



NEEDLE ROLLER BEARINGS

The reference range **made in Japan**

NTN® **SNR**®

www.ntn-snr.com



With You

NTN-SNR The strength of a group



NTN Corporation, one of the world leaders in bearings, specialized particularly in the design, development and production of needle roller bearings and rollers.

With NTN-SNR BEARINGS, benefit from this know-how near you with:

- A very wide range of needle roller bearings, rollers and components
- An undisputed leader in Japan for industrial applications
- More than 50 years of experience in design and production of these products
- The systematic search for excellence, manifested by a high level of performance and exceptional quality
- Extended service life and unfailing reliability, as recognised by thousands of customers who use them worldwide

Globally, NTN Corporation is an expert in product life cycle management, and is typified by the accessibility and commitment of its teams.

**NTN-SNR ACCOMPANIES YOU
ON THE ROAD TO RELIABILITY AND PERFORMANCE**



CONTENTS

Reference range made in Japan	4
Sectors of activity and applications	6
Pre-selection guide	12
Selection guide	13
Product range presentation	
Needle roller and cage assemblies	16
Needle roller and cage assemblies for connecting rods	17
Drawn cup needle roller bearings	18
Needle roller bearings with solid rings	20
Needle roller bearings with separable solid rings	22
Inner rings	23
Complex bearings	24
Thrust bearings	26
Roller followers	28
Cam followers	30
Components: Needles/Stop segments/Sealing rings	33
Technical summary	34

The reference range made in Japan

Premium quality at your doorstep



NTN HAS THE BEARING YOU NEED

THE WIDEST OFFER ON THE MARKET

- Needle roller and cage assemblies
- Drawn cup needle roller bearings
- Needle roller bearings with solid rings
- Complex bearings
- Cam followers and cam followers on shafts
- Needle roller thrust bearings
- Components



A KNOW-HOW MADE IN JAPAN

NTN, THE No. 1 FOR NEEDLE ROLLER BEARINGS AND ROLLERS IN JAPAN

With 100 % Japanese mastery, from design to production, NTN has products tested by the biggest names in the global industry for over 50 years.



RECOGNISED PREMIUM QUALITY

OUR STEEL SELECTION MAKES THE DIFFERENCE

By opting for superior steel quality, combined with a design that is ultra-compact, rigid and withstands heavy radial loads, NTN offers bearings with increased service life of up to 3 times compared to the standard ones.



A PRODUCT AVAILABILITY CLOSER TO YOU

EUROPEAN STOCK FOR SHORT DELIVERY TIMES

NTN-SNR has a stock of over 2,000 references in European stock to provide excellent availability. In addition, there is a centralised global stock in Japan. Search for the availability of our products in real time via our E-Shop portal.

(eshop.ntn-snr.com)



SERVICE AND SUPPORT AT YOUR DOORSTEP

TECHNICAL SUPPORT BASED IN EUROPE TO ASSIST YOU

Customised studies, recommendations for your specific applications, Experts & Tools training, our NTN-SNR experts are there to support you.

Our on-line tools:

- CROSS REFERENCES
- TECHNICAL DATA SHEETS
- PLACING ORDERS



Check out our video
You Tube





NEEDLE ROLLER BEARINGS ARE ESSENTIAL ON A DAILY BASIS AND IN NUMEROUS SECTORS OF ACTIVITIES AND APPLICATIONS.

Wherever compactness is required, where reliability and durability requirements are strong, NTN has the solution in its needle roller bearings offering. With more than 320 million units produced each year, working together with original equipment manufacturers (OEMs) for more than 50 years, NTN has acquired this know-how which are benefiting thousands of customers today.



MOTORISED PORTABLE TOOLS CHAINSAW

The extreme requirements of this application are reflected in the natural qualities of NTN needle roller bearings: compactness, high load capacity, resistance to overheating (motor) and poor lubrication.

NTN is the preferred supplier of the world's leading professional chainsaws.



ENGINE ①: CAGE H

➤ In the development of engines, the design of crankshaft bearings and needle roller bearings located at the ends of the rods represents a difficulty: high temperatures, poor lubrication conditions and high loads, in particular due to the very high centrifugal forces. Two-stroke chainsaw engines are demanding applications that NTN can handle with needle roller bearings. Our bearings have been tested under the most severe conditions and have demonstrated their technical superiority.

By mastering the design and manufacturing processes, using the best materials, heat treatments and surface treatments, type H needle roller and cage assemblies have become the reference on this market. NTN equips millions of professional chainsaws around the world.

TWO-WHEELERS MOTORCYCLES

Recognised by leading manufacturers of two-wheelers, NTN needle roller bearings guarantee perfect safety and exceptional durability. Along all the kilometres, from the motorcycle to the competition sports bike, NTN brings complete peace of mind.



STARTER ①: K

➤ Needle roller and cage assemblies are subject to strong acceleration and a high starting torque during each use.

CONNECTING ROD ②: KBK

➤ Needle roller and cage assemblies for connecting rod assemblies withstand high loads due to the particularly severe centrifugal forces.

TRANSMISSION ③: NK

➤ The large speed variations & the impacts in the transmission during gear changes place very high strain on the gearbox bearings. The solid outer ring makes it possible to compensate for the relative lack of rigidity of the crankcase.

SUSPENSION ARM JOINT ④: HK AND HMK

➤ The drawn cup needle roller bearing with solid lubrication (LPO3) is extremely suitable for oscillating applications; it is designed to last for the service life of the motorcycle.

CONSTRUCTION MACHINERY EXCAVATOR

Construction machinery uses a large number of needle roller bearings, all available in the NTN range. Reliability and robustness are the key points sought by users, which is why NTN has been supplying the world's leading manufacturers for decades.



VARIABLE DISPLACEMENT PUMP ①: CRADLE-SHAPED BEARING

➤ This cradle-shaped bearing operates in oscillating motion. It is used to enable the angular movement of the swash plate of the hydraulic pump, which directly depends on the instantaneous flow rate of the pump. In addition to its compactness, the functional accuracy of the bearing ensures excellent control of the flow variations of the variable displacement hydraulic pump.

EPICYCLIC GEARS FOR WHEEL REDUCER (FINAL DRIVE) AND SLEWING TURRET ②: K

➤ The needle roller and cage assemblies are used in planetary gears. In this type of complex transmission, despite their great compactness and sometimes extreme operating conditions, these robust and reliable bearings withstand heavy loads, ensuring a longer service life of the equipment.

AGRICULTURE

RAKES & TEDDERS

Towed machines are subjected to rough treatment: impacts, dust, humidity, mud, etc. The seasons follow one another with their share of challenges and it is no coincidence that the extreme robustness of NTN needle roller bearings has impressed the most demanding manufacturers.



VERTICAL SPINDLE SHAPER ①: KR

▶ The complex movement of the combs of a giro rake is created by cam followers that roll on a cam track.

WHEEL ROTATION THRUST BEARING ②: AXK + GS + WS

▶ The thrust bearing serves as an interface between the chassis and the directional part including the wheel, enabling its orientation during turns. The thrust bearing must withstand the weight of the giro rake by absorbing the impacts coming from the wheels.

MACHINES & EQUIPMENT

BOARDING

In an increasingly demanding industrial world, the operation of machinery and equipment in industrial production and logistics no longer tolerates shut-downs. Often invisible, NTN needle roller bearings are nevertheless ubiquitous in factories, as in our daily lives. By their reliability and durability, they operate unnoticed, guaranteeing the operators the proper functioning of their equipments.



HORIZONTAL GUIDANCE ①: KRV







- The cam follower on a full complement shaft is used to smoothly guide the telescopic part of the tunnel into the first section. The roller then rolls on a rail, it is put under stress at low speed, with a very heavy load generated by the weight of passengers and a very long overhang.

VERTICAL GUIDANCE ②: NUKR

- The cam follower on a double-row roller shaft is used in the frame to place the tunnel in the correct position in front of the aircraft door. It must therefore withstand a heavy weight, endure impacts and vibrations due to passengers walking in the tunnel. It enables vertical guidance by rolling on a rail. The design of this roller also makes it possible to withstand axial loads during the manoeuvres of the tunnel.





PRE-SELECTION GUIDE

NTN needle roller bearings are all characterised by their excellent capacity/overall dimensions ratio. To get the most out of their performance, it is important to choose the type of needle roller bearings according to three characteristics of the housing and the shaft: circularity and rigidity, surface condition and hardness.

	Housing characteristics			Shaft characteristics		
	Circularity and rigidity	Surface condition (roughness)	Hardness	Circularity and rigidity	Surface condition (roughness)	Hardness
 Needle roller and cage assembly	++	++	++	++	++	++
 Drawn cup needle roller bearing	++	+	+	++	++	++
 Bearing with solid rings without inner rings	+	+	0	++	++	++
 Bearing with solid rings with inner rings	+	+	0	+	+	0
 Roller follower (yoke type track roller)	/	+	+	+	+	0
 Cam follower (stud type track roller)	/	+	+	/	/	/



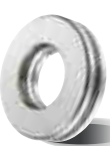
SELECTION GUIDE

Simplify your search by selecting the type of product and the main technical characteristics desired.

Category	Radial load	Axial load	Speed	Precision	Ease of mounting	Series	Type of bearing	Main characteristics	Product presentation page	Technical ref. page
 Needle roller and cage assemblies	●	●	●	●	●	K	Needle roller and cage assemblies	Machined cage, standard type, very rigid	16	36 - 40
						K..ZW	Needle roller and cage assemblies	Machined cage with two needle rows	16	
						KMJ/PCJ	Needle roller and cage assemblies	Drawn steel cage, M-shaped profile	16	
						KJ..S	Needle roller and cage assemblies	Drawn steel cage	16	
						KV..S	Needle roller and cage assemblies	Drawn steel cage of large thickness, very rigid, V-shaped profile	16	
						GK	Needle roller and cage assemblies in two parts	Machined cage in two parts	16	
 Needle roller and cage assemblies for connecting rod	●	●	●	●	●	PK	Needle roller and cage assemblies for big-end	Machined needle roller and cage assemblies	17	41
						KMJ..S	Needle roller and cage assemblies for big-end	Drawn steel cage	17	
						KBK	Needle roller and cage assemblies for small-end	Machined cage	17	
						KV..S	Needle roller and cage assemblies for small-end	Thick drawn steel cage, very rigid with V-shaped profile	17	
						H	High performance needle roller and cage assemblies	Special cage for high speeds and heavy loads	17	
 Drawn cup needle roller bearings	●	●	●	●	●	HK/HKS	Drawn cup needle roller bearings	Standard type, with polyamide or steel cage (HKS : special dimensions)	18	42 - 46
						HK..L/LL	Drawn cup needle roller bearings	Standard type, sealed	18	
						HK..ZWD	Drawn cup needle roller bearings	Double row type	18	
						HMK/DCH	Drawn cup needle roller bearings	High capacity drawn cup needle roller bearings	18	
						HMK..L/LL	Drawn cup needle roller bearings	High capacity drawn cup needle roller bearings, sealed	18	
						HMK..ZWD	Drawn cup needle roller bearings	High capacity drawn cup, double-row	18	
						BK/BKS	Drawn cup needle roller bearings with closed end	Standard type, with polyamide or steel cage	19	
						BK..L	Drawn cup needle roller bearings with closed end	Standard type, sealed	19	
BK..ZWD	Drawn cup needle roller bearings with closed end	Standard type, double row	19							
 Needle roller bearings with solid rings	●	●	●	●	●	RNA48/RNA49/ RNA59/RNA69	Bearing without inner ring	Very rigid outer ring, dimensions according to ISO 15 standard	20	47 - 51
						RNA49..R	Bearing without inner ring	Very rigid outer ring, with ribs, dimensions according to ISO 15 standard	20	
						RNA69..R	Bearing without inner ring	Very rigid outer ring, with ribs, dimensions according to ISO 15 standard	20	
						NK/NKS	Bearing without inner ring	Very rigid outer ring, many cage choices	20	
						NK..R/MR	Bearing without inner ring	Very rigid outer ring, with ribs, many cage choices	20	42 - 54
						NA48/NA49/ NA59	Bearing with inner ring	Very rigid bearing, dimensions according to ISO 15 standard	21	
						NA49..R/NA59..R/ NA69..R	Bearing with inner ring	Very rigid bearing, dimensions according to ISO 15 standard	21	
						NK..R+1R/ MR+M1	Bearing with inner ring	Very rigid bearing, range of cage choices	21	
NK+1R/NKS+1R	Bearing with inner ring	Very rigid bearing, range of cage choices	21							



DIFFICULT MOUNTING	FAIRLY EASY MOUNTING	EASY MOUNTING
MEDIUM PRECISION	GOOD PRECISION	EXCELLENT PRECISION
NOT SUITABLE FOR SPEED RANGES	SUITABLE FOR SPEED RANGES	VERY SUITABLE FOR HIGH SPEED
UNSUITABLE	LOW CAPACITY	GOOD CAPACITY

SELECTION GUIDE (CONTINUED)

Category	Radial load	Axial load	Speed	Precision	Ease of mounting	Series	Type of bearing	Main characteristics	Product presentation page	Technical ref. page
Needle roller bearings with separable solid rings 	●	●	●	●	●	RNAO	Bearing without inner ring	Separable cage and outer ring for easier mounting	22	55
						RNAO..ZW	Bearing without inner ring	Double-row separable cage and outer ring for easier mounting	22	
						NAO	Bearing with inner ring	Separable cage, inner ring and outer ring for easier mounting	22	56
						NAO..ZW	Bearing with inner ring	Separable double-row cage, inner ring and outer ring for easier mounting	22	
Complex bearings 	●	●	●	●	●	NKX	Needle roller bearing + thrust ball bearing	Open thrust ball bearing to withstand axial loads (uni-directional)	24	62
						NKX..Z	Needle roller bearing + thrust ball bearing	Thrust ball bearing with shield to withstand axial loads (uni-directional)	24	
						NKXR	Needle roller bearing + thrust roller bearing	Open thrust roller bearing to withstand axial loads (uni-directional)	25	
						NKXR..Z	Needle roller bearing + thrust roller bearing	Thrust roller bearing with shield to withstand axial loads (uni-directional)	25	
						NK1A	Needle roller bearing + balls	Four point contact ball bearing to withstand axial loads (bi-directional)	24	63
						ARN	Needle roller bearing + thrust roller bearing	High capacity bi-directional thrust roller bearing used at the end of ball screws	25	
Thrust bearings 	●	●	●	●	●	AXK	Thrust bearing cage	With needle rollers, steel or brass cage (acc. to diameter)	26	76
						K811/K812	Thrust bearing cage	Cylindrical rollers, polyamide, steel or aluminum cage	26	
						K874	Thrust bearing cage	Cylindrical roller, cage in aluminium	26	
						K893	Thrust bearing cage	Cylindrical roller, cage in aluminium	26	78
						811/812	Complete thrust bearing	Cylindrical roller thrust bearing, solid washers, cage K811 or K812	27	
						874	Complete thrust bearing	Cylindrical roller thrust bearing, solid washers, cage K874	27	79
						893	Complete thrust bearing	Cylindrical roller thrust bearing, solid washers, cage K893	27	
						AS	Thrust bearing washer	Pressed steel support washer	27	
						WS811/ WS812/ WS874/ WS893	Thrust bearing washer	Solid support washer guided by the outer diameter	27	77
						GS811/ GS812/ GS874/ GS893	Thrust bearing washer	Solid support washer guided by the inner diameter	27	
						DIFFICULT MOUNTING	FAIRLY EASY MOUNTING	EASY MOUNTING		
						MEDIUM PRECISION	GOOD PRECISION	EXCELLENT PRECISION		
						NOT SUITABLE FOR SPEED RANGES	SUITABLE FOR SPEED RANGES	VERY SUITABLE FOR HIGH SPEED		
						UNSUITABLE	LOW CAPACITY	GOOD CAPACITY		



SELECTION GUIDE (CONTINUED AND CONCLUDED)

Category	Radial load	Axial load	Speed	Precision	Ease of mounting	Series	Type of bearing	Main characteristics	Product presentation page	Technical ref. page
 Roller followers	●		●			RNA22..LL	Roller follower without inner ring	Needle rollers suitable for speed range, without inner ring, with two seals	28	71
						RNAB2	Roller follower without inner ring	Needle rollers suitable for speed range, without inner ring, of separable type	28	
						NA22..LL	Roller follower with inner ring	Needle rollers suitable for speed range, with inner ring, with two seals	28	72
						NATR	High capacity roller follower	Needle roller, high radial load capacity, labyrinth sealing	28	73
						NATR..LL	High capacity roller follower	Needle roller, high radial load capacity, with two seals	28	
	●	●	●	●	●	NATV/NACV	High capacity full complement roller follower	Full complement needle roller, high load capacity, but low operating speed	29	73 - 75
						NATV..LL/ NACV..LL	High capacity full complement roller follower	Full complement needle roller, sealed, high load capacity, but low operating speed	29	
	●	●	●	●	●	NUTR2/NUTR3	Very high capacity roller follower	Roller bearing, very high radial load capacity, also accepts axial loads	29	
					NUTW2/ NUTW3	Very high capacity roller follower	Roller bearing, very high radial load capacity, also accepts axial loads	29		
 Cam followers	●		●			KR/CR	Cam follower with needle roller and cage assemblies	Adapted to the speed range, version without seals	30	64 - 67
						KR..LL	Cam follower with needle roller and cage assemblies	Adapted to the speed range, version with two seals	30	
						KRT	Cam follower with needle roller and cage assemblies	Adapted to the speed range, version without seal, tapped lubrication holes	30	
						KRT..LL	Cam follower with needle roller and cage assemblies	Adapted to the speed range, version with two seals, tapped lubrication holes	30	
						KRU	Cam follower with needle roller and cage assemblies	Adapted to the speed range, version without seal, eccentric axis	30	
		●				KRV/CRV	Cam follower, full complement type	Adapted to high radial loads, version without seal	31	
	●					KRV..LL/ CRV..LL	Cam follower, full complement type, sealed	Adapted to high radial loads, version with seals	31	
		●	●	●	●	KRVT	Cam follower, full complement type, with tapped lubrication holes	Adapted to high radial loads, version without seal, tapped lubrication holes	31	
						KRVT..LL	Cam follower, full complement type, with tapped lubrication holes, sealed	Adapted to high radial loads, version without seal, tapped lubrication holes	31	
						KRVU	Cam follower, full complement type, eccentric stud	Adapted to high radial loads, version without seals, eccentric axis	31	
						KRVU..LL	Cam follower, full complement type, eccentric stud, sealed	Adapted to very high radial loads, version with seals, eccentric axis	31	
	●	●	●	●	●	NUKR	Cam follower, full complement type, with cylindrical rollers	Adapted to very high radial loads and moderate axial loads	32	
					NUKRT	Cam follower, full complement type, with cylindrical rollers, with tapped lubrication holes	Adapted to very high radial loads and moderate axial loads	32		
					NUKRU	Cam follower, full complement type, with cylindrical rollers, eccentric stud	Adapted to very high radial loads and moderate axial loads, tapped lubrication holes, eccentric axis	32		
Inner rings						1R/M1	Inner ring	Solid ring acting as a raceway	23	-
Needles						A	Needle with round tips	Semi-standard needle, can also act as pin or axis	33	
						F	Needle with flat ends	Standard needle, the most common, can also act as pin or axis	33	-
Stop segments						BR	Stop segments	Stop segment for housing	33	-
						WR	Stop segments	Stop segment for shaft	33	-
Seals						G	Single lip seal, T°C: -25° C to +120° C.	Designed to retain grease (not oil) and prevent dust entry	33	-
						GD	Double lip seal, T°C: -25° C to +120° C.	Designed to retain grease (not oil) and prevent dust entry	33	-
						DIFFICULT MOUNTING	FAIRLY EASY MOUNTING	EASY MOUNTING		
						MEDIUM PRECISION	GOOD PRECISION	EXCELLENT PRECISION		
						NOT SUITABLE FOR SPEED RANGES	SUITABLE FOR SPEED RANGES	VERY SUITABLE FOR HIGH SPEED		
						UNSUITABLE	LOW CAPACITY	GOOD CAPACITY / HIGH CAPACITY / VERY HIGH CAPACITY		

NEEDLE ROLLER AND CAGE ASSEMBLIES



Description:

The needle roller and cage assembly is a compact and lightweight bearing solution, it includes only needles guided by a cage, without inner and outer rings to directly use the shaft and the housing as raceway surfaces.

Advantage:

- Compact and lightweight.



K / K.S / K.T2

Single-row needle roller and cage assembly

Applicable shaft diameter:

- Machined cage: 3 to 285 mm
- Welded cage (S): 10 to 100 mm
- Polyamide cage (T2): 3 to 74 mm

K..ZW

Double-row machined cage

Applicable shaft diameter: 8 to 285 mm



KJ..S

Pressed steel cage, welded

Applicable shaft diameter: 20 to 40 mm

KMJ / KMJ..S / PCJ

Pressed steel cage with M-shaped profile, one-piece punched or welded

- **KMJ:** Metric dimension series
- **PCJ:** Imperial dimension series

Applicable shaft diameter:

- One-piece punched: 15 to 100 mm
- Welded (S): 10 to 40 mm



KV..S

Thick pressed steel cage, V-shaped profile, welded

Applicable shaft diameter: 7 to 100 mm

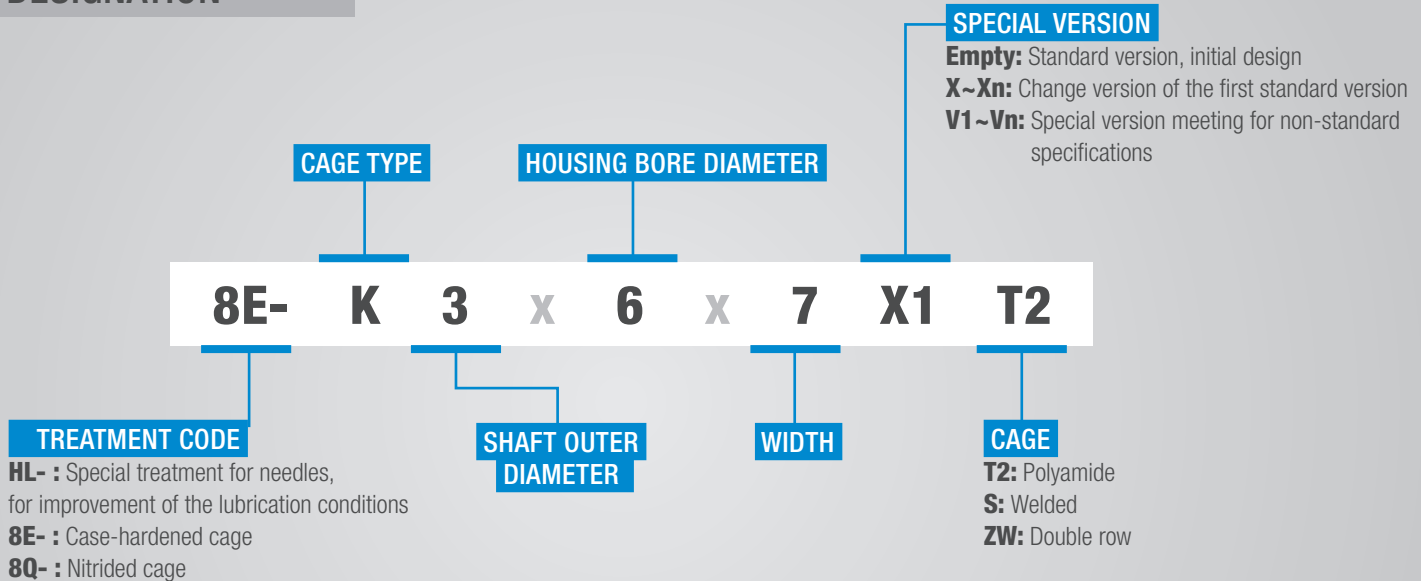
GK

Machined cage, double split type

Applicable shaft diameter: 8 to 285 mm



DESIGNATION



NEEDLE ROLLER AND CAGE ASSEMBLIES FOR CONNECTING ROD



Description:

They are suitable for the severe conditions of small and medium-sized engine and compressor connecting rods. They withstand rapid variations in loads and load directions, high temperatures and low lubrication.

Advantages:

- Resistance to extreme operating conditions due to the design, materials and production processes used.

Optional:

- Possibilities of specific surface treatments of the cage for the harshest applications.



KBK

Machined cage with M-shaped profile, designed for small end of connecting rod
Applicable shaft diameter: 7 to 25 mm

KV..S

Thick pressed steel cage, V-shaped profile, welded
Applicable shaft diameter: 7 to 100 mm



H

Ultra high performance machined cage (high speed and high rigidity), for large end of connecting rod
Applicable shaft diameter: 10 to 38 mm
Option: cage surface treatment (copper, silver plating, ...)

PK

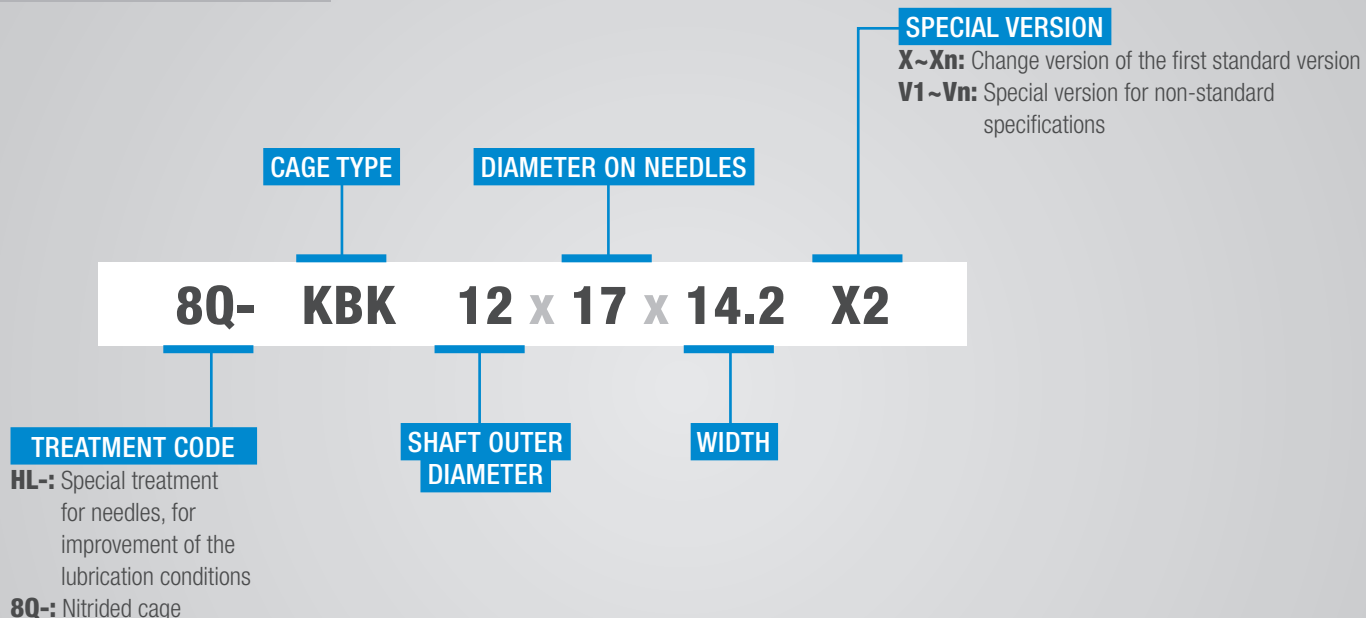
High rigidity machined cage, for large end of connecting rod or planetary reduction gear
Applicable shaft diameter: 10 to 38 mm
Option: cage surface treatment (copper, silver plating, ...)



KMJ..S

Pressed steel cage - M-shaped profile
Type of cage: Welded
Diameter under needles: 10 to 38 mm
Option: cage surface treatment (copper, silver plating, ...)

DESIGNATION



DRAWN CUP NEEDLE ROLLER BEARINGS



Description:

The drawn cup needle roller bearings comprise needles guided by a cage and are open type or with one closed end. The outer ring is formed by precision drawing from a thin steel plate, and is designed to have an appropriate accuracy for its intended function when press-fit into a rigid housing. After a proper press-fitting, this bearing does not need a snap ring or axial clamping to remain in position.

Advantages:

- Compact bearing solution thanks its thin outer ring
- Long life performance for the premium shell type (suffix F & FM)
- Easy handling

Optional:

- Heavy series HMK capable of withstanding extreme loads.
- Available with solid grease (suffix LP03)

OPEN END



HK / HKS

- **HK**: Single row
 - **HKS**: Special series
- Applicable shaft diameter:** 3 to 50 mm

Note:

- Suffix F: improved service life (up to 3 times)
- Suffix M (in addition to F): easy mounting (press-fitting from both sides).

HK..L

- Sealed series
Applicable shaft diameter: 12 to 50 mm
Seal: One side



HK..LL

- Sealed series
Applicable shaft diameter: 12 to 50 mm
Seal: Two sides



HK..ZWD

- Double row type
Applicable shaft diameter: 15 to 30 mm
Note: Lubrication hole on the outer ring (D)



OPEN END HIGH CAPACITY



HMK / DCH

- **HMK**: Metric dimension series
 - **DCH**: Imperial dimension series
- Applicable shaft diameter:** 8 to 50 mm

HMK..ZWD

- Double row
Applicable shaft diameter: 38 to 50 mm
Note: Lubrication hole on the outer ring (suffix D)

HMK..L

- Sealed series
Applicable shaft diameter: 8 to 50 mm
Seal: One side
Note: Bearing length and load are lower than the HMK model of the same dimension



HMK..LL

- Sealed series
Applicable shaft diameter: 8 to 50 mm
Seal: Two sides
Note: Load ratings are lower than HMK with same dimension, due to seals integration



WITH CLOSED END



BK / BKS

- **BK** : Single row
 - **BKS** : Special series
- Applicable shaft diameter: 3 to 50 mm

BK..L

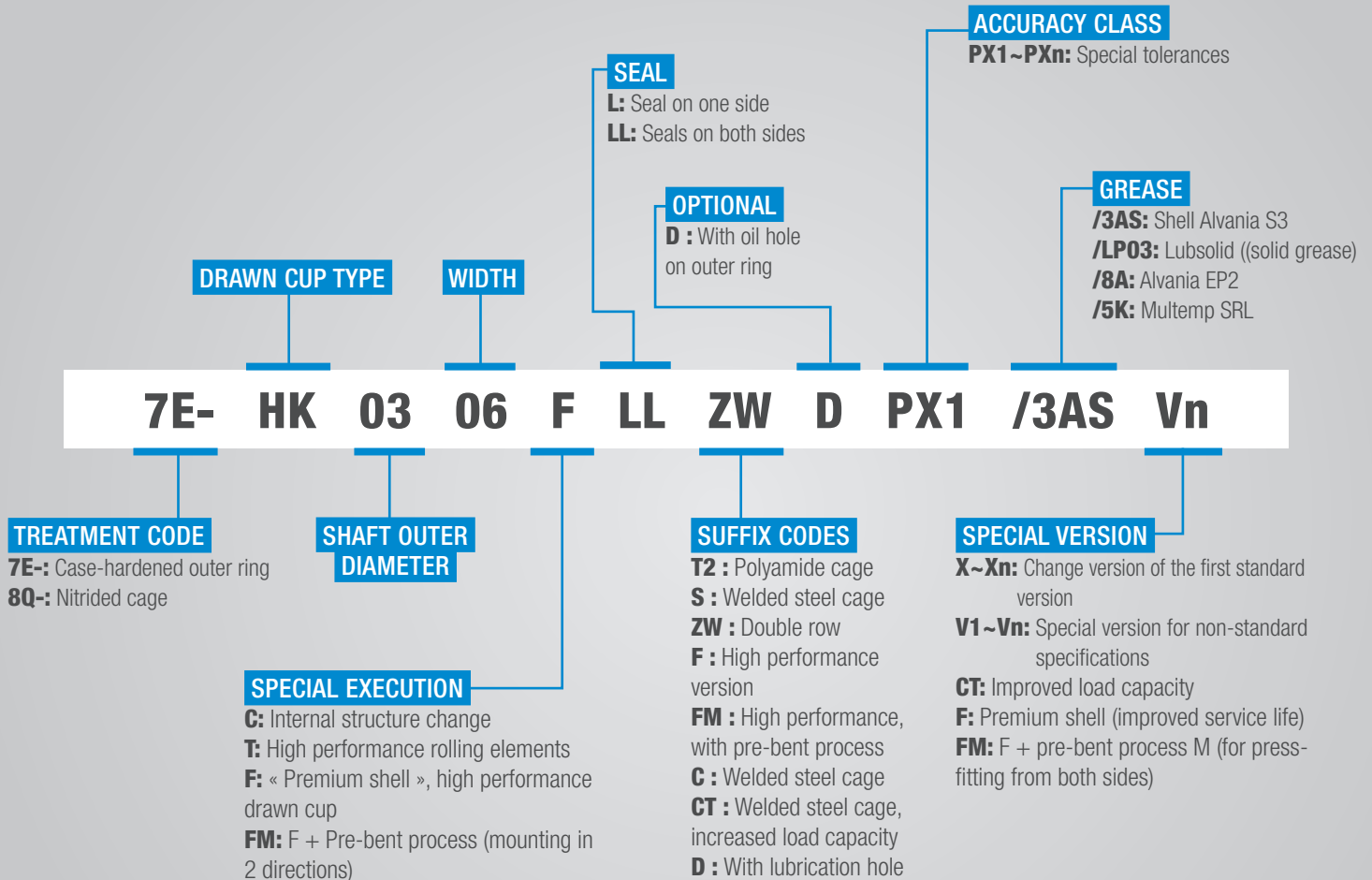
Single row with a seal
 Applicable shaft diameter: 12 to 50 mm

BK..ZWD

Double row
 Applicable shaft diameter: 15 to 30 mm
Note: Lubrication hole on the outer ring version (suffix D)



DESIGNATION



NEEDLE ROLLER BEARINGS WITH SOLID RINGS



Description:

This bearing consists of a solid machined outer ring with needles guided by a cage, the cage is guided itself by the outer ring. Due to its solid outer ring, this bearing type is suitable for application requiring high speed, high load and high running accuracy. The machined ring NRB are available with or without an inner ring.

Advantages:

- Excellent operating precision.
- High rigidity

Optional:

- Exists with one or two seals (suffix L and LL), sealed versions are pre-greased for an operating temperature between -20°C and +120°C

BEARINGS WITHOUT INNER RING



RNA48 / RNA49 / RNA59 / RNA69

Dimension series 48/49/59/69 according JIS B 1512 (ISO 15) standard

Applicable shaft diameter:

- 145 to 390 mm (RNA48)
- 7 to 12 mm (RNA49)
- 20 to 160 mm (RNA59)
- 22 to 110 mm (RNA69)

RNA49..R

Dimension series 49 according JIS B 1512 (ISO 15) standard

Applicable shaft diameter:

- 14 to 490 mm
- 14 to 58 mm (sealed types)

Note: suffix R, for massive ribs on both sides of outer ring



RNA69..R

Dimension series 69 according JIS B 1512 (ISO 15) standard

Diameter under needles:

- 16 to 35 mm
- 40 to 110 mm (double row cage)

Note: suffix R, for massive ribs on both sides of outer ring

NK / NKS

- **NK:** High rigidity outer ring/high precision/standard

- **NKS:** NK with higher load capacity

Diameter under needles:

- 5 to 12 mm (NK)
- Two side plates: 8 to 40 mm (NKS)
- One solid rib and one side plate: 43 to 110 mm (NKS)
- Two solid ribs: 115 to 170 mm (NKS)



NK..R / NKS..R/ MR

Solid outer ring with two massive ribs

- **NK..R:** metric dimension series
- **NKS..R:** metric dimension series, high load capacity
- **MR:** imperial dimensions series

Diameter under needles:

- 14 to 165 mm (NK..R)
- 115 to 170 mm (NKS..R)
- 15.87 to 234.95 mm (MR)

BEARINGS WITH INNER RING



NA48 / NA49 / NA59

Dimensions series 48/49/59 according JIS B 1512 (ISO 15) standard

Shaft diameter:

- 120 to 380 mm (NA48)
- 5 to 9 mm (NA49)
- 15 to 140 mm (NA59)

Note: Single or double row

NA49..R / NA59..R / NA69..R

Dimensions series 49/59/69 according JIS B 1512 (ISO 15) standard

Shaft diameter:

- 5 to 9 mm (NA49..R)
- 15 to 140 mm (NA59..R)
- 120 to 380 mm (NA69..R)

Note: Single or double row



NK+1R / NKS+1R

- **NK+1R:** Set made up of a NK and an inner ring (1R)
- **NKS+1R:** Version with high load capacity

Shaft diameter:

- 5 to 150 mm (NK+1R)
- 6 to 150 mm (NKS+1R)

NK..R+1R / MR+M1

Series with shoulders

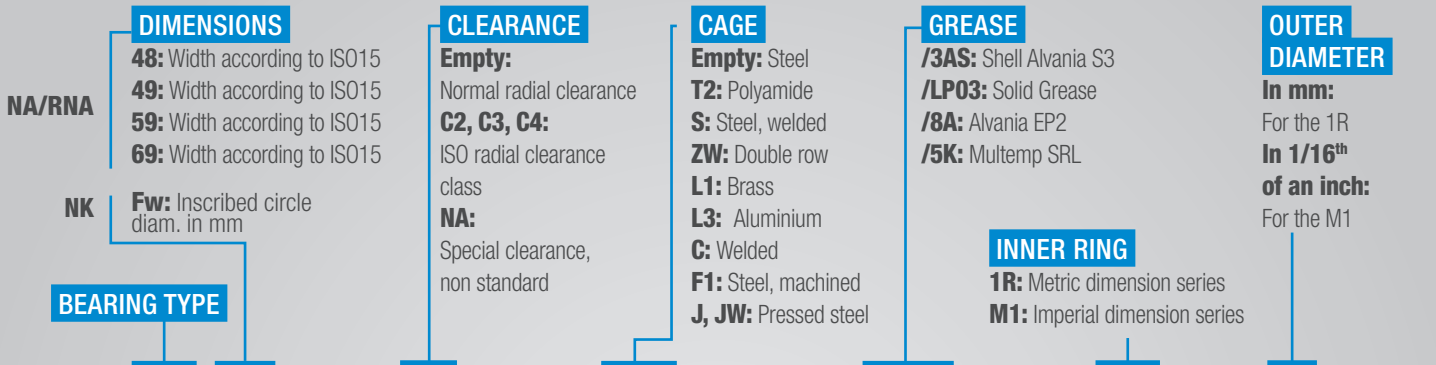
- **NK..R+1R:** Metric dimension series
- **MR+ M1:** Imperial dimension series

Shaft diameter:

- 10 to 150 mm (NK..R+1R)
- 9.525 to 203.2 mm (MR+M1)



DESIGNATION



8E- NK 14 / 16 C3 R LL ZW D PX1 /3AS Vn + 1R 10 x 14 x 16

TREATMENT CODE

- HL-:** Special treatment for needles, for improvement of the lubrication conditions
7E-: Case-hardened outer ring
8E-: Case hardened cage
8Q-: Nitrided cage

DIMENSIONS WIDTH

- RNA, NA:** Bore code (without \)
NK: Bearing width (with \)
MR: Dimensions in 1/16 of an inch; diameter under roller X outer diameter X width

SEAL

- L:** Seal on one side
LL: Seal on both sides

OPTIONAL

- D:** With lubrication hole
D1: With lubrication groove and hole
D2: Assembly of 2 bearings

TOLERANCE CLASSES CODE

- P6:** Class 6
P5: Class 5
PX1~PXn: Special tolerance

OPTIONAL

- R:** Outer ring with solid ribs
CT/T : High performance rolling element

SPECIAL VERSION

- X~Xn:** Change version of the first standard version
V1~Vn: Special version for non-standard specifications
A, B, C: Modified internal construction

BORE DIAMETER

- In mm:** For the 1R
In 1/16th of an inch: For the M1

WIDTH

- In mm:** For the 1R
In 1/16th of an inch: For the M1

NEEDLE ROLLER BEARINGS WITH SEPARABLE SOLID RINGS



Description:

This needle roller bearing with solid rings is of the separable type as its outer ring has no rib and cannot regulate the axial displacement of the needle roller and cage assembly. This is why the bearing must be mounted so that the needle roller and cage assembly is guided by the shaft or the housing.

Advantages:

- Excellent operating precision.
- The clearance can be perfectly controlled by suitably combining the inner and outer rings with the needle roller and cage assemblies.
- The inner ring and outer ring can be individually crimped onto a shaft or in a housing to facilitate mounting of the bearing.



RNAO

Outer ring with high rigidity/
high precision

Type of cage: Single row

Diameter under needles: 5 to 100 mm

RNAO..ZW

Outer ring with high rigidity/
high precision

Type of cage: Double row

Diameter under needles: 8 to 80 mm



NAO

Set made up of RNAO and
an inner ring (1R)

Diameter under needles:
8 to 90 mm

NAO..ZW

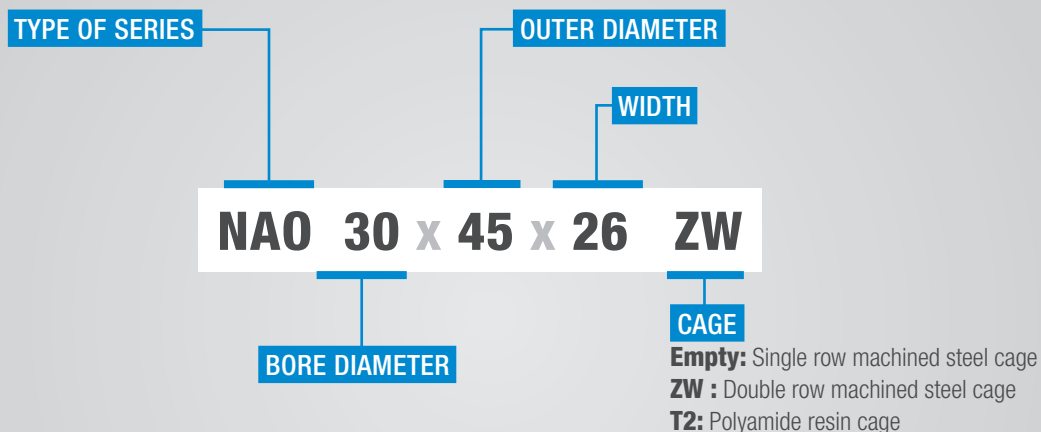
Set made up of RNAO and
an inner ring (1R)

Type of cage: Double row

Diameter under needles: 10 to 70 mm



DESIGNATION



INNER RINGS



Description:

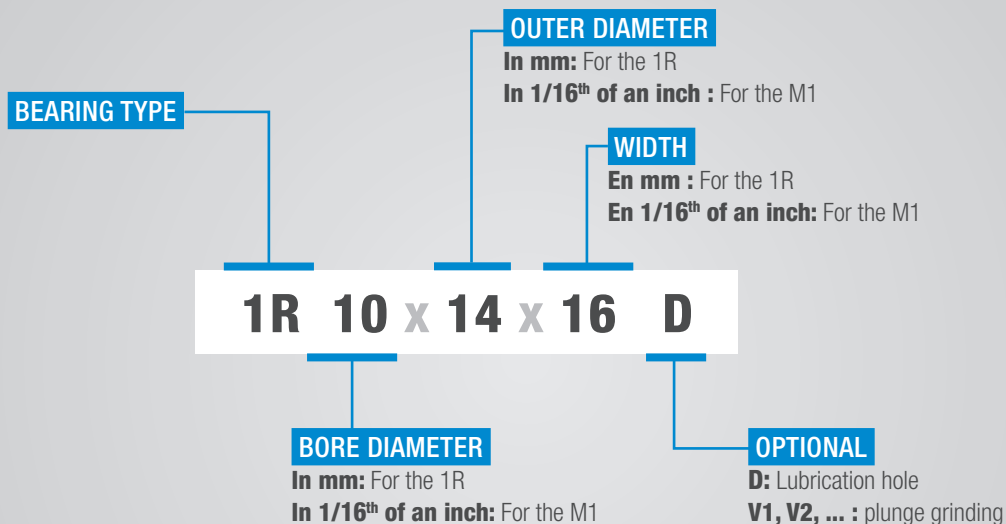
Many needle roller bearings use the shaft as a raceway surface without the use of an inner ring. However, it is recommended to use the inner rings with the needle roller bearings, when the shaft can neither be heat treated nor ground. If their raceway is rectified on diving, they can be used as a seal track.



1R (IR) / M1 (MI)

- **1R:** Metric series
 - **M1:** Inch series
- Bore diameter:**
- 5 to 440 mm (1R)
 - 9.525 to 203.2 mm (M1)

DESIGNATION



COMPLEX BEARINGS



Description:

They consist of a radial needle roller bearing (with machined outer ring) to withstand radial loads and a thrust ball bearing or thrust needle roller bearing to withstand axial loads, combined to form a bearing unit.

Advantage:

- Two-in-one bearing: compactness and high radial and axial load capacities.

NEEDLE ROLLER BEARINGS WITH THRUST BALL BEARING



NKX

Radial needle roller bearing + thrust ball bearing.
Thrust ball bearing is separable type (without dust-proof cover), with steel cage

Shaft diameter: 10 to 70 mm

Note:

- Can be applied to high rotation speed under light axial load due to ball type thrust bearing
- Radial bearing w/o inner ring, can be associated with adequate inner ring 1R (IR)

NKX..T2

NKXR with polyamide thrust cage (suffix T2).

Shaft diameter: 10 to 35 mm



NKX..T2Z

NKXR..T2 with a dust-proof cover (suffix Z) on thrust bearing

Shaft diameter: 10 to 35 mm

Note:

Advantages of the dust-proof cover :

- makes the thrust roller bearing non separable,
- maintain the grease inside the bearing
- protect the bearing against pollution



NK1A59

Radial needle roller bearing + angular contact ball bearing
Angular contact ball bearing support axial load in one direction.

Shaft diameter: 15 to 70 mm

Note:

- Best combined bearings solution for high speed under light axial load
- Inner ring is separable type

NEEDLE ROLLER BEARINGS WITH THRUST ROLLER BEARING



NKXR

Radial needle roller bearing + thrust roller bearing

Thrust roller bearing is separable type (w/o dust-proof cover)

Shaft diameter: 15 to 50 mm

Note:

- NKXR type supports higher axial loads than NKX type
- Radial bearing is w/o inner ring, could be associated with adequate inner ring 1R (1R)

NKXR with polyamide thrust cage (suffix T2)

Shaft diameter: 15 to 50 mm



AXN / ARN

Radial needle roller bearing with double direction thrust needle roller bearing (AXN) or thrust roller bearing (ARN)

Designed to support precision ball screw

Shaft diameter: AXN : 20 to 50 mm
ARN : 20 to 70 mm

Note:

- manufactured according tolerance class P5 & P4 only

NKXR..T2Z

NKXR..T2 with dust-proof cover on thrust roller bearing

Shaft diameter: 15 to 50 mm

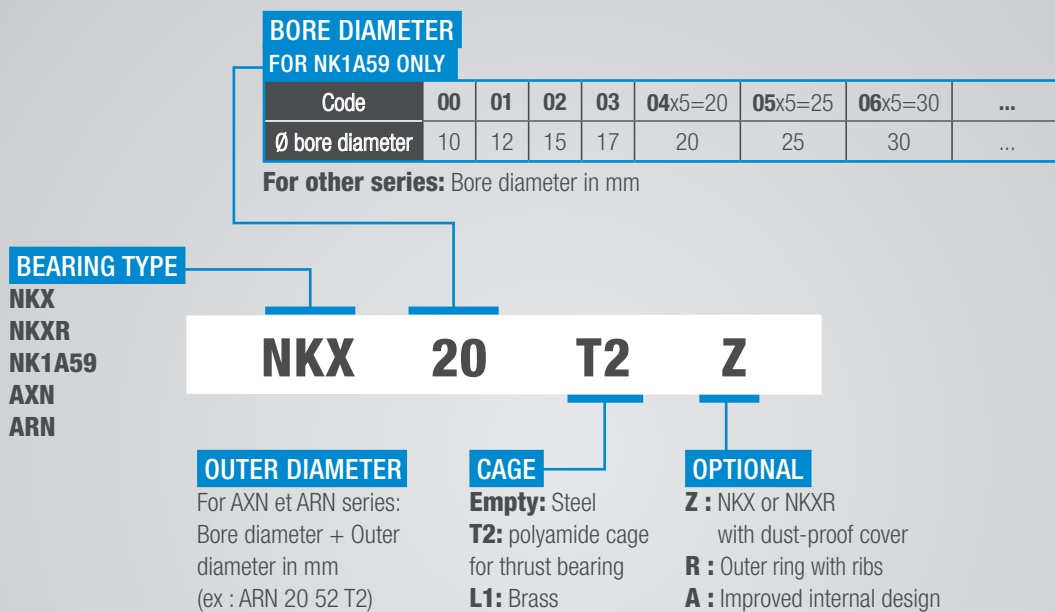
Note:

Advantages of the dust-proof cover :

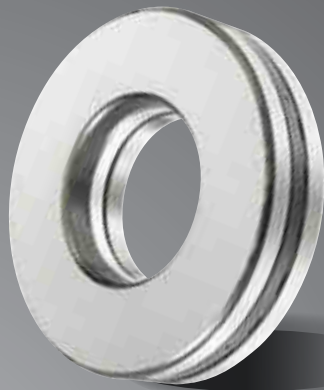
- makes the thrust roller bearing non separable,
- maintain the grease inside the bearing
- protect the bearing against pollution



DESIGNATION



THRUST ROLLER BEARINGS



Description:

Single or double effect, the thrust roller bearings are designed to withstand only axial loads. This product family is composed of several parts: thrust roller and cage assemblies (with needle or cylindrical rollers), thrust washers used as inner and/or outer rings, complete thrust bearings.

Advantage:

- Wide range of complete thrust bearings, ready for mounting.
- Thrust roller and cage assemblies could be used without the thrust washers for a more compact and lightweight design.

Optional:

- Wide selection of cage materials.

THRUST ROLLER AND CAGE ASSEMBLIES, WITH NEEDLE OR CYLINDRICAL ROLLERS



K811..T2 / K812..T2

Standard type, with cylindrical rollers and polyamid resin cage (suffix T2)

Shaft diameter:

- 10 to 120 mm (K811)
- 30 to 80 mm (K812)

Note:

- Could be used in combination with WS and GS thrust washers
- Conforms to dimension series 11 and 12 specified in JIS B 1512

K811 / K812

Standard type, with cylindrical rollers and aluminium alloy cage

Shaft diameter:

- 130 to 160 mm (K811)
- 85 to 140 mm (K812)

Note:

- Could be used in combination with WS and GS thrust washers
- Conforms to dimension series 11 and 12 specified in JIS B 1512



K811..JW / K812..JW

Cylindrical rollers, with pressed steel cage

Shaft diameter: 10 to 90 mm

Note:

- Could be used in combination with WS and GS thrust washers
- Conforms to dimension series 11 and 12 specified in JIS B 1512

K893

Cylindrical rollers in 2 radial rows arrangement, with aluminium alloy cage
Suitable for heavy axial loads

Shaft diameter: 30 to 110 mm

Note:

- Could be used in combination with WS and GS thrust washers
- Conforms to dimension series 93 specified in JIS B 1512



K874

Cylindrical rollers in multi radial rows arrangement, with aluminium alloy cage
Suitable for extra-heavy axial loads

Shaft diameter: 40 to 90 mm

Note:

- Could be used in combination with WS and GS thrust washers
- Conforms to dimension series 74 specified in JIS B 1512

AXK

Needle roller and cage assemblies

With pressed steel cage:

shaft diameter: 10 to 120 mm

With high strength brass cage:

shaft diameter: 130 to 160 mm

Note: Could be used in combination with AS, WS and GS thrust washers



THRUST WASHER



GS811 / GS812 / GS874 / GS893

Thick machined washer guided by the outer diameter (outer ring)

Housing diameter: 24 to 200 mm

Thickness : 2.75 to 16.5 mm

Note: Higher rigidity and higher running accuracy than AS thin washer

WS811 / WS812 / WS874 / WS893

Thick machined washer guided by the bore diameter (inner ring)

Shaft diameter: 10 to 160 mm

Thickness: 2.75 to 16.5 mm

Note: Higher rigidity and higher running accuracy than AS thin washer



AS11

Thin pressed steel washer, used as inner & outer ring

Shaft diameter: 10 to 160 mm

Housing diameter: 24 to 200 mm

Thickness: 1 mm

Note: Because of its 1mm thickness, this thrust washer needs a adequate rigidity and profile accuracy of adjacent parts to the thrust bearing.

COMPLETE THRUST ROLLER BEARINGS



811 / 812

Cylindrical roller thrust bearings

811.. = K811.. + WS811.. + GS811..

812.. = K812.. + WS812.. + GS812..

Shaft diameter:

- 10 to 160 mm (811)
- 30 to 140 mm (812)

Note:

- Conforms to dimension series 11 and 12 specified in JIS B 1512
- Standard cage in aluminium alloy
- Pressed steel cage with suffix J

874

Cylindrical roller thrust bearing

874.. = K874.. + WS874.. + GS874..

Shaft diameter:

- 40 to 90 mm

Note: Conforms to dimension serie 74 specified in JIS B 1512



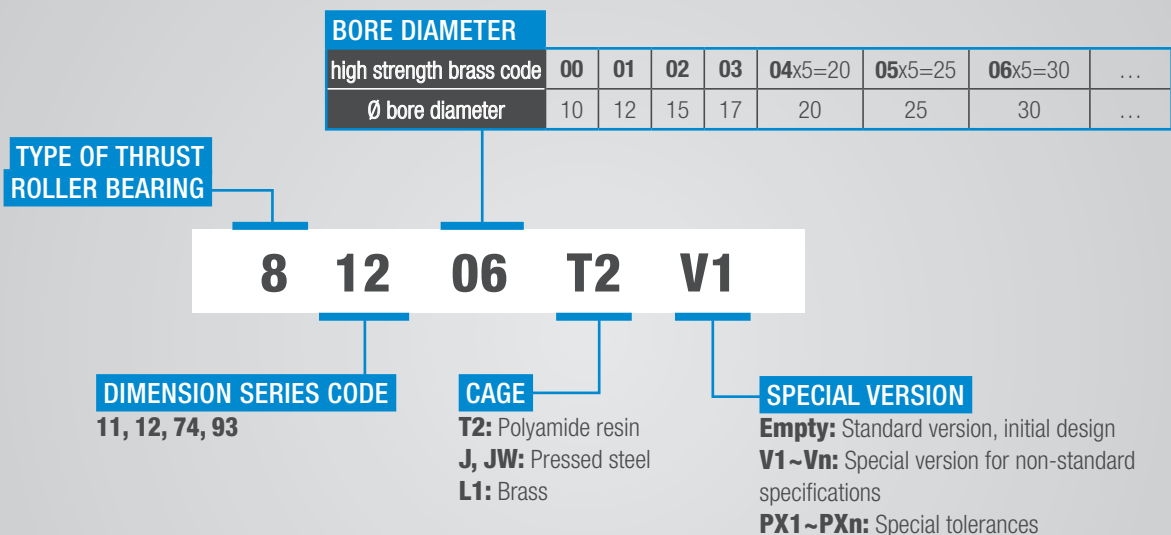
893

Cylindrical roller thrust bearing - 893.. = K893.. + WS893.. + GS893..

Shaft diameter: 30 to 110 mm

Note: Conforms to dimension serie 93 specified in JIS B 1512

DESIGNATION



ROLLER FOLLOWERS



Description:

Roller follower (or yoke type track roller) is a bearing with a thick wall outer ring for rolling on a cam track or on a rail. This outer ring rolling surface could be spherical (R500, for misalignment compensation and reduction of edge stresses, no suffix) or cylindrical (for higher track load capacity, suffix X).

Advantage:

- Wide choice of variants depending on the requirements (high speeds, heavy loads, impacts).

Variants:

- with needles or cylindrical rollers
- with or without inner ring,
- with or without seals

Without inner ring, with cage, suitable for HIGH SPEED



RNAB2

Separable type (straight inner diameter of outer ring, no retention of the cage)

Outer diameter: 16 to 90 mm

Shaft diameter: 7 to 60 mm

NOTE: Without seal

RNA22..LL

Outer diameter: 19 to 90 mm

Shaft diameter: 10 to 58 mm

NOTE: With seals, prefilled with lithium soap grease (grease code 3AS)



With cage and inner ring, suitable for HIGH SPEED



NATR

Non-separable type

Outer diameter: 16 to 90 mm

Shaft diameter: 5 to 50 mm

NATR..LL

Non-separable type with 2 seals

Roller diameter: 16 to 90 mm

Shaft diameter: 5 to 50 mm

NOTE: Sealed version are prefilled with lithium soap grease (grease code 3AS)



NA22..LL

Non separable type with 2 seals

Outer diameter: 19 to 90 mm

Shaft diameter: 6 to 50 mm

NOTE: Sealed version are prefilled with lithium soap grease (grease code 3AS)

Full complement, suitable for HIGH RADIAL LOADS



NATV / NACV

- **NATV:** Metric series, non separable type
- **NACV:** Inch series, non separable type



NATV..LL / NACV..LL

Non separable type, with 2 seals

Outer diameter:

- 16 to 90 mm (NATV)
- 19.05 to 152.4 mm (NACV)

Shaft diameter:

- 5 to 50 mm (NATV)
- 6.35 to 57.15 mm (NACV)

NOTE:

- Sealed version & full complement type are prefilled with lithium soap grease (grease code 3AS)



Full complement, suitable for HEAVY RADIAL LOADS AND SHOCKS



NUTR2 / NUTR3

Double row of cylindrical rollers, non-separable type

Outer diameter: 35 to 110 mm

Shaft diameter: 15 to 50 mm

NOTE:

- Protected by 2 shields
- Prefilled with lithium soap grease (grease code 3AS)
- Withstands moderate axial loads

NUTW2

Double row of cylindrical rollers, non-separable type

Outer diameter: 35 to 90 mm

Shaft diameter: 15 to 50 mm

NOTE:

- With central rib inside outer ring
- Protected by 2 shields
- Prefilled with lithium soap grease (grease code 3AS)
- Withstands moderate axial loads



DESIGNATION

BORE DIAMETER

NATR et NATV: Bore diameter in mm

NACV: Outer diameter, in 1/16 inch

RNA22, NA22, NUTR2, NUTR3 and NUTW2:

Code	/6	/8	00	01	02	03	04x5=20	05x5=25	06x5=30	07 x 5 = 35	...
∅ bore diameter	6	8	10	12	15	17	20	25	30	35	...

TYPE OF ROLLER FOLLOWER

NATR 14 X T2 LL /3AS

OUTER RING SHAPE

Empty: Spherical outer diameter : R500 mm
X: Cylindrical outer ring

SEAL

LL: 2 seals

GREASE

Empty: Ungreased bearing

/3AS: Shell Alvania S3

/LP03: Solid Grease

/8A: Alvania EP2

/5K: Multemp SRL

/L588: Pyrononc Universal N6C

SUFFIX

T2: Polyamide cage

C: Internal change code

T: High performance rolling elements

CAM FOLLOWERS



Description:

Cam follower (stud type track roller) is a bearing with a thick wall outer ring for rolling on a track cam or on a rail, this bearing integrates a stud instead of an inner ring. The cam followers are intended to be used as eccentric roller, guide roller, etc... The stud is threaded to be used with an hexagonal nut or a threaded bore. The outer diameter is spherical (for misalignment compensation and edge stresses reduction, no suffix) or cylindrical (for higher load track capacity, suffix X).

Advantages:

- Wide choice of variants depending on the requirements (high speeds, heavy loads and impact loads).
- Easy mounting thanks to its threaded stud.
- Always supplied with its nut, grease nipples and grease plugs.

Variants:

- Suffix H: tightening with a hexagon wrench.
- Suffix F: optimized needle roller profile and special heat treatment for higher life performance.
- Suffix DO: greased for life with a urea-based high functionality grease (not regreaseable)

With cage, suitable for HIGH SPEED

KR / CR Standard series

- **KR** : Metric series with cage
- **CR** : Inch series
- Outer diameter:**
 - 10 to 90 mm (KR)
 - 12.7 to 57.15 mm (CR)
- Stud diameter:**
 - 3 to 30 mm (KR)
 - 4.826 to 22.225 mm (CR)

Note:

- Without seal
- Due to a high initial grease fill, can be used for a long period without additional greasing
- Large side face of cam follower: straight slot for screwdriver or hexagon socket hole (suffix H)



KR..LL / CR..LL

- **KR..LL** : Metric dimension series with cage
- **CR..LL** : Inch series
- Outer diameter:**
 - 10 to 90 mm (KR..LL)
 - 15.875 to 57.15 mm (CR..LL)
- Stud diameter:**
 - 3 to 30 mm (KR..LL)
 - 6.35 to 22.225mm (CR..LL)

Note:

- With seals, prefilled with lithium soap grease (grease code 3AS)



KRT

Standard Series - 2 tapped lubrication holes

Outer diameter: 16 to 90 mm

Shaft diameter: 6 to 30 mm

Note:

- Without seal
- Only straight slot for screw driver, no hexagon socket
- Due to a high initial grease fill, can be used for a long period without additional greasing



KRT..LL

Standard Series - slot for screwdriver and tapped lubrication holes

Outer diameter: 16 to 90 mm

Shaft diameter: 6 to 30 mm

Note:

- With seals, pre-filled with lithium soap based grease



KRU

Design identical to the KRT but with an eccentric axis

Roller diameter: 16 to 90 mm

Shaft diameter: 6 to 30 mm

Note:

- Available in sealed version (LL)
- Check interchangeability



KRUL..LL

Roller diameter: 16 to 90 mm

Shaft diameter: 6 to 30 mm

Note:

- With seals, pre-filled with lithium soap based grease

Full complement, suitable for HIGH RADIAL LOADS



KRV / CRV

- **KRV** : Series without cage for load capacity
 - **CRV** : Imperial dimension series
- Roller diameter:**
- 10 to 90 mm (KRV)
 - 12.7 to 152.4 mm (CRV)

Shaft diameter:

- 3 to 30 mm (KRV)
- 4.826 to 6.5 mm (CRV)

Note:

- Without seal
- Series without cage
- Shaft side: with screwdriver slot / hexagonal insert
- Pre-greased

KRV..LL / CRV..LL

- **KRV..LL** : Series without cage for load capacity
 - **CRV..LL** : Imperial dimension series
- Roller diameter:**
- 10 to 90 mm (KRV)
 - 12.7 to 152.4 mm (CRV)

Shaft diameter:

- 3 to 30 mm (KRV..LL)
- 4.826 to 63.5 mm (CRV..LL)

Note:

- With seal
- Shaft side: with screwdriver slot / hexagonal insert
- Pre-greased



KRVT

Slot for screwdriver and tapped lubrication hole

- Roller diameter:** 16 to 90 mm
Shaft diameter: 6 to 30 mm

Note:

- Version without cage

KRVT..LL

Sealed series - slot for screwdriver and tapped hole

- Roller diameter:** 16 to 90 mm
Shaft diameter: 6 to 30 mm

Note:

- With seal
- Pre-greased



KRVU

Identical to the KRVT but with an eccentric axis

- Roller diameter:** 16 to 90 mm
Shaft diameter: 6 to 30 mm

Note:

- Pre-greased
- Check interchangeability

KRVU..LL

Sealed series

- Roller diameter:** 16 to 90 mm
Shaft diameter: 6 to 30 mm

Note:

- Pre-greased
- Check interchangeability



With two rows of cylindrical rollers, full complement, with shields, suitable for **VERY HIGH RADIAL LOADS AND IMPACTS**



NUKR

Version with screwdriver slot or hexagonal hole (H)

Roller diameter: 30 to 180 mm

Shaft diameter: 12 to 64 mm

Note:

- Without cage, protected
- With seal
- Pre-greased
- Withstands moderate axial load

NUKRT

Identical to NUKR but with screwdriver slot and tapped hole

Roller diameter: 30 to 180 mm

Shaft diameter: 12 to 64 mm

Note:

- Without cage, protected
- Pre-greased
- Withstands moderate axial load



NUKRU

Identical to the NUKRT but with an eccentric axis

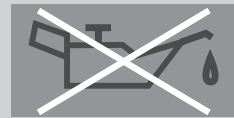
Roller diameter: 30 to 180 mm

Shaft diameter: 12 to 64 mm

Note:

- Without cage, protected, eccentric
- Shaft side: with screwdriver slot and tapped hole
- Pre-greased
- Check interchangeability
- Withstands moderate axial load

VARIATIONS



Suffix «D0» version:
greased for life with high performance grease

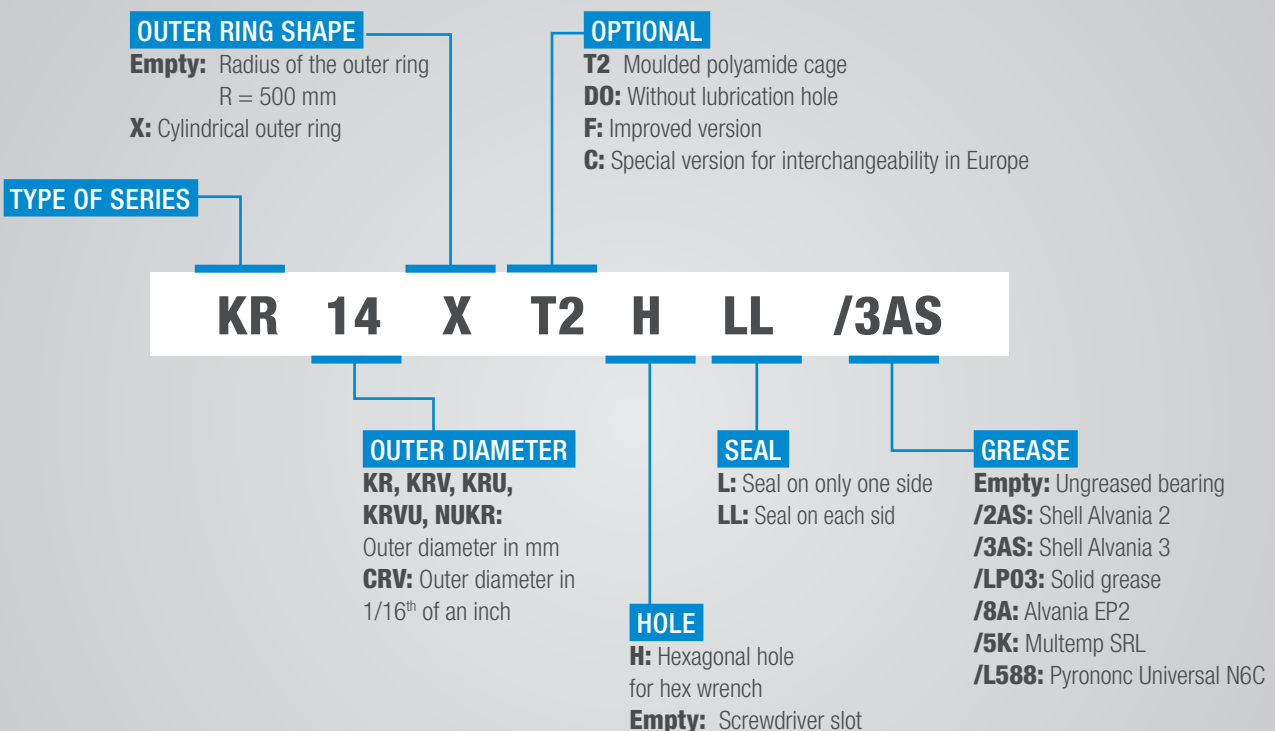


Suffix «H» version: tightening with hexagonal wrench



Version without suffix «X»:
spherical outer diameter

DESIGNATION





COMPONENTS

In addition to its needle roller bearing ranges, NTN offers a range of high quality components

NEEDLES

Description: NTN needle rollers are all made of high carbon chrome bearing steel, fine-finished by grinding and polishing after heat-treatment, and the hardness thereof ranges from HRC60 to 65. These needle rollers are intended to be used as rolling elements but also as pins..

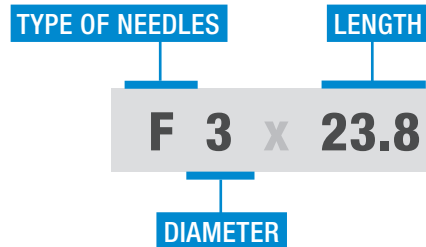
Advantage: Extreme hardness for a longer service life.

Options:

- With or without crown
- Special surface treatment
- Available in many lengths and from 1.5 to 5 mm in diameter



DESIGNATION



STOP SEGMENTS

Description: For shaft or housing, these stop segments are exclusively used to fix or axially guide a ring or a cage.



WR
Stop segment for shaft
Shaft diameter: 4 to 400 mm

BR
Stop segment for housing
Housing diameter: 7 to 440 mm

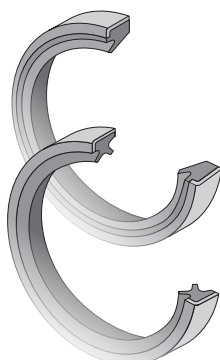
DESIGNATIONS



SEALS

Description: These are special seals for needle roller bearings. Their section is designed to adapt to these bearing.

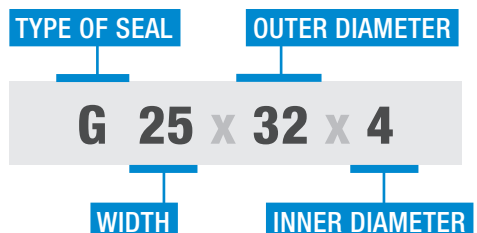
Options: Two different types of seals are available: the G series with one lip and the GD series with two lips. The latter is intended to retain the grease and prevent dust from entering.

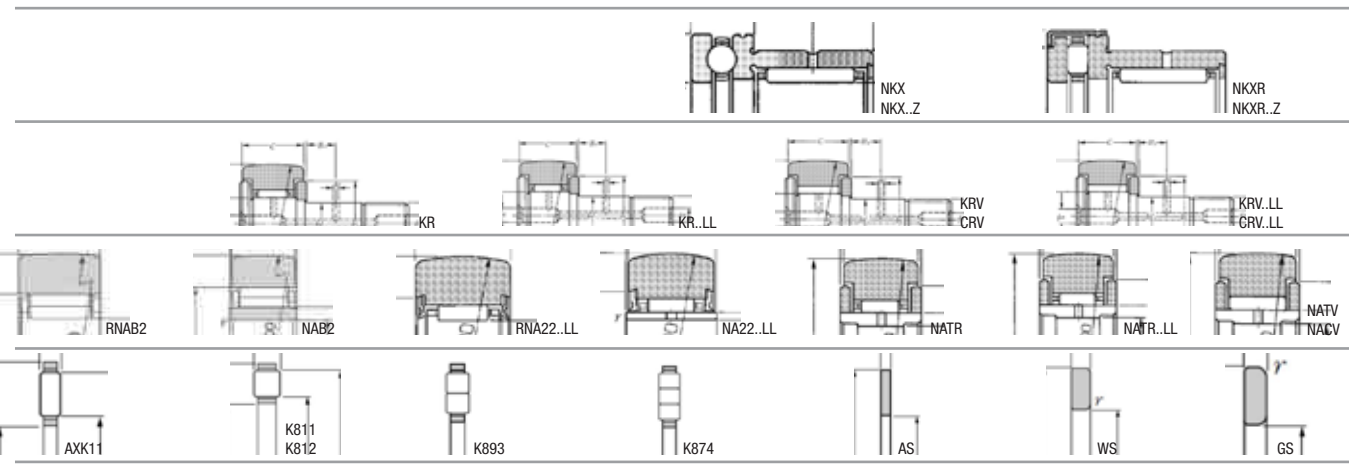
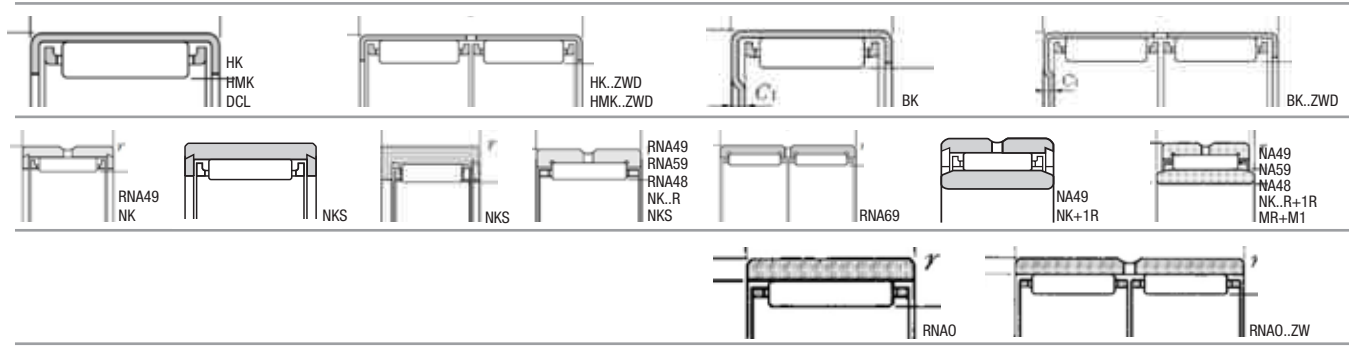


G
Single lip seal
Inner diameter: 4 à 50 mm

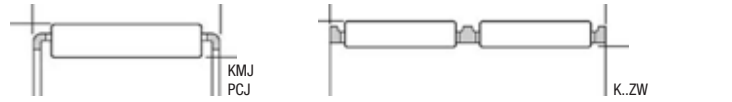


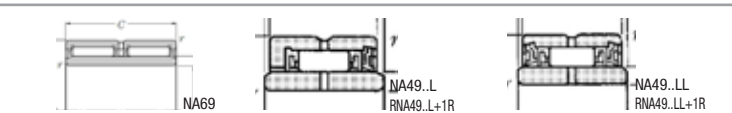
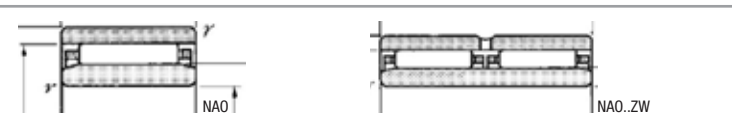
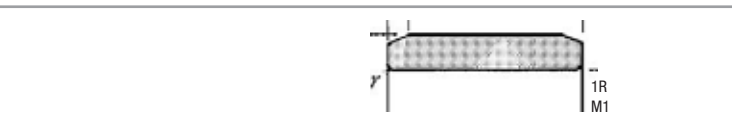
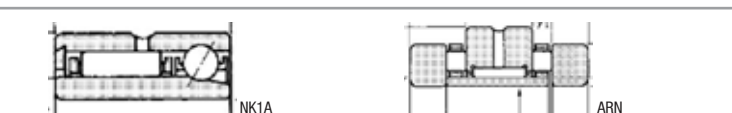
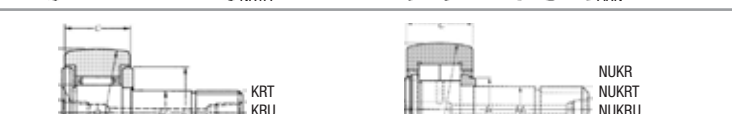
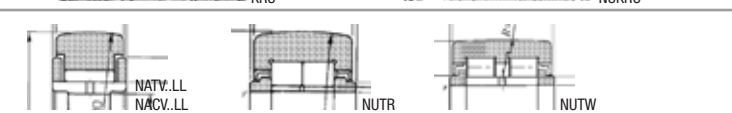
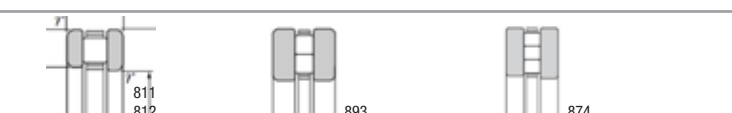
GD
Double lip seal
Inner diameter: 14 à 50 mm

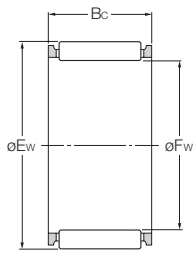
DESIGNATIONS



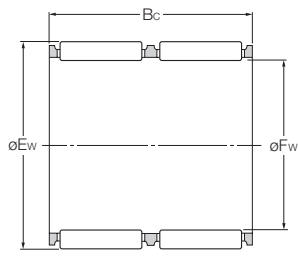


TECHNICAL SUMMARY

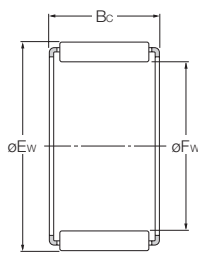
	<p>Needle roller and cage assemblies</p>	<p>36</p>
	<p>Needle roller and cage assemblies for connecting rod</p>	<p>41</p>
	<p>Drawn cup needle roller bearings</p>	<p>42</p>
	<p>Needle roller bearings with solid rings</p>	<p>47</p>
	<p>Needle roller bearings with separable solid rings</p>	<p>55</p>
	<p>Inner rings</p>	<p>57</p>
	<p>Complex bearings</p>	<p>62</p>
	<p>Cam followers</p>	<p>64</p>
	<p>Roller followers</p>	<p>71</p>
	<p>Thrust bearings</p>	<p>76</p>



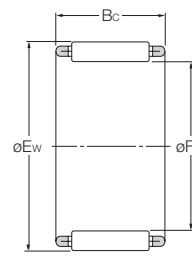
K
K -- T2
K -- S



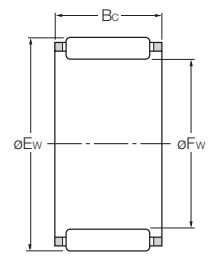
K -- ZW



KMJ
KMJ -- S
PCJ



KJ -- S



KV -- S

Needle roller and cage assemblies

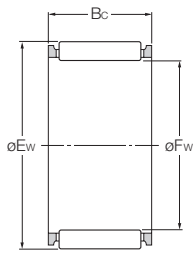
Part numbers	Dimensions (mm)			Basic load rating (kN)		Limiting speeds (tr/min)		Mass (kg)
	Fw	Ew	Bc	dynamic	static	grease	oil	
K3X6T2	3	6	7	1,46	0,97	33000	50000	0,0004
K4X7T2	4	7	7	1,77	1,27	30000	45000	0,0005
K5X8T2	5	8	8	2,64	2,19	27000	40000	0,0007
K5X8T10T2	5	8	10	2,72	2,25	27000	40000	0,0009
K6X9T2	6	9	8	2,66	2,28	25000	37000	0,0009
K6X9T10T2	6	9	10	3,4	3,15	25000	37000	0,011
K6X10T13T2	6	10	13	4,4	3,7	25000	37000	0,019
K7X10T2	7	10	8	2,67	2,35	23000	34000	0,0009
K7X10T10T2	7	10	10	3,4	3,2	23000	34000	0,011
K8X11T2	8	11	8	3,15	3	21000	32000	0,011
K8X11T10T2	8	11	10	4	4,1	21000	32000	0,013
8Q-K8X11X10	8	11	10	4	4,1	21000	32000	0,002
K8X11X13	8	11	13	4,85	5,2	21000	32000	0,026
K8X12T2	8	12	10	4,65	4,15	21000	32000	0,002
8Q-K8X12X12	8	12	12	5,6	5,3	21000	32000	0,0037
K8X12X13	8	12	13	5,05	4,65	21000	32000	0,0036
K9X12T2	9	12	10	4,55	5	20000	30000	0,015
8Q-K9X12X10	9	12	10	4,3	4,6	20000	30000	0,002
K9X12X13	9	12	13	5,5	6,4	20000	30000	0,021
K9X12X13T2	9	12	13	5,5	6,4	20000	30000	0,021
K10X13T2	10	13	10	4,55	5,1	19000	28000	0,016
K10X13X13	10	13	13	5,45	6,45	19000	28000	0,003
K10X14X8	10	14	8	4,3	3,95	19000	28000	0,0027
KMJ10X14X8.8XS	10	14	8,8	5,15	5,25	19000	28000	0,0028
K10X14X10	10	14	10	5,5	5,45	19000	28000	0,0034
8E-KV10X14X10.8XS	10	14	10,8	5,5	5,45	19000	28000	0,0039
8E-KV10X14X12.5X1S	10	14	12,5	6,6	6,9	19000	28000	0,0046
K10X14X13	10	14	13	6,6	6,9	19000	28000	0,0044
K10X16X12	10	16	12	7,1	5,95	19000	28000	0,0066
K11X14X10	11	14	10	5,05	6	18000	27000	0,0028
K12X15X10	12	15	10	5	6,1	17000	26000	0,0030
K12X15X10S	12	15	10	5	6,1	17000	26000	0,003
K12X15X13	12	15	13	6	7,7	17000	26000	0,0038
K12X15X13V1	12	15	13	6	7,7	17000	26000	0,0038
K12X16X8	12	16	8	4,85	4,9	17000	26000	0,0034
K12X16X10X1S	12	16	10	4,85	4,9	17000	26000	0,0047
8Q-K12X16X13	12	16	13	7,5	8,5	17000	26000	0,006
K12X17X13	12	17	13	9	9,4	17000	26000	0,0075
K12X18X12	12	18	12	8,65	8	17000	26000	0,0089
8Q-K12X18X12	12	18	12	8,65	8	17000	26000	0,0089
K14X17X10	14	17	10	5,4	7,05	16000	24000	0,0035
K14X18X10	14	18	10	6,9	8	16000	24000	0,0046
K14X18X13	14	18	13	8,3	10,1	16000	24000	0,0063
K14X18X15S	14	18	15	9,65	12,3	16000	24000	0,0076
K14X18X17	14	18	17	10,9	14,4	16000	24000	0,0079
K14X20X12	14	20	12	9,35	9,15	16000	24000	0,0095
K15X18X14	15	18	14	7,85	11,6	15000	23000	0,006
K15X19X10	15	19	10	6,85	8,05	15000	23000	0,0055
K15X19X13	15	19	13	8,25	10,2	15000	23000	0,0067
K15X19X17	15	19	17	10,9	14,6	15000	23000	0,009
K15X19X24ZW	15	19	24	14,1	20,4	15000	23000	0,013
K15X20X13	15	20	13	10,1	11,5	15000	23000	0,0088
KMJ15X20X15.8XS	15	20	15,8	12,6	15,2	15000	23000	0,009
K15X21X15	15	21	15	11,9	12,5	15000	23000	0,013
KMJ15X21X17S	15	21	17	15,1	17,2	15000	23000	0,012
K15X21X21	15	21	21	16,5	19,1	15000	23000	0,017
K16X20X10	16	20	10	7,5	9,25	15000	23000	0,0057
K16X20X13	16	20	13	9,05	11,8	15000	23000	0,0071
K16X20X17S	16	20	17	11,9	16,8	15000	23000	0,0092
K16X22X12	16	22	12	11,7	12,5	15000	23000	0,01
KMJ16X22X13	16	22	13	12,6	13,9	15000	23000	0,011
K16X22X15.8X	16	22	15,8	13,6	15,2	15000	23000	0,014

.../...

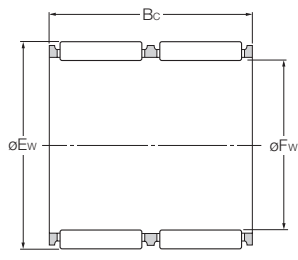
Needle roller and cage assemblies

Part numbers	Dimensions (mm)			Basic load rating (kN)		Limiting speeds (tr/min)		Mass (kg)
	Fw	Ew	Bc	dynamic	static	grease	oil	
K16X22X20	16	22	20	16	18,8	15000	23000	0,017
K17X21X10S	17	21	10	7,45	9,3	15000	22000	0,0056
K17X21X13S	17	21	13	9,4	12,6	15000	22000	0,0075
K17X21X15	17	21	15	10,4	14,4	15000	22000	0,0089
K17X21X17	17	21	17	11,8	16,9	15000	22000	0,0095
K17X22X20	17	22	20	14,7	19,2	15000	22000	0,015
K18X22X10	18	22	10	7,4	9,4	14000	21000	0,0061
K18X22X13	18	22	13	8,9	11,9	14000	21000	0,0077
K18X22X17	18	22	17	11,7	17	14000	21000	0,011
K18X23X20S	18	23	20	14,6	19,3	14000	21000	0,015
K18X24X12	18	24	12	12,3	13,8	14000	21000	0,012
K18X24X13	18	24	13	11,6	12,8	14000	21000	0,013
KMJ 18X24X17SV1	18	24	17	16	19,3	14000	21000	0,014
K18X24X20	18	24	20	17	20,9	14000	21000	0,019
K18X25X17	18	25	17	18	20,4	14000	21000	0,019
K18X25X22	18	25	22	22,1	26,6	14000	21000	0,024
K19X23X13S	19	23	13	9,65	13,5	14000	21000	0,0082
K19X23X17	19	23	17	12,7	19,2	14000	21000	0,011
K20X24X10S	20	24	10	8,3	11,2	13000	20000	0,0065
K20X24X13S	20	24	13	10	14,3	13000	20000	0,0086
K20X24X17S	20	24	17	13,2	20,4	13000	20000	0,011
K20X26X12	20	26	12	12,9	15,1	13000	20000	0,013
K20X26X13	20	26	13	14	16,7	13000	20000	0,015
KMJ20X26X13	20	26	13	14	16,7	13000	20000	0,012
KMJ20X26X17S	20	26	17	17,8	22,8	13000	20000	0,016
K20X26X20V2	20	26	20	18	23,1	13000	20000	0,019
KMJ20X26X20S	20	26	20	20,6	27,6	13000	20000	0,019
KMJ20X26X20SV3	20	26	20	20,6	27,6	13000	20000	0,019
KMJ20X28X19.8X4S	20	28	19,8	24,6	28,9	13000	20000	0,026
8Q-K20X28X25	20	28	25	27,1	32,5	13000	20000	0,039
K20X28X25V1	20	28	25	27,1	32,5	13000	20000	0,039
8Q-K21X25X13	21	25	13	10,3	15,1	13000	19000	0,0092
K21X25X17	21	25	17	13,6	21,5	13000	19000	0,012
K22X26X10	22	26	10	8,5	11,9	12000	18000	0,007
K22X26X10S	22	26	10	8,5	11,9	12000	18000	0,0071
K22X26X13	22	26	13	10,2	15,2	12000	18000	0,0094
K22X26X17	22	26	17	13,5	21,6	12000	18000	0,012
K22X26X17S	22	26	17	13,5	21,6	12000	18000	0,012
K22X27X20	22	27	20	17,5	25,9	12000	18000	0,02
K22X28X17	22	28	17	17,7	23,3	12000	18000	0,020
K22X28X17V1	22	28	17	17,7	23,3	12000	18000	0,02
K22X28X22.8X	22	28	22,8	22,7	32	12000	18000	0,028
K22X29X16	22	29	16	18,7	22,7	12000	18000	0,023
K22X30X15	22	30	15	19,3	21,7	12000	18000	0,022
K24X28X10	24	28	10	9	13,2	11000	17000	0,008
K24X28X10T	24	28	10	9	13,2	11000	17000	0,008
K24X28X13	24	28	13	10,8	16,8	11000	17000	0,01
K24X28X13S	24	28	13	10,8	16,8	11000	17000	0,01
K24X28X17	24	28	17	14,3	23,9	11000	17000	0,013
K24X30X17	24	30	17	18,4	25,2	11000	17000	0,022
K24X30X31ZW	24	30	31	27,9	43	11000	17000	0,039
K25X29X10	25	29	10	8,95	13,3	11000	16000	0,0083
K25X29X10S	25	29	10	8,95	13,3	11000	16000	0,0088
K25X29X13	25	29	13	10,8	16,9	11000	16000	0,01
K25X29X17S	25	29	17	14,2	24	11000	16000	0,014
K25X30X13	25	30	13	13,2	18,8	11000	16000	0,013
K25X30X17	25	30	17	17,4	26,8	11000	16000	0,018
K25X30X17S	25	30	17	17,4	26,8	11000	16000	0,017
K25X30X20S	25	30	20	19,4	31	11000	16000	0,021
K25X30X26ZW	25	30	26	36,5	71,5	11000	16000	0,027
K25X31X14	25	31	14	16,5	22,1	11000	16000	0,018
K25X31X17	25	31	17	18,3	25,3	11000	16000	0,022
K25X31X21	25	31	21	22,5	33	11000	16000	0,028
K25X32X16	25	32	16	19,5	24,7	11000	16000	0,027
KMJ25X33X24S	25	33	24	34,5	47	11000	16000	0,04
K25X33X24.4X	25	33	24,4	32	43	11000	16000	0,046
K25X35X29.8X2	25	35	29,8	42	53	11000	16000	0,072
PCJ162112	25,4	33,388	19,05	29,2	38,5	10000	15000	0,032
PCJ162116	25,4	33,388	25,4	38	54	10000	15000	0,044
K26X30X13	26	30	13	11,8	19,2	10000	15000	0,011
K26X30X17	26	30	17	15,5	27,4	10000	15000	0,015
K28X32X21	28	32	21	18,7	35,5	9500	14000	0,02
K28X33X13	28	33	13	13,9	20,9	9500	14000	0,015
K28X33X17S	28	33	17	18,3	29,8	9500	14000	0,02
K28X33X26ZW	28	33	26	23,9	42	9500	14000	0,033
K28X33X27	28	33	27	28,3	52	9500	14000	0,032
K28X34X14	28	34	14	17,5	24,8	9500	14000	0,02
K28X34X17	28	34	17	18,1	25,8	9500	14000	0,024
K28X35X16	28	35	16	21,2	28,4	9500	14000	0,029
K28X35X18	28	35	18	21,5	28,9	9500	14000	0,031
8Q-K28X36X46X1ZW	28	36	46	50	78,5	9500	14000	0,096
K30X35X13	30	35	13	14,7	22,9	8500	13000	0,017
K30X35X13S	30	35	13	14,7	22,9	8500	13000	0,017
K30X35X17	30	35	17	19,4	32,5	8500	13000	0,023

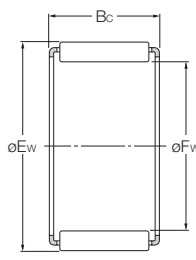
.../...



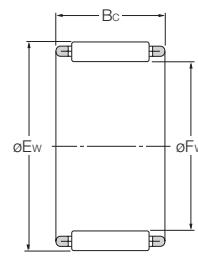
K
K -- T2
K -- S



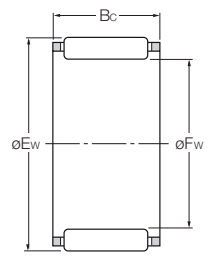
K -- ZW



KMJ
KMJ -- S
PCJ



KJ -- S



KV -- S

Needle roller and cage assemblies

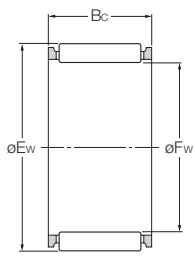
Part numbers	Dimensions (mm)			Basic load rating (kN)		Limiting speeds (tr/min)		Mass (kg)
	Fw	Ew	Bc	dynamic	static	grease	oil	
KJ30X35X17S	30	35	17	18,8	31,5	8500	13000	0,021
K30X35X20S	30	35	20	21,6	37,5	8500	13000	0,025
K30X35X27	30	35	27	29,9	57	8500	13000	0,033
K30X35X27S	30	35	27	29,9	57	8500	13000	0,033
KMJ30X36X14	30	36	14	18,6	27,4	8500	13000	0,018
K30X37X16	30	37	16	21,9	30,5	8500	13000	0,029
K30X37X18	30	37	18	23,3	33	8500	13000	0,034
K30X37X20	30	37	20	26	37,5	8500	13000	0,038
KMJ30X37X20S	30	37	20	26,2	38	8500	13000	0,032
K30X43X54.8XZW	30	43	54,8	74,5	98	8500	13000	0,199
PCJ202624	31,75	41,275	38,1	65	101	8500	13000	0,096
K32X36X15S	32	36	15	14,3	26,4	8500	13000	0,017
K32X37X13	32	37	13	14,5	23	8500	13000	0,018
K32X37X17S	32	37	17	19,2	33	8500	13000	0,022
K32X37X27	32	37	27	29,6	57,5	8500	13000	0,037
KJ32X38X20S	32	38	20	25,1	41	8500	13000	0,031
K32X38X26	32	38	26	31,5	54	8500	13000	0,041
K32X39X16	32	39	16	22,6	32	8500	13000	0,033
K32X39X18	32	39	18	24	35	8500	13000	0,037
K32X39X20	32	39	20	26,8	40	8500	13000	0,041
K33X39X22.6X2T2	33	39	22,6	24,4	39,5	8000	12000	0,023
8Q-K34X46X51XZW	34	46	51	78,5	113	8000	12000	0,2
PCJ222820	34,925	44,45	31,75	60	94,5	7500	11000	0,09
K35X40X13	35	40	13	15,2	25,1	7500	11000	0,019
K35X40X17	35	40	17	20	36	7500	11000	0,025
KJ35X40X22.8X1S	35	40	22,8	22,3	41	7500	11000	0,028
K35X40X26ZW	35	40	26	26,1	50	7500	11000	0,037
GK35X40X26.8XS	35	40	26,8	28,1	55	7500	11000	0,021
K35X40X27	35	40	27	32	65	7500	11000	0,041
KJ35X40X27S	35	40	27	32	65	7500	11000	0,039
K35X40X30ZW	35	40	30	26,1	50	7500	11000	0,043
K35X40X30ZWS	35	40	30	26,1	50	7500	11000	0,043
K35X42X16	35	42	16	24,1	36	7500	11000	0,035
K35X42X18	35	42	18	24,7	37	7500	11000	0,039
K35X42X20	35	42	20	28,5	44,5	7500	11000	0,045
K35X42X30	35	42	30	39,5	68	7500	11000	0,062
K35X45X24.8X	35	45	24,8	43	59	7500	11000	0,084
KJ36X41X25.3XS	36	41	25,3	28,1	56	7500	11000	0,033
K37X42X17	37	42	17	21	38,5	7500	11000	0,027
KJ37X42X17S	37	42	17	21	38,5	7500	11000	0,026
K37X42X27	37	42	27	32,5	67,5	7500	11000	0,041
KJ37X42X27S	37	42	27	32,5	67,5	7500	11000	0,041
K38X43X17	38	43	17	20,9	38,5	7500	11000	0,028
K38X43X27	38	43	27	32	67,5	7500	11000	0,043
KJ38X43X29.8X1S	38	43	29,8	34,5	73,5	7500	11000	0,041
K38X46X32	38	46	32	54	95,5	7500	11000	0,073
PCJ243024	38,1	38,1	47,625	72,5	124	6500	10000	0,112
K40X45X13	40	45	13	16,5	29,2	6500	10000	0,023
K40X45X17	40	45	17	21,8	41,5	6500	10000	0,027
K40X45X21V2	40	45	21	26,7	54	6500	10000	0,035
K40X45X27	40	45	27	33,5	72,5	6500	10000	0,044
K40X47X18	40	47	18	27,7	45	6500	10000	0,045
K40X47X20	40	47	20	31	51,5	6500	10000	0,048
K40X48X20	40	48	20	33	51	6500	10000	0,052
HL-K40X55X29.8X4T2	40	55	29,8	72,5	93,5	6500	10000	0,103
K42X47X17	42	47	17	22,1	43	6500	9500	0,028
KJ42X47X23.8XS	42	47	23,8	28	58,5	6500	9500	0,036
K42X47X27	42	47	27	34	75,5	6500	9500	0,047
K42X48X17	42	48	17	25,7	46	6500	9500	0,036
K42X50X20	42	50	20	34	53,5	6500	9500	0,054

.../...

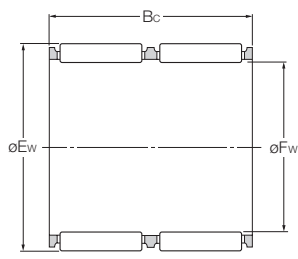
Needle roller and cage assemblies

Part numbers	Dimensions (mm)			Basic load rating (kN)		Limiting speeds (tr/min)		Mass (kg)
	Fw	Ew	Bc	dynamic	static	grease	oil	
K43X48X17	43	48	17	22	43	6500	9500	0,029
K43X50X18	43	50	18	29,1	49	6500	9500	0,049
PCJ283416	44,45	53,975	25,4	55,5	92	6000	9000	0,086
K45X49X19	45	49	19	22,1	52	6000	9000	0,027
K45X50X17	45	50	17	22,3	44,5	6000	9000	0,033
KJ45X50X17S	45	50	17	22,8	46	6000	9000	0,027
K45X50X27	45	50	27	34,5	78	6000	9000	0,05
K45X52X18	45	52	18	29,7	51	6000	9000	0,051
K45X53X20	45	53	20	36	59	6000	9000	0,062
KJ45X53X28S	45	53	28	49,5	90	6000	9000	0,078
K47X52X17	47	52	17	23,2	47,5	5500	8500	0,033
K47X52X27	47	52	27	35,5	83	5500	8500	0,051
K50X55X13.5	50	55	13,5	18,1	35,5	5500	8000	0,029
K50X55X20	50	55	20	27,9	62	5500	8000	0,042
K50X55X27	50	55	27	37	88,5	5500	8000	0,053
K50X55X30	50	55	30	39,5	97	5500	8000	0,059
K50X57X18	50	57	18	31,5	57	5500	8000	0,053
K50X58X20	50	58	20	38,5	67,5	5500	8000	0,065
K50X58X25	50	58	25	48,5	90	5500	8000	0,081
PCJ323816	50,8	60,325	25,4	58	102	5000	7500	0,094
PCJ323824	50,8	60,325	38,1	83	160	5000	7500	0,144
HL-K50.8X64.8X59.8XT2	50,8	64,8	59,8	137	235	5500	8000	0,29
K52X58X19	52	58	19	32	65,5	5000	7500	0,048
K55X60X20	55	60	20	28,8	66,5	5000	7500	0,045
K55X60X30	55	60	30	42	108	5000	7500	0,07
KV55X60X30S	55	60	30	42	108	5000	7500	0,069
K55X62X18	55	62	18	33,5	63	5000	7500	0,054
K55X63X20	55	63	20	39	70	5000	7500	0,073
K55X63X25	55	63	25	50,5	97,5	5000	7500	0,088
K55X63X32	55	63	32	61	125	5000	7500	0,117
K58X64X19	58	64	19	34	73,5	4700	7000	0,052
K60X65X20	60	65	20	29,8	71,5	4300	6500	0,051
K60X65X30	60	65	30	43,5	116	4300	6500	0,071
K60X66X22.8X2PX1	60	66	22,8	32	50	4300	6500	0,07
K60X68X20	60	68	20	40	75	4300	6500	0,077
K60X68X23	60	68	23	44,5	85	4300	6500	0,092
K60X68X25	60	68	25	52	105	4300	6500	0,097
K60X68X27	60	68	27	52	105	4300	6500	0,098
K61X66X20A	61	66	20	28,2	66,5	4300	6500	0,051
K63X70X21	63	70	21	44,5	95,5	4300	6500	0,075
PCJ404616	63,5	73,025	25,4	61,5	117	4000	6000	0,105
K64X70X16	64	70	16	28,4	60,5	4300	6500	0,053
K65X70X20	65	70	20	30,5	75	4000	6000	0,055
K65X70X30	65	70	30	45	124	4000	6000	0,083
K65X73X23	65	73	23	47	94	4000	6000	0,1
K65X73X30	65	73	30	61	132	4000	6000	0,126
K68X74X20	68	74	20	36	83,5	4000	6000	0,065
K68X74X35ZW	68	74	35	49,5	125	4000	6000	0,116
K68X75X21	68	75	21	45,5	101	4000	6000	0,077
K70X76X20	70	76	20	36,5	86	3700	5500	0,07
K70X76X30	70	76	30	53	139	3700	5500	0,1
K70X76X30A	70	76	30	49,5	127	3700	5500	0,105
K70X78X23	70	78	23	49,5	103	3700	5500	0,107
K70X78X30	70	78	30	65,5	149	3700	5500	0,136
K73X79X20	73	79	20	37,5	90	3700	5500	0,074
K75X81X30	75	81	30	56	152	3700	5500	0,108
K75X83X23	75	83	23	50,5	109	3700	5500	0,113
K75X83X30	75	83	30	67,5	157	3700	5500	0,147
K80X86X20	80	86	20	39	98	3300	5000	0,08
K80X86X30	80	86	30	57	159	3300	5000	0,11
K80X86X30A	80	86	30	57	159	3300	5000	0,11
K80X88X26	80	88	26	61	142	3300	5000	0,131
K80X88X30	80	88	30	69	166	3300	5000	0,157
KMJ85X92X18.8X	85	92	18,8	41,5	96,5	3100	4700	0,075
KMJ85X92X20	85	92	20	47,5	115	3100	4700	0,083
K85X92X30	85	92	30	66	176	3100	4700	0,142
K90X97X20	90	97	20	46	113	2900	4400	0,103
K90X97X24.8X	90	97	24,8	52	131	2900	4400	0,13
K90X98X27	90	98	27	64	157	2900	4400	0,15
K90X98X30	90	98	30	72,5	184	2900	4400	0,172
8Q-K95X102X20.8X3	95	102	20,8	49	125	2800	4200	0,109
K95X102X21	95	102	21	48	122	2800	4200	0,115
K95X102X31	95	102	31	70,5	199	2800	4200	0,172
KV100X107X21S	100	107	21	47,5	122	2700	4000	0,12
K100X107X21	100	107	21	49	127	2700	4000	0,124
K100X108X27	100	108	27	61	153	2700	4000	0,176
K100X108X30	100	108	30	76	201	2700	4000	0,19
K105X112X21	105	112	21	48,5	127	2500	3800	0,13
K105X113X30	105	113	30	77,5	210	2500	3800	0,198
K110X117X24	110	117	24	54,5	149	2400	3600	0,145
K110X118X30	110	118	30	79	219	2400	3600	0,217

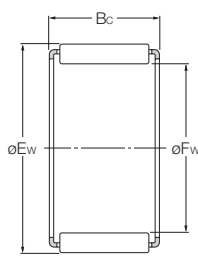
.../...



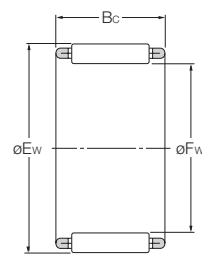
K
K -- T2
K -- S



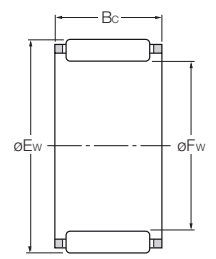
K -- ZW



KMJ
KMJ -- S
PCJ



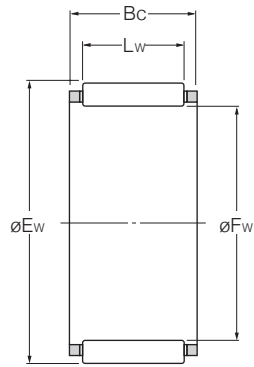
KJ -- S



KV -- S

Needle roller and cage assemblies

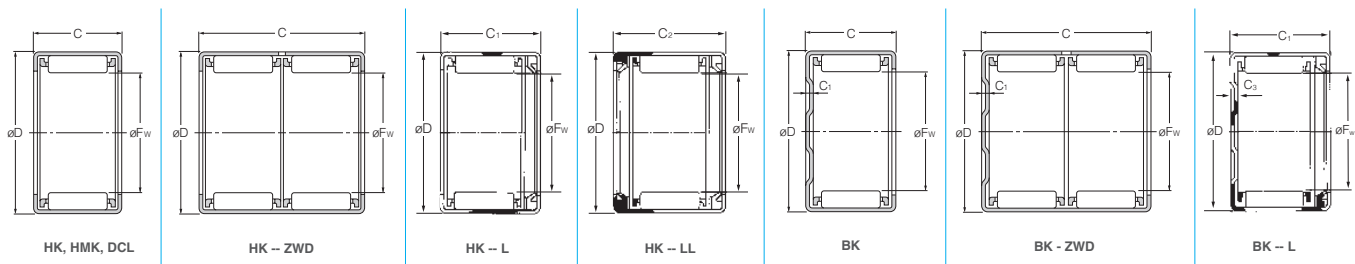
Part numbers	Dimensions (mm)			Basic load rating (kN)		Limiting speeds (tr/min)		Mass (kg)
	Fw	Ew	Bc	dynamic	static	grease	oil	
K115X123X27	115	123	27	64	170	2300	3500	0,2
K120X127X24	120	127	24	57,5	165	2200	3300	0,16
K120X127X34	120	127	34	82	260	2200	3300	0,235
K125X133X35	125	133	35	87	260	2100	3200	0,275
K130X137X24	130	137	24	59	175	2100	3100	0,17
K130X137X34	130	137	34	84,5	277	2100	3100	0,24
K145X153X26	145	153	26	72	214	1900	2800	0,254
K145X153X36	145	153	36	100	325	1900	2800	0,335
K150X160X46	150	160	46	149	470	1800	2700	0,55
K155X163X26	155	163	26	73,5	224	1700	2600	0,27
K160X170X46	160	170	46	155	505	1700	2500	0,57
K185X195X37L1	185	195	37	131	425	1500	2200	0,581
K220X230X42	220	230	42	161	590	1200	1800	0,79



KBK

Needle roller and cage assemblies for connecting rod

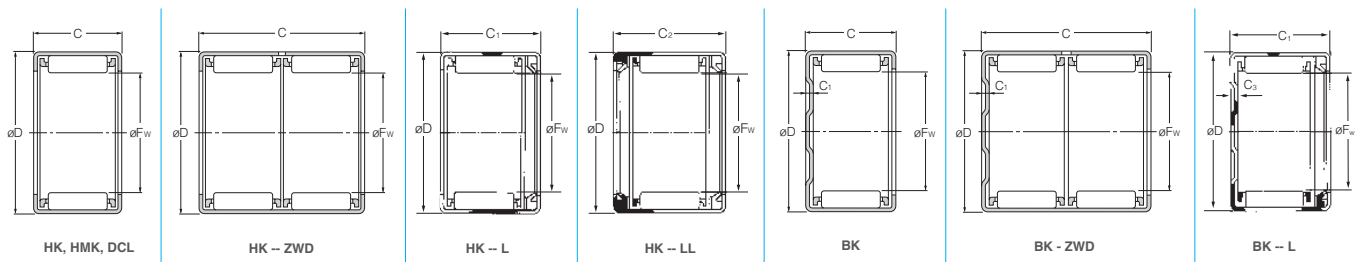
Part numbers	Dimensions (mm)				Basic load rating (kN)		Mass (kg)
	Fw	Ew	Bc	Lw	dynamic	static	
8Q-KBK10X14X12.5X6	10	14	12,5	9,8	6,6	6,9	0,00515
KBK12X15X16.6V1	12	15	16,6	13,8	7,5	10,2	0,0056
KBK12X16X16V1	12	16	16	12,8	8,1	9,35	0,007
8Q-KBK12X17X14.2X2	12	17	14,2	11,8	9,75	10,4	0,009
KBK14X18X15.8X5	14	18	15,8	11,8	9,15	11,4	0,009
8Q-KBK14X18X16.5X	14	18	16,5	11,8	8,6	10,5	0,0078
KBK14X18X17.3X	14	18	17,3	13,8	9,75	12,4	0,009
KBK14X18X18.8X	14	18	18,8	14,8	11	14,4	0,01
KBK14X18X20V3	14	18	20	13,8	9,15	11,3	0,011
KBK15X19X17.3X	15	19	17,3	13,8	10,9	14,6	0,01
KBK15X19X19.8X	15	19	19,8	13,8	10,9	14,6	0,015
KBK15X20X17.3X	15	20	17,3	13,8	10,8	14,6	0,011
KBK16X20X17	16	20	17	13,8	10,8	14,7	0,01
KBK16X20X19.8	16	20	19,8	13,8	10,2	13,6	0,012
KBK16X20X19.8X3	16	20	19,8	14,8	11,4	15,8	0,013
KBK16X21X19.6X	16	21	19,6	15,8	13,9	17,6	0,016
KBK18X22X21.8X3	18	22	21,8	15,8	12,5	18,3	0,015
KBK18X22X23.8X1	18	22	23,8	17,8	13	19,3	0,016
KBK20X25X29X3	20	25	29	22,8	21,5	33	0,0279



Drawn cup needle roller bearings

Part numbers	Dimensions (mm)					Lubrication hole on outer ring	Basic load ratings (kN)		Limiting speeds (tr/min)		Mass (kg)	Appropriate inner ring
	Fw	D	C	C1 max or C1	C2		dynamic Cr	static Cor	grease	oil		
HK0306T2	3	6,5	6				0,925	0,565	33000	50000	0,0006	-
BK0408T2	4	8	8	1,6			1,77	1,27	30000	45000	0,0018	-
HK0408T2	4	8	8				1,77	1,27	30000	45000	0,0016	-
BK0509	5	9	9	1,6			2,64	2,19	27000	40000	0,0021	-
HK0509FM	5	9	9				2,45	1,99	27000	40000	0,0019	-
BK0609T2	6	10	9	1,6			2,66	2,28	25000	37000	0,0024	-
BK0609T2/2AS	6	10	9	1,6			2,66	2,28	25000	37000	0,0024	-
HK0609FM	6	10	9				2,92	2,59	25000	37000	0,0022	-
HK0609T2	6	10	9				2,66	2,28	25000	37000	0,0022	-
BK0709CT	7	11	9	1,6			3,15	2,93	23000	34000	0,0027	-
HK0709FM	7	11	9				3,15	2,93	23000	34000	0,0025	-
BK0810CT	8	12	10	1,6			3,85	3,95	20000	30000	0,0034	1R5X8X12
HK0810C	8	12	10				3,85	3,95	20000	30000	0,0032	1R5X8X12
HK0810C/5K	8	12	10				3,85	3,95	20000	30000	0,0032	1R5X8X12
HK0810FM	8	12	10				3,85	3,95	20000	30000	0,0032	1R5X8X12
HMK0810C	8	15	10				4,2	3,3	20000	30000	0,0067	1R5X8X12
HMK0812L/3AS	8	15		12			3,8	2,87	10000		0,0071	1R5X8X16
HMK0815	8	15	15				6,6	5,8	20000	30000	0,01	1R5X8X16
HMK0820T2	8	15	20				9,05	8,75	20000	30000	0,013	-
BK0910	9	13	10	1,6			4,75	5,3	18000	27000	0,0039	1R6X9X12
BK0912	9	13	12	1,6			5,65	6,65	18000	27000	0,0045	1R6X9X12
HK0910C	9	13	10				4,3	4,65	18000	27000	0,0035	1R6X9X12
HK0910FM	9	13	10				4,3	4,65	18000	27000	0,0035	1R6X9X12
HK0912F	9	13	12				5,4	6,25	18000	27000	0,0042	1R6X9X12
HMK0912	9	16	12				5,3	4,45	18000	27000	0,0087	1R6X9X16
BK1010	10	14	10	1,6			4,5	5,1	16000	24000	0,0042	1R7X10X10.5
BK1012	10	14	12	1,6			5,9	7,25	16000	24000	0,005	1R7X10X16
BK1015	10	14	15	1,6			7,1	9,15	16000	24000	0,0062	1R7X10X16
HK1010D	10	14	10			yes	4,5	5,1	16000	24000	0,0038	1R7X10X10.5
HK0810C	8	12	10				3,85	3,95	20000	30000	0,0032	1R5X8X12
HK0810C/5K	8	12	10				3,85	3,95	20000	30000	0,0032	1R5X8X12
HK1010FM	10	14	10				4,5	5,1	16000	24000	0,0038	1R7X10X10.5
HK1012F	10	14	12				5,65	6,8	16000	24000	0,0045	1R7X10X10.5
HK1015F	10	14	15				7,25	9,4	16000	24000	0,0056	1R7X10X16
HMK1010	10	17	10				4,25	3,45	16000	24000	0,0079	1R7X10X10.5
HMK1012	10	17	12				5,6	4,85	16000	24000	0,0094	1R7X10X16
HMK1012L/3AS	10	17		12			4,25	3,45	10000		0,0084	1R7X10X16
HMK1014LL/3AS	10	17			14		4,25	3,45	10000		0,0089	1R7X10X16
HMK1015	10	17	15				7,4	6,95	16000	24000	0,012	1R7X10X16
HMK1020	10	17	20				10,2	10,5	16000	24000	0,016	-
BK1210	12	16	10	1,6			5,05	6,25	13000	20000	0,0052	1R8X12X10.5
BK1212V1	12	18	12	2,7			6,6	7,3	13000	20000	0,01	1R8X12X12.5
HK1210D	12	16	10			yes	5,05	6,25	13000	20000	0,0046	1R8X12X10.5
HK1210FM	12	16	10				5,05	6,25	13000	20000	0,0046	1R8X12X10.5
HK1212	12	18	12				6,6	7,3	13000	20000	0,0091	1R8X12X12.5
HK1212D	12	18	12			yes	6,6	7,3	13000	20000	0,0091	1R8X12X12.5
HK1212FM	12	18	12				6,6	7,3	13000	20000	0,0091	1R8X12X12.5
HK1214L/3AS	12	18		14			6,6	7,3	10000		0,011	1R9X12X16
HK1216LL/2AS	12	18			16		6,6	7,3	10000		0,012	-
HK1216LL/3AS	12	18			16		6,6	7,3	10000		0,012	-
HMK1212	12	19	12				7,1	6,9	13000	20000	0,011	1R8X12X12.5
HMK1215	12	19	15				9,4	9,9	13000	20000	0,014	1R8X12X16
HMK1220	12	19	20				12,3	14	13000	20000	0,018	-
HMK1225	12	19	25				15,3	18,6	13000	20000	0,023	-
BK1312	13	19	12	2,7			6,95	7,9	12000	18000	0,011	1R10X13X12.5
HK1312	13	19	12				6,95	7,9	12000	18000	0,01	1R10X13X12.5
HK1312D	13	19	12			yes	6,95	7,9	12000	18000	0,01	1R10X13X12.5
7E-HKS13X20X12-3	13	20	12				7,55	7,65	12000	18000	0,011	1R10X13X12.5
7E-HK1412	14	20	12				7,2	8,5	11000	17000	0,011	1R10X14X13
BK1412	14	20	12	2,7			7,2	8,5	11000	17000	0,012	1R10X14X13
HK1412FM	14	20	12	2,7			7,2	8,5	11000	17000	0,011	1R10X14X13

.../...



Drawn cup needle roller bearings

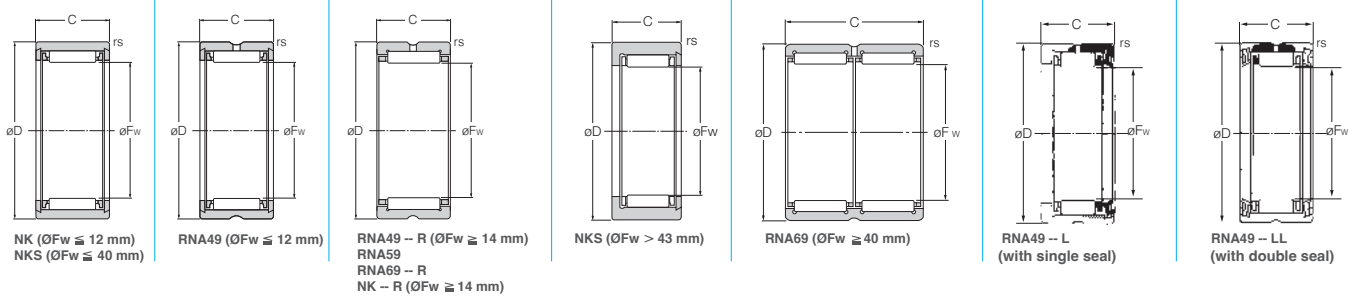
Part numbers	Dimensions (mm)					Lubrication hole on outer ring	Basic load ratings (kN)		Limiting speeds (tr/min)		Mass (kg)	Appropriate inner ring
	Fw	D	C	C1 max or C1	C2		dynamic Cr	static Cor	grease	oil		
HMK2025C	20	27	25				22	34	8000	12000	0,034	1R15X20X26
HMK2030	20	27	30				26,1	42	8000	12000	0,041	1R17X20X30.5
7E-HMK2215	22	29	15				13,4	18,5	7500	11000	0,022	1R17X22X16D
7E-HMK2230	22	29	30				26,9	45	7500	11000	0,045	1R17X22X32
BK2212	22	28	12	2,7			9,75	14,3	7500	11000	0,015	1R17X22X13
BK2216	22	28	16	2,7			13,6	22,1	7500	11000	0,024	1R17X22X18
BK2220	22	28	20	2,7			17,2	29,8	7500	11000	0,03	1R17X22X20.5
HK2212FM	22	28	12				9,2	13,4	7500	11000	0,013	1R17X22X13
HK2216F	22	28	16				13,2	21,1	7500	11000	0,021	1R17X22X18
HK2216D	22	28	16			yes	13,6	22,1	7500	11000	0,021	1R17X22X18
HK2216LL/3AS	22	28			16		9,75	14,3	7500		0,02	1R17X22X18
HK2218L/3AS	22	28		18			13,6	22,1	7500		0,024	1R17X22X20.5
HK2220D	22	28	20			yes	17,2	29,8	7500	11000	0,026	1R17X22X20.5
HK2220F	22	28	20				16,8	28,8	7500	11000	0,026	1R17X22X20.5
HK2220LL/3AS	22	28			20		13,6	22,1	7500		0,026	1R17X22X23
HMK2210	22	29	10				8,4	10,1	7500	11000	0,015	1R17X22X13
HMK2218L/3AS	22	29		18			13,4	18,5	7500		0,024	1R17X22X20.5
HMK2220C/8A	22	29	20				18,2	27,4	7500		0,03	1R17X22X20.5
HMK2220PX1	22	29	20				18,2	27,4	7500	11000	0,03	1R17X22X20.5
HMK2225	22	29	25				23,6	38,5	7500	11000	0,037	1R17X22X26
HMK2230	22	29	30				26,9	45	7500	11000	0,045	1R17X22X32
HMK2420F	24	31	20				18,8	29,1	6500	10000	0,032	-
HMK2420CT	24	31	20				18,3	28,2	6500	10000	0,032	-
7E-HKS25X32X30/8A	25	32		30			26,4	46	6500		0,049	1R20X25X32
BK2512	25	32	12	2,7			11,8	16,3	6500	9500	0,023	1R20X25X12.5
BK2516	25	32	16	2,7			15,9	24	6500	9500	0,031	1R20X25X17
BK2520	25	32	20	2,7			20,3	33	6500	9500	0,039	1R20X25X20.5
BK2526	25	32	26	2,7			26,4	46	6500	9500	0,049	1R20X25X26.5
BK2538ZWD	25	32	38	2,7		yes	35	65,5	6500	9500	0,069	1R20X25X38.5
HK2512F	25	32	12				11,1	15,2	6500	9500	0,021	1R20X25X12.5
HK2516D	25	32	16			yes	15,9	24	6500	9500	0,027	1R20X25X17
HK2516F	25	32	16				15,9	24	6500	9500	0,027	1R20X25X17
HK2516LL/3AS	25	32			16		11,8	16,3	6500		0,027	1R20X25X18D
HK2518L/3AS	25	32		18			15,9	24	6500		0,031	1R20X25X20
HK2520	25	32	20				20,3	33	6500	9500	0,034	1R20X25X20.5
HK2520D	25	32	20			yes	20,3	33	6500	9500	0,034	1R20X25X20.5
HK2520LL/3AS	25	32			20		15,9	24	6500		0,033	1R20X25X20.5
HK2526	25	32	26				26,4	46	6500	9500	0,045	1R20X25X26.5
HK2526D	25	32	26			yes	26,4	46	6500	9500	0,045	1R20X25X26.5
HK2538ZWD	25	32	38			yes	35	65,5	6500	9500	0,065	1R20X25X38.5
HKS25X33X18PX1/L588	25	33		18			17,1	23,3	6500		0,033	1R20X25X20
HMK2510	25	33	10				9,15	10,4	6500	9500	0,019	1R20X25X12.5
HMK2515F	25	33	15				15,2	19,9	6500	9500	0,029	1R20X25X16
HMK2520	25	33	20				21,8	31,5	6500	9500	0,039	1R20X25X20.5
HMK2525	25	33	25				26,7	41	6500	9500	0,048	1R20X25X26.5
HMK2526LL/3AS	25	33			26		21,8	31,5	6500		0,043	1R20X25X26.5
HMK2530	25	33	30				32,5	53	6500	9500	0,058	1R20X25X32
7E-HMK2616	26	34	16				17,1	23,4	6000	9000	0,032	1R22X26X20
7E-HMK2620CT	26	34	20				21,1	30,5	6000	9000	0,04	-
7E-BKS28X40X17-2	28	40	17				22,6	24,6	5500	8500	0,054	1R22X28X20.5
7E-BKS28X45X18	28	45	18				28,1	26,6	5500	8500	0,085	1R22X28X20.5
7E-HKS28X35X30/8A	28	35	30				28,2	52	5500		0,054	-
7E-HKS28X35X33/8A	28	35	33				28,2	52	5500		0,058	-
8Q-HMK2830/8A	28	37	30				35	54,5	5500		0,073	-
BK2820	28	35	20	2,7			21,3	36	5500	8500	0,043	1R22X28X20.5
HK2816F	28	35	16				16,7	26,4	5500	8500	0,03	1R22X28X17
HK2820	28	35	20				21,3	36	5500	8500	0,038	1R22X28X20.5
HK2820D	28	35	20			yes	21,3	36	5500	8500	0,038	1R22X28X20.5
HK2820LL/3AS	28	35			20		17,3	27,6	5500		0,037	1R22X28X23
HMK2820	28	37	20				23,6	32,5	5500	8500	0,049	1R22X28X20.5
HMK2830	28	37	30				35	54,5	5500	8500	0,073	-

.../...

Drawn cup needle roller bearings

Part numbers	Dimensions (mm)					Lubrication hole on outer ring	Basic load ratings (kN)		Limiting speeds (tr/min)		Mass (kg)	Appropriate inner ring
	Fw	D	C	C1 max or C1	C2		dynamic Cr	static Cor	grease	oil		
HMK2920	29	38	20				24,6	35	5500	8500	0,05	-
7E-HK3016C	30	37	16				18,1	30	5500	8000	0,032	1R25X30X17
7E-HKS30X37X30-6/8A	30	37	30				28,5	54	5500		0,066	1R25X30X32
BK3016	30	37	16	2,7			18,1	30	5500	8000	0,037	1R25X30X17
BK3020	30	37	20	2,7			22,3	39,5	5500	8000	0,047	1R25X30X20.5
BK3026	30	37	26	2,7			28,5	54	5500	8000	0,059	1R25X30X26.5
BK3038ZWD	30	37	38	2,7		yes	38,5	78,5	5500	8000	0,083	1R25X30X38.5
HK3012F	30	37	12				13	19,5	5500	8000	0,024	1R25X30X12.5
HK3016LL/3AS	30	37			16		13	19,5	5500		0,027	1R25X30X18D
HK3016V3	30	37	16				18,1	30	5500	8000	0,032	1R25X30X17
HK3018L/3AS	30	37		18			18,1	30	5500		0,037	1R25X30X20.5
HK3020D	30	37	20			yes	22,3	39,5	5500	8000	0,04	1R25X30X20.5
HK3020F	30	37	20				22,3	39,5	5500	8000	0,04	1R25X30X20.5
HK3020LL/3AS	30	37			20		18,1	30	5500		0,039	1R25X30X23
HK3026D	30	37	26			yes	29,1	55	5500	8000	0,053	1R25X30X26.5
HK3026F	30	37	26				28,5	54	5500	8000	0,053	1R25X30X26.5
HK3038ZWD	30	37	38			yes	38,5	78,5	5500	8000	0,076	1R25X30X38.5
HMK3015	30	40	15				17,1	22,1	5500	8000	0,044	1R25X30X16
HMK3020	30	40	20				24,2	34,5	5500	8000	0,058	1R25X30X20.5
HMK3025	30	40	25				31	47	5500	8000	0,073	1R25X30X26.5
HMK3026LL/3AS	30	40			26		24,2	34,5	5500		0,064	1R25X30X26.5
HMK3030	30	40	30				36	57,5	5500	8000	0,087	1R25X30X32
HMK3031LL/3AS	30	40			31		31	47	5500		0,078	1R25X30X32
7E-HKS32X40X30-1	32	40	30				38	69,5	5000	7500	0,071	-
7E-HMK3220	32	42	20				27,5	38	5000	7500	0,062	-
7E-HMK3230	32	42	30				41,5	64,5	5000	7500	0,092	-
BK3520	35	42	20	2,7			24,8	47,5	4700	7000	0,055	-
HK3512	35	42	12				14	22,8	4700	7000	0,028	-
HK3516F	35	42	16				19	33,5	4700	7000	0,037	-
HK3516LL/3AS	35	42			16		14	22,8	4600		0,036	-
HK3518L/3AS	35	42		18			19,7	35	4600		0,037	-
HK3520	35	42	20				24,8	47,5	4700	7000	0,046	-
HK3520D	35	42	20			yes	24,8	47,5	4700	7000	0,046	-
HK3520LL/3AS	35	42			20		19,7	35	4600		0,04	-
HMK3512	35	45	12				14,9	17,6	4700	7000	0,04	-
HMK3515	35	45	15				20,2	26,2	4700	7000	0,05	-
HMK3518L/3AS	35	45		18			20,2	26,2	4600		0,053	-
HMK3520	35	45	20				28,4	40,5	4700	7000	0,067	-
HMK3525	35	45	25				36	54,5	4700	7000	0,083	-
HMK3530	35	45	30				43	69	4700	7000	0,1	-
HMK3531LL/3AS	35	45			31		36	54,5	4600		0,089	-
HMK3825	38	48	25				38,5	61	4300	6500	0,09	-
HMK3830	38	48	30				46	77	4300	6500	0,107	1R32X38X32
BK4020	40	47	20	2,7			25,9	52,5	4000	6000	0,064	1R35X40X20.5
HK4012	40	47	12				15,1	26	4000	6000	0,031	1R35X40X12.5
HK4016F	40	47	16				20,3	38,5	4000	6000	0,041	1R35X40X17
HK4016LL/3AS	40	47			16		15,1	26	4000		0,041	1R35X40X17
HK4018L/3AS	40	47		18			21,1	40	4000		0,047	1R35X40X20
HK4020	40	47	20	2,7			32,5	50	4000	6000	0,075	1R35X40X20.5
HK4020D	40	47	20			yes	25,9	52,5	4000	6000	0,052	1R35X40X20.5
HK4020LL/3AS	40	47			20		21,1	40	4000		0,05	-
HK4020LLD/3AS	40	47			20	yes	21,1	40	4000		0,05	-
HMK4015V3	40	50	15				23,1	32,5	4000	6000	0,056	1R35X40X17
7E-HMK4020	40	50	20				32,5	50	4000	6000	0,075	1R35X40X20.5
7E-HMK4025	40	50	25				41	67,5	4000	6000	0,091	-
HMK4030	40	50	30				49	85	4000	6000	0,112	1R35X40X34
HMK4031LL/3AS	40	50			31		41	67,5	4000		0,1	1R35X40X36
HMK4040ZWD	40	50	40			yes	58,5	107	4000	6000	0,15	-
HK4516	45	52	16				21,6	43	3700	5500	0,046	1R40X45X17
HK4518L/3AS	45	52		18			21,6	43	3600		0,054	1R40X45X20
HK4520	45	52	20				27,6	59	3700	5500	0,058	1R40X45X20.5
HK4520D	45	52	20			yes	27,6	59	3700	5500	0,058	1R40X45X20.5
HK4520LL/3AS	45	52			20		21,6	43	3600		0,054	-
HMK4520	45	55	20				32	51	3700	5500	0,083	1R40X45X20.5
HMK4525	45	55	25				41,5	71,5	3700	5500	0,104	1R40X45X26.5
HMK4530	45	55	30				49,5	90	3700	5500	0,1225	1R40X45X34
HK5020	50	58	20				31,5	63	3200	4800	0,072	1R40X50X22
HK5022L/3AS	50	58		22			31,5	63	3200		0,086	1R45X50X25.5
HK5024LLD/3AS	50	58			24	yes	31,5	63	3200		0,089	1R45X50X25.5
HK5025	50	58	25				38,5	82	3200	4800	0,09	1R45X50X25.5
HK5024LL/3AS	50	58			24		31,5	63	3200		0,089	1R45X50X25.5

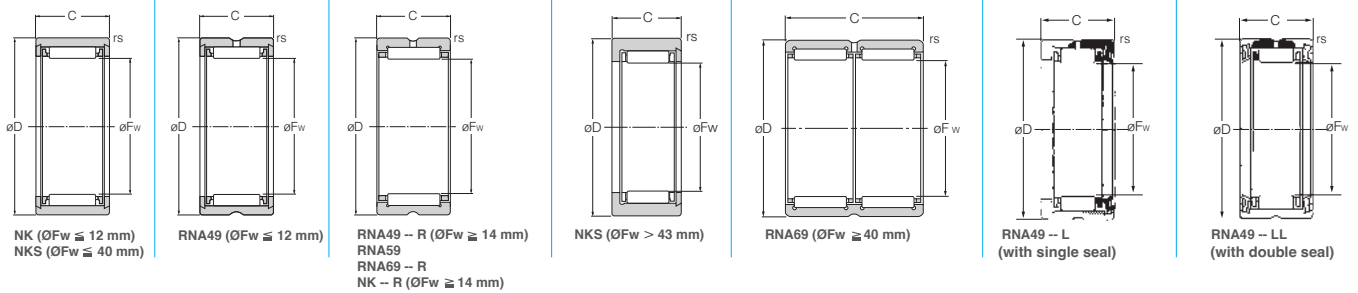
.../...



Needle roller bearings with solid rings, without inner ring

Part numbers	Dimensions (mm)				Basic load rating (kN)		Limiting speeds (tr/mn)		Mass (kg)
	Fw	D	C	rs min	dynamic Cr	static Cor	grease (tr/min)	oil (tr/min)	
NK5/10T2	5	10	10	0,15	2,64	2,19	27000	40000	0,0031
NK5/12T2	5	10	12	0,15	2,72	2,25	27000	40000	0,0037
NK6/10T2	6	12	10	0,15	2,66	2,28	25000	37000	0,0047
NK6/12T2	6	12	12	0,15	3,4	3,15	25000	37000	0,0057
NK7/10T2	7	14	10	0,3	2,67	2,35	23000	34000	0,0069
NK7/12T2	7	14	12	0,3	3,4	3,2	23000	34000	0,0082
RNA496	8	15	10	0,15	3,15	3	21000	32000	0,0073
NK8/16	8	15	16	0,3	4,85	5,2	21000	32000	0,012
NK8/12T2	8	15	12	0,3	4	4,1	21000	32000	0,0087
NK9/12T2	9	16	12	0,3	4,55	5	20000	30000	0,01
NK9/16T2	9	16	16	0,3	5,5	6,4	20000	30000	0,013
RNA498	10	19	11	0,15	4,3	3,95	19000	28000	0,015
NK10/12T2	10	17	12	0,3	4,55	5,1	19000	28000	0,01
NK10/16	10	17	16	0,3	5,45	6,45	19000	28000	0,015
NK12/12	12	19	12	0,3	5	6,1	17000	26000	0,013
RNA499	12	20	11	0,3	4,85	4,9	17000	26000	0,013
8E-NK12X19X12-7	12	19	12	0,5	6,05	5,65	17000	26000	0,011
NK12/16	12	19	16	0,3	6	7,7	17000	26000	0,016
RNA4900R	14	22	13	0,3	8,6	9,2	16000	24000	0,017
RNA4900L/3AS	14	22	13	0,3	7,2	8,5	10000		0,016
RNA4900LL/3AS	14	22	13	0,3	7,2	8,5	10000		0,016
NK14/16R	14	22	16	0,3	10,3	11,5	16000	24000	0,021
NK14/20R	14	22	20	0,3	13	15,6	16000	24000	0,026
NK15/16R	15	23	16	0,3	10,9	12,7	15000	23000	0,022
NK15/20R	15	23	20	0,3	13,8	17,2	15000	23000	0,027
8E-NK15X25X12-3	15	25	12	0,8	8,15	8,75	15000	23000	0,021
MR101812	15,875	28,575	19,05	0,6	16,7	16,7	17000	25000	0,05
RNA4901R	16	24	13	0,3	9,55	10,9	15000	23000	0,017
RNA4901L/3AS	16	24	13	0,3	7,75	9,7	10000		0,018
RNA4901LL/3AS	16	24	13	0,3	7,75	9,7	10000		0,018
RNA6901R	16	24	22	0,3	15,4	20	15000	23000	0,031
NK16/16R	16	24	16	0,3	12,2	14,9	15000	23000	0,022
NK16/20R	16	24	20	0,3	14,6	18,8	15000	23000	0,028
NK17/16R	17	25	16	0,3	12,1	15	15000	22000	0,024
NK17/20R	17	25	20	0,3	15,4	20,4	15000	22000	0,03
NK17.7X30X17-1PX1	17,759	30	17	0,3	2,49	2,78	15000	22000	0,049
NK18/16R	18	26	16	0,3	12,7	16,2	14000	21000	0,025
NK18/20RCT	18	26	20	0,3	16,1	22	14000	21000	0,031
NK19/16R	19	27	16	0,3	13,3	17,4	14000	21000	0,026
NK19/20R	19	27	20	0,3	16	22,2	14000	21000	0,032
MR122012	19,05	31,75	19,05	1	19,5	21,1	14000	21000	0,055
MR122016	19,05	31,75	25,4	1	25	29,1	14000	21000	0,073
RNA4902R	20	28	13	0,3	10,3	12,8	13000	20000	0,022
RNA4902L/3AS	20	28	13	0,3	8,3	11,2	10000		0,022
RNA4902LL/3AS	20	28	13	0,3	8,3	11,2	10000		0,022
RNA6902R	20	28	23	0,3	17,6	25,3	13000	20000	0,04
NK20/16RCT	20	28	16	0,3	13,2	17,5	13000	20000	0,027
NK20/16R/LP03	20	28	16	0,3	13,2	17,5	13000		0,027
NK20/20R	20	28	20	0,3	16,7	23,8	13000	20000	0,034
NK20X32X14PX1	20	32	14	0,3	16,1	16,8	13000	20000	0,039
8E-NK20X32X12	20	32	12	0,3	12,2	11,8	13000	20000	0,033
NKS20	20	32	20	0,3	17,8	22,8	13000	20000	0,049
NK21/16R	21	29	16	0,3	13,7	18,7	13000	19000	0,028
NK21/20R	21	29	20	0,3	17,4	25,4	13000	19000	0,035
RNA4903R	22	30	13	0,3	11,2	14,6	12000	18000	0,022
RNA4903L/3AS	22	30	13	0,3	8,5	11,9	9000		0,022
RNA4903LL/3AS	22	30	13	0,3	8,5	11,9	9000		0,022
RNA5903	22	30	18	0,3	15,2	21,7	12000	18000	0,035
RNA6903R	22	30	23	0,3	18,2	27,2	12000	18000	0,042
NK22/16R	22	30	16	0,3	14,2	19,9	12000	18000	0,034

.../...



Needle roller bearings with solid rings, without inner ring

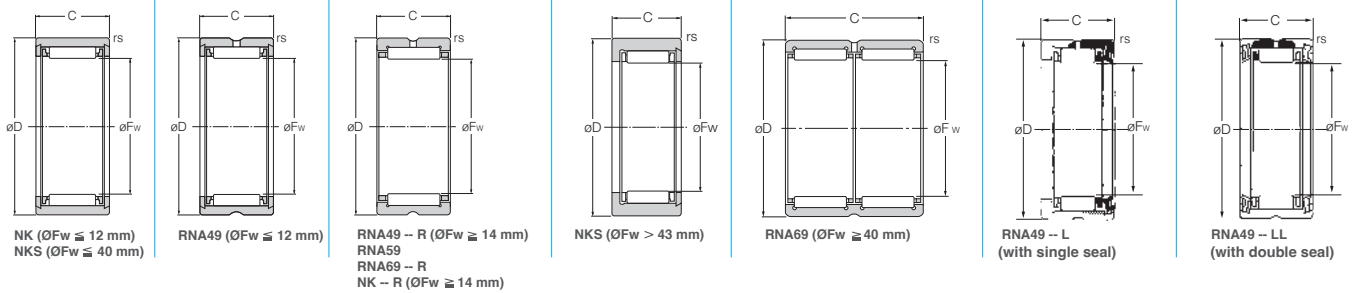
Part numbers	Dimensions (mm)				Basic load rating (kN)		Limiting speeds (tr/mn)		Mass (kg)
	Fw	D	C	rs min	dynamic Cr	static Cor	grease (tr/min)	oil (tr/min)	
NK22/20R	22	30	20	0,3	18	27	12000	18000	0,037
NKS22	22	35	20	0,6	17,7	23,3	12000	18000	0,062
MR142212	22,225	34,925	19,05	1	21,9	25,6	12000	18000	0,059
MR142216	22,225	34,925	25,4	1	28,2	35,5	12000	18000	0,082
NK24/16R	24	32	16	0,3	15,2	22,3	11000	17000	0,032
NK24/20R	24	32	20	0,3	18,6	28,8	11000	17000	0,04
8Q-NK24X36X14	24	36	14	0,5	17,4	19,4	11000	17000	0,043
NKS24R	24	37	20	0,6	18,4	25,2	11000	17000	0,066
RNA4904RCT	25	37	17	0,3	21,3	25,5	11000	16000	0,052
RNA4904L/3AS	25	37	17	0,3	15,2	19,9	8000		0,055
RNA4904LL/3AS	25	37	17	0,3	15,2	19,9	8000		0,055
RNA6904R	25	37	30	0,3	36,5	50,5	11000	16000	0,1
NK25/16R	25	33	16	0,3	15,1	22,4	11000	16000	0,033
NK25/20RCT	25	33	20	0,3	19,2	30,5	11000	16000	0,042
NKS25R	25	38	20	0,6	18,3	25,3	11000	16000	0,068
NK25X45X18.5-2NR	25	45	18,5	1,1	29,2	31,5	7500	11000	0,131
MR162412	25,4	38,1	19,05	1	23	28,1	11000	16000	0,068
MR162416	25,4	38,1	25,4	1	29,5	38,5	11000	16000	0,091
NK25.5X47X22PX1	25,56	47	22	0,5	42,5	50,5	11000	16000	0,177
NK26/16R	26	34	16	0,3	15,6	23,6	10000	15000	0,034
NK26/20R	26	34	20	0,3	19,1	30,5	10000	15000	0,042
RNA49/22R	28	39	17	0,3	23,2	29,3	9500	14000	0,05
RNA69/22R	28	39	30	0,3	40	58,5	9500	14000	0,1
NK28/20R	28	37	20	0,3	22,3	34	9500	14000	0,052
NK28/30RCT	28	37	30	0,3	26,7	48	9500	14000	0,082
NKS28R	28	42	20	0,6	18,1	25,8	9500	14000	0,084
MR182616	28,575	41,275	25,4	1	32,5	45	9500	14000	0,1
MR182620	28,575	41,275	31,75	1	40,5	60	9500	14000	0,127
NK29/20R	29	38	20	0,3	22,2	34	9500	14000	0,054
NK29/30R	29	38	30	0,3	27,5	50,5	9500	14000	0,084
RNA4905R	30	42	17	0,3	24	31,5	8500	13000	0,061
RNA4905L/3AS	30	42	17	0,3	16	22,6	6500		0,063
RNA4905LL/3AS	30	42	17	0,3	16	22,6	6500		0,063
RNA6905R	30	42	30	0,3	41,5	63	8500	13000	0,112
NK30/20R	30	40	20	0,3	22,1	34	8500	13000	0,065
NK30/20R/LP03	30	40	20	0,3	22,1	34	1000		0,065
NK30/30R	30	40	30	0,3	33	57	8500		0,098
8Q-NK30X44X30	30	44	30	0,3	48	65,5	8500	13000	0,132
HL-8Q-NK30X46X30-2	30	46	30	0,3	53	66,5	8500	13000	0,152
8E-NK30X47X21	30	47	21	1	34,5	38,5	8500	13000	0,119
NK30X55X21-3T2	30	55	21	0,6	43	43,5	8500	13000	0,201
NKS30	30	45	22	0,6	23,3	33	8500	13000	0,104
MR202816	31,75	44,45	25,4	1	35	51	8500	13000	0,109
MR202820	31,75	44,45	31,75	1	43,5	68	8500	13000	0,136
RNA69/28R	32	45	30	0,3	43	67	8500	13000	0,135
8E-NK32X52X15-3	32	52	15	0,6	22,7	21,6	8500	13000	0,112
NK32/30R	32	42	30	0,3	34	60,5	8500	13000	0,102
NK32/20R	32	42	20	0,3	23,5	37,5	8500	13000	0,068
NKS32	32	47	22	0,6	24	35	8500	13000	0,11
RNA49/28RCT	32	45	17	0,3	24,8	33,5	8500	13000	0,073
8E-NK1-25X52.2X15-4PX1	32,5	52,2	15	1	25,2	26,2	8500	13000	0,155
8E-NK1-25X52.2X15.5PX1	32,5	52,2	15,5	1	25,2	26,2	8500	13000	0,156
8E-NK1-25X56.4X19-3	33	56,4	19	1	35,5	35,5	8500	13000	0,234
8E-NK33X60X20-9	33	60	20	0,6	44,5	40,5	8000	12000	0,216
HL-8E-NK1-25X60X20-2	33	60	20	0,6	44,5	40,5	8000	12000	0,271
8Q-NK34X50X35-7PX1	34	50	35	0,3	61,5	83	8000	12000	0,195
HL-8Q-NK34X52X33-1	34	52	33	0,6	66	83	8000	12000	0,313
8E-NK34X59X20-1PX1	34	59	20	1	42	46,5	8000	12000	0,224
MR223020	34,925	47,625	31,75	1	46,5	76,5	7500	11000	0,15
NK35X42X30-5	35	42	30	0,3	27,8	60	7500	11000	0,073
NKS35	35	50	22	0,6	24,7	37	7500	11000	0,118

.../...

Needle roller bearings with solid rings, without inner ring

Part numbers	Dimensions (mm)				Basic load rating (kN)		Limiting speeds (tr/mn)		Mass (kg)
	Fw	D	C	rs min	dynamic Cr	static Cor	grease (tr/min)	oil (tr/min)	
8Q-NK35X54X36	35	54	36	0,6	75,5	95,5	7500	11000	0,25
8Q-NK35X52X36	35	52	36	0,6	64,5	89	7500	11000	0,228
RNA4906S	35	47	17	0,3	14,9	21,6	7500	11000	0,066
NK35/30R	35	45	30	0,3	36	66,5	7500	11000	0,112
RNA4906R	35	47	17	0,3	25,5	35,5	7500	11000	0,069
RNA6906R	35	47	30	0,3	42,5	67,5	7500	11000	0,126
RNA4906LL/3AS	35	47	17	0,3	18	27,4	5500		0,072
NK35/20RCT	35	45	20	0,3	24,8	41,5	7500	11000	0,074
RNA4906L/3AS	35	47	17	0,3	18	27,4	5500		0,072
HL-8Q-NK36X55X28	36	55	28	1	61	76	7500	11000	0,21
HL-8Q-NK37X56X36-2	37	56	36	0,3	75,5	101	7500	11000	0,272
NK37/20R	37	47	20	0,3	25,3	43,5	7500	11000	0,077
NK37/30R	37	47	30	0,3	36,5	69,5	7500	11000	0,107
NKS37	37	52	22	0,6	26,3	41	7500	11000	0,123
NK38/20R	38	48	20	0,3	25,9	45	7500	11000	0,079
NK38/30R	38	48	30	0,3	37,5	73	7500	11000	0,107
HL-4A-8E-NK38X52X31	38	52	31	0,3	55,5	84,5	7500	11000	0,182
8Q-NK38X55X30	38	55	30	0,6	61	84,5	7500	11000	0,203
MR243320	38,1	52,388	31,75	1,5	51	81,5	7500	11000	0,18
MR243316	38,1	52,388	25,4	1,5	41	61	7500	11000	0,143
8E-NK39X58X16-2PX1	39	58	16	1,5	33,5	39	6500	10000	0,125
8E-NK39X65X18-3	39	65	18	1,5	43	45,5	6500	10000	0,228
RNA69/32R	40	52	36	0,6	47,5	82	6500	10000	0,162
RNA49/32R	40	52	20	0,6	31,5	47,5	6500	10000	0,089
RNA69/32	40	52	36	0,6	42	85,5	6500	10000	0,2
8Q-NK40X55X30	40	55	30	1	49	79	6500	10000	0,194
NK40/20R	40	50	20	0,3	26,4	47	6500	10000	0,083
NK40/30R	40	50	30	0,3	38,5	76	6500	10000	0,125
NKS40	40	55	22	0,6	27,7	45	6500	10000	0,129
MR263520	41,275	55,562	31,75	1,5	54,5	90,5	6500	9500	0,191
MR263516	41,275	55,562	25,4	1,5	43,5	68	6500	9500	0,153
RNA6907R	42	55	36	0,6	49	86,5	6500	9500	0,193
RNA4907R	42	55	20	0,6	32	50	6500	9500	0,107
RNA4907LL/3AS	42	55	20	0,6	22,7	39,5	4800		0,113
NK42/20R	42	52	20	0,3	26,9	49	6500	9500	0,086
NK42/30R	42	52	30	0,3	39	79	6500	9500	0,13
RNA4907L/3AS	42	55	20	0,6	22,7	39,5	4800		0,113
NK43/20R	43	53	20	0,3	27,5	51	6500	9500	0,086
NK43/30R	43	53	30	0,3	40	82	6500	9500	0,133
NKS43	43	58	22	0,6	29,1	49	6500	9500	0,14
MR283720	44,45	58,738	31,75	1,5	55,5	95,5	6000	9000	0,204
NK45/20R	45	55	20	0,3	28	52,5	6000	9000	0,092
NK45/30RCT	45	55	30	0,3	41	85,5	6000	9000	0,139
NK47/30R	47	57	30	0,3	42,5	91,5	5500	8500	0,142
NK47/20RCT	47	57	20	0,3	28,8	55,5	5500	8500	0,095
MR303920	47,625	61,912	31,75	1,5	59	105	5500	8500	0,216
RNA4908R	48	62	22	0,6	43,5	66,5	5500	8500	0,14
RNA4908LL/3AS	48	62	22	0,6	27,8	53,5	4200		0,154
RNA6908R	48	62	40	0,6	67	116	5500	8500	0,256
RNA4908L/3AS	48	62	22	0,6	27,8	53,5	4200		0,154
NK50/35R	50	62	35	0,6	51	106	5500	8000	0,221
NKS50	50	65	22	1	31,5	57	5500	8000	0,157
NK50/25RCT	50	62	25	0,6	38,5	74,5	5500	8000	0,158
MR324120	50,8	65,088	31,75	1,5	62	114	5500	8000	0,227
RNA4909R	52	68	22	0,6	46	73	5000	7500	0,182
RNA6909R	52	68	40	0,6	70,5	127	5000	7500	0,273
RNA4909S	52	68	22	0,6	23,1	43,5	5000	7500	0,17
RNA4909LL/3AS	52	68	22	0,6	28,6	57	3800		0,157
NKS55	55	72	22	1	33,5	63	5000	7500	0,221
NK55/25R	55	68	25	0,6	41	82	5000	7500	0,193
NK55/35R	55	68	35	0,6	54	118	5000	7500	0,26
MR364828	57,15	76,2	44,45	1,5	97	173	4700	7000	0,493
MR364824	57,15	76,2	38,1	1,5	83,5	142	4700	7000	0,422
RNA4910S	58	72	22	0,6	35,5	78	4700	7000	0,173
RNA4910LL/3AS	58	72	22	0,6	30,5	64	3400		0,16
RNA4910R	58	72	22	0,6	48	80	4700	7000	0,163
RNA6910R	58	72	40	0,6	74	139	4700	7000	0,32
NK60/25R	60	72	25	0,6	41	85	4300	6500	0,185
NKS60	60	80	28	1,1	44,5	85	4300	6500	0,335
NK60/35R	60	72	35	0,6	57	130	4300	6500	0,258
RNA4911S	63	80	25	1	33	65,5	4300	6500	0,244
RNA6911R	63	80	45	1	94	183	4300	6500	0,47
RNA4911R	63	80	25	1	58,5	99,5	4300	6500	0,255
MR405228	63,5	82,55	44,45	2	102	191	4300	6500	0,533
NKS65	65	85	28	1,1	47	94	4000	6000	0,356
NK65/25R	65	78	25	0,6	45	98	4000	6000	0,221
NK65/35R	65	78	35	0,6	60	142	4000	6000	0,31
NK68/25R	68	82	25	1	44,5	89	4000	6000	0,241
NK68/35R	68	82	35	0,6	63	139	4000	6000	0,338
RNA6912R	68	85	45	1	95,5	191	4000	6000	0,488
RNA4912S	68	85	25	1,4	49,5	112	4000	6000	0,26
RNA4912R	68	85	25	1	61,5	108	4000	6000	0,275

.../...



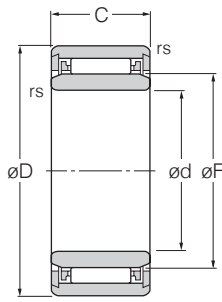
Needle roller bearings with solid rings, without inner ring

Part numbers	Dimensions (mm)				Basic load rating (kN)		Limiting speeds (tr/mn)		Mass (kg)
	Fw	D	C	rs min	dynamic Cr	static Cor	grease (tr/min)	oil (tr/min)	
MR445628	69,85	88,9	44,45	2	107	209	3700	5500	0,58
NK70/25R	70	85	25	0,6	45	91,5	3700	5500	0,275
NKS70R	70	90	28	1,1	49,5	103	3700	5500	0,38
NK70/35R	70	85	35	0,6	64	144	3700	5500	0,386
RNA6913R	72	90	45	1	97	198	3700	5500	0,52
RNA4913R	72	90	25	1	62,5	112	3700	5500	0,312
NK73/25R	73	90	25	0,6	54	100	3700	5500	0,302
NK73/35R	73	90	35	0,6	76,5	156	3700	5500	0,428
MR486028	76,2	95,25	44,45	2	112	227	3300	5000	0,651
NK75/35R	75	92	35	0,6	78	162	3700	5500	0,492
NK75/25R	75	92	25	0,6	55	104	3700	5500	0,315
MR486024	76,2	95,25	38,1	2	96	188	3300	5000	0,558
RNA6914R	80	100	54	1	130	267	3300	5000	0,857
NK80/35R	80	95	35	1	79,5	184	3300	5000	0,425
NK80/25R	80	95	25	1	57	119	3300	5000	0,301
RNA4914R	80	100	30	1	85,5	156	3300	5000	0,46
NK85/35R	85	105	35	1	100	193	3100	4700	0,517
RNA6915R	85	105	54	1	132	277	3100	4700	0,935
RNA4915R	85	105	30	1	87	162	3100	4700	0,489
NK85/25R	85	105	25	1	70,5	123	3100	4700	0,404
MR567232	88,9	114,3	50,8	2	154	295	3000	4500	1,27
RNA6916R	90	110	54	1	137	298	2900	4400	0,987
RNA4916R	90	110	30	1	90,5	174	2900	4400	0,516
NK90/25R	90	110	25	1	71,5	128	2900	4400	0,426
NK90/35R	90	110	35	1	104	208	2900	4400	0,604
NK95/36R	95	115	36	1	108	223	2800	4200	0,652
NK95/26R	95	115	26	1	74,5	137	2800	4200	0,364
RNA6917R	100	120	63	1,1	169	400	2700	4000	1,2
NK100/26R	100	120	26	1	73,5	137	2700	4000	0,487
NK100/36R	100	120	36	1	107	223	2700	4000	0,679
RNA4917R	100	120	35	1,1	112	237	2700	4000	0,657
RNA4918R	105	125	35	1,1	116	252	2500	3800	0,697
NK105/36R	105	125	36	1	111	238	2500	3800	0,713
RNA6918R	105	125	63	1,1	175	425	2500	3800	1,33
NK105/26R	105	125	26	1	76,5	147	2500	3800	0,506
RNA4919R	110	130	35	1,1	118	260	2400	3600	0,719
RNA6919R	110	130	63	1,1	177	440	2400	3600	1,46
NK110/30R	110	130	30	1,1	97,5	204	2400	3600	0,612
NK110/40R	110	130	40	1,1	129	292	2400	3600	0,83
RNA4920	115	140	40	1,1	127	260	2300	3500	1,15
NKS115	115	135	32	1,1	90,5	199	2300	3500	0,7
NK120/40	120	140	40	1,1	113	268	2200	3300	0,91
RNA4822	120	140	30	1	93,5	210	2200	3300	0,67
RNA4922	125	150	40	1,1	131	279	2100	3200	1,24
NK130/40	130	150	40	1,1	116	283	2100	3100	0,98
RNA4824	130	150	30	1	99,5	233	2100	3100	0,73
NKS135	135	160	40	2	135	298	2000	3000	1,32
RNA4924	135	165	45	1,1	180	380	2000	3000	1,86
NK145/42	145	170	42	1,5	153	360	1900	2800	1,49
NK145/32	145	170	32	1,5	111	238	1900	2800	1,12
RNA4826	145	165	35	1,1	118	305	1900	2800	0,95
RNA4926	150	180	50	1,5	202	455	1800	2700	2,21
NK155/32	155	180	32	1,5	114	252	1700	2600	1,2
RNA4828	155	175	35	1,1	121	315	1700	2600	1,02
RNA4928	160	190	50	1,5	209	485	1700	2500	2,35
RNA4830	165	190	40	1,1	152	390	1600	2400	1,6
RNA4930	170	210	60	2	261	610	1500	2400	2,98
RNA4832	175	200	40	1,1	160	425	1500	2300	1,7
RNA4932	180	220	60	2	270	650	1500	2200	3,1
RNA4834	185	215	45	1,1	185	495	1500	2200	2,54
RNA4934	190	230	60	2	279	690	1400	2100	3,22

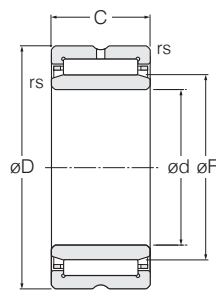
.../...

Needle roller bearings with solid rings, without inner ring

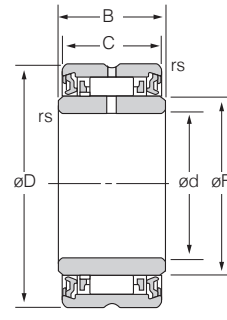
Part numbers	Dimensions (mm)				Basic load rating (kN)		Limiting speeds (tr/mn)		Mass (kg)
	Fw	D	C	rs min	dynamic Cr	static Cor	grease (tr/min)	oil (tr/min)	
RNA4836	195	225	45	1,1	195	540	1400	2100	2,68
RNA4936	205	250	69	2	375	890	1300	2000	4,48
RNA4838	210	240	50	1,5	227	680	1300	1900	3,21
RNA4938	215	260	69	2	390	945	1300	1900	4,53
RNA4840	220	250	50	1,5	231	705	1200	1800	3,35
RNA4940	225	280	80	2,1	505	1180	1200	1800	7,2
RNA4844	240	270	50	1,5	244	780	1100	1700	3,62
RNA4944	245	300	80	2,1	525	1270	1100	1600	7,81
RNA4848	265	300	60	2	360	1080	1000	1500	5,4
RNA4948	265	320	80	2,1	540	1350	1000	1500	8,4
RNA4852	285	320	60	2	375	1160	950	1400	5,8
RNA4952	290	360	100	2,1	805	1900	950	1400	15,9
RNA4856	305	350	69	2	455	1300	850	1300	9,3
RNA4864	350	400	80	2,1	640	1850	750	1100	13,4
RNA4868	370	420	80	2,1	655	1940	750	1100	14



NK + IR ($\text{ød} \leq 9 \text{ mm}$)



NA49 -- R
NA59
NA69 -- R ($\text{ød} \leq 30 \text{ mm}$)
NK -- R + IR



NA49 -- LL
(with double seal)

Needle roller bearings with solid rings, with inner ring

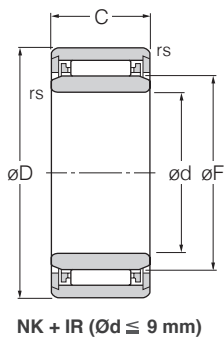
Part numbers	Dimensions (mm)						Basic load rating (kN)		Limiting speeds (tr/min)		Mass (kg)
	d	F	D	C	B (width inner ring)	rs min	dynamic Cr	static Cor	grease	oil	
NK8/12T2+1R5X8X12	5	8	15	12	12	0,3	4	4,1	21000	32000	0,012
NK8/16+1R5X8X16	5	8	15	16	16	0,3	4,85	5,2	21000	32000	0,017
NK9/12T2+1R6X9X12	6	9	16	12	12	0,3	4,55	5	20000	30000	0,013
NK9/16T2+1R6X9X16	6	9	16	16	16	0,3	5,5	6,4	20000	30000	0,017
8E-NK10/16CT+1R7X10X16	7	10	17	16	16	0,3	5,45	6,45	19000	28000	0,018
NK10/12T2+1R7X10X12	7	10	17	12	12	0,3	4,55	5,1	19000	28000	0,014
NK12/12+1R9X12X12	9	12	19	12	12	0,3	5	6,1	17000	26000	0,018
NK12/16+1R9X12X16	9	12	19	16	16	0,3	6	7,7	17000	26000	0,022
NA4900R	10	14	22	13	13	0,3	8,6	9,2	16000	24000	0,024
NK14/16R+1R10X14X16	10	14	22	16	16	0,3	10,3	11,5	16000	24000	0,03
NK14/20R+1R10X14X20	10	14	22	20	20	0,3	13	15,6	16000	24000	0,038
NA4900LL/3AS	10	14	22	13	14	0,3	7,2	8,5	10000		0,025
NA4901R	12	16	24	13	13	0,3	9,55	10,9	15000	23000	0,026
NA4901LL/3AS	12	16	24	13	14	0,3	7,75	9,7	10000		0,028
NA6901R	12	16	24	22	22	0,3	15,4	20	15000	23000	0,046
NK16/20R+1R12X16X20	12	16	24	20	20	0,3	14,6	18,8	15000	23000	0,042
NK16/16R+1R12X16X16	12	16	24	16	16	0,3	12,2	14,9	15000	23000	0,033
NK19/16R+1R15X19X16	15	19	27	16	16	0,3	13,3	17,4	14000	21000	0,039
NK19/20R+1R15X19X20	15	19	27	20	20	0,3	16	22,2	14000	21000	0,045
NA4902R	15	20	28	13	13	0,3	10,3	12,8	13000	20000	0,036
NA4902LL/3AS	15	20	28	13	14	0,3	8,3	11,2	10000		0,036
NA6902R	15	20	28	23	23	0,3	17,6	25,3	13000	20000	0,064
NK21/16R+1R17X21X16	17	21	29	16	16	0,3	13,7	18,7	13000	19000	0,042
NK21/20R+1R17X21X20	17	21	29	20	20	0,3	17,4	25,4	13000	19000	0,053
NA4903R	17	22	30	13	13	0,3	11,2	14,6	12000	18000	0,037
NA4903LL/3AS	17	22	30	13	14	0,3	8,5	11,9	9000		0,039
NA5903	17	22	30	18	18	0,3	15,2	21,7	12000	18000	0,056
NA6903R	17	22	30	23	23	0,3	18,2	27,2	12000	18000	0,069
NK24/16R+1R20X24X16	20	24	32	16	16	0,3	15,2	22,3	11000	17000	0,049
NK24/20R+1R20X24X20	20	24	32	20	20	0,3	18,6	28,8	11000	17000	0,061
NA4904LL/3AS	20	25	37	17	18	0,3	15,2	19,9	8000		0,08
NA4904RCT	20	25	37	17	17	0,3	21,3	25,5	11000	16000	0,074
NA6904R	20	25	37	30	30	0,3	36,5	50,5	11000	16000	0,141
NK26/16R+1R22X26X16	22	26	34	16	16	0,3	15,6	23,6	10000	15000	0,046
NK26/20R+1R22X26X20	22	26	34	20	20	0,3	19,1	30,5	10000	15000	0,064
NA49/22R	22	28	39	17	17	0,3	23,2	29,3	9500	14000	0,08
NA59/22	22	28	39	23	23	0,3	26,4	37,5	9500	14000	0,134
NA69/22R	22	28	39	30	30	0,3	40	58,5	9500	14000	0,154
NK29/20R+1R25X29X20	25	29	38	20	20	0,3	22,2	34	9500	14000	0,079
NK29/30R+1R25X29X30	25	29	38	30	30	0,3	27,5	50,5	9500	14000	0,123
NA4905R	25	30	42	17	17	0,3	24	31,5	8500	13000	0,088
NA4905LL/3AS	25	30	42	17	18	0,3	16	22,6	6500		0,093
NA5905	25	30	42	23	23	0,3	30,5	43	8500	13000	0,139
NA6905R	25	30	42	30	30	0,3	41,5	63	8500	13000	0,162
NA69/28R	28	32	45	30	30	0,3	43	67	8500	13000	0,179
NA49/28R	28	32	45	17	17	0,3	24,8	33,5	8500	13000	0,098
NK32/20R+1R28X32X20	28	32	42	20	20	0,3	23,5	37,5	8500	13000	0,096
NK32/30R+1R28X32X30	28	32	42	30	30	0,3	34	60,5	8500	13000	0,146
NA4906R	30	35	47	17	17	0,3	25,5	35,5	7500	11000	0,101
NA4906LL/3AS	30	35	47	17	18	0,3	18	27,4	5500		0,107
NA5906	30	35	47	23	23	0,3	32,5	48,5	7500	11000	0,152
NA6906R	30	35	47	30	30	0,3	42,5	67,5	7500	11000	0,185
NK35/20RCT+1R30X35X20	30	35	45	20	20	0,3	24,8	41,5	7500	11000	0,112
NK35/30R+1R30X35X30	30	35	45	30	30	0,3	36	66,5	7500	11000	0,171
NK37/20R+1R32X37X20	32	37	47	20	20	0,3	25,3	43,5	7500	11000	0,117
NK37/30R+1R32X37X30	32	37	47	30	30	0,3	36,5	69,5	7500	11000	0,17
NA49/32R	32	40	52	20	20	0,6	31,5	47,5	6500	10000	0,157
NA69/32R	32	40	52	36	36	0,6	47,5	82	6500	10000	0,286
NK40/20R+1R35X40X20	35	40	50	20	20	0,3	26,4	47	6500	10000	0,13

.../...

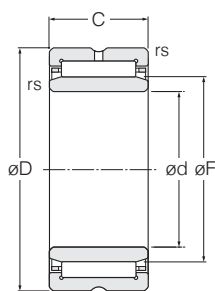
Needle roller bearings with solid rings, with inner ring

Part numbers	Dimensions (mm)						Basic load rating (kN)		Limiting speeds (tr/min)		Mass (kg)
	d	F	D	C	B (width inner ring)	rs min	dynamic	static	grease	oil	
							Cr	Cor			
NK40/30R+1R35X40X30	35	40	50	30	30	0,3	38,5	76	6500	10000	0,193
NA4907R	35	42	55	20	20	0,6	32	50	6500	9500	0,171
NA4907LL/3AS	35	42	55	20	21	0,6	22,7	39,5	4800		0,175
NA6907R	35	42	55	36	36	0,6	49	86,5	6500	9500	0,31
NK43/20R+1R38X43X20	38	43	53	20	20	0,3	27,5	51	6500	9500	0,134
NK43/30R+1R38X43X30	38	43	53	30	30	0,3	40	82	6500	9500	0,207
NK45/20R+1R40X45X20	40	45	55	20	20	0,3	28	52,5	6000	9000	0,143
NK45/30RCT+1R40X45X30	40	45	55	30	30	0,3	41	85,5	6000	9000	0,216
NA4908R	40	48	62	22	22	0,6	43,5	66,5	5500	8500	0,232
NA4908LL/3AS	40	48	62	22	23	0,6	27,8	53,5	4200		0,252
NA5908	40	48	62	30	30	0,6	53	92,5	5500	8500	0,348
NA6908R	40	48	62	40	40	0,6	67	116	5500	8500	0,426
NK47/20RCT+1R42X47X20	42	47	57	20	20	0,3	28,8	55,5	5500	8500	0,148
NK47/30R+1R42X47X30	42	47	57	30	30	0,3	42,5	91,5	5500	8500	0,222
NK50/25RCT+1R45X50X25	45	50	62	25	25	0,6	38,5	74,5	5500	8000	0,229
NK50/35R+1R45X50X35	45	50	62	35	35	0,6	51	106	5500	8000	0,322
NA4909R	45	52	68	22	22	0,6	46	73	5000	7500	0,27
NA4909LL/3AS	45	52	68	22	23	0,6	28,6	57	3800		0,29
NA5909	45	52	68	30	30	0,6	56	101	5000	7500	0,396
NA6909R	45	52	68	40	40	0,6	70,5	127	5000	7500	0,437
NK55/25R+1R50X55X25	50	55	68	25	25	0,6	41	82	5000	7500	0,271
NK55/35R+1R50X55X35	50	55	68	35	35	0,6	54	118	5000	7500	0,379
NA4910R	50	58	72	22	22	0,6	48	80	4700	7000	0,276
NA4910LL/3AS	50	58	72	22	23	0,6	30,5	64	3400		0,295
NA5910	50	58	72	30	30	0,6	58	110	4700	7000	0,498
NA6910R	50	58	72	40	40	0,6	74	139	4700	7000	0,529
NK60/25R+1R55X60X25	55	60	72	25	25	0,6	41	85	4300	6500	0,271
NK60/35R+1R55X60X35	55	60	72	35	35	0,6	57	130	4300	6500	0,379
NA4911R	55	63	80	25	25	1	58,5	99,5	4300	6500	0,396
NA5911	55	63	80	34	34	1	76,5	140	4300	6500	0,559
NA6911R	55	63	80	45	45	1	94	183	4300	6500	0,726
NA4912R	60	68	85	25	25	1	61,5	108	4000	6000	0,427
NA5912	60	68	85	34	34	1	80,5	153	4000	6000	0,614
NA6912R	60	68	85	45	45	1	95,5	191	4000	6000	0,758
NK68/25R+1R60X68X25	60	68	82	25	25	1	44,5	89	4000	6000	0,393
NK68/35R+1R60X68X35	60	68	82	35	35	0,6	63	139	4000	6000	0,551
NA4913R	65	72	90	25	25	1	62,5	112	3700	5500	0,454
NA5913	65	72	90	34	34	1	84	165	3700	5500	0,655
NA6913R	65	72	90	45	45	1	97	198	3700	5500	0,779
NK73/25R+1R65X73X25	65	73	90	25	25	0,6	54	100	3700	5500	0,466
NK73/35R+1R65X73X35	65	73	90	35	35	0,6	76,5	156	3700	5500	0,66
NA4914R	70	80	100	30	30	1	85,5	156	3300	5000	0,727
NA5914	70	80	100	40	40	1	103	187	3300	5000	1,06
NA6914R	70	80	100	54	54	1	130	267	3300	5000	1,34
NK80/25R+1R70X80X25	70	80	95	25	25	1	57	119	3300	5000	0,525
NK80/35R+1R70X80X35	70	80	95	35	35	1	79,5	184	3300	5000	0,738
NA4915R	75	85	105	30	30	1	87	162	3100	4700	0,776
NA6915R	75	85	105	54	54	1	132	277	3100	4700	1,45
NK85/25R+1R75X85X25	75	85	105	25	25	1	70,5	123	3100	4700	0,642
NK85/35R+1R75X85X35	75	85	105	35	35	1	100	193	3100	4700	0,853
NA4916R	80	90	110	30	30	1	90,5	174	2900	4400	0,82
NA5916	80	90	110	40	40	1	115	223	2900	4400	1,15
NA6916R	80	90	110	54	54	1	137	298	2900	4400	1,53
NK90/25R+1R80X90X25	80	90	110	25	25	1	71,5	128	2900	4400	0,68
NK90/35R+1R80X90X35	80	90	110	35	35	1	104	208	2900	4400	0,959
NK95/26R+1R85X95X26	85	95	115	26	26	1	74,5	137	2800	4200	0,644
NK95/36R+1R85X95X36	85	95	115	36	36	1	108	223	2800	4200	1,05
NA4917R	85	100	120	35	35	1,1	112	237	2700	4000	1,24
NA5917	85	100	120	46	46	1,1	137	290	2700	4000	1,76
NA6917R	85	100	120	63	63	1,1	169	400	2700	4000	2,25
NA4918R	90	105	125	35	35	1,1	116	252	2500	3800	1,84
NA6918R	90	105	125	63	63	1,1	175	425	2500	3800	2,37
NK105/26R+1R95X105X26	95	105	125	26	26	1	76,5	147	2500	3800	0,819
NK105/36R+1R95X105X36	95	105	125	36	36	1	111	238	2500	3800	1,15
NA4919R	95	110	130	35	35	1,1	118	260	2400	3600	1,36
NA6919R	95	110	130	63	63	1,1	177	440	2400	3600	2,63
NK110/30R+1R100X110X30	100	110	130	30	30	1,1	97,5	204	2400	3600	0,99
NK110/40R+1R100X110X40	100	110	130	40	40	1,1	129	292	2400	3600	1,34
NA4920	100	115	140	40	40	1,1	127	260	2300	3500	1,93
NA4822	110	120	140	30	30	1	93,5	210	2200	3300	1,11
NA4922	110	125	150	40	40	1,1	131	279	2100	3200	2,08
NA4824	120	130	150	30	30	1	99,5	233	2100	3100	1,17
NA4924	120	135	165	45	45	1,1	180	380	2000	3000	2,84
NA4924C3	120	135	165	45	45	1,1	180	380	2000	3000	2,84
NA4826	130	145	165	35	35	1,1	118	305	1900	2800	1,6
NA4926	130	150	180	50	50	1,5	202	455	1800	2700	3,9
NA4828	140	155	175	35	35	1,1	121	315	1700	2600	1,82
NA4928	140	160	190	50	50	1,5	209	485	1700	2500	4,05
NA4830	150	165	190	40	40	1,1	152	390	1600	2400	2,72
NA4832	160	175	200	40	40	1,1	160	425	1500	2300	2,9

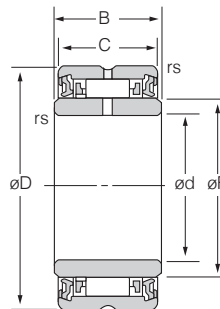
.../...



NK + IR ($\text{ø}d \leq 9 \text{ mm}$)



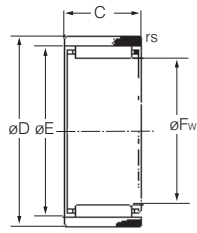
NA49 -- R
NA59
NA69 -- R ($\text{ø}d \leq 30 \text{ mm}$)
NK -- R + IR



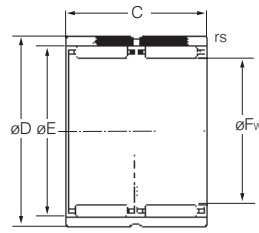
NA49 -- LL
(with double seal)

Needle roller bearings with solid rings, with inner ring

Part numbers	Dimensions (mm)						Basic load rating (kN)		Limiting speeds (tr/min)		Mass (kg)
	d	F	D	C	B (width inner ring)	rs min	dynamic Cr	static Cor	grease	oil	
NA4834	170	185	215	45	45	1,1	185	495	1500	2200	3,99
NA4836	180	195	225	45	45	1,1	195	540	1400	2100	4,19
NA4838	190	210	240	50	50	1,5	227	680	1300	1900	5,62
NA4840	200	220	250	50	50	1,5	231	705	1200	1800	5,84
NA4844	220	240	270	50	50	1,5	244	780	1100	1700	6,37
NA4848	240	265	300	60	60	2	360	1080	1000	1500	10
NA4852	260	285	320	60	60	2	375	1160	950	1400	10,8
NA4856	280	305	350	69	69	2	455	1300	850	1300	15,5
NA4860	300	330	380	80	80	2,1	625	1770	800	1200	22
NA4864	320	350	400	80	80	2,1	640	1850	750	1100	23,2
NA4872	360	390	440	80	80	2,1	665	2020	650	1000	25,7
NA4876	380	415	480	100	100	2,1	1000	2840	650	950	44,5



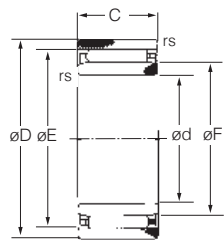
RNAO



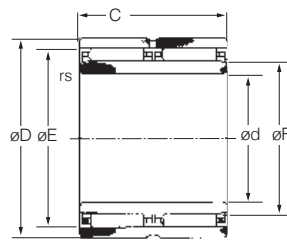
RNAO -- ZW

Needle roller bearings with separable solid rings, without inner ring

Part numbers	Dimensions (mm)					Basic load rating (kN)		Limiting speeds (tr/min)		Mass (kg)
	Fw	E	D	C	rs min	dynamic (N) Cr	static (N) Cor	grease	oil	
RNAO-5X10X8T2	5	8	10	8	0,15	2,64	2,19	27000	40000	0,003
RNAO-6X12X7XT2/2AS	6	9	12	7	0,3	2,27	1,86	25000	0	0,003
RNAO-6X13X8T2	6	9	13	8	0,3	2,66	2,28	25000	37000	0,006
RNAO-7X14X8T2	7	10	14	8	0,3	2,67	2,35	23000	34000	0,006
RNAO-8X15X10T2	8	11	15	10	0,3	4	4,1	21000	32000	0,008
RNAO-10X17X10T2	10	13	17	10	0,3	4,55	5,1	19000	28000	0,01
RNAO-10X22X10X	10	14	22	10	0,5	5,5	5,45	19000	28000	0,021
RNAO-12X22X12	12	18	22	12	0,3	8,65	8	17000	26000	0,019
RNAO-15X23X13	15	19	23	13	0,3	8,25	10,2	15000	23000	0,02
RNAO-16X24X13	16	20	24	13	0,3	9,05	11,8	15000	23000	0,021
RNAO-16X28X12	16	22	28	12	0,3	11,7	12,5	15000	23000	0,032
RNAO-17X25X13	17	21	25	13	0,3	9,4	12,6	15000	22000	0,022
RNAO-20X28X13	20	24	28	13	0,3	10	14,3	13000	20000	0,025
RNAO-20X28X26ZW	20	24	28	26	0,3	17,1	28,6	13000	20000	0,05
RNAO-20X32X12	20	26	32	12	0,3	12,9	15,1	13000	20000	0,038
RNAO-22X30X26ZW	22	26	30	26	0,3	17,5	30,5	12000	18000	0,054
RNAO-22X35X16	22	29	35	16	0,3	18,7	22,7	12000	18000	0,059
RNAO-25X35X17	25	29	35	17	0,3	14,2	24	11000	16000	0,053
RNAO-25X35X26ZW	25	29	35	26	0,3	18,4	33,5	11000	16000	0,076
RNAO-30X40X17	30	35	40	17	0,3	19,4	32,5	9000	13000	0,06
RNAO-30X42X32ZW	30	37	42	32	0,3	37,5	60,5	9000	13000	0,137
RNAO-32X42X13	32	37	42	13	0,3	14,5	23	8500	13000	0,049
RNAO-35X45X26ZW	35	40	45	26	0,3	26,1	50	7500	11000	0,091
RNAO-40X50X34ZW	40	45	50	34	0,3	37,5	83	6500	10000	0,152
RNAO-40X55X20	40	47	55	20	0,3	31	51,5	6500	10000	0,145
RNAO-40X55X40ZW	40	48	55	40	0,3	56,5	102	6500	10000	0,275
RNAO-45X55X17	45	50	55	17	0,3	22,3	44,5	6000	9000	0,083
RNAO-45X62X40ZW	45	53	62	40	0,3	61,5	118	6000	9000	0,377
RNAO-50X62X20	50	55	62	20	0,3	27,9	62	5500	8000	0,14
RNAO-50X65X20	50	58	65	20	0,3	38,5	67,5	5500	8000	0,168
RNAO-50X65X40ZW	50	58	65	40	0,6	66,5	135	5500	8000	0,355
RNAO-55X68X20	55	60	68	20	0,6	28,8	66,5	4800	7500	0,166
RNAO-60X78X20	60	68	78	20	1	40	75	4400	6500	0,255
RNAO-60X78X40ZW	60	68	78	40	1	69	150	4400	6500	0,5
RNAO-65X85X30	65	73	85	30	1	61	132	4100	6000	0,464
RNAO-70X90X30	70	78	90	30	1	65,5	149	3800	5500	0,499
RNAO-70X90X60ZW	70	78	90	60	1	112	297	3800	5500	1,02
RNAO-80X100X30	80	88	100	30	1	69	166	3300	5000	0,58
RNAO-100X120X30	100	108	120	30	1	76	201	2700	4000	0,694



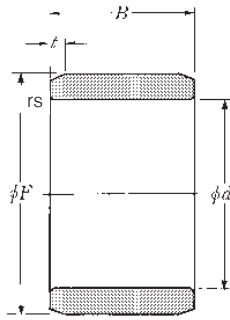
NAO



NAO -- ZW

Needle roller bearings with separable solid rings, with inner ring

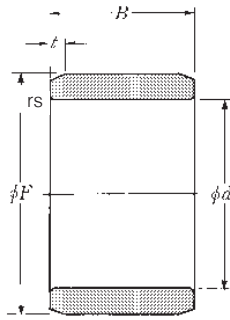
Part numbers	Dimensions (mm)						Basic load rating (kN)		Limiting speeds (tr/min)		Mass (kg)
	d	F	E	D	C	rs min	dynamic (N) Cr	static (N) Cor	grease	oil	
NAO-17X35X16	22	17	29	35	16	0,3	18,7	22,7	12000	18000	0,078
NAO-25X40X17	30	25	35	40	17	0,3	19,4	32,5	9000	13000	0,088
NAO-30X45X26ZW	35	30	40	45	26	0,3	26,1	50	7500	11000	0,157
NAO-35X50X17	40	35	45	50	17	0,3	21,8	41,5	6500	10000	0,113
NAO-35X55X20	40	35	47	55	20	0,3	31	51,5	6500	1000	0,19
NAO-50X68X20	55	50	60	68	20	0,6	28,8	66,5	4800	7500	0,23



1R - M1

Inner rings						
Part numbers	Dimensions (mm)					Mass (kg)
	d	F	B	t	rs min	
1R5X7X10	5	7	10	1	0,15	0,0014
1R5X8X12	5	8	12	1	0,3	0,0028
1R5X8X16	5	8	16	-	0,3	0,0038
1R6X8X10	6	8	10	1	0,15	0,0017
1R6X10X10D	6	10	10	1	0,3	0,0037
1R6X10X10	6	10	10	1	0,3	0,0037
1R6X10X12D	6	10	12	-	0,3	0,0046
1R6X10X13	6	10	13	1	0,3	0,005
1R6X9X12	6	9	12	1	0,3	0,0032
1R6X9X16	6	9	16	1	0,3	0,0043
1R7X10X10.5	7	10	10,5	1	0,3	0,0031
1R7X10X12	7	10	12	1	0,3	0,0036
1R7X10X16	7	10	16	1	0,3	0,0049
1R7X12X16	7	12	16	1	0,3	0,0093
1R7X9X10	7	9	10	1	0,15	0,0019
1R8X12X10	8	12	10	1	0,3	0,0048
1R8X12X10D	8	12	10	1	0,3	0,0048
1R8X12X10.5	8	12	10,5	1	0,3	0,005
1R8X12X12D	8	12	12	-	0,3	0,0057
1R8X12X12.5	8	12	12,5	1	0,3	0,0059
1R8X14X16	8	14	16	1	0,3	0,013
1R9X12X11	9	12	11	1	0,3	0,0041
1R9X12X12	9	12	12	1	0,3	0,0045
1R9X12X16	9	12	16	1	0,3	0,0061
1R9X15X16	9	15	16	1	0,3	0,014
1R10X13X12.5	10	13	12,5	1	0,3	0,0052
1R10X14X12	10	14	12	1	0,3	0,0073
1R10X14X12D	10	14	12	-	0,3	0,0073
1R10X14X13	10	14	13	1	0,3	0,0074
1R10X14X14D	10	14	14	-	0,3	0,008
1R10X14X16	10	14	16	-	0,3	0,0092
1R10X14X20	10	14	20	1	0,3	0,012
1R10X15X15.5	10	15	15,5	1	0,3	0,012
1R10X16X16	10	16	16	1	0,3	0,015
1R12X15X12	12	15	12	1	0,3	0,0058
1R12X15X12.5	12	15	12,5	1	0,3	0,0061
1R12X15X16	12	15	16	1	0,3	0,0078
1R12X15X16.5	12	15	16,5	-	0,3	0,008
1R12X15X22.5	12	15	22,5	-	0,3	0,011
1R12X16X12	12	16	12	1,5	0,3	0,0079
1R12X16X13	12	16	13	1,5	0,3	0,0087
1R12X16X14D	12	16	14	-	0,3	0,0095
1R12X16X16	12	16	16	1,5	0,3	0,011
1R12X16X20	12	16	20	1,5	0,3	0,014
1R12X16X22	12	16	22	1,5	0,3	0,015
1R12X17X20.5	12	17	20,5	1,5	0,3	0,019
1R12X17X25.5	12	17	25,5	1,5	0,3	0,024
1R14X17X17	14	17	17	1,5	0,3	0,0095
1R15X18X12.5	15	18	12,5	1,5	0,3	0,0072
1R15X18X16	15	18	16	1,5	0,3	0,0093
1R15X18X16.5	15	18	16,5	1,5	0,3	0,0096
1R15X18X17.5	15	18	17,5	1,5	0,3	0,01
1R15X18X20.5	15	18	20,5	1,5	0,3	0,012
1R15X18X25.5	15	18	25,5	1,5	0,3	0,015
1R15X19X16	15	19	16	1,5	0,3	0,013
1R15X19X20	15	19	20	1,5	0,3	0,016
1R15X20X12	15	20	12	1,5	0,3	0,012
1R15X20X13	15	20	13	1,5	0,3	0,014
1R15X20X14D	15	20	14	-	0,3	0,015
1R15X20X18	15	20	18	1,5	0,3	0,019
1R15X20X20.5	15	20	20,5	1,5	0,3	0,021
1R15X20X23	15	20	23	-	0,3	0,024

.../...



1R - M1

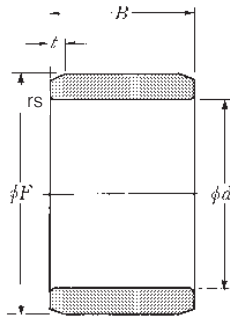
Inner rings						
Part numbers	Dimensions (mm)					Mass (kg)
	d	F	B	t	rs min	
1R15X20X26	15	20	26	1,5	0,3	0,027
1R15X20X30.5	15	20	30,5	1,5	0,3	0,032
1R15X22X20	15	22	20	1,5	0,6	0,032
1R17X20X16	17	20	16	1,5	0,3	0,011
1R17X20X16.5	17	20	16,5	1,5	0,3	0,011
1R17X20X20	17	20	20	1,5	0,3	0,014
1R17X20X20.5	17	20	20,5	-	0,3	0,014
1R17X20X30.5	17	20	30,5	-	0,3	0,021
1R17X21X16	17	21	16	1,5	0,3	0,014
1R17X21X20	17	21	20	-	0,3	0,018
1R17X22X13	17	22	13	1,5	0,3	0,015
1R17X22X14D	17	22	14	-	0,3	0,016
1R17X22X16	17	22	16	-	0,3	0,019
1R17X22X18	17	22	18	1,5	0,3	0,021
1R17X22X20.5	17	22	20,5	1,5	0,3	0,024
1R17X22X23	17	22	23	-	0,3	0,027
1R17X22X26	17	22	26	1,5	0,3	0,03
1R17X22X32	17	22	32	1,5	0,3	0,036
1R17X24X20	17	24	20	1,5	0,6	0,034
1R17X22X16D	17	22	16	-	0,3	0,019
1R20X24X16	20	24	16	1,8	0,3	0,017
1R20X24X20	20	24	20	-	0,3	0,021
1R20X24X28.5	20	24	28,5	-	0,3	0,03
1R20X25X12.5	20	25	12,5	1,8	0,3	0,016
1R20X25X16	20	25	16	-	0,3	0,021
1R20X25X16.5	20	25	16,5	1,8	0,3	0,022
1R20X25X17	20	25	17	1,8	0,3	0,022
1R20X25X18D	20	25	18	-	0,3	0,024
1R20X25X20	20	25	20	-	0,3	0,027
1R20X25X20.5	20	25	20,5	1,8	0,3	0,028
1R20X25X23	20	25	23	1,8	0,3	0,031
1R20X25X26	20	25	26	1,8	0,3	0,034
1R20X25X26.5	20	25	26,5	-	0,3	0,036
1R20X25X30	20	25	30	1,8	0,3	0,041
1R20X25X32	20	25	32	1,8	0,3	0,041
1R20X25X38.5	20	25	38,5	-	0,3	0,053
1R20X28X20	20	28	20	1,8	0,6	0,045
1R22X26X16	22	26	16	1,8	0,3	0,017
1R22X26X20	22	26	20	-	0,3	0,022
1R22X28X17	22	28	17	1,8	0,3	0,03
1R22X28X20	22	28	20	1,8	0,3	0,035
1R22X28X20.5	22	28	20,5	1,8	0,3	0,036
1R22X28X23	22	28	23	1,8	0,3	0,042
1R22X28X30	22	28	30	-	0,3	0,054
1R25X29X20	25	29	20	-	0,3	0,026
1R25X29X30	25	29	30	1,8	0,3	0,039
1R25X30X12.5	25	30	12,5	1,8	0,3	0,02
1R25X30X16	25	30	16	1	0,3	0,024
1R25X30X16.5	25	30	16,5	1,8	0,3	0,026
1R25X30X17	25	30	17	1,8	0,3	0,027
1R25X30X18	25	30	18	-	0,3	0,03
1R25X30X18D	25	30	18	-	0,3	0,03
1R25X30X20	25	30	20	1,8	0,3	0,033
1R25X30X20.5	25	30	20,5	1,8	0,3	0,034
1R25X30X20.5D	25	30	20,5	1,8	0,3	0,034
1R25X30X23	25	30	23	1,8	0,3	0,038
1R25X30X26.5	25	30	26,5	-	0,3	0,043
1R25X30X30	25	30	30	1,8	0,3	0,05
1R25X30X32	25	30	32	1	0,3	0,054
1R25X30X38.5	25	30	38,5	-	0,3	0,064
1R25X32X15X1PX1	25	32	15	1,8	0	0,034
1R25X32X22	25	32	22	1,8	0,6	0,052

.../...

Inner rings

Part numbers	Dimensions (mm)					Mass (kg)
	d	F	B	t	rs min	
M1-162016	25,4	31,75	25,65	-	1	0,052
1R28X32X17	28	32	17	1,8	0,3	0,025
1R28X32X20	28	32	20	1,8	0,3	0,028
1R28X32X30	28	32	30	-	0,3	0,044
1R29X32X13	29	32	13	1,8	0,3	0,015
1R30X35X12.5	30	35	12,5	1,8	0,3	0,024
1R30X35X13	30	35	13	1,3	0,3	0,025
1R30X35X16	30	35	16	-	0,3	0,031
1R30X35X16.5	30	35	16,5	1,8	0,3	0,032
1R30X35X17	30	35	17	1,8	0,3	0,032
1R30X35X18D	30	35	18	-	0,3	0,035
1R30X35X20	30	35	20	-	0,3	0,038
1R30X35X20.5	30	35	20,5	1,8	0,3	0,039
1R30X35X23	30	35	23	1,8	0,3	0,044
1R30X35X26	30	35	26	1,8	0,3	0,05
1R30X35X30	30	35	30	-	0,3	0,059
1R30X35X30D	30	35	30	-	0,3	0,059
1R30X35X32	30	35	32	1,8	0,3	0,063
1R30X37X18	30	37	18	1,8	0,3	0,05
1R30X37X22	30	37	22	1,8	0,6	0,061
1R30X38X20	30	38	20	-	0,6	0,065
M1-202420	31,75	38,1	32	-	1,5	0,094
1R32X37X20	32	37	20	2	0,3	0,04
1R32X37X30	32	37	30	-	0,3	0,063
1R32X38X32	32	38	32	2	0,3	0,082
1R32X40X20	32	40	20	2	0,6	0,068
1R32X40X27	32	40	27	2	0,6	0,092
1R32X40X36	32	40	36	2	0,6	0,124
1R33X37X13	33	37	13	2	0,3	0,022
M1-222820	34,925	44,45	32	2	1,5	0,146
1R35X40X12.5	35	40	12,5	2	0,3	0,027
1R35X40X16.5	35	40	16,5	2	0,3	0,037
1R35X40X17	35	40	17	2	0,3	0,038
1R35X40X20	35	40	20	2	0,3	0,044
1R35X40X20.5	35	40	20,5	2	0,3	0,046
1R35X40X30	35	40	30	-	0,3	0,068
1R35X40X30V4	35	40	30	-	0,3	0,068
1R35X40X34	35	40	34	1,8	0,3	0,079
1R35X40X40	35	40	40	2	0,3	0,091
1R35X42X20	35	42	20	1,8	0,6	0,064
1R35X42X21D	35	42	21	-	0,6	0,068
1R35X42X23D	35	42	23	-	0,6	0,074
1R35X42X27	35	42	27	2	0,6	0,08
1R35X42X36	35	42	36	2	0,6	0,117
1R35X43X22	35	43	22	2	0,6	0,081
1R38X43X20	38	43	20	1,8	0,3	0,048
1R38X43X30	38	43	30	-	0,3	0,074
M1-242816	38,1	44,45	25,65	2	1,5	0,083
1R40X45X16.5	40	45	16,5	2	0,3	0,042
1R40X45X17	40	45	17	2	0,3	0,043
1R40X45X20	40	45	20	2	0,3	0,051
1R40X45X20.5	40	45	20,5	2	0,3	0,053
1R40X45X26.5	40	45	26,5	-	0,3	0,068
1R40X45X30	40	45	30	2	0,3	0,077
1R40X45X34	40	45	34	2	0,3	0,088
1R40X45X40	40	45	40	2	0,3	0,106
1R40X48X22	40	48	22	2	0,6	0,092
1R40X48X23D	40	48	23	-	0,6	0,097
1R40X48X30	40	48	30	2	0,6	0,123
1R40X48X40	40	48	40	2	0,6	0,17
1R40X50X20	40	50	20	0,8	0,3	0,106
1R40X50X22	40	50	22	2	1	0,118
1R40X50X22P5	40	50	22	2	1	0,118
1R42X47X20	42	47	20	2	0,3	0,053
1R42X47X30	42	47	30	2	0,3	0,08
1R45X50X20	45	50	20	2	0,3	0,057
1R45X50X25	45	50	25	2	0,6	0,071
1R45X50X25.5	45	50	25,5	-	0,3	0,074
1R45X50X35	45	50	35	2	0,6	0,101
1R45X50X40	45	50	40	1,5	0,3	0,115
1R45X52X20X	45	55	20	2	0,6	0,083
1R45X52X22	45	52	22	2	0,6	0,088
1R45X52X23D	45	52	23	-	0,6	0,093
1R45X52X30	45	52	30	2	0,6	0,123
1R45X52X40	45	52	40	2	0,6	0,164
1R45X55X20	45	55	20	2	0,6	0,116
1R45X55X22	45	55	22	2	1	0,13
1R45X55X40	45	55	40	2	0,6	0,173
1R50X55X20	50	55	20	2	0,6	0,063
1R50X55X25	50	55	25	2	0,6	0,078
1R50X55X35	50	55	35	2	0,6	0,112
1R50X55X40	50	55	40	2	0,6	0,128
1R50X58X22	50	58	22	2	0,6	0,113

.../...



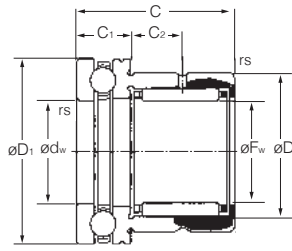
1R - M1

Inner rings						
Part numbers	Dimensions (mm)					Mass (kg)
	d	F	B	t	rs min	
1R50X58X23D	50	58	23	-	0,6	0,119
1R50X58X30	50	58	30	2	0,6	0,159
1R50X58X40	50	58	40	2	0,6	0,209
1R50X60X20	50	60	20	2	1	0,129
1R50X60X25	50	60	25	2	1	0,163
1R50X60X28	50	60	28	2	1,1	0,183
1R50X60X40	50	60	40	2	1	0,262
1R55X60X25	55	60	25	2,2	0,6	0,086
1R55X60X35	55	60	35	2	0,6	0,121
1R55X63X25	55	63	25	2	1	0,141
1R55X63X34	55	63	34	2,2	1	0,192
1R55X63X45	55	63	45	2,2	1	0,256
1R55X65X28	55	65	28	2,2	1,1	0,206
1R55X65X30	55	65	30	2,2	1	0,22
1R55X65X60	55	65	60	1,5	1	0,44
1R55X60X38XPX1	55	60	38	2,2	1	0,131
1R60X68X25	60	68	25	2,2	1	0,152
1R60X68X34	60	68	34	2,2	1	0,206
1R60X68X35	60	68	35	2,2	0,6	0,213
1R60X68X45	60	68	45	2,2	1	0,27
1R60X70X25	60	70	25	2,2	1	0,195
1R60X70X28	60	70	28	2,2	1,1	0,216
1R60X70X30	60	70	30	2,2	1	0,232
1R60X70X60	60	70	60	2,2	1	0,463
1R60X70X25V2	60	70	25	2,2	1	0,195
1R65X72X25	65	72	25	2,2	1	0,142
1R65X72X34	65	72	34	2,2	1	0,193
1R65X72X45	65	72	45	2,2	1	0,259
1R65X73X25	65	73	25	2,2	0,6	0,164
1R65X73X35	65	73	35	2,2	0,6	0,232
1R65X75X28	65	75	28	2,2	1,1	0,24
1R65X75X30	65	75	30	2,2	1	0,256
1R65X75X60	65	75	60	2,2	1	0,513
1R70X80X25	70	80	25	2,2	1	0,224
1R70X80X28	70	80	28	2,2	1,1	0,25
1R70X80X30	70	80	30	2,2	1	0,267
1R70X80X35	70	80	35	2,2	1	0,313
1R70X80X40	70	80	40	2,2	1	0,358
1R70X80X54	70	80	54	2,2	1	0,483
1R70X80X56	70	80	56	2,2	1	0,502
1R70X80X60	70	80	60	2,2	1	0,54
1R75X85X25	75	85	25	2,2	1	0,238
1R75X85X30	75	85	30	2,2	1	0,287
1R75X85X35	75	85	35	2,2	1	0,336
1R75X85X40	75	85	40	2,2	1	0,385
1R75X85X54	75	85	54	2,2	1	0,515
1R75X90X32	75	90	32	2,2	1,1	0,48
1R80X90X25	80	90	25	2,2	1	0,254
1R80X90X30	80	90	30	2,2	1	0,304
1R80X90X35	80	90	35	2,2	1	0,355
1R80X90X40	80	90	40	2,2	1	0,408
1R80X90X54	80	90	54	2,2	1	0,543
1R80X95X32	80	95	32	2,2	1,1	0,51
1R85X95X36	85	95	36	2,5	1	0,398
1R85X100X32	85	100	32	2,5	1,1	0,53
1R85X100X35	85	100	35	2,5	1,1	0,58
1R85X100X46	85	100	46	2,5	1,1	0,76
1R85X100X63	85	100	63	2,5	1,1	1,05
1R85X95X26	85	95	26	2,5	1	0,28

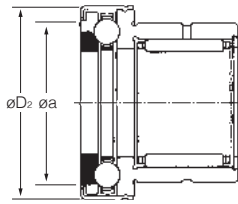
.../...

Inner rings

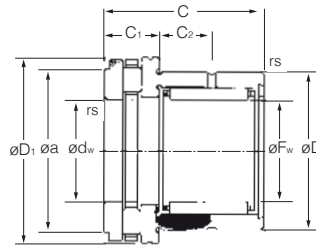
Part numbers	Dimensions (mm)					Mass (kg)
	d	F	B	t	rs min	
1R90X100X26	90	100	26	2,5	1	0,294
1R90X100X30	90	100	30	2,5	1	0,34
1R90X100X36	90	100	36	2,5	1	0,406
1R90X105X32	90	105	32	2,5	1,1	0,56
1R90X105X35	90	105	35	2,5	1,1	0,61
1R90X105X46	90	105	46	2,5	1,1	0,8
1R90X105X63	90	105	63	2,5	1,1	1,11
1R95X105X26	95	105	26	2,5	1	0,313
1R95X105X36	95	105	36	2,5	1	0,43
1R95X110X32	95	110	32	2,5	1,1	0,59
1R95X110X35	95	110	35	2,5	1,1	0,64
1R95X110X46	95	110	46	2,5	1,1	0,85
1R95X110X63	95	110	63	2,5	1,1	1,17
1R100X110X30	100	110	30	2,5	1,1	0,375
1R100X110X40	100	110	40	2,5	1,1	0,505
1R100X115X32	100	115	32	2,5	1,1	0,62
1R100X115X40	100	115	40	2,5	1,1	0,775
1R100X115X54	100	115	54	2,5	1,1	1,09
1R110X120X30	110	120	30	2,5	1	0,44
1R110X120X40	110	120	40	2,5	1,1	0,58
1R110X125X40	110	125	40	2,5	1,1	0,84
1R110X125X54	110	125	54	2,5	1,1	1,16
1R120X130X30	120	130	30	2,2	1	0,44
1R120X130X40	120	130	40	2,5	1,1	0,59
1R120X135X40	120	135	40	2,5	2	0,87
1R120X135X45	120	135	45	2,5	1,1	0,98
1R120X135X60	120	135	60	2,5	1,1	1,25
1R130X145X32	130	145	32	3	1,5	0,78
1R130X145X35	130	145	35	3	1,1	0,855
1R130X145X42	130	145	42	3	1,5	1,05
1R130X150X50	130	150	50	3	1,5	1,69
1R130X150X67	130	150	67	3	1,5	2,25
1R140X155X32	140	155	32	3	1,5	0,84
1R140X155X35	140	155	35	3	1,1	0,917
1R140X155X42	140	155	42	3	1,5	1,1
1R140X160X50	140	160	50	3	1,5	1,7
1R140X160X67	140	160	67	3	1,5	2,3
1R150X165X32	150	165	32	3	1,5	0,9
1R150X165X40	150	165	40	3	1,1	1,12
1R150X165X42	150	165	42	3	1,5	1,18
1R150X170X52	150	170	52	3	2	2
1R150X170X60	150	170	60	3	2	2,35
1R160X175X40	160	175	40	3	1,1	1,2
1R160X180X60	160	180	60	3	2	2,5
1R170X185X45	170	185	45	3	1,1	1,45
1R170X190X60	170	190	60	3	2	2,65
1R180X195X45	180	195	45	3	1,1	1,51
1R190X210X50	190	210	50	3,5	1,5	2,41
1R190X215X69	190	215	69	3,5	2	4,1
1R200X220X50	200	220	50	3,5	1,5	2,49
1R200X225X80	200	225	80	3,5	2,1	5,1
1R220X240X50	220	240	50	3,5	1,5	2,75
1R220X245X80	220	245	80	3,5	2,1	5,7
1R240X265X60	240	265	60	3,5	2	4,6
1R260X285X60	260	285	60	4	2	4,98
1R280X305X69	280	305	69	4	2	6,2
1R300X330X80	300	330	80	4	2,1	9,3
1R320X350X80	320	350	80	5	2,1	9,8
1R340X380X118	340	380	118	5	3	22



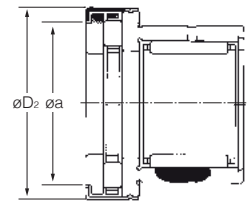
NKX



NKX -- Z



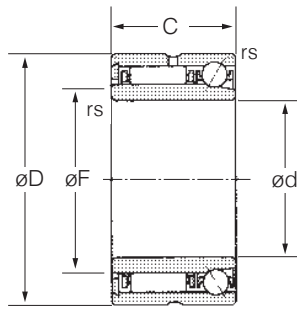
NKXR



NKXR -- Z

Complex bearings

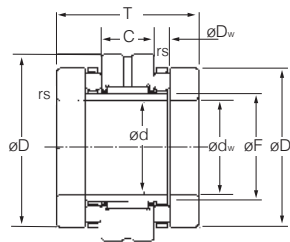
Part numbers	Dimensions (mm)										Basic load rating radial (kN)		Basic load rating axial (kN)		Limiting speeds (tr/min)		Masse (kg)
	Fw	dw	D	D1	D2	C	C1	C2	a	rs min	dynamic Cr	static Cor	dyn. Ca	stat. Coa	grease	oil	
NKX10T2	10	10	19	24		23	9	6,5			5,45	6,45	10	14	6700	9500	0,037
NKX10T2Z	10	10	19		25	23	9	6,5	19,7	0,3	5,45	6,45	10	14	6700	9500	0,039
NKX12T2	12	12	21	26		23	9	6,5		0,3	6	7,7	10,3	15,4	6400	9200	0,042
NKX12T2Z	12	12	21		27	23	9	6,5	21,7	0,3	6	7,7	10,3	15,4	6400	9200	0,044
NKX15T2	15	15	24	28		23	9	6,5		0,3	8,25	10,2	10,5	16,8	6200	8800	0,044
NKX15T2Z	15	15	24		29	23	9	6,5	23,7	0,3	8,25	10,2	10,5	16,8	6200	8800	0,048
NKXR15T2	15	15	24	28		23	9	6,5	23,7	0,3	8,25	10,2	12,2	26,8	2800	11000	0,048
NKXR15T2Z	15	15	24		29	23	9	6,5	23,7	0,3	8,25	10,2	12,2	26,8	2800	11000	0,052
NKX17T2	17	17	26	30		25	9	8		0,3	10,4	14,4	10,8	18,2	6000	8500	0,051
NKX17T2Z	17	17	26		31	25	9	8	25,7	0,3	10,4	14,4	10,8	18,2	6000	8500	0,056
NKXR17T2	17	17	26	30		25	9	8	25,7	0,3	10,4	14,4	12,7	29	2500	10000	0,05
NKXR17T2Z	17	17	26		31	25	9	8	25,7	0,3	10,4	14,4	12,7	29	2500	10000	0,053
NKX20T2	20	20	30	35		30	10	10,5		0,3	16,4	27,1	14,2	24,7	5200	7500	0,085
NKX20T2Z	20	20	30		36	30	10	10,5	30,7	0,3	16,4	27,1	14,2	24,7	5200	7500	0,09
NKXR20T2	20	20	30	35		30	10	10,5	30,7	0,3	16,4	27,1	20,2	46,5	2100	8500	0,09
NKXR20T2Z	20	20	30		36	30	10	10,5	30,7	0,3	16,4	27,1	20,2	46,5	2100	8500	0,095
NKX25	25	25	37	42		30	11	9,5		0,6	14,2	24	19,6	37	4600	6500	0,125
NKX25T2	25	25	37	42		30	11	9,5		0,6	14,2	24	19,6	37	4600	6500	0,125
NKX25T2Z	25	25	37		43	30	11	9,5	37,7	0,6	14,2	24	19,6	37	4600	6500	0,132
NKXR25T2	25	25	37	42		30	11	9,5	37,7	0,6	14,2	24	27,3	68	1800	7000	0,128
NKXR25T2Z	25	25	37		43	30	11	9,5	37,7	0,6	14,2	24	27,3	68	1800	7000	0,135
NKX30T2	30	30	42	47		30	11	9,5		0,6	22,3	39,5	20,4	42	4300	6200	0,14
NKX30T2Z	30	30	42		48	30	11	9,5	42,7	0,6	22,3	39,5	20,4	42	4300	6200	0,148
NKXR30T2	30	30	42	47		30	11	9,5	42,7	0,6	22,3	39,5	27,8	72,5	1500	6000	0,162
NKXR30T2Z	30	30	42		48	30	11	9,5	42,7	0,6	22,3	39,5	27,8	72,5	1500	6000	0,169
NKX35T2	35	35	47	52		30	12	9		0,6	20	36	20,4	44,5	3900	5600	0,167
NKX35Z	35	35	47		53	30	12	9	47,7	0,6	20	36	20,4	44,5	3900	5600	0,175
NKX35T2Z	35	35	47		53	30	12	9	47,7	0,6	20	36	20,4	44,5	3900	5600	0,175
NKXR35T2	35	35	47	52		30	12	9	47,7	0,6	20	36	31	87	1400	5500	0,184
NKXR35T2Z	35	35	47		53	30	12	9	47,7	0,6	20	36	31	87	1400	5500	0,195
NKX40	40	40	52	60		32	13	10		0,6	25,9	52,5	26,9	63	3500	5000	0,216
NKX40Z	40	40	52		61	32	13	10	55,7	0,6	25,9	52,5	26,9	63	3500	5000	0,225
NKXR40T2	40	40	52	60		32	13	10	55,7	0,6	25,9	52,5	43	121	1200	4800	0,226
NKXR40T2Z	40	40	52		61	32	13	10	55,7	0,6	25,9	52,5	43	121	1200	4800	0,237
NKX45	45	45	58	65		32	14	9		0,6	27,6	59	27,9	69	3200	4600	0,252
NKX45Z	45	45	58		66,5	32	14	9	60,5	0,6	27,6	59	27,9	69	3200	4600	0,265
NKXR45T2	45	45	58	65		32	14	9	60,5	0,6	27,6	59	45,5	135	1100	4400	0,267
NKXR45T2Z	45	45	58		66,5	32	14	9	60,5	0,6	27,6	59	45,5	135	1100	4400	0,286
NKX50	50	50	62	70		35	14	10		0,6	27,9	62	28,8	75,5	3100	4500	0,302
NKXR50T2	50	50	62	70		35	14	10	65,5	0,6	27,9	62	48,5	150	1000	4000	0,309
NKX50Z	50	50	62		71,5	35	14	10	65,5	0,6	27,9	62	28,8	75,5	3100	4500	0,318
NKXR50T2Z	50	50	62		71,5	35	14	10	65,5	0,6	27,9	62	48,5	150	1000	4000	0,329
NKX60	60	60	72	85		40	17	12		1	29,8	71,5	41,5	113	2600	3700	0,465
NKX60Z	60	60	72		86,5	40	17	12	80,5	1	29,8	71,5	41,5	113	2600	3700	0,484
NKX70	70	70	85	95		40	18	11		1	36,5	86	43	127	2400	3400	0,612



NK1A59

Needle roller bearings with angular contact ball bearings

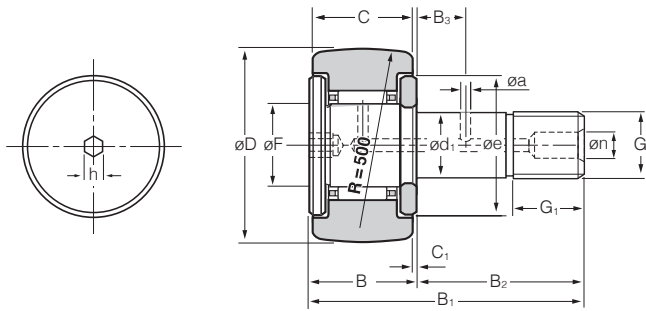
Part numbers	Dimensions (mm)					Basic load rating radial (kN)		Basic load rating axial (kN)		Limiting speeds (tr/min)		Mass (kg)
	d	D	C	F	rs min	dynamic Cr	static Cor	dyn. Ca	stat. Coa	grease	oil	
NK1A5902A	15	28	18	20	0,3	9,5	13,4	2,34	3,05	13000	20000	0,05
NK1A5903A	17	30	18	22	0,3	10,1	14,9	2,53	3,55	12000	18000	0,056
NK1A5904A	20	37	23	25	0,3	16,5	22,1	4,7	6,15	11000	16000	0,111
NK1A59/22A	22	39	23	28	0,3	17,5	24,8	4,9	6,75	9500	14000	0,12
NK1A5905A	25	42	23	30	0,3	18,6	27,4	5,1	7,35	8500	13000	0,13
NK1A5906A	30	47	23	35	0,3	19,4	30,5	5,4	8,55	7500	11000	0,147
NK1A5907A	35	55	27	42	0,6	25,7	46	7,4	12,3	6500	9500	0,243
NK1A5908A	40	62	30	48	0,6	31	61	7,75	14	5500	8500	0,347
NK1A5909A	45	68	30	55	0,6	33	69,5	8,5	17,1	5000	7500	0,401
NK1A5910A	50	72	30	60	0,6	33,5	73,5	8,8	18,7	4300	6500	0,41
NK1A5911A	55	80	34	63	1	44,5	95,5	14,3	33	4300	6500	0,59
NK1A5912A	60	85	34	68	1	45,5	101	14,8	36	4000	6000	0,632
NK1A5914A	70	100	40	80	1	62,5	146	18,6	47,5	3300	5000	1,05



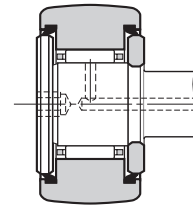
ARN

Complex bearing with double-direction thrust cylindrical roller bearing

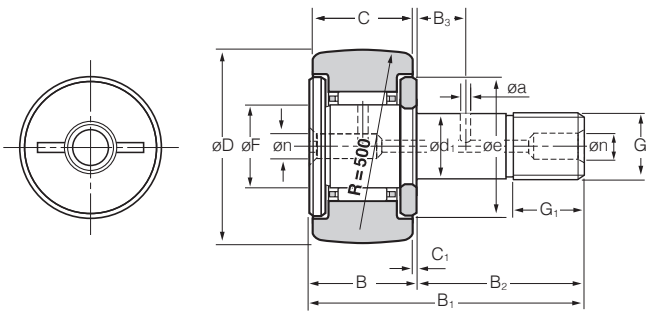
Part numbers	Dimensions (mm)									Basic load rating radial (kN)		Basic load rating axial (kN)		Limiting speeds (tr/min)		Mass (kg)
	d	dw	D	D1	T	C	F	Dw	rs min	dynamic Cr	static Cor	dynamic Ca	static Coa	grease	oil	
ARN3062T2P5	30	30	62	52	50	20	35	5	0,6	0,6	24,8	41,5	31	87	1400	5500
ARN3570T2	35	35	70	60	54	20	40	6	1	0,6	26,4	47	43	121	1200	4800
ARN4075T2P4	40	40	75	65	54	20	45	6	1	0,6	28	52,5	45,5	135	1100	4400
ARN4090P5	40	40	90	78	75	25	50	9	1	0,6	38,5	74,5	85	238	950	3800
ARN70130P5	70	70	130	115	82	25	80	11	1,1	0,6	57	119	142	460	650	2500



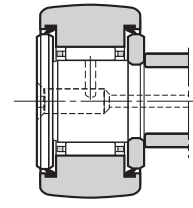
KR -- H
(with cage)



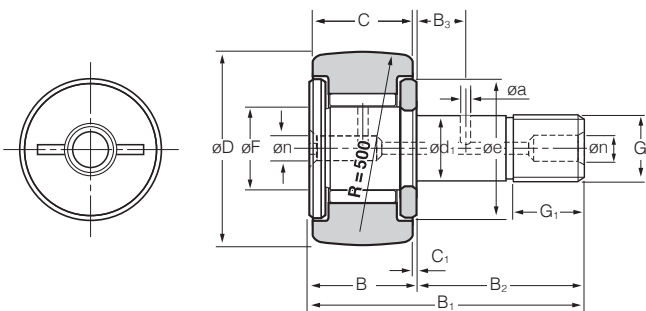
KR -- LLH
(with cage, sealed)



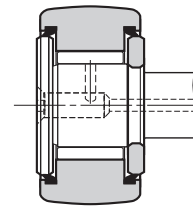
KR
(with cage)



KR -- LL
(with cage, sealed)



KRV
(full-complement roller type)

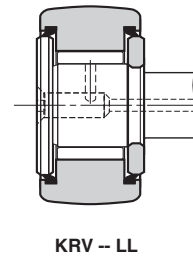
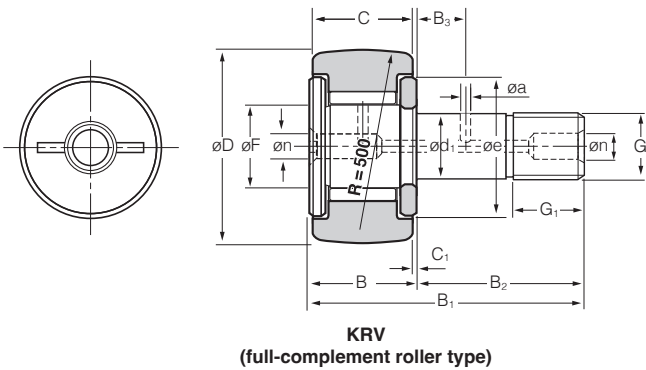
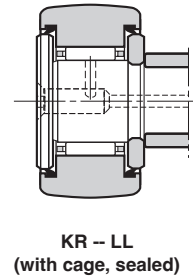
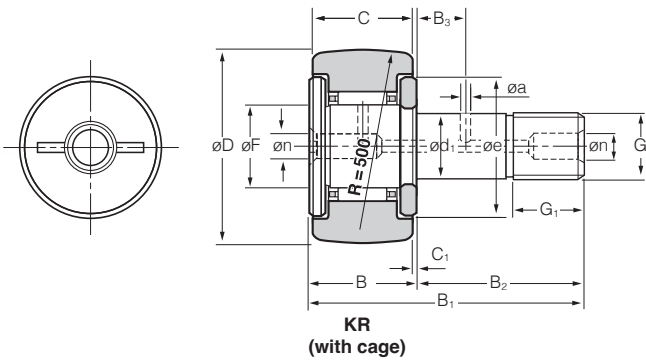
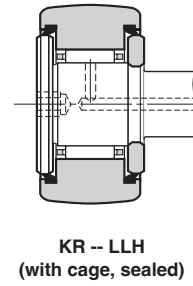
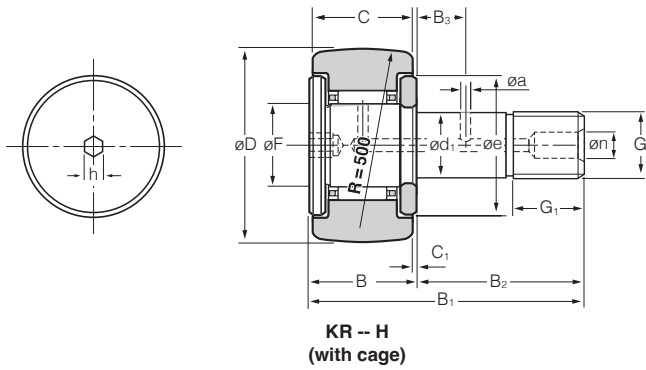


KRV -- LL

Cam followers stud type truck rollers

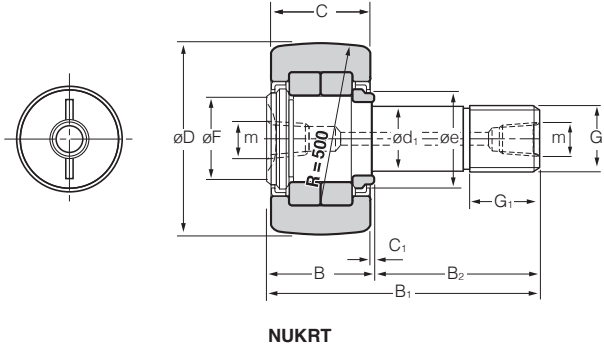
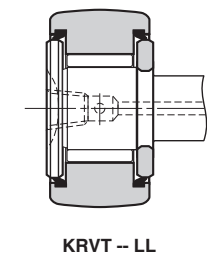
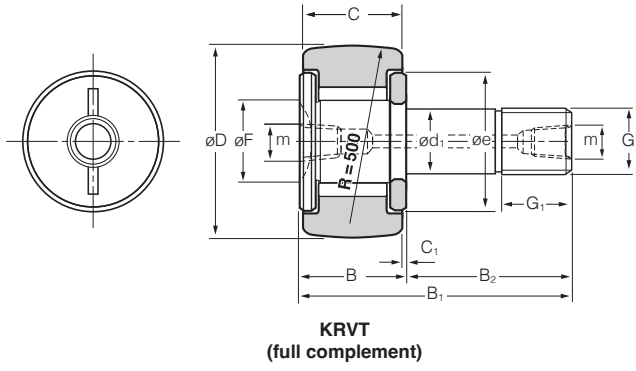
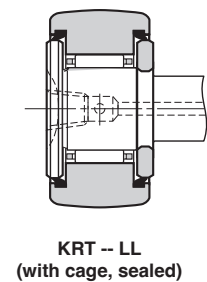
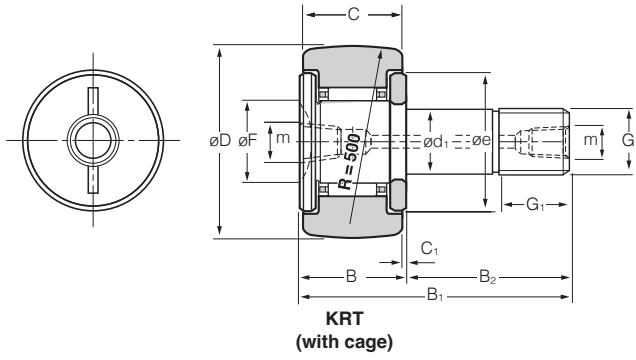
Part numbers	Dimensions (mm)															Basic load rating (kN)		Track load capacity (kN)		Limiting speeds (tr/min)		Mass (kg)	Max. tightening torque (N.m)
	D 0 -0,05	d1	C	F	B	B1	B2	G	G1	B3	C1	n	a	e	h	dynamic Cr	static Cor	spherical outer ring	cylindrical outer ring	grease	oil		
KR10T2H/3AS	10	3	7	4	8	17	9	M3X0.5	5	-	0,5	-	-	7	2,5	1,64	1,27	0,56		27000		0,005	0,5
KRV10LLH/3AS	10	3	7	4	8	17	9	M3X0.5	5	-	0,5	-	-	7	2,5	2,5	2,61	0,56		10000		0,005	0,5
KR12XT2LLH/3AS	12	4	8	4,8	9	20	11	M4X0.7	6	-	0,5	-	-	8,5	2,5	2,17	1,69		1,79	10000		0,008	1
KRV12H/3AS	12	4	8	4,8	9	20	11	M4X0.7	6	-	0,5	-	-	8,5	2,5	3,5	3,8	0,725		20000		0,008	1
KRV12LLH/3AS	12	4	8	4,8	9	20	11	M4X0.7	6	-	0,5	-	-	8,5	2,5	3,5	3,8	0,725		10000		0,008	1
KR13T2LLH/3AS	13	5	9	5,75	10	23	13	M5X0.8	7,5	-	0,5	-	-	9,5	3	2,65	2,26	0,805		10000		0,01	2
KR13XT2LLH/3AS	13	5	9	5,75	10	23	13	M5X0.8	7,5	-	0,5	-	-	9,5	3	2,65	2,26		2,22	10000		0,01	2
KRV13LLH/3AS	13	5	9	5,75	10	23	13	M5X0.8	7,5	-	0,5	-	-	9,5	3	4,65	5,55	0,805		10000		0,011	2
KR16FLLD0H/L588	16	6	11	8	12	28	16	M6X1	8	-	0,6	-	-	12	3	4,05	4,2	1,08		10000		0,019	3
KR16FD0H/L588	16	6	11	8	12	28	16	M6X1	8	-	0,6	-	-	12	3	4,05	4,2	1,08		19000		0,019	3
KR16F	16	6	11	8	12	28	16	M6X1	8	-	0,6	4	-	12	-	4,05	4,2	1,08		19000	25000	0,019	3
KR16FX	16	6	11	8	12	28	16	M6X1	8	-	0,6	4	-	12	-	4,05	4,2		3,4	19000	25000	0,019	3
KR16FXD0H/L588	16	6	11	8	12	28	16	M6X1	8	-	0,6	-	-	12	3	4,05	4,2		3,4	19000		0,019	3
KR16FLL/3AS	16	6	11	8	12	28	16	M6X1	8	-	0,6	4	-	12	-	4,05	4,2	1,08		10000		0,019	3
KR16FXLL/3AS	16	6	11	8	12	28	16	M6X1	8	-	0,6	4	-	12	-	4,05	4,2		3,4	10000		0,019	3
KR16FXLLD0H/L588	16	6	11	8	12	28	16	M6X1	8	-	0,6	-	-	12	3	4,05	4,2		3,4	10000		0,019	3
KR16F/3AS	16	6	11	8	12	28	16	M6X1	8	-	0,6	4	-	12	-	6,5	9,35	1,08		13000		0,02	3
KRV16FD0H/L588	16	6	11	8	12	28	16	M6X1	8	-	0,6	-	-	12	3	6,5	9,35	1,08		13000		0,02	3
KRV16FLL/3AS	16	6	11	8	12	28	16	M6X1	8	-	0,6	4	-	12	-	6,5	9,35	1,08		10000		0,02	3
KRV16FXLL/3AS	16	6	11	8	12	28	16	M6X1	8	-	0,6	4	-	12	-	6,5	9,35		3,4	10000		0,02	3
KRV16FXD0H/L588	16	6	11	8	12	28	16	M6X1	8	-	0,6	-	-	12	3	6,5	9,35		3,4	13000		0,02	3
KRV16FLLD0H/L588	16	6	11	8	12	28	16	M6X1	8	-	0,6	-	-	12	3	6,5	9,35	1,08		10000		0,02	3
KRV16FXLLD0H/L588	16	6	11	8	12	28	16	M6X1	8	-	0,6	-	-	12	3	6,5	9,35		3,4	10000		0,02	3

.../...



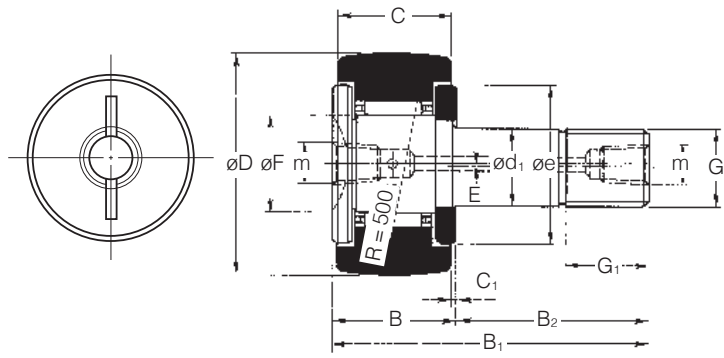
Cam followers stud type truck rollers

Part numbers	Dimensions (mm)																Basic load rating (kN)		Track load capacity (kN)		Limiting speeds (tr/min)		Mass (kg)	Max. tightening torque (N.m)
	D 0 -0,05	d1	C	F	B	B1	B2	G	G1	B3	C1	n	a	e	h	dynamic Cr	static Cor	spherical outer ring	cylindrical outer ring	grease	oil			
KR35LL/3AS	35	16	18	18	19,5	52	32,5	M16X1.5	17	8	0,8	6	3	27	-	12,2	17,9	3,2		8000		0,169	52	
KR35LLH/3AS	35	16	18	18	19,5	52	32,5	M16X1.5	17	8	0,8	6	3	27	6	12,2	17,9	3,2		8000		0,169	52	
KR35XLL/3AS	35	16	18	18	19,5	52	32,5	M16X1.5	17	8	0,8	6	3	27	-	12,2	17,9		11,9	8000		0,169	52	
KR35XLLH/3AS	35	16	18	18	19,5	52	32,5	M16X1.5	17	8	0,8	6	3	27	6	12,2	17,9		11,9	8000		0,169	52	
KRV35H/3AS	35	16	18	18	19,5	52	32,5	M16X1.5	17	8	0,8	6	3	27	6	17,6	34	3,2		5500		0,172	52	
KRV35XH/3AS	35	16	18	18	19,5	52	32,5	M16X1.5	17	8	0,8	6	3	27	6	17,6	34		11,9	5500		0,172	52	
KRV35LL/3AS	35	16	18	18	19,5	52	32,5	M16X1.5	17	8	0,8	6	3	27	-	17,6	34	3,2		5500		0,172	52	
KRV35LLH/3AS	35	16	18	18	19,5	52	32,5	M16X1.5	17	8	0,8	6	3	27	6	17,6	34	3,2		5500		0,172	52	
KRV35XLL/3AS	35	16	18	18	19,5	52	32,5	M16X1.5	17	8	0,8	6	3	27	-	17,6	34		11,9	5500		0,172	52	
KRV35XLLH/3AS	35	16	18	18	19,5	52	32,5	M16X1.5	17	8	0,8	6	3	27	6	17,6	34		11,9	5500		0,172	52	
KRX16X35X44.5/3AS	35	16	18	18	19,5	44,5	25	-	-	-	0,8	-	-	-	-	11,8	17,3	3,2		8300		0,165	0	
KR40	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	-	14	22,8	3,85		7000	9000	0,248	76	
KR40H	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	6	14	22,8	3,85		7000	9000	0,248	76	
KR40H/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	6	14	22,8	3,85		7000		0,248	76	
KR40X	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	-	14	22,8		14,5	7000	9000	0,248	76	
KR40XH	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	6	14	22,8		14,5	7000	9000	0,248	76	
KR40LL/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	-	14	22,8	3,85		7000		0,248	76	
KR40LLH/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	6	14	22,8	3,85		7000		0,248	76	
KR40XLL/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	-	14	22,8		14,5	7000		0,248	76	
KR40XLLH/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	6	14	22,8		14,5	7000		0,248	76	
KRV40/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	-	19,4	42	3,65		4500		0,252	76	
KRV40H/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	6	19,4	42	3,65		4500		0,252	76	
KRV40LL/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	-	19,4	42	3,65		4500		0,252	76	
KRV40LLH/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	6	19,4	42	3,65		4500		0,252	76	
KRV40XLL/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	-	19,4	42		14,5	4500		0,252	76	
KRV40XLLH/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	8	0,8	6	3	32	6	19,4	42		14,5	4500		0,252	76	
KRX18X40X54.5-4/3AS	40	18	24	21,62	25,4	54,5	29,1	-	-	10	0,8	3	3	23	-	33	44	5,9		4600		0,215	0	
KR47	47	20	24	25	25,5	66	40,5	M20X1.5	21	9	0,8	8	4	37	-	20,7	33,5	4,7		6000	8000	0,386	98	
KR47H	47	20	24	25	25,5	66	40,5	M20X1.5	21	9	0,8	8	4	37	8	20,7	33,5	4,7		6000	8000	0,386	98	



Cam followers stud type truck rollers

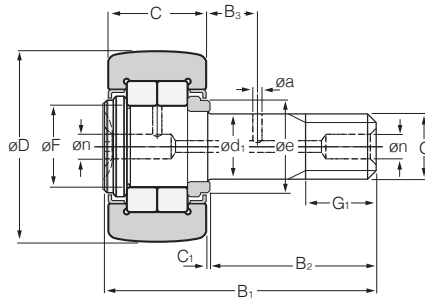
Part numbers	Dimensions (mm)											Basic load rating (kN)		Track load capacity (kN)		Limiting speeds (tr/min)		Mass (kg)	Max. tightening torque (N.m)	
	D 0 -0,05	d1	C	F	B	B1	B2	G	G1	C1	m	e	dynamic Cr	static Cor	spherical outer ring	cylindrical outer ring	grease			oil
KRT22	22	10	12	12	13	36	23	M10X1.25	12	0,6	M4X0.7	17	5,3	6,65	1,69		12000	16000	0,046	14
KRT26XLL/3AS	26	10	12	12	13	36	23	M10X1.25	12	0,6	M4X0.7	17	5,3	6,65		5,15	10000	10000	0,046	14
KRVT30LL/3AS	30	12	14	15	15	40	25	M12X1.5	13	0,6	M6x0.75	23	12	20,3	2,62		6500		0,089	20
KRT35LL/3AS	35	16	18	18	19	52	32,5	M16X1.5	17	0,8	PT 1/8	27	12,2	17,9	3,2		8000		0,169	52
KRVT35XLL/3AS	35	16	18	18	19,5	52	32,5	M16X1.5	17	0,8	PT 1/8	27	17,6	34		11,9	5500		0,172	52
NUKRT35/3AS	35	16	18	19	19,5	52	32,5	M16X1.5	17	0,8	PT 1/8	21	22,3	25,7	3,2	0	5500		0,165	52
KRT40	40	18	20	22	21,5	58	36,5	M18X1.5	19	0,8	PT 1/8	32	14	22,8	3,85		7000	9000	0,169	52
KRT40XLL/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	0,8	PT 1/8	32	14	22,8		14,5	7000		0,248	76
KRVT40XLL/3AS	40	18	20	22	19,5	58	36,5	M18X1.5	19	0,8	PT 1/8	32	19,4	42		14,5	4500		0,252	76
NUKRT40/3AS	40	18	20	21,5	21,5	58	36,5	M18X1.5	19	0,8	PT 1/8	23	24,1	29,1	3,85		4700		0,242	76
KRVT40LL/3AS	40	18	20	22	21,5	58	36,5	M18X1.5	19	0,8	PT 1/8	32	19,4	42	3,85		4500		0,252	76
KRT40LL/3AS	40	18	20	22	19,5	58	36,5	M18X1.5	19	0,8	PT 1/8	32	14	22,8	3,85		7000		0,248	76
KRT47XLL/3AS	47	20	24	25	25,5	66	40,5	M20X1.5	21	0,8	PT 1/8	37	20,7	33,5		21	6000		0,386	98
KRVT47LL/3AS	47	20	24	25	25,5	66	40,5	M20X1.5	21	0,8	PT 1/8	37	28,8	61	4,7		4000		0,39	98
NUKRT47/3AS	47	20	24	25,5	25,5	66	40,5	M20X1.5	21	0,8	PT 1/8	27	38,5	48	4,7		4000		0,38	98
KRVT47XLL/3AS	47	20	24	25	25,5	66	40,5	M20X1.5	21	0,8	PT 1/8	37	28,8	61		21	4000		0,39	98
NUKRT47X/3AS	47	20	24	25,5	25,5	66	40,5	M20X1.5	21	0,8	PT 1/8	27	38,5	48		21	4000		0,38	98
NUKRT52/3AS	52	20	24	30	25,5	66	40,5	M20X1.5	21	0,8	PT 1/8	31	42,5	57,5	5,55		3300		0,45	98
KRVT52XLL/3AS	52	20	24	25	25,5	66	40,5	M20X1.5	21	0,8	PT 1/8	37	28,8	61		23,3	4000		0,46	98
KRT52XLL/3AS	52	20	24	25	25,5	66	40,5	M20X1.5	21	0,8	PT 1/8	37	20,7	33,5		23,3	6000		0,416	98
KRVT52LL/3AS	52	20	24	25	25,5	66	40,5	M20X1.5	21	0,8	PT 1/8	37	28,8	61	5,55		4000		0,465	98
NUKRT62/3AS	62	24	29	35	30,5	80	49,5	M24X1.5	25	0,8	PT 1/8	38	56,5	72,5	6,95		2900		0,795	178
KRT62XLL/3AS	62	24	29	30	30,5	80	49,5	M24X1.5	25	0,8	PT 1/8	44	28,9	55		34,5	5000		0,79	178
KRT80LL/3AS	80	30	35	38	37	100	63	M30X1.5	32	1	PT 1/8	53	45	88,5	9,8		4000		1,55	360
NUKRT90X/3AS	90	30	35	47,5	37	100	63	M30X1.5	32	1	PT 1/8	51	101	151		59	2100		1,96	360



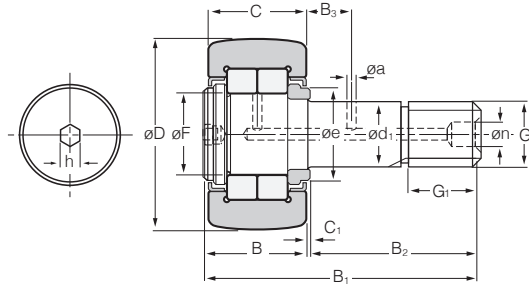
KRU

Cam followers with eccentric stud

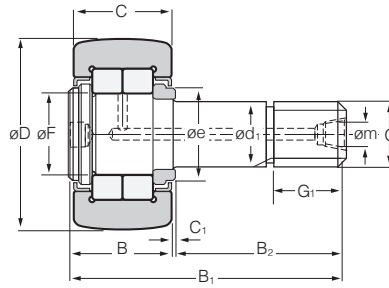
CONSULT US



NUKR - CRV



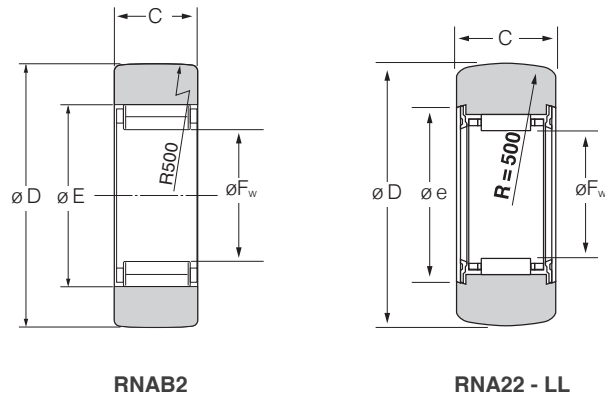
NUKR -- H (D < 100 mm)



NUKR -- H (D ≥ 100 mm)

Cam followers stud type truck rollers

Part numbers	Dimensions (mm)														Basic load rating (kN)		Track load capacity (kN)		Limiting speeds (tr/min)	Mass (kg)	Max. tightening torque (N.m)		
	D 0 -0,05	d1	C	F	B	B1	B2	G	G1	B3	C1	n	m	a	e	h	dynamic Cr	static Cor				spherical outer ring	cylindrical outer ring
CRV14XLL/3AS	22,225	9,525	12,7	11	14,3	36,5	22,2	3/8-24UNF	9,5	6,35	0,8	4		3	15,5		8,05	13,3		5,35	9000	0,048	13
CR16XH	25,4	11,112	15,875	13	17,4	42,8	25,4	7/16-20UNF	12,7	6,35	0,8	4		3	21	6,35	7,25	8,35		7,4	12000	0,087	18
CRV16XLL/3AS	25,4	11,112	15,875	14	17,4	43	25,4	7/16-20UNF	12,7	6,35	0,8	4		3	19,5		11,7	18,9		7,4	7100	0,08	18
NUKR30/3AS	30	12	14	14,5	15	40	25	M12X1.5	13	6	0,6	6		3	15		13,3	13,5	2,62		6900	0,068	20
CRV20XLLH/3AS	31,75	12,7	19,05	18,47	20,6	52,4	31,8	1/2-20UNF	15,9	7,94	0,8	6		3	25	6,35	17,7	35		11,4	5400	0,14	24
NUKR35/3AS	35	16	18	19	19,5	52	32,5	M16X1.5	17	8	0,8	6		3	21		22,3	25,7	3,2		5500	0,165	52
NUKR35H/3AS	35	16	18	19	19,5	52	32,5	M16X1.5	17	8	0,8	6		3	21	6	22,3	25,7	3,2		5500	0,165	52
NUKR35XH/3AS	35	16	18	19	19,5	52	32,5	M16X1.5	17	8	0,8	6		3	21		22,3	25,7		11,9	5500	0,165	52
NUKR35XH/3AS	35	16	18	19	19,5	52	32,5	M16X1.5	17	8	0,8	6		3	21	6	22,3	25,7		11,9	5500	0,165	52
NUKR40/3AS	40	18	20	21,5	21,5	58	36,5	M18X1.5	19	8	0,8	6		3	23		24,1	29,1	3,85		4700	0,242	76
NUKR40H/3AS	40	18	20	21,5	21,5	58	36,5	M18X1.5	19	8	0,8	6		3	23	6	24,1	29,1	3,85		4700	0,242	76
NUKR40X/3AS	40	18	20	21,5	21,5	58	36,5	M18X1.5	19	8	0,8	6		3	23		24,1	29,1		14,5	4700	0,242	76
NUKR40XH/3AS	40	18	20	21,5	21,5	58	36,5	M18X1.5	19	8	0,8	6		3	23	6	24,1	29,1		14,5	4700	0,242	76
NUKR47/3AS	47	20	24	25,5	25,5	66	40,5	M20X1.5	21	9	0,8	8		4	27		38,5	48	4,7		4000	0,38	98
NUKR47H/3AS	47	20	24	25,5	25,5	66	40,5	M20X1.5	21	9	0,8	8		4	27	8	38,5	48	4,7		4000	0,38	98
NUKR47X/3AS	47	20	24	25,5	25,5	66	40,5	M20X1.5	21	9	0,8	8		4	27		38,5	48		21	4000	0,38	98
NUKR47XH/3AS	47	20	24	25,5	25,5	66	40,5	M20X1.5	21	9	0,8	8		4	27	8	38,5	48		21	4000	0,38	98
NUKR52/3AS	52	20	24	30	25,5	66	40,5	M20X1.5	21	9	0,8	8		4	31		42,5	57,5	5,55		3300	0,45	98
NUKR52H/3AS	52	20	24	30	25,5	66	40,5	M20X1.5	21	9	0,8	8		4	31	8	42,5	57,5	5,55		3300	0,45	98
NUKR52XH/3AS	52	20	24	30	25,5	66	40,5	M20X1.5	21	9	0,8	8		4	31		42,5	57,5		23,3	3300	0,45	98
NUKR52XH/3AS	52	20	24	30	25,5	66	40,5	M20X1.5	21	9	0,8	8		4	31	8	42,5	57,5		23,3	3300	0,45	98
NUKR62/3AS	62	24	29	35	30,5	80	49,5	M24X1.5	25	11	0,8	8		4	38		56,5	72,5	6,95		2900	0,795	178
NUKR62H/3AS	62	24	29	35	30,5	80	49,5	M24X1.5	25	11	0,8	8		4	38	8	56,5	72,5	6,95		2900	0,795	178
NUKR62X/3AS	62	24	29	35	30,5	80	49,5	M24X1.5	25	11	0,8	8		4	38		56,5	72,5		34,5	2900	0,795	178
NUKR62XH/3AS	62	24	29	35	30,5	80	49,5	M24X1.5	25	11	0,8	8		4	38	8	56,5	72,5		34,5	2900	0,795	178
NUKR72/3AS	72	24	29	41,5	30,5	80	49,5	M24X1.5	25	11	0,8	8		4	44		62	85,5	8,05		2400	1,01	178
NUKR72H/3AS	72	24	29	41,5	30,5	80	49,5	M24X1.5	25	11	0,8	8		4	44	8	62	85,5	8,05		2400	1,01	178
NUKR72X/3AS	72	24	29	41,5	30,5	80	49,5	M24X1.5	25	11	0,8	8		4	44		62	85,5		38,5	2400	1,01	178
NUKR72XH/3AS	72	24	29	41,5	30,5	80	49,5	M24X1.5	25	11	0,8	8		4	44	8	62	85,5		38,5	2400	1,01	178
NUKR80/3AS	80	30	35	47,5	37	100	63	M30X1.5	32	15	1	8		4	51		101	151	9,8		2100	1,54	360
NUKR80H/3AS	80	30	35	47,5	37	100	63	M30X1.5	32	15	1	8		4	51	8	101	151	9,8		2100	1,54	360
NUKR80XH/3AS	80	30	35	47,5	37	100	63	M30X1.5	32	15	1	8		4	51		101	151		53	2100	1,54	360
NUKR80XH/3AS	80	30	35	47,5	37	100	63	M30X1.5	32	15	1	8		4	51	8	101	151		53	2100	1,54	360
NUKR90/3AS	90	30	35	47,5	37	100	63	M30X1.5	32	15	1	8		4	51		101	151	11,4		2100	1,96	360
NUKR90H/3AS	90	30	35	47,5	37	100	63	M30X1.5	32	15	1	8		4	51	8	101	151	11,4		2100	1,96	360
NUKR90X/3AS	90	30	35	47,5	37	100	63	M30X1.5	32	15	1	8		4	51		101	151		59	2100	1,96	360
NUKR90XH/3AS	90	30	35	47,5	37	100	63	M30X1.5	32	15	1	8		4	51	8	101	151		59	2100	1,96	360
NUKR100/3AS	100	36	43	48,5	46	120	74	M36X1.5	38		1,5	8	PT 1/8		53		119	167	13		2000	3,08	630
NUKR100H/3AS	100	36	43	48,5	46	120	74	M36X1.5	38		1,5	8	PT 1/8		53	14	119	167	13		2000	3,08	630
NUKR100XH/3AS	100	36	43	48,5	46	120	74	M36X1.5	38		1,5	8	PT 1/8		53		119	167		79	2000	3,08	14
CRV64XLLH/3AS	101,6	38,1	57,15	44,5	58,7	147,6	88,9	1 1/2-12UNF	38,1	19,05	0,8	8		5	63	3/4	106	244		113	2200	4,32	760
NUKR150/3AS	150	52	60	75,5	63	170	107	M52X1.5	52		1,5	8	PT 1/8		85,5		258	380	22		1300	9,7	1950
NUKR150H/3AS	150	52	60	75,5	63	170	107	M52X1.5	52		1,5	8	PT 1/8		85,5	17	258	380	22		1300	9,7	1950
NUKR180H/3AS	180	64	72	91,5	76	200	124	M64X3	65		2		PT 1/8		103,5	17	365	555	27,9		1000	17	3670

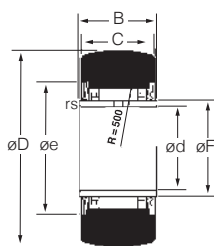


RNAB2

RNA22 - LL

Cam followers stud type truck rollers

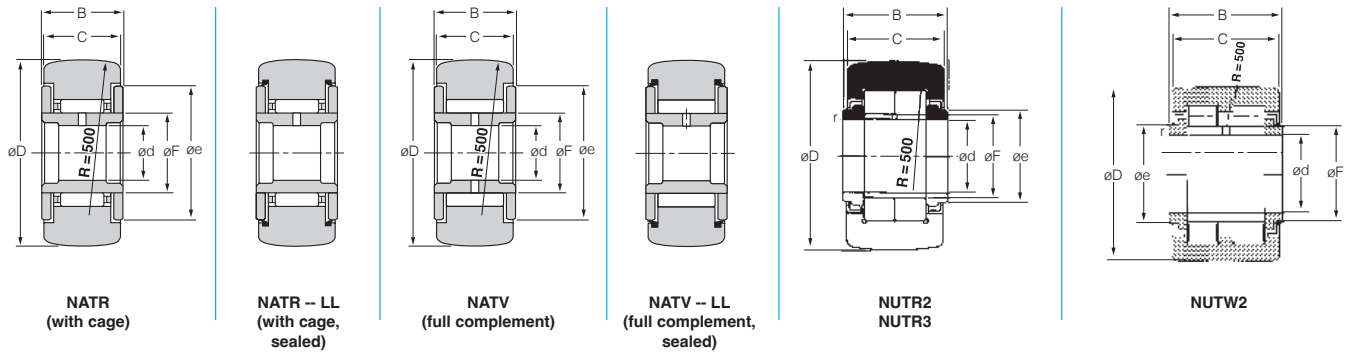
Part numbers	Dimensions (mm)				Basic load rating (kN)		Track load capacity (kN)		Limiting speeds (tr/min)		Mass (kg)
	D	F _w	C	E/e	dynamic C _r	static C _{or}	spherical outer ring	cylindrical outer ring	grease	oil	
RNAB2/5XT2	16	7	7,8	10	2,82	2,52		2,32	21000	27000	0,0085
RNAB2/5T2	16	7	7,8	10	2,82	2,52	1,08		21000	27000	0,0085
RNAB2/6T2	19	10	9,8	13	4,7	5,35	1,37		15000	20000	0,013
RNAB2/6XT2	19	10	9,8	13	4,7	5,35		3,57	15000	20000	0,013
RNA22/6LL/3AS	19	10	11,8	0	4,55	4,25	1,38		10000		0,018
RNA22/6XLL/3AS	19	10	11,8	0	4,55	4,25		4,4	10000		0,018
RNA22/8LL/3AS	24	12	11,8	0	5,15	5,25	1,9		10000		0,027
RNAB2/8X	24	12	9,8	15	5,2	6,4		4,5	12000	16000	0,021
RNA22/8XLL/3AS	24	12	11,8	18	4,55	4,25		5,5	10000		0,018
RNAB2/8	24	12	9,8	15	5,2	6,4	1,89		12000	16000	0,021
RNA2200LL/3AS	30	14	13,8	0	7,55	9	2,62		10000		0,052
RNAB200X	30	14	11,8	20	9,7	5,2		6,91	11000	14000	0,042
RNA2200XLL/3AS	30	14	13,8	0	7,55	9		7,55	10000		0,052
RNAB200	30	14	11,8	20	9,7	5,2	2,6		11000	14000	0,042
RNA2201LL/3AS	32	16	13,8	0	8,1	10,3	2,86		9500		0,057
RNAB201	32	16	11,8	22	12,1	13,1	2,85		9500	12500	0,049
RNAB201X	32	16	11,8	22	12,1	13,1		7,36	9500	12500	0,049
RNA2201XLL/3AS	32	16	13,8	0	8,1	10,3		8,05	9500		0,057
RNA2202XLL/3AS	35	20	13,8	0	9,85	14,1		8,9	7500		0,06
RNA2202LL/3AS	35	20	13,8	0	9,85	14,1	3,2		7500		0,06
RNAB202X	35	20	11,8	26	13,3	15,7		8,06	7500	10000	0,05
RNAB202	35	20	11,8	26	13,3	15,7	3,21		7500	10000	0,05
RNA2203LL/3AS	40	22	15,8	0	10,4	15,6	3,85		7000		0,094
RNAB203	40	22	15,8	29	19,5	23,8	3,82		6800	9000	0,088
RNAB203X	40	22	15,8	29	19,5	23,8		12,7	6800	9000	0,088
RNA2203XLL/3AS	40	22	15,8	0	10,4	15,6		10,9	7000		0,094
RNA2204XLL/3AS	47	25	17,8	33	16,9	22,9		14,8	6000		0,152
RNA2204LL/3AS	47	25	17,8	0	16,9	22,9	4,7		6000		0,152
RNAB204	47	25	15,8	32	20,3	25,9	4,76		6000	8000	0,13
RNA2205LL/3AS	52	30	17,8	0	17,9	25,9	5,55		5000		0,179
RNA2205XLL/3AS	52	30	17,8	0	17,9	25,9		16,4	5000		0,179
RNAB205	52	30	15,8	37	22,7	32	5,47		5000	6500	0,15
RNAB205X	52	30	15,8	37	22,7	32		16,4	5000	6500	0,15
RNA2206LL/3AS	62	35	19,8	0	21,4	34,5	6,95		4300		0,284
RNA2207LL/3AS	72	42	22,7	0	26,3	47,5	8,05		3600		0,432
RNA2208LL/3AS	80	48	22,7	0	28,4	55	9,8		3100		0,53
RNA2208XLL/3AS	80	48	22,7	0	28,4	55		32	3100		0,53
RNAB208	80	50	19,8	58	39,5	69,5	9,66		3000	4000	0,42
RNA2209LL/3AS	85	52	22,7	0	29,3	58,5	10,4		2900		0,545
RNA2210LL/3AS	90	58	22,7	0	31	66	11,4		2600		0,563
RNA2210XLL/3AS	90	58	22,7	0	31	66		36	2600		0,563



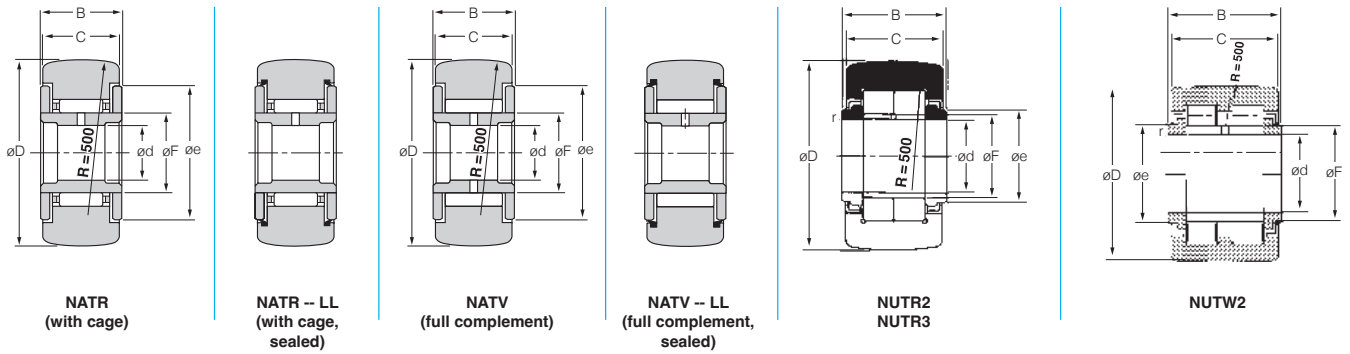
NA22 -- LL

Cam followers stud type truck rollers

Part numbers	Dimensions (mm)							Basic load rating (kN)		Track load capacity (kN)		Limiting speeds (tr/min)	Mass (kg)
	D	d	B	C	e	F	rs	dynamic Cr	static Cor	spherical outer ring	cylindrical outer ring		
NA22/6LL/3AS	19	6	12	11,8	16	10	0,3	4,55	4,25	1,38		10000	0,023
NA22/6XLL/3AS	19	6	12	11,8	16	10	0,3	4,55	4,25		4,4	10000	0,023
NA22/8LL/3AS	24	8	12	11,8	18	12	0,3	5,15	5,25	1,9		10000	0,035
NA22/8XLL/3AS	24	8	12	11,8	18	12	0,3	5,15	5,25		5,5	10000	0,035
NA2200LL/3AS	30	10	14	13,8	20	14	0,3	7,55	9	2,62		10000	0,06
NA2200XLL/3AS	30	10	14	13,8	20	14	0,3	7,55	9		7,55	10000	0,06
NA2201LL/3AS	32	12	14	13,8	22	16	0,3	8,1	10,3	2,86		9500	0,067
NA2201XLL/3AS	32	12	14	13,8	22	16	0,3	8,1	10,3		8,05	9500	0,067
NA2202LL/3AS	35	15	14	13,8	26	20	0,3	9,85	14,1	3,2		7500	0,075
NA2203LL/3AS	40	17	16	15,8	28	22	0,3	10,4	15,6	3,85		7000	0,113
NA2203XLL/3AS	40	17	16	15,8	28	22	0,3	10,4	15,6		10,9	7000	0,113
NA2204LL/3AS	47	20	18	17,8	33	25	0,3	16,9	22,9	4,7		6000	0,176
NA2204XLL/3AS	47	20	18	17,8	33	25	0,3	16,9	22,9		14,8	6000	0,176
NA2205LL/3AS	52	25	18	17,8	38	30	0,3	17,9	25,9	5,55		5000	0,209
NA2206XLL/3AS	62	30	20	19,8	43	35	0,3	21,4	34,5		22,2	4300	0,322
NA2206LL/3AS	62	30	20	19,8	43	35	0,3	21,4	34,5	6,95		4300	0,322
NA2207LL/3AS	72	35	23	22,7	50	42	0,6	26,3	47,5	8,05		3600	0,506
NA2208LL/3AS	80	40	23	22,7	57	48	0,6	28,4	55	9,8		3100	0,623
NA2210LL/3AS	90	50	23	22,7	68	58	0,6	31	66	11,4		2600	0,682



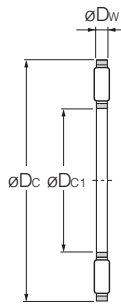
Roller followers														
Part numbers	Dimensions (mm)						Basic load rating (kN)		Track load capacity (kN)		Limiting speeds (tr/min)		Mass (kg)	
	D	d	B	C	e	F	dynamic Cr	static Cor	spherical outer ring	cylindrical outer ring	grease	oil		
NATR5	16	5	12	11	12	8	4,05	4,2	1,08		19000	25000	0,018	
NATR5X	16	5	12	11	12	8	4,05	4,2		3,4	10000	25000	0,018	
NATR5LL/3AS	16	5	12	11	12	8	4,05	4,2	1,08		10000		0,018	
NATR5XLL/3AS	16	5	12	11	12	8	4,05	4,2		3,4	10000		0,018	
NATV5/3AS	16	5	12	11	12	8	6,5	9,35	1,08		13000		0,02	
NATV5X/3AS	16	5	12	11	12	8	6,5	9,35		3,4	13000		0,02	
NATV5LL/3AS	16	5	12	11	12	8	6,5	9,35	1,08		10000		0,02	
NATV5XLL/3AS	16	5	12	11	12	8	6,5	9,35		3,4	10000		0,02	
NATR6	19	6	12	11	14	10	4,75	5,4	1,38		10000	20000	0,025	
NATR6X	19	6	12	11	14	10	4,75	5,4		4,05	10000	20000	0,025	
NATR6LL/3AS	19	6	12	11	14	10	4,75	5,4	1,38		10000		0,025	
NATR6XLL/3AS	19	6	12	11	14	10	4,75	5,4		4,05	10000		0,025	
NATV6/3AS	19	6	12	11	14	10	7,45	11,7	1,38		10000		0,027	
NATV6X/3AS	19	6	12	11	14	10	7,45	11,7		4,05	10000		0,027	
NATV6LL/3AS	19	6	12	11	14	10	7,45	11,7	1,38		10000		0,027	
NATV6XLL/3AS	19	6	12	11	14	10	7,45	11,7		4,05	10000		0,027	
NATR8	24	8	15	14	19	12	6,9	7,7	1,9		10000	16000	0,042	
NATR8X	24	8	15	14	19	12	6,9	7,7		6,65	10000	16000	0,042	
NATR8LL/3AS	24	8	15	14	19	12	6,9	7,7	1,9		10000		0,042	
NATR8XLL/3AS	24	8	15	14	19	12	6,9	7,7		6,65	10000		0,042	
NATV8/3AS	24	8	15	14	19	12	10,7	16,2	1,9		8500		0,044	
NATV8X/3AS	24	8	15	14	19	12	10,7	16,2		6,65	8500		0,044	
NATV8LL/3AS	24	8	15	14	19	12	10,7	16,2	1,9		8500		0,044	
NATV8XLL/3AS	24	8	15	14	19	12	10,7	16,2		6,65	8500		0,044	
NATR10	30	10	15	14	23	15	7,85	9,65	2,62		10000	13000	0,061	
NATR10X	30	10	15	14	23	15	7,85	9,65		7,7	10000	13000	0,061	
NATR10LL/3AS	30	10	15	14	23	15	7,85	9,65	2,62		10000		0,061	
NATR10LL/LP03	30	10	15	14	23	15	7,85	9,65	2,62		2000		0,061	
NATR10XLL/3AS	30	10	15	14	23	15	7,85	9,65		7,7	10000		0,061	
NATV10/3AS	30	10	15	14	23	15	12	20,3	2,62		6500		0,065	
NATV10X/3AS	30	10	15	14	23	15	12	20,3		7,7	6500		0,065	
NATV10LL/3AS	30	10	15	14	23	15	12	20,3	2,62		6500		0,065	
NATV10XLL/3AS	30	10	15	14	23	15	12	20,3		7,7	6500		0,065	
NATR12CT	32	12	15	14	25	17	8,05	10,3	2,86		9000	12000	0,069	
NATR12XCT	32	12	15	14	25	17	8,05	10,3		8,2	9000	12000	0,069	
NATR12CLLT/3AS	32	12	15	14	23	15	8,05	10,3	2,86		9000		0,069	
NATR12XCLLT/3AS	32	12	15	14	25	17	8,85	11,7		8,2	9000		0,069	
NATV12/3AS	32	12	15	14	25	17	13	23	2,86		6000		0,074	
NATV12X/3AS	32	12	15	14	25	17	13	23		8,2	6000		0,074	
NATV12LL/3AS	32	12	15	14	25	17	13	23	2,86		6000		0,074	
NATV12LL/5S	32	12	15	14	25	17	13	23	2,86		6000		0,074	
NATV12XLL/3AS	32	12	15	14	25	17	13	23		8,2	6000		0,074	
NATR15	35	15	19	18	27	20	13,3	20,8	3,2		7500	10000	0,098	
NATR15X	35	15	19	18	27	20	13,3	20,8		11,9	7500	10000	0,098	
NATR15LL/3AS	35	15	19	18	27	20	13,3	20,8	3,2		7500		0,098	
NATR15XLL/3AS	35	15	19	18	27	20	13,3	20,8		11,9	7500		0,098	
NATV15/3AS	35	15	19	18	27	20	18,4	38	3,2		5000		0,102	
NATV15X/3AS	35	15	19	18	27	20	18,4	38		11,9	5000		0,102	
NATV15LL/3AS	35	15	19	18	27	20	18,4	38	3,2		5000		0,102	
NATV15LL/5S	35	15	19	18	27	20	18,4	38	3,2		5000		0,102	
NATV15LL/5K	35	15	19	18	27	20	18,4	38	3,2		5000		0,102	
NATV15XLL/3AS	35	15	19	18	27	20	18,4	38		11,9	5000		0,102	
NUTR202/3AS	35	15	19	18	20	19	22,3	25,7	3,2		5500		0,1	
NUTR202X/3AS	35	15	19	18	20	19	22,3	25,7		11,9	5500		0,1	
NATR17	40	17	21	20	32	22	14	22,8	3,85		7000	9000	0,14	
NATR17X	40	17	21	20	32	22	14	22,8		14,5	7000	9000	0,14	
NATR17LL/3AS	40	17	21	20	32	22	14	22,8	3,85		7000		0,14	
NATR17XLL/3AS	40	17	21	20	32	22	14	22,8		14,5	7000		0,14	
NATV17/3AS	40	17	21	20	32	22	19,4	42	3,85		4500		0,145	
NATV17X/3AS	40	17	21	20	32	22	19,4	42		14,5	4500		0,145	
NATV17LL/3AS	40	17	21	20	32	22	19,4	42	3,85		4500		0,145	



Roller followers													
Part numbers	Dimensions (mm)						Basic load rating (kN)		Track load capacity (kN)		Limiting speeds (tr/min)		Mass (kg)
	D	d	B	C	e	F	dynamic Cr	static Cor	spherical outer ring	cylindrical outer ring	grease	oil	
NATV17XLL/3AS	40	17	21	20	32	22	19,4	42					0,145
NUTR203/3AS	40	17	21	20	22	21,5	24,1	29,1	3,85				0,147
NUTR203X/3AS	40	17	21	20	22	21,5	24,1	29,1		14,5			0,147
NUTR302/3AS	42	15	19	18	20	19	22,3	25,7	4,1				0,16
NUTR302X/3AS	42	15	19	18	20	19	22,3	25,7		14,3			0,16
NATR20	47	20	25	24	37	25	20,7	33,5	4,7			8000	0,246
NATR20X	47	20	25	24	37	25	20,7	33,5		21		8000	0,246
NATR20LL/3AS	47	20	25	24	37	25	20,7	33,5	4,7				0,246
NATR20XLL/3AS	47	20	25	24	37	25	20,7	33,5		21			0,246
NATV20/3AS	47	20	25	24	37	25	28,8	61	4,7				0,254
NATV20X/3AS	47	20	25	24	37	25	28,8	61		21			0,254
NATV20LL/3AS	47	20	25	24	37	25	28,8	61	4,7				0,254
NATV20XLL/3AS	47	20	25	24	37	25	28,8	61		21			0,254
NUTR204/3AS	47	20	25	24	27	25,5	38,5	48	4,7				0,245
NUTR204X/3AS	47	20	25	24	27	25,5	38,5	48		21			0,245
NUTR303/3AS	47	17	21	20	22	21,5	24,1	29,1	4,7				0,222
NUTR303X/3AS	47	17	21	20	22	21,5	24,1	29,1		17			0,222
NUTW204X/3AS	47	20	29	28	27	25,5	40,5	51,5	4,7	25,1			0,28
NATR25	52	25	25	24	42	30	22,8	40,5	5,5			6500	0,275
NATR25X	52	25	25	24	42	30	22,8	40,5		23,3		6500	0,275
NATR25LL/3AS	52	25	25	24	42	30	22,8	40,5	5,5				0,275
NATR25XLL/3AS	52	25	25	24	42	30	22,8	40,5		23,3			0,275
NATV25/3AS	52	25	25	24	42	30	31,5	73,5	5,5				0,285
NATV25X/3AS	52	25	25	24	42	30	31,5	73,5		23,3			0,285
NATV25LL/3AS	52	25	25	24	42	30	31,5	73,5	5,5				0,285
NATV25XLL/3AS	52	25	25	24	42	30	31,5	73,5		23,3			0,285
NUTR205/3AS	52	25	25	24	31	30	42,5	57,5	5,55				0,281
NUTR205X/3AS	52	25	25	24	31	30	42,5	57,5		23,3			0,281
NUTR304/3AS	52	20	25	24	27	25,5	38,5	48	5,55				0,321
NUTR304X/3AS	52	20	25	24	27	25,5	38,5	48		23,3			0,321
NATR30	62	30	29	28	51	38	36	66	6,95			5500	0,47
NATR30X	62	30	29	28	51	38	36	66		33		5500	0,47
NATR30LL/3AS	62	30	29	28	51	38	36	66	6,95				0,47
NATR30XLL/3AS	62	30	29	28	51	38	36	66		33			0,47
NATV30/3AS	62	30	29	28	51	38	47,5	115	6,95				0,481
NATV30X/3AS	62	30	29	28	51	38	47,5	115		33			0,481
NATV30LL/3AS	62	30	29	28	51	38	47,5	115	6,95				0,481

Roller followers

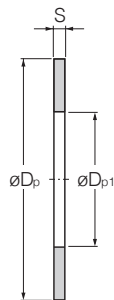
Part numbers	Dimensions (mm)						Basic load rating (kN)		Track load capacity (kN)		Limiting speeds (tr/min)		Mass (kg)
	D	d	B	C	e	F	dynamic Cr	static Cor	spherical outer ring	cylindrical outer ring	grease	oil	
NATV30XLL/3AS	62	30	29	28	51	38	47,5	115		33	2600		0,481
NUTR206/3AS	62	30	29	28	38	35	56,5	72,5	6,95		2900		0,466
NUTR206X/3AS	62	30	29	28	38	35	56,5	72,5		33	2900		0,466
NUTR305/3AS	62	25	25	24	31	30	42,5	57,5	6,95		3300		0,45
NUTR305X/3AS	62	25	25	24	31	30	42,5	57,5		27,8	3300		0,45
NATR35	72	35	29	28	58	44,5	39	77	8,05		3300	4500	0,635
NATR35X	72	35	29	28	58	44,5	39	77		37	3300	4500	0,635
NATR35LL/3AS	72	35	29	28	58	44,5	39	77	8,05		3300		0,635
NATR35XLL/3AS	72	35	29	28	58	44,5	39	77		37	3300		0,635
NATR35/3AS	72	35	29	28	58	44,5	52	134	8,05		2200		0,647
NATV35X/3AS	72	35	29	28	58	44,5	52	134		37	2200		0,647
NATV35LL/3AS	72	35	29	28	58	44,5	52	134	8,05		2200		0,647
NATV35XLL/3AS	72	35	29	28	58	44,5	52	134		37	2200		0,647
NUTR207/3AS	72	35	29	28	44	41,5	62	85,5	8,05		2400		0,63
NUTR207X/3AS	72	35	29	28	44	41,5	62	85,5		37	2400		0,63
NUTR306/3AS	72	30	29	28	38	35	56,5	72,5	8,05		2900		0,697
NUTR306X/3AS	72	30	29	28	38	35	56,5	72,5		38,5	2900		0,697
NATR40	80	40	32	30	66	50	49,5	92,5	9,8		3000	4000	0,875
NATR40X	80	40	32	30	66	50	49,5	92,5		44,5	3000	4000	0,875
NATR40LL/3AS	80	40	32	30	66	50	49,5	92,5	9,8		3000		0,875
NATR40XLL/3AS	80	40	32	30	66	50	49,5	92,5		44,5	3000		0,875
NATV40/3AS	80	40	32	30	66	50	68,5	171	9,8		2000		0,89
NATV40X/3AS	80	40	32	30	66	50	68,5	171		44,5	2000		0,89
NATV40LL/3AS	80	40	32	30	66	50	68,5	171	9,8		2000		0,89
NATV40XLL/3AS	80	40	32	30	66	50	68,5	171		44,5	2000		0,89
NUTR208/3AS	80	40	32	30	51	47,5	87	125	9,8		2100		0,817
NUTR208X/3AS	80	40	32	30	51	47,5	87	125		44,5	2100		0,817
NUTR307/3AS	80	35	29	28	44	41,5	62	85,5	9,8		2400		0,84
NUTR307X/3AS	80	35	29	28	44	41,5	62	85,5		41	2400		0,84
NATR45	85	45	32	30	71	55	51,5	100	10,4		2700	3600	0,91
NATR45LL/3AS	85	45	32	30	71	55	51,5	100	10,4		2700		0,91
NATR45XLL/3AS	85	45	32	30	71	55	51,5	100		47	2700		0,91
NUTR209/3AS	85	45	32	30	55	52,5	87	125	11,4		1900		0,883
NUTR209X/3AS	85	45	32	30	55	52,5	87	125		50	1900		0,883
NATR50	90	50	32	30	76	60	53	108	11,4		2500	3300	0,96
NATR50LL/3AS	90	50	32	30	76	60	53	108	11,4		2500		0,96
NATR50XLL/3AS	90	50	32	30	76	60	53	108		50	2500		0,96
NATV50/3AS	90	50	32	30	76	60	76	205	11,4		1600		0,99
NATV50X/3AS	90	50	32	30	76	60	76	205		50	1600		0,99
NATV50LL/3AS	90	50	32	30	76	60	76	205	11,4		1600		0,99
NATV50XLL/3AS	90	50	32	30	76	60	76	205		50	1600		0,99
NUTR210/3AS	90	50	32	30	60	57	92	137	10,4		1800		0,95
NUTR210X/3AS	90	50	32	30	60	57	92	137		47	1800		0,95
NUTR308/3AS	90	40	32	30	51	47,5	96,5	150	11,4		2100		1,13
NUTR308X/3AS	90	40	32	30	51	47,5	96,5	150		50	2100		1,13
NUTR309/3AS	100	45	32	30	55	52,5	92	137	13		1900		1,4
NUTR309X/3AS	100	45	32	30	55	52,5	92	137		55,5	1900		1,4
NUTR310/3AS	110	50	32	30	60	57	96,5	150	14,7		1800		1,69
NUTR310X/3AS	110	50	32	30	60	57	96,5	150		61	1800		1,69



AXK
Thrust needle roller and cage assembly

Thrust needle roller bearings

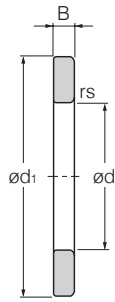
Part numbers	Dimensions (mm)			Basic load rating (kN)		Limiting speeds (tr/min)		Mass (kg)	Bearing numbers		
	Dc1 E11	Dc a13	Dw 0 / -0,1	dynamic Cr	static Cor	grease	oil		washer	inner ring	outer ring
AXK1100	10	24	2	9,15	25,3	3500	14000	0,0028	AS1100	WS81100	GS81100
AXK1101	12	26	2	9,85	28,9	3300	13000	0,003	AS1101	WS81101	GS81101
AXK1102	15	28	2	11,3	36	2800	11000	0,0035	AS1102	WS81102	GS81102
AXK1103	17	30	2	11,9	39,5	2500	10000	0,004	AS1103	WS81103	GS81103
AXK1104	20	35	2	13,2	46,5	2100	8500	0,005	AS1104	WS81104	GS81104
AXK1105	25	42	2	14,6	58	1800	7000	0,007	AS1105	WS81105	GS81105
AXK1106	30	47	2	16,3	69,5	1500	6000	0,008	AS1106	WS81106	GS81106
AXK1107	35	52	2	17,8	81,5	1400	5500	0,01	AS1107	WS81107	GS81107
AXK1108	40	60	3	27,4	110	1200	4700	0,0185	AS1108	WS81108	GS81108
AXK1109	45	65	3	29,8	128	1100	4300	0,0205	AS1109	WS81109	GS81109
AXK1110	50	70	3	31,5	143	1000	3900	0,0235	AS1110	WS81110	GS81110
AXK1111	55	78	3	38	186	900	3500	0,038	AS1111	WS81111	GS81111
AXK1112	60	85	3	44,5	234	800	3200	0,039	AS1112	WS81112	GS81112
AXK1113	65	90	3	46,5	254	750	3000	0,04	AS1113	WS81113	GS81113
AXK1114	70	95	4	53,5	253	750	2900	0,06	AS1114	WS81114	GS81114
AXK1115	75	100	4	55	266	700	2700	0,061	AS1115	WS81115	GS81115
AXK1116	80	105	4	56,5	279	650	2600	0,063	AS1116	WS81116	GS81116
AXK1117	85	110	4	57,5	291	600	2400	0,0668	AS1117	WS81117	GS81117
AXK1118	90	120	4	70,5	390	600	2300	0,086	AS1118	WS81118	GS81118
AXK1120	100	135	4	90	550	500	2000	0,112	AS1120	WS81120	GS81120
AXK1122	120	155	4	99	650	430	1700	0,131	AS1122	WS81122	GS81122
AXK1124	110	145	4	93,5	590	480	1900	0,122	AS1122	WS81122	GS81122
AXK1126	130	170	5	140	900	400	1600	0,205	AS1126	WS81126	GS81126
AXK1128	140	180	5	145	960	380	1500	0,219	AS1128	WS81128	GS81128
AXK1130	150	190	5	149	1020	350	1400	0,232	AS1130	WS81130	GS81130
AXK1132	160	200	5	154	1070	330	1300	0,246	AS1132	WS81132	GS81132



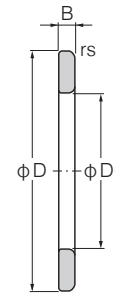
AS bearing ring
(washer)

Thrust needle roller bearings

Part numbers	Dimensions (mm)			Mass (kg)
	Dp e13	Dp1 E12	S	
AS1100	24	10	1	0,003
AS1101	26	12	1	0,0033
AS1102	28	15	1	0,0035
AS1103	30	17	1	0,0038
AS1104	35	20	1	0,0051
AS1105	42	25	1	0,007
AS1106	47	30	1	0,008
AS1107	52	35	1	0,0091
AS1108	60	40	1	0,0123
AS1109	65	45	1	0,0136
AS1110	70	50	1	0,0148
AS1111	78	55	1	0,0189
AS1112	85	60	1	0,0223
AS1113	90	65	1	0,0239
AS1114	95	70	1	0,0254
AS1115	100	75	1	0,027
AS1116	105	80	1	0,0284
AS1117	110	85	1	0,0301
AS1118	120	90	1	0,0388
AS1120	135	100	1	0,0505
AS1124	145	110	1	0,0549
AS1122	155	120	1	0,0592
AS1126	170	130	1	0,074
AS1128	180	140	1	0,079
AS1130	190	150	1	0,084
AS1132	200	160	1	0,089



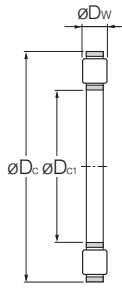
**WS bearing ring
(inner ring)**



**GS bearing ring
(outer ring)**

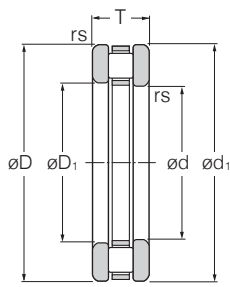
Thrust needle roller bearings					
Part numbers	Dimensions (mm)				Mass (kg)
	d	d1 -0,2 / -0,5	B h11	rs	
WS81100	10	24	2,75	0,3	0,008
WS81101	12	26	2,75	0,3	0,009
WS81101	12	26	2,75	0,3	0,009
WS81102	15	28	2,75	0,3	0,01
WS81103	17	30	2,75	0,3	0,011
WS81104	20	35	2,75	0,3	0,014
WS81105	25	42	3	0,6	0,021
WS81106	30	47	3	0,6	0,021
WS89306	30	60	6,25	1	0,1
WS81206	30	52	4,25	0,6	0,045
WS81107	35	52	3,5	0,6	0,033
WS89307	35	68	7	1	0,15
WS81207	35	62	5,25	1	0,085
WS81108	40	60	3,5	0,6	0,044
WS87408	40	90	8,25	1,1	0,33
WS89308	40	78	7,5	1	0,21
WS81208	40	68	5	1	0,09
WS81109	45	65	4	0,6	0,055
WS89309	45	85	8,25	1	0,27
WS81209	45	73	5,5	1	0,105
WS81110	50	70	4	0,6	0,06
WS87410	50	110	9,5	1,5	0,56
WS89310	50	95	9,5	1,1	0,38
WS81210	50	78	6,5	1	0,14
WS81111	55	78	5	0,6	0,095
WS89311	55	105	10,5	1,1	0,52
WS81211	55	90	7	1	0,21
WS81112	60	85	4,75	1	0,101
WS89312	60	110	10,5	1,1	0,55
WS81212	60	95	7,5	1	0,23
WS81113	65	90	5,25	1	0,125
WS87413	65	140	12	2	1,14
WS89313	65	115	10,5	1,1	0,58
WS81213	65	100	8	1	0,28
WS81114	70	95	5,25	1	0,135
WS89314	70	125	12	1,1	0,8
WS81214	70	105	8	1	0,295
WS81115	75	100	5,75	1	0,155
WS89315	75	135	12,5	1,5	0,97
WS81215	75	110	8	1	0,31
WS81116	80	105	5,75	1	0,165
WS89316	80	140	12,5	1,5	1,02
WS81216	80	115	8,5	1	0,35
WS81117	85	110	5,75	1	0,175
WS89317	85	150	13,5	1,5	1,28
WS81217	85	125	9,5	1	0,49
WS81118	90	120	6,5	1	0,25
WS89318	90	155	13,5	1,5	1,33
WS81218	90	135	10,5	1,1	0,64
WS81120	100	135	7	1	0,35
WS89320	100	170	14,5	1,5	1,69
WS81220	100	150	11,5	1,1	0,81
WS81122	110	145	7	1	0,385
WS89322	110	190	16,5	2	2,44
WS81124	120	155	7	1	0,415
WS81126	130	170	9	1	0,663
WS81226	130	187	13	1,5	1,53
WS81128	140	178	9,5	1	0,75
WS81130	150	188	9,5	1	0,8
WS81132	160	198	9,5	1	0,84

Thrust needle roller bearings					
Part numbers	Dimensions (mm)				Mass (kg)
	D	D1 +0,5 / +0,2	B h11	rs	
GS81101	26	12	2,75	0,3	0,009
GS81102	28	16	2,75	0,3	0,01
GS81103	30	18	2,75	0,3	0,011
GS81104	35	21	2,75	0,3	0,014
GS81105	42	26	3	0,6	0,021
GS81106	47	32	3	0,6	0,025
GS81107	52	37	3,5	0,6	0,033
GS81206	52	32	4,25	0,6	0,045
GS81108	60	42	3,5	0,6	0,044
GS89306	60	32	6,25	1	0,1
GS81207	62	37	5,25	1	0,085
GS81109	65	47	4	0,6	0,055
GS89307	68	37	7	1	0,15
GS81208	68	42	5	1	0,09
GS81110	70	52	4	0,6	0,06
GS81209	73	47	5,5	1	0,105
GS81111	78	57	5	0,6	0,095
GS89308	78	42	7,5	1	0,21
GS81210	78	52	6,5	1	0,14
GS81112	85	62	4,75	1	0,101
GS89309	85	47	8,25	1	0,27
GS81113	90	67	5,25	1	0,125
GS81211	90	57	7	1	0,21
GS81114	95	72	5,25	1	0,135
GS89310	95	52	9,5	1,1	0,38
GS81212	95	62	7,5	1	0,23
GS81115	100	77	5,75	1	0,155
GS81213	100	67	8	1	0,28
GS81116	105	82	5,75	1	0,165
GS89311	105	57	10,5	1,1	0,52
GS81214	105	72	8	1	0,295
GS81117	110	87	5,75	1	0,175
GS87410	110	52	9,5	1,5	0,56
GS89312	110	62	10,5	1,1	0,55
GS81215	110	77	8	1	0,31
GS89313	115	67	10,5	1,1	0,58
GS81216	115	82	8,5	1	0,35
GS81118	120	92	6,5	1	0,25
GS89314	125	72	12	1,1	0,8
GS81217	125	88	9,5	1	0,49
GS81120	135	102	7	1	0,35
GS89315	135	77	12,5	1,5	0,97
GS81218	135	93	10,5	1,1	0,64
GS89316	140	82	12,5	1,5	1,02
GS81122	145	112	7	1	0,385
GS89317	150	88	13,5	1,5	1,28
GS81220	150	103	11,5	1,1	0,81
GS81124	155	122	7	1	0,415
GS89318	155	93	13,5	1,5	1,33
GS81126	170	132	9	1	0,663
GS89320	170	103	14,5	1,5	1,69
GS81128	180	142	9,5	1	0,75
GS81130	190	152	9,5	1	0,8
GS89322	190	113	16,5	2	2,44
GS81226	190	133	13	1,5	1,53
GS81132	200	162	9,5	1	0,84

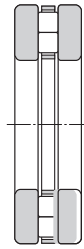


K811, K812
Thrust needle roller and cage assembly

Thrust needle roller bearings				
Part numbers	Dimensions (mm)			Mass (kg)
	Dc1 E11	Dc a13	Dw 0 / -0,01	
K81102T2	15	28	3,5	0,006
K81103T2	17	30	3,5	0,008
K81104T2	20	35	4,5	0,012
K81105L1	25	42	5	0,023
K81105T2	25	42	5	0,021
K81106T2	30	47	5	0,022
K89306	30	60	5,5	0,046
K81107T2	35	52	5	0,024
K89307	35	68	6	0,064
K81108T2	40	60	6	0,035
K89308	40	78	7	0,1
K81109T2	45	65	6	0,04
K89309	45	85	7,5	0,14
K81110T2	50	70	6	0,045
K87410	50	110	8	0,26
K89310	50	95	8	0,18
K81111T2	55	78	6	0,06
K89311	55	105	9	0,24
K81112	60	85	7,5	0,11
K81112L1	60	85	7,5	0,104
K81112T2	60	85	7,5	0,083
K89312	60	110	9	0,25
K81113T2	65	90	7,5	0,09
K89313	65	115	9	0,26
K81114T2	70	95	7,5	0,097
K87414	70	150	11	0,65
K89314	70	125	10	0,34
K81115T2	75	100	7,5	0,115
K89315	75	135	11	0,47
K81116T2	80	105	7,5	0,119
K89316	80	140	11	0,49
K81117T2	85	110	7,5	0,125
K89317	85	150	12	0,59
K81118T2	90	120	9	0,17
K89318	90	155	12	0,62
K81120T2	100	135	11	0,3
K89320	100	170	13	0,81
K81122T2	110	145	11	0,325
K89322L1	110	183	15	1,15
K81124T2	120	155	11	0,34
K81126	130	170	12	0,415
K81128	140	180	12	0,45
K81130	150	190	12	0,47
K81132	160	200	12	0,5



**811
812
bearing**



893



**874
bearing**

Thrust cylindrical roller bearing

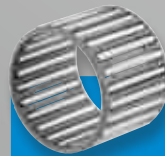
Part numbers	Dimensions (mm)						Basic load rating (kN)		Limiting speeds (tr/min)		Mass (kg)	Bearing numbers			Abutment dimensions (mm)		
	d	D	d1 -0.2 -0.5	D1 +0.5 +0.2	T	rs	dynamic Cr	static Cor	grease	oil		cage	inner ring	outer ring	da min	Db max	ras max
81102T2	15	28	28	16	9	0,3	12,2	26,8	2800	11000	0,026	K81102T2	WS81102	GS81102	25	18	0,3
81103T2	17	30	30	18	9	0,3	12,7	29	2500	10000	0,03	K81103T2	WS81103	GS81103	27	20	0,3
81104T2	20	35	35	21	10	0,3	20,2	46,5	2100	8500	0,04	K81104T2	WS81104	GS81104	32	23	0,3
81105T2	25	42	42	26	11	0,6	27,3	68	1800	7000	0,06	K81105T2	WS81105	GS81105	39	28	0,6
81106T2	30	47	47	32	11	0,6	27,8	72,5	1500	6000	0,07	K81106T2	WS81106	GS81106	44	33	0,6
81206	30	52	52	32	16	0,6	53,5	129	1500	6000	0,14	K81206	WS81206	GS81206	48	33	0,6
81206T2	30	52	52	32	16	0,6	53	129	1500	6000	0,14	K81206T2	WS81206	GS81206	48	33	0,6
81107T2	35	52	52	37	12	0,6	31	87	1400	5500	0,09	K81107T2	WS81107	GS81107	49	38	0,6
81207T2	35	62	62	37	18	1	54,5	139	1200	4900	0,235	K81207T2	WS81207	GS81207	56	41	1
81108T2	40	60	60	42	13	0,6	43	121	1200	4800	0,135	K81108T2	WS81108	GS81108	56	44	0,6
81208T2	40	68	68	42	19	1	74,5	190	1100	4400	0,265	K81208T2	WS81208	GS81208	63	44	1
89308	40	78	78	42	22	1	85	277	1000	4000	0,52	K89308	WS89308	GS89308	74	46	1
81109T2	45	65	65	47	14	0,6	45,5	135	1100	4400	0,15	K81109T2	WS81109	GS81109	61	49	0,6
81209T2	45	73	73	47	20	1	82	222	1000	4100	0,31	K81209T2	WS81209	GS81209	68	49	1
89309	45	85	85	47	24	1	102	345	900	3600	0,67	K89309	WS89309	GS89309	81	51	1
81110T2	50	70	70	52	14	0,6	48,5	150	1000	4000	0,165	K81110T2	WS81110	GS81110	66	54	0,6
81210T2	50	78	78	52	22	1	85	238	950	3800	0,385	K81210T2	WS81210	GS81210	73	54	1
89310	50	95	95	52	27	1,1	125	445	800	3200	0,94	K89310	WS89310	GS89310	90	58	1
81111T2	55	78	78	57	16	0,6	62,5	215	900	3600	0,25	K81111T2	WS81111	GS81111	75	58	0,6
81211T2	55	90	90	57	25	1	121	340	830	3300	0,61	K81211T2	WS81211	GS81211	83	61	1
89311	55	105	105	57	30	1,1	158	570	730	2900	1,27	K89311	WS89311	GS89311	100	64	1
81112T2	60	85	85	62	17	1	69	215	830	3300	0,285	K81112T2	WS81112	GS81112	80	65	1
81212T2	60	95	95	62	26	1	126	365	780	3100	0,66	K81212T2	WS81212	GS81212	88	66	1
89312	60	110	110	62	30	1,1	162	600	680	2700	1,35	K89312	WS89312	GS89312	105	69	1
81113T2	65	90	90	67	18	1	73	236	780	3100	0,34	K81113T2	WS81113	GS81113	85	70	1
81213T2	65	100	100	67	27	1	130	385	730	2900	0,775	K81213T2	WS81213	GS81213	93	71	1
89313	65	115	115	67	30	1,1	167	635	650	2600	1,43	K89313	WS89313	GS89313	110	74	1
81114T2	70	95	95	72	18	1	76,5	257	730	2900	0,365	K81114T2	WS81114	GS81114	90	74	1
81214T2	70	105	105	72	27	1	134	410	680	2700	0,815	K81214T2	WS81214	GS81214	98	76	1
89314	70	125	125	72	34	1,1	205	790	600	2400	1,93	K89314	WS89314	GS89314	120	80	1
81115T2	75	100	100	77	19	1	78	268	680	2700	0,425	K81115T2	WS81115	GS81115	95	80	1
81215T2	75	110	110	77	27	1	138	435	650	2600	0,86	K81215T2	WS81215	GS81215	103	81	1
89315	75	135	135	77	36	1,5	239	920	550	2200	2,41	K89315	WS89315	GS89315	129	85	1,5
81116T2	80	105	105	82	19	1	79,5	279	650	2600	0,445	K81116T2	WS81116	GS81116	100	85	1
81216	80	115	115	82	28	1	142	460	630	2500	0,95	K81216	WS81216	GS81216	106	86	1
89316	80	140	140	82	36	1,5	246	970	530	2100	2,53	K89316	WS89316	GS89316	134	90	1,5
81216T2	80	115	115	82	28	1	143	460	630	2500	0,95	K81216T2	WS81216	GS81216	106	86	1
81117T2	85	110	110	87	19	1	83	300	630	2500	0,475	K81117T2	WS81117	GS81117	105	89	1
81217L1	85	125	125	88	31	1	169	550	580	2300	1,28	K81217L1	WS81217	GS81217	116	92	1
89317	85	150	150	88	39	1,5	281	1100	500	2000	3,14	K89317	WS89317	GS89317	144	96	1,5
81118T2	90	120	120	92	22	1	112	395	580	2300	0,67	K81118T2	WS81118	GS81118	114	95	1
81218J	90	135	135	93	35	1,1	213	680	530	2100	1,82	K81218J	WS81218	GS81218	126	91	1
81120T2	100	135	135	102	25	1	158	555	500	2000	1	K81120T2	WS81120	GS81120	128	106	1
81220	100	150	150	103	38	1,1	243	795	480	1900	2,24	K81220	WS81220	GS81220	139	109	1
89320	100	170	170	103	42	1,5	335	1370	430	1700	4,19	K89320	WS89320	GS89320	163	110	1,5
89320L1	100	170	170	103	42	1,5	335	1370	430	1700	4,19	K89320	WS89320	GS89320	163	110	1,5
81122T2	110	145	145	112	25	1	165	605	480	1900	1,1	K81122T2	WS81122	GS81122	138	116	1
81222	110	160	160	113	38	1,1	258	885	450	1800	2,45	K81222	WS81222	GS81222	149	119	1
81124T2	120	155	155	122	25	1	172	655	450	1800	1,17	K81124T2	WS81124	GS81124	148	126	1
81224	120	170	170	123	39	1,1	264	930	430	1700	2,69	K81224	WS81224	GS81224	159	129	1
89324L1	120	210	210	123	54	3,5	0	0	0	0	0	K89324	WS89324	GS89324	0	0	0
81126	130	170	170	132	30	1	197	755	400	1600	1,74	K81126	WS81126	GS81126	162	137	1
81226	130	190	187	133	45	1,5	360	1210	380	1500	4,2	K81226	WS81226	GS81226	178	140	1,5
81128	140	180	178	142	31	1	206	815	380	1500	1,95	K81128	WS81128	GS81128	172	147	1
81228	140	200	197	143	46	1,5	370	1280	250	1400	4,57	K81228	WS81228	GS81228	188	150	1,5
81130	150	190	188	152	31	1	214	870	350	1400	2,07	K81130	WS81130	GS81130	182	157	1
81132	160	200	198	162	31	1	221	930	330	1300	2,19	K81132	WS81132	GS81132	192	167	1
81134	170	215	213	172	34	1,1	282	1160	310	1200	2,64	K81134	WS81134	GS81134	207	177	1
81136	180	225	223	182	34	1,1	293	1240	290	1100	3,06	K81136	WS81136	GS81136	217	177	1

NEEDLE ROLLER BEARINGS INTERCHANGE



Needle roller bearings with solid rings

	NTN	INA	IKO	SKF	KOYO	NADELLA
metric	NK,NK..R	NK	TAF	NK	NQ,NK	NK
	NK..T2	NK..TV		NK..TN		
	NK+1R, NK..R+1R	NKI	TRI/TAFI	NKI	NQI	
	NKS+IR	NKIS		NKIS		
	NK..T2+1R	NKI..TV		NKI..TN	NQI	
	RNA48	RNA48	RNA48	RNA48		RNA1000
	NKS	NKS	TR	NKS	NQS	NKS
	NKZ		TR			
	RNA49, RNA49..R	RNA49	RNA49	RNA49	RNA49	
	RNA49..L	RNA49..RSR	RNA49..U	RNA49..RS		
	RNA49..LL	RNA49..2RSR	RNA49..UU	RNA49..2RS		
	RNA59				RNA59	RNA2000
	RNA69, RNA69..R	RNA69	RNA69	RNA69	RNA69	RNA22000
	NA48	NA48	NA48	NA48		NA1000
	NA49,NA49..R	NA49	NA49	NA49		NA2000
	NA49..L	NA49..RSR	NA49..U	NA49..RS		
	NA49..LL	NA49..2RSR	NA49..UU	NA49..2RS		
	NA59					
	NA69, NA69..R	NA69	NA69	NA69		NA2200
	NA69 (double row)	NA69..ZW				
inch	MR	NCS	BR			
	MR+MI	NCS+PI	BRI			



Needle roller and cage assemblies

	NTN	INA	IKO	SKF	KOYO	NADELLA
metric	K	K	KT	K	RS, R, RP	K
	K..T2	K..TV	KTN	K..TN		
	K..ZW	K..ZW	KTW	K..ZW	WRS,WR	K..ZW
	KMJ				V,VS, RV	
	KMJ..S					
	KJ..S					
inch	PCJ	C			RFNU	



Cage assembly for connecting rod

	NTN	INA	IKO	SKF	KOYO	NADELLA
metric	KBK	KBK	KTV..EG		R..P, UR..P	
	KV..S				VP,VP5	
	PK	KZK	KT..EG		VS..P,VE	
	GPK				RFNU	MB
	H					



Needle roller bearings, separable type

	NTN	INA	IKO	SKF	KOYO	NADELLA
metric	RNA0	RNA0	RNAF	RNA0		
	RNA0..T2	RNA0..TV	RNAF..N	RNA0..TN		
	RNA0..ZW	RNA0..ZW-ASR1	RNAFW	RNA0		
	NA0	NA0	NAF	NA0		
	NA0..T2	NA0..TV	NAF..N	NA0..TN		
	NA0..ZW	NA0..ZW-ASR1	NAFW	NA0		
	RNA49..S	PNA		PNA		
	NA49..S					



Drawn cup needle roller bearings

	NTN	INA	IKO	SKF	KOYO	NADELLA
metric	HK	HK	TLA..Z	HK	BTM	HK
	HK..T2	HK..TV			BFNM	HK..TN
	HK..L	HK..RS		HK..RS	BTM..U	HK..RS
	HK..LL	HK..2RS	TLA..UU	HK..2RS	BTM..UU	HK..2RS
	HK..ZWD	HK..ZW	TLAW..Z	HK..ZW		
	HK..D	HK..AS1			BTM..OH	
	HMK		TAW..Z		BHTM	
	HMK..L				BHTM..U	
	HMK..L/LL				BHTM..UU	
	HMK..ZWD		TAW..Z			
	HKS		TA..Z			
	HCK		TAW			
	BK	BK	TLAM	BK	MKM	BK
	BK..T2	BK..TV		BK..TN		
	BK..L	BK..RS				BK..RS
BK..ZWD	BK..ZW	TLAMW				
BKS		TAM				
inch	DCL	SCE	BA..Z		BT	
	DCL..T2	SCE..TV				
	DCL..L	SCE..P				
	DCL..LL	SCE..PP				
	DCH	SCH	BAM		BHT	



Inner rings

	NTN	INA	IKO	SKF	KOYO	NADELLA
metric	1R	IR	IRT	IR	IM	JR
	1R..D	IR..IS1		IR..IS1		
inch	MI (pouce)	PI, LR	IRB	LR		



Complex bearings

	NTN	INA	IKO	SKF	KOYO	NADELLA
metric	ARN	ZARN				AXNA
	AXN		IRB			AXNB
	NKX	NKX	NAX	NKX		
	NKX..Z	NKX..Z	NAX..Z	NKX..Z		
	NKX+IR	NKXR+IR	NAXI			
	NKX..Z+IR	NKXR..Z+IR	NAXI..Z			
	NKXR	NKXR	NBX	NKXR		RAXZ
	NKXR..Z	NKXR..Z	NBX..Z	NKXR..Z		
	NKXR..+IR	NKXR..+IR	NBXI			
	NKXR..Z+IR	NKXR..Z+IR	NBXI..Z			
	NKIA59	NKIA	NATA59	NKIA		
	NKIB59..R	NKIB	NATB59	NKIB		



NEEDLE ROLLER BEARINGS INTERCHANGE



Roller followers

	NTN	INA	IKO	SKF	KOYO	NADELLA
metric	RNAB2	RSTO	RNAST..R	RSTO	RSTO	RNA..B
	RNAB2..X	RSTO..XX	RNAST		RSTO..DZ	
	RNA22..LL	RNA22..-2RSR		RNA22..2RSX		
	RNA22..XLL	RNA22..-2RSR-X		RNA22..2RS		
	NAB2	STO	NAST..R	STO	STO	
	NAB2..X	STO..X	NAST	STO..X	STO..DZ	
	NA22..LL	NA22..-2RSR		NA..2RS	NA22..2RS	
	NA22..XLL	NA22..-2RSR-X		NA..2RSX		
	NATR	NATR	NART..R	NATR	CXM..R, NATR	
	NATR..X	NATR..X	NART	NATR..X	CXM, NATR..DZ	
	NATR..LL	NATR..-PP		NATR..PPA	CXM..UUR	
	NATR..XLL	NATR..XPP		NATR..PP	CXM..UU	
inch	NATV	NATV	NART..VR	NATV	CYM..R	FG
	NATV..X	NATV..X		NATV..X	CYM	FGL
	NATV..LL	NATV..PP	NART..VUUR	NATV..PPA	CYM..UUR	FG..EE
	NATV..XLL	NATV..PPX				FGL..EE
	NUTR	NUTR	NURT	NUTR	NUTR	FGU
	NUTR..X	NUTR..X	NURT..DZ	NUTR..X		FGUL
	NUTW					
	NUTW..X					
	NACV	RF..Y	CRY..VR			
	NACV..X	RF	CRY..V			
	NACV..LL	RF..YPP	CRY..VUUR			
	NACV..XLL	RF..PP	CRY..VUU			



Cam followers

	NTN	INA	IKO	SKF	KOYO	NADELLA
metric	KR	KR	CF..R	KR	KM..R, KR	
	KR..X	KR..X	CF	KR..X	KM, KR..DZ	
	KR..H	KR..SK	CF..BR	KR..SK		
	KR..XH	KR..X, KR..SKX	CF..B			
	KR..LL	KR..PP	CF..UUR	KR..PPA	KM..UUR, KR..2RS	
	KR..LLH	KR..PP, KR..PPSK	CF..BUUR	KR..PPSK		
	KR..XLL	KR..XPP	CF..UU	KR..XPP	KR..DZ, 2RS	
	KR..XLLH	KR..-X, PPSK	CF..BUU		KM..UU	
	KRT		CF..RU1			
	KRT..X					
	KRT..LL					
	KRT..XLL					
	KRV	KRV	CF..VR	KRV	CM..R	GC
	KRV..X	KRV..X	CF..VR	KRV..X		GCL
	KRV..H		CF..VBR	KRV..SK		
	KRV..LL	KRV..-PP	CF..VUUR	KRV..PPA	CM..UUR	GC..EE
	KRV..XLL	KRV..XPP	CF..VUU	KRV..XPP	CM..UU	GCL..EE
	KRV..LLH	KRV..PPSK, KRV..PP	CF..VBUUR	KRV..PPSK		
	KRV..XLLH	KRV..XPPSK, KRV..XPP	CF..VBUU			
	KRVT					
	KRVT..LL					
	KRVT..XLL					
	KRU		CFES..R			
	KRU..X		CFES			
	KRU..LL		CFES..UUR			
	KRU..XLL		CFES..UU			
	KRVU		CFES..V			
	KRVU..X		CFES..VR			
	KRVU..XLL		CFES..VUU			
	KRVU..LL		CFES..VUUR			
	KRMV..XH		CFS..V			
	KRM..XH		CFS			
KRX		CF..SFU				
NUKR	NUKR	NUCF..R	NUKR	DKM..R	NUKR..2SK	
NUKR..X				DKM..DZ		
NUKR..XH						
NUKRT						
NUKRT..X						
NUKRU						
NUKRU..X						
inch	CR		CR..R			
	CR..X		CR			
	CR..H		CR..BR			
	CR..XH		CR..B			
	CR..LL		CR..UUR			
	CR..XLL		CR..UU			
	CR..LLH		CR..BUUR			
	CR..XLLH		CR..BUU			
	CRV	CF	CR..VR		CR	
	CRV..X		CR..V			
	CRV..H		CR..VBR			
	CRV..XH		CR..VB			
	CRV..LL	CF..-PP	CR..VUUR			
	CRV..XLL	CF..-X, PP	CR..VUU			
CRV..LLH		CR..VBUUR				
CRV..XLLH		CR..VBUU				



Needle and roller thrust bearings

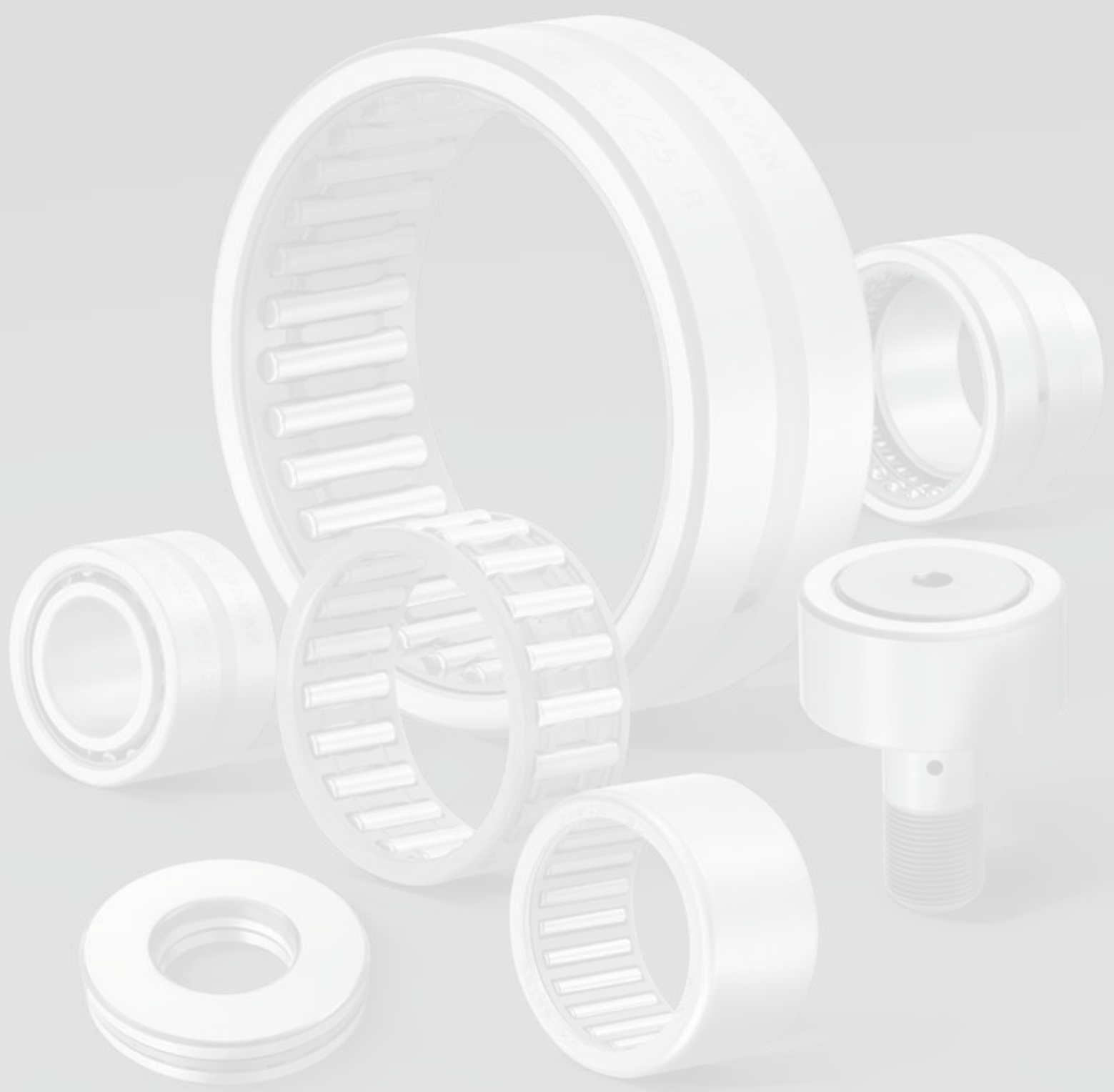
	NTN	INA	IKO	SKF	KOYO	NADELLA
metric	AXK (tole)	AXK	NTB	AXK	TP, AXK	
	AXK (laiton)	AXK	NTB	AXK	TP	
	K811	K811	AZK	K811	K811	
	K811..T2	K811..-TV		K811..TN		
	K811..JW					
	K812	K812	AZK	K812	K812	
	K812..T2	K812..-TV		K812..TN		
	K812..JW					
	K874	K893		K893		
	K893	K894		K894		
	AS11	AS	AS	AS	W, AS	CP
	WS811/WS812 / WS874 / WS893	WS811/WS812 / WS874 / WS893	WS	WS	WS	
GS811/GS812 / GS874 / GS893	GS811/GS812 / GS893 / GS894	GS	GS	GS		
811	811	AZ	811	811		
812	812		812	812		
874	893		893			
893	894		894			
inch	NTC	TC				
	NWA	TWA				
	NWB	TWB				



ACCESSORIES

	NTN	INA	IKO	SKF	KOYO	NADELLA
Needles						
F	NRB	F	RN..BF	LF	BP	
A		A	RN..B	A	BR	
Snap rings						
WR	WR	WR	SW			
BR	BR	AR	BR			
Seals						
G	G	OS	GS			
GD	GR	DS	SD			







NEEDLE ROLLER BEARINGS

The reference range made in Japan

This document is the exclusive property of NTN-SNR ROULEMENTS. Any total or partial reproduction here of without the prior consent of NTN-SNR ROULEMENTS is strictly prohibited. Legal action may be brought against anyone breaching the terms of this paragraph.

NTN-SNR ROULEMENTS shall not be held liable for any errors or omissions that may have crept into this document despite the care taken in drafting it. Due to our policy of continuous research and development, we reserve the right to make changes without notice to all or part of the products and specifications mentioned in this document.

© NTN-SNR ROULEMENTS, international copyright 2022.

NTN-SNR ROULEMENTS - 1 rue des Usines - 74000 Annecy
RCS ANNECY B 325 821 072 - Code APE 2815Z - Code NACE 28.15
www.ntn-snr.com



With You