

A high-speed train is shown in motion, traveling along a set of tracks that curve through a city. The scene is captured with a motion blur effect, suggesting speed. The background features a city skyline with several tall buildings under a bright, hazy sky, likely during sunrise or sunset. The overall color palette is dominated by warm tones of orange, yellow, and blue.

RAILWAY SOLUTIONS
PERFORMANCE THAT GOES THE DISTANCE

NTN-SNR. Expertise that leads the way

A single-minded organisation, inventive technology and global competence are the driving forces behind an innovative and efficient service which pushes back the barriers and crosses borders in a railway sector that is forever moving forwards.

The NTN Group and its European branch, NTN-SNR, form an organisation that positions itself as a global player in the bearings market. The success of this union is based on a number of noteworthy factors: shared values, a shared strategic vision, synergies of expertise and a strongly differentiated customer base.

The possibilities that result from these achievements lead us to accelerate our growth in the rail industry, based not only on a long history in this field, but also on our position as the undisputed leader in the high speed sector. The convergence of our experience and our strengths give us an edge in the rail industry and enable us to look to the future.

Freely flowing solutions

From the London Underground to the Shinkansen in Tokyo, and encompassing the French regional rolling stock, the NTN Group and its European branch, NTN-SNR, supply throughout the world. Our solutions cover every journey and every form of progress, with solutions that fit every bogie, satisfy every specific rail transport requirement and meet the standards of every country.



High speed



Intercity



Light rail vehicle (metro, tram)



Locomotives



Freight

REFERENCES : ABRF - ADTRANZ - ALSTOM - ARBEL - ASTRA - ATELIER DE JOIGNY - BOMBARDIER - CFD DB - DYMOS - EUROTUNNEL - FAVELEY - GHH - HITACHI - JAPAN RAILWAYS - KCRC - KORAIL - LUCCHINI MITSUBISHI ELECTRIC - NOVATRANS - ONCF - RAILCARE - RATP - RENFE - ROTEM - SIEMENS - SMRT - SNCB SNCF - TALGO - TEXELIS - TOSHIBA - TRANSMASHOLDING - VALDUNES- VOITH - VOSSLOH - WATTEEUW

A reputation built on breaking records...

NTN has been supplying trains on the Shinkansen network for 40 years. SNR, technical partner to TGV since its launch, worked with SNCF and ALSTOM to win the world rail speed record of 574.8 km/h, established in 2007.



Forward-moving solutions

Embodying expertise at the forefront of technology, our bearings satisfy the most demanding requirements. Designed to perform in every environment and over long and short-haul distances they cover the entire rail market.

Our culture of innovation and service drives up reliability and enhanced safety as well as significantly decreasing life cycle costs (LCC) and the total cost of ownership (TCO).

Traction motor bearings

- Optimised cage design
- Insulated bearings (ceramic or polymer insulation)



Transmission bearings

- Optimised cage design
- Increased load-bearing capacity
- Large bearings



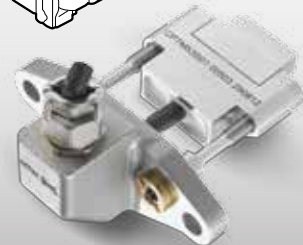
Journal bearings

- Increased service life
- Reduced maintenance
- Anti-fretting solutions
- Optimized cage design
- Labyrinth & friction seals
- Metric or AAR dimensioning



Mechatronic solutions

- Speed and temperature sensors
- Diagnosis systems (Condition Monitoring Systems)
- Wireless communication



Performance that moves into top gear

NTN-SNR is the preferred partner of the major players in the railway world for both original equipment and replacement parts as well as collaborating on major projects that keep the world moving. Our reason to be and our way forward is to satisfy your requirements and shift your development into top gear.



With over 40 years of high-speed experience, NTN-SNR has demonstrated its ability to provide expert answers to complex problems while guaranteeing its customers exceptional quality and complete safety. IRIS (International Railway Industry Standard)-certified since 2010, our standards have received the highest acclaim: your trust.

Going the distance

Reliability is based on know-how that has been acquired, perpetuated and optimized, but also on a relationship of trust and closeness that enables everyone to get involved reactively and effectively in a project. Cultivating that reliability, regardless of where it is being applied, is one of the secrets of NTN-SNR's longevity. The world rail speed record is evidence of this, since the TGV was equipped with standard series bearings, approved for a commercial operation at a speed of 350 km/h, but having no special features. The NTN Group and its European branch, NTN-SNR has, to its credit, never been involved in a major rail incident; this ensures a scale and presence on the world stage that is unmatched to this day.

Anticipating requirements

NTN-SNR has stepped up its research and development activities. With its advances in the field of high technology, and more specifically that of mechatronics, it has become a powerful force for innovation in the railway sector:

- **Self-regulating sensor cartridges**

- Speed and temperature sensors
- On-board diagnosis systems
- Wireless communication

- **Anti-fretting solutions**

- **Megaohm™ Series**

-
- **Polyamide, steel, or solid single-block cages**

Services to support you over time

Committed to be at your side, our teams not only offer innovative and effective products to meet the needs of a changing world. From the start of each project they are there with you, accompanying you at every stage, offering you all the services needed to make sure the project is well organised and proceeds at the correct pace.



1 Design and calculation

A calculation department is available to clients to help ensure research and development projects get off the ground and are successfully implemented. Application engineers support clients in their design calculations and in selecting the appropriate bearings. Cutting-edge application tools are available to them. For example, the SharcLab package, developed by NTN-SNR, is used to calculate the lifetime of a bearing taking into account various factors: loads, lubrication, geometry and micro-geometry of the bearing, axle deformation, etc.

2 Test bench

A COFRAC-accredited testing laboratory enables each bearing to be certified to European Standard EN 12082. It offers all the skills to satisfy customers' testing needs, guaranteeing them flexibility, timeliness and high-quality measurements. It conducts speed and load tests.

3 Bearing expertise

Our expert technical support service enables our customers to analyse, at any time, the reliability of a bearing by visual analysis, electron microscope analysis, molecular analysis, etc.

4 Training

A training module enables consultants to improve the design of bearings. We also offer a practical training module for installation and maintenance teams.

5 Client support

Thanks to the experience and expertise of our technical and sales teams, we offer personalized support for each of your projects, from the development phase right through to series production. For instance, we provide technical on-site support for the fitting of bearings to ensure that best practices are applied.

Railway Bearings Catalogue



Codes

CAGE TYPE	MEANING
PA	Polyamide cage
Steel	Steel cage
MP	1 piece Massive Brass cage, Rollers Centered
M	2 pieces Massive Brass riveted cage, Rollers Centered
MPA	1 piece Massive Brass cage, Outer Ring Centered

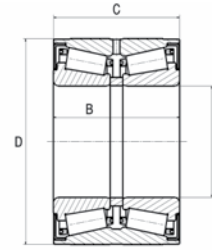
SEAL TYPE	MEANING
RS	Rubber Seal
DF	Labyrinth Sealing

SPEC	MEANING
EN12080	According to European standard EN12080 for axle bearings
LRV	NTN-SNR standard for LRV axle bearings (reduced controls compare to EN12080)
NF18831	According to SNCF standard NF18831 for gearbox and traction motor bearings
JPN	According to Japan standard
AAR	According to American AAR standard for axle bearings

APPLICATION	MEANING
LRV	Light Rail Vehicle (metro, tramway, tram-train)
I	Intercity, regional, commuter trains (speed < 200 km/h)
HST	High Speed Trains (speed < 300 km/h)
VHST	Very High Speed Trains (speed > 300 km/h)
Loco	Locomotive
Fr	Freight

Axle Bearings

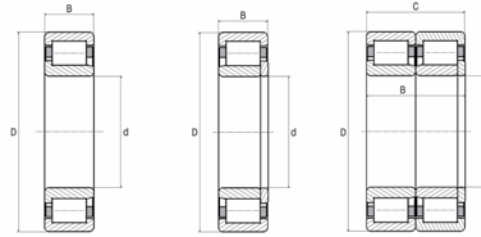
Tapered Bearing Units (TBU)



Bearing type	Dimensions				Dynamic Load C	Static Load C ₀	Weight kg	Designation	Cage	Seal	Spec	Main application
	d	D	B (IR)	C (OR)								
	mm	mm	mm	mm								
TBU 130x230	130	230	150	150	940	1760	27.6	FC43497S01	PA	RS	EN12080	I
TBU 130x230	130	230	150	160	940	1760	30.1	FC42384S04	PA	DF	EN12080	I, LRV, HST
TBU 130x230	130	230	184	150	870	1610	31.0	FC43718S01	PA	RS	EN12080	VHST
TBU 130x240	130	240	160	160	940	1770	30.2	FC41411S06	PA	DF	EN12080	I
TBU 130x240	130	240	160	160	940	1770	31.2	FC42932S01	PA	DF	EN12080	VHST
TBU 130x240	130	240	160	160	940	1770	29.3	FC42766S01	PA	-	EN12080	HST
TBU 130x240	130	240	160	160	940	1770	30.8	FC41411S10	Steel	DF	EN12080	I
TBU 130x250	130	150	160	160	940	1760	37.9	FC43527S01	PA	RS	EN12080	Fr
TBU 150x250	150	250	160	160	940	1760	29.8	FC42593S01	PA	DF	EN12080	Loco, I
TBU 150x250	150	250	158.4	160	940	1760	29.6	FC42956S06	PA	DF	EN12080	HST
TBU 150x250	150	250	154	160	940	1760	31.3	FC12782S01	Steel	DF	EN12080	I, LRV
TBU 150x250	150	250	179	185	940	1760	33.1	FC42600S01	PA	DF	EN12080	HST, VHST
TBU 150x250	150	250	179	185	940	1760	33.8	FC12790S12	Steel	DF	EN12080	VHST
TBU 160x270	160	270	170	150	1 000	1 980	36.0	FC42666S02	PA	RS	EN12080	LRV
TBU 178x265	178.62	265.137	173	173	850	1820	26.7	FC42398S03	PA	DF	EN12080	I
TBU 185x280	185	280	160	160	990	2090	32.3	FC43176S01	PA	DF	EN12080	HST
TBU 110x175	110	175	125	130	465	925	22.4	JT9	Steel	RS	JPN	LRV,Fr
TBU 110x180	110	180	142	142	550	1030	13.8	CRI-2289	PA	RS	JPN	LRV
TBU 110x188	110	188	145	150	620	1120	30.6	JT20	Steel	RS	JPN	I
TBU 110x190	110	190	145	150	620	1120	26.4	CRI-2290	Steel	RS	JPN	LRV
TBU 110x190	110	190	145	150	620	1120	26.2	JT14	Steel	RS	JPN	I
TBU 110x205	110	205	130	140	745	1250	27.6	JT13	Steel	RS	JPN	I
TBU 110x205	110	205	130	140	745	1250	28.3	JT15	Steel	RS	JPN	I
TBU 118x195	118	195	136	142	640	1270	27.4	JT10A	Steel	RS	JPN	
TBU 120x195	120	195	136	142	640	1270	26.5	JT10	Steel	RS	JPN	Fr
TBU 120x220	120	220	135	110	750	1230	20.9	CRI-2499	Steel	-	JPN	I
TBU 120x220	120	220	150	155	775	1330	32	CRI-24A11	Steel	RS	JPN	
TBU 120x220	120	220	150	155	775	1330	32	WJT1/WJT1K	Steel	RS	JPN	HST, VHST
TBU 120x220	120	220	150	130	850	1460	24.5	WJT2A	Steel	RS	JPN	HST
TBU 120x220	120	220	150	130	860	1480	24.5	WJT2B	Steel	RS	JPN	HST
TBU 120x220	120	220	155	130	850	1460	24.5	JT21	Steel	-	JPN	HST, VHST
TBU 120x220	120	220	155	155	905	1640	41.4	JT12	Steel	RS	JPN	I,LRV
TBU 120x220	120	220	155	155	905	1640	41.4	JT400K	Steel	RS	JPN	I
TBU 120x220	120	220	155	155	750	1230	37.4	JT25	Steel	RS	JPN	I
TBU 125x235	125	235	165	155	960	1620	39.2	JT23	Steel	RS	JPN	HST
TBU 130x208	130	208	146	152	650	1330	31.9	JT11	Steel	RS	JPN	Fr
TBU 130x210	130	210	125.7	132	640	1270	21.1	CRI-2694	PA	RS	JPN	
TBU 130x220	130	220	155	155	825	1550	33.6	CRI-2676	PA	RS	JPN	I,Loco
TBU 130x220	130	220	155	155	880	1690	35	CRI-2628	Steel	RS	JPN	LRV
TBU 130x220	130	220	155	155	880	1690	37.1	FJT1	Steel	RS	JPN	Loco
TBU 130x220	130	220	150	155	765	1420	28.8	FJT2	Steel	RS	JPN	Loco
TBU 130x230	130	230	150	160	920	1670	31.8	CRI-2683	PA	RS	JPN	
TBU 130x230	130	230	150	160	920	1670	36.8	CRI-2677	PA	RS	JPN	Loco,HST
TBU 130x230	130	230	150	160	920	1670	32.7	CRI-2695	PA	RS	JPN	HST
TBU 130x230	130	230	150	160	870	1600	32.4	WJT3/KWJT3	PA	RS	JPN	HST
TBU 130x240	130	240	160	165	1040	1870	38.4	CRI-2692	PA	RS	JPN	VHST
TBU 130x245	130	245	110	111.6	590	905	28.5	CRI-2689	Steel	RS	JPN	LRV
TBU 130x250	130	250	170	140	1150	2030	42.2	CRI-2696	Steel	RS	JPN	Fr
TBU 132x208	131.8	207.96	125.7	132	640	1270	20	CRI-2684	PA	RS	JPN	LRV
TBU 132x208	131.8	207.96	146.1	152.4	640	1270	22.2	CRI-2685	PA	RS	JPN	LRV
TBU 132x208	131.8	207.96	146.1	152.4	640	1270	24.9	CRI-2687	PA	RS	JPN	
TBU 135x240	135	240	140	130	770	1270	25.5	CRI-2709	Steel	RS	JPN	LRV
TBU 144x220	144.5	220.66	149.6	157.5	665	1350	21.1	CRI-2958	PA	RS	JPN	LRV
TBU 144x220	144.5	220.66	155.6	163.5	665	1350	35.4	CRI-2960	PA	RS	JPN	
TBU 157x250	157.2	250	153.7	160	900	1820	36.2	CRI-3108	Steel	RS	JPN	
TBU 157x250	157.2	250	183	160	900	1820	35.3	CRI-3110	Steel	RS	JPN	
Class B	101.6	165.1	106.4	114.3	375	700	19.7	JT-B19	Steel	RS	AAR	Fr
Class C	119.1	195.26	136.5	142.9	575	1080	27.2	JT-C19	Steel	RS	AAR	Fr,Loco
Class D	131.8	207.96	146.1	152.4	640	1270	29.9	JT-D19	Steel	RS	AAR	Fr
Class E	144.5	220.66	155.6	163.5	665	1350	35.4	JT-E19	Steel	RS	AAR	Fr
Class F	157.2	252.41	177.8	184.2	900	1820	54.6	JT-F19	Steel	RS	AAR	Fr, LRV,Loco
Class G	177.8	276.23	181	185.7	1040	2170	63.6	JT-G19	Steel	RS	AAR	Fr,LRV

Axle Bearings

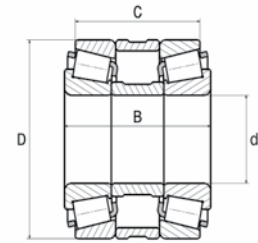
Cylindrical Roller Bearings (CRB)



Bearing type	Dimensions				Dynamic Load C	Static Load C ₀	Weight kg	Designation	Cage	Seal	Spec	Main application
	d mm	D mm	B (IR) mm	C (OR) mm								
NJ 120x215	120	215	58	58	540	630	8.4	NJ2224ES01	PA	-	EN12080	LRV
NJP 120x215	120	215	58	58	540	630	8.4	NJP2224ES01	PA	-	EN12080	LRV
NJ 120x240	120	240	80	80	600	790	17.9	9980G13S02	Steel	-	EN12080	Fr
NJP 120x240	120	240	80	80	600	790	17.9	9981G13S02	Steel	-	EN12080	Fr
NJ 130x240	130	240	80	80	530	730	15.2	9993G13S02	Steel	-	EN12080	Fr
NJP 130x240	130	240	80	80	530	730	15.2	9994G13S04	Steel	-	EN12080	Fr
NJP 130x240	130	240	86	80	530	730	15.6	9994G13S03	Steel	-	EN12080	Fr
NJ 160x270	160	270	82	73	590	890	18.0	CR 10193 G1 TT	M	-	EN12080	Fr
NJP 160x270	160	270	82	73	590	890	18.0	CR 10194 G1 TT	M	-	EN12080	Fr
NU 110x215	110	215	73	73	445	600	12.1	WU110x215	-	-	JPN	
NJ 110x215	110	215	73	73	445	600	12.5	WJ110x215	M	-	JPN	
NHJ 110x215	110	215	73	73	445	600	13.1	WUJ110x215	-	-	JPN	
NJ 120x220	120	220	73	73	470	665	12.6	WJ120x220		-	JPN	
NJP 120x220	120	220	73	73	470	665	12.6	WJP120x220		-	JPN	
NJ/NJP 120x220	120	220	182	175	850	1430	-	2R2492	M	RS	JPN	I
NJ 120x225	120	225	80	80	500	730	14.7	WJ120x225		-	JPN	
NJP 120x225	120	225	80	80	500	730	14.7	WJP120x225		-	JPN	
NU 120x240	120	240	80	80	560	750	17	WU120x240		-	JPN	
NJ 120x240	120	240	80	80	560	750	17.5	WJ120x240	PA	-	JPN	Loco
NJP 120x240	120	240	80	80	560	750	17.5	WJP120x240	PA	-	JPN	Loco
NJP 120x240	120	240	160	160	960	1500	35	WJ/WJP120x240	PA	-	JPN	Loco
NHJ 120x240	120	240	80	80	560	750	18.6	WUJ120x240		-	JPN	
NJ/NJP 130x220	130	220	124	124	805	1310	17.5	RNJ2633	PA	-	JPN	LRV
NJ/NJP 130x235	130	235	170	165	935	1570	28.8	2RNUP2653	PA	-	JPN	
NJ 130x240	130	240	80	80	495	695	16.5	WJ130x240		-	JPN	Fr
NJP 130x240	130	240	80	80	495	695	16.5	WJP130x240		-	JPN	
NJ/NJP 130x240	130	240	160	160	935	1570	30	WJ/WJP130x240	PA	-	JPN	Fr,LRV
NJ/NJP 130x240	130	240	160	160	825	1310		2R2671	M	-	JPN	LOCO
NU 130x260	130	260	86	86	710	965	21.4	WU130x260		-	JPN	
NJ 130x260	130	260	86	86	710	965	22	WJ130x260		-	JPN	
NJP 130x260	130	260	86	86	710	965	22	WJP130x260		-	JPN	
NHJ 130x260	130	260	86	86	710	965	23.4	WUJ130x260		-	JPN	
NJ 140x260	140	260	80	80	585	820	19.5	WJ140x260		-	JPN	
NJP 140x260	140	260	80	80	585	820	19.5	WJP140x260		-	JPN	
NJ 140x280	140	280	93	93	790	1080	27.8	WJ140x280		-	JPN	
NJP 140x280	140	280	93	93	790	1080	27.8	WJP140x280		-	JPN	
NJ 150x280	150	280	86	86	745	1050	24.5	WJ150x280		-	JPN	
NJP 150x280	150	280	86	86	745	1050	24.5	WJP150x280		-	JPN	
NJ 150x300	150	300	102	102	880	1230	35	WJ150x300		-	JPN	
NJP 150x300	150	300	102	102	880	1230	35	WJP150x300		-	JPN	
NJ 160x300	160	300	93	93	825	1180	30.5	WJ160x300		-	JPN	
NJP 160x300	160	300	93	93	825	1180	30.5	WJP160x300		-	JPN	
NJ 160x320	160	320	102	102	970	1360	40	WJ160x320		-	JPN	
NJP 160x320	160	320	102	102	970	1360	40	WJP160x320		-	JPN	
NJ 180x320	180	320	93	93	895	1340	33	WJ180x320		-	JPN	
NJP 180x320	180	320	93	93	895	1340	33	WJP180x320		-	JPN	
NU 180x340	180	340	100	100	1010	1480	41	WU180x340		-	JPN	
NJ 180x340	180	340	100	100	1010	1480	42.5	WJ180x340		-	JPN	
NHJ 180x340	180	340	100	100	1010	1480	44.5	WUJ180x340		-	JPN	

Axle Bearings

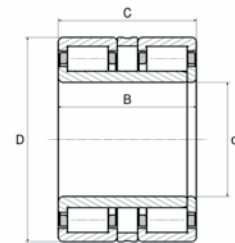
Tapered Roller Bearing Sets (TRB Set)



Bearing type	Dimensions				Dynamic Load C	Static Load C ₀	Weight kg	Designation	Cage	Seal	Spec	Main application
	d mm	D mm	B (IR) mm	C (OR) mm								
TRB SET 105x220	105/130	160/220	181	159	475	740	17.2	ENSFC40119	Steel	-	EN12080	I
TRB SET 130x219	130	219	181	155	475	740	22.5	ENSEC40403S02	Steel	-	EN12080	I
TRB SET 130x220	130	220	181	155	475	740	22.7	ENSEC10697S07	Steel	-	EN12080	I
TRB SET 140x250	140	250	197	169.8	960	1760	34.7	ENSEC42442S01	Steel	-	EN12080	Loco
TRB SET 165x290	165	290	176	144	1115	1960	39.8	ENSHM237537N513B	Steel	-	EN12080	I, loco
TRB SET 200x318	200	317.5	158.2	126.4	650	1100	41.3	ENS122978N125F	Steel	-	EN12080	I, loco

Axle Bearings

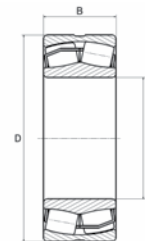
Cylindrical Roller Units (CRU)



Bearing type	Dimensions				Dynamic Load C	Static Load C ₀	Weight kg	Designation	Cage	Seal	Spec	Main application
	d mm	D mm	B (IR) mm	C (OR) mm								
CRU 110x220	110	220	180	180	790	1190	30.3	JC6	M	-	JPN	
CRU 110x235	110	235	180	160	945	1450	37	JC2	M	-	JPN	I
CRU 120x220	120	220	128.5	145	700	1120	23.5	JC36	M	RS	JPN	I
CRU 120x230	120	230	126	150	830	1290	39	JC32	M	RS	JPN	I
CRU 120x230	120	230	170	165	945	1460	30.8	JC34	M	-	JPN	HST
CRU 120x240	120	240	145	160	935	1420	51.5	JC26	M	RS	JPN	I
CRU 120x240	120	240	158	170	1020	1580	54	JC17	M	RS	JPN	I
CRU 120x240	120	240	180	160	1020	1580	36.3	JC11	M	-	JPN	I
CRU 120x240	120	240	180	176	1020	1580	37.2	JC12	Steel	-	JPN	I
CRU 125x235	125	235	170	165	945	1470	35.7	JC38	M	-	JPN	HST
CRU 130x235	130	235	170	165	935	1570	28.8	2RNUP2653	PA	-	JPN	
CRU 130x260	130	260	160	160	1080	1710	40.2	JC14	MP	-	JPN	Loco
CRU 130x260	130	260	180	160	1080	1710	42.3	JC5	M	-	JPN	Loco
CRU 130x265	130	265	166	166	1140	1700	43.4	JC37	MP	-	JPN	HST
CRU 130x270	130	270	215	210	1280	1990	55	JC29	MP	-	JPN	HST
CRU 133x280	133	280	215	210	1440	2250	61.4	JC9/133	MP	-	JPN	HST

Axle Bearings

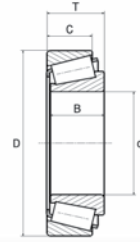
Spherical Roller Bearings (SRB)



Bearing type	Dimensions				Dynamic Load C	Static Load C ₀	Weight kg	Designation	Cage	Seal	Spec	Main application
	d mm	D mm	B (IR) mm	C (OR) mm								
SRB 80x140	80	140	33		224	287	2.1	22216EAS03	Steel	-	LRV	LRV
SRB 110x180	100	180	60.3		471	661	6.4	23220EAS01	Steel	-	LRV	I, LRV
SRB 130x220	130	220	73		655	881	11.4	AT42467S02	Steel	-	EN12080	Fr, I
SRB 130x220	130	220	73		655	881	11.4	AT42467S03	Steel	-	LRV	Fr, I

Gearbox Bearings

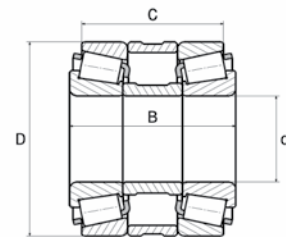
Tapered Roller Bearings (TRB)



Bearing type	Dimensions					Dynamic Load	Static Load	Weight	Designation	Cage	Spec	Main application
	d	D	T	B (IR)	C (OR)	C	C ₀	kg				
	mm	mm	mm	mm	mm	kN	kN					
TRB 85x150	85	150	45	47.22	35	248	220		7700017VB22	Steel		LRV
TRB 95x145	95	145	39	39	32.5	217	345	2.2	EC12586H100	Steel		LRV
TRB 110x180	110	180	41	41	30.163	270	430		EC10699	Steel		LRV
TRB 216x286	215.9	285.75	46.04	46.04	34.925	365	790	8.4	EC42045	Steel	NF 18831	I
TRB 216x286	216.4	285.75	46.14	49.21	34.925	370	790	8.4	LM742747/710	Steel	NF 18831	I, VHST
TRB 217x285	216.5	285	41	40	33	375	730	6.6	EC42097	Steel	NF 18831	I
TRB 220x295	220	295	46	49	34.925	365	780	8.6	EC42549S01	Steel	NF 18831	VHST
TRB 225x295	225	295	46	49	34.925	365	780	8	EC40429	Steel	NF 18831	I, LRV
TRB 267x325	266.6	324.44	29.5	33.47	25.4	209	448	5.2	EC12514	Steel	NF 18831	VHST
TRB 267x325	266.7	324.44	29.5	33.47	25.4	209	448	5.2	38886/38820	Steel	NF 18831	VHST
TRB 70x150	70	150	38	35	25	161	179	2.9	QT9/QT9A	Steel	JPN	I
TRB 70x150	70	150	38	35	25	167	194	2.9	QT9B/QT9C	Steel	JPN	I, LRV, HST
TRB 70x150	70	150	38	35	25	163	182	2.8	QT9F	Steel	JPN	I, HST
TRB 70x150	70	150	40	37	27	181	209	3.1	QT31	Steel	JPN	HST
TRB 70x150	70	150	40	37	27	172	194	3.1	QT31B	Steel	JPN	HST
TRB 75x160	75	160	40	37	27	177	198	3.5	QT7A	Steel	JPN	I
TRB 80x170	80	170	42.5	39	28	210	240	4	QT4A	Steel	JPN	LRV, I, HST
TRB 85x150	85	150	64	94	74	340	510	6.3	QT600K	Steel	JPN	I
TRB 95x200	95	200	71.5	67	55	450	585	10.1	32319	Steel	JPN	I
TRB 100x215	100	215	77.5	73	60	520	690	13	32320	Steel	JPN	I
TRB 190x280	190	280	110	110	85	595	1210	23	QT1	Steel	JPN	I
TRB 192x290	192	290	64	64	52	540	940	13.7	32038	Steel	JPN	I
TRB 195x282	193.7	282.58	50.8	47.63	36.512	355	595	9.4	QT29	Steel	JPN	I
TRB 195x280	195	280	58	60	41	410	740	10.8	QT26	Steel	JPN	I
TRB 200x280	200	280	51	48	41	370	705	9.1	QT25	Steel	JPN	I
TRB 200x290	200	290	55	60	41	400	750	11.9	QT27	Steel	JPN	HST
TRB 200x290	200	290	110	110	85	665	1440	23.4	QT13	Steel	JPN	I
TRB 202x290	202	290	58	60	41	445	805	11.9	QT34	Steel	JPN	HST
TRB 205x310	205	310	60	60	47	555	950	15.2	QT38	Steel	JPN	VHST
TRB 210x320	210	320	70	66	56	610	1060	19.1	QT5	Steel	JPN	HST
TRB 210x320	210	320	70	75	56	590	1010	19.2	QT24	Steel	JPN	HST
TRB 214x330	214	330	70	70	56	680	1200	21.1	QT19	Steel	JPN	HST
TRB 215x315	215	315	65	70	49	595	1140	17.4	QT35	Steel	JPN	HST
TRB 217x300	217	300	51	48	41	430	830	10.4	CR-4304	Steel	JPN	LRV
TRB 218x315	218	315	65	70	49	595	1140	16.8	QT32	Steel	JPN	HST

Gearbox Bearings

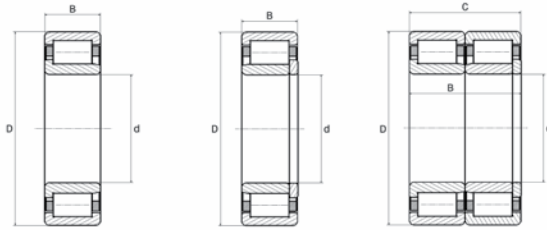
Tapered Roller Bearing Sets (TRB Set)



Bearing type	Dimensions				Dynamic Load	Static Load	Weight	Designation	Cage	Spec	Main application
	d	D	B (IR)	C (OR)	C	C ₀	kg				
	mm	mm	mm	mm	kN	kN					
TRB SET 70x127	69.85	127	73.03	73.026	295	480	3.9	ENSHM813846N810S2	Steel	NF 18831	LRV
TRB SET 216x286	216.4	285.75	98.42	93	635	1560	17.4	FC12241	Steel	NF 18831	VHST
TRB SET 267x325	266.7	325.44	76.35	70	360	960	11.8	FC12211	Steel	NF 18831	VHST

Gearbox Bearings

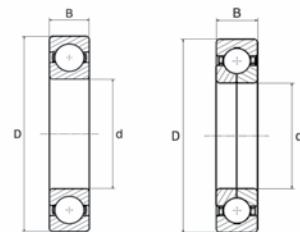
Cylindrical Roller Bearings (CRB)



Bearing type	Dimensions				Dynamic Load	Static Load	Weight	Designation	Cage	Spec	Main application
	d	D	B (IR)	C (OR)	C	C ₀	kg				
	mm	mm	mm	mm	kN	kN					
CRB 60x130	60	130	46	46	226	265	3.1	NJ2312ES01	MPA	NF18831	VHST
CRB 65x140	65	140	48	48	255	285	4.2	NU2313ES04	MPA	NF18831	VHST
CRB 65x140	65	140	48	48	255	285	4.2	NUP2313ES04	MPA	NF18831	VHST
CRB 70x125	70	125	24	24	143	141	1.3	NU214ES02	MPA	NF18831	VHST
CRB 70x125	70	125	31	31	187	198	1.7	NU2214ES01	MPA	NF18831	VHST
CRB 70x150	70	150	51	51	275	320	4.4	NU2314ES05	MPA	NF18831	VHST
CRB 70x150	70	150	51	51	275	320	4.3	NUP2314ES05 / S07	MPA	NF18831	VHST
CRB 70x150	70	150	51	51	295	350	4.3	NUP2314ES03	Steel	NF18831	VHST
CRB 75x160	75	160	37	37	285	265	3.7	NU315ES01	MPA	NF18831	LRV
CRB 75x160	75	160	55	55	315	370	5.4	NU2315ES05 / S06	MPA	NF18831	VHST, I
CRB 75x160	75	160	55	55	340	395	5.5	NU2315ES01 / S03	Steel	NF18831	VHST
CRB 75x160	75	160	55	55	315	370	5.4	NUP2315ES03 / S04	MPA	NF18831	VHST, I
CRB 75x160	75	160	55	55	340	395	5.5	NUP2315ES01	Steel	NF18831	VHST
CRB 80x140	80	140	26	26	145	168	1.7	NU216ES02	M	NF18831	LRV
CRB 80x140	80	140	33	33	189	247	2.2	NU2216ES01	MPA	NF18831	VHST
CRB 80x170	80	170	58	58	360	440	6.5	NU2316ES02	MPA	NF18831	VHST
CRB 85x150	85	150	28	28	200	201	2.1	NU217ES02 / S03	MPA	NF18831	I
CRB 90x190	90	190	43	43	320	360	6	NU318ES01	MPA	NF18831	VHST
CRB 100x180	100	180	46	46	360	470	4.8	NU2220ES02	Steel	NF18831	VHST
CRB 120x215	120	215	58	58	460	630	9.4	NU2224ES02	MPA	NF18831	
CRB 120x215	120	215	58	58	460	630	9.4	NUP2224ES01	MPA	NF18831	
CRB 120x260	120	260	55	55	530	590	14	NU324ES01 / S02	M	NF18831	
CRB 120x260	120	260	55	55	530	590	14.2	NJ324ES02	M	NF18831	
CRB 120x260	120	260	83	55	530	590	14	NU2J324ES01 / S02	M	NF18831	
CRB 220x300	220	300	38	38	360	560	7.1	NU1944S03 / S04	MPA	NF18831	VHST
CRB 220x340	220	340	56	56	615	790	18.4	NU1044S01	MPA	NF18831	LRV
CRB 230x350	230	350	45	45	620	950		N9907S06	M	NF18831	
CRB 260x320	260	320	36	36	320	620	5.8	NU2852S03 / S06	MPA	NF18831	VHST
CRB 70x125	70	125	24	24	119	137		NU214E	MPA	JPN	
CRB 90x160	90	160	30	30	174	204		NJ218E	MPA	JPN	
CRB 100x180	100	180	46	46	320	420	5.3	NJ2220E	MPA	JPN	Loco
CRB 100x180	100	180	46	46	335	445	5.3	NU2220E	MPA	JPN	
CRB 160x240	160	240	38	38	238	340	6.5	NJ1032	M	JPN	LRV
CRB 190x260	190	260	33	33	225	360		NJ1938	MPA	JPN	
CRB 200x280	200	280	38	38	259	405	7.5	NJ1940	MPA	JPN	VHST
CRB 220x300	220	300	38	38	275	455	8.1	NJ1944	MPA	JPN	VHST
CRB 240x320	240	320	38	38	285	485		NJ1948	MPA	JPN	
CRB 340x460	340	460	56	56	590	1040		NU1968	MPA	JPN	Loc
CRB 380x480	380	480	46	46	490	960	17.8	NJ1876	MPA	JPN	Loc

Gearbox Bearings

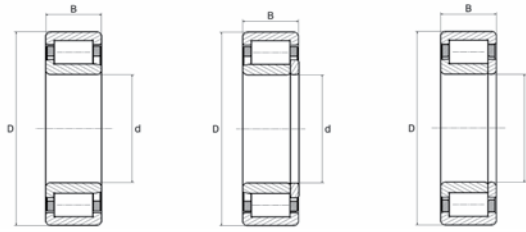
Ball Bearings (BB - QJ)



Bearing type	Dimensions			Dynamic Load	Static Load	Weight	Designation	Cage	Spec	Main application
	d	D	B (IR)	C	C ₀	kg				
	mm	mm	mm	kN	kN					
BB 65x160	65	160	37	114	79	3.6	AB43495S01 / 6413	M	NF18831	LRV
QJ 70x125	70	125	24	124	114	1.3	QJ214S01	MPA	NF18831	VHST
QJ 75x130	75	130	25	129	123	1.5	QJ215S01	MPA	NF18831	VHST
QJ 90x160	90	160	30	191	206	2.9	QJ218S01	MPA	NF18831	VHST
QJ 70x125	70	125	24	101	184		QJ214	MPA	JPN	
BB 220x340	220	340	56	241	289	18.9	6044	M	JPN	Loco

Traction Motor Bearings

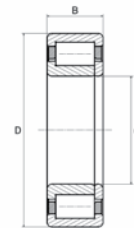
Cylindrical Roller Bearings (CRB)
Non Insulated



Bearing type	Dimensions			Dynamic Load	Static Load	Weight	Designation	Cage	Spec	Main application
	d mm	D mm	B (IR) mm	C kN	C ₀ kN	kg				
CRB 80x140	80	140	26	145	168	1.7	NU216ES02	M	NF18831	LRV
CRB 100x180	100	180	46	360	470	4.8	NU2220ES02	Steel	NF18831	VHST
CRB 100x215	100	215	47	299	355		NH320		JPN	Loco
CRB 120x260	120	260	55	530	590	14	NU324ES01	M	NF18831	I
CRB 150x320	150	320	65	665	805		NU330		JPN	Loco
CRB 230x350	230	350	45	620	950		N9907S06	M	NF18831	
CRB 60x130	60	130	31	124	126	2.1	NU312	M	JPN	LRV
CRB 60x130	60	130	31	150	157	2.1	NU312E	MPA	JPN	
CRB 70x125	70	125	24	83.5	95	1.2	NU214	M	JPN	LRV
CRB 70x125	70	125	24	108	121		NU214E	M	JPN	
CRB 70x150	70	150	35	158	168		NU314	M	JPN	I, LRV
CRB 75x160	75	160	37	190	205	3.6	NU315	M	JPN	LRV
CRB 80x140	80	140	26	133	158		NU216E	MPA	JPN	
CRB 80x140	80	140	26	128	149		NU216E	M	JPN	Loco
CRB 85x150	85	150	28	167	199	2.1	NU217E	MPA	JPN	I
CRB 85x150	85	150	28	152	175		NU217E	M	JPN	
CRB 85x150	85	150	28	167	199	2.2	NUP217E	MPA	JPN	I
CRB 90x190	90	190	43	315	355	6.7	NH318E	MPA	JPN	Loco
CRB 90x190	90	190	43	298	325		NH318E	M	JPN	Loco
CRB 95x170	95	170	32	166	195	3.2	NU219	M	JPN	LRV
CRB 95x170	95	170	32	190	218	3.2	NU219E	M	JPN	
CRB 100x180	100	180	46	335	445	5.3	NU2220E	MPA	JPN	
CRB 100x215	100	215	47	335	360		NU320E	M	JPN	HST
CRB 100x215	100	215	47	299	335	9.5	NH320	M	JPN	Loco
CRB 100x215	100	215	47	380	425	9.5	NH320E	MPA	JPN	Loco
CRB 110x240	110	240	50	400	450		NH322E	M	JPN	Loco
CRB 130x280	130	280	58	630	795		NU326	M	JPN	loco
CRB 130x280	130	280	58	585	685	18	NU326E	MPA	JPN	loco
CRB 130x280	130	280	58	550	630	18	NU326E	M	JPN	loco
CRB 150x320	150	320	65	800	985		NU330	M	JPN	Loco
CRB 150x320	150	320	65	715	855	26	NU330E	MPA	JPN	Loco
CRB 150x320	150	320	65	715	855		NU330E	M	JPN	Loco
CRB 160x340	160	340	68	810	980	29.5	NU332E	MPA	JPN	Loco
CRB 160x340	160	340	68	810	980	31	NU332E	M	JPN	Loco

Traction Motor Bearings

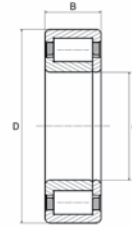
Cylindrical Roller Bearings (CRB)
PPS Insulated



Bearing type	Dimensions			Dynamic Load	Static Load	Weight	Designation	Cage	Spec	Main application
	d mm	D mm	B (IR) mm	C kN	C ₀ kN	kg				
CRB 20x90	50	90	20	50.5	54.5	0.5	2TS2-7MP-NU210	M	JPN	I
CRB 55x120	55	120	29	111	111		2TS2-7MP-NU311	M	JPN	
CRB 70x125	70	125	24	83.5	95		2TS2-7MP-NU214	M	JPN	I, LRV
CRB 70x150	70	150	35	158	168	2.7	2TS2-7MP-NU314	M	JPN	I, LRV
CRB 75x130	75	130	25	101	118	1.2	2TS2-7MP-NU215	M	JPN	LRV
CRB 75x130	75	130	25	101	118	1.2	2TS2-7MP-NU215	MPA	JPN	I
CRB 75x160	75	160	37	190	205		2TS2-7MP-NU315	M	JPN	I, LRV
CRB 80x170	80	170	39	201	223		2TS2-7MP-NU316	M	JPN	I
CRB 85x150	85	150	28	126	149		2TS2-7MP-NU217	M	JPN	I
CRB 95x170	95	170	32	166	195	2.9	2TS2-7MP-NU219	M	JPN	I
CRB 100x180	100	180	34	183	217		2TS2-7MP-NJ220	M	JPN	

Traction Motor Bearings

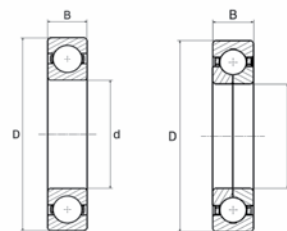
Cylindrical Roller Bearings (CRB)
Ceramic Insulated



Bearing type	Dimensions			Dynamic Load C	Static Load C ₀	Weight kg	Designation	Cage	Spec	Main application
	d mm	D mm	B (IR) mm							
CRB 70x125	70	125	24	83.5	95		2TS2-7MC-NU214	MPA	JPN	
CRB 70x125	70	125	24	83.5	95	1.2	2TS2-7MC-NU214	M	JPN	HST,VHST
CRB 70x125	70	125	24	83.5	95		2TS2-7MC2-NU214	M	JPN	LRV
CRB 70x125	70	125	24	119	137		2TS2-7MC2-NU214E	MPA	JPN	
CRB 70x125	70	125	24	83.5	95	1.3	2TS2-7MC3-NU214	M	JPN	VHST
CRB 70x125	70	125	24	119	137		2TS2-7MC3-NU214E	MPA	JPN	VHST
CRB 70x150	70	150	35	158	168		2TS2-7MC-NU314	M	JPN	I, LRV
CRB 70x150	70	150	35	181	188		2TS2-7MC2-NU314E	M	JPN	Loco
CRB 70x150	70	150	35	158	168		2TS2-7MC3-NU314	MPA	JPN	
CRB 75x130	75	130	25	130	156	1.4	2TS2-7MC3-NU215E	MPA	JPN	VHST
CRB 90x160	90	160	30	168	196		2TS2-7MC-NU218E	M	JPN	
CRB 80x170	80	170	39	201	223	4.1	2TS2-7MC-NU316	M	JPN	HST
CRB 90x190	90	190	55	240	265	6.8	2TS2-7MC-NH318	M	JPN	loco
CRB 90x190	90	190	55	298	325		2TS2-7MC2-NH318E	M	JPN	
CRB 90x190	90	190	55	315	355	6.7	2TS2-7MC3-NH318E	MPA	JPN	loco
CRB 95x170	95	170	32	190	218		2TS2-7MC3-NU219E	M	JPN	
CRB 95x170	95	170	32	211	249		2TS2-7MC3-NU219E	MPA	JPN	
CRB 100x180	100	180	46	335	445	5.3	2TS2-7MC3-6E-NU2220	MPA	JPN	
CRB 100x215	100	215	47	380	425	8.6	2TS2-7MC3-NU320E	MPA	JPN	Loco
CRB 100x215	100	215	60	380	425	9.5	2TS2-7MC3-NH320E	MPA	JPN	Loco
CRB 110x200	110	200	38	293	365	5.4	2TS2-7MC3-NU222E	MPA	JPN	Loco
CRB 110x240	110	240	50	380	435		2TS2-7MC-NH322	M	JPN	Fr
CRB 130x280	130	280	58	560	665	17.9	2TS2-7MC-NU326	M	JPN	Loco
CRB 150x320	150	320	65	715	855	26	2TS2-7MC3-NU330E	MPA	JPN	Loco
CRB 180x320	180	320	52	600	805	18.2	2TS2-7MC3-NU236E	MPA	JPN	Loco
CRB 260x320	260	320	28	197	375		2TS2-7MC3-NU1852	MPA	JPN	

Traction Motor Bearings

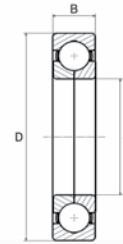
Ball Bearings (BB - QJ)
Non Insulated



Bearing type	Dimensions			Dynamic Load C	Static Load C ₀	Weight kg	Designation	Cage	Spec	Main application
	d mm	D mm	B (IR) mm							
BB 70x125	70	125	24	62	44		AB42916S01 (6214)	M	NF18831	I
QJ 75x130	75	130	25	129	123	1.5	QJ215S01	MPA	NF18831	VHST
BB 55x120	55	120	29	71.5	45		6311	Steel	JPN	I, LRV
BB 60x130	60	130	31	82	52		6312	Steel	JPN	LRV
BB 65x140	65	140	33	92.5	60		6313	Steel	JPN	LRV
BB 65x160	65	160	37	111	72.5		6413	Steel	JPN	LRV
BB 70x150	70	150	35	104	68		6314	Steel	JPN	I
QJ 75x130	75	130	25	110	212		QJ215	MPA	JPN	LRV
BB 85x150	85	150	28	83.5	64		6217	Steel	JPN	I
BB 90x160	90	160	30	96	71.5		6218	M	JPN	
BB 95x170	95	170	32	109	82		6219	Steel	JPN	I

Traction Motor Bearings

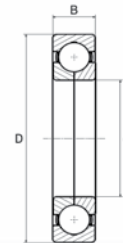
Ball Bearings (BB)
PPS Insulated



Bearing type	Dimensions			Dynamic Load	Static Load	Weight	Designation	Cage	Spec	Main application
	d mm	D mm	B (IR) mm	C kN	C ₀ kN	kg				
BB 40x90	40	90	23	40.5	24		2TS2-7MP-6308	Steel	JPN	LRV
BB 50x110	50	110	27	62	38.5		2TS2-7MP-6310	Steel	JPN	I, LRV
BB 55x120	55	120	29	71.5	45		2TS2-7MP-6311	Steel	JPN	I, LRV
BB 60x130	60	130	31	82	52		2TS2-7MP-6312	Steel	JPN	LRV
BB 70x150	70	150	35	104	68		2TS2-7MP-6314	Steel	JPN	I, LRV
BB 75x130	75	130	25	66	49.5		2TS2-7MP-6215	Steel	JPN	
BB 75x130	75	130	25	66	49.5		2TS2-7MP-6215	M	JPN	
BB 80x125	80	125	22	47.5	40		2TS2-7MP-6016	Steel	JPN	
BB 85x150	85	150	28	83.5	64		2TS2-7MP-6217	Steel	JPN	
BB 95x170	95	170	32	109	82		2TS2-7MP-6219	Steel	JPN	I,LRV

Traction Motor Bearings

Ball Bearings (BB - QJ)
Ceramic Insulated



Bearing type	Dimensions			Dynamic Load	Static Load	Weight	Designation	Cage	Spec	Main application
	d mm	D mm	B (IR) mm	C kN	C ₀ kN	kg				
BB 55x120	55	120	29	71.5	45		2TS2-7MC-6311	Steel	JPN	I,HST,VHST
BB 55x120	55	120	29	71.5	45		2TS2-7MC2-6311	Steel	JPN	
BB 55x120	55	120	29	71.5	45		2TS2-7MC3-6311	Steel	JPN	I,HST,VHST
BB 60x130	60	130	31	82	52		2TS2-7MC2-6312	Steel	JPN	
BB 60x130	60	130	31	82	52		2TS2-7MC3-6312	M	JPN	
BB 60x130	60	130	31	82	52		2TS2-7MC3-6312	Steel	JPN	
BB 75x130	75	130	25	66	49.5		2TS2-7MC2-6215	M	JPN	
BB 75x130	75	130	25	66	49.5		2TS2-7MC3-6215	Steel	JPN	
BB 80x125	80	125	22	47.5	40		2TS2-7MC2-6016	M	JPN	
BB 80x125	80	125	22	47.5	40		2TS2-7MC3-6016	Steel	JPN	
BB 80x125	80	125	22	47.5	40		2TS2-7MC3-6016	M	JPN	
QJ 90x190	90	190	43	171	297		2TS2-7MC3-QJ318	M	JPN	Loco
BB 95x170	95	170	32	109	82		2TS2-7MC3-6219	M	JPN	
BB 105x225	105	225	49	184	153		2TS2-7MC3-6321	Steel	JPN	
BB 130x280	130	280	58	229	214		2TS2-7MC3-6326	Steel	JPN	Loco

Engineering



Railway bearings that have a long life is the daily target of the NTN-SNR application engineers. From calculation, lubrication & design to simulation, prototyping & testing, they are basing their work on the decades of experience in NTN-SNR railway engineering.

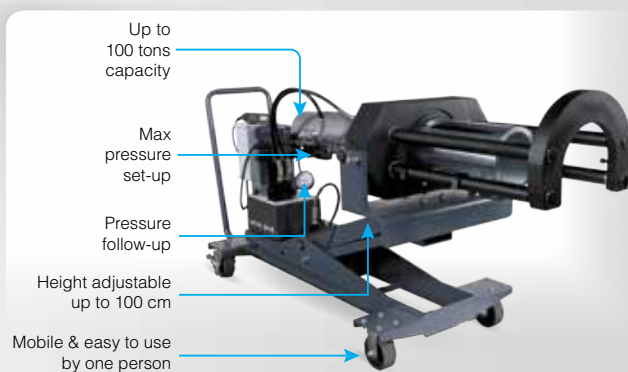
Training



By providing 100% customized trainings, NTN-SNR ensure added value sessions and full trainee satisfaction & motivation. Trainings are mostly organized at customer facilities for practical maintenance topics or at NTN-SNR premises for engineering topics.

Tooling

PUSH-PULLER 100 tons to INSTALL & REMOVE Taper roller journal bearings



Technical Supports



Either to solve technical issues or to optimize maintenance efficiency, NTN-SNR railway experts ensure proper bearing installation & removal and provide maintenance teams with all recommendations to implement the right processes. NTN-SNR can also provide maintenance tools to guarantee a professional job.

Expertise

With decades of experience in the diagnosis of railways bearings, NTN-SNR provides failure modes analysis and recommendations to solve them. In depth testing is carried out at NTN-SNR facilities.

Reconditioning

To optimize the Total Cost of Ownership, railway bearings are designed more & more to operate for millions of kilometers before being changed. In their maintenance procedure, operators must disassemble the bearing and ensure that it can remain in operation until targeted overhaul mileage is reached. NTN-SNR can provide, to the operator, bearings reconditioning based on the experience of a railway bearing manufacturer.

Capacity	100 tons (push)/68 tons (pull)
Max. stroke length	398 mm
Max. diameter	178 mm*
Min. diameter	120 mm*
Max. shaft length	285 mm*
Operating main cylinder	Electro-hydraulic pump. 400V - 16A 50 Hz, with remote control
Operating height adjustment	With foot pump
Min. centerline height relative to floor	375 mm
Max. centerline height relative to floor	1050 mm
Manometer	700 bar/100 tons
Weight	540 kg

* Depends on accessories

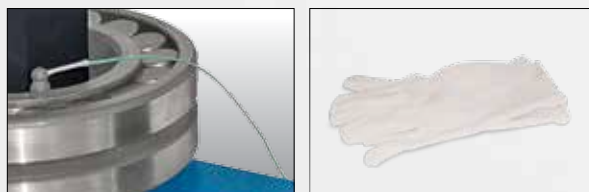
Tooling

FAST THERM to install inner ring of cylindrical roller bearings



TECHNICAL DATA	FAST THERM 20	FAST THERM 35
ELECTRICITY		
Max. power consumption	3,6 kVA	3,6 kVA
Max. voltage/current	230 V / 16 A	230 V / 16 A
Frequency	50 Hz	50 Hz
Other voltages on request	110 V to 240 V	110 V to 240 V
Other frequencies on request	60 Hz	60 Hz
CONTROL		
Temperature adjustment	+ 50°C to + 240°C	+ 50°C to + 240°C
Heating time adjustment / Max. temperature.	no	0-99 min + 240°C
Temperature control precision	+/- 2°C	+/- 2°C
Automatic demagnetising	Automatic	Automatic
APPLIANCE DESIGN		
Dimensions (L x W x H) mm	345 x 200 x 240	420 x 260 x 380
Space between pivots A and B	120 x 100 mm	180 x 180 mm
Weight (without yokes)	17 kg (with yokes)	31 kg
PARTS TO BE HEATED		
Maximum weight (°)	40 kg	70 kg
Min. bore dia. (°)	20 mm	20 mm
Max. bore dia.	280 mm	410 mm
Max. width	120 mm	180 mm

(°): For bearings. For other parts; please contact us.
(°): With min. yoke size



MAINTENANCE TOOL FOR BEARING INSPECTION

When the bearing inspection is part of the maintenance process, it is necessary to take particular care of the journal bearing during its disassembly and reassembly, especially when it is sealed.

Based on customer bearing design, NTN-SNR proposes the right tools to ensure the bearing will remain safe after the inspection procedure.

Mid-frequency heater to remove inner ring of cylindrical roller bearing



Mid Frequency technology

FAST	Less than 5 mins. to remove the inner ring
SAFE	Shaft & inner ring do not heat
POWERFULL	12.5kVA
BEARING SIZE	Coil size is adapted to the bearing

TRACK-LUBE: designed for wear reduction



The TRACK-LUBE system has been created to lubricate the rail curve and reduce wear on the wheel as well as on the rail itself.

The TRACK-LUBE modular system consists on a single pump station (50kg reservoir) capable of lubricating up to 12 different curves of the rail independently. Each system can have its own vibration sensor to detect the train's position.

The TRACK-LUBE system has an advanced control system that uses a network connection that communicates with a remote laptop.

To reduce the wear created from the inside of the train wheel flange on the rail, a small system completed with a brush to apply lubricant to the profile of the wheel flange has been developed.

With you, all along the Life Cycle of your train

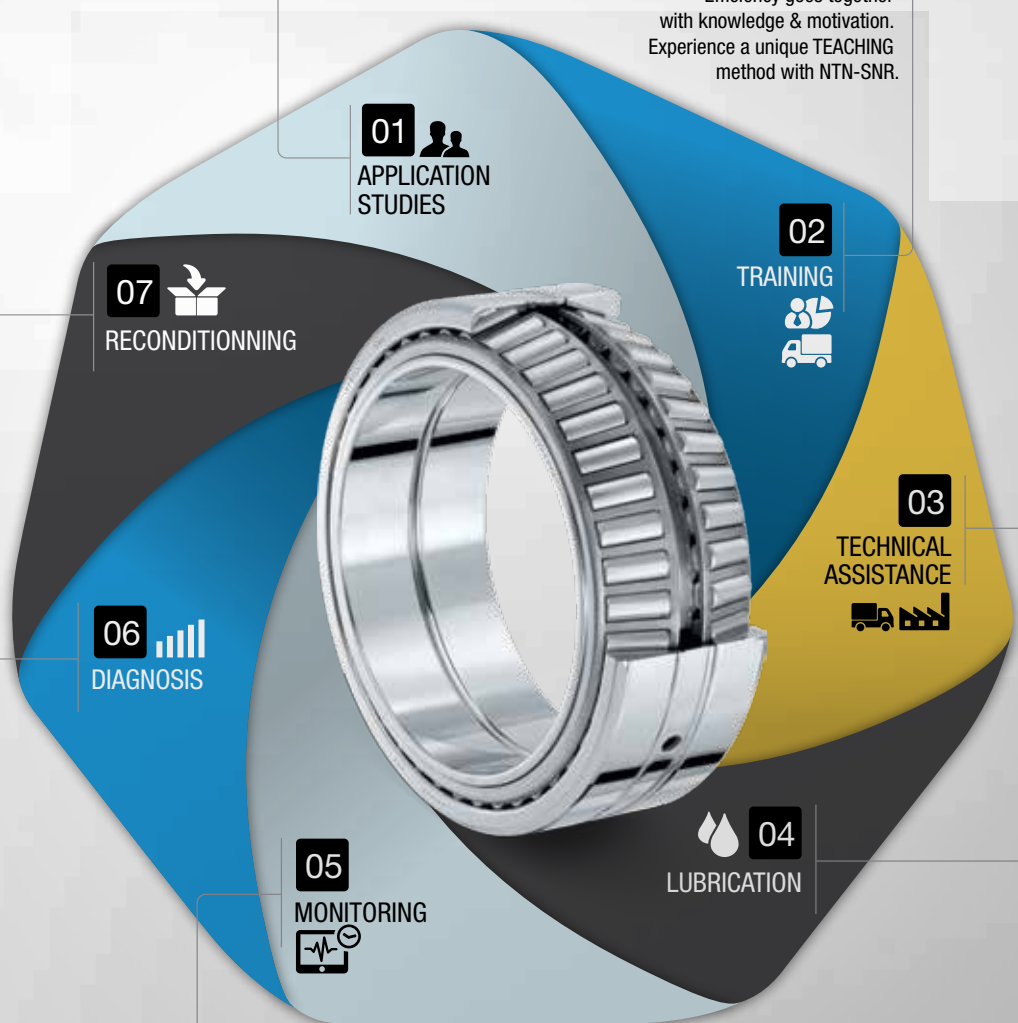
Our bearings feature the latest technology that improve their performance and life duration. The solutions implemented by NTN-SNR aim to reduce the Total Cost of Ownership (TCO) and the Life Cycle Cost (LCC) of your application.

Save time & money and be environmental friendly by re-using your bearings.

Choose appropriate BEARINGS & LUBRICATION SOLUTIONS. With the support of an NTN-SNR application engineer.

Need to maintain BEARINGS: Our experts are WITH YOU on your shop floor to solve your issues.

Efficiency goes together with knowledge & motivation. Experience a unique TEACHING method with NTN-SNR.



Improve your maintenance organization. The bearing can inform you about the status of your equipment.

Detect bearing failures, with the NTN-SNR Condition Monitoring System Available for retrofitting.

Select the best bearing GREASES in your applications & LUBRICATION SYSTEMS to ensure appropriate lubrication of wheels and rails.

IRIS
Certification



contatto
contatto

お問い合わせ

contacto
contacto

contact
contact

www.ntn-snr.com

الاتصال ب

联系我们
Lian xi wǒ men

Kontakt
Kontakt

contato
contato

AUTOMOTIVE / AEROSPACE / INDUSTRY

© GILNEUFDESIGN - DOC1_RAIL_CAT2.GBa-SAP 318743 - Document non contractuel - NTN-SNR copyright international - 0714 - Photos: NTN-SNR - PichonStop - istockphoto - Fotolia - Shutterstock - Pedro Studio Photo - Roger Aubin - agence-future.com