

Product Reference Guide



INA USA CORPORATION



NEEDLE BEARINGS

CORPORATE OFFICES

308 SPRINGHILL FARM ROAD
FORT MILL, SOUTH CAROLINA 29715

TELEPHONE (803)548-8500

FAX (803)548-8599

DISTRIBUTOR CUSTOMER SERVICE

TOLL FREE 800-523-6572

FAX (803)548-8594

LINEAR CUSTOMER SERVICE

TOLL FREE 800-462-3399

FAX (215)781-9830

This product section has been excerpted from our full Product Reference Guide to reduce download time. Our complete Product Reference Guide is available in print and on CD-ROM. To receive the full version, please contact your nearest INA Sales Office listed on the last page of this file.



FOREWORD

This publication was designed to serve as a quick reference to the standard product series offered by INA USA Corporation (INA) for its domestic market. The guide provides a current overview of INA products, including basic envelope dimensions and capacities, in one publication – it is not an engineering design guide intended to replace INA engineering catalogs. Consequently, the metric and inch conversions are listed to 3 decimal places for easy reference and rapid identification of correct replacement part(s), not 4 decimal places as necessary for quality control purposes.

This publication can be used to narrow the choices between the many different INA product lines and series for new designs. Detailed engineering information for new designs can be found in our traditional catalogs or by contacting the INA Engineering Department.

A significant portion of INA sales are special production sizes. The identification of those parts is sometimes difficult since a comprehensive listing is beyond the intent of this publication. Special part numbers take as many different forms as the series listed here, but the basic system is to use sequential numbers for each new design. Usually the prefix is F or FC but can include VH, INA or the bearing type such as NA. INA maintains a technical help desk to identify sizes not known or to match competitors' parts.

The toll free 800 numbers listed will give you access to INA Customer Service representatives. These representatives can tap into INA Worldwide resources to provide the bearings you need.

Storage Life

Lubricants age naturally due to environmental influences. It is therefore the user's responsibility to follow the directions given by the lubricant manufacturer.

The greases used in INA rolling bearings have a mineral oil base and experience shows that they can be stored for up to 3 years without deteriorating providing the following important conditions are met.

- Closed storage room
- Temperature between 0 °C and 40 °C
- Relative atmospheric humidity 65% or less
- Security from chemical agents (vapors, gases, fluids)
- Sealed rolling bearings

The frictional torque can be considerably higher after longer storage periods than in freshly greased bearings and the lubricity of the grease can also have deteriorated.

INA bearings have many optional features available including:

- ISO series of bearings generally include the standard clearance options CN, C2, C3 and C4.
- ISO bearing series include PN, P6 and P5 precision classes.

- Corrotect plating is available for most bearing designs. Corrotect is a patented process for zinc–iron and zinc–iron–cobalt plating in a thin layer which can be applied to standard components. The protection exceeds stainless steel and the cost is half. Add suffix RR.
- All sealed bearings are supplied pregreased. In most cases the standard lubricant is Shell Alvania 2 or equivalent. Other greases are available, some at extra cost.
- Unsealed bearings may not be greased when shipped.
- Speed limits as published, are based on oil lubrication for open bearings or grease lubrication for sealed bearings. The speed limits are calculated based on a nominal load and heat balance equation. Higher speeds may be allowed depending on the application.
- Dynamic capacities are published based on INA standard usage of ISO and ABMA formulas. New life theory threshold values are published in other INA publications.
- Life calculations and evaluations can be made from INA engineering based catalogs which are available from your INA Sales Representative.
- Other features are available based on current production volumes including heat stabilization of the rings, matched bearing sets, with oil holes and grooves, etc.

ABMA American Bearing Manufacturers Association

ASTM American Society Of Testing And Materials

DIN Deutsches Institut für Normung e.V.

ISO International Standards Organization

Elges, Andrews and Corrotect are registered trademarks of INA USA Corporation.

Permaglide is a registered trademark and a product of KOLBENSCHMIDT AG, Neckarsulm, also produced in Greensburg, Indiana, USA.

All other products and company names are trademarks or registered trademarks of their respective companies.

ALL RIGHTS RESERVED

INA USA Corporation
308 Springhill Farm Road
Fort Mill, SC 29715

Reproduction of this publication in whole or in part without the express written consent of INA USA Corporation is prohibited.

Although every effort has been made to ensure the accuracy of the information contained in this catalog, INA shall not be liable for any omissions or errors. Purchasers should consult their own testing to determine the suitability of any product for a particular purpose. In no event shall INA be liable for any claims for damages based upon breach of warranty, breach of contract, negligence, strict liability in tort, or any other legal theory.

INA USA Corporation reserves the right to make changes / revisions to specifications contained herein without notice.

© Copyright 1999, 2000 INA USA Corporation



Section Contents

NEEDLE BEARINGS

BEARING SERIES	BEARING DESCRIPTION	PAGE
INFORMATION	NEEDLE BEARING, GENERAL OVERVIEW	2
P / N IDENTIFICATION	NEEDLE BEARINGS	3
HK	OPEN END METRIC CAGED SHELL	7
BK	CLOSED END METRIC CAGED SHELL	7
SCE	OPEN END INCH CAGED SHELL	7
BCE	CLOSED END INCH CAGED SHELL	7
SCH	OPEN END HEAVY INCH CAGED SHELL	7
HK..2RS	OPEN END SEALED METRIC CAGED SHELL	12
BK..RS	CLOSED END SEALED METRIC CAGED SHELL	12
SCH..PP	OPEN END HEAVY SEALED INCH CAGED SHELL	12
BCH..P	CLOSED END HEAVY SEALED INCH CAGED SHELL	12
CSN	CLOSED END INCH GREASE RETAINED FULL COMPLEMENT SHELL	15
SN	OPEN END INCH GREASE RETAINED FULL COMPLEMENT SHELL	15
S	OPEN END INCH MECHANICALLY RETAINED FULL COMPLEMENT SHELL	16
CS	CLOSED END INCH MECHANICALLY RETAINED FULL COMPLEMENT SHELL	16
C	INCH CAGE AND ROLLER ASSEMBLIES	17
K	METRIC CAGE AND ROLLER ASSEMBLIES	17
KBK	WRIST PIN CAGE AND ROLLER ASSEMBLIES	25
KZK	CRANK PIN CAGE AND ROLLER ASSEMBLIES	26
NAO	METRIC SEPARABLE PRECISION GROUND NEEDLE	27
NA48	METRIC ISO SERIES 48 PRECISION GROUND NEEDLE	28
NA49	METRIC ISO SERIES 49 PRECISION GROUND NEEDLE	28
NA69	METRIC ISO SERIES 69 PRECISION GROUND NEEDLE	28
NKI	METRIC SERIES NKI PRECISION GROUND NEEDLE	28
NKIS	METRIC SERIES NKIS PRECISION GROUND NEEDLE	28
NA49..2RS	METRIC ISO SERIES 49 SEALED PRECISION GROUND NEEDLE	32
RNAO	METRIC SEPARABLE PRECISION GROUND NEEDLE BEARINGS WITHOUT INNER	33
NCS	INCH PRECISION GROUND NEEDLE BEARINGS WITHOUT INNER	35
NK	METRIC SERIES NK PRECISION GROUND NEEDLE BEARINGS WITHOUT INNER	35
NKS	METRIC SERIES NKS PRECISION GROUND NEEDLE BEARINGS WITHOUT INNER	35
RNA48	METRIC ISO SERIES 48 PRECISION GROUND NEEDLE BEARINGS WITHOUT INNER	35
RNA49	METRIC ISO SERIES 49 PRECISION GROUND NEEDLE BEARINGS WITHOUT INNER	35
RNA69	METRIC ISO SERIES 69 PRECISION GROUND NEEDLE BEARINGS WITHOUT INNER	35
RNA49..2RS	METRIC ISO SERIES 49 SEALED PRECISION GROUND NEEDLE WITHOUT INNER	40
PNA	METRIC ALIGNING PRECISION GROUND NEEDLE	41
RPNA	METRIC ALIGNING PRECISION GROUND NEEDLE BEARINGS WITHOUT INNER	41
IR	METRIC PRECISION GROUND NEEDLE BEARING INNER RINGS	42
LR	METRIC GROUND INNER RINGS	47
PI	INCH PRECISION GROUND NEEDLE BEARING INNER RINGS	48



General Information

NEEDLE BEARINGS

PRODUCT DESCRIPTION

INA Drawn Shell Needle Bearings

- Deep Drawn Shell design for maximum capacity in the minimum radial space.
- Cage guided needle rollers for low friction, whole roller loading and high speeds.
- Available in standard inch and metric series with seals available as an option.
- Available open for through shaft locations or with one end closed for shaft end locations to improve sealing.
- Available in alternate design styles as full complement mechanically retained or full complement grease retained.
- Easily mounted without snap rings or shoulders.

INA Cage And Roller Assemblies

- Combinations of needle rollers within various retainer designs for use with hardened shaft and housing.
- Retainer guides needles providing full length roller contact for maximum capacity, low friction and long life.
- Cages allow easy assembly compared to full sets of loose needles and adapt to higher misalignments.
- Cages are available in various materials and designs as required by the applications, such as KZK and KBK for crankpin and wristpin locations.

INA Precision Ground Needle Bearings

- Through hardened machined and ground raceways with cage and roller complements.
- Retainer guides needles providing full length roller contact for maximum capacity, low friction and long life.
- Design series exist to match ISO, DIN, popular metric and inch dimension series.
- Available with seals, higher precision or heat stabilization.
- Location hole and groove in outer ring.

INA Self Aligning Needle Bearings

- Precision ground needle bearing with cage and roller complement.
- Internal spherical seat to statically realign.
- Allows for initial static misalignment up to 3°.
- Plastic aligning seats and raceway are captured within a drawn shell for ease of assembly.

Part Number Identification

NEEDLE BEARINGS

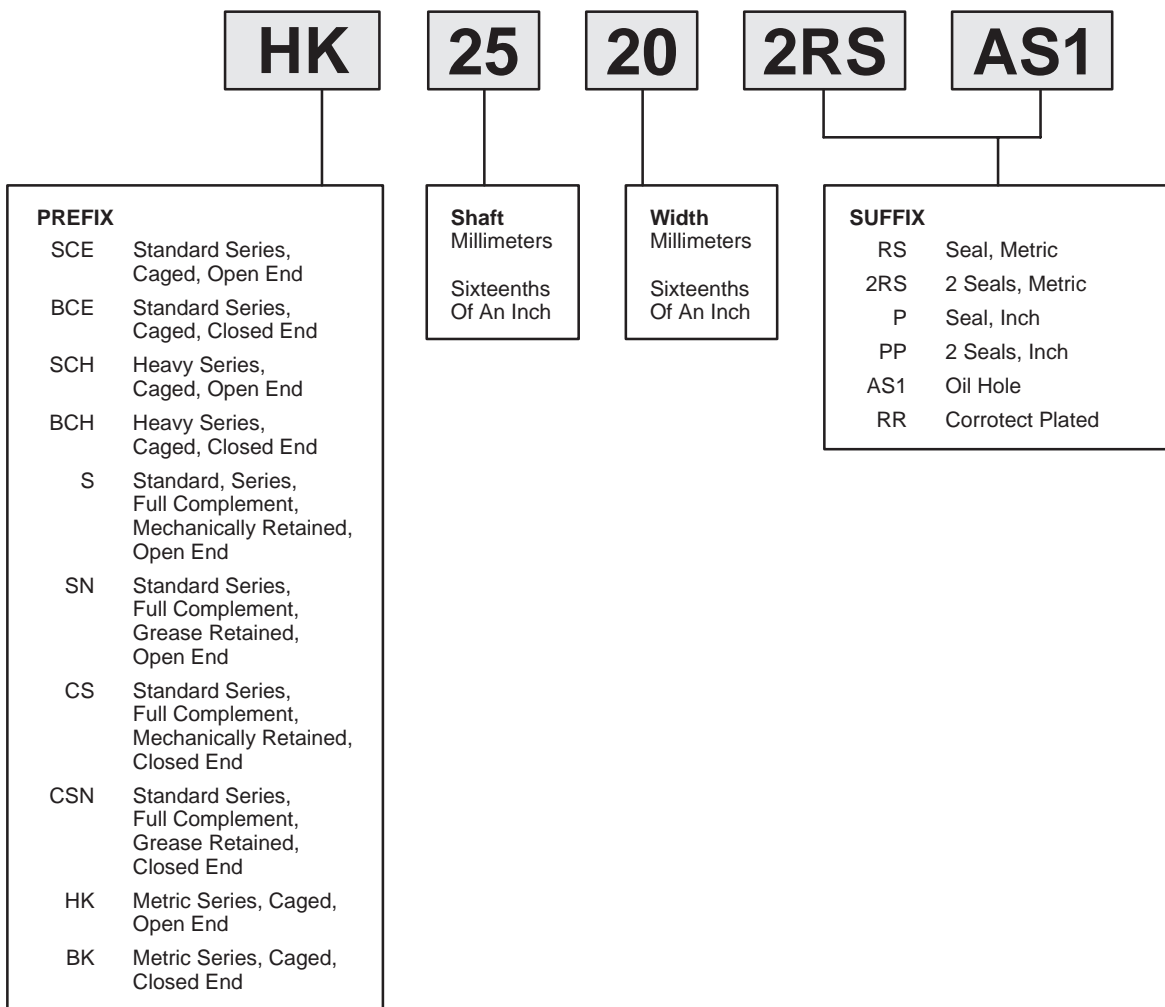
DRAWN SHELL NEEDLE BEARINGS

INCH SERIES

SCE, BCE, SCH, BCH, SN, CS, CSN

METRIC SERIES

HK, BK



Part Number Identification

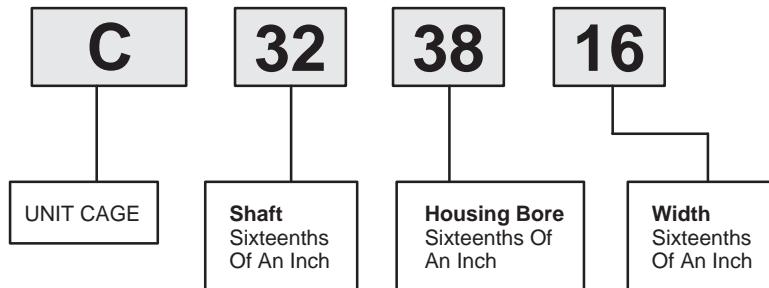
NEEDLE BEARINGS

CAGE AND ROLLER ASSEMBLIES METRIC SERIES

K, KZK, KBK

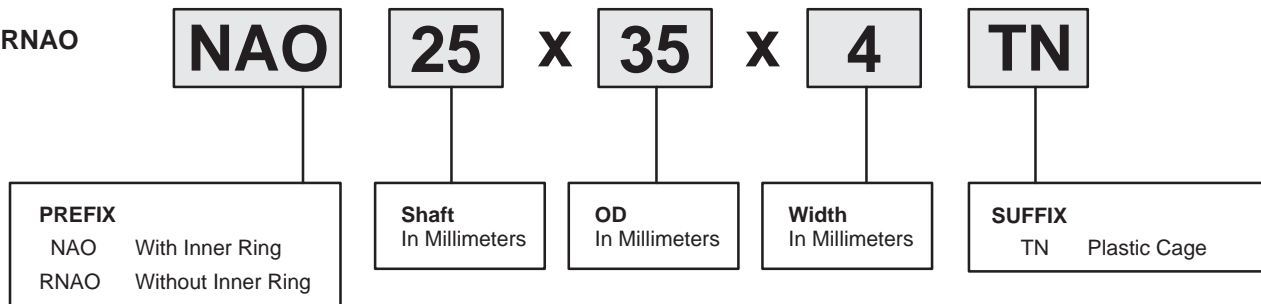


UNIT CAGES INCH SERIES



RADIAL NEEDLE BEARINGS WITHOUT RIBS METRIC SERIES

NAO, RNAO

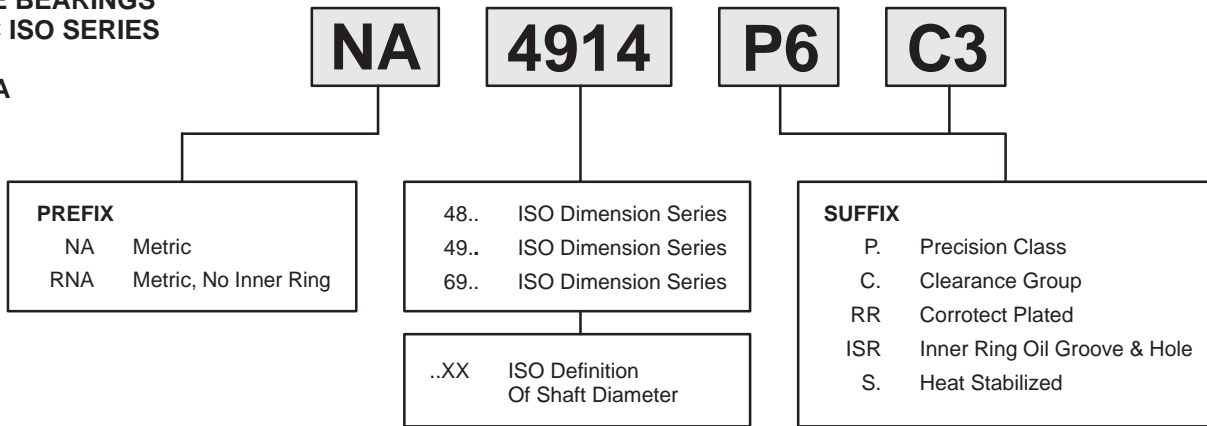


Part Number Identification

NEEDLE BEARINGS

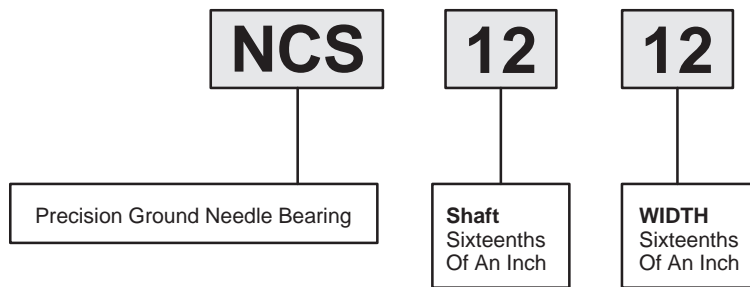
PRECISION GROUND NEEDLE BEARINGS METRIC ISO SERIES

NA, RNA



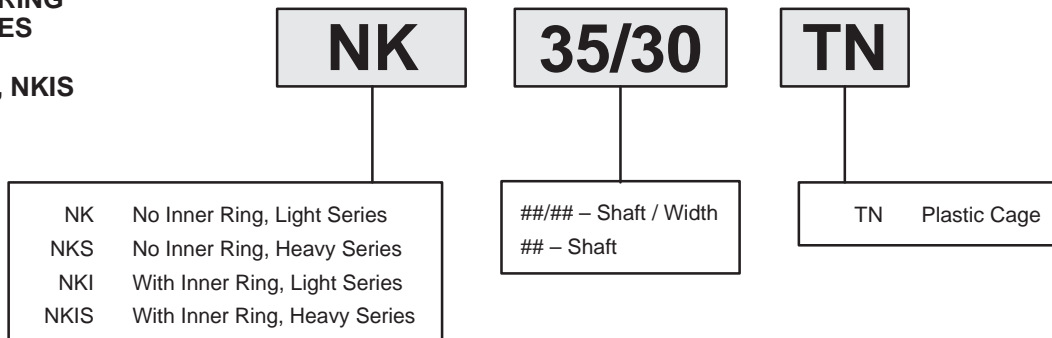
PRECISION GROUND BEARINGS INCH SERIES

NCS



PRECISION GROUND RADIAL NEEDLE BEARING METRIC SERIES

NK, NKS, NKI, NKIS

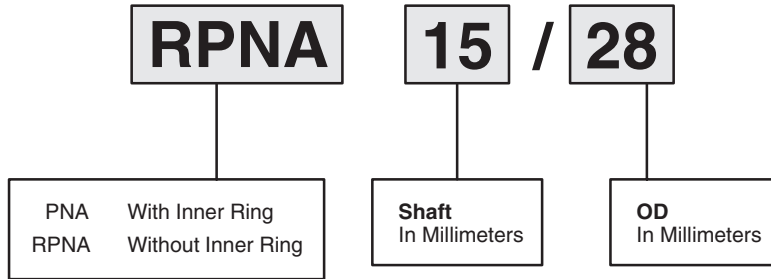


Part Number Identification

NEEDLE BEARINGS

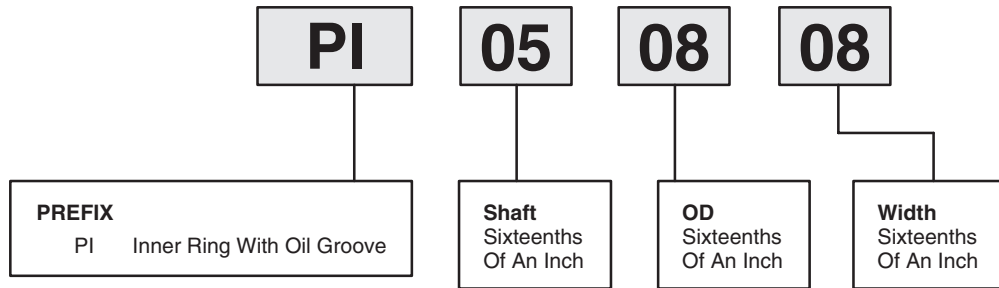
ALIGNING NEEDLE ROLLER BEARINGS METRIC SERIES

PNA, RPNA



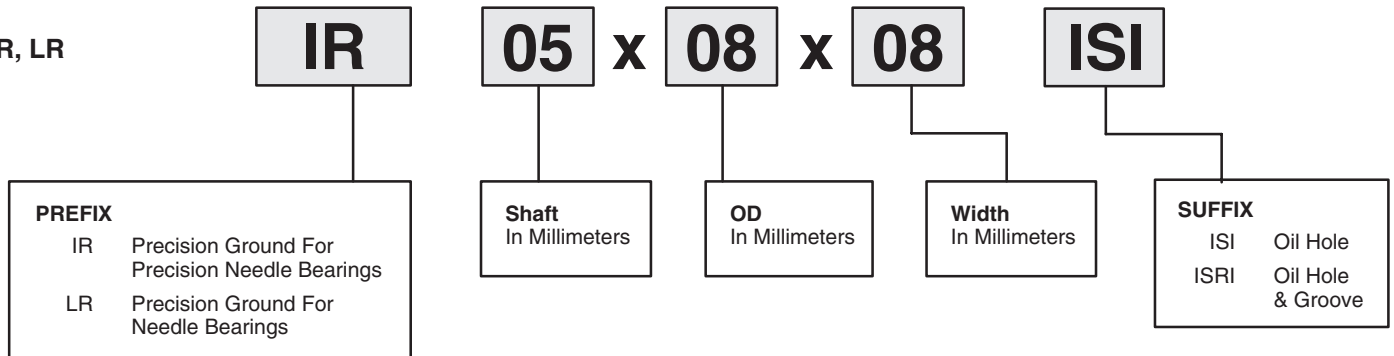
INNER RINGS INCH SERIES

PI



INNER RINGS METRIC SERIES

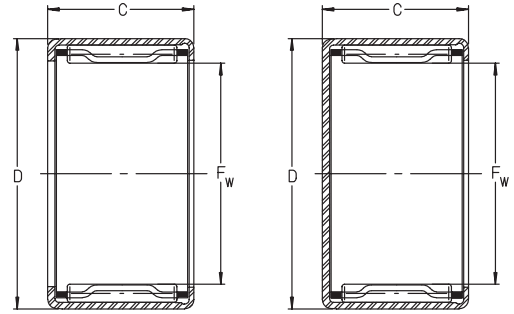
IR, LR



Shell Bearings

CAGE GUIDED NEEDLE ROLLER BEARING SERIES

- Drawn cup
- Combined inch and metric sizes
- Open for through shafts
- Closed for shaft ends



SCE, SCH, HK

BCE, BCH, BK

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

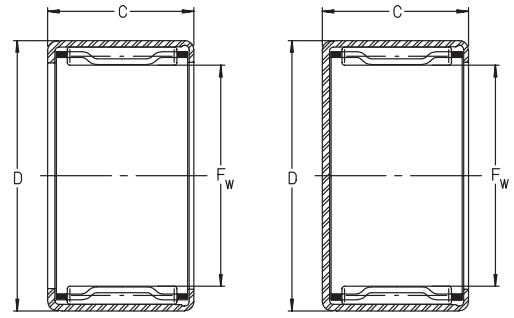
PART NUMBER OPEN END	PART NUMBER CLOSED END	SHAFT F _w	SHAFT F _w	OD D	OD D	WIDTH C	WIDTH C	WGT.	WGT.	DYN. CAP. C	DYN. CAP. C	STAT. CAP. C ₀	STAT. CAP. C ₀	SPEED LIMIT
		inch	mm	inch	mm	inch	mm	lbs	g	lbf	N	lbf	N	rpm
HK 0306 TN	BK 0306 TN	0.118	3	0.256	6.5	0.236	6	0.002	1	275	1,230	189	840	46,000
SCE24TN	BCE24TN	0.125	3.175	0.250	6.350	0.250	6.350	0.003	1	240	1,070	165	740	31,500
SCE2-1/2-4		0.156	3.969	0.281	7.145	0.250	6.350	0.003	1	285	1,260	211	940	25,000
SCE2-1/2-4TN		0.156	3.969	0.281	7.145	0.250	6.350	0.003	1	275	1,230	204	910	25,000
HK 0408	BK 0408	0.157	4	0.315	8	0.315	8	0.004	2	400	1,780	295	1,310	41,000
SCE34TN	BCE34TN	0.187	4.762	0.344	8.731	0.250	6.350	0.003	1	400	1,790	305	1,360	21,000
SCE36TN	BCE36TN	0.187	4.762	0.344	8.731	0.375	9.525	0.004	2	620	2,750	530	2,350	21,000
SCE36		0.187	4.762	0.344	8.731	0.375	9.530	0.004	2	630	2,800	550	2,440	21,000
HK 0509	BK 0509	0.197	5	0.354	9	0.354	9	0.004	2	540	2,400	445	1,990	38,000
HK 0608		0.236	6	0.394	10	0.315	8	0.005	2	455	2,030	370	1,650	35,000
HK 0609	BK 0609	0.236	6	0.394	10	0.354	9	0.006	3	640	2,850	590	2,600	35,000
SCE44	BCE44	0.250	6.350	0.437	11.112	0.250	6.350	0.005	2	360	1,600	260	1,200	44,000
SCE45	BCE45	0.250	6.350	0.437	11.112	0.313	7.938	0.006	3	570	2,500	470	2,090	44,000
SCE47	BCE47	0.250	6.350	0.437	11.112	0.437	11.112	0.009	4	920	4,000	870	3,850	44,000
HK 0709	BK 0709	0.276	7	0.433	11	0.354	9	0.006	3	700	3,100	660	2,950	31,000
SCE55	BCE55	0.313	7.938	0.500	12.700	0.313	7.938	0.008	4	650	2,900	590	2,600	35,500
SCE57	BCE57	0.313	7.938	0.500	12.700	0.437	11.112	0.013	6	1,060	4,700	1,090	4,850	35,500
SCE59	BCE59	0.313	7.938	0.500	12.700	0.563	14.288	0.014	6	1,340	6,000	1,480	6,600	35,500
SCH57	BCH57	0.313	7.938	0.563	14.288	0.437	11.112	0.015	7	1,070	4,750	930	4,100	35,500
HK 0808	BK 0808	0.315	8	0.472	12	0.315	8	0.006	3	620	2,750	590	2,600	28,000
HK 0810	BK 0810	0.315	8	0.472	12	0.394	10	0.007	3	850	3,800	890	3,950	28,000
HK 0908		0.354	9	0.512	13	0.315	8	0.007	3	870	3,850	930	4,150	25,000
HK 0910	BK 0910	0.354	9	0.512	13	0.394	10	0.009	4	960	4,250	1,050	4,650	25,000
HK 0912	BK 0912	0.354	9	0.512	13	0.472	12	0.01	5	1,190	5,300	1,420	6,300	25,000
SCE65	BCE65	0.375	9.525	0.563	14.288	0.313	7.938	0.007	3	650	2,900	610	2,700	29,500
SCE66	BCE66	0.375	9.525	0.563	14.288	0.375	9.525	0.009	4	870	3,900	890	3,950	29,500
SCE67	BCE67	0.375	9.525	0.563	14.288	0.437	11.112	0.011	5	980	4,350	1,030	4,600	29,500
SCE68	BCE68	0.375	9.525	0.563	14.288	0.500	12.700	0.013	6	1,300	5,800	1,490	6,600	29,500
SCE610	BCE610	0.375	9.525	0.563	14.288	0.625	15.875	0.015	7	1,660	7,400	2,040	9,000	29,500
SCH68	BCH68	0.375	9.525	0.625	15.875	0.500	12.700	0.020	9	1,590	7,100	1,590	7,100	29,500
HK 1010	BK 1010	0.394	10	0.551	14	0.394	10	0.009	4	990	4,400	1,150	5,100	23,000
HK 1012	BK 1012	0.394	10	0.551	14	0.472	12	0.011	5	1,240	5,500	1,530	6,800	23,000
HK 1015	BK 1015	0.394	10	0.551	14	0.591	15	0.013	6	1,530	6,800	1,980	8,800	23,000
SCE78	BCE78	0.437	11.112	0.625	15.875	0.500	12.700	0.016	7	1,430	6,400	1,760	7,800	25,000
SCE710		0.437	11.112	0.625	15.875	0.625	15.875	0.020	9	1,830	8,100	2,400	10,700	25,000
SCH78	BCH78	0.438	11.112	0.688	17.462	0.500	12.700	0.020	9	1,760	7,900	1,840	8,200	25,000
HK 1210	BK 1210	0.472	12	0.630	16	0.394	10	0.01	5	1,110	4,950	1,390	6,200	20,000
HK 1212	BK 1212	0.472	12	0.709	18	0.472	12	0.02	9	1,460	6,500	1,640	7,300	19,000
SCE85	BCE85	0.500	12.700	0.687	17.462	0.313	7.938	0.009	4	820	3,650	890	3,950	22,000
SCE86	BCE86	0.500	12.700	0.687	17.462	0.375	9.525	0.011	5	1,040	4,600	1,210	5,400	22,000
SCE87	BCE87	0.500	12.700	0.687	17.462	0.437	11.112	0.013	6	1,330	5,900	1,660	7,400	22,000
SCE88	BCE88	0.500	12.700	0.687	17.462	0.500	12.700	0.016	7	1,550	6,900	2,030	9,000	22,000
SCE810	BCE810	0.500	12.700	0.687	17.462	0.625	15.875	0.021	9	1,980	8,800	2,750	12,300	22,000
SCE812	BCE812	0.500	12.700	0.687	17.462	0.750	19.050	0.025	11	2,230	9,900	3,200	14,300	22,000
SCH87	BCH87	0.500	12.700	0.750	19.050	0.438	11.112	0.020	9	1,650	7,340	1,760	7,800	22,000
SCH88	BCH88	0.500	12.700	0.750	19.050	0.500	12.700	0.022	10	1,910	8,500	2,120	9,400	22,000



Shell Bearings

CAGE GUIDED NEEDLE ROLLER BEARING SERIES

- Drawn cup
- Combined inch and metric sizes
- Open for through shafts
- Closed for shaft ends



SCE, SCH, HK

BCE, BCH, BK

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

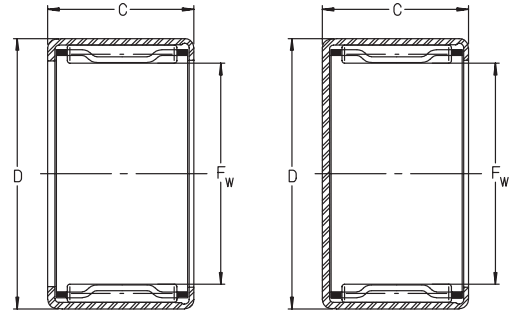
PART NUMBER OPEN END	PART NUMBER CLOSED END	SHAFT F _w	SHAFT F _w	OD D	OD D	WIDTH C	WIDTH C	WGT.	WGT.	DYN. CAP. C	DYN. CAP. C	STAT. CAP. C ₀	STAT. CAP. C ₀	SPEED LIMIT
		inch	mm	inch	mm	inch	mm	lbs	g	lbf	N	lbf	N	rpm
SCH810	BCH810	0.500	12.700	0.750	19.050	0.625	15.875	0.022	10	2,360	10,500	2,800	12,400	22,000
SCH812	BCH812	0.500	12.700	0.750	19.050	0.750	19.050	0.035	16	2,850	12,600	3,500	15,700	22,000
HK 1312	BK 1312	0.512	13	0.748	19	0.472	12	0.022	10	1,530	6,800	1,780	7,900	18,000
HK 1412	BK 1412	0.551	14	0.787	20	0.472	12	0.023	11	1,600	7,100	1,910	8,500	16,000
SCE95		0.563	14.288	0.750	19.050	0.313	7.938	0.010	5	910	4,000	1,060	4,700	19,600
SCE96	BCE96	0.563	14.288	0.750	19.050	0.375	9.525	0.013	6	1,160	5,200	1,440	6,400	19,600
SCE97		0.563	14.288	0.750	19.050	0.438	11.130	0.019	8	1,480	6,600	1,980	8,800	19,600
SCE98	BCE98	0.563	14.288	0.750	19.050	0.500	12.700	0.020	9	1,730	7,700	2,420	10,800	19,600
SCE910	BCE910	0.563	14.288	0.750	19.050	0.625	15.875	0.022	10	2,120	9,600	3,150	14,000	19,600
SCE912	BCE912	0.563	14.288	0.750	19.050	0.750	19.050	0.026	12	2,410	10,700	3,700	16,400	19,600
SCH98	BCH98	0.563	14.288	0.813	20.638	0.500	12.700	0.026	12	2,050	9,100	2,380	10,600	19,600
SCH910	BCH910	0.563	14.288	0.813	20.638	0.625	15.875	0.028	13	2,700	12,000	3,350	15,000	19,600
SCH912	BCH912	0.563	14.288	0.813	20.638	0.750	19.050	0.037	17	3,250	14,400	4,300	19,000	19,600
HK 1512	BK 1512	0.591	15	0.827	21	0.472	12	0.024	11	1,780	7,900	2,110	9,400	16,000
HK 1516	BK 1516	0.591	15	0.827	21	0.630	16	0.033	15	2,360	10,500	3,250	14,400	16,000
HK 1522	BK 1522	0.591	15	0.827	21	0.866	22	0.044	20	3,000	13,400	4,400	19,500	16,000
SCE105	BCE105	0.625	15.875	0.813	20.638	0.313	7.938	0.012	5	970	4,300	1,180	5,200	17,600
SCE107	BCE107	0.625	15.875	0.813	20.638	0.437	11.112	0.017	8	1,480	6,600	2,100	9,300	17,600
SCE107-1/2	BCE107-1/2	0.625	15.875	0.813	20.638	0.469	11.910	0.018	8	1,600	7,100	2,320	10,300	17,600
SCE108	BCE108	0.625	15.875	0.813	20.638	0.500	12.700	0.020	9	1,830	8,100	2,700	12,000	17,600
SCE1010	BCE1010	0.625	15.875	0.813	20.638	0.625	15.875	0.025	11	2,330	10,400	3,650	16,300	17,600
SCE1012	BCE1012	0.625	15.875	0.813	20.638	0.750	19.050	0.031	14	2,700	12,100	4,450	19,700	17,600
SCH108	BCH108	0.625	15.875	0.875	22.225	0.500	12.700	0.028	13	2,250	10,000	2,750	12,200	17,600
SCH1010	BCH1010	0.625	15.875	0.875	22.225	0.625	15.875	0.035	16	2,850	12,700	3,750	16,700	17,600
SCH1012	BCH1012	0.625	15.875	0.875	22.225	0.750	19.050	0.042	19	3,300	14,700	4,500	20,000	17,600
SCH1016	BCH1016	0.625	15.875	0.875	22.225	1.000	25.400	0.055	25	4,300	19,100	6,300	28,000	17,600
HK 1612	BK 1612	0.630	16	0.866	22	0.472	12	0.026	12	1,710	7,600	2,180	9,700	15,000
HK 1616	BK 1616	0.630	16	0.866	22	0.630	16	0.035	16	2,450	10,900	3,450	15,300	15,000
HK 1622	BK 1622	0.630	16	0.866	22	0.866	22	0.049	22	2,950	13,100	4,350	19,400	15,000
HK 1712	BK 1712	0.669	17	0.906	23	0.472	12	0.026	12	1,780	7,900	2,320	10,300	14,000
SCE116		0.687	17.462	0.875	22.225	0.375	9.525	0.014	6	1,290	5,700	1,770	7,900	16,000
SCE118	BCE118	0.687	17.462	0.875	22.225	0.500	12.700	0.021	10	1,930	8,600	2,950	13,200	16,000
SCE1110	BCE1110	0.687	17.462	0.875	22.225	0.625	15.875	0.028	13	2,460	10,900	4,050	18,000	16,000
SCE1112	BCE1112	0.687	17.462	0.875	22.225	0.750	19.050	0.035	16	2,800	12,400	4,750	21,000	16,000
SCH117	BCH117	0.688	17.462	0.938	23.812	0.437	11.112	0.029	13	1,900	8,400	2,260	10,000	16,000
SCH1110	BCH1110	0.688	17.462	0.938	23.812	0.625	15.875	0.037	17	2,900	12,900	3,850	17,100	16,000
SCH1112	BCH1112	0.688	17.462	0.938	23.812	0.750	19.050	0.045	20	3,550	15,900	5,100	22,700	16,000
HK 1812	BK 1812	0.709	18	0.945	24	0.472	12	0.029	13	1,820	8,100	2,450	10,900	13,000
HK 1816	BK 1816	0.709	18	0.945	24	0.63	16	0.04	18	2,600	11,600	3,900	17,300	13,000
SCE126	BCE126	0.750	19.050	1.000	25.400	0.375	9.525	0.022	10	1,600	7,100	1,860	8,300	14,700
SCE128	BCE128	0.750	19.050	1.000	25.400	0.500	12.700	0.031	14	2,210	9,800	2,800	12,500	14,700
SCE1210	BCE1210	0.750	19.050	1.000	25.400	0.625	15.875	0.040	18	2,850	12,800	3,950	17,500	14,700
SCE1212	BCE1212	0.750	19.050	1.000	25.400	0.750	19.050	0.046	21	3,450	15,300	5,000	22,100	14,700
SCH1212	BCH1212	0.750	19.050	1.063	26.988	0.750	19.050	0.060	27	4,150	18,500	5,300	23,600	14,700
HK 2010		0.787	20	1.024	26	0.394	10	0.026	12	1,440	6,400	1,840	8,200	12,000
HK 2012	BK 2012	0.787	20	1.024	26	0.472	12	0.031	14	1,930	8,600	2,700	12,100	12,000



Shell Bearings

CAGE GUIDED NEEDLE ROLLER BEARING SERIES

- Drawn cup
- Combined inch and metric sizes
- Open for through shafts
- Closed for shaft ends



SCE, SCH, HK

BCE, BCH, BK

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

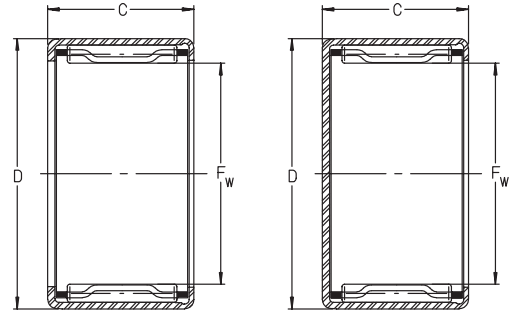
PART NUMBER OPEN END	PART NUMBER CLOSED END	SHAFT F _w	SHAFT F _w	OD D	OD D	WIDTH C	WIDTH C	WGT.	WGT.	DYN. CAP. C	DYN. CAP. C	STAT. CAP. C ₀	STAT. CAP. C ₀	SPEED LIMIT
		inch	mm	inch	mm	inch	mm	lbs	g	lbf	N	lbf	N	rpm
HK 2016	BK 2016	0.787	20	1.024	26	0.630	16	0.042	19	2,850	12,700	4,500	20,100	12,000
HK 2020	BK 2020	0.787	20	1.024	26	0.787	20	0.053	24	3,550	15,700	5,800	26,000	12,000
HK 2030	BK 2030	0.787	20	1.024	26	1.181	30	0.077	35	4,900	21,800	9,000	40,000	12,000
SCE136		0.813	20.638	1.063	26.988	0.375	9.525	0.031	14	1,590	7,100	1,880	8,400	13,600
SCE138	BCE138	0.813	20.638	1.063	26.988	0.500	12.700	0.035	16	2,420	10,800	3,200	14,300	13,600
SCE1312	BCE1312	0.813	20.638	1.063	26.988	0.750	19.050	0.053	24	3,600	15,900	5,300	23,700	13,600
SCE1314		0.813	20.638	1.063	26.988	0.875	22.225	0.060	27	4,150	18,500	6,500	29,000	13,600
SCH1310	BCH1310	0.813	20.638	1.125	28.575	0.625	15.875	0.055	25	3,550	15,900	4,650	20,700	13,600
SCH1312	BCH1312	0.813	20.638	1.125	28.575	0.750	19.050	0.066	30	4,350	19,200	6,000	26,500	13,600
HK 22x28x7.5 TN		0.866	22	1.102	28	0.295	7.5	0.02	9	1,300	5,800	1,710	7,600	11,000
HK 2210		0.866	22	1.102	28	0.394	10	0.029	13	1,690	7,500	2,360	10,500	11,000
HK 2212	BK 2212	0.866	22	1.102	28	0.472	12	0.033	15	2,050	9,100	3,000	13,400	11,000
HK 2216	BK 2216	0.866	22	1.102	28	0.630	16	0.046	21	3,000	13,400	4,950	22,100	11,000
HK 2220	BK 2220	0.866	22	1.102	28	0.787	20	0.057	26	3,700	16,500	6,500	29,000	11,000
SCE146	BCE146	0.875	22.225	1.125	28.575	0.375	9.525	0.029	13	1,850	8,200	2,400	10,700	12,600
SCE148	BCE148	0.875	22.225	1.125	28.575	0.500	12.700	0.042	19	2,500	11,200	3,550	15,800	12,600
SCE1412	BCE1412	0.875	22.225	1.125	28.575	0.750	19.050	0.061	28	3,800	16,900	6,100	27,000	12,600
SCE1416	BCE1416	0.875	22.225	1.125	28.575	1.000	25.400	0.075	34	4,950	22,100	8,500	38,000	12,600
SCH1412	BCH1412	0.875	22.225	1.188	30.162	0.750	19.050	0.070	32	4,400	19,500	6,100	27,000	12,600
SCH1416	BCH1416	0.875	22.225	1.188	30.162	1.000	25.400	0.094	43	5,800	25,500	8,600	38,500	12,600
SCE1516	BCE1516	0.937	23.812	1.187	30.162	1.000	25.400	0.084	38	5,400	24,100	9,700	43,000	11,800
HK 24x30x7.5 TN		0.945	24	1.181	30	0.295	7.5	0.022	10	1,370	6,100	1,840	8,200	10,000
HK 2512	BK 2512	0.984	25	1.260	32	0.472	12	0.044	20	2,470	11,000	3,400	15,200	10,000
HK 2516	BK 2516	0.984	25	1.260	32	0.630	16	0.06	27	3,500	15,600	5,400	24,000	10,000
HK 2520	BK 2520	0.984	25	1.260	32	0.787	20	0.073	33	4,450	19,900	7,400	33,000	10,000
HK 2526	BK 2526	0.984	25	1.260	32	1.024	26	0.097	44	5,700	25,500	10,100	45,000	10,000
HK 2538	BK 2538	0.984	25	1.260	32	1.496	38	0.141	64	7,600	34,000	14,800	66,000	10,000
SCE166	BCE166	1.000	25.400	1.250	31.750	0.375	9.525	0.040	18	1,750	7,800	2,300	10,200	11,000
SCE168	BCE168	1.000	25.400	1.250	31.750	0.500	12.700	0.042	19	2,850	12,600	4,300	19,100	11,000
SCE1612	BCE1612	1.000	25.400	1.250	31.750	0.750	19.050	0.060	27	4,150	18,500	7,000	31,500	11,000
SCE1616	BCE1616	1.000	25.400	1.250	31.750	1.000	25.400	0.084	38	5,600	24,800	10,200	45,500	11,000
SCH1610	BCH1610	1.000	25.400	1.313	33.338	0.625	15.875	0.077	35	3,750	16,700	5,100	22,700	11,000
SCH1612	BCH1612	1.000	25.400	1.313	33.338	0.750	19.050	0.080	36	4,500	20,000	6,400	28,500	11,000
SCH1616	BCH1616	1.000	25.400	1.313	33.338	1.000	25.400	0.105	47	6,500	28,900	10,400	46,300	11,000
HK 2816	BK 2816	1.102	28	1.378	35	0.630	16	0.064	29	3,700	16,400	6,000	26,500	9,000
HK 2820	BK 2820	1.102	28	1.378	35	0.787	20	0.079	36	4,700	20,900	8,100	36,000	9,000
SCE186	BCE186	1.125	28.575	1.375	34.925	0.375	9.525	0.042	19	1,870	8,300	2,600	11,500	9,800
SCE188	BCE188	1.125	28.575	1.375	34.925	0.500	12.700	0.045	21	2,900	12,800	4,550	20,200	9,800
SCE1812	BCE1812	1.125	28.575	1.375	34.925	0.750	19.050	0.066	30	4,250	18,900	7,700	34,000	9,800
SCE1816	BCE1816	1.125	28.575	1.375	34.925	1.000	25.400	0.088	40	5,800	26,000	11,100	49,500	9,800
SCH1810	BCH1810	1.125	28.575	1.500	38.100	0.625	15.875	0.094	43	4,900	21,800	6,500	29,000	9,800
SCH1812	BCH1812	1.125	28.575	1.500	38.100	0.750	19.050	0.105	48	5,700	25,000	7,800	35,000	9,800
SCH1816	BCH1816	1.125	28.575	1.500	38.100	1.000	25.400	0.138	63	7,100	31,500	10,600	46,500	9,800
SCH1818	BCH1818	1.125	28.575	1.500	38.100	1.125	28.580	0.186	85	9,100	40,500	14,500	65,000	9,800
SCH1820	BCH1820	1.125	28.575	1.500	38.100	1.250	31.750	0.121	55	9,200	40,900	14,600	64,500	9,800
HK 3012	BK 3012	1.181	30	1.457	37	0.472	12	0.051	23	2,700	12,100	4,100	18,200	8,500



Shell Bearings

CAGE GUIDED NEEDLE ROLLER BEARING SERIES

- Drawn cup
- Combined inch and metric sizes
- Open for through shafts
- Closed for shaft ends



SCE, SCH, HK

BCE, BCH, BK

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

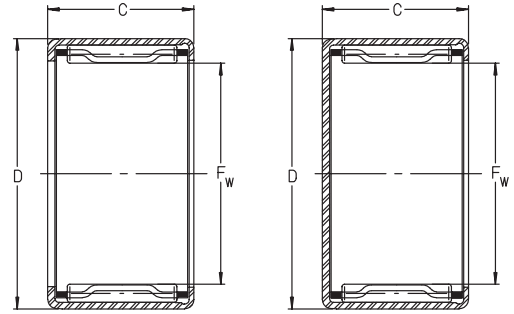
PART NUMBER OPEN END	PART NUMBER CLOSED END	SHAFT F _w	SHAFT F _w	OD D	OD D	WIDTH C	WIDTH C	WGT.	WGT.	DYN. CAP. C	DYN. CAP. C	STAT. CAP. C ₀	STAT. CAP. C ₀	SPEED LIMIT
		inch	mm	inch	mm	inch	mm	lbs	g	lbf	N	lbf	N	rpm
HK 3016	BK 3016	1.181	30	1.457	37	0.630	16	0.068	31	3,850	17,200	6,500	29,000	8,500
HK 3020	BK 3020	1.181	30	1.457	37	0.787	20	0.086	39	4,950	22,000	8,900	39,500	8,500
HK 3026	BK 3026	1.181	30	1.457	37	1.024	26	0.112	51	6,300	28,000	12,100	54,000	8,500
HK 3038	BK 3038	1.181	30	1.457	37	1.496	38	0.168	76	8,400	37,500	17,800	79,000	8,500
SCE1916		1.187	30.162	1.500	38.100	1.000	25.400	0.095	43	7,400	33,000	12,900	57,000	9,300
SCE208	BCE208	1.250	31.750	1.500	38.100	0.500	12.700	0.049	22	3,000	13,500	4,950	22,200	8,800
SCE2010	BCE2010	1.250	31.750	1.500	38.100	0.625	15.875	0.066	30	3,700	16,500	6,500	29,000	8,800
SCE2012	BCE2012	1.250	31.750	1.500	38.100	0.750	19.050	0.082	37	4,750	21,100	8,900	39,500	8,800
SCE2016	BCE2016	1.250	31.750	1.500	38.100	1.000	25.400	0.099	45	6,100	27,000	12,300	55,000	8,800
SCE2020	BCE2020	1.250	31.750	1.500	38.100	1.250	31.750	0.123	56	7,500	33,500	16,100	71,000	8,800
SCH208	BCH208	1.250	31.750	1.625	41.275	0.500	12.700	0.079	36	3,700	16,400	4,700	21,000	8,800
SCH2012	BCH2012	1.250	31.750	1.625	41.275	0.750	19.050	0.137	62	6,100	27,100	8,900	39,500	8,800
SCH2016	BCH2016	1.250	31.750	1.625	41.275	1.000	25.400	0.157	71	8,100	36,000	12,900	57,500	8,800
SCH2020	BCH2020	1.250	31.750	1.625	41.275	1.250	31.750	0.174	79	9,800	43,600	16,400	72,900	8,800
HK 32x39x24		1.260	32	1.535	39	0.945	24	0.11	50	6,200	27,500	12,100	54,000	8,000
SCE2110		1.313	33.338	1.625	41.275	0.625	15.875	0.082	37	4,750	21,100	7,600	34,000	8,400
SCE228	BCE228	1.375	34.925	1.625	41.275	0.500	12.700	0.055	25	3,050	13,600	5,300	23,700	8,000
SCE2212	BCE2212	1.375	34.925	1.625	41.275	0.750	19.050	0.086	39	4,800	21,500	9,600	42,500	8,000
SCE2216		1.375	34.925	1.625	41.275	1.000	25.400	0.128	58	6,200	27,500	13,300	59,000	8,000
SCE2220	BCE2220	1.375	34.925	1.625	41.275	1.250	31.750	0.179	81	7,600	34,000	17,300	77,000	8,000
SCH2212	BCH2212	1.375	34.925	1.750	44.450	0.750	19.050	0.127	57	6,600	29,500	10,100	45,000	8,000
SCH2216	BCH2216	1.375	34.925	1.750	44.450	1.000	25.400	0.170	77	8,800	39,000	14,700	65,000	8,000
HK 3512	BK 3512	1.378	35	1.654	42	0.472	12	0.06	27	2,950	13,100	4,800	21,300	7,500
HK 3516	BK 3516	1.378	35	1.654	42	0.630	16	0.079	36	4,200	18,700	7,500	33,500	7,500
HK 3520	BK 3520	1.378	35	1.654	42	0.787	20	0.097	44	5,400	23,800	10,300	46,000	7,500
SCE248	BCE248	1.500	38.100	1.875	47.625	0.500	12.700	0.106	48	4,200	18,600	5,800	26,000	7,400
SCE2410	BCE2410	1.500	38.100	1.875	47.625	0.625	15.875	0.119	54	5,500	24,400	8,300	36,500	7,400
SCE2412	BCE2412	1.500	38.100	1.875	47.625	0.750	19.050	0.137	62	6,800	30,500	10,900	48,500	7,400
SCE2414	BCE2414	1.500	38.100	1.875	47.625	0.875	22.225	0.159	72	8,100	36,000	13,500	60,000	7,400
SCE2416	BCE2416	1.500	38.100	1.875	47.625	1.000	25.400	0.183	83	8,700	38,500	14,900	66,000	7,400
SCE2420	BCE2420	1.500	38.100	1.875	47.625	1.250	31.750	0.232	105	10,600	47,500	19,200	86,000	7,400
HK 4012	BK 4012	1.575	40	1.850	47	0.472	12	0.066	30	3,150	14,000	5,500	24,300	6,500
HK 4016	BK 4016	1.575	40	1.850	47	0.630	16	0.086	39	4,500	20,000	8,700	38,500	6,500
HK 4020	BK 4020	1.575	40	1.850	47	0.787	20	0.119	54	5,700	25,500	11,700	52,000	6,500
SCE2610	BCE2610	1.625	41.275	2.000	50.800	0.625	15.875	0.121	55	5,700	25,500	8,900	40,000	6,800
SCE2620	BCE2620	1.625	41.275	2.000	50.800	1.250	31.750	0.243	110	11,400	51,000	21,900	97,000	6,800
SCE2812	BCE2812	1.750	44.450	2.125	53.975	0.750	19.050	0.181	82	7,100	31,500	12,300	55,000	6,300
SCE2816	BCE2816	1.750	44.450	2.125	53.975	1.000	25.400	0.254	115	9,300	41,500	17,000	76,000	6,300
SCE2820		1.750	44.450	2.125	53.975	1.250	31.750	0.295	134	12,400	55,000	24,300	108,000	6,300
SCE2824	BCE2824	1.750	44.450	2.125	53.975	1.500	38.100	0.359	163	14,000	62,000	29,000	130,000	6,300
HK 4512		1.772	45	2.047	52	0.472	12	0.073	33	3,350	14,900	6,200	27,500	6,000
HK 4516	BK 4516	1.772	45	2.047	52	0.630	16	0.101	46	4,800	21,300	9,700	43,000	6,000
HK 4520	BK 4520	1.772	45	2.047	52	0.787	20	0.123	56	6,100	27,000	13,300	59,000	6,000
HK 50x57x16		1.969	50	2.244	57	0.630	16	0.11	50	4,100	18,200	8,200	36,500	5,000
HK 5020	BK 5020	1.969	50	2.283	58	0.787	20	0.154	70	7,000	31,000	14,200	63,000	5,000
HK 5025	BK 5025	1.969	50	2.283	58	0.984	25	0.198	90	8,700	38,500	18,900	84,000	5,000



Shell Bearings

CAGE GUIDED NEEDLE ROLLER BEARING SERIES

- Drawn cup
- Combined inch and metric sizes
- Open for through shafts
- Closed for shaft ends



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

SCE, SCH, HK

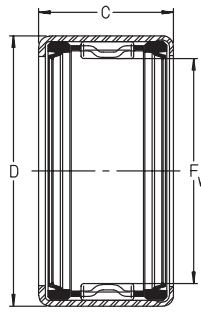
BCE, BCH, BK

PART NUMBER OPEN END	PART NUMBER CLOSED END	SHAFT F _w inch	SHAFT F _w mm	OD D inch	OD D mm	WIDTH C inch	WIDTH C mm	WGT. lbs	WGT. g	DYN. CAP. C lbf	DYN. CAP. C N	STAT. CAP. C ₀ lbf	STAT. CAP. C ₀ N	SPEED LIMIT rpm
SCE328		2.000	50.800	2.375	60.325	0.500	12.700	0.128	58	4,900	21,800	7,900	35,000	5,500
SCE3210		2.000	50.800	2.375	60.325	0.625	15.875	0.150	68	6,400	28,500	11,200	49,500	5,500
SCE3216	BCE3216	2.000	50.800	2.375	60.325	1.000	25.400	0.225	102	9,300	41,500	17,900	80,000	5,500
SCE3220		2.000	50.800	2.375	60.325	1.250	31.750	0.304	138	12,400	55,000	26,000	116,000	5,500
SCE348		2.125	53.975	2.500	63.500	0.500	12.700	0.137	62	5,200	5,200	8,700	39,000	5,200
SCE3410	BCE3410	2.125	53.975	2.500	63.500	0.625	15.875	0.159	72	7,000	31,000	12,700	57,000	5,200
SCE3416		2.125	53.975	2.500	63.500	1.000	25.400	0.256	116	11,200	50,000	23,200	103,000	5,200
HK 5520	BK 5520	2.165	55	2.480	63	0.787	20	0.163	74	7,100	31,500	15,100	67,000	4,700
HK 5528	BK 5528	2.165	55	2.480	63	1.102	28	0.232	105	9,900	44,000	23,200	103,000	4,700
SCE3612	BCE3612	2.250	57.150	2.625	66.675	0.750	19.050	0.196	89	8,400	37,500	16,200	72,000	4,900
SCE3616	BCE3616	2.250	57.150	2.625	66.675	1.000	25.400	0.265	120	11,300	50,000	24,000	107,000	4,900
HK 6012	BK 6012	2.362	60	2.677	68	0.472	12	0.108	49	3,900	17,400	7,200	32,000	4,400
HK 6020	BK 6020	2.362	60	2.677	68	0.787	20	0.179	81	7,500	33,500	16,900	75,000	4,400
HK 6032	BK 6032	2.362	60	2.677	68	1.260	32	0.3	136	11,900	53,000	30,500	135,000	4,400
SCE4412	BCE4412	2.750	69.850	3.125	79.375	0.750	19.050	0.291	132	8,800	38,500	18,300	80,000	4,000
SCE5612		3.500	88.900	4.000	101.600	0.750	19.050	0.410	186	11,900	53,000	23,200	103,000	3,150

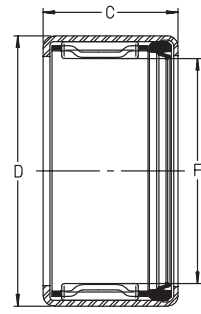
Shell Bearings

SEALED SERIES

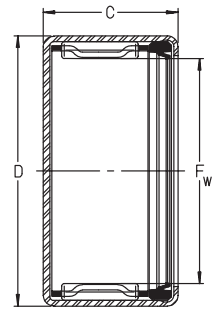
- Drawn cup caged needle bearings
- Open and closed, single or double sealed



SCE..PP, SCH..PP, HK..2RS



SCE..P, SCH..P, HK..RS



BCE..P, BCH..P, BK..RS

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

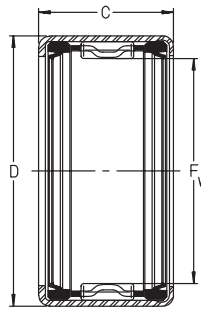
PART NUMBER 2 SEALS	PART NUMBER 1 SEAL	PART NUMBER 1 SEAL CLOSED END	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN. CAP. C	DYN. CAP. C	STAT. CAP. C ₀	STAT. CAP. C ₀	SPEED LIMIT
			F _w	F _w	D	D	C	C							
			inch	mm	inch	mm	inch	mm	lbs	g	lbf	N	lbf	N	rpm
SCE46PP	SCE45P		0.250	6.350	0.438	11.112	0.313	7.938	0.007	3	360	1,600	260	1,200	27,000
	SCE46P		0.250	6.350	0.438	11.112	0.375	9.525	0.010	5	360	1,600	260	1,200	27,000
SCE47PP	SCE46P		0.250	6.350	0.438	11.112	0.375	9.525	0.010	5	570	2,500	470	2,090	27,000
	SCE48P	BCE48P	0.250	6.350	0.438	11.112	0.438	11.112	0.009	4	570	2,500	470	2,090	27,000
SCE49PP			0.250	6.350	0.438	11.112	0.563	14.288	0.011	5	920	4,000	870	3,850	27,000
SCE57PP	SCE56P		0.313	7.938	0.500	12.700	0.375	9.525	0.009	4	650	2,900	590	2,600	23,000
	SCE58P	BCE58P	0.313	7.938	0.500	12.700	0.438	11.112	0.008	4	650	2,900	590	2,600	23,000
SCE59PPR			0.313	7.938	0.500	12.700	0.500	12.700	0.013	6	1,060	4,700	1,090	4,850	23,000
HK 0812.2RS	SCH58P	BCH58P	0.313	7.938	0.563	14.288	0.500	12.700	0.009	4	1,170	5,200	1,080	4,800	21,000
	HK 0810 RS		0.315	8	0.472	12	0.394	10	0.007	3	620	2,750	590	2,600	20,000
SCE67PP	SCE66P	BCE66P	0.315	8	0.472	12	0.472	12	0.007	3	620	2,750	590	2,600	20,000
	SCE66P		0.375	9.525	0.563	14.288	0.375	9.525	0.011	5	650	2,900	610	2,700	20,000
SCE68PP			0.375	9.525	0.563	14.288	0.438	11.112	0.026	12	650	2,900	610	2,700	20,000
SCE610PP	SCE69P	BCE69P	0.375	9.525	0.563	14.288	0.500	12.700	0.013	6	870	3,900	890	3,950	20,000
	HK 1012 RS		0.375	9.525	0.563	14.288	0.563	14.288	0.015	7	1,300	5,800	1,490	6,600	20,000
HK 1014.2RS			0.375	9.525	0.563	14.288	0.625	15.875	0.015	7	1,300	5,800	1,490	6,600	20,000
	HK 1014 RS		0.394	10	0.551	14	0.472	12	0.009	4	990	4,400	1,150	5,100	17,000
SCH710PP	SCH79P	BCH79P	0.394	10	0.551	14	0.551	14	0.010	5	990	4,400	1,150	5,100	17,000
HK 1216.2RS	HK 1214 RS		0.438	11.112	0.688	17.462	0.563	14.288	0.020	9	1,780	7,900	1,840	8,200	15,000
	SCE86P		0.438	11.112	0.688	17.462	0.625	15.875	0.024	11	1,780	7,900	1,840	8,200	15,000
SCE87PP			0.472	12	0.709	18	0.551	14	0.022	10	1,460	6,500	1,640	7,300	14,000
SCE810PP			0.472	12	0.709	18	0.630	16	0.024	11	1,460	6,500	1,640	7,300	14,000
SCE812PP			0.500	12.700	0.688	17.462	0.375	9.525	0.020	9	820	3,650	890	3,950	15,000
SCE810PP	SCE89P	BCE89P	0.500	12.700	0.688	17.462	0.563	14.288	0.022	10	1,550	6,900	2,030	9,000	15,000
	SCE812PP		0.500	12.700	0.688	17.462	0.625	15.875	0.022	10	1,550	6,900	2,030	9,000	15,000
SCH813PR			0.500	12.700	0.688	17.462	0.750	19.050	0.030	14	1,980	8,800	2,750	12,300	15,000
SCH814PPR	SCH813PR	BCH813P	0.500	12.700	0.750	19.050	0.813	20.638	0.037	17	2,850	12,600	3,550	15,700	14,000
HK 1416.2RS	HK 1414 RS	BK 1414 RS	0.500	12.700	0.750	19.050	0.875	22.225	0.026	12	2,850	12,600	3,550	15,700	14,000
	SCE99P		0.551	14	0.787	20	0.551	14	0.026	12	1,600	7,100	1,910	8,500	12,000
SCE910PP			0.551	14	0.787	20	0.630	16	0.029	13	1,600	7,100	1,910	8,500	12,000
	HK 1514 RS	BK 1514 RS	0.563	14.288	0.750	19.050	0.563	14.288	0.026	12	1,730	7,700	2,420	10,800	14,000
SCE912PP			0.563	14.288	0.750	19.050	0.625	15.875	0.029	13	1,730	7,700	2,420	10,800	14,000
HK 1516.2RS	SCH910PR	BCH910PR	0.563	14.288	0.813	20.638	0.625	15.875	0.027	12	2,120	9,600	3,150	14,000	14,000
	SCH913P	BCH913P	0.563	14.288	0.813	20.638	0.813	20.638	0.042	19	3,250	14,400	4,250	19,000	12,000
HK 1518 RS	HK 1514 RS		0.591	15	0.827	21	0.551	14	0.026	12	1,750	7,800	2,200	9,800	11,000
	SCE1011P		0.591	15	0.827	21	0.630	16	0.033	15	1,750	7,800	2,200	9,800	11,000
SCE1010PP	HK 1518 RS		0.591	15	0.827	21	0.709	18	0.035	16	2,360	10,500	3,250	14,400	11,000
	SCE109P		0.591	15	0.827	21	0.787	20	0.040	18	2,360	10,500	3,250	14,400	11,000
SCE1012PP	SCE1011P		0.625	15.875	0.813	20.638	0.563	14.288	0.022	10	1,830	8,100	2,700	12,000	13,000
			0.625	15.875	0.813	20.638	0.625	15.875	0.022	10	1,830	8,100	2,700	12,000	13,000
			0.625	15.875	0.813	20.638	0.687	17.460	0.026	12	2,330	10,400	3,650	16,300	13,000



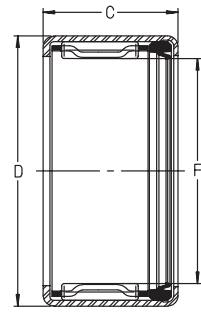
Shell Bearings

SEALED SERIES

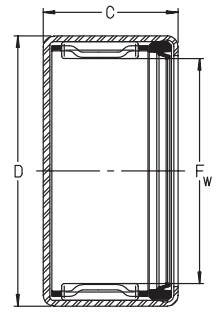
- Drawn cup caged needle bearings
- Open and closed, single or double sealed



SCE..PP, SCH..PP, HK..2RS



SCE..P, SCH..P, HK..RS



BCE..P, BCH..P, BK..RS

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

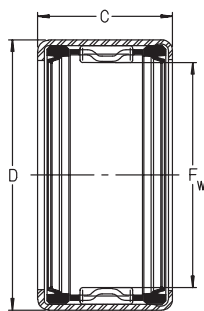
PART NUMBER 2 SEALS	PART NUMBER 1 SEAL	PART NUMBER 1 SEAL CLOSED END	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN. CAP. C	DYN. CAP. C	STAT. CAP. C ₀	STAT. CAP. C ₀	SPEED LIMIT
			F _w	F _w	D	D	C	C							
SCE1014PP			0.625	15.875	0.813	20.638	0.875	22.225	0.033	15	2,700	12,100	4,450	19,700	13,000
	HK 1614 RS	BK 1614 RS	0.630	16	0.866	22	0.551	14	0.029	13	1,710	7,600	2,180	9,700	11,000
HK 1616.2RS			0.630	16	0.866	22	0.630	16	0.031	14	1,710	7,600	2,180	9,700	11,000
HK 1620.2RS			0.630	16	0.866	22	0.787	20	0.040	18	2,450	10,900	3,450	15,300	11,000
		BCH06604PK	0.670	17.015	0.938	23.813	0.688	17.480	0.037	17	1,660	7,400	1,800	8,000	11,000
		BCH06604PR	0.670	17.015	0.938	23.813	0.688	17.480	0.037	17	1,660	7,400	1,800	8,000	11,000
	SCH06604PR		0.670	17.015	0.939	23.838	0.688	17.480	0.029	13	1,660	7,400	1,800	8,000	11,000
HK 1816.2RS	HK 1814 RS		0.709	18	0.945	24	0.551	14	0.031	14	1,820	8,100	2,450	10,900	9,500
SCE128PP			0.709	18	0.945	24	0.630	16	0.033	15	1,820	8,100	2,450	10,900	9,500
			0.750	19.050	1.000	25.400	0.438	11.112	0.029	13	1,600	7,100	1,860	8,300	10,000
SCE1210PP	SCE129P	BCE129P	0.750	19.050	1.000	25.400	0.563	14.288	0.037	17	2,210	9,800	2,800	12,500	10,000
			0.750	19.050	1.000	25.400	0.625	15.875	0.036	17	2,210	9,800	2,800	12,500	10,000
SCE1212PP	SCE1211P	BCE1211P	0.750	19.050	1.000	25.400	0.687	17.460	0.049	22	2,850	12,800	3,950	17,500	10,000
SCE1214PPR			0.750	19.050	1.000	25.400	0.750	19.050	0.045	20	2,850	12,800	3,950	17,500	10,000
			0.750	19.050	1.000	25.400	0.875	22.225	0.056	25	3,450	15,300	5,000	22,100	10,000
HK 2016.2RS			0.787	20	1.024	26	0.630	16	0.040	18	1,930	8,600	2,700	12,100	8,500
	HK 2018 RS	BK 2018 RS	0.787	20	1.024	26	0.709	18	0.046	21	2,850	12,700	4,500	20,100	8,500
HK 2020.2RS			0.787	20	1.024	26	0.787	20	0.051	23	2,850	12,700	4,500	20,100	8,500
	HK 2214 RS		0.866	22	1.102	28	0.551	14	0.035	16	2,050	9,100	3,000	13,400	8,000
HK 2216.2RS			0.866	22	1.102	28	0.630	16	0.040	18	2,050	9,100	3,000	13,400	8,000
HK 2220.2RS	HK 2218 RS		0.866	22	1.102	28	0.709	18	0.053	24	3,000	13,400	4,950	22,100	8,000
SCE148PP			0.866	22	1.102	28	0.787	20	0.057	26	3,000	13,400	4,950	22,100	8,000
SCE1414PP			0.875	22.225	1.125	28.575	0.500	12.700	0.035	16	1,850	8,200	2,400	10,700	9,000
	SCH1413P	BCH1413P	0.875	22.225	1.125	28.575	0.875	22.225	0.066	30	3,800	16,900	6,100	27,000	9,000
			0.875	22.225	1.188	30.162	0.813	20.638	0.075	34	4,400	19,500	6,100	27,000	8,000
SCH1414PP			0.875	22.225	1.188	30.162	0.875	22.225	0.060	27	4,050	18,100	6,100	27,000	8,000
HK 2516.2RS	HK 2518 RS	BK 2518 RS	0.984	25	1.260	32	0.630	16	0.060	27	2,470	11,000	3,400	15,200	7,000
			0.984	25	1.260	32	0.709	18	0.064	29	3,500	15,600	5,400	24,000	7,000
HK 2520.2RS			0.984	25	1.260	32	0.787	20	0.068	31	3,500	15,600	5,400	24,000	7,000
HK 2524.2RS			0.984	25	1.260	32	0.945	24	0.088	40	4,450	19,900	7,400	33,000	7,000
HK 2530.2RS			0.984	25	1.260	32	1.181	30	0.104	47	5,700	25,500	10,100	45,000	7,000
SCE1616PP			1.000	25.400	1.250	31.750	1.000	25.400	0.073	33	4,050	18,000	6,800	30,000	8,000
	SCH1613P		1.000	25.400	1.313	33.338	0.813	20.638	0.079	36	4,150	18,500	6,400	28,500	7,000
	SCH1614P	BCH1614P	1.000	25.400	1.313	33.338	0.875	22.225	0.086	39	4,500	20,000	6,400	28,500	7,000
SCH1616PP			1.000	25.400	1.313	33.338	1.000	25.400	0.095	43	4,500	20,000	6,400	28,500	7,000
HK 2820.2RS			1.102	28	1.378	35	0.787	20	0.075	34	3,700	16,400	6,000	26,500	6,000
HK 3016.2RS			1.181	30	1.457	37	0.630	16	0.068	31	2,700	12,100	4,100	18,200	6,000
HK 3018 RS			1.181	30	1.457	37	0.709	18	0.082	37	3,850	17,200	6,500	29,000	6,000
HK 3020.2RS			1.181	30	1.457	37	0.787	20	0.079	36	3,850	17,200	6,500	29,000	6,000
HK 3024.2RS			1.181	30	1.457	37	0.945	24	0.097	44	4,950	22,000	8,900	39,500	6,000
	SCE2012P		1.250	31.750	1.500	38.100	0.750	19.050	0.079	36	3,650	16,300	6,400	28,500	6,500
	SCE2014PR		1.250	31.750	1.500	38.100	0.875	22.225	0.084	38	4,750	21,100	8,900	39,500	6,500
SCE2016PPR			1.250	31.750	1.500	38.100	1.000	25.400	0.108	49	4,750	21,100	8,900	39,500	6,500
	SCH2018P		1.250	31.750	1.625	41.275	1.125	28.580	0.168	76	8,200	36,500	13,000	58,000	6,000
SCH2020PP			1.250	31.750	1.625	41.275	1.250	31.750	0.192	87	7,400	33,000	12,800	57,000	6,000
		BCH2212PV	1.375	34.925	1.750	44.450	0.750	19.050	0.099	45	5,600	25,000	9,100	40,500	6,000



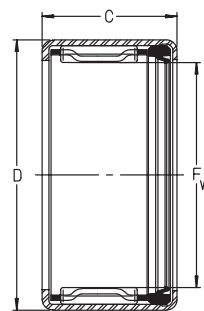
Shell Bearings

SEALED SERIES

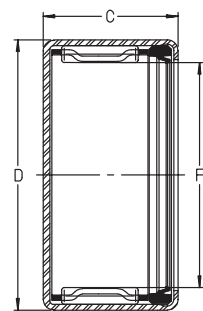
- Drawn cup caged needle bearings
- Open and closed, single or double sealed



SCE..PP, SCH..PP, HK..2RS



SCE..P, SCH..P, HK..RS



BCE..P, BCH..P, BK..RS

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

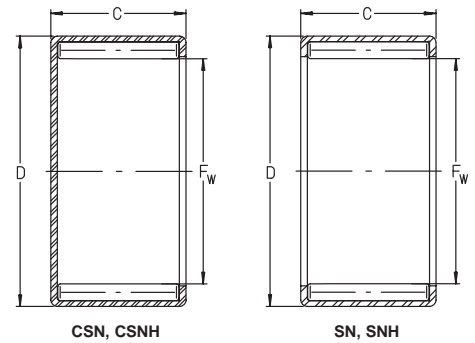
PART NUMBER 2 SEALS	PART NUMBER 1 SEAL	PART NUMBER 1 SEAL CLOSED END	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	SPEED
			F _w	F _w	D	D	C	C	lbs	g	CAP.	CAP.	CAP.	CAP.	LIMIT
			inch	mm	inch	mm	inch	mm			lbf	N	lbf	N	rpm
HK 3516.2RS			1.378	35	1.654	42	0.630	16	0.071	32	2,950	13,100	4,800	21,300	5,000
	HK 3518 RS		1.378	35	1.654	42	0.709	18	0.086	39	4,200	18,700	7,500	33,500	5,000
HK 3520.2RS			1.378	35	1.654	42	0.787	20	0.090	41	4,200	18,700	7,500	33,500	5,000
	SCE2414P		1.500	38.100	1.875	47.625	0.875	22.225	0.155	70	6,900	30,500	11,100	49,500	5,500
	SCE2416P		1.500	38.100	1.875	47.625	1.000	25.400	0.183	83	8,100	36,000	13,700	61,000	5,500
	SCE2422P		1.500	38.100	1.875	47.625	1.375	34.920	0.243	110	10,600	47,000	19,200	19,464	5,500
SCE2424PP			1.500	38.100	1.875	47.625	1.500	38.100	0.258	117	10,600	47,000	19,200	19,464	5,500
HK 4016.2RS			1.575	40	1.850	47	0.630	16	0.082	37	3,150	14,000	5,500	24,300	4,500
	HK 4018 RS		1.575	40	1.850	47	0.709	18	0.099	45	4,500	20,000	8,700	38,500	4,500
HK 4020.2RS			1.575	40	1.850	47	0.787	20	0.106	48	4,500	20,000	8,700	38,500	4,500
	HK 4518 RS		1.772	45	2.047	52	0.709	18	0.110	50	4,800	21,300	9,700	43,000	4,000
HK 4520.2RS			1.772	45	2.047	52	0.787	20	0.119	54	4,800	21,300	9,700	43,000	4,000
	HK 5022 RS		1.969	50	2.284	58	0.866	22	0.168	76	7,000	31,000	14,200	63,000	3,600
HK 5024.2RS			1.969	50	2.284	58	0.945	24	0.179	81	7,000	31,000	14,200	63,000	3,600



Shell Bearings

CSN, SN, SNH SERIES

- Full complement grease retained series
- Drawn cup needle rollers
- Open and closed end designs



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

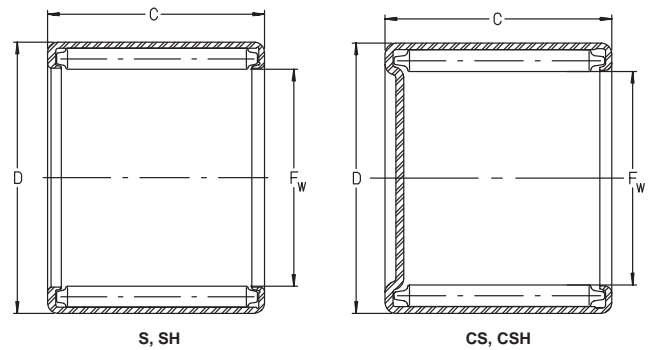
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	SPEED
	F _w	F _w	D	D	C	C			CAP.	CAP.	CAP.	CAP.	
	inch	mm	inch	mm	inch	mm	lbs	g	lbf	N	lbf	N	rpm
SN45	0.250	6.350	0.438	11.112	0.313	7.938	0.007	3	980	4,350	1,100	4,900	10,000
SN55	0.313	7.938	0.500	12.700	0.313	7.938	0.009	4	1,260	5,600	1,390	6,200	8,300
SN56	0.313	7.938	0.500	12.700	0.375	9.525	0.011	5	1,530	6,800	1,800	8,000	8,300
SN57	0.313	7.938	0.500	12.700	0.438	11.113	0.011	5	1,390	6,200	1,300	5,800	8,300
SN65	0.375	9.525	0.563	14.288	0.313	7.938	0.010	5	1,390	6,200	1,660	7,400	7,100
CSN66	0.375	9.525	0.563	14.288	0.500	12.700	0.008	4	1,550	6,900	2,090	9,300	7,100
SN66	0.375	9.525	0.563	14.288	0.375	9.525	0.008	4	1,300	5,800	1,190	5,300	7,100
SN68	0.375	9.525	0.563	14.288	0.500	12.700	0.015	7	1,730	7,700	1,730	7,700	7,100
SN76	0.438	11.112	0.625	15.875	0.375	9.525	0.020	9	1,710	7,600	2,470	11,000	6,300
SN78	0.438	11.112	0.625	15.875	0.500	12.700	0.018	8	2,230	9,900	3,600	16,000	6,300
SN88	0.500	12.700	0.688	17.462	0.500	12.700	0.020	9	2,650	11,800	4,150	18,400	5,600
SN810	0.500	12.700	0.688	17.462	0.625	15.875	0.024	11	2,900	12,900	5,300	23,600	5,600
SN812	0.500	12.700	0.688	17.462	0.750	19.050	0.031	14	3,600	15,900	6,600	29,500	5,600
SNH87	0.500	12.700	0.750	19.050	0.438	11.112	0.024	11	2,110	9,400	1,960	8,700	5,300
SN105	0.625	15.875	0.813	20.638	0.313	7.938	0.015	7	1,440	6,400	1,510	6,700	4,550
SN116	0.688	17.462	0.875	22.225	0.375	9.525	0.019	9	2,090	9,300	3,850	17,100	4,200
SN128	0.750	19.050	1.000	25.400	0.500	12.700	0.037	17	3,350	15,000	5,600	25,000	3,750
SN148	0.875	22.225	1.125	28.575	0.500	12.700	0.040	18	3,900	17,400	7,100	31,500	3,250
SN1816	1.125	28.575	1.375	34.925	1.000	25.400	0.130	59	8,200	36,500	20,200	90,000	2,600
CSN2816	1.750	44.450	2.125	53.975	1.000	25.400	0.269	122	13,300	59,000	30,500	136,000	1,660



Full Complement Shell Bearings

MECHANICALLY RETAINED SERIES

- Drawn cup
- Open or closed end



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

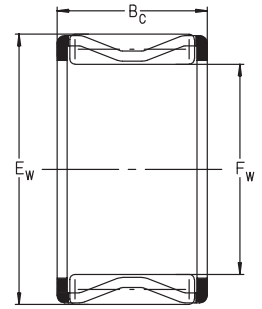
PART NUMBER	SHAFT F _w inch	SHAFT F _w mm	OD D inch	OD D mm	WIDTH C inch	WIDTH C mm	WGT. lbs	WGT. g	DYN. CAP. C lbf	DYN. CAP. C N	STAT. CAP. C ₀ lbf	STAT. CAP. C ₀ N	SPEED LIMIT rpm
S44	0.250	6.350	0.438	11.112	0.250	6.350	0.004	2	600	2650	570	2550	15,000
S45	0.250	6.350	0.438	11.112	0.313	7.938	0.007	3	820	3650	880	3900	15,000
S55	0.313	7.938	0.500	12.700	0.313	7.938	0.007	3	940	4200	1,100	4900	12,500
S57	0.313	7.938	0.500	12.700	0.438	11.112	0.011	5	1,420	6300	1,870	8300	12,500
CS59	0.313	7.938	0.500	12.700	0.563	14.288	0.015	7	1,870	8300	2,700	11900	12,500
S66	0.375	9.525	0.563	14.288	0.375	9.525	0.011	5	1,300	5800	1,780	7900	10,700
S78	0.438	11.112	0.625	15.875	0.500	12.700	0.018	8	2,230	9900	3,150	14100	9,400
S810	0.500	12.700	0.688	17.462	0.625	15.875	0.024	11	2,700	12000	4,850	21600	8,300
S85	0.500	12.700	0.688	17.462	0.313	7.938	0.021	10	1,370	6100	1,780	7900	8,400
S88	0.500	12.700	0.688	17.462	0.500	12.700	0.020	9	2,180	9700	3,650	16300	8,400
S98	0.563	14.288	0.750	19.050	0.500	12.700	0.020	9	2,300	10230	4,050	18014	7,500
S1012	0.625	15.875	0.813	20.638	0.750	19.050	0.035	16	3,650	16300	7,600	34000	6,800
S108	0.625	15.875	0.813	20.638	0.500	12.700	0.022	10	2,450	10900	4,550	20300	6,800
S116	0.688	17.462	0.875	22.225	0.375	9.525	0.020	9	2,050	9100	3,250	14400	6,300
S1110	0.688	17.463	0.875	22.225	0.625	15.880	0.031	14	3,200	14200	6,700	30000	6,300
S1112	0.688	17.463	0.875	22.225	0.750	19.050	0.037	17	3,850	17100	8,400	37500	6,300
S1210	0.750	19.050	1.000	25.400	0.625	15.875	0.044	20	4,000	17700	7,000	31000	5,600
CS1210	0.750	19.050	1.000	25.400	0.625	15.875	0.044	20	4,000	17700	7,000	31000	5,600
S1212	0.750	19.050	1.000	25.400	0.750	19.050	0.055	25	4,800	21350	8,900	39500	5,600
S128	0.750	19.050	1.000	25.400	0.500	12.700	0.035	16	3,200	14300	5,200	23100	5,600
S1316	0.813	20.638	1.063	26.988	1.000	25.400	0.079	36	7,300	32500	13,700	61000	5,200
CS1316	0.813	20.638	1.063	26.988	1.000	25.400	0.079	36	7,300	32500	13,700	61000	5,200
S138	0.813	20.638	1.063	26.988	0.500	12.700	0.040	18	3,000	13400	4,900	21700	5,200
S1412	0.875	22.225	1.125	28.575	0.750	19.050	0.064	29	5,000	22300	8,800	39000	4,900
S148	0.875	22.225	1.125	28.575	0.500	12.700	0.040	18	3,650	16300	5,800	26000	4,900
CS1516	0.938	23.812	1.188	30.162	1.000	25.400	0.084	38	7,500	33500	14,800	66000	4,600
S1612	1.000	25.400	1.250	31.750	0.750	19.050	0.071	32	5,500	24600	11,900	53000	4,300
S168	1.000	25.400	1.250	31.750	0.500	12.700	0.044	20	3,600	15900	6,700	30000	4,300
SH1612	1.000	25.400	1.314	33.380	0.750	19.050	0.088	40	6,900	30500	11,100	49500	4,250
SH1616	1.000	25.400	1.314	33.380	1.000	25.400	0.108	49	8,900	39500	15,700	70000	4,250
S1710	1.063	26.988	1.313	33.338	0.625	15.875	0.062	28	4,750	21100	9,900	44000	4,100
S1812	1.125	28.575	1.375	34.925	0.750	19.050	0.079	36	6,500	29000	13,300	59000	3,900
S2012	1.250	31.750	1.500	38.100	0.750	19.050	0.086	39	6,300	28000	14,800	66000	3,500
S2016	1.250	31.750	1.500	38.100	1.000	25.400	0.117	53	8,200	36500	20,900	93000	3,500
S2212	1.375	34.925	1.625	41.275	0.750	19.050	0.095	43	6,400	28500	16,000	71000	3,200
S2220	1.375	34.925	1.625	41.275	1.250	31.750	0.159	72	10,300	46000	30,000	133000	3,200
S2416	1.500	38.100	1.875	47.625	1.000	25.400	0.207	94	10,700	47500	2,410	10700	2,850
S2610	1.625	41.275	2.000	50.800	0.625	15.875	0.130	59	6,500	29000	12,400	55000	2,650
S268	1.625	41.275	2.000	50.800	0.500	12.700	0.088	40	7,300	32500	12,400	55000	2,650
S2812	1.750	44.450	2.125	53.975	0.750	19.050	0.175	80	8,100	36000	16,900	75000	2,490
S2824	1.750	44.450	2.125	53.975	1.500	38.100	0.375	170	18,900	84000	44,000	196000	2,490
S3016	1.875	47.625	2.250	57.150	1.000	25.400	0.256	116	13,500	60000	28,500	126000	2,340
S308	1.875	47.625	2.250	57.150	0.500	12.700	0.115	52	5,700	25500	9,600	42500	2,340
S3216	2.000	50.800	2.375	60.325	1.000	25.400	0.267	121	12,400	55000	30,500	136000	2,200
S3624	2.250	57.150	2.625	66.675	1.500	38.100	0.084	38	19,600	87000	56,000	250000	1,970
S4216	2.625	66.675	3.000	76.200	1.000	25.400	0.353	160	14,400	64000	40,000	177000	1,700



Needle Roller And Cage Assemblies

UNIT CAGE SERIES

- Inch and metric
- Single and double row



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

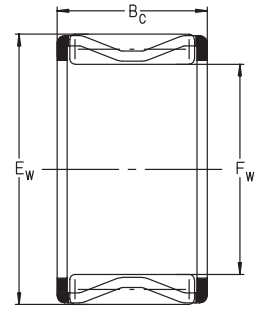
PART NUMBER	SHAFT F _w inch	SHAFT F _w mm	HSG. BORE E _w inch	HSG. BORE E _w mm	WIDTH B _c inch	WIDTH B _c mm	WGT. lbs	WGT. g	DYN. CAP. C lbf	DYN. CAP. C N	STAT. CAP. C ₀ lbf	STAT. CAP. C ₀ N	SPEED LIMIT rpm
K 3x5x7 TN	0.118	3	0.197	5	0.276	7	0.001	0.3	345	1540	290	1290	50,000
K 3x5x9 TN	0.118	3	0.197	5	0.354	9	0.001	0.4	385	1710	335	1480	50,000
K 3x6x7 TN	0.118	3	0.236	6	0.276	7	0.001	0.4	320	1430	218	970	47,000
K 4x7x7 TN	0.158	4	0.276	7	0.276	7	0.001	0.5	390	1740	285	1270	43,000
K 4x7x10 TN	0.158	4	0.276	7	0.394	10	0.002	0.7	520	2330	415	1840	43,000
K 5x8x8 TN	0.197	5	0.315	8	0.315	8	0.002	0.7	530	2350	430	1920	39,000
K 5x8x10 TN	0.197	5	0.315	8	0.394	10	0.002	0.9	670	3000	600	2650	39,000
K 6x9x8 TN	0.236	6	0.354	9	0.315	8	0.002	0.8	590	2600	510	2280	37,000
K 6x9x10 TN	0.236	6	0.354	9	0.394	10	0.002	1.1	750	3350	710	3150	37,000
K 6x10x13 TN	0.236	6	0.394	10	0.512	13	0.004	1.9	850	3800	700	3100	35,000
K 7x9x7 TN	0.276	7	0.354	9	0.276	7	0.001	0.6	405	1810	425	1880	35,000
K 7x10x8 TN	0.276	7	0.394	10	0.315	8	0.002	0.9	640	2850	600	2650	34,000
K 7x10x10 TN	0.276	7	0.394	10	0.394	10	0.002	1	820	3650	810	3600	34,000
K 8x11x8 TN	0.315	8	0.433	11	0.315	8	0.002	1	700	3100	670	3000	32,000
K 8x11x10 TN	0.315	8	0.433	11	0.394	10	0.003	1.2	890	3950	920	4100	32,000
K 8x11x13 TN	0.315	8	0.433	11	0.512	13	0.004	1.7	1,150	5100	1,300	5800	32,000
K 8x12x8	0.315	8	0.472	12	0.315	8	0.001	0.4	800	3550	690	3050	32,000
K 8x12x10 TN	0.315	8	0.472	12	0.394	10	0.004	2	1,120	5000	1,060	4700	32,000
K 9x12x10 TN	0.354	9	0.472	12	0.394	10	0.003	1.5	1,010	4500	1,120	5000	31,000
K 9x12x13 TN	0.354	9	0.472	12	0.512	13	0.005	2.1	1,330	5900	1,600	7100	31,000
C060806	0.375	9.525	0.500	12.700	0.375	9.525	0.005	2.5	900	4000	940	4200	30,000
K 10x13x10 TN	0.394	10	0.512	13	0.394	10	0.004	1.6	1,070	4750	1,240	5500	29,000
K 10x13x13 TN	0.394	10	0.512	13	0.512	13	0.005	2.3	1,390	6200	1,750	7800	29,000
K 10x13x16 TN	0.394	10	0.512	13	0.630	16	0.006	2.9	1,600	7100	2,090	9300	29,000
K 10x14x10 TN	0.394	10	0.551	14	0.394	10	0.006	2.5	1,300	5800	1,350	6000	29,000
K 10x14x13 TN	0.394	10	0.551	14	0.512	13	0.01	4.6	1,690	7500	1,890	8400	29,000
K 10x16x12 TN	0.394	10	0.630	16	0.472	12	0.012	5.5	1,820	8100	1,620	7200	28,000
K 12x15x10 TN	0.472	12	0.591	15	0.394	10	0.006	2.9	1,100	4900	1,370	6100	27,000
K 12x15x13 TN	0.472	12	0.591	15	0.512	13	0.005	2.3	1,440	6400	1,910	8500	27,000
K 12x15x20 ZW TN	0.472	12	0.591	15	0.787	20	0.011	5	1,890	8400	2,750	12200	27,000
K 12x16x10	0.472	12	0.630	16	0.394	10	0.008	3.7	1,440	6400	1,620	7200	27,000
K 12x16x13 TN	0.472	12	0.630	16	0.512	13	0.012	5.5	1,800	8000	2,110	9400	27,000
K 12x17x13 TN	0.472	12	0.669	17	0.512	13	0.011	4.9	2,160	9600	2,340	10400	26,000
K 12x18x12 TN	0.472	12	0.709	18	0.472	12	0.013	6	2,250	10000	2,230	9900	26,000
C081008	0.500	12.700	0.625	15.875	0.500	12.700	0.009	4.2	1,490	6600	1,960	8700	26,000
K 14x17x10	0.551	14	0.669	17	0.394	10	0.009	4	1,190	5300	1,600	7100	25,000
K 14x17x17 TN	0.551	14	0.669	17	0.669	17	0.009	4	2,050	9100	3,150	14100	25,000
K 14x18x10	0.551	14	0.709	18	0.394	10	0.009	4	1,600	7100	1,910	8500	25,000
K 14x18x13	0.551	14	0.709	18	0.512	13	0.014	6.5	1,840	8200	2,270	10100	25,000
K 14x18x14	0.551	14	0.709	18	0.551	14	0.013	6	2,140	9500	2,750	12300	25,000
K 14x18x15 TN	0.551	14	0.709	18	0.591	15	0.011	5	2,140	9500	2,750	12300	25,000
K 14x18x17	0.551	14	0.709	18	0.669	17	0.018	8	2,430	10800	3,250	14400	25,000
K 14x20x12	0.551	14	0.787	20	0.472	12	0.019	8.5	2,320	10300	2,380	10600	24,000
C091108	0.563	14.288	0.688	17.463	0.500	12.700	0.010	4.7	1,630	7300	2,290	10200	25,000
C091110	0.563	14.288	0.688	17.463	0.625	15.875	0.013	5.9	2,190	9800	3,350	15000	25,000
K 15x18x17 TN	0.591	15	0.709	18	0.669	17	0.01	4.6	1,800	8000	2,700	12100	25,000



Needle Roller And Cage Assemblies

UNIT CAGE SERIES

- Inch and metric
- Single and double row



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

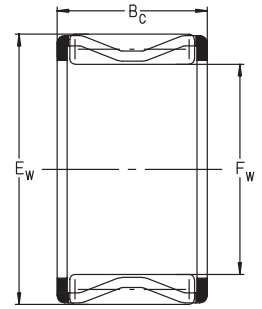
PART NUMBER	SHAFT F _w inch	SHAFT F _w mm	HSG. BORE E _w inch	HSG. BORE E _w mm	WIDTH B _c inch	WIDTH B _c mm	WGT. lbs	WGT. g	DYN. CAP. C lbf	DYN. CAP. C N	STAT. CAP. C ₀ lbf	STAT. CAP. C ₀ N	SPEED LIMIT rpm
K 15x19x10	0.591	15	0.748	19	0.394	10	0.011	5	1,690	7500	2,070	9200	24,000
K 15x19x13	0.591	15	0.748	19	0.512	13	0.015	7	1,910	8500	2,450	10900	24,000
K 15x19x17	0.591	15	0.748	19	0.669	17	0.021	9.5	2,550	11300	3,500	15600	24,000
K 15x20x13	0.591	15	0.787	20	0.512	13	0.015	7	2,230	9900	2,600	11500	24,000
K 15x21x15	0.591	15	0.827	21	0.591	15	0.024	11	3,200	14300	3,700	16400	24,000
K 15x21x21	0.591	15	0.827	21	0.827	21	0.037	17	4,350	19400	5,500	24300	24,000
C101208	0.625	15.875	0.750	19.050	0.500	12.700	0.011	5.2	1,840	8200	2,750	12300	24,000
K 16x20x10	0.630	16	0.787	20	0.394	10	0.012	5.5	1,750	7800	2,230	9900	24,000
K 16x20x13	0.630	16	0.787	20	0.512	13	0.017	7.5	2,000	8900	2,650	11800	24,000
K 16x20x17	0.630	16	0.787	20	0.669	17	0.022	10	2,650	11700	3,800	16800	24,000
K 16x22x12	0.630	16	0.866	22	0.472	12	0.022	10	2,600	11500	2,800	12500	23,000
K 16x22x13	0.630	16	0.866	22	0.512	13	0.026	12	2,800	12400	3,150	13900	23,000
K 16x22x16	0.630	16	0.866	22	0.630	16	0.026	12	3,350	14800	3,950	17500	23,000
K 16x22x20	0.630	16	0.866	22	0.787	20	0.037	17	4,100	18300	5,100	22800	23,000
K 16x24x20	0.630	16	0.945	24	0.787	20	0.049	22	4,800	21400	5,300	23500	22,000
K 17x21x10	0.669	17	0.827	21	0.394	10	0.012	5.5	1,820	8100	2,380	10600	23,000
K 17x21x13	0.669	17	0.827	21	0.512	13	0.014	6.5	2,340	10400	3,300	14600	23,000
K 17x21x17	0.669	17	0.827	21	0.669	17	0.021	9.5	2,750	12200	4,000	17900	23,000
K 18x22x10	0.709	18	0.866	22	0.394	10	0.013	6	1,890	8400	2,550	11300	22,000
K 18x22x13	0.709	18	0.866	22	0.512	13	0.018	8	2,070	9200	2,850	12700	22,000
K 18x22x17	0.709	18	0.866	22	0.669	17	0.024	11	2,700	12100	4,050	18000	22,000
K 18x24x12	0.709	18	0.945	24	0.472	12	0.026	12	2,650	11700	3,000	13300	22,000
K 18x24x13	0.709	18	0.945	24	0.512	13	0.029	13	2,950	13100	3,450	15300	22,000
K 18x24x20	0.709	18	0.945	24	0.787	20	0.04	18	4,550	20200	6,100	27000	22,000
K 18x25x14	0.709	18	0.984	25	0.551	14	0.033	15	3,800	16800	4,350	19300	22,000
K 18x25x22	0.709	18	0.984	25	0.866	22	0.051	23	5,200	23100	6,500	29000	22,000
K 18x28x16	0.709	18	1.102	28	0.630	16	0.053	24	4,400	19600	4,250	18900	21,000
K 19x23x13	0.748	19	0.906	23	0.512	13	0.018	8	2,140	9500	3,050	13500	22,000
K 19x23x17	0.748	19	0.906	23	0.669	17	0.024	11	2,800	12500	4,300	19200	22,000
C121616	0.750	19.050	1.000	25.400	1.000	25.400	0.058	26.4	5,600	25000	7,800	34500	21,000
K 20x24x10	0.787	20	0.945	24	0.394	10	0.014	6.5	2,000	8900	2,850	12600	21,000
K 20x24x12	0.787	20	0.945	24	0.472	12	0.018	8	2,200	9800	3,200	14300	21,000
K 20x24x13	0.787	20	0.945	24	0.512	13	0.02	9	2,200	9800	3,200	14300	21,000
K 20x24x17	0.787	20	0.945	24	0.669	17	0.026	12	2,900	12900	4,600	20400	21,000
K 20x26x12	0.787	20	1.024	26	0.472	12	0.024	11	3,000	13400	3,650	16200	21,000
K 20x26x13	0.787	20	1.024	26	0.512	13	0.026	12	3,250	14400	4,000	17900	21,000
K 20x26x17	0.787	20	1.024	26	0.669	17	0.035	16	4,300	19200	5,800	26000	21,000
K 20x26x20	0.787	20	1.024	26	0.787	20	0.042	19	4,750	21100	6,500	29000	21,000
K 20x28x16	0.787	20	1.102	28	0.630	16	0.044	20	4,450	19800	5,000	22400	20,000
K 20x28x20	0.787	20	1.102	28	0.787	20	0.06	27	5,400	23900	6,400	28500	20,000
K 20x28x25	0.787	20	1.102	28	0.984	25	0.071	32	6,900	30500	8,800	39000	20,000
K 20x30x30	0.787	20	1.181	30	1.181	30	0.108	49	8,000	35500	9,300	41500	20,000
C131608	0.813	20.638	1.000	25.400	0.500	12.700	0.023	10.2	2,800	12500	3,950	17600	21,000
C131714	0.813	20.638	1.063	26.988	0.875	22.230	0.054	24.7	5,100	22600	7,000	31000	21,000
K 21x25x13	0.827	21	0.984	25	0.512	13	0.02	9	2,270	10100	3,400	15100	21,000
K 21x25x17	0.827	21	0.984	25	0.669	17	0.022	10	3,000	13300	4,850	21500	21,000



Needle Roller And Cage Assemblies

UNIT CAGE SERIES

- Inch and metric
- Single and double row



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

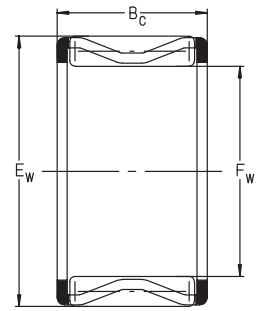
PART NUMBER	SHAFT F _w inch	SHAFT F _w mm	HSG. BORE E _w inch	HSG. BORE E _w mm	WIDTH B _c inch	WIDTH B _c mm	WGT. lbs	WGT. g	DYN. CAP. C lbf	DYN. CAP. C N	STAT. CAP. C ₀ lbf	STAT. CAP. C ₀ N	SPEED LIMIT rpm
K 22x26x10	0.866	22	1.024	26	0.394	10	0.017	7.5	2,050	9100	3,000	13400	20,000
K 22x26x13	0.866	22	1.024	26	0.512	13	0.021	9.5	2,340	10400	3,600	15900	20,000
K 22x26x17	0.866	22	1.024	26	0.669	17	0.026	12	3,100	13700	5,100	22700	20,000
K 22x28x17	0.866	22	1.102	28	0.669	17	0.04	18	4,350	19400	6,100	27000	20,000
K 22x29x16	0.866	22	1.142	29	0.630	16	0.035	16	4,500	20000	5,700	25500	19,000
K 22x30x15 TN	0.866	22	1.181	30	0.591	15	0.04	18	4,500	20100	5,300	23400	19,000
K 22x32x24	0.866	22	1.260	32	0.945	24	0.095	43	7,600	34000	9,000	40000	18,000
C141816	0.875	22.225	1.125	28.575	1.000	25.400	0.066	30.1	6,500	29000	9,800	43500	19,000
K 23x35x16 TN	0.906	23	1.378	35	0.630	16	0.064	29	5,500	24500	5,400	23900	17,000
K 24x28x10	0.945	24	1.102	28	0.394	10	0.019	8.5	2,160	9600	3,350	14800	19,000
K 24x28x13	0.945	24	1.102	28	0.512	13	0.022	10	2,470	11000	3,950	17600	19,000
K 24x28x17	0.945	24	1.102	28	0.669	17	0.029	13	3,250	14500	5,600	25000	19,000
K 24x29x13	0.945	24	1.142	29	0.512	13	0.031	14	3,050	13600	4,450	19700	18,000
K 24x30x17	0.945	24	1.181	30	0.669	17	0.042	19	4,400	19500	6,200	27500	18,000
K 24x30x31 ZW	0.945	24	1.181	30	1.221	31	0.071	32	6,200	27500	9,800	43500	18,000
K 25x29x10	0.984	25	1.142	29	0.394	10	0.019	8.5	2,230	9900	3,450	15400	18,000
K 25x29x13	0.984	25	1.142	29	0.512	13	0.024	11	2,550	11300	4,150	18400	18,000
K 25x29x17	0.984	25	1.142	29	0.669	17	0.031	14	3,350	14900	5,800	26000	18,000
K 25x30x13	0.984	25	1.181	30	0.512	13	0.024	11	3,300	14600	4,900	21800	18,000
K 25x30x17	0.984	25	1.181	30	0.669	17	0.035	16	4,200	18700	6,700	30000	18,000
K 25x30x20	0.984	25	1.181	30	0.787	20	0.04	18	4,900	21700	8,200	36500	18,000
K 25x30x26 ZW	0.984	25	1.181	30	1.024	26	0.042	19	4,800	21400	8,000	35500	18,000
K 25x31x17	0.984	25	1.221	31	0.669	17	0.042	19	4,400	19600	6,400	28500	18,000
K 25x31x21	0.984	25	1.221	31	0.827	21	0.044	20	5,600	24700	8,500	38000	18,000
K 25x32x16	0.984	25	1.260	32	0.630	16	0.046	21	4,700	21000	6,300	28000	17,000
K 25x33x20	0.984	25	1.299	33	0.787	20	0.073	33	6,400	28500	8,500	38000	17,000
K 25x33x24	0.984	25	1.299	33	0.945	24	0.086	39	7,600	34000	10,600	47000	17,000
K 25x35x30	0.984	25	1.378	35	1.181	30	0.143	65	10,600	47000	13,900	62000	16,000
C161908	1.000	25.400	1.188	30.162	0.500	12.700	0.027	12.4	3,050	13700	4,700	20900	18,000
C162112	1.000	25.400	1.313	33.338	0.750	19.050	0.072	32.6	6,400	28500	8,500	38000	17,000
C162116	1.000	25.400	1.313	33.338	1.000	25.400	0.096	43.5	8,200	36500	11,900	53000	17,000
K 26x30x10	1.024	26	1.181	30	0.394	10	0.015	7	2,270	10100	3,600	16100	18,000
K 26x30x13	1.024	26	1.181	30	0.512	13	0.024	11	2,600	11600	4,300	19200	18,000
K 26x30x17	1.024	26	1.181	30	0.669	17	0.033	15	3,400	15200	6,200	27500	18,000
K 26x30x22 ZW	1.024	26	1.181	30	0.866	22	0.026	12	3,550	15700	6,400	28500	18,000
K 28x33x13	1.102	28	1.299	33	0.512	13	0.029	13	3,450	15300	5,400	24200	16,000
K 28x33x17	1.102	28	1.299	33	0.669	17	0.037	17	4,450	19700	7,500	33500	16,000
K 28x33x27 TN	1.102	28	1.299	33	1.063	27	0.042	19	5,200	23300	9,200	41000	16,000
K 28x34x17	1.102	28	1.339	34	0.669	17	0.053	24	4,900	21800	7,500	33500	16,000
K 28x35x16	1.102	28	1.378	35	0.630	16	0.053	24	4,850	21500	6,600	29500	16,000
K 28x35x18	1.102	28	1.378	35	0.709	18	0.06	27	5,400	24000	7,600	34000	16,000
K 28x35x27	1.102	28	1.378	35	1.063	27	0.09	41	7,900	35000	12,400	55000	16,000
K 28x40x18	1.102	28	1.575	40	0.709	18	0.11	50	7,500	33500	8,300	37000	14,000
K 28x40x25	1.102	28	1.575	40	0.984	25	0.154	70	10,200	45500	12,400	55000	14,000
C182212	1.125	28.575	1.375	34.925	0.750	19.050	0.062	28.2	5,000	22200	7,400	33000	15,000
C182416	1.125	28.575	1.500	38.100	1.000	25.400	0.131	59.3	9,700	43000	13,400	60000	15,000



Needle Roller And Cage Assemblies

UNIT CAGE SERIES

- Inch and metric
- Single and double row



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

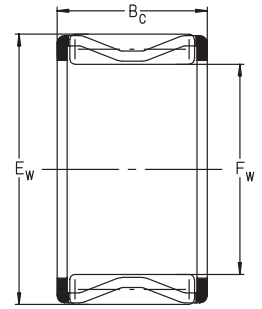
PART NUMBER	SHAFT F _w inch	SHAFT F _w mm	HSG. BORE E _w inch	HSG. BORE E _w mm	WIDTH B _c inch	WIDTH B _c mm	WGT. lbs	WGT. g	DYN. CAP. C lbf	DYN. CAP. C N	STAT. CAP. C ₀ lbf	STAT. CAP. C ₀ N	SPEED LIMIT rpm
C182420	1.125	28.575	1.500	38.100	1.250	31.750	0.163	74.1	11,700	52000	17,100	76000	15,000
K 30x34x13	1.181	30	1.339	34	0.512	13	0.031	14	2,750	12300	4,900	21700	15,000
K 30x35x13	1.181	30	1.378	35	0.512	13	0.031	14	3,500	15600	5,700	25500	15,000
K 30x35x17	1.181	30	1.378	35	0.669	17	0.042	19	4,400	19600	7,600	34000	15,000
K 30x35x26 ZW	1.181	30	1.378	35	1.024	26	0.079	36	5,400	24000	9,900	44000	15,000
K 30x35x27	1.181	30	1.378	35	1.063	27	0.066	30	6,900	30500	13,300	59000	15,000
K 30x37x16	1.181	30	1.457	37	0.630	16	0.06	27	5,200	23100	7,500	33500	15,000
K 30x37x18	1.181	30	1.457	37	0.709	18	0.066	30	5,800	26000	8,700	38500	15,000
K 30x40x18	1.181	30	1.575	40	0.709	18	0.106	48	7,200	32000	9,000	40000	14,000
K 30x40x30	1.181	30	1.575	40	1.181	30	0.161	73	11,000	49000	15,500	69000	15,000
C202412 (F88312)	1.250	31.750	1.500	38.100	0.750	19.050	0.068	31.1	5,800	26000	9,600	42500	15,000
C202612	1.250	31.750	1.625	41.275	0.750	19.050	0.107	48.7	7,800	34500	10,500	46500	13,000
C202616	1.250	31.750	1.625	41.275	1.000	25.400	0.143	64.9	10,100	45000	14,600	65000	13,000
C202624	1.250	31.750	1.625	41.275	1.500	38.100	0.215	97.4	14,400	64000	22,700	101000	13,000
C202812	1.250	31.750	1.750	44.450	0.750	19.050	0.149	67.8	10,200	45500	12,400	55000	13,000
K 32x37x13	1.260	32	1.457	37	0.512	13	0.04	18	3,500	15500	5,700	25500	14,000
K 32x37x17	1.260	32	1.457	37	0.669	17	0.042	19	4,450	19900	8,000	35500	14,000
K 32x37x27	1.260	32	1.457	37	1.063	27	0.066	30	6,700	30000	13,500	60000	14,000
K 32x37x28 TN	1.260	32	1.457	37	1.102	28	0.046	21	5,300	23600	9,800	43500	14,000
K 32x38x16	1.260	32	1.496	38	0.630	16	0.055	25	4,850	21500	7,800	34500	14,000
K 32x38x20	1.260	32	1.496	38	0.787	20	0.066	30	6,000	26500	10,100	45000	14,000
K 32x38x26	1.260	32	1.496	38	1.024	26	0.084	38	7,500	33500	13,700	61000	14,000
K 32x39x16	1.260	32	1.535	39	0.630	16	0.082	37	5,400	23800	8,000	35500	14,000
K 32x39x18	1.260	32	1.535	39	0.709	18	0.068	31	6,000	26500	9,200	41000	14,000
K 32x40x25	1.260	32	1.575	40	0.984	25	0.108	49	8,400	37500	13,000	58000	14,000
K 32x40x36	1.260	32	1.575	40	1.417	36	0.161	73	12,100	54000	20,700	92000	14,000
K 32x40x42 ZW TN	1.260	32	1.575	40	1.654	42	0.17	77	11,200	50000	18,900	84000	14,000
K 32x46x32	1.260	32	1.811	46	1.260	32	0.262	119	14,800	66000	18,700	83000	13,000
C222820	1.375	34.925	1.750	44.450	1.250	31.750	0.195	88.2	12,600	56000	19,800	88000	12,000
K 35x40x13	1.378	35	1.575	40	0.512	13	0.042	19	3,650	16200	6,300	28000	13,000
K 35x40x17	1.378	35	1.575	40	0.669	17	0.046	21	4,700	20800	8,700	38500	13,000
K 35x40x25	1.378	35	1.575	40	0.984	25	0.068	31	6,600	29500	13,500	60000	13,000
K 35x40x27 TN	1.378	35	1.575	40	1.063	27	0.086	39	5,600	25000	10,900	48500	13,000
K 35x40x30 ZW	1.378	35	1.575	40	1.181	30	0.106	48	5,700	25500	11,200	50000	13,000
K 35x40x32 ZW	1.378	35	1.575	40	1.260	32	0.11	50	7,200	32000	14,800	66000	13,000
K 35x42x16	1.378	35	1.654	42	0.630	16	0.075	34	5,500	24400	8,400	37500	13,000
K 35x42x18	1.378	35	1.654	42	0.709	18	0.075	34	6,200	27500	9,700	43000	13,000
K 35x42x20	1.378	35	1.654	42	0.787	20	0.082	37	6,700	30000	11,000	49000	13,000
K 35x42x30	1.378	35	1.654	42	1.181	30	0.148	67	8,800	39000	15,300	68000	13,000
K 35x43x18	1.378	35	1.693	43	0.709	18	0.084	38	6,400	28500	9,400	42000	13,000
K 35x45x20	1.378	35	1.772	45	0.787	20	0.123	56	8,300	37000	11,200	50000	12,000
K 35x45x30	1.378	35	1.772	45	1.181	30	0.176	80	11,900	53000	17,800	79000	12,000
K 35x45x49	1.378	35	1.772	45	1.929	49	0.304	138	18,400	82000	31,500	139000	12,000
K 36x42x16	1.417	36	1.654	42	0.630	16	0.064	29	5,500	24600	9,600	42500	13,000
K 37x42x17	1.457	37	1.654	42	0.669	17	0.049	22	5,000	22400	9,700	43000	12,000
K 37x42x27	1.457	37	1.654	42	1.063	27	0.09	41	7,200	32000	15,300	68000	12,000



Needle Roller And Cage Assemblies

UNIT CAGE SERIES

- Inch and metric
- Single and double row



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

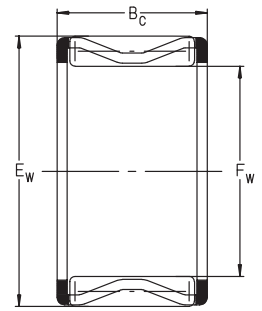
PART NUMBER	SHAFT F _w inch	SHAFT F _w mm	HSG. BORE E _w inch	HSG. BORE E _w mm	WIDTH B _c inch	WIDTH B _c mm	WGT. lbs	WGT. g	DYN. CAP. C lbf	DYN. CAP. C N	STAT. CAP. C ₀ lbf	STAT. CAP. C ₀ N	SPEED LIMIT rpm
K 37x45x26	1.457	37	1.772	45	1.024	26	0.135	61	9,900	44000	16,600	74000	12,000
K 38x43x17	1.496	38	1.693	43	0.669	17	0.064	29	4,600	20500	8,700	38500	12,000
K 38x43x27	1.496	38	1.693	43	1.063	27	0.095	43	7,100	31500	15,300	68000	12,000
K 38x46x20	1.496	38	1.811	46	0.787	20	0.104	47	8,000	35500	12,800	57000	12,000
K 38x46x32	1.496	38	1.811	46	1.260	32	0.168	76	12,400	55000	22,300	99000	12,000
C243016	1.500	38.100	1.875	47.625	1.000	25.400	0.168	76.2	10,800	48000	16,700	74000	11,000
C243020	1.500	38.100	1.875	47.625	1.250	31.750	0.210	95.3	13,000	58000	21,300	95000	11,000
C243024	1.500	38.100	1.875	47.625	1.500	38.100	0.252	114.3	15,300	68000	26,000	116000	11,000
K 39x44x24	1.535	39	1.732	44	0.945	24	0.066	30	6,400	28500	13,300	59000	12,000
K 39x44x26 ZW	1.535	39	1.732	44	1.024	26	0.099	45	6,200	27500	12,600	56000	12,000
K 40x44x13	1.575	40	1.732	44	0.512	13	0.04	18	3,150	14000	6,400	28500	12,000
K 40x45x13	1.575	40	1.772	45	0.512	13	0.049	22	3,950	17600	7,300	32500	12,000
K 40x45x17	1.575	40	1.772	45	0.669	17	0.068	31	4,800	21400	9,300	41500	12,000
K 40x45x21	1.575	40	1.772	45	0.827	21	0.073	33	5,600	24900	11,200	50000	12,000
K 40x45x27	1.575	40	1.772	45	1.063	27	0.101	46	7,400	33000	16,400	73000	12,000
K 40x45x30 ZW	1.575	40	1.772	45	1.181	30	0.128	58	6,000	26500	12,100	54000	12,000
K 40x46x17	1.575	40	1.811	46	0.669	17	0.062	28	5,600	25000	10,100	45000	11,000
K 40x47x18	1.575	40	1.850	47	0.709	18	0.086	39	6,600	29500	11,200	50000	11,000
K 40x47x20	1.575	40	1.850	47	0.787	20	0.093	42	7,300	32500	12,800	57000	11,000
K 40x48x20	1.575	40	1.890	48	0.787	20	0.108	49	8,100	36000	13,300	59000	11,000
K 42x47x13	1.654	42	1.850	47	0.512	13	0.04	18	4,000	17800	7,500	33500	11,000
K 42x47x17	1.654	42	1.850	47	0.669	17	0.071	32	4,900	21700	9,700	43000	11,000
K 42x47x25 TN	1.654	42	1.850	47	0.984	25	0.057	26	6,200	27500	13,000	58000	11,000
K 42x47x27	1.654	42	1.850	47	1.063	27	0.108	49	7,500	33500	16,900	75000	11,000
K 42x47x30 ZW	1.654	42	1.850	47	1.181	30	0.119	54	7,500	33500	17,100	76000	11,000
K 42x50x18	1.654	42	1.969	50	0.709	18	0.117	53	7,100	31500	11,200	50000	11,000
K 42x50x20	1.654	42	1.969	50	0.787	20	0.117	53	7,900	35000	12,800	57000	11,000
K 43x48x17	1.693	43	1.890	48	0.669	17	0.066	30	4,850	21600	9,700	43000	11,000
K 43x48x27	1.693	43	1.890	48	1.063	27	0.11	50	7,500	33500	16,900	75000	11,000
K 43x50x18	1.693	43	1.969	50	0.709	18	0.09	41	7,000	31000	12,100	54000	11,000
C283412	1.750	44.450	2.125	53.975	0.750	19.050	0.145	65.6	9,100	40500	13,900	62000	10,000
C283416	1.750	44.450	2.125	53.975	1.000	25.400	0.193	87.5	11,900	53000	19,800	88000	10,000
C283424	1.750	44.450	2.125	53.975	1.500	38.100	0.289	131.3	16,900	75000	31,000	138000	10,000
K 45x49x19	1.772	45	1.929	49	0.748	19	0.06	27	4,050	18000	9,100	40500	10,000
K 45x50x17	1.772	45	1.969	50	0.669	17	0.075	34	5,100	22500	10,300	46000	10,000
K 45x50x27	1.772	45	1.969	50	1.063	27	0.112	51	7,800	34500	18,000	80000	10,000
K 45x50x32 TN	1.772	45	1.969	50	1.260	32	0.099	45	8,700	38500	20,500	91000	10,000
K 45x51x36 ZW	1.772	45	2.008	51	1.417	36	0.187	85	10,100	45000	22,300	99000	10,000
K 45x52x18	1.772	45	2.047	52	0.709	18	0.093	42	7,100	31500	12,800	57000	10,000
K 45x52x21 TN	1.772	45	2.047	52	0.827	21	0.075	34	6,700	30000	11,700	52000	10,000
K 45x53x20	1.772	45	2.087	53	0.787	20	0.121	55	8,800	39000	15,100	67000	10,000
K 45x53x21	1.772	45	2.087	53	0.827	21	0.132	60	8,700	38500	15,100	67000	10,000
K 45x53x22	1.772	45	2.087	53	0.866	22	0.132	60	9,600	42500	17,100	76000	10,000
K 45x53x28	1.772	45	2.087	53	1.102	28	0.179	81	11,700	52000	22,000	98000	10,000
K 45x59x18 TN	1.772	45	2.323	59	0.709	18	0.159	72	9,900	44000	12,100	54000	9,500
K 45x59x32	1.772	45	2.323	59	1.260	32	0.326	148	16,400	73000	22,900	102000	9,500



Needle Roller And Cage Assemblies

UNIT CAGE SERIES

- Inch and metric
- Single and double row



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

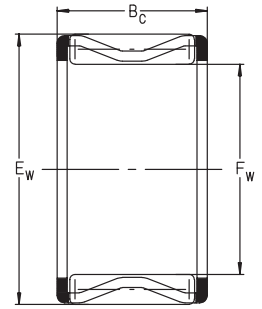
PART NUMBER	SHAFT F _w inch	SHAFT F _w mm	HSG. BORE E _w inch	HSG. BORE E _w mm	WIDTH B _c inch	WIDTH B _c mm	WGT. lbs	WGT. g	DYN. CAP. C lbf	DYN. CAP. C N	STAT. CAP. C ₀ lbf	STAT. CAP. C ₀ N	SPEED LIMIT rpm
K 45x59x36	1.772	45	2.323	59	1.417	36	0.351	159	17,100	76000	24,500	109000	9,500
K 47x52x17	1.850	47	2.047	52	0.669	17	0.077	35	5,200	23300	11,000	49000	10,000
K 47x52x27	1.850	47	2.047	52	1.063	27	0.112	51	7,900	35000	18,700	83000	10,000
K 47x53x25	1.850	47	2.087	53	0.984	25	0.112	51	8,700	38500	18,400	82000	10,000
K 47x55x28	1.850	47	2.165	55	1.102	28	0.176	80	11,900	53000	22,700	101000	9,500
K 48x54x19	1.890	48	2.126	54	0.748	19	0.101	46	6,900	30500	13,700	61000	9,500
K 50x55x13.5	1.969	50	2.165	55	0.532	13.5	0.066	30	4,100	18200	8,200	36500	9,500
K 50x55x17	1.969	50	2.165	55	0.669	17	0.077	35	4,950	22100	10,600	47000	9,500
K 50x55x20	1.969	50	2.165	55	0.787	20	0.095	43	6,000	26500	13,500	60000	9,500
K 50x55x30	1.969	50	2.165	55	1.181	30	0.143	65	8,800	39000	21,800	97000	9,500
K 50x57x18	1.969	50	2.244	57	0.709	18	0.104	47	7,500	33500	14,200	63000	9,000
K 50x58x20	1.969	50	2.284	58	0.787	20	0.165	75	8,000	35500	13,900	62000	9,000
K 50x58x25	1.969	50	2.284	58	0.984	25	0.198	90	9,900	44000	18,200	81000	9,000
K 52x57x12	2.047	52	2.244	57	0.472	12	0.053	24	4,050	18000	8,200	36500	9,000
K 55x60x20	2.165	55	2.362	60	0.787	20	0.088	40	6,400	28500	14,800	66000	8,500
K 55x60x27	2.165	55	2.362	60	1.063	27	0.132	60	8,500	38000	21,800	97000	8,500
K 55x60x30	2.165	55	2.362	60	1.181	30	0.157	71	9,200	41000	24,300	108000	8,500
K 55x60x40 ZW	2.165	55	2.362	60	1.575	40	0.218	99	10,900	48500	30,000	133000	8,500
K 55x62x18	2.165	55	2.441	62	0.709	18	0.115	52	8,000	35500	15,700	70000	8,500
K 55x63x15	2.165	55	2.480	63	0.591	15	0.117	53	5,600	25000	9,200	41000	8,500
K 55x63x20	2.165	55	2.480	63	0.787	20	0.148	67	9,000	40000	16,600	74000	8,500
K 55x63x25	2.165	55	2.480	63	0.984	25	0.176	80	11,200	50000	22,500	100000	8,500
K 55x63x32	2.165	55	2.480	63	1.260	32	0.225	102	13,900	62000	29,000	130000	8,500
K 56x61x20	2.205	56	2.402	61	0.787	20	0.099	45	6,200	27500	14,600	65000	8,500
C364216	2.250	57.150	2.625	66.675	1.000	25.400	0.243	110.1	13,500	60000	25,000	112000	7,900
C364220	2.250	57.150	2.625	66.675	1.250	31.750	0.304	137.6	14,400	64000	27,500	122000	7,900
C364224	2.250	57.150	2.625	66.675	1.500	38.100	0.364	165.2	17,500	78000	35,500	157000	7,900
K 58x63x17	2.284	58	2.480	63	0.669	17	0.095	43	6,100	27000	14,400	64000	8,000
K 58x64x19	2.284	58	2.520	64	0.748	19	0.101	46	7,900	35000	17,500	78000	8,000
K 58x65x18	2.284	58	2.559	65	0.709	18	0.115	52	7,900	35000	15,700	70000	8,000
K 58x65x36 ZW	2.284	58	2.559	65	1.417	36	0.28	127	11,000	49000	24,100	107000	8,000
K 60x65x20	2.362	60	2.559	65	0.787	20	0.115	52	6,600	29500	16,200	72000	8,000
K 60x65x30	2.362	60	2.559	65	1.181	30	0.17	77	9,600	42500	26,000	116000	8,000
K 60x66x33 ZW	2.362	60	2.598	66	1.299	33	0.229	104	10,300	46000	25,000	112000	8,000
K 60x66x40 ZW	2.362	60	2.598	66	1.575	40	0.256	116	13,000	58000	34,000	151000	8,000
K 60x68x20	2.362	60	2.677	68	0.787	20	0.157	71	9,800	43500	19,100	85000	7,500
K 60x68x23	2.362	60	2.677	68	0.906	23	0.207	94	11,100	49500	22,700	101000	7,500
K 60x68x25	2.362	60	2.677	68	0.984	25	0.196	89	11,900	53000	25,000	111000	7,500
K 60x68x27	2.362	60	2.677	68	1.063	27	0.251	114	11,100	49500	22,500	100000	7,500
K 60x68x30 ZW	2.362	60	2.677	68	1.181	30	0.284	129	10,000	44500	19,800	88000	7,500
K 60x68x34 ZW	2.362	60	2.677	68	1.339	34	0.309	140	10,800	48000	21,600	96000	7,500
K 60x75x42	2.362	60	2.953	75	1.654	42	0.529	240	26,500	118000	44,500	197000	7,500
K 62x70x40 ZW	2.441	62	2.756	70	1.575	40	0.384	174	14,800	66000	33,000	146000	7,500
K 63x70x21	2.480	63	2.756	70	0.827	21	0.146	66	10,200	45500	22,700	101000	7,500
C404616	2.500	63.500	2.875	73.025	1.000	25.400	0.268	121.4	14,000	62000	27,000	121000	7,200
C404620	2.500	63.500	2.875	73.025	1.250	31.750	0.335	151.8	16,600	74000	34,000	151000	7,200



Needle Roller And Cage Assemblies

UNIT CAGE SERIES

- Inch and metric
- Single and double row



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

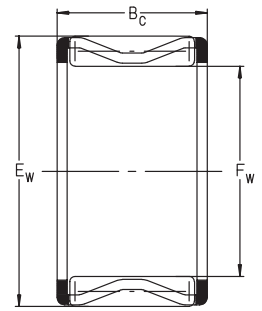
PART NUMBER	SHAFT F _w inch	SHAFT F _w mm	HSG. BORE E _w inch	HSG. BORE E _w mm	WIDTH B _c inch	WIDTH B _c mm	WGT. lbs	WGT. g	DYN. CAP. C lbf	DYN. CAP. C N	STAT. CAP. C ₀ lbf	STAT. CAP. C ₀ N	SPEED LIMIT rpm
C404624	2.500	63.500	2.875	73.025	1.500	38.100	0.402	182.1	19,600	87000	42,000	186000	7,200
K 64x70x16	2.520	64	2.756	70	0.630	16	0.117	53	6,300	28000	13,500	60000	7,500
K 65x70x20	2.559	65	2.756	70	0.787	20	0.123	56	6,900	30500	17,300	77000	7,500
K 65x70x30	2.559	65	2.756	70	1.181	30	0.183	83	9,900	44000	28,000	124000	7,500
K 65x73x23	2.559	65	2.874	73	0.906	23	0.238	108	10,300	46000	21,100	94000	7,000
K 65x73x30	2.559	65	2.874	73	1.181	30	0.311	141	12,800	57000	27,500	123000	7,000
K 68x74x20	2.677	68	2.913	74	0.787	20	0.157	71	8,000	35500	18,900	84000	7,000
K 68x74x30	2.677	68	2.913	74	1.181	30	0.221	100	10,500	46500	26,500	118000	7,000
K 68x74x35 ZW	2.677	68	2.913	74	1.378	35	0.265	120	10,900	48500	28,000	125000	7,000
K 68x75x32 ZW	2.677	68	2.953	75	1.260	32	0.291	132	12,100	54000	29,000	128000	7,000
K 70x76x20	2.756	70	2.992	76	0.787	20	0.157	71	8,100	36000	19,300	86000	6,500
K 70x76x30	2.756	70	2.992	76	1.181	30	0.243	110	11,700	52000	31,500	139000	6,500
K 70x78x25	2.756	70	3.071	78	0.984	25	0.273	124	11,700	52000	25,000	112000	6,500
K 70x78x30	2.756	70	3.071	78	1.181	30	0.326	148	13,500	60000	30,500	135000	6,500
K 70x78x46 ZW	2.756	70	3.071	78	1.811	46	0.496	225	17,500	78000	42,500	189000	6,500
K 70x80x30	2.756	70	3.150	80	1.181	30	0.331	150	16,400	73000	33,500	148000	6,500
K 72x80x20	2.835	72	3.150	80	0.787	20	0.216	98	9,300	41500	19,100	85000	6,500
K 73x79x20	2.874	73	3.110	79	0.787	20	0.165	75	8,300	37000	20,200	90000	6,500
K 75x81x20	2.953	75	3.189	81	0.787	20	0.174	79	8,400	37500	21,100	94000	6,500
K 75x81x30	2.953	75	3.189	81	1.181	30	0.251	114	11,700	52000	32,000	143000	6,500
K 75x83x23	2.953	75	3.268	83	0.906	23	0.273	124	11,200	50000	24,500	109000	6,000
K 75x83x30	2.953	75	3.268	83	1.181	30	0.324	147	13,900	62000	32,000	143000	6,000
K 75x83x35 ZW	2.953	75	3.268	83	1.378	35	0.401	182	14,200	63000	33,000	147000	6,000
K 75x83x40 ZW	2.953	75	3.268	83	1.575	40	0.465	211	16,400	73000	40,000	177000	6,000
C485416	3.000	76.200	3.375	85.725	1.000	25.400	0.318	144.0	14,800	66000	31,500	140000	6,100
C485424	3.000	76.200	3.375	85.726	1.500	38.100	0.476	216.0	21,100	94000	49,000	219000	6,100
K 80x86x20	3.150	80	3.386	86	0.787	20	0.132	60	8,700	38500	22,000	98000	6,000
K 80x86x30	3.150	80	3.386	86	1.181	30	0.174	79	12,600	56000	35,500	159000	6,000
K 80x88x30	3.150	80	3.465	88	1.181	30	0.304	138	16,200	72000	40,000	179000	6,000
K 80x88x40 ZW	3.150	80	3.465	88	1.575	40	0.501	227	17,100	76000	43,000	192000	6,000
K 80x88x46 ZW	3.150	80	3.465	88	1.811	46	0.573	260	19,800	88000	52,000	231000	6,000
K 85x92x20	3.347	85	3.622	92	0.787	20	0.225	102	10,000	44500	24,300	108000	5,500
K 90x97x20	3.543	90	3.819	97	0.787	20	0.24	109	10,100	45000	25,500	113000	5,000
K 90x98x27	3.543	90	3.858	98	1.063	27	0.331	150	13,700	61000	33,500	150000	5,000
K 90x98x30	3.543	90	3.858	98	1.181	30	0.379	172	15,300	68000	38,500	172000	5,000
K 95x103x30	3.740	95	4.055	103	1.181	30	0.364	165	15,500	69000	40,500	180000	4,900
K 95x103x40 ZW	3.740	95	4.055	103	1.575	40	0.587	266	18,700	83000	51,000	228000	4,900
K 100x107x21	3.937	100	4.213	107	0.827	21	0.265	120	10,800	48000	28,500	127000	4,700
K 100x108x27	3.937	100	4.252	108	1.063	27	0.408	185	12,800	57000	32,000	143000	4,700
K 100x108x30	3.937	100	4.252	108	1.181	30	0.397	180	16,000	71000	42,500	188000	4,700
C647224	4.000	101.600	4.500	114.300	1.500	38.100	0.847	384.0	27,500	122000	62,000	275000	4,500
K 105x112x21	4.134	105	4.409	112	0.827	21	0.284	129	10,700	47500	28,500	127000	4,500
K 105x113x30	4.134	105	4.449	113	1.181	30	0.476	216	16,200	72000	44,500	197000	4,500
K 110x117x24	4.331	110	4.606	117	0.945	24	0.379	172	12,600	56000	35,500	158000	4,300
K 110x118x30	4.331	110	4.646	118	1.181	30	0.478	217	17,500	78000	49,000	219000	4,300
K 115x123x27	4.528	115	4.843	123	1.063	27	0.441	200	14,200	63000	38,000	170000	4,100



Needle Roller And Cage Assemblies

UNIT CAGE SERIES

- Inch and metric
- Single and double row



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

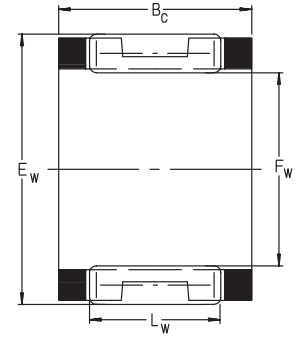
PART NUMBER	SHAFT F _w inch	SHAFT F _w mm	HSG. BORE E _w inch	HSG. BORE E _w mm	WIDTH B _c inch	WIDTH B _c mm	WGT. lbs	WGT. g	DYN. CAP. C lbf	DYN. CAP. C N	STAT. CAP. C ₀ lbf	STAT. CAP. C ₀ N	SPEED LIMIT rpm
K 120x127x24	4.724	120	5.000	127	0.945	24	0.364	165	13,300	59000	39,000	174000	4,000
K 120x127x34	4.724	120	5.000	127	1.339	34	0.49	222	18,200	81000	58,000	260000	4,000
K 125x133x35	4.921	125	5.236	133	1.378	35	0.606	275	19,300	86000	58,000	260000	3,800
K 130x137x24	5.118	130	5.394	137	0.945	24	0.375	170	13,700	61000	42,000	186000	3,700
K 135x143x35	5.315	135	5.630	143	1.378	35	0.662	300	20,500	91000	65,000	290000	3,500
K 145x153x26	5.709	145	6.024	153	1.024	26	0.578	262	16,600	74000	51,000	225000	3,300
K 145x153x36	5.709	145	6.024	153	1.417	36	0.662	300	22,000	98000	73,000	325000	3,300
K 150x160x46	5.906	150	6.299	160	1.811	46	1.257	570	33,000	147000	106,000	470000	3,200
K 155x163x26	6.102	155	6.417	163	1.024	26	0.584	265	16,900	75000	53,000	236000	3,100
K 155x163x36	6.102	155	6.417	163	1.417	36	0.785	356	22,500	100000	76,000	340000	3,100
K 160x170x46	6.299	160	6.693	170	1.811	46	1.213	550	34,000	152000	115,000	510000	3,000
K 165x173x26	6.496	165	6.811	173	1.024	26	0.706	320	18,200	81000	60,000	265000	2,900
K 170x180x46	6.693	170	7.087	180	1.811	46	1.323	600	35,500	158000	121,000	540000	2,800
K 175x183x32	6.890	175	7.205	183	1.260	32	0.882	400	22,300	99000	79,000	350000	2,700
K 185x195x37	7.284	185	7.677	195	1.457	37	1.338	607	29,000	128000	96,000	425000	2,600
K 195x205x37	7.677	195	8.071	205	1.457	37	1.367	620	30,000	133000	101,000	450000	2,500
K 210x220x42	8.268	210	8.661	220	1.654	42	1.632	740	34,500	154000	126,000	560000	2,300
K 220x230x42	8.661	220	9.055	230	1.654	42	1.742	790	35,500	158000	133,000	590000	2,200
K 240x250x42	9.449	240	9.843	250	1.654	42	1.874	850	37,000	164000	142,000	630000	2,000
K 265x280x50	10.433	265	11.024	280	1.969	50	3.991	1810	57,000	255000	193,000	860000	1,800



Conrod Bearings

KBK SERIES

- Needle roller and cage assemblies
- Wristpin bearing positions



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

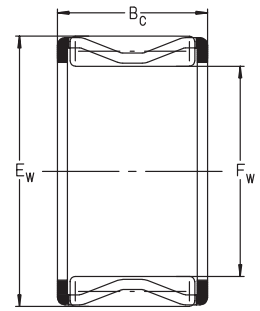
For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

PART NUMBER	SHAFT	SHAFT	HSG.	HSG.	WIDTH	WIDTH	WEIGHT	WEIGHT	DYN. CAP.	DYN. CAP.	STAT. CAP.	STAT. CAP.	ROLLER	ROLLER
	F_w	F_w	BORE	BORE	B_c	B_c							LENGTH	LENGTH
	inch	mm	E_w	E_w	inch	mm	lbs	g	lbf	N	lbf	N	inch	mm
KBK 9x13x12.5	0.354	9	0.512	13	0.492	12.5	0.011	5	1350	6000	1370	6100	0.386	9.8
KBK 10x13x14.5	0.394	10	0.512	13	0.571	14.5	0.01	4.7	1210	5400	1480	6600	0.425	10.8
KBK 10x14x13	0.394	10	0.551	14	0.512	13	0.013	6	1350	6000	1390	6200	0.386	9.8
KBK 12x15x13	0.472	12	0.591	15	0.512	13	0.01	4.7	1330	5900	1730	7700	0.386	9.8
KBK 12x15x15	0.472	12	0.591	15	0.591	15	0.012	5.5	1350	6000	1780	7900	0.425	10.8
KBK 12x15x17.5	0.472	12	0.591	15	0.689	17.5	0.014	6.5	1750	7800	2470	11000	0.543	13.8
KBK 12x16x13	0.472	12	0.630	16	0.512	13	0.015	7	1550	6900	1750	7800	0.386	9.8
KBK 12x16x16	0.472	12	0.630	16	0.630	16	0.019	8.5	1800	8000	2140	9500	0.465	11.8
KBK 13x17x17.5	0.512	13	0.669	17	0.689	17.5	0.022	10	2180	9700	2770	12300	0.543	13.8
KBK 14x18x13	0.551	14	0.709	18	0.512	13	0.018	8	1640	7300	1960	8700	0.386	9.8
KBK 14x18x14.5	0.551	14	0.709	18	0.571	14.5	0.018	8	1640	7300	1960	8700	0.386	9.8
KBK 14x18x17	0.551	14	0.709	18	0.669	17	0.024	11	2160	9600	2790	12400	0.504	12.8
KBK 14x18x21	0.551	14	0.709	18	0.827	21	0.024	11	2810	12500	3910	17400	0.701	17.8
KBK 15x19x20	0.591	15	0.748	19	0.787	20	0.029	13	2540	11300	3480	15500	0.622	15.8
KBK 16x20x20	0.630	16	0.787	20	0.787	20	0.031	14	2650	11800	3800	16900	0.622	15.8
KBK 18x22x22	0.709	18	0.866	22	0.866	22	0.037	17	3040	13500	4650	20700	0.622	15.8
KBK 18x22x24	0.709	18	0.866	22	0.945	24	0.04	18	3170	14100	4950	22000	0.701	17.8
KBK 18x22x25	0.709	18	0.866	22	0.984	25	0.044	20	3130	13900	4830	21500	0.78	19.8
KBK 20x24x30	0.787	20	0.945	24	1.181	30	0.051	23	3570	15900	5960	26500	0.78	19.8
KBK 20x25x22	0.787	20	0.984	25	0.866	22	0.044	20	3640	16200	5240	23300	0.642	16.3

Conrod Bearings

KZK SERIES

- Needle roller and cage assemblies
- Crankpin bearing positions



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

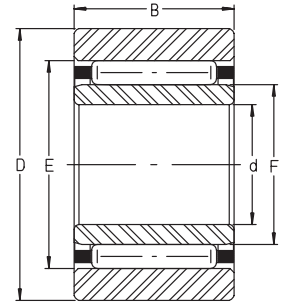
PART NUMBER	SHAFT	SHAFT	HSG.	HSG.	WIDTH	WIDTH	WEIGHT	WEIGHT	DYN. CAP.	DYN. CAP.	STAT. CAP.	STAT. CAP.
	F_w	F_w	BORE	BORE	B_c	B_c						
	inch	mm	E_w	E_w	inch	mm	lbs	g	lbf	N	lbf	N
KZK 12x16x10	0.472	12	0.630	16	0.394	10	0.008	3.5	1440	6400	1620	7200
KZK 12x17x10	0.472	12	0.669	17	0.394	10	0.011	5	1660	7400	1660	7400
KZK 14x18x10	0.551	14	0.709	18	0.394	10	0.009	4	1600	7100	1910	8500
KZK 14.4x20.4x10	0.567	14.4	0.803	20.4	0.394	10	0.014	6.5	1820	8100	1750	7800
KZK 16x21x10	0.630	16	0.827	21	0.394	10	0.013	6	1840	8200	2070	9200
KZK 16x22x12	0.630	16	0.866	22	0.472	12	0.021	9.5	2470	11000	2680	11900
KZK 18x24x12	0.709	18	0.945	24	0.472	12	0.022	10	2610	11600	2950	13100
KZK 18x24x15	0.709	18	0.945	24	0.591	15	0.031	14	2970	13200	3480	15500
KZK 20x26x12	0.787	20	1.024	26	0.472	12	0.024	11	2740	12200	3210	14300
KZK 20x26x17	0.787	20	1.024	26	0.669	17	0.033	15	3440	15300	4290	19100
KZK 22x28x13	0.866	22	1.102	28	0.512	13	0.033	15	3130	13900	3930	17500
KZK 22x28x16	0.866	22	1.102	28	0.630	16	0.04	18	3510	15600	4540	20200
KZK 22x29x16	0.866	22	1.142	29	0.630	16	0.046	21	4000	17800	4900	21800
KZK 25x32x16	0.984	25	1.260	32	0.630	16	0.053	24	4090	18200	5190	23100
KZK 30x37x16	1.181	30	1.457	37	0.630	16	0.064	29	4800	21500	6900	30500
KZK 35x42x20	1.378	35	1.654	42	0.787	20	0.093	42	5800	26000	9100	40500
KZK 40x48x20	1.575	40	1.890	48	0.787	20	0.121	55	7300	32500	11500	51000



Precision Needle Bearings

NAO SERIES

- With inner rings
- Metric series
- Without ribs
- Ground raceways



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

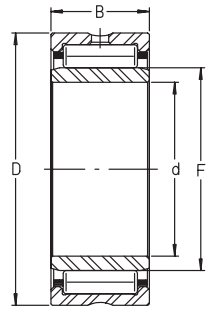
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	F	E	AXIAL	AXIAL	SPEED
	d	d	D	D	B	B			CAP.	CAP.	CAP.	CAP.			PLAY	PLAY	LIMIT
	inch	mm	inch	mm	inch	mm	lbs	g	C	C	C ₀	C ₀	mm	mm	inch	mm	OIL
									lbf	N	lbf	N					rpm
NAO 6x17x10 TN	0.236	6	0.669	17	0.394	10	0.031	14	1,070	4750	1,240	5500	10	13	0.020	0.5	29000
NAO 9x22x12 TN	0.354	9	0.866	22	0.472	12	0.052	23.5	2,250	10000	2,230	9900	12	18	0.020	0.5	25000
NAO 12x24x13	0.472	12	0.945	24	0.512	13	0.066	30	2,000	8900	2,650	11800	16	20	0.020	0.5	24000
NAO 12x24x20	0.472	12	0.945	24	0.787	20	0.097	44	3,000	13300	4,450	19800	16	20	0.020	0.5	24000
NAO 12x28x12	0.472	12	1.102	28	0.472	12	0.088	40	2,600	11500	2,800	12500	16	22	0.020	0.5	22000
NAO 15x28x13	0.591	15	1.102	28	0.512	13	0.064	29	2,200	9800	3,200	14300	20	24	0.020	0.5	22000
NAO 15x32x12	0.591	15	1.260	32	0.472	12	0.11	50	3,000	13400	3,650	16200	20	26	0.020	0.5	21000
NAO 17x30x13	0.669	17	1.181	30	0.512	13	0.093	42	2,340	10400	3,600	15900	22	26	0.020	0.5	21000
NAO 17x35x16	0.669	17	1.378	35	0.630	16	0.172	78	4,500	20000	5,700	25500	22	29	0.020	0.5	19000
NAO 20x35x17	0.787	20	1.378	35	0.669	17	0.168	76	3,350	14900	5,800	26000	25	29	0.020	0.5	18000
NAO 20x37x16	0.787	20	1.457	37	0.630	16	0.181	82	4,700	21000	6,300	28000	25	32	0.020	0.5	17000
NAO 25x40x17	0.984	25	1.575	40	0.669	17	0.194	88	4,400	19600	7,600	34000	30	35	0.032	0.8	15000
NAO 25x42x16	0.984	25	1.654	42	0.630	16	0.19	86	5,200	23100	7,500	33500	30	37	0.032	0.8	15000
NAO 25x42x32	0.984	25	1.654	42	1.260	32	0.419	190	8,900	39500	15,100	67000	30	37	0.032	0.8	15000
NAO 30x45x13	1.181	30	1.772	45	0.512	13	0.17	77	3,650	16200	6,300	28000	35	40	0.032	0.8	13000
NAO 30x45x17	1.181	30	1.772	45	0.669	17	0.225	102	4,700	20800	8,700	38500	35	40	0.032	0.8	13000
NAO 30x45x26	1.181	30	1.772	45	1.024	26	0.346	157	6,200	27500	12,600	56000	35	40	0.032	0.8	13000
NAO 30x47x16	1.181	30	1.850	47	0.630	16	0.24	109	5,500	24400	8,400	37500	35	42	0.032	0.8	13000
NAO 30x47x18	1.181	30	1.850	47	0.709	18	0.262	119	6,200	27500	9,700	43000	35	42	0.032	0.8	13000
NAO 30x52x18	1.181	30	2.047	52	0.709	18	0.39	177	6,300	28000	10,200	45500	37	44	0.032	0.8	12000
NAO 35x50x17	1.378	35	1.969	50	0.669	17	0.249	113	4,800	21400	9,300	41500	40	45	0.032	0.8	12000
NAO 35x55x20	1.378	35	2.165	55	0.787	20	0.419	190	7,300	32500	12,800	57000	40	47	0.032	0.8	11000
NAO 35x57x20.5	1.378	35	2.244	57	0.807	20.5	0.476	216	8,100	36000	13,300	59000	42	50	0.032	0.8	11000
NAO 40x55x17	1.575	40	2.165	55	0.669	17	0.28	127	5,100	22500	10,300	46000	45	50	0.032	0.8	10000
NAO 40x65x20	1.575	40	2.559	65	0.787	20	0.615	279	8,000	35500	13,900	62000	50	58	0.032	0.8	9500
NAO 50x68x20	1.969	50	2.677	68	0.787	20	0.507	230	6,400	28500	14,800	66000	55	60	0.039	1	8500
NAO 50x78x20	1.969	50	3.071	78	0.787	20	0.904	410	9,800	43500	19,100	85000	60	68	0.039	1	7500
NAO 70x100x30	2.756	70	3.937	100	1.181	30	1.874	850	16,200	72000	40,000	179000	80	88	0.039	1	6000
NAO 75x105x25	2.953	75	4.134	105	0.984	25	1.535	696	12,800	57000	30,500	136000	85	93	0.039	1	5500
NAO 80x110x30	3.150	80	4.331	110	1.181	30	2.029	920	15,300	68000	38,500	172000	90	98	0.039	1	5000
NAO 90x120x30	3.543	90	4.724	120	1.181	30	2.302	1044	16,000	71000	42,500	188000	100	108	0.039	1	4700



Precision Needle Bearings

NA, NKI, NKIS SERIES

- With inner rings
- Metric
- Cage guided rollers
- Ground raceways with ribs



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

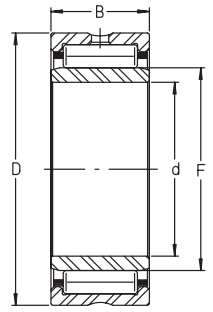
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	F	F	SPEED LIMIT	SPEED LIMIT
	d	d	D	D	B	B			CAP.	CAP.	CAP.	CAP.	inch	mm	GREASE	OIL
	inch	mm	inch	mm	inch	mm	lbs	g	lbF	kN	lbF	kN			rpm	rpm
NKI 5/12 TN	0.197	5	0.591	15	0.472	12	0.025	11.5	890	3.95	920	4.1	0.315	8	32000	32000
NKI 5/16 TN	0.197	5	0.591	15	0.630	16	0.034	15.3	1,150	5.1	1,300	5.8	0.315	8	32000	32000
NKI 6/12 TN	0.236	6	0.630	16	0.472	12	0.030	13.5	1,010	4.5	1,120	5.0	0.354	9	30000	30000
NKI 6/16 TN	0.236	6	0.630	16	0.630	16	0.038	17.4	1,330	5.9	1,600	7.1	0.354	9	30000	30000
NKIS 6 TN	0.236	6	0.748	19	0.512	13	0.044	19.9	1,300	5.8	1,350	6.0	0.394	10	28000	28000
NKI 7/12 TN	0.276	7	0.669	17	0.472	12	0.030	13.7	1,070	4.75	1,240	5.5	0.394	10	29000	29000
NKI 7/16 TN	0.276	7	0.669	17	0.630	16	0.040	18.2	1,390	6.2	1,750	7.8	0.394	10	29000	29000
NKIS 7 TN	0.276	7	0.866	22	0.630	16	0.076	34.6	2,160	9.6	2,340	10.4	0.472	12	26000	26000
NKIS 8	0.315	8	0.984	25	0.630	16	0.104	47.1	3,250	14.4	3,100	13.8	0.551	14	25000	25000
NKI 9/12	0.354	9	0.748	19	0.472	12	0.037	16.6	1,440	6.4	1,600	7.1	0.472	12	27000	27000
NKI 9/16	0.354	9	0.748	19	0.630	16	0.048	21.9	2,020	9.0	2,470	11.0	0.472	12	27000	27000
NKIS 9	0.354	9	1.024	26	0.630	16	0.091	41.4	3,250	14.4	3,150	14.0	0.591	15	24000	24000
NA 4900	0.394	10	0.866	22	0.512	13	0.051	23	1,910	8.5	2,070	9.2	0.551	14	25000	25000
NKI 10/16	0.394	10	0.866	22	0.630	16	0.065	29.4	2,270	10.1	2,600	11.5	0.551	14	25000	25000
NKI 10/20	0.394	10	0.866	22	0.787	20	0.082	37.1	2,900	12.8	3,500	15.6	0.551	14	25000	25000
NKIS 10	0.394	10	1.102	28	0.630	16	0.119	54	3,550	15.7	3,550	15.8	0.630	16	23000	23000
NA 4901	0.472	12	0.945	24	0.512	13	0.057	26	2,110	9.4	2,450	10.9	0.630	16	24000	24000
NKI 12/16	0.472	12	0.945	24	0.630	16	0.073	33.3	2,550	11.3	3,150	13.9	0.630	16	24000	24000
NKI 12/20	0.472	12	0.945	24	0.787	20	0.092	41.9	3,250	14.4	4,250	18.8	0.630	16	24000	24000
NA 6901	0.472	12	0.945	24	0.866	22	0.101	46	3,600	16.0	4,850	21.6	0.630	16	24000	24000
NKIS 12	0.472	12	1.181	30	0.630	16	0.132	60	3,800	16.8	4,000	17.7	0.709	18	22000	22000
NKI 15/16	0.591	15	1.063	27	0.630	16	0.086	38.8	2,900	13.0	3,900	17.4	0.748	19	22000	22000
NKI 15/20	0.591	15	1.063	27	0.787	20	0.107	48.7	3,700	16.5	5,300	23.6	0.748	19	22000	22000
NA 4902	0.591	15	1.102	28	0.512	13	0.075	34	2,380	10.6	3,050	13.6	0.787	20	22000	22000
NA 6902	0.591	15	1.102	28	0.906	23	0.140	63.6	3,900	17.3	5,700	25.5	0.787	20	22000	22000
NKIS 15	0.591	15	1.378	35	0.787	20	0.203	92	5,500	24.5	6,300	28.0	0.866	22	20000	20000
NKI 17/16	0.669	17	1.142	29	0.630	16	0.093	42.4	3,050	13.5	4,200	18.7	0.827	21	21000	21000
NKI 17/20	0.669	17	1.142	29	0.787	20	0.118	53.4	3,850	17.1	5,700	25.5	0.827	21	21000	21000
NA 4903	0.669	17	1.181	30	0.512	13	0.082	37	2,470	11.0	3,300	14.6	0.866	22	21000	21000
NA 6903	0.669	17	1.181	30	0.906	23	0.159	72	4,200	18.6	6,500	29.0	0.866	22	21000	21000
NKIS 17	0.669	17	1.457	37	0.787	20	0.216	98	5,800	26.0	7,000	31.0	0.945	24	18000	18000
NKI 20/16	0.787	20	1.260	32	0.630	16	0.108	49	3,350	15.0	5,000	22.3	0.945	24	19000	19000
NKI 20/20	0.787	20	1.260	32	0.787	20	0.135	61	4,250	19.0	6,900	30.5	0.945	24	19000	19000
NA 4904	0.787	20	1.457	37	0.669	17	0.166	75.2	4,700	21.0	5,700	25.5	0.984	25	17000	17000
NA 6904	0.787	20	1.457	37	1.181	30	0.311	141	8,100	36.0	11,500	51.0	0.984	25	17000	17000
NKIS 20	0.787	20	1.654	42	0.787	20	0.284	129	6,400	28.5	8,200	36.5	1.102	28	16000	16000
NKI 22/16	0.866	22	1.339	34	0.630	16	0.115	52	3,450	15.3	5,300	23.6	1.024	26	18000	18000
NKI 22/20	0.866	22	1.339	34	0.787	20	0.144	65.4	4,350	19.4	7,200	32.0	1.024	26	18000	18000
NA 49/22	0.866	22	1.535	39	0.669	17	0.176	80	5,100	22.8	6,600	29.5	1.102	28	16000	16000
NA 69/22	0.866	22	1.535	39	1.181	30	0.331	150	8,400	37.5	12,400	55.0	1.102	28	16000	16000
NKI 25/20	0.984	25	1.496	38	0.787	20	0.175	79.4	4,900	21.9	7,600	34.0	1.142	29	16000	16000
NKI 25/30	0.984	25	1.496	38	1.181	30	0.273	124	7,300	32.5	12,800	57.0	1.142	29	16000	16000
NA 4905	0.984	25	1.654	42	0.669	17	0.194	88	5,300	23.6	7,100	31.5	1.181	30	15000	15000
NA 6905	0.984	25	1.654	42	1.181	30	0.355	161	8,800	39.0	13,300	59.0	1.181	30	15000	15000
NKIS 25	0.984	25	1.850	47	0.866	22	0.357	162	7,500	33.5	9,800	43.5	1.260	32	14000	14000
NKI 28/20	1.102	28	1.654	42	0.787	20	0.213	96.5	5,200	23.1	8,400	37.5	1.260	32	14000	14000



Precision Needle Bearings

NA, NKI, NKIS SERIES

- With inner rings
- Metric
- Cage guided rollers
- Ground raceways with ribs



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

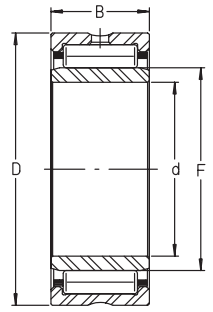
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	F	F	SPEED	SPEED
	d	d	D	D	B	B			CAP.	CAP.	CAP.	CAP.			LIMIT	LIMIT
	inch	mm	inch	mm	inch	mm	lbs	g	lbF	kN	lbF	kN	inch	mm	GREASE	OIL
															rpm	rpm
NKI 28/30	1.102	28	1.654	42	1.181	30	0.322	146	7,800	34.5	14,200	63.0	1.260	32	14000	14000
NA 49/28	1.102	28	1.772	45	0.669	17	0.215	97.7	5,500	24.5	7,500	33.5	1.260	32	13000	13000
NA 69/28	1.102	28	1.772	45	1.181	30	0.401	182	9,100	40.5	14,200	63.0	1.260	32	13000	13000
NKI 30/20	1.181	30	1.772	45	0.787	20	0.247	112	5,500	24.3	9,300	41.5	1.378	35	13000	13000
NKI 30/30	1.181	30	1.772	45	1.181	30	0.375	170	8,200	36.5	15,500	69.0	1.378	35	13000	13000
NA 4906	1.181	30	1.850	47	0.669	17	0.223	101	5,600	25.0	8,000	35.5	1.378	35	13000	13000
NA 6906	1.181	30	1.850	47	1.181	30	0.423	192	9,800	43.5	16,000	71.0	1.378	35	13000	13000
NKIS 30	1.181	30	2.047	52	0.866	22	0.406	184	8,200	36.5	11,200	50.0	1.457	37	12000	12000
NKI 32/20	1.260	32	1.850	47	0.787	20	0.260	118	5,600	24.9	9,800	43.5	1.457	37	12000	12000
NKI 32/30	1.260	32	1.850	47	1.181	30	0.397	180	8,300	37.0	16,400	73.0	1.457	37	12000	12000
NA 49/32	1.260	32	2.047	52	0.787	20	0.348	158	6,900	30.5	10,700	47.5	1.575	40	12000	12000
NA 69/32	1.260	32	2.047	52	1.417	36	0.635	288	10,600	47.0	18,400	82.0	1.575	40	12000	12000
NKI 35/20	1.378	35	1.969	50	0.787	20	0.280	127	5,800	26.0	10,600	47.0	1.575	40	12000	12000
NKI 35/30	1.378	35	1.969	50	1.181	30	0.426	193	8,800	39.0	17,800	79.0	1.575	40	12000	12000
NA 4907	1.378	35	2.165	55	0.787	20	0.375	170	7,100	31.5	11,200	50.0	1.654	42	11000	11000
NA 6907	1.378	35	2.165	55	1.417	36	0.684	310	10,800	48.0	19,300	86.0	1.654	42	11000	11000
NKIS 35	1.378	35	2.284	58	0.866	22	0.485	220	8,800	39.0	12,800	57.0	1.693	43	11000	11000
NKI 38/20	1.496	38	2.087	53	0.787	20	0.300	136	6,100	27.0	11,500	51.0	1.693	43	11000	11000
NKI 38/30	1.496	38	2.087	53	1.181	30	0.456	207	9,100	40.5	19,100	85.0	1.693	43	11000	11000
NKI 40/20	1.575	40	2.165	55	0.787	20	0.313	142	6,200	27.5	11,900	53.0	1.772	45	10000	10000
NKI 40/30	1.575	40	2.165	55	1.181	30	0.476	216	9,200	41.0	19,800	88.0	1.772	45	10000	10000
NA 4908	1.575	40	2.441	62	0.866	22	0.507	230	9,700	43.0	15,100	67.0	1.890	48	9500	9500
NA 6908	1.575	40	2.441	62	1.575	40	0.948	430	14,800	66.0	26,000	116.0	1.890	48	9500	9500
NKIS 40	1.575	40	2.559	65	0.866	22	0.620	281	9,600	42.5	15,100	67.0	1.969	50	9500	9500
NKI 42/20	1.654	42	2.244	57	0.787	20	0.326	148	6,400	28.5	12,600	56.0	1.850	47	10000	10000
NKI 42/30	1.654	42	2.244	57	1.181	30	0.490	222	9,700	43.0	21,100	94.0	1.850	47	10000	10000
NKI 45/25	1.772	45	2.441	62	0.984	25	0.505	229	8,500	38.0	16,600	74.0	1.969	50	9000	9000
NKI 45/35	1.772	45	2.441	62	1.378	35	0.710	322	11,200	50.0	23,800	106.0	1.969	50	9000	9000
NA 4909	1.772	45	2.677	68	0.866	22	0.598	271	10,100	45.0	16,400	73.0	2.047	52	8500	8500
NA 6909	1.772	45	2.677	68	1.575	40	1.091	495	15,500	69.0	28,500	127.0	2.047	52	8500	8500
NKIS 45	1.772	45	2.835	72	0.866	22	0.741	336	10,100	45.0	16,600	74.0	2.165	55	8500	8500
NKI 50/25	1.969	50	2.677	68	0.984	25	0.595	270	9,000	40.0	18,400	82.0	2.165	55	8500	8500
NKI 50/35	1.969	50	2.677	68	1.378	35	0.836	379	11,900	53.0	26,500	118.0	2.165	55	8500	8500
NA 4910	1.969	50	2.835	72	0.866	22	0.604	274	10,600	47.0	18,000	80.0	2.284	58	8000	8000
NA 6910	1.969	50	2.835	72	1.575	40	1.136	515	16,400	73.0	31,500	139.0	2.284	58	8000	8000
NKIS 50	1.969	50	3.150	80	1.102	28	1.142	518	14,200	63.0	22,000	98.0	2.362	60	7500	7500
NKI 55/25	2.165	55	2.835	72	0.984	25	0.600	272	9,400	42.0	20,200	90.0	2.362	60	7500	7500
NKI 55/35	2.165	55	2.835	72	1.378	35	0.836	379	12,600	56.0	29,000	130.0	2.362	60	7500	7500
NA 4911	2.165	55	3.150	80	0.984	25	0.867	393	13,000	58.0	22,500	100.0	2.480	63	7500	7500
NA 6911	2.165	55	3.150	80	1.772	45	1.720	780	20,200	90.0	39,500	176.0	2.480	63	7500	7500
NKIS 55	2.165	55	3.347	85	1.102	28	1.230	558	15,100	67.0	24,300	108.0	2.559	65	7000	7000
NKI 60/25	2.362	60	3.228	82	0.984	25	0.869	394	9,800	43.5	20,000	89.0	2.677	68	7000	7000
NKI 60/35	2.362	60	3.228	82	1.378	35	1.219	553	13,900	62.0	31,500	139.0	2.677	68	7000	7000
NA 4912	2.362	60	3.347	85	0.984	25	0.939	426	13,500	60.0	24,300	108.0	2.677	68	7000	7000
NA 6912	2.362	60	3.347	85	1.772	45	1.782	808	21,100	94.0	43,000	191.0	2.677	68	7000	7000
NKIS 60	2.362	60	3.543	90	1.102	28	1.235	560	15,300	68.0	25,500	113.0	2.756	70	6500	6500



Precision Needle Bearings

NA, NKI, NKIS SERIES

- With inner rings
- Metric
- Cage guided rollers
- Ground raceways with ribs



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

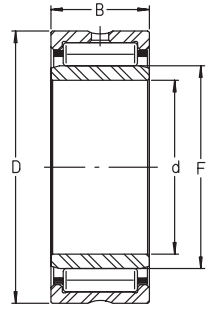
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	F	F	SPEED	SPEED
	d	d	D	D	B	B			CAP.	CAP.	CAP.	CAP.			LIMIT	LIMIT
	inch	mm	inch	mm	inch	mm	lbs	g	lbF	kN	lbF	kN	inch	mm	rpm	rpm
NKI 65/25	2.559	65	3.543	90	0.984	25	1.030	467	11,900	53.0	22,500	100.0	2.874	73	6500	6500
NA 4913	2.559	65	3.543	90	0.984	25	1.005	456	13,700	61.0	25,000	112.0	2.835	72	6500	6500
NKI 65/35	2.559	65	3.543	90	1.378	35	1.453	659	16,900	75.0	35,000	156.0	2.874	73	6500	6500
NA 6913	2.559	65	3.543	90	1.772	45	1.837	833	21,400	95.0	44,500	198.0	2.835	72	6500	6500
NKIS 65	2.559	65	3.740	95	1.102	28	1.413	641	16,000	71.0	27,500	123.0	2.953	75	6000	6000
NKI 70/25	2.756	70	3.740	95	0.984	25	1.149	521	12,600	56.0	27,000	119.0	3.150	80	6000	6000
NKI 70/35	2.756	70	3.740	95	1.378	35	1.625	737	17,500	78.0	41,500	184.0	3.150	80	6000	6000
NKIS 70	2.756	70	3.937	100	1.102	28	1.499	680	16,900	75.0	30,000	133.0	3.150	80	6000	6000
NA 4914	2.756	70	3.937	100	1.181	30	1.605	728	18,900	84.0	35,000	156.0	3.150	80	6000	6000
NA 6914	2.756	70	3.937	100	2.126	54	2.955	1340	29,000	128.0	60,000	265.0	3.150	80	6000	6000
NKI 75/25	2.953	75	4.134	105	0.984	25	1.413	641	15,500	69.0	27,500	123.0	3.347	85	5500	5500
NA 4915	2.953	75	4.134	105	1.181	30	1.709	775	19,300	86.0	36,500	162.0	3.347	85	5500	5500
NKI 75/35	2.953	75	4.134	105	1.378	35	2.002	908	22,000	98.0	43,500	193.0	3.347	85	5500	5500
NA 6915	2.953	75	4.134	105	2.126	54	3.197	1450	29,000	130.0	62,000	275.0	3.347	85	5500	5500
NKI 80/25	3.150	80	4.331	110	0.984	25	1.493	677	16,200	72.0	29,500	132.0	3.543	90	5000	5000
NA 4916	3.150	80	4.331	110	1.181	30	1.936	878	20,000	89.0	39,000	174.0	3.543	90	5000	5000
NKI 80/35	3.150	80	4.331	110	1.378	35	2.115	959	23,200	103.0	47,000	208.0	3.543	90	5000	5000
NA 6916	3.150	80	4.331	110	2.126	54	3.356	1522	30,500	135.0	67,000	300.0	3.543	90	5000	5000
NKI 85/26	3.347	85	4.528	115	1.024	26	1.638	743	16,400	73.0	31,000	137.0	3.740	95	4900	4900
NKI 85/36	3.347	85	4.528	115	1.417	36	2.293	1040	24,100	107.0	50,000	223.0	3.740	95	4900	4900
NA 4917	3.347	85	4.724	120	1.378	35	2.756	1250	25,000	111.0	53,000	237.0	3.937	100	4800	4800
NA 6917	3.347	85	4.724	120	2.480	63	4.851	2200	37,500	166.0	90,000	400.0	3.937	100	4800	4800
NKI 90/26	3.543	90	4.724	120	1.024	26	1.715	778	17,100	76.0	33,000	146.0	3.937	100	4700	4700
NKI 90/36	3.543	90	4.724	120	1.417	36	2.403	1090	25,000	111.0	53,000	237.0	3.937	100	4700	4700
NA 4918	3.543	90	4.921	125	1.378	35	2.893	1312	25,500	114.0	56,000	250.0	4.134	105	4600	4600
NA 6918	3.543	90	4.921	125	2.480	63	5.094	2310	38,500	172.0	96,000	425.0	4.134	105	4600	4600
NKI 95/26	3.740	95	4.921	125	1.024	26	1.799	816	17,500	78.0	35,000	155.0	4.134	105	4500	4500
NKI 95/36	3.740	95	4.921	125	1.417	36	2.525	1145	25,500	114.0	56,000	250.0	4.134	105	4500	4500
NA 4919	3.740	95	5.118	130	1.378	35	3.023	1371	26,000	116.0	58,000	260.0	4.331	110	4400	4400
NA 6919	3.740	95	5.118	130	2.480	63	5.513	2500	39,000	174.0	99,000	440.0	4.331	110	4400	4400
NKI 100/30	3.937	100	5.118	130	1.181	30	2.183	990	22,000	98.0	47,000	210.0	4.331	110	4300	4300
NKI 100/40	3.937	100	5.118	130	1.575	40	2.933	1330	28,500	127.0	65,000	290.0	4.331	110	4300	4300
NKIS 100	3.937	100	5.315	135	1.260	32	2.955	1340	20,500	91.0	46,000	204.0	4.528	115	4200	4200
NA 4920	3.937	100	5.512	140	1.575	40	4.190	1900	29,000	128.0	61,000	270.0	4.528	115	4100	4100
NA 4822	4.331	110	5.512	140	1.181	30	2.381	1080	21,100	94.0	48,500	216.0	4.724	120	3900	3900
NKI 110/40	4.331	110	5.512	140	1.575	40	3.219	1460	25,500	113.0	62,000	275.0	4.724	120	3900	3900
NA 4922	4.331	110	5.906	150	1.575	40	4.564	2070	29,500	132.0	65,000	290.0	4.921	125	3800	3800
NA 4824	4.724	120	5.906	150	1.181	30	2.580	1170	22,300	99.0	54,000	239.0	5.118	130	3600	3600
NA 4924	4.724	120	6.496	165	1.772	45	6.306	2860	40,500	181.0	88,000	390.0	5.315	135	3400	3400
NA 4826	5.118	130	6.496	165	1.378	35	3.991	1810	26,500	118.0	70,000	310.0	5.709	145	3300	3300
NA 4926	5.118	130	7.087	180	1.969	50	8.600	3900	45,500	203.0	106,000	470.0	5.906	150	3200	3200
NA 4828	5.512	140	6.890	175	1.378	35	4.234	1920	27,000	120.0	73,000	325.0	6.102	155	3100	3100
NKI 140/32	5.512	140	7.087	180	1.260	32	4.520	2050	25,500	114.0	58,000	260.0	6.102	155	3100	3100
NA 4928	5.512	140	7.480	190	1.969	50	9.151	4150	47,000	209.0	112,000	500.0	6.299	160	3000	3000
NA 4830	5.906	150	7.480	190	1.575	40	5.998	2720	34,000	152.0	90,000	400.0	6.496	165	2900	2900
NA 4832	6.299	160	7.874	200	1.575	40	6.372	2890	36,000	160.0	98,000	435.0	6.890	175	2700	2700



Precision Needle Bearings

NA, NKI, NKIS SERIES

- With inner rings
- Metric
- Cage guided rollers
- Ground raceways with ribs



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

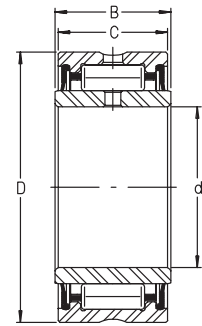
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	F	F	SPEED	SPEED
	d	d	D	D	B	B			CAP.	CAP.	CAP.	CAP.			LIMIT	LIMIT
	inch	mm	inch	mm	inch	mm	lbs	g	lbF	kN	lbF	kN	inch	mm	GREASE	OIL
															rpm	rpm
NA 4834	6.693	170	8.465	215	1.772	45	8.732	3960	41,500	185.0	115,000	510.0	7.284	185	2500	2500
NA 4836	7.087	180	8.858	225	1.772	45	9.261	4200	43,500	194.0	124,000	550.0	7.677	195	2400	2400
NA 4838	7.480	190	9.449	240	1.969	50	12.370	5610	51,000	227.0	155,000	690.0	8.268	210	2300	2300
NA 4840	7.874	200	9.843	250	1.969	50	12.877	5840	52,000	230.0	162,000	720.0	8.661	220	2200	2200
NA 4844	8.661	220	10.630	270	1.969	50	14.068	6380	55,000	243.0	178,000	790.0	9.449	240	2000	2000
NA 4848	9.449	240	11.811	300	2.362	60	22.050	10000	80,000	355.0	243,000	1080.0	10.433	265	1800	1800
NA 4852	10.236	260	12.598	320	2.362	60	23.373	10600	83,000	370.0	260,000	1160.0	11.221	285	1700	1700
NA 4856	11.024	280	13.780	350	2.717	69	33.737	15300	101,000	450.0	290,000	1300.0	12.008	305	1600	1600
NA 4860	11.811	300	14.961	380	3.150	80	48.069	21800	139,000	620.0	400,000	1770.0	12.992	330	1400	1400
NA 4864	12.598	320	15.748	400	3.150	80	50.715	23000	142,000	630.0	415,000	1850.0	13.780	350	1400	1400
NA 4868	13.386	340	16.535	420	3.150	80	53.361	24200	144,000	640.0	435,000	1940.0	14.567	370	1300	1300
NA 4872	14.173	360	17.323	440	3.150	80	56.448	25600	148,000	660.0	455,000	2020.0	15.354	390	1200	1200
NA 4876	14.961	380	18.898	480	3.937	100	93.933	42600	225,000	1000.0	650,000	2900.0	16.339	415	1100	1100



Precision Needle Bearings

NA49..2RS, NA49..RS SERIES

- With inner rings
- Sealed



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

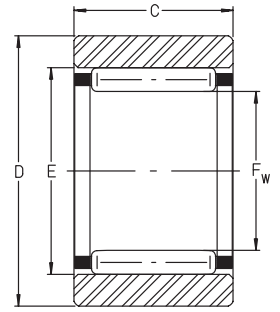
PART NUMBER	PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WIDTH	WIDTH	WGT.	WGT.	DYN. CAP. C	DYN. CAP. C	STAT. CAP. C ₀	STAT. CAP. C ₀	SPEED LIMIT
		d	d	D	D	INNER B	INNER B	OUTER C	OUTER C							
		inch	mm	inch	mm	inch	mm	inch	mm	lbs	g	lbf	N	lbf	N	rpm
NA 4900 2RS	NA 4900 RS	0.394	10	0.866	22	0.551	14	0.512	13	0.054	24.5	1530	6800	1550	6900	13000
NA 4901 2RS	NA 4901 RS	0.472	12	0.945	24	0.551	14	0.512	13	0.061	27.5	1710	7600	1870	8300	12000
NA 4902 2RS	NA 4902 RS	0.591	15	1.102	28	0.551	14	0.512	13	0.082	37	1930	8600	2320	10300	10000
NA 4903 2RS	NA 4903 RS	0.669	17	1.181	30	0.551	14	0.512	13	0.088	40	1980	8800	2470	11000	9000
NA 4904 2RS	NA 4904 RS	0.787	20	1.457	37	0.709	18	0.669	17	0.176	80	3890	17300	4470	19900	7500
NA 4905 2RS	NA 4905 RS	0.984	25	1.654	42	0.709	18	0.669	17	0.197	89.5	4340	19300	5440	24200	6500
NA 4906 2RS	NA 4906 RS	1.181	30	1.85	47	0.709	18	0.669	17	0.229	104	4740	21100	6410	28500	5500
NA 4907 2RS	NA 4907 RS	1.378	35	2.165	55	0.827	21	0.787	20	0.386	175	5960	26500	8880	39500	4800
NA 4908 2RS	NA 4908 RS	1.575	40	2.441	62	0.906	23	0.866	22	0.556	252	8090	36000	11920	53000	4200
NA 4909 2RS	NA 4909 RS	1.772	45	2.677	68	0.906	23	0.866	22	0.639	290	8540	38000	13260	59000	3900
NA 4910 2RS	NA 4910 RS	1.969	50	2.835	72	0.906	23	0.866	22	0.65	295	8990	40000	14390	64000	3500



Precision Needle Bearings

RNAO SERIES

- Without inner rings
- Without ribs
- Ground raceways
- Metric series



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

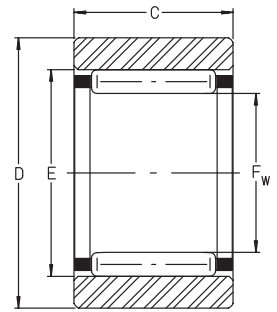
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	E	E	SPEED
	F _w	F _w	D	D	C	C									
	inch	mm	inch	mm	inch	mm	lbs	g	lbf	N	lbf	N	inch	mm	rpm
RNAO 5x10x8 TN	0.197	5	0.394	10	0.315	8	0.007	3	530	2350	430	1920	0.315	8	37000
RNAO 6x13x8 TN	0.236	6	0.512	13	0.315	8	0.013	6	590	2600	510	2280	0.354	9	32000
RNAO 7x14x8 TN	0.276	7	0.551	14	0.315	8	0.013	6	640	2850	600	2650	0.394	10	31000
RNAO 8x15x10 TN	0.315	8	0.591	15	0.394	10	0.018	8	890	3950	920	4100	0.433	11	29000
RNAO 10x17x10 TN	0.394	10	0.669	17	0.394	10	0.022	10	1,070	4750	1,240	5500	0.512	13	27000
RNAO 12x19x13.5 TN	0.472	12	0.748	19	0.532	13.5	0.033	15	1,440	6400	1,910	8500	0.591	15	25000
RNAO 12x22x12 TN	0.472	12	0.866	22	0.472	12	0.042	19	2,250	10000	2,230	9900	0.709	18	24000
RNAO 15x23x13	0.591	15	0.906	23	0.512	13	0.044	20	1,910	8500	2,450	10900	0.748	19	23000
RNAO 16x24x13	0.630	16	0.945	24	0.512	13	0.046	21	2,000	8900	2,650	11800	0.787	20	22000
RNAO 16x24x20	0.630	16	0.945	24	0.787	20	0.071	32	3,000	13300	4,450	19800	0.787	20	22000
RNAO 16x28x12	0.630	16	1.102	28	0.472	12	0.071	32	2,600	11500	2,800	12500	0.866	22	21000
RNAO 17x25x13	0.669	17	0.984	25	0.512	13	0.049	22	2,340	10400	3,300	14600	0.827	21	22000
RNAO 18x30x24	0.709	18	1.181	30	0.945	24	0.152	69	4,500	20100	6,000	26500	0.945	24	20000
RNAO 20x28x13	0.787	20	1.102	28	0.512	13	0.055	25	2,200	9800	3,200	14300	0.945	24	20000
RNAO 20x28x26	0.787	20	1.102	28	1.024	26	0.110	50	3,800	16800	6,400	28500	0.945	24	20000
RNAO 20x32x12	0.787	20	1.260	32	0.472	12	0.084	38	3,000	13400	3,650	16200	1.024	26	19000
RNAO 22x30x13	0.866	22	1.181	30	0.512	13	0.060	27	2,340	10400	3,600	15900	1.024	26	19000
RNAO 22x35x16	0.866	22	1.378	35	0.630	16	0.130	59	4,500	20000	5,700	25500	1.142	29	17000
RNAO 25x35x17	0.984	25	1.378	35	0.669	17	0.117	53	3,350	14900	5,800	26000	1.142	29	16000
RNAO 25x35x26	0.984	25	1.378	35	1.024	26	0.168	76	4,350	19400	8,300	37000	1.142	29	16000
RNAO 25x37x16	0.984	25	1.457	37	0.630	16	0.132	60	4,700	21000	6,300	28000	1.260	32	16000
RNAO 25x37x32	0.984	25	1.457	37	1.260	32	0.262	119	8,100	36000	12,600	56000	1.260	32	16000
RNAO 26x39x13	1.024	26	1.535	39	0.512	13	0.132	60	2,600	11600	4,300	19200	1.181	30	15000
RNAO 30x40x17	1.181	30	1.575	40	0.669	17	0.132	60	4,400	19600	7,600	34000	1.378	35	14000
RNAO 30x40x26	1.181	30	1.575	40	1.024	26	0.207	94	6,100	27000	11,500	51000	1.378	35	14000
RNAO 30x42x16	1.181	30	1.654	42	0.630	16	0.130	59	5,200	23100	7,500	33500	1.457	37	14000
RNAO 30x42x32	1.181	30	1.654	42	1.260	32	0.302	137	8,900	39500	15,100	67000	1.457	37	14000
RNAO 35x45x13	1.378	35	1.772	45	0.512	13	0.117	53	3,650	16200	6,300	28000	1.575	40	12000
RNAO 35x45x17	1.378	35	1.772	45	0.669	17	0.152	69	4,700	20800	8,700	38500	1.575	40	12000
RNAO 35x45x26	1.378	35	1.772	45	1.024	26	0.201	91	6,200	27500	12,600	56000	1.575	40	12000
RNAO 35x47x16	1.378	35	1.850	47	0.630	16	0.172	78	5,500	24400	8,400	37500	1.654	42	12000
RNAO 35x47x18	1.378	35	1.850	47	0.709	18	0.196	89	6,200	27500	9,700	43000	1.654	42	12000
RNAO 35x47x32	1.378	35	1.850	47	1.260	32	0.344	156	9,400	42000	16,900	75000	1.654	42	12000
RNAO 37x52x18	1.457	37	2.047	52	0.709	18	0.276	125	6,300	28000	10,200	45500	1.732	44	11000
RNAO 40x50x17	1.575	40	1.969	50	0.669	17	0.163	74	4,800	21400	9,300	41500	1.772	45	11000
RNAO 40x50x34	1.575	40	1.969	50	1.339	34	0.335	152	8,200	36500	18,700	83000	1.772	45	11000
RNAO 40x55x20	1.575	40	2.165	55	0.787	20	0.320	145	7,300	32500	12,800	57000	1.850	47	11000
RNAO 40x55x40	1.575	40	2.165	55	1.575	40	0.606	275	13,900	62000	26,500	118000	1.890	48	10000
RNAO 42x57x20	1.654	42	2.244	57	0.787	20	0.326	148	8,100	36000	13,300	59000	1.969	50	10000
RNAO 45x55x17	1.772	45	2.165	55	0.669	17	0.183	83	5,100	22500	10,300	46000	1.969	50	10000
RNAO 45x62x40	1.772	45	2.441	62	1.575	40	0.831	377	15,100	67000	30,500	135000	2.087	53	9000
RNAO 50x62x20	1.969	50	2.441	62	0.787	20	0.309	140	6,000	26500	13,500	60000	2.165	55	9000
RNAO 50x65x20	1.969	50	2.559	65	0.787	20	0.370	168	8,000	35500	13,900	62000	2.284	58	8500
RNAO 50x65x40	1.969	50	2.559	65	1.575	40	0.783	355	13,700	61000	28,000	124000	2.284	58	8500
RNAO 55x68x20	2.165	55	2.677	68	0.787	20	0.366	166	6,400	28500	14,800	66000	2.362	60	8000
RNAO 60x78x20	2.362	60	3.071	78	0.787	20	0.562	255	9,800	43500	19,100	85000	2.677	68	7000



Precision Needle Bearings

RNAO SERIES

- Without inner rings
- Without ribs
- Ground raceways
- Metric series



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

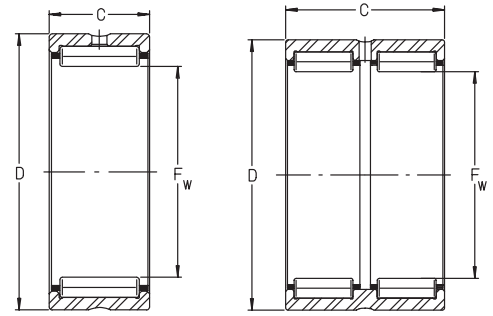
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	E	E	SPEED
	F _w	F _w	D	D	C	C									
	inch	mm	inch	mm	inch	mm	lbs	g	lbf	N	lbf	N	inch	mm	OIL
															rpm
RNAO 60x78x40	2.362	60	3.071	78	1.575	40	0.959	435	16,900	75000	38,500	171000	2.677	68	7000
RNAO 65x85x30	2.559	65	3.347	85	1.181	30	1.023	464	12,800	57000	27,500	123000	2.874	73	6500
RNAO 70x90x30	2.756	70	3.543	90	1.181	30	1.100	499	13,500	60000	30,500	135000	3.071	78	6000
RNAO 80x100x30	3.150	80	3.937	100	1.181	30	1.279	580	16,200	72000	40,000	179000	3.465	88	5500
RNAO 85x105x25	3.347	85	4.134	105	0.984	25	1.012	459	12,800	57000	30,500	136000	3.661	93	5000
RNAO 90x105x26	3.543	90	4.134	105	1.024	26	0.822	373	13,700	61000	33,500	150000	3.858	98	5000
RNAO 90x110x30	3.543	90	4.331	110	1.181	30	1.345	610	15,300	68000	38,500	172000	3.858	98	4900
RNAO 100x120x30	3.937	100	4.724	120	1.181	30	1.530	694	16,000	71000	42,500	188000	4.252	108	4500



Precision Needle Bearings

NCS, NK, NKS, RNA48, RNA49, RNA69 SERIES

- Without inner rings
- Inch and metric
- Ground raceways with ribs
- Cage guided rollers



NCS, NK, RNA48, NKS

RNA69

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

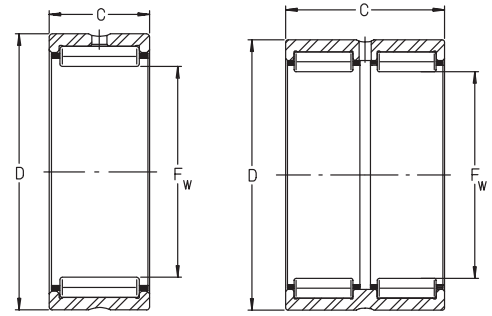
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	SPEED
	F _w	F _w	D	D	C	C			CAP.	CAP.	CAP.	CAP.	
	inch	mm	inch	mm	inch	mm	lbs	g	lbF	N	lbF	N	LIMIT
													OIL
													rpm
NK 5/10 TN	0.197	5	0.394	10	0.394	10	0.007	3.1	530	2350	430	1920	37000
NK 5/12 TN	0.197	5	0.394	10	0.472	12	0.008	3.7	670	3000	600	2650	37000
NK 6/10 TN	0.236	6	0.472	12	0.394	10	0.01	4.7	590	2600	510	2280	33000
NK 6/12 TN	0.236	6	0.472	12	0.472	12	0.013	5.7	750	3350	710	3150	33000
NK 7/10 TN	0.276	7	0.551	14	0.394	10	0.015	6.9	640	2850	600	2650	31000
NK 7/12 TN	0.276	7	0.551	14	0.472	12	0.018	8.2	820	3650	810	3600	31000
NK 8/12 TN	0.315	8	0.591	15	0.472	12	0.019	8.7	890	3950	920	4100	29000
NK 8/16 TN	0.315	8	0.591	15	0.630	16	0.026	12	1,150	5100	1,300	5800	29000
NK 9/12 TN	0.354	9	0.630	16	0.472	12	0.023	10.3	1,010	4500	1,120	5000	28000
NK 9/16 TN	0.354	9	0.630	16	0.630	16	0.028	12.8	1,330	5900	1,600	7100	28000
NK 10/12 TN	0.394	10	0.669	17	0.472	12	0.022	10.1	1,070	4750	1,240	5500	27000
NK 10/16 TN	0.394	10	0.669	17	0.630	16	0.029	13.3	1,390	6200	1,750	7800	27000
NK 12/12	0.472	12	0.748	19	0.472	12	0.027	12.1	1,440	6400	1,600	7100	25000
NK 12/16	0.472	12	0.748	19	0.630	16	0.035	15.9	2,020	9000	2,470	11000	25000
RNA 4900	0.551	14	0.866	22	0.512	13	0.036	16.5	1,910	8500	2,070	9200	25000
NK 14/16	0.551	14	0.866	22	0.630	16	0.046	20.7	2,270	10100	2,600	11500	24000
NK 14/20	0.551	14	0.866	22	0.787	20	0.056	25.5	2,900	12800	3,500	15600	24000
NK 15/16	0.591	15	0.906	23	0.630	16	0.048	21.8	2,410	10700	2,850	12700	23000
NK 15/20	0.591	15	0.906	23	0.787	20	0.059	26.6	3,050	13600	3,850	17200	23000
NCS 1012	0.625	15.875	1.125	28.575	0.750	19.05	0.11	50	3700	16400	3750	16700	22000
NCS 1016	0.625	15.875	1.125	28.575	1.000	25.4	0.15	68	4750	21100	5200	23000	22000
RNA 4901	0.630	16	0.945	24	0.512	13	0.038	17.4	2,110	9400	2,450	10900	24000
NK 16/16	0.630	16	0.945	24	0.630	16	0.049	22.4	2,550	11300	3,150	13900	22000
NK 16/20	0.630	16	0.945	24	0.787	20	0.063	28.4	3,250	14400	4,250	18800	22000
RNA 6901	0.630	16	0.945	24	0.866	22	0.068	31	3,600	16000	4,850	21600	22000
NK 17/16	0.669	17	0.984	25	0.630	16	0.052	23.7	2,700	11900	3,350	15000	22000
NK 17/20	0.669	17	0.984	25	0.787	20	0.066	29.8	3,400	15100	4,600	20400	22000
NK 18/16	0.709	18	1.024	26	0.630	16	0.055	24.9	2,800	12500	3,650	16200	21000
NK 18/20	0.709	18	1.024	26	0.787	20	0.069	31.4	3,550	15800	4,950	22000	21000
NK 19/16	0.748	19	1.063	27	0.630	16	0.058	26.1	2,900	13000	3,900	17400	21000
NK 19/20	0.748	19	1.063	27	0.787	20	0.071	32.2	3,700	16500	5,300	23600	21000
NCS 1212	0.750	19.05	1.250	31.75	0.750	19.05	0.12	54	4600	20400	5200	23000	21000
NCS 1216	0.750	19.05	1.250	31.75	1.000	25.4	0.16	73	5900	26000	7100	32000	21000
RNA 4902	0.787	20	1.102	28	0.512	13	0.048	21.7	2,380	10600	3,050	13600	22000
NK 20/16	0.787	20	1.102	28	0.630	16	0.06	27	2,900	13000	3,950	17500	20000
NK 20/20	0.787	20	1.102	28	0.787	20	0.075	33.9	3,700	16400	5,400	23800	20000
RNA 6902	0.787	20	1.102	28	0.906	23	0.088	39.7	3,900	17300	5,700	25500	20000
NKS 20	0.787	20	1.260	32	0.787	20	0.107	48.7	5,200	23000	5,600	25000	19000
NK 21/16	0.827	21	1.142	29	0.630	16	0.062	28.1	3,050	13500	4,200	18700	20000
NK 21/20	0.827	21	1.142	29	0.787	20	0.078	35.2	3,850	17100	5,700	25500	20000
RNA 4903	0.866	22	1.181	30	0.512	13	0.049	22.2	2,470	11000	3,300	14600	21000
NK 22/16	0.866	22	1.181	30	0.630	16	0.066	30	3,150	14000	4,450	19900	19000
NK 22/20	0.866	22	1.181	30	0.787	20	0.082	37	4,000	17700	6,100	27000	19000
RNA 6903	0.866	22	1.181	30	0.906	23	0.093	42.4	4,200	18600	6,500	29000	19000
NKS 22	0.866	22	1.378	35	0.787	20	0.135	61.5	5,500	24500	6,300	28000	17000
NCS 1412	0.875	22.225	1.375	34.925	0.750	19.05	0.13	59	5,100	22800	6200	27500	19000



Precision Needle Bearings

NCS, NK, NKS, RNA48, RNA49, RNA69 SERIES

- Without inner rings
- Inch and metric
- Ground raceways with ribs
- Cage guided rollers



NCS, NK, RNA48, NKS

RNA69

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

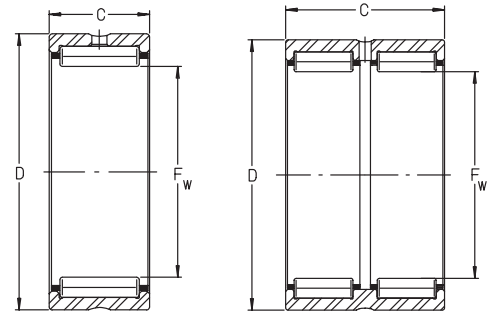
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	SPEED
	F _w	F _w	D	D	C	C			CAP.	CAP.	CAP.	CAP.	
	inch	mm	inch	mm	inch	mm	lbs	g	lbf	N	lbf	N	LIMIT
													OIL
													rpm
NCS 1416	0.875	22.225	1.375	34.925	1.000	25.4	0.18	82	6600	29500	8500	38000	19000
NCS 1512	0.938	23.813	1.438	36.513	0.750	19.05	0.14	63	5400	23900	6700	30000	18000
NK 24/16	0.945	24	1.260	32	0.630	16	0.07	31.9	3,350	15000	5,000	22300	18000
NK 24/20	0.945	24	1.260	32	0.787	20	0.088	40	4,250	19000	6,900	30500	18000
NKS 24	0.945	24	1.457	37	0.787	20	0.144	65.5	5,800	26000	7,000	31000	16000
NK 25/16	0.984	25	1.299	33	0.630	16	0.072	32.6	3,350	14900	5,000	22400	17000
NK 25/20	0.984	25	1.299	33	0.787	20	0.093	42	4,250	18800	6,900	30500	17000
RNA 4904	0.984	25	1.457	37	0.669	17	0.115	52.3	4,700	21000	5,700	25500	17000
RNA 6904	0.984	25	1.457	37	1.181	30	0.221	100	8,100	36000	11,500	51000	16000
NKS 25	0.984	25	1.496	38	0.787	20	0.150	68.1	6,200	27500	7500	33500	16000
NCS 1612	1.000	25.4	1.500	38.1	0.750	19.05	0.15	68	5300	23800	6800	30000	17000
NCS 1616	1.000	25.4	1.500	38.1	1.000	25.4	0.2	91	7200	32000	10000	44500	17000
NK 26/16	1.024	26	1.339	34	0.630	16	0.075	34	3,450	15300	5,300	23600	16000
NK 26/20	1.024	26	1.339	34	0.787	20	0.093	42	4,350	19400	7,200	32000	16000
NK 28/20	1.102	28	1.457	37	0.787	20	0.115	52.2	4,950	22000	7,600	34000	15000
NK 28/30	1.102	28	1.457	37	1.181	30	0.181	82	7,400	33000	12,800	57000	15000
RNA 49/22	1.102	28	1.535	39	0.669	17	0.111	50.2	5,100	22800	6,600	29500	16000
RNA 69/22	1.102	28	1.535	39	1.181	30	0.216	98	8,400	37500	12,400	55000	15000
NKS 28	1.102	28	1.654	42	0.787	20	0.184	83.6	6,400	28500	8,200	36500	14000
NCS 1816	1.125	28.575	1.625	41.275	1.000	25.4	0.22	100	7100	31500	10100	45000	15000
NCS 1820	1.125	28.575	1.625	41.275	1.250	31.75	0.28	127	10000	44500	15700	70000	15000
NK 29/20	1.142	29	1.496	38	0.787	20	0.118	53.7	4,900	21900	7,600	34000	15000
NK 29/30	1.142	29	1.496	38	1.181	30	0.186	84.3	7,300	32500	12,800	57000	15000
NK 30/20	1.181	30	1.575	40	0.787	20	0.143	65	5,100	22600	8,100	36000	14000
NK 30/30	1.181	30	1.575	40	1.181	30	0.216	97.9	7,500	33500	13,500	60000	14000
RNA 4905	1.181	30	1.654	42	0.669	17	0.135	61	5,300	23600	7,100	31500	15000
RNA 6905	1.181	30	1.654	42	1.181	30	0.247	112	8,800	39000	13,300	59000	14000
NKS 30	1.181	30	1.772	45	0.866	22	0.229	104	7,100	32000	9,000	40000	13000
NCS 2012	1.250	31.75	1.750	44.45	0.750	19.05	0.18	82	6000	26500	8300	37000	14000
NCS 2016	1.250	31.75	1.750	44.45	1.000	25.4	0.24	109	7700	34000	11500	51000	14000
NCS 2020	1.250	31.75	1.750	44.45	1.250	31.75	0.3	136	9900	44000	15900	71000	14000
NK 32/20	1.260	32	1.654	42	0.787	20	0.15	68	5,200	23100	8,400	37500	13000
NK 32/30	1.260	32	1.654	42	1.181	30	0.225	102	7,800	34500	14,200	63000	13000
RNA 49/28	1.260	32	1.772	45	0.669	17	0.161	73.2	5,500	24400	7,500	33500	13000
RNA 69/28	1.260	32	1.772	45	1.181	30	0.298	135	9,100	40500	14,200	63000	13000
NKS 32	1.260	32	1.850	47	0.866	22	0.242	110	7,500	33500	10,000	43500	12000
NCS 2216	1.375	34.925	1.875	47.625	1.000	25.4	0.26	118	8200	36500	12900	57000	13000
NCS 2220	1.375	34.925	1.875	47.625	1.250	31.75	0.33	150	11000	49000	18800	84000	13000
NK 35/20	1.378	35	1.772	45	0.787	20	0.163	73.8	5,500	24300	9,300	41500	12000
NK 35/30	1.378	35	1.772	45	1.181	30	0.247	112	8,200	36500	15,500	69000	12000
RNA 4906	1.378	35	1.850	47	0.669	17	0.153	69.4	5,600	25000	8,000	35500	13000
RNA 6906	1.378	35	1.850	47	1.181	30	0.278	126	9,800	43500	16,000	71000	12000
NKS 35	1.378	35	1.969	50	0.866	22	0.260	118	8,000	35000	10,500	47000	12000
NK 37/20	1.457	37	1.850	47	0.787	20	0.17	77	5,600	24900	9,800	43500	12000
NK 37/30	1.457	37	1.850	47	1.181	30	0.249	113	8,300	37000	16,400	73000	12000
NKS 37	1.457	37	2.047	52	0.866	22	0.271	123	8,200	36500	11,200	50000	11000



Precision Needle Bearings

NCS, NK, NKS, RNA48, RNA49, RNA69 SERIES

- Without inner rings
- Inch and metric
- Ground raceways with ribs
- Cage guided rollers



NCS, NK, RNA48, NKS

RNA69

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

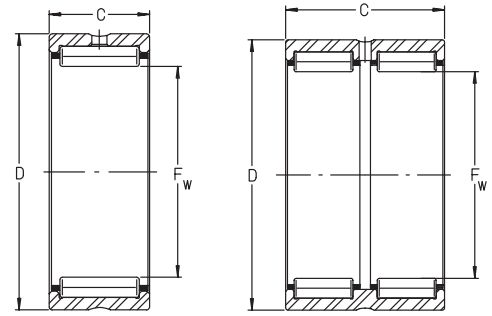
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	SPEED
	F _w	F _w	D	D	C	C			CAP.	CAP.	CAP.	CAP.	LIMIT
	inch	mm	inch	mm	inch	mm	lbs	g	lbF	N	lbF	N	OIL
													rpm
NK 38/20	1.496	38	1.890	48	0.787	20	0.175	79.4	5,700	25500	10,100	45000	11000
NK 38/30	1.496	38	1.890	48	1.181	30	0.256	116	8,500	38000	17,100	76000	11000
NCS 2416	1.500	38.1	2.063	52.388	1.000	25.4	0.34	154	8400	37500	13700	61000	12000
NCS 2420	1.500	38.1	2.063	52.388	1.250	31.75	0.42	190	12600	56000	20400	91000	11000
NK 40/20	1.575	40	1.969	50	0.787	20	0.182	82.7	5,800	26000	10,600	47000	11000
NK 40/30	1.575	40	1.969	50	1.181	30	0.276	125	8,800	39000	17,800	79000	11000
RNA 49/32	1.575	40	2.047	52	0.787	20	0.196	89.1	6,900	30500	10,700	47500	12000
RNA 69/32	1.575	40	2.047	52	1.417	36	0.357	162	10,600	47000	18,400	82000	11000
NKS 40	1.575	40	2.165	55	0.866	22	0.284	129	8,500	38000	12,100	54000	10000
NCS 2616	1.625	41.275	2.188	55.563	1.000	25.4	0.36	163	10500	47000	16600	74000	11000
NCS 2620	1.625	41.275	2.188	55.563	1.250	31.75	0.46	209	11100	49500	20000	89000	11000
NK 42/20	1.654	42	2.047	52	0.787	20	0.189	85.8	6,000	26500	11,000	49000	10000
NK 42/30	1.654	42	2.047	52	1.181	30	0.287	130	8,900	39500	18,400	82000	10000
RNA 4907	1.654	42	2.165	55	0.787	20	0.236	107	7,100	31500	11,200	50000	11000
RNA 6907	1.654	42	2.165	55	1.417	36	0.426	193	10,800	48000	19,300	86000	10000
NK 43/20	1.693	43	2.087	53	0.787	20	0.19	86	6,100	27000	11,500	51000	10000
NK 43/30	1.693	43	2.087	53	1.181	30	0.293	133	9,100	40500	19,100	85000	10000
NKS 43	1.693	43	2.283	58	0.866	22	0.306	139	8,700	39000	12,800	57000	9500
NCS 2816	1.750	44.45	2.313	58.738	1.000	25.4	0.39	177	9400	42000	16500	73000	10000
NCS 2820	1.750	44.45	2.313	58.738	1.250	31.75	0.48	218	13300	59000	22800	102000	10000
NK 45/20	1.772	45	2.165	55	0.787	20	0.202	91.5	6,200	27500	11,900	53000	10000
NK 45/30	1.772	45	2.165	55	1.181	30	0.306	139	9,200	41000	19,800	88000	10000
NKS 45	1.772	45	2.362	60	0.866	22	0.319	145	9,100	40500	13,500	60000	9500
NK 47/20	1.850	47	2.244	57	0.787	20	0.208	94.5	6,400	28500	12,600	56000	9500
NK 47/30	1.850	47	2.244	57	1.181	30	0.313	142	9,700	43000	21,100	94000	9500
NCS 3016	1.875	47.625	2.438	61.913	1.000	25.4	0.41	186	9600	42500	17300	77000	9500
NCS 3020	1.875	47.625	2.438	61.913	1.250	31.75	0.51	231	12000	53000	23000	102000	9500
RNA 4908	1.890	48	2.441	62	0.866	22	0.309	140	9,700	43000	15,100	67000	9500
RNA 6908	1.890	48	2.441	62	1.575	40	0.564	256	14,800	66000	26,000	116000	9000
NK 50/25	1.969	50	2.441	62	0.984	25	0.348	158	8,500	38000	16,600	74000	9000
NK 50/35	1.969	50	2.441	62	1.378	35	0.487	221	11,200	50000	23,800	106000	9000
NKS 50	1.969	50	2.559	65	0.866	22	0.345	157	9,500	42500	15,000	67000	8500
NCS 3216	2.000	50.8	2.563	65.088	1.000	25.4	0.39	177	11400	51000	18800	84000	9000
NCS 3220	2.000	50.8	2.563	65.088	1.250	31.75	0.5	227	14300	64000	26500	117000	9000
RNA 4909	2.047	52	2.677	68	0.866	22	0.401	182	10,100	45000	16,400	73000	8500
RNA 6909	2.047	52	2.677	68	1.575	40	0.745	338	15,500	69000	28,500	127000	8000
NK 55/25	2.165	55	2.677	68	0.984	25	0.397	180	9,000	40000	18,400	82000	8000
NK 55/35	2.165	55	2.677	68	1.378	35	0.551	250	11,900	53000	26,500	118000	8000
NKS55	2.165	55	2.835	72	0.866	22	0.486	221	10,100	45000	16,600	74000	7500
NCS 3624	2.250	57.15	3.000	76.2	1.500	38.1	0.93	422	20400	91000	37500	168000	7500
RNA 4910	2.284	58	2.835	72	0.866	22	0.359	163	10,600	47000	18,000	80000	8000
RNA 6910	2.284	58	2.835	72	1.575	40	0.684	310	16,400	73000	31,500	139000	7500
NK 60/25	2.362	60	2.835	72	0.984	25	0.408	185	9,400	42000	20,200	90000	7500
NK 60/35	2.362	60	2.835	72	1.378	35	0.569	258	12,600	56000	29,000	130000	7500
NKS 60	2.362	60	3.150	80	1.102	28	0.737	335	14,000	63000	22,000	98000	7000
RNA 4911	2.480	63	3.150	80	0.984	25	0.562	255	13,000	58000	22,500	100000	7500



Precision Needle Bearings

NCS, NK, NKS, RNA48, RNA49, RNA69 SERIES

- Without inner rings
- Inch and metric
- Ground raceways with ribs
- Cage guided rollers



NCS, NK, RNA48, NKS

RNA69

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

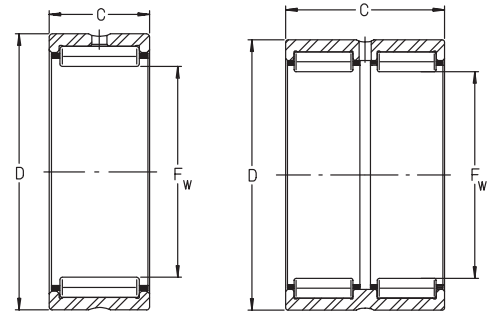
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	SPEED
	F _w	F _w	D	D	C	C			CAP.	CAP.	CAP.	CAP.	
	inch	mm	inch	mm	inch	mm	lbs	g	lbF	N	lbF	N	LIMIT
													OIL
													rpm
RNA 6911	2.480	63	3.150	80	1.772	45	1.036	470	20,200	90000	39,500	176000	7000
NCS 4024	2.500	63.5	3.250	82.55	1.500	38.1	1.04	472	19800	88000	34500	153000	7000
NK 65/25	2.559	65	3.071	78	0.984	25	0.487	221	9,900	44000	22,000	98000	7000
NK 65/35	2.559	65	3.071	78	1.378	35	0.684	310	13,300	59000	32,000	142000	7000
NKS 65	2.559	65	3.346	85	1.102	28	0.783	356	15,000	67000	24,300	108000	6500
NK 68/25	2.677	68	3.228	82	0.984	25	0.531	241	9,800	43500	20,000	89000	6500
NK 68/35	2.677	68	3.228	82	1.378	35	0.745	338	13,900	62000	31,500	139000	6500
RNA 4912	2.677	68	3.347	85	0.984	25	0.606	275	13,500	60000	24,300	108000	7000
RNA 6912	2.677	68	3.347	85	1.772	45	1.076	488	21,100	94000	43,000	191000	6500
NCS 4424	2.750	69.85	3.500	88.9	1.500	38.1	1.11	503	22300	99000	45000	201000	6500
NK 70/25	2.756	70	3.347	85	0.984	25	0.573	260	10,000	44500	20,700	92000	6500
NK 70/35	2.756	70	3.347	85	1.378	35	0.816	370	14,200	63000	32,500	144000	6500
NKS 70	2.756	70	3.543	90	1.102	28	0.836	380	15,300	68000	25,400	113000	6000
RNA 4913	2.835	72	3.543	90	0.984	25	0.688	312	13,700	61000	25,000	112000	6500
RNA 6913	2.835	72	3.543	90	1.772	45	1.279	580	21,400	95000	44,500	198000	6000
NK 73/25	2.874	73	3.543	90	0.984	25	0.666	302	11,900	53000	22,500	100000	6000
NK 73/35	2.874	73	3.543	90	1.378	35	0.944	428	16,900	75000	35,000	156000	6000
NK 75/25	2.953	75	3.622	92	0.984	25	0.695	315	12,100	54000	23,400	104000	6000
NK 75/35	2.953	75	3.622	92	1.378	35	0.981	445	17,300	77000	36,500	162000	6000
NKS 75	2.953	75	3.740	90	1.102	28	0.884	402	16,000	71000	27,700	123000	6000
NCS 4824	3.000	76.2	3.750	95.25	1.500	38.1	1.23	558	21900	98000	41500	194000	6000
NK 80/25	3.150	80	3.740	95	0.984	25	0.664	301	12,600	56000	27,000	119000	5500
NK 80/35	3.150	80	3.740	95	1.378	35	0.937	425	17,500	78000	41,500	184000	5500
RNA 4914	3.150	80	3.937	100	1.181	30	1.014	460	18,900	84000	35,000	156000	6000
RNA 6914	3.150	80	3.937	100	2.126	54	1.89	857	29,000	128000	60,000	265000	5500
NCS 5228	3.250	82.55	4.250	107.95	1.750	44.45	2.12	961	29500	131000	54000	240000	5500
NCS 5232	3.250	82.55	4.250	107.95	2.000	50.8	2.43	1102	33500	149000	63000	280000	5500
NK 85/25	3.347	85	4.134	105	0.984	25	0.937	425	15,500	69000	27,500	123000	5000
RNA 4915	3.347	85	4.134	105	1.181	30	1.078	489	19,300	86000	36,500	162000	5500
NK 85/35	3.347	85	4.134	105	1.378	35	1.323	600	22,000	98000	43,500	193000	5000
RNA 6915	3.347	85	4.134	105	2.126	54	2.062	935	29,000	130000	62,000	275000	5000
NCS 5632	3.500	88.9	4.500	114.3	2.000	50.8	2.57	1166	34500	152000	67000	295000	5000
NK 90/25	3.543	90	4.331	110	0.984	25	0.992	450	16,200	72000	29,500	132000	4900
RNA 4916	3.543	90	4.331	110	1.181	30	1.138	516	20,000	89000	39,000	174000	5000
NK 90/35	3.543	90	4.331	110	1.378	35	1.389	630	23,200	103000	47,000	208000	4900
RNA 6916	3.543	90	4.331	110	2.126	54	2.176	987	30,500	135000	67,000	300000	4900
NK 95/26	3.740	95	4.528	115	1.024	26	1.08	490	16,400	73000	31,000	137000	4700
NK 95/36	3.740	95	4.528	115	1.417	36	1.499	680	24,100	107000	50,000	223000	4700
NK 100/26	3.937	100	4.724	120	1.024	26	1.136	515	17,100	76000	33,000	146000	4500
RNA 4917	3.937	100	4.724	120	1.378	35	1.449	657	25,000	111000	53,000	237000	4800
NK 100/36	3.937	100	4.724	120	1.417	36	1.577	715	25,000	111000	53,000	237000	4500
RNA 6917	3.937	100	4.724	120	2.480	63	2.646	1200	37,500	166000	90,000	400000	4500
NK 105/26	4.134	105	4.921	125	1.024	26	1.191	540	17,500	78000	35,000	155000	4300
RNA 4918	4.134	105	4.921	125	1.378	35	1.643	745	25,500	114000	56,000	250000	4600
NK 105/36	4.134	105	4.921	125	1.417	36	1.572	713	25,500	114000	56,000	250000	4300
RNA 6918	4.134	105	4.921	125	2.480	63	2.933	1330	38,500	172000	96,000	425000	4300



Precision Needle Bearings

NCS, NK, NKS, RNA48, RNA49, RNA69 SERIES

- Without inner rings
- Inch and metric
- Ground raceways with ribs
- Cage guided rollers



NCS, NK, RNA48, NKS

RNA69

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

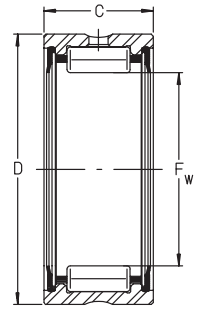
PART NUMBER	SHAFT	SHAFT	OD	OD	WIDTH	WIDTH	WGT.	WGT.	DYN.	DYN.	STAT.	STAT.	SPEED
	F _w	F _w	D	D	C	C			CAP.	CAP.	CAP.	CAP.	
	inch	mm	inch	mm	inch	mm	lbs	g	lbf	N	lbf	N	LIMIT
													OIL
													rpm
NCS 6832	4.250	107.95	5.250	133.35	2.000	50.8	2.91	1320	44000	196000	97000	430000	4200
NK 110/30	4.331	110	5.118	130	1.181	30	1.433	650	22,000	98000	47,000	210000	4100
RNA 4919	4.331	110	5.118	130	1.378	35	1.585	719	26,000	116000	58,000	260000	4400
NK 110/40	4.331	110	5.118	130	1.575	40	1.83	830	28,500	127000	65,000	290000	4100
RNA 6919	4.331	110	5.118	130	2.480	63	3.219	1460	39,000	174000	99,000	440000	4100
NCS 7240	4.500	114.3	6.000	152.4	2.500	63.5	4.16	1887	64000	285000	115000	510000	3800
RNA 4920	4.528	115	5.512	140	1.575	40	2.536	1150	29,000	128000	61,000	270000	4100
RNA 4822	4.724	120	5.512	140	1.181	30	1.477	670	21,100	94000	48,500	216000	3800
NK 120/40	4.724	120	5.512	140	1.575	40	2.007	910	25,500	113000	62,000	275000	3800
RNA 4922	4.921	125	5.906	150	1.575	40	2.734	1240	29,500	132000	65,000	290000	3800
RNA 4824	5.118	130	5.906	150	1.181	30	1.61	730	22,300	99000	54,000	239000	3500
RNA 4924	5.315	135	6.496	165	1.772	45	4.101	1860	40,500	181000	88,000	390000	3400
RNA 4826	5.709	145	6.496	165	1.378	35	2.183	990	26,500	118000	70,000	310000	3200
RNA 4926	5.906	150	7.087	180	1.969	50	4.873	2210	45,500	203000	106,000	470000	3200
RNA 4828	6.102	155	6.890	175	1.378	35	2.315	1050	27,000	120000	73,000	325000	3000
NK 155/32	6.102	155	7.087	180	1.260	32	2.646	1200	25,500	114000	58,000	260000	2900
RNA 4928	6.299	160	7.480	190	1.969	50	5.182	2350	47,000	209000	112,000	500000	3000
RNA 4830	6.496	165	7.480	190	1.575	40	3.528	1600	34,000	152000	90,000	400000	2800
RNA 4832	6.890	175	7.874	200	1.575	40	3.749	1700	36,000	160000	98,000	435000	2600
RNA 4834	7.284	185	8.465	215	1.772	45	5.601	2540	41,500	185000	115,000	510000	2500
RNA 4836	7.677	195	8.858	225	1.772	45	5.909	2680	43,500	194000	124,000	550000	2300
RNA 4838	8.268	210	9.449	240	1.969	50	7.078	3210	51,000	227000	155,000	690000	2200
RNA 4840	8.661	220	9.843	250	1.969	50	7.387	3350	52,000	230000	162,000	720000	2100
RNA 4844	9.449	240	10.630	270	1.969	50	7.982	3620	55,000	243000	178,000	790000	1900
RNA 4848	10.433	265	11.811	300	2.362	60	11.907	5400	80,000	355000	243,000	1080000	1700
RNA 4852	11.221	285	12.598	320	2.362	60	12.789	5800	83,000	370000	260,000	1160000	1600
RNA 4856	12.008	305	13.780	350	2.717	69	20.507	9300	101,000	450000	290,000	1300000	1500
RNA 4860	12.992	330	14.961	380	3.150	80	28.004	12700	139,000	620000	400,000	1770000	1400
RNA 4864	13.780	350	15.748	400	3.150	80	29.547	13400	142,000	630000	415,000	1850000	1300
RNA 4868	14.567	370	16.535	420	3.150	80	30.87	14000	144,000	640000	435,000	1940000	1200
RNA 4872	15.354	390	17.323	440	3.150	80	32.634	14800	148,000	660000	455,000	2020000	1200
RNA 4876	16.339	415	18.898	480	3.937	100	57.33	26000	225,000	1000000	650,000	2900000	1100



Precision Needle Bearings

RNA49..RS, RNA49..2RS SERIES

- Without inner rings
- Sealed



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

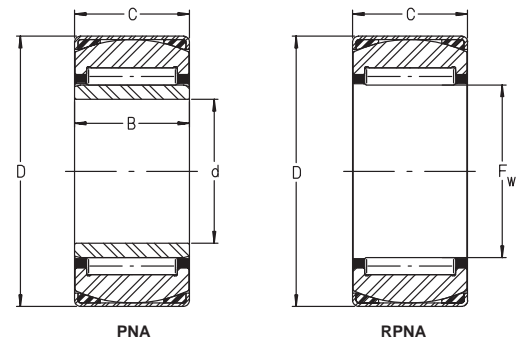
PART NUMBER	PART NUMBER	SHAFT F _w	SHAFT F _w	OD D	OD D	WIDTH C	WIDTH C	WGT.	WGT.	DYN. CAP. C	DYN. CAP. C	STAT. CAP. C ₀	STAT. CAP. C ₀	SPEED LIMIT GREASE
		inch	mm	inch	mm	inch	mm	lbs	g	lbf	N	lbf	N	rpm
RNA 4900 2RS	RNA 4900 RS	0.551	14	0.866	22	0.512	13	0.035	16	1,530	6800	1,550	6900	13000
RNA 4901 2RS	RNA 4901 RS	0.630	16	0.945	24	0.512	13	0.04	18	1,710	7600	1,870	8300	12000
RNA 4902 2RS	RNA 4902 RS	0.787	20	1.102	28	0.512	13	0.047	21.5	1,930	8600	2,320	10300	10000
RNA 4903 2RS	RNA 4903 RS	0.866	22	1.181	30	0.512	13	0.051	23	1,980	8800	2,470	11000	9000
RNA 4904 2RS	RNA 4904 RS	0.984	25	1.457	37	0.669	17	0.123	56	3,900	17300	4,450	19900	7500
RNA 4905 2RS	RNA 4905 RS	1.181	30	1.654	42	0.669	17	0.132	60	4,350	19300	5,400	24200	6500
RNA 4906 2RS	RNA 4906 RS	1.378	35	1.850	47	0.669	17	0.152	69	4,750	21100	6,400	28500	5500
RNA 4907 2RS	RNA 4907 RS	1.654	42	2.165	55	0.787	20	0.236	107	6,000	26500	8,900	39500	4800
RNA 4908 2RS	RNA 4908 RS	1.890	48	2.441	62	0.866	22	0.34	154	8,100	36000	11,900	53000	4200
RNA 4909 2RS	RNA 4909 RS	2.047	52	2.677	68	0.866	22	0.346	157	8,500	38000	13,300	59000	3900
RNA 4910 2RS	RNA 4910 RS	2.284	58	2.835	72	0.866	22	0.353	160	9,000	40000	14,400	64000	3500



Self Aligning Needle Bearings

PNA, RPNA SERIES

- Metric series
- Self contained aligning adaptor
- for static or initial misalignment
- With or without inner ring



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

PART NUMBER	SHAFT d inch	SHAFT d mm	OD D inch	OD D mm	WIDTH C inch	WIDTH C mm	WEIGHT lbs	WEIGHT g	DYN. CAP. RADIAL lbf	DYN. CAP. RADIAL N	STAT. CAP. RADIAL lbf	STAT. CAP. RADIAL N	PERM. AXIAL SHIFT inch	PERM. AXIAL SHIFT mm	SPEED LIMIT OIL rpm	SPEED LIMIT GREASE rpm
PNA 12/28	0.472	12	1.102	28	0.472	12	0.082	37	1550	6900	1780	7900	0.02	0.5	24000	14000
PNA 15/32	0.591	15	1.260	32	0.630	16	0.137	62	2810	12500	3640	16200	0.02	0.5	22000	13000
PNA 17/35	0.669	17	1.378	35	0.630	16	0.161	73	2920	13000	3930	17500	0.02	0.5	21000	13000
PNA 20/42	0.787	20	1.654	42	0.787	20	0.300	136	4230	18800	6860	30500	0.02	0.5	18000	11000
PNA 22/44	0.866	22	1.732	44	0.787	20	0.320	145	4950	22000	7640	34000	0.02	0.5	16000	9500
PNA 25/47	0.984	25	1.850	47	0.787	20	0.346	157	5080	22600	8090	36000	0.02	0.5	15000	9000
PNA 30/52	1.181	30	2.047	52	0.787	20	0.399	181	5460	24300	9330	41500	0.02	0.5	13000	8000
PNA 35/55	1.378	35	2.165	55	0.787	20	0.390	177	5850	26000	10600	47000	0.02	0.5	11000	6500
PNA 40/62	1.575	40	2.441	62	0.787	20	0.501	227	6180	27500	11900	53000	0.02	0.5	10000	6000

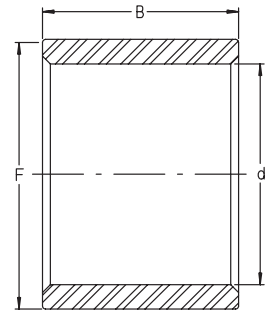
PART NUMBER	SHAFT Fw inch	SHAFT Fw mm	OD D inch	OD D mm	WIDTH C inch	WIDTH C mm	WEIGHT lbs	WEIGHT g	DYN. CAP. RADIAL lbf	DYN. CAP. RADIAL N	STAT. CAP. RADIAL lbf	STAT. CAP. RADIAL N	PEED LIMIT OIL rpm	SPEED LIMIT GREASE rpm
RPNA 15/28	0.591	15	1.102	28	0.472	12	0.071	32	1550	6900	1780	7900	24000	14000
RPNA 18/32	0.709	18	1.260	32	0.630	16	0.115	52	2810	12500	3640	16200	22000	13000
RPNA 20/35	0.787	20	1.378	35	0.630	16	0.137	62	2920	13000	3930	17500	21000	13000
RPNA 25/42	0.984	25	1.654	42	0.787	20	0.24	109	4230	18800	6860	30500	18000	11000
RPNA 28/44	1.102	28	1.732	44	0.787	20	0.247	112	4950	22000	7640	34000	16000	9500
RPNA 30/47	1.181	30	1.850	47	0.787	20	0.276	125	5080	22600	8090	36000	15000	9000
RPNA 35/52	1.378	35	2.047	52	0.787	20	0.289	131	5460	24300	9330	41500	13000	8000
RPNA 40/55	1.575	40	2.165	55	0.787	20	0.311	141	5850	26000	10600	47000	11000	6500
RPNA 45/62	1.772	45	2.441	62	0.787	20	0.388	176	6200	27500	11900	53000	10000	6000



Inner Rings

IR SERIES

- Metric series
- Hardened
- Precision ground for use with precision needle bearings
- ★ With oil hole included



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

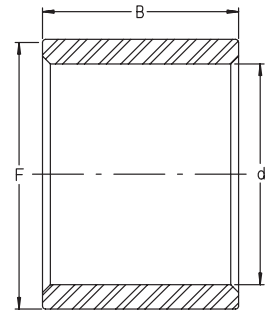
PART NUMBER	SHAFT d inch	SHAFT d mm	OD F inch	OD F mm	WIDTH B inch	WIDTH B mm	WEIGHT lbs	WEIGHT g
IR 5x8x12	0.197	5	0.315	8	0.472	12	0.006	2.79
IR 5x8x16	0.197	5	0.315	8	0.630	16	0.008	3.75
IR 6x9x12	0.236	6	0.354	9	0.472	12	0.007	3.17
IR 6x9x16	0.236	6	0.354	9	0.630	16	0.009	4.3
★IR 6x10x10	0.236	6	0.394	10	0.394	10	0.008	3.7
★IR 6x10x12	0.236	6	0.394	10	0.472	12	0.01	4.6
IR 7x10x10.5	0.276	7	0.394	10	0.413	10.5	0.007	3.09
IR 7x10x12	0.276	7	0.394	10	0.472	12	0.008	3.61
IR 7x10x16	0.276	7	0.394	10	0.630	16	0.011	4.9
★IR 8x12x10	0.315	8	0.472	12	0.394	10	0.011	4.8
IR 8x12x10.5	0.315	8	0.472	12	0.413	10.5	0.011	5
★IR 8x12x12	0.315	8	0.472	12	0.472	12	0.013	5.7
IR 8x12x12.5	0.315	8	0.472	12	0.492	12.5	0.013	5.9
IR 9x12x12	0.354	9	0.472	12	0.472	12	0.01	4.5
IR 9x12x16	0.354	9	0.472	12	0.630	16	0.013	6.1
IR 10x13x12.5	0.394	10	0.512	13	0.492	12.5	0.011	5.2
★IR 10x14x12	0.394	10	0.551	14	0.472	12	0.016	7.3
IR 10x14x13	0.394	10	0.551	14	0.512	13	0.016	7.4
★IR 10x14x14	0.394	10	0.551	14	0.551	14	0.018	8
IR 10x14x16	0.394	10	0.551	14	0.630	16	0.02	9.2
IR 10x14x20	0.394	10	0.551	14	0.787	20	0.026	11.6
IR 12x15x12	0.472	12	0.591	15	0.472	12	0.013	5.8
IR 12x15x12.5	0.472	12	0.591	15	0.492	12.5	0.013	6.1
IR 12x15x16	0.472	12	0.591	15	0.630	16	0.018	8
IR 12x15x16.5	0.472	12	0.591	15	0.650	16.5	0.018	8.1
IR 12x15x22.5	0.472	12	0.591	15	0.886	22.5	0.024	10.9
★IR 12x16x12	0.472	12	0.630	16	0.472	12	0.017	7.9
IR 12x16x13	0.472	12	0.630	16	0.512	13	0.019	8.7
★IR 12x16x14	0.472	12	0.630	16	0.551	14	0.021	9.5
IR 12x16x16	0.472	12	0.630	16	0.630	16	0.024	10.9
IR 12x16x20	0.472	12	0.630	16	0.787	20	0.03	13.5
IR 12x16x22	0.472	12	0.630	16	0.866	22	0.033	14.9
IR 14x17x17	0.551	14	0.669	17	0.669	17	0.022	10
IR 15x18x16	0.591	15	0.709	18	0.630	16	0.021	9.6
IR 15x18x16.5	0.591	15	0.709	18	0.650	16.5	0.022	9.9
IR 15x19x16	0.591	15	0.748	19	0.630	16	0.028	12.8
IR 15x19x20	0.591	15	0.748	19	0.787	20	0.036	16.4
★IR 15x20x12	0.591	15	0.787	20	0.472	12	0.027	12.1
IR 15x20x13	0.591	15	0.787	20	0.512	13	0.03	13.5
★IR 15x20x14	0.591	15	0.787	20	0.551	14	0.032	14.7
IR 15x20x23	0.591	15	0.787	20	0.906	23	0.054	24.4
IR 17x20x16	0.669	17	0.787	20	0.630	16	0.024	10.7
IR 17x20x16.5	0.669	17	0.787	20	0.650	16.5	0.024	11.1
IR 17x20x20	0.669	17	0.787	20	0.787	20	0.03	13.5
IR 17x20x20.5	0.669	17	0.787	20	0.807	20.5	0.03	13.8
IR 17x20x30.5	0.669	17	0.787	20	1.201	30.5	0.045	20.6



Inner Rings

IR SERIES

- Metric series
- Hardened
- Precision ground for use with precision needle bearings
- ★ With oil hole included



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

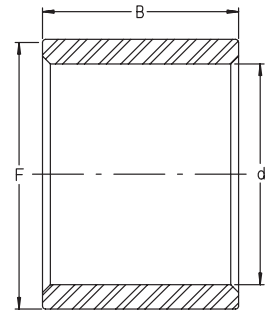
PART NUMBER	SHAFT d inch	SHAFT d mm	OD F inch	OD F mm	WIDTH B inch	WIDTH B mm	WEIGHT lbs	WEIGHT g
IR 17x21x16	0.669	17	0.827	21	0.630	16	0.032	14.3
IR 17x21x20	0.669	17	0.827	21	0.787	20	0.04	18
IR 17x22x13	0.669	17	0.866	22	0.512	13	0.033	14.9
★IR 17x22x14	0.669	17	0.866	22	0.551	14	0.036	16.4
IR 17x22x16	0.669	17	0.866	22	0.630	16	0.041	18.7
IR 17x22x23	0.669	17	0.866	22	0.906	23	0.06	27.1
IR 17x24x20	0.669	17	0.945	24	0.787	20	0.074	33.6
IR 20x24x16	0.787	20	0.945	24	0.630	16	0.036	16.5
IR 20x24x20	0.787	20	0.945	24	0.787	20	0.047	21.3
★IR 20x25x16	0.787	20	0.984	25	0.630	16	0.047	21.1
IR 20x25x17	0.787	20	0.984	25	0.669	17	0.049	22.4
★IR 20x25x18	0.787	20	0.984	25	0.709	18	0.054	24.3
IR 20x25x20	0.787	20	0.984	25	0.787	20	0.061	27.5
IR 20x25x20.5	0.787	20	0.984	25	0.807	20.5	0.062	28.2
IR 20x25x26.5	0.787	20	0.984	25	1.043	26.5	0.08	36.1
IR 20x25x30	0.787	20	0.984	25	1.181	30	0.09	40.9
IR 20x25x38.5	0.787	20	0.984	25	1.516	38.5	0.116	52.5
IR 20x28x20	0.787	20	1.102	28	0.787	20	0.1	45.2
IR 22x26x16	0.866	22	1.024	26	0.630	16	0.039	17.5
IR 22x26x20	0.866	22	1.024	26	0.787	20	0.051	23.2
IR 22x28x17	0.866	22	1.102	28	0.669	17	0.066	29.8
IR 22x28x20	0.866	22	1.102	28	0.787	20	0.077	35
IR 22x28x20.5	0.866	22	1.102	28	0.807	20.5	0.079	36
IR 22x28x30	0.866	22	1.102	28	1.181	30	0.12	54.4
IR 25x29x20	0.984	25	1.142	29	0.787	20	0.056	25.5
IR 25x29x30	0.984	25	1.142	29	1.181	30	0.087	39.3
★IR 25x30x16	0.984	25	1.181	30	0.630	16	0.057	26
IR 25x30x17	0.984	25	1.181	30	0.669	17	0.061	27.5
★IR 25x30x18	0.984	25	1.181	30	0.709	18	0.066	29.8
IR 25x30x20	0.984	25	1.181	30	0.787	20	0.072	32.6
IR 25x30x20.5	0.984	25	1.181	30	0.807	20.5	0.074	33.5
IR 25x30x26.5	0.984	25	1.181	30	1.043	26.5	0.095	43.3
IR 25x30x30	0.984	25	1.181	30	1.181	30	0.11	50.1
IR 25x30x32	0.984	25	1.181	30	1.260	32	0.117	53
IR 25x30x38.5	0.984	25	1.181	30	1.516	38.5	0.141	63.8
IR 25x32x22	0.984	25	1.260	32	0.866	22	0.114	51.7
IR 28x32x17	1.102	28	1.260	32	0.669	17	0.054	24.5
IR 28x32x20	1.102	28	1.260	32	0.787	20	0.063	28.4
IR 28x32x30	1.102	28	1.260	32	1.181	30	0.097	43.8
IR 29x32x13	1.142	29	1.260	32	0.512	13	0.033	14.8
IR 30x35x13	1.181	30	1.378	35	0.512	13	0.055	25
IR 30x35x16	1.181	30	1.378	35	0.630	16	0.068	30.8
IR 30x35x17	1.181	30	1.378	35	0.669	17	0.071	32.3
★IR 30x35x18	1.181	30	1.378	35	0.709	18	0.078	35.3
IR 30x35x20	1.181	30	1.378	35	0.787	20	0.088	40
IR 30x35x20.5	1.181	30	1.378	35	0.807	20.5	0.09	40.7



Inner Rings

IR SERIES

- Metric series
- Hardened
- Precision ground for use with precision needle bearings
- ★ With oil hole included



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

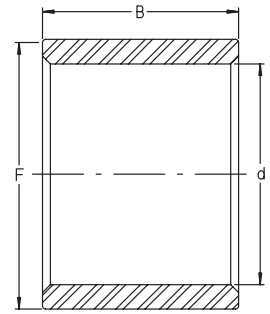
PART NUMBER	SHAFT d inch	SHAFT d mm	OD F inch	OD F mm	WIDTH B inch	WIDTH B mm	WEIGHT lbs	WEIGHT g
IR 30x35x26	1.181	30	1.378	35	1.024	26	0.111	50.3
IR 30x35x30	1.181	30	1.378	35	1.181	30	0.13	58.9
IR 30x37x18	1.181	30	1.457	37	0.709	18	0.11	50
IR 30x37x22	1.181	30	1.457	37	0.866	22	0.134	60.8
★IR 30x38x20	1.181	30	1.496	38	0.787	20	0.143	64.8
IR 32x37x20	1.260	32	1.457	37	0.787	20	0.093	42
IR 32x37x30	1.260	32	1.457	37	1.181	30	0.138	62.7
IR 32x40x20	1.260	32	1.575	40	0.787	20	0.15	68
IR 32x40x36	1.260	32	1.575	40	1.417	36	0.273	124
IR 33x37x13	1.299	33	1.457	37	0.512	13	0.048	21.9
IR 35x40x17	1.378	35	1.575	40	0.669	17	0.084	38.3
IR 35x40x20	1.378	35	1.575	40	0.787	20	0.098	44.4
IR 35x40x20.5	1.378	35	1.575	40	0.807	20.5	0.102	46.1
IR 35x40x30	1.378	35	1.575	40	1.181	30	0.15	67.9
★IR 35x42x20	1.378	35	1.654	42	0.787	20	0.141	63.9
IR 35x42x20.5	1.378	35	1.654	42	0.807	20.5	0.146	66
★IR 35x42x21	1.378	35	1.654	42	0.827	21	0.149	67.7
★IR 35x42x23	1.378	35	1.654	42	0.906	23	0.163	74
IR 35x42x36	1.378	35	1.654	42	1.417	36	0.258	117
IR 35x43x22	1.378	35	1.693	43	0.866	22	0.181	82
IR 38x43x20	1.496	38	1.693	43	0.787	20	0.106	48.1
IR 38x43x30	1.496	38	1.693	43	1.181	30	0.162	73.6
IR 40x45x17	1.575	40	1.772	45	0.669	17	0.094	42.5
IR 40x45x20	1.575	40	1.772	45	0.787	20	0.111	50.5
IR 40x45x20.5	1.575	40	1.772	45	0.807	20.5	0.116	52.5
IR 40x45x30	1.575	40	1.772	45	1.181	30	0.17	77.1
IR 40x48x22	1.575	40	1.890	48	0.866	22	0.204	92.3
★IR 40x48x23	1.575	40	1.890	48	0.906	23	0.215	97.3
IR 40x48x40	1.575	40	1.890	48	1.575	40	0.375	170
★IR 40x50x20	1.575	40	1.969	50	0.787	20	0.234	106
IR 40x50x22	1.575	40	1.969	50	0.866	22	0.26	118
IR 42x47x20	1.654	42	1.850	47	0.787	20	0.118	53.5
IR 42x47x30	1.654	42	1.850	47	1.181	30	0.179	81
IR 45x50x25	1.772	45	1.969	50	0.984	25	0.157	71.1
IR 45x50x25.5	1.772	45	1.969	50	1.004	25.5	0.163	73.7
IR 45x50x35	1.772	45	1.969	50	1.378	35	0.223	101
IR 45x52x22	1.772	45	2.047	52	0.866	22	0.196	89
★IR 45x52x23	1.772	45	2.047	52	0.906	23	0.205	93
IR 45x52x40	1.772	45	2.047	52	1.575	40	0.362	164
★IR 45x55x20	1.772	45	2.165	55	0.787	20	0.258	117
IR 45x55x22	1.772	45	2.165	55	0.866	22	0.287	130
★IR 50x55x20	1.969	50	2.165	55	0.787	20	0.138	62.6
IR 50x55x25	1.969	50	2.165	55	0.984	25	0.172	77.8
IR 50x55x35	1.969	50	2.165	55	1.378	35	0.247	112
IR 50x58x22	1.969	50	2.283	58	0.866	22	0.254	115
★IR 50x58x23	1.969	50	2.283	58	0.906	23	0.262	119



Inner Rings

IR SERIES

- Metric series
- Hardened
- Precision ground for use with precision needle bearings
- ★ With oil hole included



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

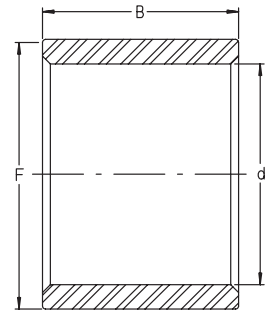
PART NUMBER	SHAFT d inch	SHAFT d mm	OD F inch	OD F mm	WIDTH B inch	WIDTH B mm	WEIGHT lbs	WEIGHT g
IR 50x58x40	1.969	50	2.283	58	1.575	40	0.461	209
★IR 50x60x20	1.969	50	2.362	60	0.787	20	0.284	129
IR 50x60x25	1.969	50	2.362	60	0.984	25	0.359	163
IR 50x60x28	1.969	50	2.362	60	1.102	28	0.404	183
IR 55x60x25	2.165	55	2.362	60	0.984	25	0.19	86
IR 55x60x35	2.165	55	2.362	60	1.378	35	0.267	121
IR 55x63x25	2.165	55	2.480	63	0.984	25	0.311	141
IR 55x63x45	2.165	55	2.480	63	1.772	45	0.564	256
IR 55x65x28	2.165	55	2.559	65	1.102	28	0.437	198
IR 60x68x25	2.362	60	2.677	68	0.984	25	0.335	152
IR 60x68x35	2.362	60	2.677	68	1.378	35	0.47	213
IR 60x68x45	2.362	60	2.677	68	1.772	45	0.606	275
IR 60x70x25	2.362	60	2.756	70	0.984	25	0.43	195
IR 60x70x28	2.362	60	2.756	70	1.102	28	0.476	216
IR 65x72x25	2.559	65	2.835	72	0.984	25	0.313	142
IR 65x72x45	2.559	65	2.835	72	1.772	45	0.571	259
IR 65x73x25	2.559	65	2.874	73	0.984	25	0.362	164
IR 65x73x35	2.559	65	2.874	73	1.378	35	0.512	232
IR 65x75x28	2.559	65	2.953	75	1.102	28	0.507	230
IR 70x80x25	2.756	70	3.150	80	0.984	25	0.494	224
IR 70x80x30	2.756	70	3.150	80	1.181	30	0.589	267
IR 70x80x35	2.756	70	3.150	80	1.378	35	0.69	313
IR 70x80x54	2.756	70	3.150	80	2.126	54	1.074	487
IR 70x80x56	2.756	70	3.150	80	2.205	56	1.116	506
IR 75x85x25	2.953	75	3.346	85	0.984	25	0.525	238
IR 75x85x30	2.953	75	3.346	85	1.181	30	0.633	287
IR 75x85x35	2.953	75	3.346	85	1.378	35	0.741	336
IR 75x85x54	2.953	75	3.346	85	2.126	54	1.147	520
IR 80x90x25	3.150	80	3.543	90	0.984	25	0.56	254
IR 80x90x30	3.150	80	3.543	90	1.181	30	0.67	304
IR 80x90x35	3.150	80	3.543	90	1.378	35	0.783	355
IR 80x90x54	3.150	80	3.543	90	2.126	54	1.213	550
IR 85x95x26	3.346	85	3.740	95	1.024	26	0.617	280
IR 85x95x36	3.346	85	3.740	95	1.417	36	0.86	390
IR 85x100x35	3.346	85	3.937	100	1.378	35	1.279	580
IR 85x100x63	3.346	85	3.937	100	2.480	63	2.315	1050
IR 90x100x26	3.543	90	3.937	100	1.024	26	0.648	294
IR 90x100x30	3.543	90	3.937	100	1.181	30	0.75	340
IR 90x100x36	3.543	90	3.937	100	1.417	36	0.895	406
IR 90x105x35	3.543	90	4.134	105	1.378	35	1.345	610
IR 90x105x63	3.543	90	4.134	105	2.480	63	2.448	1110
IR 95x105x26	3.740	95	4.134	105	1.024	26	0.69	313
IR 95x105x36	3.740	95	4.134	105	1.417	36	0.948	430
IR 95x110x35	3.740	95	4.331	110	1.378	35	1.418	643
IR 95x110x63	3.740	95	4.331	110	2.480	63	2.58	1170
IR 100x110x30	3.937	100	4.331	110	1.181	30	0.816	370



Inner Rings

IR SERIES

- Metric series
- Hardened
- Precision ground for use with precision needle bearings
- ★ With oil hole included



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

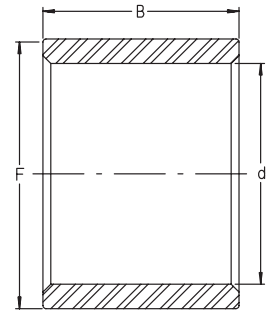
PART NUMBER	SHAFT d inch	SHAFT d mm	OD F inch	OD F mm	WIDTH B inch	WIDTH B mm	WEIGHT lbs	WEIGHT g
IR 100x110x40	3.937	100	4.331	110	1.575	40	1.114	505
IR 100x115x40	3.937	100	4.528	115	1.575	40	1.709	775
IR 110x120x30	4.331	110	4.724	120	1.181	30	0.902	409
IR 110x125x40	4.331	110	4.921	125	1.575	40	1.852	840
IR 120x130x30	4.724	120	5.118	130	1.181	30	0.975	442
IR 120x135x45	4.724	120	5.315	135	1.772	45	2.205	1000
IR 130x145x35	5.118	130	5.709	145	1.378	35	1.885	855
IR 130x150x50	5.118	130	5.906	150	1.969	50	3.726	1690
IR 140x155x35	5.512	140	6.102	155	1.378	35	2.022	917
IR 140x160x50	5.512	140	6.299	160	1.969	50	3.969	1800
IR 150x165x40	5.906	150	6.496	165	1.575	40	2.47	1120
IR 160x175x40	6.299	160	6.890	175	1.575	40	2.646	1200
IR 170x185x45	6.693	170	7.283	185	1.772	45	3.197	1450
IR 180x195x45	7.087	180	7.677	195	1.772	45	3.33	1510
IR 190x210x50	7.480	190	8.268	210	1.969	50	5.314	2410
IR 200x220x50	7.874	200	8.661	220	1.969	50	5.49	2490
IR 220x240x50	8.661	220	9.449	240	1.969	50	6.064	2750
IR 240x265x60	9.449	240	10.433	265	2.362	60	10.143	4600
IR 260x285x60	10.236	260	11.22	285	2.362	60	10.981	4980
IR 280x305x69	11.024	280	12.008	305	2.717	69	13.451	6100
IR 300x330x80	11.811	300	12.992	330	3.150	80	20.286	9200
IR 320x350x80	12.598	320	13.780	350	3.150	80	21.609	9800
IR 340x370x80	13.386	340	14.567	370	3.150	80	22.491	10200
IR 360x390x80	14.173	360	15.354	390	3.150	80	24.035	10900
IR 380x415x100	14.961	380	16.339	415	3.937	100	37.485	17000



Inner Rings

LR SERIES

- Metric series
- Hardened
- Fine machined for use with shell bearings



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

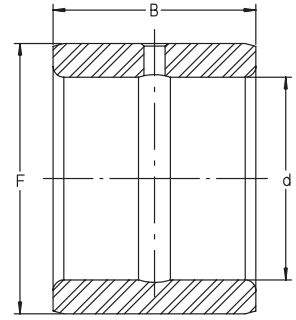
PART NUMBER	SHAFT d inch	SHAFT d mm	OD F inch	OD F mm	WIDTH B inch	WIDTH B mm	WEIGHT lbs	WEIGHT g
LR 7x10x10.5	0.276	7	0.394	10	0.413	10.5	0.007	3.09
LR 8x12x10.5	0.315	8	0.472	12	0.413	10.5	0.011	5
LR 8x12x12.5	0.315	8	0.472	12	0.492	12.5	0.013	5.9
LR 10x13x12.5	0.394	10	0.512	13	0.492	12.5	0.011	5.2
LR 12x15x12.5	0.472	12	0.591	15	0.492	12.5	0.013	6.1
LR 12x15x16.5	0.472	12	0.591	15	0.650	16.5	0.018	8.1
LR 12x15x22.5	0.472	12	0.591	15	0.886	22.5	0.024	10.9
LR 15x18x12.5	0.591	15	0.709	18	0.492	12.5	0.016	7.2
LR 15x18x16.5	0.591	15	0.709	18	0.650	16.5	0.022	9.9
LR 17x20x16.5	0.669	17	0.787	20	0.650	16.5	0.024	11.1
LR 17x20x20.5	0.669	17	0.787	20	0.807	20.5	0.03	13.8
LR 17x20x30.5	0.669	17	0.787	20	1.201	30.5	0.045	20.6
LR 20x25x12.5	0.787	20	0.984	25	0.492	12.5	0.036	16.3
LR 20x25x16.5	0.787	20	0.984	25	0.650	16.5	0.048	21.7
LR 20x25x20.5	0.787	20	0.984	25	0.807	20.5	0.062	28.2
LR 20x25x26.5	0.787	20	0.984	25	1.043	26.5	0.08	36.1
LR 20x25x38.5	0.787	20	0.984	25	1.516	38.5	0.116	52.5
LR 22x28x20.5	0.866	22	1.102	28	0.807	20.5	0.079	36
LR 25x30x12.5	0.984	25	1.181	30	0.492	12.5	0.044	20
LR 25x30x16.5	0.984	25	1.181	30	0.650	16.5	0.059	26.7
LR 25x30x20.5	0.984	25	1.181	30	0.807	20.5	0.074	33.5
LR 25x30x26.5	0.984	25	1.181	30	1.043	26.5	0.095	43.3
LR 25x30x38.5	0.984	25	1.181	30	1.516	38.5	0.141	63.8
LR 30x35x12.5	1.181	30	1.378	35	0.492	12.5	0.051	23.3
LR 30x35x16.5	1.181	30	1.378	35	0.650	16.5	0.069	31.4
LR 30x35x20.5	1.181	30	1.378	35	0.807	20.5	0.09	40.7
LR 35x40x12.5	1.378	35	1.575	40	0.492	12.5	0.06	27.2
LR 35x40x16.5	1.378	35	1.575	40	0.650	16.5	0.082	37.4
LR 35x40x20.5	1.378	35	1.575	40	0.807	20.5	0.102	46.1
LR 40x45x16.5	1.575	40	1.772	45	0.650	16.5	0.091	41.4
LR 40x45x20.5	1.575	40	1.772	45	0.807	20.5	0.116	52.5
LR 45x50x20.5	1.772	45	1.969	50	0.807	20.5	0.13	58.8
LR 45x50x25.5	1.772	45	1.969	50	1.004	25.5	0.163	73.7
LR 50x55x20.5	1.969	50	2.165	55	0.807	20.5	0.141	64.1



Inner Rings

PI SERIES

- Inch series
- Hardened with oil hole and groove
- Precision ground for use with shell or precision ground bearings



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

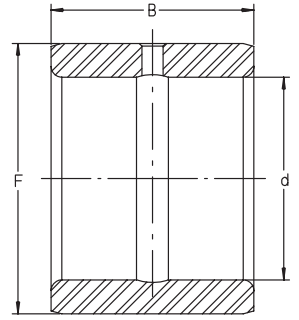
PART NUMBER	SHAFT d inch	SHAFT d mm	OD F inch	OD F mm	WIDTH B inch	WIDTH B mm	WEIGHT lbs	WEIGHT g
PI050808	0.313	7.938	0.500	12.7	0.500	12.7	0.016	7.3
PI060908	0.375	9.525	0.563	14.288	0.500	12.7	0.019	8.5
PI060912	0.375	9.525	0.563	14.288	0.750	19.05	0.03	13.4
PI061008	0.375	9.525	0.625	15.875	0.500	12.7	0.026	12.0
PI061012	0.375	9.525	0.625	15.875	0.750	19.05	0.04	18.0
PI081208	0.500	12.7	0.750	19.05	0.500	12.7	0.033	15.0
PI081212	0.500	12.7	0.750	19.05	0.750	19.05	0.05	22.6
PI081216	0.500	12.7	0.750	19.05	1.000	25.4	0.066	30.1
PI101406	0.625	15.875	0.875	22.225	0.375	9.525	0.03	13.6
PI101408	0.625	15.875	0.875	22.225	0.500	12.7	0.04	18
PI101412	0.625	15.875	0.875	22.225	0.750	19.05	0.06	27.2
PI101416	0.625	15.875	0.875	22.225	1.0001	25.4	0.08	36.3
PI121608	0.750	19.05	1.000	25.4	0.500	12.7	0.046	21.1
PI121612	0.750	19.05	1.000	25.4	0.750	19.05	0.07	31.6
PI121616	0.750	19.05	1.000	25.4	1.000	25.4	0.093	42.1
PI121620	0.750	19.05	1.000	25.4	1.2550	31.75	0.14	63.5
PI141808	0.875	22.225	1.125	28.575	0.500	12.7	0.05	22.7
PI141812	0.875	22.225	1.125	28.575	0.750	19.05	0.08	36.3
PI141816	0.875	22.225	1.125	28.575	1.000	25.4	0.11	49.9
PI141820	0.875	22.225	1.125	28.575	1.250	31.75	0.13	59
PI162012	1.000	25.4	1.250	31.75	0.750	19.05	0.09	40.6
PI162016	1.000	25.4	1.250	31.75	1.000	25.4	0.119	54.1
PI162020	1.000	25.4	1.250	31.75	1.250	31.75	0.149	67.7
PI182208	1.125	28.575	1.375	34.925	0.500	12.7	0.07	31.8
PI182212	1.125	28.575	1.375	34.925	0.750	19.05	0.099	45.1
PI182216	1.125	28.575	1.375	34.925	1.000	25.4	0.13	58.9
PI182220	1.125	28.575	1.375	34.925	1.250	31.75	0.17	77.1
PI202416	1.250	31.75	1.500	38.1	1.000	25.4	0.146	66.2
PI202420	1.250	31.75	1.500	38.1	1.250	31.75	0.182	82.7
PI212616	1.313	33.338	1.625	41.275	1.000	25.4	0.195	88.3
PI222610	1.375	34.925	1.625	41.275	0.625	15.875	0.1	45.4
PI222620	1.375	34.925	1.625	41.275	1.250	31.75	0.2	90.7
PI232816	1.437	36.512	1.750	44.45	1.000	25.4	0.22	99.8
PI232820	1.437	36.512	1.750	44.45	1.250	31.75	0.27	122.4
PI232824	1.437	36.512	1.750	44.45	1.500	38.1	0.33	149.7
PI242812	1.500	38.1	1.750	44.45	0.750	19.05	0.13	58.9
PI242816	1.500	38.1	1.750	44.45	1.000	25.4	0.18	81.6
PI242820	1.500	38.1	1.750	44.45	1.250	31.75	0.221	100.1
PI253016	1.563	39.688	1.875	47.625	1.000	25.4	0.23	104.3
PI253020	1.563	39.688	1.875	47.625	1.250	31.75	0.29	131.5
PI263216	1.625	41.275	2.000	50.8	1.000	25.4	0.26	117.9
PI263220	1.625	41.275	2.000	50.8	1.250	31.75	0.361	163.5
PI273216	1.687	42.862	2.0002	50.8	1.000	25.4	0.24	108.9
PI273220	1.687	42.862	2.000	50.8	1.250	31.75	0.306	138.6
PI283624	1.750	44.45	2.250	57.15	1.500	38.1	0.637	288.7
PI324024	2.000	50.8	2.500	63.5	1.500	38.1	0.725	328.6



Inner Rings

PI SERIES

- Inch series
- Hardened with oil hole and groove
- Precision ground for use with shell or precision ground bearings



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.
 For engineering or technical information contact your local sales representative or call Distributor Sales (800)523-6572.

PART NUMBER	SHAFT d inch	SHAFT d mm	OD F inch	OD F mm	WIDTH B inch	WIDTH B mm	WEIGHT lbs	WEIGHT g
PI364024	2.250	57.15	2.500	63.5	1.500	38.1	0.378	171.4
PI364424	2.250	57.15	2.750	69.85	1.510	38.35	0.809	367
PI404824	2.500	63.5	3.000	76.2	1.500	38.1	0.891	404
PI445228	2.750	69.85	3.250	82.55	1.750	44.45	1.12	508
PI445232	2.750	69.85	3.250	82.55	2.000	50.8	1.29	585
PI485632	3.000	76.2	3.500	88.9	2.000	50.8	1.382	626.9



NOTES



INA SALES OFFICES MANUFACTURING PLANTS

SALES OFFICES

TORONTO, CANADA

INA Canada Inc.
2871 Plymouth Drive
Oakville, Ontario L6H 5S5
Toll Free: 800-263-4397

Telephone: 905-829-2750
Fax: 905-829-2563

MONTREAL, CANADA

INA Canada Inc.
149 Avenue Guthrie
Dorval, Quebec H9P 2P1
Toll Free: 800-361-7015

Telephone: 514-631-2214
Fax: 514-631-9571

VANCOUVER, CANADA

INA Canada Inc.
106-1668 Derwent Way
Delta, British Columbia, V3M R9
Toll Free: 800-663-9006

Telephone: 604-526-3500
Fax: 604-526-6544

MEXICO CITY, MEXICO

INA Mexico, S.A. de C.V.
Paseo de la Reforma 383-704
Col. Cuauhtemoc
06500 Mexico D.F.
Telephone: 525-525-00-12 / 01-84
Fax: 525-525-01-94

OTHER COUNTRIES

Argentina	Italy
Australia	Japan
Austria	Korea
Belgium	Netherlands
Brazil	Norway
Denmark	Portugal
Finland	South Africa
France	Spain
Germany	Sweden
Great Britain	Turkey

MANUFACTURING PLANTS

PARENT COMPANY

INA Waelzlager Schaeffler oHG
Industriestrasse 1-3
P.O. Box 1220
D-91074 Herzogenaurach
Germany
Telephone: (49132) 82-0
Fax: (49132) 82 49 33

UNITED STATES

PLANT I
INA USA Corporation
One INA Drive
P.O. Box 390
Cheraw, South Carolina 29520
Telephone: 843-537-9341/9346
Fax: 843-537-8751

PLANT II
INA USA Corporation
Highway 9 West
P.O. Box 390
Cheraw, South Carolina 29520
Telephone: 843-537-9341
Fax: 843-537-8752

PLANT III
INA USA Corporation
308 Springhill Farm Road
Fort Mill, South Carolina 29715
Telephone: 803-547-7990
Fax: 803-548-8597

PLANT IV
INA USA Corporation
New Cut Road, P.O. Box 570
Spartanburg, South Carolina 29304
Telephone: 864-583-4541
Fax: 864-591-8890

PLANT V
INA USA Corporation
200 Evans Row
Cheraw, South Carolina 29520
Telephone: 843-537-9341
Fax: 843-537-8751

OTHER COUNTRIES

Australia	Great Britain
Brazil	Italy
Canada	Korea
China	Slovakia
France	Spain
Germany	Switzerland

USA SALES OFFICES

ATLANTA

1870 The Exchange, Suite 100
Atlanta, Georgia 30339
Telephone: 770-951-7015
Fax: 770-951-7092

BUFFALO

336 Harris Hill Road, Suite 100
Williamsville, New York 14221
Telephone: 716-631-1533
Fax: 716-631-8741

CHARLOTTE

377 Carowinds Boulevard, Suite 120
Fort Mill, South Carolina 29708
Telephone: 803-547-7970
Fax: 803-548-6361

CHICAGO

2525 Cabot Drive, Suite 202
Lisle, Illinois 60532
Telephone: 630-955-9360
Fax: 630-955-9365

CLEVELAND

12306 Woodward Boulevard
Garfield Heights, Ohio 44125
Telephone: 216-587-4393
Fax: 216-587-2655

DALLAS

3939 Belt Line Road, Suite 365
Addison, Texas 75001
Telephone: 972-488-2544
Fax: 972-488-2802

DAYTON

261 Regency Ridge Drive
Centerville, Ohio 45459
Telephone: 937-433-6404
Fax: 937-433-6814

DETROIT

335 East Big Beaver Road, Suite 101
Troy, Michigan 48083
Telephone: 248-528-9080
Fax: 248-619-2139

FLINT

771A E. Main Street, P.O. Box 666
Flushing, Michigan 48433
Telephone: 810-659-3607
Fax: 810-659-4771

HARTFORD

1799 Farmington Ave., Bldg. B-2, P.O. Box 528
Unionville, Connecticut 06085
Telephone: 860-673-5236
Fax: 860-673-5270

HOUSTON

10101 Southwest Freeway, Suite 400
Houston, Texas 77074
Telephone: 713-219-1430
Fax: 713-219-1431

INDIANAPOLIS

7301 Elm Ridge Road
Indianapolis, Indiana 46236
Telephone: 317-823-7268
Fax: 317-823-7269

KANSAS CITY

4201 N.E. Lakewood Way, Suite 101
Lee's Summit, Missouri 64064
Telephone: 816-795-9311
Fax: 816-795-9322

LOS ANGELES

767 North Main Street
Orange, California 92868
Telephone: 714-744-1022
Fax: 714-744-2640

LOUISVILLE

14419 Micawber Way
Louisville, Kentucky 40245
Telephone: 502-254-9590
Fax: 502-254-2760

MEMPHIS

1922 Exeter Road, Suite 20
Germantown, Tennessee 38138
Telephone: 901-756-0023
Fax: 901-756-0260

MILWAUKEE

N16 W23233 Stoneridge Drive, Suite 220
Waukesha, Wisconsin 53188
Telephone: 414-544-8270
Fax: 414-544-8271

MINNEAPOLIS

80 W. 78th Street, Suite 270C
Chanhassen, Minnesota 55317
Telephone: 612-934-8822
Fax: 612-934-8833

PHILADELPHIA

3399 Progress Drive
Bensalem, Pennsylvania 19020
Telephone: 215-245-3485
Fax: 215-245-7779

PHOENIX

11024 N. 28th Street, Suite 208
Phoenix, Arizona 85029
Telephone: 602-588-9304
Fax: 602-588-9318

QUAD CITIES

300 Northwest Banktower
2550 Middle Road Bettendorf, Iowa 52722
Telephone: 319-355-0383
Fax: 319-355-1937

RICHMOND

8003 Franklin Farms Drive, Suite 229B
Richmond, Virginia 23229
Telephone: 804-527-0901
Fax: 804-527-0992

SAN FRANCISCO

3478 Buskirk Avenue, Suite 1043
Pleasant Hill, California 94523
Telephone: 925-746-7103
Fax: 925-946-9936

SEATTLE

40 Lake Bellevue, Suite 100
Bellevue, Washington 98005
Telephone: 425-646-9477
Fax: 425-646-9471

TAMPA

25327 Celmar Street
Brooksville, Florida 34601
Telephone: 352-797-0620
Fax: 352-797-0630

Corporate Offices

INA USA CORPORATION
308 Springhill Farm Road
Fort Mill, South Carolina 29715
Telephone: 803-548-8500 Fax: 803-548-8599

INA LINEAR TECHNIK
A Division Of INA USA Corporation
247 Rittenhouse Circle
Bristol, Pennsylvania 19007
Telephone: 215-781-6900 Fax: 215-781-9830