D/M240611/M240611D		1	0.33	2.03	3.02	1.98	1.77	42.7
200	280	206	200TQO280-1		1	0.4	1.7	2.5	1.7	1.46	38.1
	280	220	200TQO280-2		1	0.4	1.68	2.5	1.64	1.46	41.7
	282	206	200TQO282-1		1	0.4	1.7	2.5	1.7	1.46	39.6
200	310	174	200TQO310-1		1	0.4	1.7	2.5	1.7	1.46	47.2
	310	200		77740	1	0.39	1.7	2.6	1.7	1.50	53.6
	310	275		2077140	1	0.39	1.7	2.6	1.7	1.50	75.1
	340	234	200TQO340-1		1	0.4	1.7	2.5	1.7	1.46	87.3

Four Row Tapered Roller Bearing



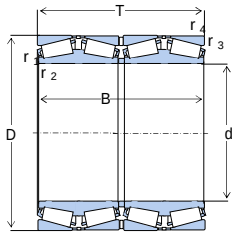
1 (TQO)



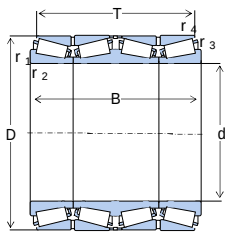
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
203.2	314.325	239.713	M244240DW/M244210/M244210D		1	0.33	2.03	3.02	1.98	1.77	70.2
	317.5	209.55	EE132081D/132125/132126D		1	0.31	2.15	3.2	2.1	1.88	60.2
	317.5	209.55	EE132082D/132125/132126D		1	0.31	2.15	3.21	2.11	1.88	60.9
	317.5	266.7	93800D/93125/93127D		1	0.52	1.29	1.92	1.26	1.12	76.8
	368.3	327.025	EE420800D/421450/421451D		1	0.4	1.68	2.5	1.64	1.46	153
	368.3	327.025	EE420801D/421450/421451D		1	0.4	1.68	2.5	1.64	1.46	154
205	320	203.5	205TQO320-1	77741	1	0.46	1.5	2.2	1.4	1.29	54.5
	320	205			1	0.4	1.7	2.5	1.7	1.46	58.1
206.375	282.575	184.15	67985D/67920/67920D		1	0.51	1.33	1.97	1.3	1.14	33.9
	282.575	190.5	67986D/67920/67921D		1	0.51	1.33	1.97	1.3	1.14	34.1
215.9	288.925	177.8	LM742749D/LM742714/LM742714D		1	0.48	1.4	2.09	1.37	1.22	32.5
	336.55	266.7	47T433427		1	0.5	1.34	2	1.32	1.17	85.1
	355.6	254	EE130850D/131400/131401D		1	0.33	2.04	3.04	2	1.77	104
	355.6	260.35	EE130850D/131400/131402D		1	0.33	2.04	3.04	2	1.77	106
	355.6	269.875	96851D/96140/96140D		1	0.59	1.14	1.7	1.12	0.99	111
216.103	330.2	269.875	9974D/9920/9920D		1	0.55	1.22	1.82	1.19	1.06	79.7
220	300	230	220TQO300-1		1	0.41	1.7	2.5	1.6	1.42	47.1
	310	226	220TQO310-1		1	0.4	1.7	2.5	1.7	1.46	52.2
	320	200	220TQO320-1		1	0.33	2	3	2	1.76	54
	320	201	220TQO320-2		1	0.33	2.03	3.02	1.98	1.77	52
	320	250	220TQO320-3		1	0.33	2	3	2.0	1.77	68
	330	260	220TQO330-1		1	0.55	1.2	1.8	1.2	1.06	75.7
	340	190	220TQO340-1		1	0.4	1.7	2.5	1.7	1.46	60.5
	340	303.5	220TQO340-2		1	0.43	1.6	2.3	1.6	1.36	100
220	340	305		2077144	1	0.35	1.95	2.9	1.91	1.67	97.6
	370	250	220TQO370-1		1	0.39	1.7	2.6	1.7	1.50	106
220.663	314.325	239.713	M244249D/M244210/M244210D		1	0.33	2.03	3.02	1.98	1.77	56.9

Four Row Tapered Roller Bearing



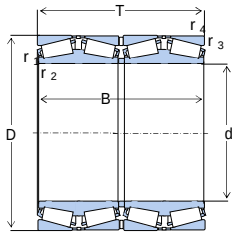
1 (TQO)



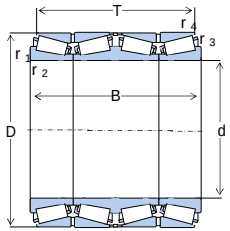
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
225	320	230	225TQO320-1		1	0.41	1.6	2.4	1.6	1.42	58.8
225.425	355.6	254	EE130887D/131400/131401D		1	0.33	2.04	3.04	2	1.77	97.2
	355.6	260.35	EE130887D/131400/131402D		1	0.33	2.04	3.04	2	1.77	99
228.6	311.15	200.025	LM245149D/LM245110/LM245110D		1	0.33	2.03	3.02	1.98	1.77	41.8
	355.6	254	EE130901D/131400/131401D		1	0.33	2.04	3.04	2	1.77	95
	355.6	260.35	EE130904DW/130400/130402D		1	0.34	2.0	3.0	1.9	1.69	101
	355.6	260.35	EE130900D/131400/131402D		1	0.33	2.04	3.04	2	1.77	96.9
	364	296.875	228TQO364A-1		1	0.32	2.12	3.15	2.07	1.82	115
	400.05	296.875	EE529091D/529157/529158XD		1	0.31	2.19	3.25	2.14	1.88	155
	400.05	327.025	EE430901D/431575/431576D		1	0.44	1.54	2.29	1.5	1.33	173
	425.45	361.95	EE700090D/700167/700168D		1	0.33	2.03	3.02	1.98	1.77	235
	425.45	361.95	EE700092D/700167/700168D		1	0.33	2.03	3.02	1.98	1.77	237
230	315	190	230TQO315-1		1	0.36	1.9	2.8	1.8	1.62	43.1
234.95	327.025	196.85	8576D/8520/8520D		1	0.41	1.66	2.47	1.62	1.42	47.4
235	325	240	235TQO325-1		1	0.33	2.03	3.02	1.98	1.77	60.5
240	320	250	240TQO320-1		1	0.33	2	3	2.0	1.77	54.7
	338	248	240TQO338-1		1	0.4	1.7	2.5	1.6	1.51	70
	350	230	240TQO350-1		1	0.42	1.6	2.4	1.6	1.39	72
	360	194	240TQO360-1		1	0.35	1.9	2.9	1.9	1.67	66.9
	360	218	240TQO360-2		1	0.43	1.6	2.3	1.5	1.36	76.5
	360	308.5	240TQO360-3		1	0.33	2	3	2	1.77	110
	360	310		2077148	1	0.31	2.2	3.2	2.1	1.9	90.5
240	365	290	240TQO365-1		1	0.46	1.5	2.2	1.4	1.27	106
	400	266	240TQO400-1		1	0.4	1.7	2.5	1.7	1.46	127
	410	270	240TQO410-1		1	0.29	2.32	3.45	2.26	2.01	145
241.224	349.148	228.6	EE127094D/127135/127136D		1	0.35	1.91	2.84	1.86	1.67	70.9
	355.498	228.6	EE127094D/127138/127139D		1	0.35	1.91	2.8/4	1.86	1.67	77.1

Four Row Tapered Roller Bearing



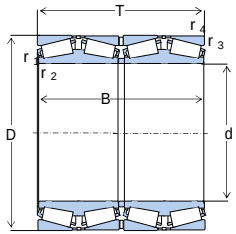
1 (TQO)



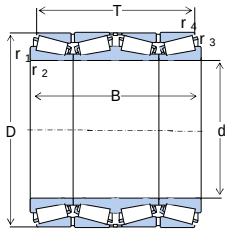
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
241.3	368.3	204.47	EE170951D/171450/171451D		1	0.36	1.86	2.77	1.82	1.62	81.4
241.478	349.148	228.6	EE127097D/127135/127136D		1	0.35	1.91	2.84	1.86	1.67	70.4
	350.838	228.6	EE127097D/127137/127137D		1	0.35	1.91	2.84	1.86	1.67	72.4
	355.498	228.6	EE127097D/127138/127139D		1	0.35	1.91	2.84	1.86	1.67	76.9
244.475	327.025	193.675	LM247748D/LM247710/LM247710D		1	0.32	2.1	3.13	2.06	1.82	44.7
	381	304.8	EE126096D/126150/126151D		1	0.52	1.31	1.95	1.28	1.12	125
245	380	254	245TQO380-1		1	0.44	1.5	2.3	1.4	1.32	105
247.65	400.05	253.995	EE220975D/221575/221576D		1	0.39	1.71	2.54	1.67	1.50	119
250	350	240	250TQO350-1		1	0.4	1.68	2.5	1.64	1.46	66.4
	360	186	250TQO360-1		1	0.4	1.7	2.5	1.7	1.46	59.1
	365	270	250TQO365-1		1	0.33	2	3	2.0	1.77	96.2
	370	220	250TQO370-1		1	0.37	1.8	2.7	1.8	1.58	80.8
	381	320	250TQO381-1		1	0.55	1.2	1.8	1.2	1.06	130
	460	270		77750	1						192
250.825	431.724	298.453	HM252340D/HM252315/HM252315D		1	0.33	2.03	3.02	1.98	1.77	181
254	358.775	257.175	M249749/249749DW/249710D		2	0.33	2	3	2	1.76	90.5
	358.775	269.875	M249749DW/M249710/M249710D		1	0.33	2	3	2	1.76	88
	368.3	204.47	EE171000D/171450/171451D		1	0.36	1.86	2.77	1.82	1.62	73.6
	422.275	305.595	HM252343D/HM252310/HM252311D		1	0.33	2.03	3.02	1.98	1.77	165
	422.275	311.15	HM252343D/HM252310/HM252310D		1	0.33	2.03	3.02	1.98	1.77	168
	422.275	317.5	HM252342D/HM252310/HM252310D		1	0.33	2.03	3.02	1.98	1.77	171
	431.724	298.453	HM252344D/HM252315/HM252315D		1	0.33	2.03	3.02	1.98	1.77	179
	444.5	279.4	EE822101D/822175/822176D		1	0.42	1.62	2.42	1.59	1.39	180
260	360	265	382952/HC		1						77.8
	360	272	260TQO360-1		1	0.34	2	3	1.9	1.72	82.2
	368	268	260TQO368-1		1	0.32	2.1	3.2	2.1	1.82	87.1
	400	213	260TQO400-1		1	0.4	1.7	2.5	1.7	1.46	92.9

Four Row Tapered Roller Bearing



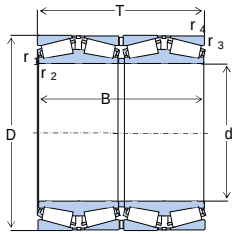
1 (TQO)



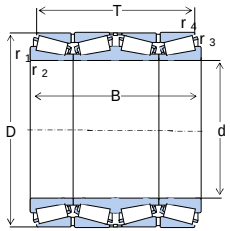
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y1	Y2	Y0	K	Refer.
260	400	220	260TQO400-2		1	0.4	1.7	2.5	1.7	1.46	96
	400	255		77752	1	0.39	1.72	2.56	1.68	1.50	113
	400	320	260TQO400-4		1	0.35	1.9	2.8	1.9	1.67	144
	400	344	260TQO400-5		1	0.29	2.32	3.45	2.26	2.01	155
	400	345	382052		1						
	440	298.5	260TQO440-1		1	0.54	1.25	1.8	1.3	1.07	190
	440	300		777752	1	0.35	1.9	2.9	1.9	1.67	196
260.35	365.125	228.6	EE134103D/134143/134144D		1	0.37	1.8	2.69	1.76	1.58	72
	400.05	253.995	EE221025D/221575/221576D		1	0.39	1.71	2.54	1.67	1.50	109
	400.05	253.995	EE221027D/221575/221576D		1	0.39	1.71	2.54	1.67	1.50	110
	422.275	305.595	HM252347D/HM252310/HM252311D		1	0.33	2.03	3.02	1.98	1.77	159
	422.275	311.15	HM252347D/HM252310/HM252310D		1	0.33	2.03	3.02	1.98	1.77	162
	422.275	317.5	HM252349D/HM252310/HM252310D		1	0.33	2.03	3.02	1.98	1.77	166
	431.724	298.453	HM252347D/HM252315/HM252315D		1	0.33	2.03	3.02	1.98	1.77	173
266.7	355.6	228.6	LM451349D/LM451310/LM451310D		1	0.36	1.87	2.79	1.83	1.62	62.2
	393.7	269.878	EE275106D/275155/275156D		1	0.4	1.68	2.5	1.64	1.46	108
	406.4	260.335	EE275106D/275160/275161D		1	0.4	1.68	2.5	1.64	1.46	128
269.875	381	282.575	M252349D/M252310/M252310D		1	0.33	2.03	3.02	1.98	1.77	99.7
270	364	260	270TQO364-1		1	0.39	1.7	2.6	1.7	1.50	76.7
	410	222	270TQO410-1		1	0.35	1.9	2.9	1.9	1.67	99.7
276.225	380.898	203.2	89108D/89149/89149XD		1	0.58	1.2	1.7	1.1	1.01	64.4
	381	193.675	89108D/89148/89151XD		1	0.59	1.15	1.72	1.13	0.99	64.2
276.225	381	209.55	89108D/89150/89151XD		1	0.59	1.15	1.72	1.13	0.99	67.2
	393.7	269.878	EE275109D/275155/275156D		1	0.4	1.68	2.5	1.64	1.46	105
	406.4	260.335	EE275109D/275160/275161D		1	0.4	1.68	2.5	1.64	1.46	119
279.4	381	269.875	279TQO381A-1		1	0.35	1.9	2.9	1.8	1.64	91
	393.7	269.875	EE135111D/135155/135156D		1	0.38	1.77	2.64	1.73	1.54	101
	407	288	M255449/M255440DW/M255411		2	0.33	2	3	2	1.73	140
	410	310	279TQO410-1		1	0.4	1.68	2.5	1.64	1.46	140

Four Row Tapered Roller Bearing



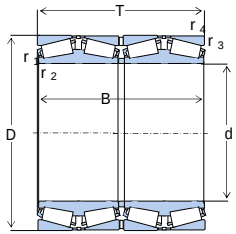
1 (TQO)



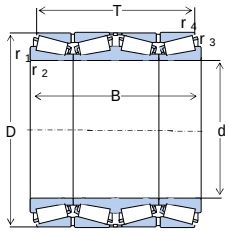
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
279.4	469.9	349.25	EE722111D/722185/722186D		1	0.38	1.79	2.67	1.75	1.54	247
	469.9	390.525	EE722112D/722185/722186D		1	0.38	1.79	2.67	1.75	1.54	265
	495.3	285.75	EE941106D/941950/941951XD		1	0.4	1.68	2.5	1.64	1.46	236
	495.3	292.1	EE941106D/941950/941952XD		1	0.4	1.68	2.5	1.64	1.46	240
279.578	380.898	244.475	LM654644D/LM654610/LM654610D		1	0.43	1.57	2.34	1.53	1.36	76.9
	381	193.675	89111D/89148/89151XD		1	0.59	1.15	1.72	1.13	0.99	62.1
	381	209.55	89111D/89150/89151XD		1	0.59	1.15	1.72	1.13	0.99	65.1
	495.3	292.1	EE941106D/941950/941952XD		1	0.4	1.7	2.5	1.7	1.46	240
280	380	290	280TQO380-1		1	0.28	2.4	3.6	2.5	2.07	95
	395	288	280TQO395-1		1	0.28	2.4	3.6	2.5	2.12	110
	420	224	280TQO420-1		1	0.4	1.7	2.5	1.7	1.46	109
	420	250		77756	1	0.42	1.6	2.4	1.6	1.39	117
	420	343.5	280TQO420-2		1	0.33	2.03	3.02	1.98	1.77	161
	460	305	280TQO460-1		1	0.39	1.7	2.6	1.7	1.50	197
	460	324	280TQO460-2		1	0.47	1.4	2.1	1.4	1.24	214
285.75	380.898	244.475	LM654648D/LM654610/LM654610D		1	0.43	1.57	2.34	1.53	1.36	75.8
	469.9	292.1	EE921151D/921850/921851D		1	0.29	2.31	3.44	2.26	2.01	201
	476.25	292.1	EE921126D/921875/921876D		1	0.29	2.31	3.44	2.26	2.01	211
288.925	406.4	298.45	M255449D/M255410/M255410D		1	0.34	2	2.97	1.95	1.72	124
292.1	422.275	269.875	EE330116D/330166/330167D		1	0.32	2.11	3.14	2.06	1.82	124
298.45	444.5	241.3	EE291176D/291750/291751D		1	0.38	1.79	2.66	1.75	1.54	131
299.974	439.949	279.4	EE129119D/129174/129175XD		1	0.4	1.68	2.5	1.64	1.46	145
300	420	310		77860U	1	0.29	2.3	3.4	2.3	2.01	132
	424	310	300TQO424-1		1	0.4	1.7	2.5	1.7	1.46	138
	430	280	300TQO430-1		1	0.47	1.4	2.1	1.4	1.24	129
	430	300	300TQO430-2		1	0.35	1.9	2.9	1.9	1.67	141
	440	279.4	EE129119D/129174/129175D		1	0.4	1.7	2.5	1.7	1.46	145
	460	248	300TQO460-1		1	0.42	1.6	2.4	1.6	1.39	146

Four Row Tapered Roller Bearing



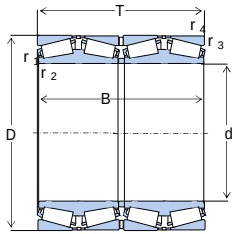
1 (TQO)



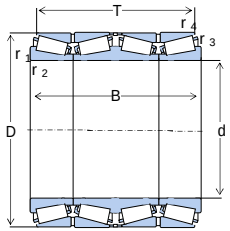
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y1	Y2	Y0	K	Refer.
300	460	360	300TQO460-2		1	0.31	2.2	3.3	2.1	1.88	216
	460	388.5	300TQO460-3		1	0.33	2	3	2	1.82	240
	460	390		2077160	1						222
	470	270	300TQO470-1		1	0.33	2	3	2.0	1.77	181
	470	292	300TQO470-2		1	0.33	2	3	2.0	1.77	196
	470	310	300TQO470-3		1	0.36	1.9	2.8	1.8	1.62	197
	500	332	300TQO500-1		1	0.39	1.7	2.6	1.7	1.50	254
	500	350		77760U	1						280
	500	380	300TQO500-2		1	0.35	1.9	2.9	1.9	1.67	300
300.038	422.275	311.15	HM256849D/HM256810/HM256810D		1	0.34	2	2.98	1.96	1.72	126
304.648	438.048	279.4	EE129121D/129172/129173D		1	0.4	1.68	2.5	1.64	1.46	137
304.8	412.75	266.7	304TQO412A-1		1	0.32	2.12	3.15	2.07	1.82	100
	419.1	269.875	M257149D/M257110/M257110D		1	0.33	2.03	3.02	1.98	1.77	111
	444.5	241.3	EE291200D/291750/291751D		1	0.38	1.79	2.66	1.75	1.54	125
	444.5	241.3	EE291202D/291750/291751D		1	0.38	1.79	2.66	1.75	1.54	127
	482.6	345	304TQO482A-1		1	0.33	2	3	2.0	1.77	245
	482.6	377.825	304TQO482A-2		1	0.37	1.8	2.7	1.8	1.58	223
	495.3	285.75	EE941206D/941950/941951XD		1	0.4	1.68	2.5	1.64	1.46	217
	495.3	292.1	EE941206D/941950/941952XD		1	0.4	1.68	2.5	1.64	1.46	221
	495.3	292.1	EE941207D/941950/941952XD		1	0.4	1.68	2.5	1.64	1.46	215
304.8	495.3	349.25	EE724121D/724195/724196D		1	0.4	1.68	2.5	1.64	1.46	283
	501.65	336.55	304TQO501A-1		1	0.33	2.03	3.02	1.98	1.77	262
304.902	412.648	266.7	M257248D/M257210/M257210D		1	0.32	2.12	3.15	2.07	1.82	102
305.003	438.048	279.4	M757449D/M757410/M757410D		1	0.47	1.44	2.15	1.41	1.24	132
310	430	310	310TQO430-1		1	0.34	2	2.9	1.9	1.72	135
	455	222	310TQO455-1		1	0.39	1.7	2.6	1.7	1.50	117
	460	325	310TQO460-1		1	0.41	1.6	2.4	1.6	1.42	186

Four Row Tapered Roller Bearing



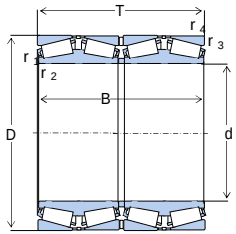
1 (TQO)



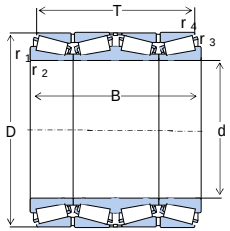
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
317.5	422.275	269.875	LM258649D/LM258610/LM258610D		1	0.32	2.12	3.15	2.07	1.82	104
	438.15	276.225	317TQO438A-1		1	0.43	1.6	2.3	1.6	1.34	125
	447.675	327.025	HM259049D/HM259010/HM259010D		1	0.33	2.02	3	1.97	1.77	165
320	440	335	320TQO440-1		1	0.33	2	3	2.0	1.77	146
	460	325	320TQO460-1		1	0.42	1.6	2.4	1.6	1.39	170
	460	338	320TQO460-2		1	0.4	1.7	2.5	1.7	1.46	178
	480	254	320TQO480-1		1	0.39	1.7	2.6	1.7	1.50	156
	480	360	320TQO480-2		1	0.47	1.4	2.1	1.4	1.24	227
	480	380		2077164	1						252
	500	380	320TQO500-1		1	0.33	2.03	3.02	1.98	1.77	284
	540	364	320TQO540-1		1	0.39	1.7	2.6	1.7	1.50	352
325	430	230	325TQO430-1		1	0.4	1.68	2.5	1.64	1.46	82.9
327.025	482.6	311.15	EE526129D/526190/526191D		1	0.39	1.7	2.6	1.7	1.50	185
330	460	240	330TQO460-1		1	0.47	1.4	2.1	1.4	1.24	123
330.2	444.5	301.625	M260149D/M260110/260110D		1	0.4	1.7	2.5	1.7	1.46	136
	482.6	311.15	EE526131D/526190/526191D		1	0.39	1.73	2.57	1.69	1.50	188
	508	290	330TQO508A-1		1	0.49	1.38	2.06	1.35	1.19	210
	508	292.1	330TQO508A-2		1	0.4	1.7	2.5	1.7	1.46	214
	508	307.975	330TQO508A-3		1	0.29	2.32	3.45	2.26	2.01	219
	533.4	280	330TQO533A-1		1	0.33	2.03	3.02	1.98	1.77	225
	540	290	330TQO540A-1		1	0.33	2.03	3.02	1.98	1.77	277
330.302	438.023	254	EE138131D/138172/138173D		1	0.44	1.5	2.3	1.5	1.33	108
333.375	469.9	328.612	333TQI469A-1		2	0.33	2	3	2	1.73	190
333.375	469.9	342.9	HM261049D/HM261010/HM261010D		1	0.33	2.02	3	1.97	1.77	184
335	460	342.9	335TQO460-1		1	0.39	1.7	2.6	1.7	1.50	167
340	420	278	340TQO420-1		1	0.26	2.55	3.8	2.5	2.24	207
	460	254	340TQO460-1		1	0.47	1.4	2.1	1.4	1.24	118

Four Row Tapered Roller Bearing



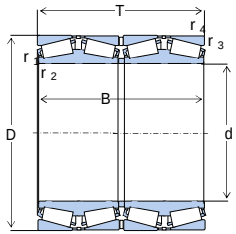
1 (TQO)



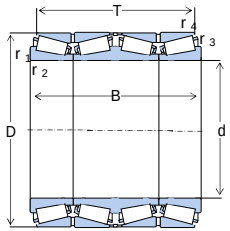
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
340	460	310		2077968	1						147
	480	350	340TQO480-1		1	0.29	2.3	3.4	2.3	2.01	198
	520	278	340TQO520-1		1	0.39	1.7	2.6	1.7	1.50	213
	520	323	340TQO520-2		1	0.4	1.68	2.5	1.64	1.46	242
	520	323.5	340TQO520-3		1	0.3	2.3	3.4	2.2	2.01	245
	520	325	381068		1	0.3	2.3	3.4	2.2	1.95	251
	580	392	340TQO580-1		1	0.39	1.7	2.6	1.7	1.50	442
341.312	457.098	254	LM761648DW/LM761610/LM761610D		1	0.45	1.5	2.2	1.5	1.30	116
342.9	533.4	301.625	EE971355D/972100/972103D		1	0.33	2.03	3.02	1.98	1.77	238
	571.5	342.9	EE536136D/536225/536226D		1	0.33	2	3	2.0	1.77	369
343.052	457.098	209	343TQO457A-1		1	0.47	1.43	2.12	1.4	1.24	91.1
	457.098	254	LM961548D/LM961511/LM961511D		1	0.71	0.95	1.41	0.93	0.82	115
346.075	457.2	254	346TQO457A-1		1	0.47	1.43	2.12	1.4	1.24	102
	488.95	358.775	HM262749D/HM262710/HM262710D		1	0.36	1.9	2.8	1.8	1.62	210
347.662	469.9	246.063	347TQI469A-1		2	0.33	2	3	2	1.76	135
	469.9	260.35	LM262449DW/LM262410/LM262410D		1	0.33	2	3	2.0	1.77	129
	469.9	292.1	M262449D/M262410/M262410D		1	0.33	2.03	3.02	1.98	1.77	146
355	490	316	355TQO490-1		1	0.33	2	3	2.0	1.77	177
355.6	444.5	241.3	L163149D/L163110/L163110D		1	0.31	2.2	3.27	2.15	1.88	85.5
	457.2	252.412	LM263149DW/LM263110/LM263110D		1	0.32	2.1	3.1	2.1	1.83	104
355.6	482.6	269.875	LM763449D/LM763410/LM763410D		1	0.47	1.43	2.14	1.4	1.24	138
	488.95	317.5	M263349D/M263310/M263310D		1	0.33	2.03	3.02	1.98	1.77	174
	514.35	260.35	EE231401D/232025/232026D		1	0.44	1.53	2.28	1.5	1.33	177
356.387	482.6	222.25	EE161403D/161900/161901D		1	0.5	1.35	2.01	1.32	1.17	116
360	480	370	360TQO480-1	77872	1	0.33	2	3	2.0	1.77	181
	480	375			1	0.33	2	3	2.0	1.77	183
	508	370	360TQO508-1		1	0.4	1.7	2.5	1.7	1.46	235
	510	380	360TQO510-1		1	0.33	2	3	2	1.81	255

Four Row Tapered Roller Bearing



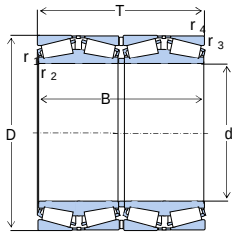
1 (TQO)



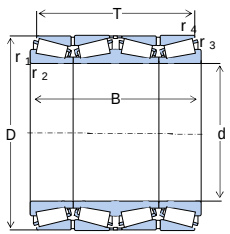
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
360	520	370	360TQO520-1		1	0.33	2.1	3.1	2.0	1.77	256
	520	410	360TQO520-2		1	0.33	2.03	3.02	1.98	1.77	281
	540	280	360TQO540-1		1	0.39	1.7	2.6	1.7	1.50	229
	540	360	360TQO540-2		1	0.4	1.7	2.5	1.7	1.46	278
	540	460	360TQO540-3		1	0.27	2.47	3.67	2.41	2.16	375
	600	396	360TQO600-1		1	0.39	1.7	2.6	1.7	1.50	465
	600	420		1077772	1	0.44	1.5	2.3	1.5	1.33	388
	600	540	360TQO600-2		1	0.42	1.6	2.4	1.6	1.39	628
368.3	523.875	366.712	368TQI523A-1		2	0.33	2	3	2	1.76	275
	523.875	382.588	HM265049D/HM265010/HM265010D		1	0.33	2.03	3.02	1.98	1.77	270
	563	382.588	368TQO523A-1		1	0.29	2.32	3.45	2.26	2.01	352
	596.9	342.9	EE181455D/1812350/1812351D		1	0.41	1.6	2.4	1.6	1.42	385
	596.9	342.9	EE181454D/182350/182351D		1	0.42	1.62	2.42	1.59	1.39	347
370	490	292	370TQO490-1		1	0.34	2	2.9	1.9	1.72	151
	510	340	370TQO510-1		1	0.35	1.95	2.9	1.91	1.67	200
	516	346	370TQO516-1		1	0.4	1.68	2.5	1.64	1.46	211
374.65	501.65	260.35	EE231475D/231975/231976D		1	0.44	1.53	2.28	1.5	1.33	137
	514.35	260.35	EE231475D/232025/232026D		1	0.44	1.53	2.28	1.5	1.33	158
380	520	350	380TQO520-1		1	0.31	2.2	3.3	2.1	1.88	219
380	520	360	380TQO520-2		1	0.32	2.12	3.15	2.07	1.82	225
	520	400	380TQO520-3		1	0.35	1.9	2.9	1.9	1.67	243
	536	390	380TQO536-1		1	0.4	1.7	2.5	1.7	1.46	272
	550	350		77776	1	0.44	1.5	2.3	1.5	1.33	273
	560	282	380TQO560-1		1	0.42	1.6	2.4	1.6	1.39	244
	560	285	380TQO560-2		1	0.37	1.8	2.7	1.8	1.58	246
	560	325	380TQO560-3		1	0.31	2.2	3.3	2.2	1.85	265
	560	360	380TQO560-4		1	0.4	1.7	2.5	1.6	1.44	295
	560	370	380TQO560-5		1	0.33	2.03	3.02	1.98	1.77	312

Four Row Tapered Roller Bearing



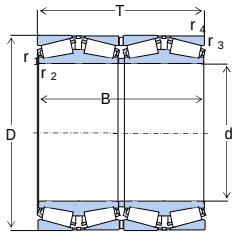
1 (TQO)



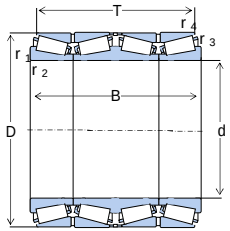
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
380	580	500	380TQO580-1		1	0.33	2.03	3.02	1.98	1.77	467
	620	368	380TQO620-1		1	0.43	1.6	2.3	1.6	1.36	438
	620	388		3077776	1						443
	620	400	380TQO620-2		1	0.4	1.7	2.5	1.7	1.46	490
	620	418.5	380TQO620-1		1	0.46	1.47	2.19	1.44	1.27	499
	620	420	381176/HC	1077776	1						485
384.175	546.1	384.175	384TQI546A-1		2	0.33	2	3	2	1.76	300
	546.1	400.05	HM266449D/HM266410/HM266410D		1	0.33	2.03	3.02	1.98	1.77	315
385.763	514.35	317.5	LM665949DW/LM665910/LM665910D		1	0.42	1.61	2.4	1.58	1.39	182
390	510	350	390TQO510-1		1	0.33	2	3	2.0	1.77	188
393.7	546.1	288.925	LM767745D/LM767710/LM67710D		1	0.48	1.42	2.11	1.39	1.22	205
	558.8	254	EE234157D/234220/234221D		1	0.48	1.42	2.11	1.39	1.22	205
395	545	288.7		77779	1	0.44	1.5	2.3	1.5	1.33	194
	545	288.7	395TQO545-1		1	0.47	1.4	2.1	1.4	1.24	196
	545	288.7	395TQO545-2		1	0.43	1.57	2.34	1.53	1.36	181
	545	288.9	395TQO545-3		1	0.48	1.4	2.1	1.4	1.22	195
400	540	280		77880	1						187
	540	295	400TQI540-1		2	0.31	2.2	3.3	2.2	1.89	210
400	540	400	380680/HC		1						262
	600	356	381080/HC		1						345
	564	412	400TQO564-1		1	0.4	1.7	2.5	1.7	1.46	315
	590	304	400TQO590-1		1	0.42	1.6	2.4	1.6	1.39	287
	600	308	400TQO600-1		1	0.37	1.8	2.7	1.8	1.58	316
	650	414	400TQO650-1		1	0.39	1.7	2.6	1.7	1.50	555
406.4	546.1	288.925	EE234161D/234215/234216D		1	0.48	1.42	2.11	1.39	1.22	184
	546.1	288.925	LM767749D/LM767710/LM767710D		1	0.48	1.42	2.11	1.39	1.22	192
	546.1	330	406TQO546A-1		1	0.41	1.7	2.5	1.6	1.42	214
	546.1	357.4	406TQO546A-2		1	0.47	1.43	2.12	1.4	1.24	232

Four Row Tapered Roller Bearing



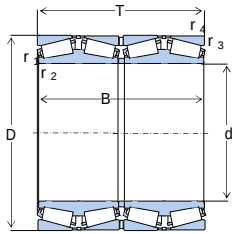
1 (TQO)



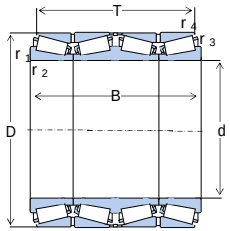
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y1	Y2	Y0	K	Refer.
406.4	558.8	254	EE234161D/234220/234221D		1	0.48	1.42	2.11	1.39	1.22	189
	565.15	381	M267949D/M267910/M267910XD		1	0.33	2.03	3.02	1.98	1.77	291
	590.55	381	406TQI590A-1		2	0.33	2	3	2	1.8	370
	590.55	400.05	EE833161D/833232/833233D		1	0.32	2.08	3.1	2.04	1.82	358
	609.6	317.5	EE911603D/912400/912401D		1	0.38	1.76	2.62	1.72	1.54	320
409.575	546.1	334.963	M667947D/M667910/M667910D		1	0.42	1.62	2.42	1.59	1.39	200
415.925	590.55	419.1	415TQI546A-1		2	0.33	2	3	2	1.76	405
	590.55	434.975	M268749D/M268710/M268710D		1	0.33	2.03	3.02	1.98	1.77	390
416	574	480	416TQO574-1		1	0.28	2.4	3.6	2.4	2.08	366
420	560	370	420TQO560-1		1	0.32	2.12	3.15	2.07	1.82	246
	560	437	380684/HC		1	0.31	2.2	2.3	2.1	1.88	284
	592	432	420TQO592-1		1	0.41	1.7	2.5	1.6	1.42	363
	620	312	420TQO620-1		1	0.39	1.7	2.6	1.7	1.50	331
	620	355	420TQO620-2		1	0.39	1.7	2.6	1.7	1.50	364
	630	540	420TQO630-1		1	0.3	2.25	3.34	2.2	1.95	600
	650	460	420TQO650-1		1	0.4	1.7	2.5	1.7	1.46	547
	700	460	420TQO700-1		1	0.39	1.7	2.6	1.7	1.50	736
420	700	480	381184		1						
	760	500	420TQO760-1		1	0.33	2.03	3.02	1.98	1.77	1050
430	570	336	430TQO570-1		1	0.35	1.9	2.9	1.9	1.67	233
	570	336.55	430TQO570-2		1	0.44	1.5	2.3	1.4	1.33	240
431.8	571.5	279.4	EE239171D/239225/239226XD		1	0.39	1.75	2.61	1.71	1.50	187
	571.5	279.4	LM869449/LM869410/LM869410D		1	0.55	1.24	1.84	1.21	1.06	194
	571.5	320.675	431TQI571A-1		2	0.44	1.5	2.3	1.4	1.33	250
	571.5	336.55	LM769349/LM769310/LM769310D		1	0.48	1.41	2.1	1.38	1.22	232
	635	355.6	EE931070DGW/931250/931251XD		1	0.33	2	3	2	1.82	385
	635	355.6	431TQO635A-1		1	0.33	2	3	2	1.82	405

Four Row Tapered Roller Bearing



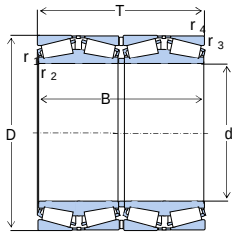
1 (TQO)



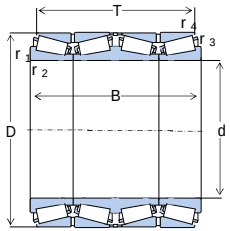
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y1	Y2	Y0	K	Refer.
431.8	635	355.6	EE931170D/931250/931251XD		1	0.32	2.1	3.13	2.06	1.82	385
	647.7	338.138	431TQO647A-1		2	0.33	2	3	2	1.82	420
431.902	685.698	533.273	EE328172D/328269/328268D		1	0.4	1.7	2.5	1.7	1.46	761
432.003	609.524	317.5	EE736173D/736238/736239D		1	0.35	1.94	2.89	1.9	1.67	293
438	580	460	438TQO580-1		1	0.26	2.55	3.8	2.5	2.24	323
440	580	420	440TQO580-1		1	0.26	2.6	3.9	2.5	2.27	300
	620	454		77888	1	0.4	1.7	2.5	1.7	1.46	442
	635	430	440TQO635-1		1	0.33	2.03	3.02	1.98	1.77	453
	635	470	440TQO635-2		1	0.33	2	3	2.0	1.77	509
	650	326	440TQO650-1		1	0.39	1.7	2.6	1.7	1.50	381
	650	334	440TQO650-2		1	0.28	2.43	3.61	2.37	2.08	371
	650	353.5	440TQO650-3		1	0.33	2	3	2	1.82	410
	650	355		77788	1	0.46	1.47	2.19	1.44	1.27	409
	720	465	440TQO720-1		1	0.39	1.7	2.6	1.7	1.50	771
444.5	571.5	336.55	444TQO571-1		1	0.31	2.2	3.3	2.2	1.9	215
447.675	635	446.088	447TQI635-1		2	0.33	2	3	2	1.76	475
	635	463.55	M270749D/M270710/M270710D		1	0.33	2.03	3.02	1.98	1.77	464
448	635	464	448TQO635-1		1	0.33	2	3	2.0	1.77	485
450	580	450	450TQO580-1		1	0.31	2.2	3.2	2.1	1.88	282
	595	352	450TQI595-1		2	0.33	2	3	2	1.76	295
	595	368	M270749DA/M270410/M270410D		1	0.33	2	3	2	1.76	285
	595	404	M270449DA/M270410/M270410D		1	0.33	2	3	2	1.76	305
456.794	761.873	527.05	EE425176D/425299/425299D		1	0.44	1.52	2.26	1.49	1.33	980
457.073	730.148	419.1	EE671798DGW/672873/672875D		1	0.4	1.7	2.5	1.6	1.49	630
457.2	596.9	279.4	EE244181D/244235/244236D		1	0.4	1.67	2.48	1.63	1.46	204
	596.9	320	457TQO596A-1		1	0.44	1.5	2.3	1.4	1.32	235

Four Row Tapered Roller Bearing



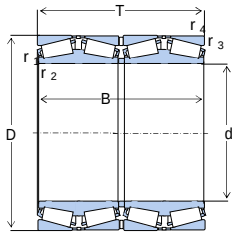
1 (TQO)



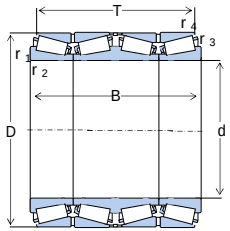
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y1	Y2	Y0	K	Refer.
457.2	660.4	323.847	EE737179D/737260/737261D		1	0.37	1.8	2.69	1.76	1.58	354
	660.4	495.3	457TQO660A-1		1	0.33	2.03	3.02	1.98	1.77	571
457.403	730.148	419.1	EE671802D/672873/672875D		1	0.39	1.72	2.57	1.69	1.50	646
460	586	266	460TQO586-1		1	0.46	1.5	2.2	1.4	1.27	168
	586	280	460TQO586-2		1	0.44	1.52	2.26	1.49	1.33	166
	590	360	460TQO590-1		1	0.28	2.4	3.6	2.4	2.08	242
	610	360	460TQO610-1		1	0.33	2	3	2	1.76	295
	610	400	460TQO610-2		1	0.28	2.4	3.6	2.5	2.08	315
	615	360	460TQO610-1		1	0.45	1.5	2.2	1.5	1.30	289
	620	310		1077992	1						260
	625	421	M271149D/M271110/271110D		1	0.33	2	3	2.0	1.77	381
	650	474		77892	1	0.4	1.7	2.5	1.7	1.46	477
	680	338	460TQO680-1		1	0.4	1.7	2.5	1.7	1.46	433
	680	375	460TQO680-2		1	0.36	1.87	2.79	1.83	1.62	476
	730	440	381192X3/HC		1						663
	760	494	460TQO760-1		1	0.39	1.7	2.6	1.7	1.50	923
462	615.95	330.2	462TQO615A-1		1	0.4	1.7	2.5	1.6	1.45	275
475	600	368	475TQO600-1		1	0.3	2.3	3.4	2.2	2.03	250
	660	450	475TQO660-1		1	0.37	1.8	2.7	1.8	1.58	463
479.425	679.45	495.3	M272749D/M272710/M272710D		1	0.33	2.03	3.02	1.98	1.77	566
480	678	494	480TQO678-1		1	0.34	2	3	1.9	1.72	586
	700	342	480TQO700-1		1	0.39	1.7	2.6	1.7	1.50	453
	700	420	381096		1						582
	790	510	480TQO790-1		1	0.39	1.7	2.6	1.7	1.50	1030
482.6	615.95	317.5	M272249DW/M272249W/M272210D		2	0.33	2	3	2	1.76	245
	615.95	330.2	LM272249D/LM272210/LM272210D		1	0.33	2.03	3.02	1.98	1.77	229
	615.95	420	482TQO615A-1		1	0.26	2.55	3.8	2.5	2.24	296
	630	420	482TQO630A-1		1	0.33	2	3	2	1.76	345

Four Row Tapered Roller Bearing



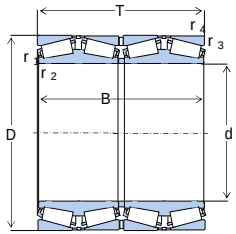
1 (TQO)



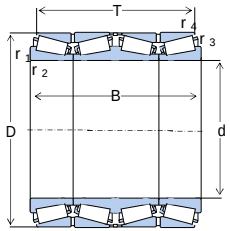
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
482.6	635	421	M272449D/M272410/M272410D		1	0.33	2.03	3.02	1.98	1.77	366
	647.7	417.512	M272647D/M272610/M272610D		1	0.33	2.03	3.02	1.98	1.77	396
488.95	622.3	365.125	488TQO622A-1		1	0.29	2.3	3.4	2.3	2.01	265
	660.4	361.95	EE640193D/640260/640261D		1	0.31	2.2	3.27	2.15	1.88	339
489.026	634.873	320.675	LM772749D/LM772710/LM772710D		1	0.47	1.43	2.12	1.4	1.24	258
490	625	385	380698/HC		1	0.32	2.1	3.2	2.1	1.82	284
500	670	515	500TQO670-1		1	0.33	2	3	2.0	1.77	518
	705	515	500TQO705-1		1	0.37	1.8	2.7	1.8	1.58	654
	710	430	500TQO710-1		1	0.37	1.8	2.7	1.8	1.58	530
	720	348	500TQO720-1		1	0.4	1.7	2.5	1.7	1.46	476
	720	400	500TQO720-2		1	0.33	2	3	2.0	1.77	548
	729.805	440	500TQO729A-1		1	0.33	2	3	2.0	1.77	639
	830	540	500TQO640A-1		1	0.39	1.7	2.6	1.7	1.50	1210
500.25	640	450	500TQO640A-1		1	0.28	2.4	3.6	2.4	2.08	366
501.65	673.1	387.35	EE641198D/641265/641266D		1	0.31	2.15	3.2	2.1	1.88	372
	711.2	520.7	M274149D/M274110/M274110D		1	0.33	2.03	3.02	1.98	1.77	652
508	749.3	355.6	508TQO749A-1		1	0.36	1.9	2.8	1.8	1.62	548
508	762	420	508TQO762-1		1	0.36	1.9	2.8	1.8	1.62	693
	762	463.55	EE531201D/531300/531301XD		1	0.38	1.78	2.65	1.74	1.54	741
509.948	654.924	379	509TQO654A-1		1	0.41	1.6	2.4	1.6	1.42	319
510	655	362	510TQI655-1		2	0.33	2	3	2	1.7	330
	655	379	510TQO655-1		1	0.33	2	3	2	1.76	330
514.35	673.1	422.275	LM274449D/LM274410/LM274410D		1	0.33	2.03	3.02	1.98	1.77	401
514.35	736.6	319.505	514TQO736A-1		1	0.48	1.4	2.1	1.4	1.22	431
519.113	736.6	536.575	M275349D/M275310/M275310D		1	0.33	2.03	3.02	1.98	1.77	739

Four Row Tapered Roller Bearing



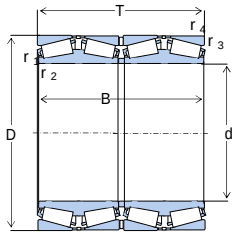
1 (TQO)



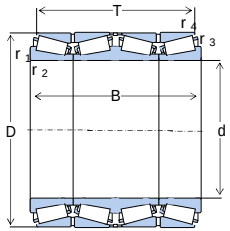
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d d	D D	T	New	Old		e	Y1	Y2	Y0	K	Refer.
520	735	535	520TQO735-1		1	0.33	2	3	2.0	1.77	731
520.7	711.2	400.05	LM275349D/LM275310/LM275310D		1	0.33	2.03	3.02	1.98	1.77	438
530	730	540	530TQO730-1		1	0.33	2	3	2.0	1.77	657
	750	480	530TQO750-1		1	0.33	2	3	2.0	1.77	694
	750	550	530TQO750-2		1	0.33	2	3	2.0	1.77	788
	780	385	530TQO780-1		1	0.37	1.8	2.7	1.8	1.58	644
	780	450	3810/530		1						745
	780	570	530TQO780-2		1	0.33	2	3	2.0	1.77	956
	870	560	530TQO870-1		1	0.39	1.7	2.6	1.7	1.50	1360
535	750	560	535TQO750-1		1	0.33	2.02	3.01	1.98	1.77	752
	760	560	535TQO760-1		1	0.33	2	3	2.0	1.77	833
536.575	761.873	558.8	M276449D/M276410/M276410D		1	0.33	2.03	3.02	1.98	1.77	821
540	690	400		779/540	1	0.33	2	3	2	1.76	375
	760	560	540TQO760-1		1	0.33	2.03	3.02	1.98	1.77	809
555.625	698.5	349.25	555TQO698A-1		1	0.33	2	3	2.0	1.77	311
558.75	965.3	495.3	558TQO965A-1		1	0.33	2.03	3.02	1.98	1.77	1580
558.8	736.6	322.263	EE843221D/843290/843291D		1	0.34	1.97	2.93	1.93	1.72	376
	736.6	409.575	LM377449D/LM377410/LM377410D		1	0.35	1.95	2.9	1.91	1.67	472
	736.6	430	558TQO736A-1		1	0.35	1.9	2.9	1.9	1.67	492
	736.6	450	558TQO736A-2		1	0.35	1.9	2.9	1.9	1.67	531
	736.6	457.2	LM277149DA/LM277110/LM277110D		1	0.33	2.03	3.02	1.98	1.77	525
560	750	368	3819/560/HC		1						447
	805	590	560TQO805-1		1	0.33	2	3	2.0	1.77	1030
	820	405	560TQO820-1		1	0.37	1.8	2.7	1.8	1.58	742
	920	575	560TQO920-1		1	0.39	1.7	2.6	1.7	1.50	1560

Four Row Tapered Roller Bearing



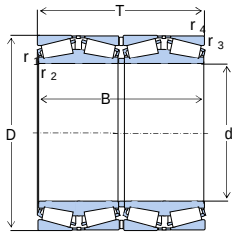
1 (TQO)



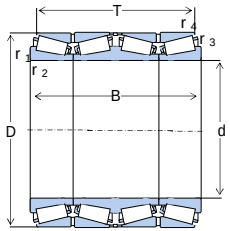
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y1	Y2	Y0	K	Refer.
560	920	618	560TQO920-2		1	0.4	1.7	2.5	1.7	1.46	1670
	920	620	3811/560		1	0.4	1.68	2.5	1.64	1.46	1690
570	780	515	570TQO780-1		1	0.36	1.9	2.8	1.8	1.62	752
	810	590	570TQO810-1		1	0.33	2	3	2.0	1.77	998
571.5	812.8	593.725	M278749D/M278710/M278710D		1	0.33	2.03	3.02	1.98	1.77	1030
584.2	730.25	349.25	584TQO730A-1		1	0.43	1.6	2.3	1.6	1.36	330
	762	401.638	LM778549D/LM778510/LM778510D		1	0.37	1.43	2.12	1.4	1.58	479
	901.573	539.75	EE665231D/665355/665356D		1	0.33	2	3	2.0	1.77	1280
	901.7	539.747	EE662300D/663550/663551D		1	0.33	2.04	3.03	1.99	1.77	1260
	901.7	539.75	EE665231D/665355/665356D		1	0.33	2.03	3.02	1.98	1.77	1270
585.788	771.525	479.425	LM278849D/LM278810/LM278810D		1	0.33	2.03	3.02	1.98	1.77	587
595	845	615	595TQO845-1		1	0.33	2	3	2.0	1.77	1140
595.312	844.55	615.95	M280049D/M280010/M280010D		1	0.33	2.03	3.02	1.98	1.77	1130
596.9	980	609.6	596TQO980A-1		1	0.4	1.7	2.5	1.6	1.45	1920
600	800	365		771/600	1						489
	800	380		10779/600	1	0.41	1.64	2.45	1.61	1.42	992
	855	620	600TQO855-1		1	0.33	2	3	2.0	1.77	1170
600	870	415	600TQO870-1		1	0.37	1.8	2.7	1.8	1.58	842
	870	488	600TQO870-2		1	0.33	2	3	2	1.8	940
	980	615	600TQO980-1		1	0.39	1.7	2.6	1.7	1.50	1890
	980	650		10777/600	1	0.32	2.1	3.1	2.1	1.82	1970
603.25	857.25	622.3	M280249D/M280210/M280210XD		1	0.33	2.03	3.02	1.98	1.77	1170
609.6	787.4	361.95	EE649242DW/649310/649311D		1	0.37	1.82	2.7	1.78	1.58	462
	813.562	479.425	LM280249DGW/LM280210/LM280210D		1	0.33	2	3	2	1.76	715
	817.4	361.95	609TQO817A-1		1	0.33	2.03	3.02	1.98	1.77	496
	863.6	660.4	M280349D/M280310/M280310D		1	0.33	2	3	2.0	1.77	1260

Four Row Tapered Roller Bearing



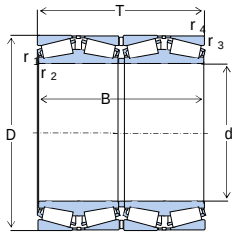
1 (TQO)



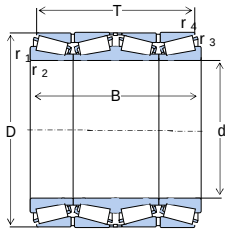
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y1	Y2	Y0	K	Refer.
611.5	832.8	593.72	611TQO832A-1		1	0.33	2	3	2.0	1.77	981
620	800	363.5	620TQO820-1		1	0.37	1.8	2.7	1.8	1.54	465
	800	365	620TQO820-2		1	0.32	2.12	3.15	2.07	1.82	474
630	850	418	3819/630/HC		1						682
	890	650	630TQO890-1		1	0.33	2	3	2.0	1.77	1310
	920	440	630TQO920-1		1	0.37	1.8	2.7	1.8	1.58	1010
	920	457.15	630TQO920-2		1	0.33	2.03	3.02	1.98	1.77	1050
	920	457.2	630TQO920-3		1	0.37	1.8	2.7	1.8	1.58	1060
	920	515		771/630	1	0.43	1.56	2.33	1.53	1.36	1190
	920	600	630TQO920-4		1	0.36	1.9	2.8	1.8	1.62	1360
	1030	645	630TQO1030-1		1	0.37	1.8	2.7	1.8	1.58	2190
	1030	670	3811/630/HC		1						2200
635	900	655	635TQO900-1		1	0.33	2	3	2.0	1.77	1360
	900	660	635TQO900-2		1	0.33	2	3	2.0	1.77	1380
	901.7	654.05	M281049D/M281010/M281010XD		1	0.33	2.03	3.02	1.98	1.77	1360
640	1030	560		777/640L	1						1770
646.112	857.25	542.925	LM281049DW/LM281010/LM281010D		1	0.33	2	3	2.0	1.77	880
647.7	1028.7	565.15	EE424257DW/424405/424407D		1	0.31	2.2	3.2	2.1	1.87	1860
649.924	914.898	674	M281349D/M281310/M281310D		1	0.33	2.03	3.02	1.98	1.77	1390
650	915	674	M281349DGW/M281310/M281310D		1	0.33	2	3	2	1.76	1430
	1030	558.5	650TQO1030-1		1	0.32	2.12	3.15	2.07	1.82	1840
	1030	560		777/650	1	0.31	2.1	3.2	2.1	1.88	1830
655	935	675	655TQO935-1		1	0.33	2	3	2.0	1.77	1530
657.225	933.45	676.275	M281649D/M281610/M281610D		1	0.33	2.03	3.02	1.98	1.77	1520
659.924	854.924	318.48	EE749259D/749334/749335D		1	0.35	1.92	2.86	1.88	1.67	462

Four Row Tapered Roller Bearing



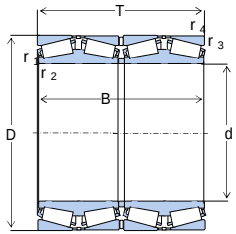
1 (TQO)



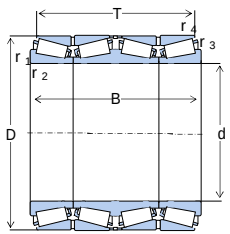
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
660	855	318.48	EE749259DGW/749334/749335D		1	0.35	1.9	2.9	1.8	1.66	490
	855	320	660TQO855-1		1	0.47	1.43	2.12	1.4	1.24	474
	1070	642	660TQO1070-1		1	0.33	2	3	2.0	1.77	2340
660.011	855.015	319.99	3806/660X4/HC		1	0.52	1.3	1.9	1.3	1.12	484
660.4	812.8	365.125	L281149D/L281110/L281110D		1	0.33	2.03	3.02	1.98	1.77	394
	1066.8	647.703	EE428262D/428420/428421XD		1	0.31	2.18	3.24	2.13	1.88	2240
670	900	412		10779/670	1						773
	950	700	670TQO950-1		1	0.33	2	3	2.0	1.77	1620
	960	700	670TQO960-1		1	0.33	2	3	2.0	1.77	1690
	980	475	670TQO980-1		1	0.37	1.8	2.7	1.8	1.58	1240
	1090	690	670TQO1070-1		1	0.37	1.8	2.7	1.8	1.58	2600
676	910	620	676TQO910-1		1	0.33	2	3	2	1.76	1150
679.45	901.7	552.45	LM281849D/LM281810/LM281810D		1	0.33	2.03	3.02	1.98	1.77	975
680	870	460	680TQO870-1		1	0.42	1.6	2.4	1.6	1.39	695
	970	740	680TQO970-1		1	0.33	2.03	3.02	1.98	1.77	1770
	1000	505	680TQO1000-1		1	0.33	2	3	2.0	1.77	1380
682.625	965.2	701.675	M282249D/M282210/M282210D		1	0.33	2	3	2.0	1.77	1670
685	965	700	685TQO965-1		1	0.33	2	3	2.0	1.77	1650
685.8	876.3	355.6	EE655271DW/655345/655346D		1	0.42	1.6	2.4	1.6	1.39	543
708.025	930.275	365.15	LM282549D/LM282510/LM282510D		1	0.33	2	3	2.0	1.77	1070
710	900	410	L882449DGW/L882410/L882410D	779/710	1	0.35	1.9	2.9	1.8	1.66	660
	1000	730	710TQO900-1		1	0.33	2	3	2.0	1.77	1850
	1030	490	710TQO1030-1		1	0.37	1.8	2.7	1.8	1.58	1390
	1150	710	710TQO1150-1		1	0.37	1.8	2.7	1.8	1.58	2970
711.2	914.4	317.5	EE755281D/755360/755361D		1	0.38	1.78	2.65	1.74	1.54	545
	914.4	355.6	711TQO914A-1		1	0.44	1.5	2.3	1.5	1.33	607

Four Row Tapered Roller Bearing



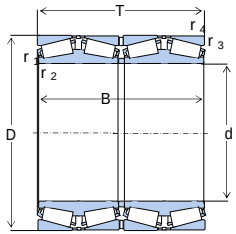
1 (TQO)



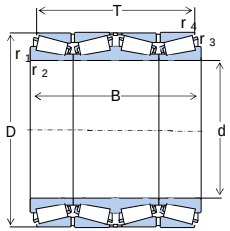
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y1	Y2	Y0	K	Refer.
714.375	1016	704.85	M383240D/M383210/M383210D		1	0.35	1.92	2.86	1.98	1.67	1850
717.55	946.15	565.15	LM282847D/LM282810/LM282810D		1	0.33	2.03	3.02	1.98	1.77	1030
730	940	500	730TQO940-1		1	0.35	1.9	2.9	1.8	1.69	925
	1035	755	730TQO1035-1		1	0.33	2	3	2.0	1.77	2070
730.25	1035.05	755.65	M283449D/M283410/M283410D		1	0.33	2.03	3.02	1.98	1.77	2010
749.3	990.6	605	LM283649D/LM283610/LM283610D		1	0.32	2.12	3.15	2.07	1.82	132
	1066.8	736.6	EE325296D/325420/325421XD		1	0.33	2.1	3.1	2.0	1.77	2190
	1130.3	685.8	749TQO1130A-1		1	0.49	1.38	2.06	1.35	1.19	2330
750	1090	515	750TQO1090-1		1	0.37	1.8	2.7	1.8	1.58	1640
	1130	690	750TQO1130-1		1	0.48	1.4	2.1	1.4	1.2	2430
	1220	750	750TQO1220-1		1	0.37	1.8	2.7	1.8	1.58	3550
	1220	840		107770750	1	0.32	2.1	3.1	2.1	1.82	3985
762	1066.8	736.6	M284148DW/M284111/284110D		1	0.33	2.1	3.1	2.0	1.77	2100
	1079.5	787.4	M284249D/M284210/M284210XD		1	0.33	2.03	3.02	1.98	1.77	2270
780	1220	840	3806/780/HCC9		1						38100
785	1030	605	785TQO1030-1		1	0.42	1.6	2.4	1.6	1.39	1390
785	1040	560	785TQO1040-1		1	0.42	1.6	2.4	1.6	1.39	1330
	1120	820	800TQO1120-1		1	0.33	2	3	2.0	1.77	2600
	1150	535	800TQO1150-1		1	0.39	1.74	2.59	1.7	1.50	1850
	1280	770	800TQO1280-1		1	0.39	1.74	2.59	1.7	1.50	3890
812.8	1143	768.35	812TQO1143A-1		1	0.33	2	3	2	1.76	2590
825.5	1168.4	844.55	M285848D/0285810/M285810D		1	0.33	2.03	3.02	1.98	1.77	2990
825.5	1193.8	812.8	EE631325DW/631470/631470D		1	0.39	1.7	2.6	1.7	1.49	3110
840	1170	840	840TQO1170-1		1	0.33	2	3	2.0	1.77	2900

Four Row Tapered Roller Bearing



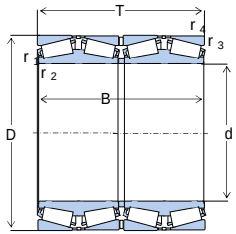
1 (TQO)



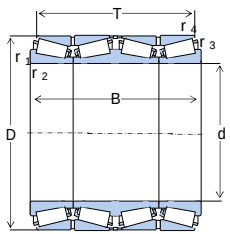
2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y1	Y2	Y0	K	Refer.
850	1220	565	850TQO1220-1		1	0.39	1.74	2.59	1.7	1.50	2190
	1360	820	850TQO1360-1		1	0.39	1.74	2.59	1.7	1.50	4670
	1360	910	850TQO1360-2		1	0.35	1.9	2.9	1.8	1.62	5440
863.6	1130.3	669.925	LM286249D/LM286210/LM286210D		1	0.32	2.08	3.1	2.04	1.82	1780
	1169.987	844.55	863TQO1169A-1		1	0.33	2	3	2	1.76	2700
	1181.1	666.75	LM286449DGW/LM286410/LM286410D		1	0.33	2	3	2	1.76	2150
	1219.2	876.389	863TQO1219A-1		1	0.33	2	3	2.0	1.77	3350
	1219.2	889	EE547341D/547480/547481D		1	0.33	2.03	3.02	1.98	1.77	3330
877.888	1220	844.55	LM286749DGW/LM286711/LM286710		1	0.33	2	3	2	1.76	3080
900	1280	580	900TQO1280-1		1	0.39	1.74	2.59	1.7	1.50	2430
901.7	1295.4	914.4	EE634356D-510-510D		1	0.33	2	3	2.0	1.77	4010
938.213	1270	825.5	LM287649D/LM287610/LM287610D		1	0.33	2.03	3.02	1.98	1.77	3150
939.8	1333.5	952.5	LM287849D/LM287810/LM287810D		1	0.33	2.03	3.02	1.98	1.77	4380
950	1360	620	950TQO1360-1		1	0.39	1.74	2.59	1.7	1.50	2970
1001	1360	800	1001TQO1360-1		1	0.31	2.2	3.3	2.2	1.83	3390
1003.3	1358.9	800.1	1003TQO1358A-1		1	0.31	2.2	3.3	2.2	1.83	3450
1006.475	1295.4	764	LM288249D/LM288210/LM288210D		1	0.33	2	3	2.0	1.77	2590
1070	1400	889.762	1070TQO1400-1		1	0.33	2	3	2	1.76	3730
1080	1450	950	1080TQO1450-1		1	0.33	2	3	2	1.76	4450
1200.15	1593.85	990.6	LM288949DGW/LM288910/LM288910D		1	0.33	2	3	2	1.76	5635
1250	1550	890	1250TQO1550-1		1	0.33	2	3	2	1.77	3820
1260	1640	1000	1260TQO1640-1		1	0.31	2.2	3.3	2.2	1.83	5800

Four Row Tapered Roller Bearing



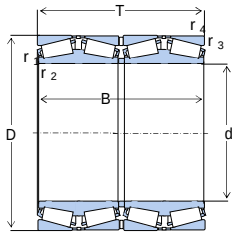
1 (TQO)



2 (TQI)

Boundary Dimensions (mm)			Designations		Design	Calculation Factors					Mass (kg)
d	D	T	New	Old		e	Y_1	Y_2	Y_0	K	Refer.
1300	1720	1040	1300TQO1720-1		1	0.33	2	3	2	1.76	7000
1370	1765	1050	1370TQO1765-1		1	0.33	2	3	2	1.76	6960
1500	1900	1080	1500TQO1900-1		1	0.35	1.9	2.9	1.8	1.68	7700
	1915	1105	1500TQO1915-1		1	0.33	2	3	2.0	1.77	8410
1580	1960	1080	1580TQO1960-1		1	0.33	2	3	2	1.77	7800

Four Row Tapered Roller Bearing



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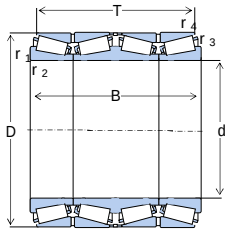
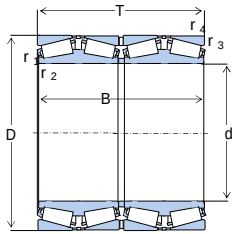


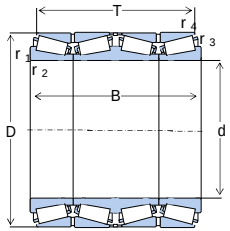
2 (TQI)

Boundary Dimensions (mm)						Basic load ratings (kN)		Designations	Calculation Factors					Mass (kg)
d	D	T	T	r1.3min	r3.5min	Cr	Cor		e	Y1	Y2	Y0	K	Refer.
152.4	244.475	187.325	192.088	1	3.3	1300	2160	152TQOS244-1	0.33	2	3	2	1.76	30
203.2	317.5	266.7	266.7	2.5	3.3	2460	4900	203TQOS317-1	0.31	2.2	3.3	2.2	1.86	76
206.375	282.575	226	226	0.6	3.3	1300	3350	206TQOS282-1	0.5	1.4	2	1.3	1.15	40
220.662	314.325	239.712	239.712	1.5	3.3	1790	3800	220TQOS314-1	0.35	1.9	2.9	1.8	1.71	56
228.6	400.05	296.875	296.875	2.5	3.3	3360	5700	228TQOS400-1	0.44	1.5	2.3	1.4	1.3	148
241.478	349.148	228.6	228.6	1.5	3.3	1900	3650	241TQOS349-1	0.35	1.9	2.9	1.8	1.62	64
254	358.775	269.875	269.875	1.5	3.3	2330	5400	254TQOS358-1	0.33	2	3	2	1.76	84
260	365	340	340	2.5	3.5	3140	8000	260TQOS365-1	0.35	1.9	2.9	1.8	1.63	112
266.7	355.6	228.6	230.188	1.5	3.3	1720	4150	266TQOS355-1	0.35	1.9	2.9	1.8	1.66	68
276.225	393.7	269.875	269.875	1	6.4	2750	5850	276TQOS393-1	0.37	1.8	2.7	1.8	1.55	96
280	395	340	340	2.5	3.5	3580	8650	280TQOS395-1	0.33	2	3	2	1.77	128
285.75	380.898	244.475	244.475	1	3.3	2200	5500	285TQOS380-1	0.43	1.6	2.3	1.6	1.38	74
300	440	279.4	280.99	3.3	4.8	3080	6700	300TQOS440-1	0.46	1.5	2.2	1.4	1.29	137
304.648	438.048	279.4	280.99	2	4.8	3080	6700	304TQOS438-1	0.46	1.5	2.2	1.4	1.29	129
304.8	419.1	269.875	269.875	1	6.4	2860	6950	304TQOS419-1	0.35	1.9	2.9	1.8	1.62	108
	501.65	336.55	336.55	2	6.4	4730	9300	304TQOS501-1	0.4	1.7	2.5	1.6	1.47	254
304.902	412.648	266.7	266.7	1	3.3	2700	6700	304TQOS412-1	0.31	2.2	3.3	2.2	1.85	100
305	438.048	279.4	280.99	2	4.8	3080	6700	305TQOS438-1	0.46	1.5	2.2	1.4	1.29	129
317.5	422.275	269.875	269.875	1.5	3.3	2640	6550	317TQOS422-1	0.33	2	3	2	1.76	98

Four Row Tapered Roller Bearing



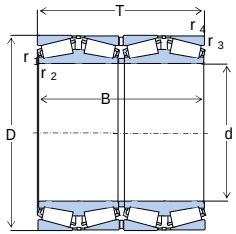
1 (TQO)



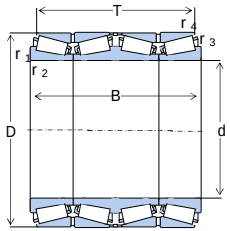
2 (TQI)

Boundary Dimensions (mm)						Basic load ratings (kN)		Designations	Calculation Factors					Mass (kg)
d	D	T	T	r1.3min	r3.5min	Cr	Cor		e	Y1	Y2	Y0	K	Refer.
333.375	469.9	342.9	342.9	2.5	3.3	4290	10400	333TQOS469-1	0.33	2	3	2	1.73	182
343.052	457.098	254	254	1	3.3	2330	6000	343TQOS457-1	0.68	1	1.5	1	0.84	109
355.6	482.6	269.875	265.112	1.5	3.3	3080	7500	355TQOS482-1	0.46	1.5	2.2	1.4	1.24	136
	488.95	317.5	317.5	1	3.3	4130	10000	355TQOS488-1	0.33	2	3	2	1.75	172
385.762	514.35	317.5	317.5	1	3.3	3910	10000	385TQOS514-1	0.4	1.7	2.5	1.6	1.49	174
406.4	546.1	288.925	288.925	1.5	6.4	3910	9500	406TQOS546-1	0.48	1.4	2.1	1.4	1.22	183
	546.1	330	330	1.5	6.4	4020	10200	406TQOS546-2	0.48	1.4	2.1	1.4	1.23	202
409.575	546.1	334.962	334.962	1	6.4	4570	12000	409TQOS546-1	0.4	1.7	2.5	1.6	1.47	210
415.925	590.55	434.975	434.975	3.3	6.4	7040	18000	415TQOS590-1	0.33	2	3	2	1.78	379
416	574	440	440	2.5	5	6050	17000	416TQOS574-1	0.33	2	3	2	1.74	341
430	575	380	380	1.5	5	5230	14300	430TQOS575-1	0.33	2	3	2	1.77	267
440	590	480	480	1	5	7040	19200	440TQOS590-1	0.28	2.4	3.6	2.5	2.12	371
	650	353.5	353.5	5.5	6.4	6160	13200	440TQOS650-1	0.33	2	3	2	1.82	378
450	595	398	398	2	6	5500	16300	450TQOS595-1	0.33	2	3	2	1.76	301
457.2	596.9	279.4	276.225	1.5	3.3	3960	10000	457TQOS596-1	0.48	1.4	2.1	2.1	1.24	191
460	610	360	360	3	6	5120	12900	460TQOS610-1	0.37	1.8	2.7	1.8	1.56	270
475	600	368	368	2	6	4730	14000	475TQOS600-1	0.33	2	3	2	1.81	235
479.425	679.45	495.3	495.3	3.3	6.4	8580	2240	479TQOS679-1	0.33	2	3	2	1.76	565
482.6	615.95	330.2	330.2	1	6.4	4950	13700	482TQOS615-1	0.33	2	3	2	1.76	232
	615.95	402.05	402.05	1	6.4	5610	17300	482TQOS615-2	0.33	2	3	2	1.76	290
482.6	630	420	420	3.3	6.4	5940	17000	482TQOS630-1	0.33	2	3	2	1.76	325
489.026	634.873	320.675	320.675	1	3.3	4840	12500	489TQOS634-1	0.37	1.8	2.7	1.8	1.54	248

Four Row Tapered Roller Bearing



1 (TQO)



2 (TQI)

Boundary Dimensions (mm)						Basic load ratings (kN)		Designations	Calculation Factors					Mass (kg)
d	D	T	B	r1.3min	r3.5min	Cr	Cor		e	Y1	Y2	Y0	K	Refer.
510	655	379	377	1.5	6.4	5720	16300	510TQOS655-1	0.35	1.9	2.9	1.8	1.64	311
540	690	434	434	2	5	7040	21200	540TQOS690-1	0.33	2	3	2	1.7	392
558.8	736.6	322.262	322.262	1.5	6.4	5830	14300	558TQOS736-1	0.35	1.9	2.9	1.8	1.7	343
	736.6	409.575	409.575	3.3	6.4	6600	20000	558TQOS736-2	0.48	1.4	2.1	1.4	1.21	475
	736.6	457.2	455.612	3.3	6.4	7920	23200	558TQOS736-3	0.35	1.9	2.9	1.8	1.69	515
571.5	812.8	593.725	593.725	3.3	6.4	11900	33500	571TQOS812-1	0.33	2	3	2	1.78	998
585.788	771.525	479.425	479.425	4	6.4	9520	27500	585TQOS771-1	0.33	2	3	2	1.78	596
609.6	787.4	361.95	361.95	3.3	6.4	6820	18600	609TQOS787-1	0.37	1.8	2.7	1.8	1.58	430
	813.562	479.425	479.425	3.3	6.4	9680	27500	609TQOS813-1	0.37	1.8	2.7	1.8	1.61	693
635	901.7	654.05	654.05	3.3	6.4	14500	41500	635TQOS901-1	0.35	1.9	2.9	1.8	1.64	1354
679.45	901.7	552.45	552.45	3.3	6.4	12100	36000	679TQOS901-1	0.33	2	3	2	1.76	975
682.625	965.2	701.675	701.675	3.3	6.4	17200	49000	682TQOS965-1	0.35	1.9	2.9	1.8	1.69	651
685.8	876.3	355.6	352.425	3.3	6.4	7210	20000	685TQOS876-1	0.37	1.8	2.7	1.8	1.62	506
710	900	410	410	3	6	8250	24000	710TQOS900-1	0.33	2	3	2	1.8	602
711.2	914.4	317.5	317.5	2.5	6.4	6600	17300	711TQOS914-1	0.37	1.8	2.7	1.8	1.57	490
749.3	990.6	605	605	3.3	6.4	13200	40500	749TQOS990-1	0.37	1.8	2.7	1.8	1.59	1274
762	1079.5	787.4	784.4	4.8	12.7	21200	61000	762TQOS1079-1	0.35	1.9	2.9	1.8	1.68	2248
825.5	1168.4	844.55	844.55	4.8	12.7	24600	73500	825TQOS1168-1	0.31	2.2	3.3	2.2	1.85	2958
863.6	1169.987	844.55	844.55	4.8	12.7	23300	71000	863TQOS1169-1	0.37	1.8	2.7	1.8	1.6	2630