

# BEARINGS AND COMPONENTS



**I S B**<sup>®</sup>  
BEARINGS AND COMPONENTS  
ITALIA SPECIALTY BEARINGS

**KOPRO**<sup>®</sup>  
Rings

**NBS**<sup>®</sup>

# Introduction

**Chain & Drives was established to become a leader in Power Transmission. One of our core industries is the Industrial Bearings & Components Sector.**

We have experience in the Bearings & Components industry and now supply a range of high quality products manufactured from a market leading Italian brand, ISB Bearings and Components.

Our Friendly trained team offer complimentary site visits to inspect and measure up your bearing requirements. We are able to provide products from stock or as requested by our customers.

Our team also offer on-site bearing analysis and reporting and can identify possible causes of failure and can assist in the selection of suitable components and provide engineering data.

## Industry Sectors

We have many years of experience in all industry sectors across Australasia.

Our knowledge and specialised product development provides you with a level of service and proven results that you can rely on to achieve greater productivity and results.

Through developing these processes we have an improved understanding of your business and application requirements.

With high level partnership and understanding we offer solutions that are efficient, competitive and beneficial to businesses.

Our partnership with clients across these sectors allows us to share a wide range of knowledge gained from previous experiences.

Our sector services and knowledge includes Design, Supply, Installation and Maintenance services.

- Fork Lift
- Agriculture
- Building & Construction
- Conveyor Drives
- Live Stock
- Factory Automation
- Mining & Heavy Industry
- Plastics & Chemicals
- Renewable Energy
- Waste Water Treatment



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All ISB Bearings Catalogues Available on our Website Now!



## ISB Italia Speciality Bearings

Chain & Drives is proud to supply the range of ISB Italia Specialty Bearings and Components. This new and exciting range combines nearly 100 years of precision engineering with the high quality supply and service of Chain & Drives' experienced team.

A wide range of quality products are always on stock and with a just-in-time delivery service. These are the key factors which make ISB a market leader able to fully satisfy the technical and commercial needs of the best distributors, the big manufacturers as well as the maintenance centres.

The ISB brand is synonymous with a range of high-quality products. Production is assigned to a pool of manufacturers that have successfully put to use decades of experience in this sector.

Inside the manufacturing facilities, high-tech, modern machinery is used to monitor all stages of bush production, thereby guaranteeing the precision and quality of finished products.

Manufacturing facilities include technical departments responsible for ensuring the continuous improvement and high-quality standard of products.





# Product Overview

Chain & Drives distribute and stock a large range of quality ISB Italia Specialty Bearings and Components.



**BALL TYPE BEARINGS**



**ROLLER TYPE BEARINGS**



**BUSHES**



**BEARING ACCESSORIES**



**SLEWING BEARINGS**



**FREEWHEELS**



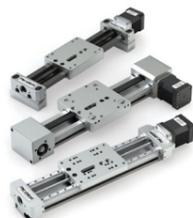
**HIGH TEMPERATURE BEARINGS**



**LOW NOISE BEARINGS**



**BEARING HOUSING & UNITS**



**LINEAR SYSTEMS**



**KOPRO RINGS**



**STAINLESS STEEL PRODUCTS**

# Bearings & Components

<p>600, 600F, R1600, 3000, 160, 161, 60, 618, 619, 62, 622, 623, 63, 64, 630</p> <p>F - MF</p> <p>ZZ</p> <p>2RS - 2RZ</p> <p>N - NR</p> <p>42, 43</p> <p>62 2RS BOMB</p>	Radial deep groove ball bearings
<p>72B, 73B, 70</p> <p>32B, 33B</p> <p>32B ZZ, 33B ZZ</p> <p>32B 2RS, 33B 2RS</p>	Angular contact ball bearings
<p>QJ2, QJ3, Q51</p>	Four-point contact ball bearings
<p>12, 13, 22, 23</p> <p>22 2RS, 23 2RS</p> <p>12K, 13K, 22K, 23K</p> <p>22K 2RS</p> <p>112 - 113</p>	Self-aligning ball bearings
<p>NU 10, 19, 2, 22, 23, 3, 4</p> <p>NJ2, 22, 23, 3, 4</p> <p>NUP2, 22, 23, 3, 4</p> <p>N2, 3, 4</p> <p>HJ10, 2, 22, 23, 3, 4</p>	Cylindrical roller bearings
<p>NNU 30, 39, 40, 41, 48</p> <p>NN 30</p> <p>FC, FCD, FCDF</p>	Cylindrical roller bearings, double/four row
<p>302, 303, 306, 313, 320, 322, 323, 329, 330, 331, 332</p> <p>302, 306, 313, 314, 322, 323, 329, 330, 332, J/DF</p>	Tapered roller bearings, metric and inch series
<p>213, 222, 223, 230, 231, 232, 233, 239, 240, 241</p> <p>213K, 222K, 223K, 230K, 231K, 232K, 233K, 239K, 240K, 241K</p> <p>2RS</p> <p>2RSK</p> <p>VA</p> <p>KVA</p>	Spherical roller bearing
<p>511, 512, 513, 514</p> <p>532, 533, 534</p> <p>522, 523</p>	Axial bearings
<p>234</p>	Angular contact thrust ball bearing
<p>292E, 293E, 294E</p>	Self-aligning thrust roller bearings
<p>350, 351, 352, 353</p>	Tapered roller thrust bearing, double direction
<p>WB, EN</p>	Water pump bearings
<p>H2, H23, H3, H30, H31, H32, OH</p> <p>AH23, AH3, AH30, AH31, AH32, AHX, AOH</p> <p>KM, HM, KML, HME</p> <p>MB</p> <p>MS</p> <p>GTN, GTP</p> <p>YSF</p> <p>YSA</p> <p>YSR</p> <p>YSK</p>	Adapter sleeves and other items

# Spherical Plain Bearings

Designation	Type - sliding coupling	∅ inner mm	Designation	Type - sliding coupling	∅ inner mm	Designation	Type - sliding coupling	∅ inner mm
GE..E/ES	Spherical plain radial bearings, without seals - steel/steel	4-1.000	GEK..XS 2RS	Spherical plain radial bearings with two-pieces, and seals - steel/steel	25-60	TAPR.CE	Rod ends for hydraulic components - steel/steel	12-200
GE..ES 2RS	Spherical plain radial bearings, with seals - steel/steel	15-300	SSR	Spherical plain bearings - steel/bronze	5-30	B-BS	Ball joints rod ends with shank, with spring clamping - steel/steel	8-19
GEG..E/ES	Spherical plain radial bearings, without seals - steel/steel	4-280	GE..BBL GE..BBH	Ball joint with integral double-row ball bearing - steel/steel	8-50 6-30	A-AS	Ball joints rod ends with shank, with safety ring - steel/steel	8-19
GEG..ES 2RS	Spherical plain radial bearings, with seals - steel/steel	15-280	GE..RB	Ball joint with integral roller bearing - steel/steel	12-30	SQS	Self-aligning spherical plain bearings - steel/steel	16-80/100
GE..SB	Spherical plain radial bearings, without seals - steel/bronze	5-30	SQD..C	Ball joint rod ends with one shank - steel with sintered bronze and PTFE	5-16	FK	Standard clevises with threaded hole (DIN 71752 - ISO 8140 CETOP)	4-50
GE..SP	Spherical plain radial bearings, without seals - steel/PTFE	5-30	SQ..C RS	Winding shape ball joint rod ends - steel with sintered bronze and PTFE	5-22	FK..CN	Clevises with threaded hole ex CNomo	8-25
GE..CP	Spherical plain radial bearings, (heavy duty) - hard chromium/PTFE	100-630	SQZ..C RS	Straight ball joint rod ends - steel with sintered bronze and PTFE	5-22	FT	Clevises with male thread (DIN 71752 - ISO 8140 CETOP)	6-20
GEEW..ES	Spherical plain radial bearings with wide inner ring, without seals - steel/steel	12-320	SL..E/ES SA..E/ES	Rod ends, without seals - steel/steel	5-80 5-80	CL	Spring pins for clevises	4-20
GEEM..ES 2RS	Spherical plain radial bearings with wide inner ring and seals - steel/steel	17-80	SL..ES 2RS SA..ES 2RS	Rod ends, with seals - steel/steel	15-80 20-80	CL..CN	Spring pins for ex CNomo clevises	8-20
GE..C	Maintenance-free spherical plain radial bearings, without seals - hard chromium/PTFE	4-30	SL..C SA..C	Rod ends, without seals (maintenance-free) - steel with sintered bronze and PTFE	5-30 5-30	PC	Pins with cylindrical head	4-25
GE..ET 2RS	Maintenance-free spherical plain radial bearings, with seals - hard chromium/PTFE	17-300	SL..C 2RS SA..C 2RS	Rod ends, with seals (maintenance-free) - steel with sintered bronze and PTFE	35-80 35-80	PCB	Pins with barrel head (spherical)	16-50
GEG..C	Maintenance-free spherical plain radial bearings, without seals - hard chromium/PTFE	4-30	TSF TSM	Rod ends - steel/bronze	5-30 5-30	PM	Pins with cylindrical head and spring	4-25
GEG..ET 2RS	Maintenance-free spherical plain radial bearings, with seals - hard chromium/PTFE	30-280	TSF..C TSM..C	Rod ends (maintenance-free) - steel/PTFE	5-50	PMB	Pins with barrel head (spherical) and spring	14-25
GAC..S	Angular contact spherical plain bearings - steel/steel	25-200	TSFR TSM..R	Rod ends (maintenance-free reduced series) - steel/PTFE	3-30 3-30	PS	Pins for clevises	5-35
GAC..CP	Angular contact spherical plain bearings - hard chromium/PTFE	25-200	TSF..BB TSM..BB	Heavy-duty rod ends with integral double-row ball bearing - steel/steel	6-50 6-50	PS..CN	Pins for ex CNomo clevises	8-25
GAC..SP	Angular contact spherical plain bearings - steel/PTFE	25-200	TSF..BB-O TSM..BB-O	Heavy-duty rod ends with integral double-row ball bearing - steel/steel	6-30 6-30	PC-R	Washers for pins	4,3-25
GX..S	Spherical plain thrust bearings - steel/steel	10-200	TSF..BB-E TSM..BB-E	Heavy-duty rod ends with integral double-row ball bearing with edge - steel/steel	10-20 5-20	PC-C	Split pins for pins	1,5-9,2
GX..CP	Spherical plain thrust bearings - hard chromium/PTFE	10-360	TSF..RB TSM..RB	Heavy-duty rod ends with integral roller bearing - steel/steel	12-50 12-50	PMS	Safety clips	4-16
GX..SP	Spherical plain thrust bearings - steel/PTFE	10-200	T.A.C.	Rod ends for hydraulic components - steel/steel	10-80	PMK	Safety clips	4-20/25
GEZ..ES	Spherical plain radial bearings, without seals (inches sizes) - steel/steel	12,7-152,4	TAPR.N TAPR.U	Rod ends for hydraulic components - steel/steel	20-120 20-120	SE	Snap rings	7,4-32,2
GEZ..ES 2RS	Spherical plain radial bearings, with seals (inches sizes) - steel/steel	25,4-152,4	T.P.N. T.P.N.CE	Rod ends for hydraulic components - steel/steel	20-120 20-125			
GE..XS K	Spherical plain radial bearings with two-pieces - steel/steel	12-150	TAPR.DO	Rod ends for hydraulic components - steel/steel	12-100			

# Self-Aligning Bearing Units

Type	∅ inner mm	Type	∅ inner mm	Type	∅ inner mm	Type	∅ inner mm
(UCP2.) Bearing units	12-90	(UKT2.) Take-up with adapter sleeve	20-75	(SBFL2.) Oval flange unit	12-35	(SN 300) Plummer blocks	35-160
(HCP2.) Bearing units	20-75	(UCTX.) Medium duty take-up units	25-85	(ST.) Agricultural bearing units	38,86,95,562 32,0° 43,1	(SD 3000) Plummer blocks	150-360
(UCLP2.) Reduced height bearing units	12-60	(UCT3.) Heavy duty take-up units	25-140	(BPP-SA2.. - BPP-SB2.) Pressed steel bearing units	12-40	(SD 3100) Plummer blocks	150-380
(UKP2.) Bearing units with adapter sleeve	20-80	(UCT2.. - UCTX.) Stretch-skid for UCT	20-85	(BPF-SA2.. - BPF-SB2.) Pressed steel flange units	12-40	(UCP2.) Plastic bearing units	12-60
(UCPX.) Bearing units	25-100	(UC2.) Cylindrical cartridge units	12-65	(BPF-SA2.. - BPF-SB2.) Pressed steel oval flange units	12-40	(UCF2.) Plastic square flange units	12-60
(UCP3.) Heavy duty bearing units	25-140	(HCC2.) Cylindrical cartridge units	20-60	(BPF-SA2.. - BPF-SB2.) Pressed steel triangular flange	12-40	(UCFL2.) Plastic oval flange unit	12-60
(UCF2.) Square flange unit	12-90	(UKC2.) Cylindrical cartridge units with adapter sleeve	20-60	(UC2.) Sealed ball bearings with set screws	12-90	(UCT2.) Plastic take-up units	12-60
(HCF2.) Square flange unit	20-75	(UCCK.) Medium duty cylindrical cartridge units	25-60	(HC2.) Sealed ball bearings with eccentric collar locking	20-75	(UCF2.) Plastic hanger bearing units	12-60
(UKF2.) Square flange units with adapter sleeve	20-80	(UCPH2.) Pedestal bearing units	12-80	(UC.) Medium duty sealed ball bearings with set screws	25-100	(UCPA2.) Plastic tapp base bearing units	12-60
(UCFX2.) Medium duty square flange unit	25-85	(UCPH2.) Pedestal bearing units with adapter sleeve	20-45	(UC3.) Heavy duty sealed ball bearings with set screws	25-140	(UCFB2.) Plastic flange bracket units	12-60
(UCF3.) Heavy duty square flange unit	25-140	(UCPA2.) Tapp base bearing units	12-65	(UK2.) Sealed ball bearings with adapter sleeve	25-90	Covers plastic and steel	12-50
(UCF3.) Heavy duty square flange unit	25-100	(UKPA2.) Tapp base bearing units with adapter sleeve	20-45	(UKX.) Medium series sealed ball bearings with adapter sleeve	25-90	(UC2.) Polymeric ball bearings	10-40
(UCF2.) Flange cartridge units	12-90	(UCFA2.) Adjustable flange unit	12-65	(UK3.) Heavy series sealed ball bearings with adapter sleeve	25-90	(SA2.) Pre-greased sealed polymeric ball bearings 2RS	20-50
(HCF2.) Flange cartridge units	12-75	(UKFA2.) Adjustable flange units with adapter sleeve	20-45	(SER2.) Sealed ball bearings with locating snap ring	20-60	(SB2.) Pre-greased sealed polymeric ball bearings 2RS	20-50
(UKF2.) Flange cartridge units with adapter sleeve	20-80	(UCFB2.) Flange bracket units	12-65	(SA2.) Sealed ball bearings with eccentric collar locking	12-60	Fixed-side support unit types (BK..)	10-40
(UCFX.) Medium duty flange cartridge units	25-100	(UKFB2.) Flange bracket units with adapter sleeve	20-45	(SB-RB2.) Sealed ball bearings with set screws	12-60	Floated-side support unit types (BF..)	8-40
(UCFL2.) Oval flange unit	12-90	(UCF2.) Hanger bearing units	12-75	(CB2.) Sealed ball bearings	10-60	Fixed-side support unit types (FK..)	5-30
(HCF2.) Oval flange unit	20-75	(UCF2.) Hanger bearing units with adapter sleeve	20-55	(U0.) Bearing with set screws	10-30	Floated-side support unit types (FF..)	8-30
(UKFL2.) Oval flange units with adapter sleeve	20-80	(UP.) Light duty - Aluminium bearing units	10-35	(H23.) Adapter sleeves	20-125	Fixed-side support unit types (EK..)	5-20
(UCFLX.) Medium duty oval flange unit	25-50	(UFL.) Light duty - Aluminium oval flange units	10-35	(SNG 500) Plummer blocks	30-140	Floated-side support unit types (EF..)	6-20
(UCFL3.) Heavy duty oval flange unit	25-140	(SAFD2.) Oval flange unit	12-40	(SNG 600) Plummer blocks	30-90	Supports for ball screws (AC 60°..)	17-50
(UCT2.) Take-up units	12-90	(SBFD2.) Oval flange unit	12-40	(SN 500) Plummer blocks	25-140	Supports with precision axial angular contact bearings (FD..)	17-50
(HCT2.) Take-up units	20-75	(SALF2.) Oval flange unit	12-35	(SN 200) Plummer blocks	35-160	Supports for ball screws (FQ..)	17-50

# Slewing Bearings



**ZK**

Int. toothed



**NK**

Untoothed

**EBL SERIES**  
Ext. toothed



EBL.20 S  
EBL.20 P  
EBL.30 S  
EBL.30 P

**ZBL SERIES**  
Int. toothed



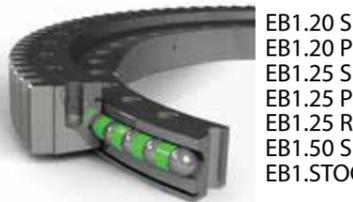
ZBL.20 S  
ZBL.20 P  
ZBL.30 S  
ZBL.30 P

**NBL SERIES**  
Untoothed



NBL.20 S  
NBL.20 P  
NBL.30 S  
NBL.30 P

**EB1 SERIES**  
Ext. toothed



EB1.20 S  
EB1.20 P  
EB1.25 S  
EB1.25 P  
EB1.25 R  
EB1.50 S  
EB1.STOCK

**ZB1 SERIES**  
Int. toothed



ZB1.20 S  
ZB1.20 P  
ZB1.25 S  
ZB1.25 P  
ZB1.25 R  
ZB1.50 S  
ZB1.STOCK

**NB1 SERIES**  
Untoothed



NB1.20 S  
NB1.20 P  
NB1.25 S  
NB1.25 P  
NB1.STOCK

**EB2 SERIES**  
Ext. toothed



**ZB2 SERIES**  
Int. toothed

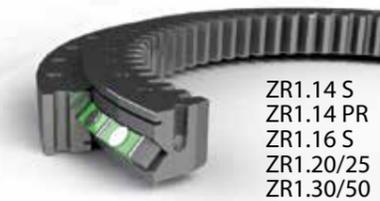


**ER1 SERIES**  
Ext. toothed



ER1.14 S  
ER1.14 PR  
ER1.16 S  
ER1.20/30  
ER1.36/50

**ZR1 SERIES**  
Int. toothed



ZR1.14 S  
ZR1.14 PR  
ZR1.16 S  
ZR1.20/25  
ZR1.30/50

**NR1 SERIES**  
Untoothed



NR1.14 S  
NR1.14 PR  
NR1.16 S

**ER3 SERIES**  
Ext. toothed



ER3.20/25  
ER3.32/40

**ZR3 SERIES**  
Int. toothed



ZR3.20/25  
ZR3.32/40

**CRBH, RB, YRT**  
Precision bearings

RB, RE  
RU, CRBH  
CRBC, SX  
YRT, YRTS  
ZKLDF



# Bearing Accessories



**BALL TRANSFER UNITS**

- Massive SP series
- Massive SP series with plastic ball
- Massive SP-CX series aircargo version for airport/harbour
- Super massive SP series
- Massive SP-FL series with threaded stem
- Massive AF series with internal springing elements
- SP series with plastic box
- SPS series pressed sheet

**PRECISION BALLS**

- AISI 52100 UNI 100Cr6 chrome steel balls
- Low carbon steel balls AISI 1010/1015/1018/1020 (C10-C15-C18-C20)
- High carbon steel balls AISI 1045/1085 (C45-C85)
- Nickel plated balls
- Tumbling, polishing and milling balls
- Stainless steel balls AISI 420-B/420-C
- Stainless steel balls AISI 440-C
- Stainless steel balls AISI 302 - 304 - 304-L
- Stainless steel balls AISI 316 - 316-L
- Brass balls
- Tungsten carbide balls (hard metal) WC 94% Co 6% (ISO K20)
- Tungsten carbide balls (hard metal) WC 94% NI 6%
- Nickel alloy balls (Monel-Hastelloy)
- Special alloy balls
- Ceramic, glass, plastic, rubber and synthetic material balls
- CMC catospheres



**SLEEVES AND ACCESSORIES**

- Adapter & Withdrawal Sleeves
- Lock Nuts with Locking Washer
- Lock Nuts with Locking Clips
- Locking Washer
- Locking Clips
- Self-Lock Nuts - Normal/ Heavy Type
- Lock Nut YSF Side Locking
- Lock Nut YSA Axial Locking
- Lock Nut YSR Radial Locking
- Lock Nut YSK Locking by Elastic Incision



**STAINLESS STEEL PRODUCTS**

All ISB stainless steel products are manufactured in AISI 440C stainless steel, FM 222 food grade grease - which guarantees high performance, in particular in food production machinery - and silicone seals. To respond to various needs, the ISB stainless steel range includes: bearings, bearing units, spherical plain bearings, rod ends and bushes, all available with a range of small to large bore diameters.

**KOPRO RINGS**

KOPRO rings are metal washers resistant against wear, designed to prevent the infiltration of fluids and/or impurities into the application. These are normally used in applications that work in extreme conditions, but can also be used in any existing application due to their minimal overall height. Significantly increasing the operational life of the application onto which they are mounted.





# Needle Bearings

Designation	Type	Designation	Type	Designation	Type
<b>K</b> <b>K..ZW</b>	Needle roller and cage assemblies, single and double row	<b>HF</b> <b>HFR</b>	Drawn cup roller clutches, with steel springs	<b>NUKRE</b> <b>PWKRE..ZRS</b>	Stud type track rollers, with axial guidance, full complement cylindrical roller set, with eccentric collar (open and sealed)
<b>KZK</b>	Needle roller and cage assemblies for crank pin of connecting rod	<b>HF..KF</b> <b>HF..KFR</b>	Drawn cup roller clutches, with plastic springs	<b>LR6..NPP</b> <b>LR6..LR60..NPPU</b>	Track rollers with single row
<b>KBK</b>	Needle roller and cage assemblies for piston pin of connecting rod	<b>HFL</b> <b>HFL..R</b>	Drawn cup roller clutches, with bearing assembly, with steel springs	<b>LR 2..NPP</b> <b>LR 2..NPPU</b>	Track rollers with double rows
<b>GLP</b>	Needle roller flange cage	<b>HFL..KF</b> <b>HFL..KFR</b>	Drawn cup roller clutches, with bearing assembly, with plastic springs	<b>LR 50..NPPU</b> <b>LR 52..LR53..NPPU</b>	Track rollers with double rows
<b>HK</b>	Drawn cup needle roller bearings with open ends	<b>811-812</b>	Axial cylindrical roller bearings, K, GS, WS included	<b>LR 52..KDD</b> <b>LR 52..KDDU</b>	Track rollers with double rows
<b>HK..RS</b> <b>HK..ZRS</b>	Sealed drawn cup needle roller bearings	<b>K 811-812</b>	Axial cylindrical roller and cage assembly	<b>LR 53..KDD</b> <b>LR 53..KDDU</b>	Track rollers with double rows
<b>HN</b>	Drawn cup needle roller bearings, full complement needle roller set	<b>GS 811-812</b>	Housing locating washers	<b>ZARF</b> <b>ZARF..L</b>	Needle roller/axial cylindrical roller bearings, heavy series, double direction
<b>BK</b>	Drawn cup needle roller bearings with closed end	<b>WS 811-812</b>	Shaft locating washers	<b>ZARF</b> <b>ZARF..L</b>	Needle roller/axial cylindrical roller bearings, light series
<b>BK..RS</b>	Drawn cup needle roller bearings with open ends sealed on one side	<b>893-894</b>	Axial cylindrical roller bearings, double row, K, GS, WS included	<b>ZARF</b> <b>ZARF..L</b>	Needle roller/axial cylindrical roller bearings, light series
<b>NK</b>	Needle roller bearings without inner ring, light series	<b>K 893-894</b>	Axial cylindrical roller and cage assembly, double row	<b>ZARN</b> <b>ZARN..L</b>	Needle roller/axial cylindrical roller bearings, heavy series
<b>NKS</b>	Needle roller bearings without inner ring, heavy series	<b>GS 893-894</b>	Housing locating washers	<b>DRS</b>	Seal carrier assembly DRS series
<b>RNA 48-49</b>	Needle roller bearings without inner ring	<b>WS 893-894</b>	Shaft locating washers	<b>SL1818-SL1822-SL1829-SL1830</b>	Cylindrical roller bearings, full complement roller set, single row, semi-locating bearings
<b>RNA 69</b>	Needle roller bearings without inner ring (single and double row)	<b>LS</b>	Axial bearing washers	<b>SL1923</b>	Cylindrical roller bearings, full complement roller set, single row, semi-locating bearings
<b>RNA 49..RS</b> <b>RNA 49..ZRS</b>	Sealed needle roller bearings without inner ring	<b>AXK</b> <b>AS</b>	Axial needle roller and cage assemblies and axial bearings washers	<b>SL1850</b>	Cylindrical roller bearings, full complement roller set, double row, semi-locating bearings



# Needle Bearings

Designation	Type	Designation	Type	Designation	Type
<b>NKI</b>	Needle roller bearings with inner ring, light series	<b>AXW</b>	Axial needle roller bearings with centring spigot on the axial washer	<b>SL0148-SL0149</b>	Cylindrical roller bearings, full complement roller set, double row, locating bearings
<b>NKIS</b>	Needle roller bearings with inner ring, heavy series	<b>ZSI</b> <b>ZSE</b>	Intermediate washers with inner/outer centering	<b>SL0248-SL0249</b>	Cylindrical roller bearings, full complement roller set, double row, non-locating bearings
<b>NA 48</b> <b>NA 49</b>	Needle roller bearings with inner ring	<b>RSTO</b> <b>RSTO..X</b> <b>STO</b> <b>STO..X</b>	Yoke type track rollers without axial guidance for the outer ring, with or without inner ring	<b>SL0450..PP-SL04..99</b>	Cylindrical roller bearings with snap ring grooves full complement roller set, double row, sealed, locating bearings
<b>NA 69</b> <b>NA69..ZW</b>	Needle roller bearings with inner ring (single and double row)	<b>RNA..ZRS</b> <b>RNA..ZRSX</b> <b>NA..ZRS</b> <b>NA..ZRSX</b>	Yoke type track rollers without axial guidance for the outer ring, with or without inner ring, sealed on both sides	<b>LSL</b>	Cylindrical roller bearings with disc cage <sup>2</sup> , semi-locating bearings
<b>NA 49..RS</b> <b>NA 49..ZRS</b>	Sealed needle roller bearings with inner ring	<b>NATR..</b> <b>NATR..PP</b>	Yoke type track rollers with axial guidance (open and sealed)	<b>ZLS</b>	Cylindrical roller bearings with spacers <sup>2</sup> , semi-locating bearings
<b>RNAO</b> <b>RNAO..ZW</b>	Needle roller bearings without ribs, without inner ring (single and double row)	<b>NATV..</b> <b>NATV..PP</b>	Yoke type track rollers with axial guidance, full complement needle roller set (open and sealed)	<b>PAR</b>	Recirculating linear roller bearings
<b>NAO</b> <b>NAO..ZW</b>	Needle roller bearings without ribs, with inner ring (single and double row)	<b>NNTR</b>	Yoke type track rollers, with axial guidance, full complement cylindrical roller set, sealed on both sides	<b>NR..</b>	Needle rollers
<b>RPNA</b> <b>PNA</b>	Aligning needle roller bearings with or without inner ring	<b>NUTR</b> <b>NUTR..X</b>	Yoke type track rollers with axial guidance, full complement cylindrical roller set	<b>VB</b> <b>VC</b> <b>VCW</b>	Seals for sliding ball bushing
<b>NX..</b> <b>N..Z</b>	Combined needle roller/axial ball bearings without inner ring	<b>PWTR..ZRS</b>	Yoke type track rollers, with axial guidance, full complement cylindrical roller set, sealed on both sides	<b>SD</b>	Sealing rings double lip
<b>NKX</b> <b>NKX..Z</b>	Needle roller/axial ball bearings, without inner ring, with or without retaining cap	<b>KR</b> <b>KR..PP</b>	Stud type track rollers with axial guidance (open and sealed)	<b>AF</b>	Elastic rings for bores
<b>NKXR</b> <b>NKXR..Z</b>	Needle roller/axial cylindrical roller bearings, without inner ring, with or without retaining cap	<b>KRE</b> <b>KRE..PP</b>	Stud type track rollers with axial guidance, with eccentric collar (open and sealed)	<b>AE</b>	Elastic rings for shafts
<b>NKIA</b> <b>NKIB</b>	Needle roller/angular contact ball bearings (single and double direction)	<b>KRV</b> <b>KRV..PP</b>	Stud type track rollers, with axial guidance, full complement needle roller set (open and sealed)	<b>AES</b>	Elastic rings, reinforced execution
<b>IR</b>	Inner rings	<b>KRVE</b> <b>KRVE..PP</b>	Stud type track rollers, with axial guidance, full complement needle roller set, with eccentric collar (open and sealed)		
<b>LR</b>	Inner rings ground	<b>NUKR</b> <b>PWKR..ZRS</b>	Stud type track rollers, with axial guidance, full complement cylindrical roller set (open and sealed)		

# Tapered Roller Bearings



Tapered Roller Bearings consist of four basic components including: the cone (inner ring), the cup (outer ring), tapered rollers, and a cage (roller retainer) made of high carbon chrome steel due to their expected performance. The cone, cup and rollers carry the load while the cage spaces and retains the rollers on the cone. The cone, rollers and cage components of our tapered roller bearings are referred to as the cone assembly.

Individual cup and cone components of our tapered roller bearings are available as well as the complete assembly. In addition, Chain & Drives offers a variety of configurations to our tapered roller bearings such as single-row, double-row and four-row.

### ADVANTAGES

- Dimensional Stability
- Long Life Even In Contaminated Lubricant
- Durable Steel Cage
- Dimensionally Interchangeable With Other Bearing Manufacturers

# Oil Seals & O-Rings

We supply a complete range of seals, O-rings, gaskets and sealing products from leading Seal manufacturers.

Chain & Drives have a strong and dedicated team of Research and Development. We design, develop and carry out material research and follow up with customer requirements.

All our products meet with ISO9001/TS16949 requirements. Designs and manufacturing processes of Chain & Drives' products are done with state-of-the-art equipment. New products are developed using the most advanced lab equipment combined with the latest technologies and fully conform to international standards including ASTM, DIN, BS, JIS and SA.

We supply seals in Viton, Nitrile and specialised materials for all applications.

We can design custom sealing solutions for many applications including taconite and labyrinth seal assemblies.



# Bushes

Type	∅ inner mm
 SF-1 Bushes Bronze covering - Metric sizes	<b>2-300</b>
 SF-1 F Flanged bushes Bronze covering - Metric sizes	<b>3-95</b>
 WC SF-1 Thrust washers Bronze covering - Metric sizes	<b>10-90</b>
 NSTR-S Strips Steel covering - Metric sizes	<b>500-125</b>
 SF-1 Bushes Bronze covering - Inches sizes	<b>1/8-7</b>
 SF-1 F Flanged bushes Bronze covering - Inches sizes	<b>3/8-1 3/4</b>
 WC SF-1 Thrust washers Bronze covering - Inches sizes	<b>0,5-2,25</b>
 NSTR-S Strips Steel covering - Inches sizes	<b>19,69x2,75 19,69x4,00</b>
 SF-2 Bushes Honey cones surface - Bronze covering - Metric sizes	<b>6-300</b>
 WC SF-2 Thrust washers Honey cones surface - Bronze covering - Metric sizes	<b>10-62</b>
 NSTR-1 Strips Honey cones surface - Metric sizes	<b>500x120 500x180</b>
 NSTR-2 Strips Honey cones surface with plate - Metric sizes	<b>500x120 500x180</b>
 NSTR-3 Strips With plate and without honey cones surface - Metric sizes	<b>500x120 500x180</b>
 SF-2 bushes Honey cones surface - Bronze covering - Inches sizes	<b>3/8-4</b>
 WC SF-2 Thrust washers Honey cones surface - Bronze covering - Inches sizes	<b>0,5-2,25</b>
 NSTR-1 Strips Honey cones surface - Inches size	<b>19,69x2,75 19,69x4,00</b>
 BNZ Sintered bronze bushes Metric sizes	<b>2-125</b>
 BNZF Sintered bronze flanged bushes Metric sizes	<b>2-80</b>

Type	∅ inner mm
 090 Bushes - Bronze covering - Metric sizes Available with lozenge and spherical cap pockets	<b>10-300</b>
 090F Flanged bushes - Bronze covering - Metric sizes Available with lozenge and spherical cap pockets	<b>12-300</b>
 BM1 Bimetal bushes Metric sizes	<b>10-300</b>
 BM1 F Bimetal flanged bushes Metric sizes	<b>40-95</b>
 BM1 R Bimetal washers Metric sizes	<b>10-62</b>
 NSTR-BM Strips Bimetal covering - Metric sizes	<b>500x150</b>
 BG2 Bushes Bronze and graphite - Metric sizes	<b>8-160</b>
 BG2-F Flanged bushes Bronze and graphite - Metric sizes	<b>8-120</b>
 BG2-W Thrust washers Bronze and graphite - Metric sizes	<b>10,2-120,5</b>
 BG2-SP Sliding plates Bronze and graphite - Metric sizes	<b>18x75 75x500</b>
 BG2-SPL Linear sliding plates Bronze and graphite - Metric sizes	<b>20x100 45x350</b>
 BG2-GP Plane guides Bronze and graphite - Metric sizes	<b>28x75 200x300</b>
 BG2-GPS Plane sliding guides Bronze and graphite - Metric sizes	<b>50x80 160x80</b>
 BG4 Bushes Cast iron and graphite - Metric sizes	<b>30-120</b>
 BG4-F Flanged bushes Cast iron and graphite - Metric sizes	<b>30-100</b>
 BG4-AF Flanged bushes (with graphite insert on the flange) Cast iron and graphite - Metric sizes	<b>12-60</b>
 BSI-A Ball retainer straight line array Metric sizes	<b>19-80</b>
 BSI-S Ball retainer spiral array Metric sizes	<b>10-100</b>

# Freewheels

Free Wheels	Dimensions (mm)	Equivalent to...				
		RINGSPANN	CTS	STIEBER	GERIT	INA
 HF	3/35	-	-	-	W, H	HF
 HFL	3/35	-	-	-	WL, HL	HFL
 DC	22,225/ 123,881	SF/BWX	-	DC	-	-
 KI	164/2610	-	-	KI	-	-
 KK	8/40	ZZ	UK	KK	CSK	-
 NSS (AS)	6/80	FCN/FCN...R	US	NSS (AS)	AS	-
 NFS (ASNU)	8/200	FSN/FSN...R	USNU	NFS (ASNU)	ASNU	-
 AE	12/70	-	-	-	-	-
 AA	12/70	-	-	AA	-	-
 NF	8/150	FN...R	UF	NF	-	-
 NFR	8/130	FNR...R	GF	NFR	ANG - ANR	-
 RSBW/AV	20/90 20/120	FA	GV	RSBW/AV	AV	-
 GFR (N)	12/150	FGR (P)	GL	GFR (N)	AL (P)	-
 GFR F1 F2 F7	12/150	FGR A1 A2 A7	GL F2 D2 (D3)	GFR F1 F2 F7	AL /ALM F2 D2/3	-
 GFRN F5 F6	12/150	FGRN A5 A6	GLP F7 D7	GFRN F5 F6	ALP/ALMP F7 D7	-
 GFR F2 F3 F4	12/150	FGR A2 A3 A4	GL F5 D2 (D3)	GFR F2 F3 F4	AL /ALM F5 D2/3	-



# Linear Systems

Linear Rail Systems		Linear Bearings		Shafts and Shaft Support	
	SNA		KH		SK
	SNC		KB		SBR-L
	SLA		KBS		TBR-L
	SLC		KBO	Ball Screws	
	RNA		KBL		VFU
	RSA		KBF		WFU
	RNC		KBFL		VFI
	RLC		KBK		WFI
	RSC		KBKL		VFE
	RNX		KBH		VFK
	RLX		KBHL		VCI
	OT		KN	Supports of Ball Screws	
	CS		KNO		BK
Linear Case Units		Supports with Precision Axial Angular Contact Bearings			BF
	SC		AC 60°		FK
	SCV		FD		FF
	SCW		FQ		EK
	SBR	Precision Lock Nuts			EF
	TBR		YSF		YSA
Integral Systems			YSR		YSK
	SBR-S		YSK		
	TBR-S				

# Technical Centre

Chain & Drives is committed to ISB's Guarantee that all bearings and components have been adequately tested by the ISB Technical Centre for quality assurance and performance.

## TECHNICAL LABORATORY

ISB Bearings & Components take the measures - complete and advanced metrological instrumentation to perform the following analysis:

- Dimensional and geometrical
- Surface finishes and geometrical profiles
- Noise and vibrations
- Durability
- Simulation applications with loads and operating temperature
- Materials and thermal treatments
- Material hardness
- Lubrication chemistry

On request, documentation for all performed tests can be provided.

## RESEARCH & DEVELOPMENT

Activities of Research & Development are held daily at the ISB Technical Centre in order to offer customer's a strong co-engineering support for all product applications. Due to suitable hardware and software instrumentation and the competence of technical staff, ISB can provide several services including: complete technical drawings of the products, analysis of loadings and mountings, analysis of environmental applications, durability, PPAP documentation, FMEA analysis and customised solutions.





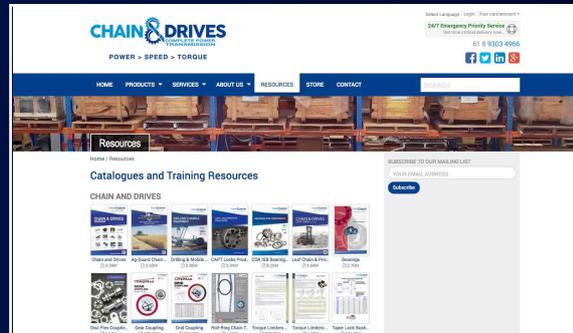
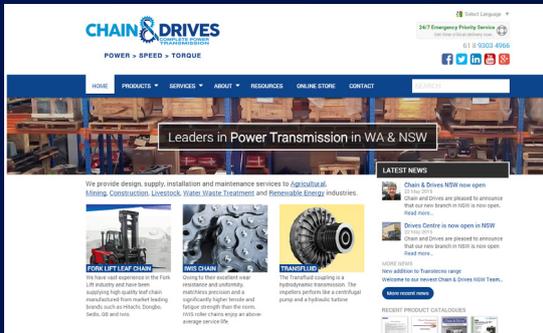
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