

	Referenztable Reference Table	06
	Spezifikationen Specifications	07
	Dichtungen Seals & Shields	15
	Käfige & Schmierung Cages & Lubrication	16
	Metrische Miniaturrillenkugellager Miniature Metric Series	18
	Zöllige Miniaturrillenkugellager Miniature Inch Series	32
	Keramik & Hybrid Kugellager Ceramic & Hybrid Bearings	36
	Zöllige Rillenkugellager Inch Series	46
	Zöllige Radialrillenkugellager (Sondergrößen) Commercial Inch Series	48
	Dünnringlager Thin Section Series	50
	Zweireihiges Dünnringlager Double Row Thin Section	62
	Sonder-Dünnringlager Ultra Thin Section Series	64
	Standardrillenkugellager Popular Metric Series	96
	Rostfreie Standardrillenkugellager Stainless Steel Popular Metric Series	110
	Laufrollen der LR Serie LR Series (Track Rollers)	114
	Radialkugellager mit Kunststoffkäfig Ball Bearings with Plastic Cages	120

	Kunststofflager (POM) Plastic Bearings	122
	Sondermaße Special Dimension Bearings	124
	Lagerfreiläufe der Type CSK CSK One-way Clutch Bearings	126
	Hülsenfreiläufe der Type HF HF Bearings	128
	Axialrillenkugellager Three Part Thrust Series	130
	Innenringe der Type IR IR Inner Rings	132
	Nadellager der Type HK & BK HK & BK Needle Roller Bearings	140
	Nadellager der Type NK NK Needle Roller Bearings	144
	Nadelkränze der Type K K Needle Roller Bearings	150
	Stützrollen Track Rollers	160
	Kurvenrollen der Type KR & NUKR Stud Type Track Rollers KR & NUKR	172
	Gehäuselager Cast Iron Housings	212
	Rostfreie Gehäuse Stainless Steel Pillow Blocks	220
	Thermoplastische Gehäuse Thermoplastic Pillow Blocks	224
	Rostfreie Lagereinsätze Stainless Steel Inserts	227
	Rostfreie Wellenmuttern und Sicherungsbleche Stainless Steel Lock Nuts & Washers	230

	Miniatur-Schräggugellager Mini Angular Contact Bearings	232
	Axial-Schräggugellager Angular Contact Bearings	233
	Einreihige Schräggugellager Single Row Angular Contact Bearings	236
	Doppelreihige Pendelkugellager Double Row Self Aligning Bearings	237
	Doppelreihige Schräggugellager Double Row Angular Contact Bearings	238
	Zylinderrollenlager Cylindrical Roller Bearings	242
	Axial-Zylinderrollenlager Axial Cylindrical Roller Bearings	250

	Gelenkköpfe Rod Ends	256
	Gelenklager Spherical Plain Bearings	278
	Linearlager (KH/LM/SF/SK) Linear Bearings (KH/LM/SF/SK)	294
	Umschlüssellung anderer Hersteller Conversion Tables	298

KEY TO APPLICATION ICONS



Ölschmierung
Oil lubrication



Lösungsmittelresistent
Chemical solvent resistant



Geeignet für hohe Temperaturen
Suitable for high temperatures



Fettschmierung
Grease lubrication



Wetterbeständig
Outdoor durability



Gummidichtscheiben verfügbar
Rubber seal option available



Keine Schmierung
No lubricant



Geeignet für niedrige Temperaturen
Suitable for low temperatures



Geeignet für hohe Drehzahlen
Suitable for high speed applications



Geeignet für hohe Tragzahlen
Suitable for heavy load rating



Geeignet für geräuscharme Anwendungen
Suitable for low noise applications



Metalldeckscheiben verfügbar
Metal shield option available



Einseitig gerichtete Umdrehung
One way rotation

Material

S = Rostfreier Stahl / Stainless Steel
Kein Präfix / No Prefix = Chromstahl / Chrome Steel

Referenz / Bearing type

MF = Metrisch mit Flansch / Metric with Flange
MR = Metrisch / Metric
R = Zöllig / Inch
FR = Zöllig mit Flansch / Inch with Flange
F = Metrisch mit Flansch / Metric with Flange
Kein Präfix / No Prefix = Metrisch / Metric

Typenbezeichnung / Bearing Part Number

Dichtscheiben / Shields

2Z = Metaldichtscheiben / Metal Shields
2RS = Gummidichtscheiben / Rubber Seals
2TS = PTFE Dichtscheiben / PTFE Seals
2TZ = Metall / PTFE Dichtungscheiben / Metal / PTFE Shields

Kein Suffix / No Suffix = Offen / Open

S	FR	144	-2Z	. . .Abm./Dimen. . .
	FR	85		"
		635	-2RS	"
S		682X		"

Allgemeine Merkmale / General Details

Material	Komponenten Components		Merkmale Details	Anwendungsbereiche Application
	Ringe Rings	Kugeln Balls		
Kugellagerchromstahl Ball Bearing Chrome Steel 100 Cr6 (Nr. 1.3505)	✓	✓	Gute Verschleißfestigkeit Hard wearing Schlag- und Korrosionsbeständigkeit Good shock and corrosive resistance	Standard Standard
Rostfreier Stahl Stainless Steel AISI 440 C (Nr. 1.4125) †	✓	✓	Sehr gute Korrosionsbeständigkeit Very good corrosive resistance	Nahrungsmittel, Pharma, Schiffsbau und andere korrosive Umgebungen Food industry, pharmaceutical industry, ship building and other corrosive surroundings
AISI 420 (Nr. 1.4021)	✓	✓	Sehr gute Korrosionsbeständigkeit Very good corrosive resistance	Nahrungsmittel, Pharma, Schiffsbau und andere korrosive Umgebungen Food industry, pharmaceutical industry, ship building and other corrosive surroundings
AISI304	✓	✓	Sehr gute Korrosionsbeständigkeit Very good corrosive resistance	Korrosive Medien Corrosive surroundings
AISI316	✓	✓	Ausgezeichnete Korrosionsbeständigkeit Excellent corrosive resistance	Korrosive Medien Corrosive surroundings
AISI316L	✓	✓	Ausgezeichnete Korrosionsbeständigkeit Excellent corrosive resistance	Korrosive Medien Corrosive surroundings
Si3N4	✓	✓	Hohe thermische Isolation, Exzellente Korrosionsbeständigkeit High temperature insulation Excellent corrosive resistance	Chemische-, Elektro- und Nahrungsmittelindustrie, Marine, Medizintechnik Chemistry, Electronic, Food, Marine & Medical
ZrO2	✓	✓	Hohe thermische Isolation, Exzellente Korrosionsbeständigkeit High temperature insulation Excellent corrosive resistance	Chemische-, Elektro- und Nahrungsmittelindustrie, Marine, Medizintechnik Chemistry, Electronic, Food, Marine & Medical
ZrO2	✓	✓	Hohe thermische Isolation, Exzellente Korrosionsbeständigkeit High temperature insulation Excellent corrosive resistance	Chemische-, Elektro- und Nahrungsmittelindustrie, Marine, Medizintechnik Chemistry, Electronic, Food, Marine & Medical

†Die statische und dynamische Belastung von AISI 440 C-Lagern liegt bei ca. 75-80% von 100 Cr6-Lagern.
†The static and dynamic load rating of AISI 440 C - ball bearings is approximately 75-80% of the 100 Cr6 - ball bearings.

Technische Eigenschaften der Kunststoffe / Plastic properties

Material	HDPE	PP	POM	PA6	PA66	PBT GF30	PVDF	PPS	PTFE	PEEK	PI
Long time working temp.(°C)	90	100	110	100	100	120	150	230	260	260	300
Density	0.96	0.91	1.42	1.13	1.14	1.53	1.77	1.35	2.18	1.32	1.35
Tensile strength at yield	25	30	70	85	80		50	75	25	95	
Tensile strength at break	35		170			13.5	4.6				116
Ball indentation hardness	50	80		160	170	190	80	190	30		
Impact strength	(None)					60		50			75
Coefficient of sliding friction	0.29	0.3	0.34	0.38-0.45	0.35-0.42	0.24	0.3		0.08-0.01	0.3-0.38	0.3-0.38
Slide wear		11	4.6	0.23	0.9				21		0.3-0.38
Vicat softening temp. (°C)	130	165	175	220	260	225	172	280	327	343	
DSC/Tg (°C) Heat deflection temp.	-95	-18	-60	60	72	60	-18	90	-20	143	
HDT/A (°C) Heat deflection temp.	42-49	65	124	75	100	210	95	110	55	140	368
HDT/B (°C) Max working temp.	70-85	105	170	190	>200	225	140		121	182	
Short time (°C)	90	140	150	160	170	200	150	260	260	300	350
Coef. of linear expansion	13-15	17	10	8	8	3.5	13	5	12	5.0	4.9
Dielectric constant at 1Mhz	2.4	2.25	3.7	3.7-7	3.6-5	3.8	8		2.1	3.2-3.3	3.1
Volume resistivity	>										
Anti-hot water and alkali for washing	+	+	-	(+)	(+)	-	+	+	+	+	(+)
Flammability UL94	HB	HB	HB	HB	HB	HB	V0	V0	V0	V0	V0
Anti-weathering	-	-	-	-	-	-	+	-	-	-	(+)

Für weitergehende technische Informationen wenden Sie sich bitte an Ihren offiziellen ZEN-Händler
For further technical information please contact your local authorized ZEN distributor

Technische Merkmale / Technical Details

Material	Härte Hardness	Max. Temp. Max. Temp.	C	Si	Mn	P	S	Cr	Mo	Ni
100 Cr6 (Nr. 1.3505)	60-64HRC	Max. 150°C	0.5~1.10	0.15~0.35	≤0.5	≤0.025	≤0.025	1.3~1.6	≤0.08	
AISI440 C (Nr. 1.4125)	≥58HRC	Max. 230°C	0.95~1.2	≤1.1	≤1.0	≤0.04	≤0.03	16.0~18.0	≤0.75	
AISI420 (Nr. 1.4021)	≤55HRC	Max. 230°C	0.16~0.25	≤1.0	≤1.5	≤0.04	≤0.03	12.0~14.0		
AISI304	15~20HRC	Max. 900°C	≤0.07	≤1.00	≤2.00	≤0.035	≤0.030	17.0~19.0		8.0~10.0
AISI316	15~20HRC	Max. 900°C	≤0.08	≤1.00	≤2.00	≤0.035	≤0.030	16.0~19.0	1.80-2.50	10.0~14.0
AISI 316L	15~20HRC	Max. 450°C	≤0.03	≤1.00	≤2.00	≤0.035	≤0.030	16.0~18.0	2.00-3.00	12.0~15.0
Si3N4	75~80HRC	Max. 1050°C	Component:		88% Si3N4 / 4% Al2O3 / 4% Y2O3 / 4% Other					
ZrO2	70HRC	Max. 750°C	Component:		95% ZrO2 / 5% Y2O3					
Al2O3	80HRC	Max. 1750°C	Component:		99.5% Al2O3 / 0.5% Others					

Tolerance of inner ring (ISO)

d(mm)		ΔDmp					ΔDs		VDp										VDmp			
		P0		P6	P5	P4	P4		P0			P6			P5		P4		P0	P6	P5	P4
							Diameter series		Diameter series			Diameter series			Diameter series		Diameter series					
									0,2,3	7,8,9	0	2,3	7,8,9	0	2,3	7,8,9	0,2,3	7,8,9				
Over	incl.	Upper	Lower	Lower	Lower	Lower	Upper	Lower	Max.			Max.			Max.		Max.		Max.	Max.	Max.	Max.
0.6(1)	2.5	0	-8	-7	-5	-4	0	-4	10	8	6	9	7	5	5	4	4	3	6	5	3	2
2.5	10	0	-8	-7	-5	-4	0	-4	10	8	6	9	7	5	5	4	4	3	6	5	3	2
10	18	0	-8	-7	-5	-4	0	-4	10	8	6	9	7	5	5	4	4	3	6	5	3	2
18	30	0	-10	-8	-6	-5	0	-5	13	10	8	10	8	6	6	5	5	4	8	6	3	2.5
30	50	0	-12	-10	-8	-6	0	-6	15	12	9	13	10	8	8	6	6	5	9	8	4	3
50	80	0	-15	-12	-9	-7	0	-7	19	19	11	15	15	9	9	7	7	5	11	9	5	3.5
80	120	0	-20	-15	-10	-8	0	-8	25	25	15	19	19	11	10	8	8	6	15	11	5	4
120	180	0	-25	-18	-13	-10	0	-10	31	31	19	23	23	14	13	10	10	8	19	14	7	5
180	250	0	-30	-22	-15	-12	0	-12	38	38	23	28	28	17	15	12	12	9	23	17	8	6
250	315	0	-35	-25	-18	x	0	x	44	44	26	31	31	19	18	14	x	x	26	19	9	x
315	400	0	-40	-30	-23	x	0	x	50	50	30	38	38	23	23	18	x	x	30	23	12	x

Note 1 : The upper value of the bore diameter in this table is not applicable when the distance from the bearing ring face is less than 1.2 times the chamfer dimension.
Note 2 : According to the revision of ANSI/ABMA Std,20-1996, the classes ABEC1-ABEC3-ABEC5-ABEC7 are equivalent to S0-CLASS6-CLASS5-CLASS4.

Tolerance of outer ring (ISO)

D(mm)		Δdmp					Δds		Vdp												Vdmp			
		P0		P6	P5	P4	P4		P0				P6				P5		P4		P0	P6	P5	P4
							Diameter series	Diameter series	Diameter series	Diameter series	Diameter series	Diameter series	Diameter series	Diameter series										
															Open	Seal Shield	Open	Seal Shield	Open	Open				
Over	incl.	Upper	Lower	Lower	Lower	Lower	Upper	Lower	Max.				Max.				Max.		Max.		Max.	Max.	Max.	Max.
2.5(1)	6	0	-8	-7	-5	-4	0	-4	10	8	6	10	9	7	5	9	5	4	4	3	6	5	3	2
6	18	0	-8	-7	-5	-4	0	-4	10	8	6	10	9	7	5	9	5	4	4	3	6	5	3	2
18	30	0	-9	-8	-6	-5	0	-5	12	9	7	12	10	8	6	10	6	5	5	4	7	6	3	2.5
30	50	0	-11	-9	-7	-6	0	-6	14	11	8	16	11	9	7	13	7	5	6	5	8	7	4	3
50	80	0	-13	-11	-9	-7	0	-7	16	13	10	20	14	11	8	16	9	7	7	5	10	8	5	3.5
80	120	0	-15	-13	-10	-8	0	-8	19	19	11	26	16	16	10	20	10	8	8	6	11	10	5	4
120	150	0	-18	-15	-11	-9	0	-9	23	23	14	30	19	19	11	25	11	8	9	7	14	11	6	5
150	180	0	-25	-18	-13	-10	0	-10	31	31	19	38	23	23	14	30	13	10	10	8	19	14	7	5
180	250	0	-30	-20	-15	-11	0	-11	38	38	23	X	25	25	15	X	15	11	11	8	23	15	8	6
250	315	0	-35	-25	-18	-13	0	-13	44	44	26	X	31	31	19	X	18	14	13	10	26	19	9	7
315	400	0	-40	-28	-20	-15	0	-15	50	50	30	X	35	35	21	X	20	15	15	11	30	21	10	8
400	500	0	-45	-33	-23	X	0	X	56	56	34	X	41	41	25	X	23	17	X	X	34	25	12	X
500	630	0	-50	-38	-28	X	0	X	63	63	38	X	48	48	29	X	28	21	X	X	38	29	14	X
630	800	0	-75	-45	-35	X	0	X	94	94	55	X	56	56	34	X	35	26	X	X	55	34	18	X

Note(1) : Size 2.5mm is included in this classification.
Note(2) : The outer ring width variations for CLASS0 and CLASS6 are the same as for the inner ring of the same bearing size.

- d

: Nominal bore diameter
- Δdmp

: Single plane mean bore diameter deviation
- Δds

: Deviation of a single bore diameter
- Vdp

: Bore diameter variation in a single radial plane
- VDmp

: Mean bore diameter variation
- ΔBs (ΔCs)

: Deviation of a single inner and outer ring width from the nominal dimension
- VBs (VCs)

: Variation of a inner and outer ring width
- Kia

: Radial runout of assembled bearing inner ring
- Sd

: Face runout with bore
- Sia

: Assembled bearing inner ring face runout with raceway
- D

: Nominal outside diameter
- ΔDmp

: Single plane mean outside diameter deviation
- ΔDs

: Deviation of a single outside diameter
- VDp

: Outside diameter variation in a single radial plane
- VDmp

: Mean outside diameter variation
- Kea

: Radial runout of assembled bearing outer ring
- SD

: Variation of a outside surface generatrix inclination with face
- Sea

: Assembled bearing outer ring face runout with raceway
- VCs

: Variation of the outer ring width
- ΔDis

: Flange outside diameter deviation
- ΔCis

: Flange width deviation

Unit μm																
ΔBs (ΔCs)			VBs (VCs) ^②				Kia				Sd		Sia		$d(\text{mm})$	
Single bearing			Inner/outer ring		Inner ring		P0	P6	P5	P4	P5	P4	P5	P4		
P0 P6	P5 P4	P0	P6	P5	P4											
Upper	Lower	Lower	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Over	Incl.
0	-40	-40	12	12	5	2.5	10	5	4	2.5	7	3	7	3	0.6(1)	2.5
0	-120	-40	15	15	5	2.5	10	6	4	2.5	7	3	7	3	2.5	10
0	-120	-80	20	20	5	2.5	10	7	4	2.5	7	3	7	3	10	18
0	-120	-120	20	20	5	2.5	13	8	4	3	8	4	8	4	18	30
0	-120	-120	20	20	5	3	15	10	5	4	8	4	8	4	30	50
0	-150	-150	25	25	6	4	20	10	5	5	8	5	8	5	50	80
0	-200	-200	25	25	7	4	25	13	6	5	9	5	9	5	80	120
0	-250	-250	30	30	8	5	30	18	8	6	10	6	10	7	120	180
0	-300	-300	30	30	10	6	40	20	10	8	11	7	13	8	180	250
0	-350	-350	35	35	13	x	50	25	13	x	13	x	15	x	250	315
0	-400	-400	40	40	15	x	60	30	15	x	15	x	20	x	315	400

Note(1) : 0.6mm is included in this classification.
Note(2) : The inner ring width variation is the same for the outer ring of the same bearing size, CLASS5 and CLASS4 referring to outer ring only.

Unit μm																			
Kca				SD		Sea		VCs ²		D(mm)		ΔDis				ΔCis			
P0	P6	P5	P4	P5	P4	P5	P4	P5	P4			Flanged type							
												P0	P6	P5	P4	P0	P6	P5	P4
Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Max.	Over	Incl	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
15	8	5	3	8	4	8	5	5	2.5	2.5(l)	6	+125	-50	0	-25	0	-50	0	-50
15	8	5	3	8	4	8	5	5	2.5	6	18	+125	-50	0	-25	0	-50	0	-50
15	9	6	4	8	4	8	5	5	2.5	18	30	+125	-50	0	-25	0	-50	0	-50
20	10	7	5	8	4	8	5	5	2.5	30	50	+125	-50	0	-25	0	-50	0	-50
25	13	8	5	8	4	10	5	6	3	50	80	+125	-50	0	-25	0	-50	0	-50
35	18	10	6	9	5	11	6	8	4	80	120								
40	20	11	7	10	5	13	7	8	5	120	150								
45	23	13	8	10	5	14	8	8	5	150	180								
50	25	15	10	11	7	15	10	10	7	180	250								
60	30	18	11	13	8	18	11	11	7	250	315								
70	35	20	13	13	10	20	13	13	8	315	400								
80	50	23	X	15	X	23	X	15	X	400	500								
100	60	25	X	18	X	25	X	18	X	500	630								
120	75	30	X	20	X	30	X	20	X	630	800								

Note 1 : The lower value of the outside diameter in this table is not applicable when the distance from the bearing ring face is less than 1.2 times the chamfer dimension.
Note 2 : According to the revision of AFBMA Std20-1978, the classes ABEC1 ABEC3 ABEC5 ABEC7 are equivalent to CLASS0 • CLASS6 • CLASS5 • CLASS4

Radial internal clearance of standard radial ball bearings

Unit μm

Nominal Bore Diameter D(Mm)		Clearance									
		C2		CN(C0)		C3		C4		C5	
Over	Incl.	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
10(ONLY)		0	7	2	13	8	23	14	29	20	37
10	18	0	9	3	18	11	25	18	33	25	45
18	24	0	10	5	20	13	28	20	36	28	48
24	30	1	11	5	20	13	28	23	41	30	53
30	40	1	11	6	20	15	33	28	46	40	64
40	50	1	11	6	23	18	36	30	51	45	73
50	65	1	15	8	28	23	43	38	61	55	90
65	80	1	15	10	30	25	51	46	71	65	105
80	100	1	18	12	36	30	58	53	84	75	120
100	120	2	20	15	41	36	66	61	97	90	140
120	140	2	23	18	48	41	81	71	114	105	160
140	160	2	23	18	53	46	91	81	130	120	180
160	180	2	25	20	61	53	102	91	147	135	200
180	200	2	30	25	71	63	117	107	163	150	230
200	225	2	35	25	85	75	140	125	195	175	265
225	250	2	40	30	95	85	160	145	225	205	300
250	280	2	45	35	105	90	170	155	245	225	340
280	315	2	55	40	115	100	190	175	270	245	370
315	355	3	60	45	125	110	210	195	300	275	410
355	400	3	70	55	145	130	240	225	340	315	460
400	450	3	80	60	170	150	270	250	380	350	510
450	500	3	90	70	190	170	300	280	420	390	570
500	560	10	100	80	210	190	330	310	470	440	630
560	630	10	110	90	230	210	360	340	520	49	690
630	710	20	130	110	260	240	400	380	570	540	760
710	800	20	140	120	290	270	450	430	630	600	840
800	900	20	160	140	320	300	500	480	700	670	940
900	1000	20	170	150	250	330	550	530	770	740	1040
1000	1120	20	180	160	380	360	600	580	850	820	1150
1120	1250	20	190	170	410	390	650	630	920	890	1260

Single bearing vibration velocity limit value

Unit μm/s

Nominal Bore Diameter d(mm)	V			V1			V2			V3			V4		
	Frequency			Frequency			Frequency			Frequency			Frequency		
	Low	Middle	High	Low	Middle	High	Low	Middle	High	Low	Middle	High	Low	Middle	High
3	80	44	44	60	35	32	48	26	22	31	16	15	28	10	10
4	80	44	44	60	35	32	48	26	22	31	16	15	28	10	10
5	110	72	60	90	60	50	58	36	30	35	21	18	32	11	11
6	110	72	60	90	60	50	58	36	30	35	21	18	32	11	11
7	130	96	80	110	80	65	72	48	40	44	28	24	38	12	12
8	130	96	80	110	80	65	72	48	40	44	28	24	38	12	12
9	130	96	80	110	80	65	72	48	40	44	28	24	38	12	12
10	160	120	100	140	100	85	90	60	50	55	35	30	45	14	15
12	160	120	100	140	100	85	90	60	50	55	35	30	45	14	15
15	210	150	120	180	130	100	110	78	60	65	46	35	52	18	18
17	210	150	120	180	130	100	110	78	60	65	46	35	52	25	25
20	260	190	150	220	160	125	130	100	75	80	60	45	60	25	25
22	260	190	150	220	160	125	130	100	75	80	60	45	60	30	32
25	260	190	150	220	160	125	130	100	75	80	60	45	60	30	32
28	260	190	150	220	160	125	130	100	75	80	60	45	60	35	40
30	300	240	190	250	200	160	150	120	100	90	75	60	70	35	40
32	300	240	190	250	200	160	150	120	100	90	75	60	70	35	40
35	300	240	190	250	200	160	150	120	100	90	75	60	70	42	45
40	360	300	160	300	250	220	180	150	130	110	90	80	82	50	50
45	360	300	160	300	250	220	180	150	130	110	90	80	82	60	60
50	420	320	320	350	270	270	210	160	160	125	100	100	95	70	70
55	420	360	360	350	300	300	210	180	180	125	110	110	95	70	70
60	480	360	440	400	300	370	240	180	220	145	110	130	100	80	80
65	300	260	420	250	220	350	160	130	180	105	80	105	50	50	75
70	360	310	460	300	260	390	180	150	230	110	90	135	58	58	88
75	360	310	460	300	260	390	180	150	230	110	90	135	58	58	88
80	420	360	540	350	300	450	210	180	270	130	110	160	65	65	100
85	420	360	540	350	300	450	210	180	270	130	110	160	65	65	100
90	480	420	600	400	350	500	240	210	300	145	125	180	75	75	115
95	480	420	600	400	350	500	240	210	300	145	125	180	75	75	115
100	560	490	670	470	410	565	280	245	340	170	145	204	88	88	135
105	560	490	670	470	410	565	280	245	340	170	145	204	88	88	135
110	640	570	750	540	480	630	320	290	380	190	175	225	100	100	160
120	640	570	750	540	480	630	320	290	380	190	175	225	100	100	160

Toleranzklassen / Tolerance Class

Toleranzklassen Tolerance class	Äquivalenzen / Equivalences ISO	AFBMA
DIN P0	Klasse class 0	ABEC 1
DIN P6	Klasse class 6	ABEC 3
DIN P5	Klasse class 5	ABEC 5
DIN P4	Klasse class 4	ABEC 7
DIN P2	Klasse class 2	ABEC 9

Single bearing vibration acceleration (dB) (≤)

Nominal Bore Diameter d(mm)	Diameter series (1)				Diameter series (2)					Diameter series (3)				
	Z	Z1	Z2	Z3	Z	Z1	Z2	Z3	Z4	Z	Z1	Z2	Z3	Z4
3	35	34	32	28	36	35	32	30	x	37	36	33	31	x
4	35	34	32	28	36	35	32	30	x	37	36	33	31	x
5	37	36	34	30	38	37	34	32	x	39	37	35	33	x
6	37	36	34	30	38	37	34	32	x	39	37	35	33	x
7	39	38	35	31	40	38	36	34	x	x	x	x	x	x
8	39	38	35	31	40	38	36	34	x	x	x	x	x	x
9	41	40	36	32	42	40	37	35	x	x	x	x	x	x
10	43	42	38	33	44	42	39	35	30	46	44	40	37	32
12	44	43	39	34	45	43	39	35	30	47	45	40	37	32
15	45	44	40	35	46	44	41	36	31	48	46	42	38	33
17	46	44	40	35	47	45	41	36	31	49	47	42	38	33
20	47	45	41	36	48	46	42	38	33	50	48	43	39	34
22	47	45	41	36	48	46	42	38	33	50	48	43	39	34
25	48	46	42	38	49	47	43	40	36	51	49	44	41	37
28	49	47	43	39	50	48	44	41	37	52	50	45	42	38
30	49	47	43	39	50	48	44	41	37	52	50	45	42	38
32	50	48	44	40	51	49	45	42	38	53	51	46	43	39
35	51	49	45	41	52	50	46	43	39	54	52	47	44	40
40	53	51	46	42	54	52	47	44	40	56	54	49	45	41
45	55	53	48	45	56	54	49	46	43	58	56	51	47	44
50	57	54	50	47	58	55	51	48	45	60	57	53	49	46
55	59	56	52	49	60	57	53	50	47	62	59	54	51	48
60	61	58	54	51	62	59	54	51	48	64	61	56	53	50
65	49	48	46	x	50	49	47	42	x	51	50	48	43	x
70	50	49	47	x	51	50	48	43	x	52	51	49	44	x
75	51	50	48	x	52	51	49	44	x	53	52	50	45	x
80	52	51	49	x	53	52	50	45	x	54	53	51	46	x
85	53	52	50	x	54	53	51	46	x	56	55	52	47	x
90	54	53	52	x	56	55	53	48	x	58	57	54	49	x
95	56	55	54	x	58	57	55	50	x	60	59	56	51	x
100	58	57	56	x	60	59	57	52	x	62	61	58	53	x
105	60	59	58	x	62	61	59	54	x	64	63	60	55	x
110	62	61	60	x	64	63	61	56	x	66	65	62	57	x
120	64	63	62	x	66	65	63	58	x	68	67	64	59	x

For the full vibration series definition please visit zen.biz

Wichtig

*** Max. Drehzahlen:**
Die im Katalog angegebenen Werte sind ungefähre Werte. Abhängig von der Toleranzklasse, Werkstoff, Einbautoleranzen, Befettung, Käfigtype, Umgebungstemperatur, etc., können unterschiedliche Werte realisiert werden. Die maximalen Drehzahlen für RS- und TS-gedichtete Lager sind deutlich geringer. Bitte erfragen Sie die Werte in besonderen Fällen.

*** Tragzahlen:**
Die Tragzahlen und Drehzahlen beziehen sich auf 100Cr6 (Chromstahl), falls nicht anders spezifiziert. Die Werte für rostfreien Stahl sind ungefähr 20% niedriger.

Der Herausgeber dieses Katalogs übernimmt keinerlei Gewähr für die Aktualität, Korrektheit, Vollständigkeit oder Qualität der angebotenen Informationen. Haftungsansprüche gegen den Herausgeber, die durch die Nutzung oder Nichtnutzung der dargebotenen Informationen bzw. durch die Nutzung fehlerhafter und unvollständiger Informationen verursacht wurden, sind grundsätzlich komplett ausgeschlossen.

	Design Design	Spezifikation Specification	Temp Temp	Vorteile/Nachteile Advantage/Disadvantage
	- Keine Dichtung No seals	Offen Open	-	Kein Reibungswiderstand No friction Einfache Nachschmierung Easy to re-lube Starke Verschmutzung No protection against contamination
	2Z Metalldeckscheiben Metal shields	Nichtschleifende Dichtung Non contact seals	Min. temp -35°C Max. temp 250°C	Kein Reibungswiderstand No friction Gute Abdichtung gegen Schmutz Good protection against contamination
	2RS Gummidichtscheiben Rubber seals	Schleifende Dichtung aus Kunststoff Contact seals made of synthetic rubber	Min. temp -20°C Max. temp 110°C	Erhöhter Reibungswiderstand Higher friction Ausgezeichnete Abdichtung gegen Schmutz Very good protection against contamination
	2TS PTFE Dichtscheiben PTFE seals	Schleifende Dichtung aus PTFE Contact seals made of Teflon	Min. temp -40°C Max. temp 250°C	Geringer Reibungswiderstand Low friction Ausgezeichnete Abdichtung gegen Schmutz Very good protection against contamination Gute chemische Eigenschaften Good chemical characteristics
	2TZ Metalldeckscheiben mit PTFE Dichtungscheiben PTFE seals with metal shields	Schleifende Dichtung aus PTFE Contact seals made of Teflon	Min. temp -40°C Max. temp 250°C	Geringer Reibungswiderstand Low friction Ausgezeichnete Abdichtung gegen Schmutz Very good protection against contamination Gute chemische Eigenschaften Good chemical characteristics
	2VS Viton Dichtungen Viton seals	Schleifende Dichtungen aus Viton Seals made of Viton	Min. temp -30°C Max. temp 230°C	Erhöhter Reibungswiderstand Higher friction Temperaturbeständig Chemisch High temperature Gute chemische Eigenschaften Good chemical characteristics Ausgezeichnete Abdichtung gegen Schmutz Very good protection against contamination
	2DU Gummidichtscheiben Rubber seal	Nicht schleifende Dichtung aus Gummi Non contact seal made of synthetic rubber	Min. temp -20°C Max. temp 110°C	Kein Reibungswiderstand No friction Ausgezeichnete Abdichtung gegen Schmutz Very good protection against contamination

Important

*** Limiting Speeds:**
The values shown in the catalogue are approximated values. Depending on the tolerance class, material, mounting tolerances, lubrication, cage, surrounding temperature, etc., different values can be obtained. The limiting speeds for RS- and TS-shielded bearings are significantly lower. Please contact Engineering for special cases.

*** Load Ratings:**
Load ratings and Limiting Speeds are calculated based on material 100Cr6 (Chrome Steel), if not stated different. The rates are approximately 20% lower for stainless steel.

The author reserves the right not to be responsible for the topicality, correctness, completeness or quality of the information provided. Liability claims regarding damage caused by the use of any information provided, including any kind of information which is incomplete or incorrect, will therefore be rejected.

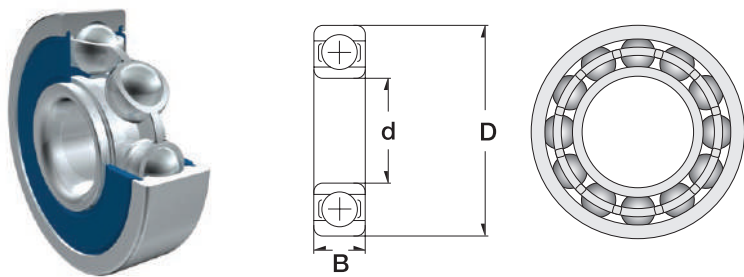
	Referenz Reference	Käfigtype Cage type	Anmerkung Remarks
	FC	Vollkugelig / ohne Käfig Full Complement / No Cage	Geringe Drehzahlen, hohe Belastungswerte Low revolution high load rating
	W	Kronenkäfig Crown Cage	Geringes Gewicht, geringe Reibung Light weight, smooth, low friction
	J	Lappenkäfig Ribbon Cage	Standardkäfig, hohe Lebensdauer Standard cage, good durability
	T9H	Kronenkäfig aus glasfaserverstärktem Kunststoff Glass Fibre Reinforced Cage	Geringes Gewicht, hohe Lebensdauer, hohe Drehzahlen Light weight, strong, high speed
		Massivkäfig aus Kunststoff Phenolic Cage	Geringes Gewicht, hohe Lebensdauer, hohe Drehzahlen Light weight, strong, high speed
	M	Messingkäfig Brass Cage	Geringe Reibung, hohe Lebensdauer, Low friction, good durability
	PEEK	PEEK	Für hohe Temperaturen Hohe Lebensdauer Korrosionsbeständig Isolierend High temperature Good durability Corrosion resistant Insulated
	PTFE	PTFE	Für hohe Temperaturen Hohe Lebensdauer Korrosionsbeständig Isolierend High temperature Good durability Corrosion resistant Insulated

Schmierung / Lubrication

Schmiermittel Lubricant	Anmerkung Remarks	Vorteile/Anwendung Advantages/Applications
 Kein Schmiermittel No lubricant	Nur bei Edelstahllagern oder mit Verwendung von Korrosionsschutz Only with stainless steel bearings or with the use of corrosion preventive fluid	Wenn Schmierung vom Kunden gestellt wird When the lubrication is provided by the customer
 Fett Grease	Standardfüllung 30-40% Standard filling 30-40%	Lebenslange Schmierung möglich Life-time lubrication is possible Guter Korrosionsschutz Good protection against corrosion Differenzierte Anwendungsmöglichkeiten je nach Fett According to the application a variety of greases can be used
 Öl Oil	-	Geringer Reibungswiderstand Low friction Hohe Drehzahlen High revolution

Hersteller Mfg	Name Brand	Verdicker Thickener	Grundöl Base oil	Tropfpunkt Drop Point °C	Viskosität Consistency	Tempera- rurbereich Operating temperature range °C	Anwendung Application
Exxon	Beacon 325	Lithium	Diester	193	290	-60~+120	low temp
	Andok B	Nathium	Mineral	260	280	-40~+120	general purpose
	Andok C	Nathium	Mineral	»260	205	-20~+120	general purpose
	Andok 260	Nathium	Mineral	200	250	-30~+150	general purpose
Kyodo Yushi	Multemp PS2	Lithium	Diester	189	280	-50~+110	low temp
	Multemp SRL	Lithium	Ester	191	245	-40~+150	low temp
	Multemp SRH	Lithium	Ester	250	201	-40~+150	low temp
	Multemp SB-M	Diurea	Synthetic oil	220	260	-40~+200	high speed/temp
Kluber	ET-K	Diurea	Synthetic oil/ester"	260	300	-40~+200	high temp/ speed alternator
	Asonic GLY32	Lithium	Synthetic	190	265-295	-50~+140	low temp
	Asonic GHY72	Polyhamstoff	Ester Mineral	250	250-280	-40~+180	high temp/low noise
	Isoflex Super LDS18	Lithium	Diester	190	280	-60~+130	low temp
	Isoflex LDS18 Special A	Lithium	Diester	190	280	-60~+130	low temp
	Isoflex Topas NB52"	Barium	Synthetic hydrocarbon	204	280	-60~+170	low/high temp
	Barrierta L55/2	PTFE	Fluorinated		280	-35~+260	low/high temp
	Barrierta TK44N2	Na-Komplex	Silicone			-60~+230	low/high temp
	Isoflex NCA15	Special Ca	Ester Mineral	180	265-295	-40~+130	high speed
	Asonic HQ72-102"	Urea	Ester	240	250-280	-40~+180	low/high temp & low noise
Dow Corning	Molykote 33M	Lithium	Silicone	210	260	-70~+180	low/high temp
	Molykote 44M	Lithium	Silicone	204	260	-40~+200	high temp
	Molykote 55M	Lithium	Silicone			-55~+165	low temp
	Molykote BR2 plus	Lithium	Silicone		280	-30~+150	high speed
	Molykote FS1292	PTFE	Phlorosilicon	»232	310	-40~+200	high speed
	Molykote FS3451	PTFE	Phlorosilicon	»260	285	-40~+230	chemical solvent resistant
Shell	Alvania No.2	Lithium	Mineral	182	272	-25~+120	general purpose
	Alvania No.3	Lithium	Mineral	183	233	-20~+135	general purpose
	Alvania RA	Lithium	Mineral	183	252	-25~+120	general purpose
	Alvania EP2	Lithium	Mineral	185	276	-10~+100	general purpose
	Dolium R		Mineral	238	281	-20~+140	general purpose
	Aero Shell NO.5	Microgel	Mineral	»260	282	-10~+130	general purpose
	Aero Shell NO.7	Microgel	Mineral	»260	288	-70~+150	low temp
	Aero Shell RLQ2	Lithium	Mineral	195	266	-50~+150	low noise/high speed"
	Mobilux2	Lithium	Mineral	190	280	-20~+120	general purpose
Mobil Oil	Mobil 22	Lithium	Diester Mineral	192	274	-50~+140	low temp
	Mobil 28	Bentonite	syntheic hydrocarbon	»260	280	-60~+180	low/high temp
	Mobiltemp SHC22	Glue-earth	Synthetic oil	250	265-295	-50~+180	high speed/temp
	Mobiitemp SHC100	Glue-earth	Synthetic oil	250	265-295	-40~+200	high speed/temp
Du Pont	Krytox240AC	PTFE	Fluorinated		282	-35~+280	high speed/temp
Caltex	Chevron SRI-2	Urea	Mineral		293	-30~+175	high temp
Hangu	Hangu#2	-	Mineral	-	-	-20~+120	general purpose
Great Wall	Great Wall BLE	Urea	Mineral	260	280	-30~+200	low noise/high temp"
Yiping	YP7201	Synthetic	Mineral	272	272	-20~+120	low noise/anti-rust

Metrische Miniaturrillenkugellager / Miniature Metric Series



18

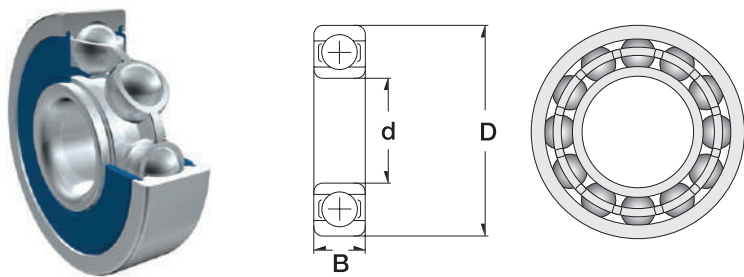
standard or flanged	Dimension (mm)			Designation/Type					
	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	1.0	3.0	1.0	681	S681	-	-	-	-
flanged	1.0	3.0	1.0	F 681	SF 681	-	-	-	-
standard	1.0	3.0	1.5	MR 31	SMR 31	-	-	-	-
standard	1.0	4.0	1.6	691	S691	-	-	-	-
flanged	1.0	4.0	1.6	F 691	SF 691	-	-	-	-
standard	1.2	4.0	2.5	-	-	MR 41X-2Z	SMR 41X-2Z	-	-
standard	1.5	4.0	1.2	681X	S681X	-	-	-	-
flanged	1.5	4.0	1.2	F 681X	SF 681X	-	-	-	-
standard	1.5	4.0	2.0	-	-	681X-2Z	S681X-2Z	-	-
flanged	1.5	4.0	2.0	-	-	F 681X-2Z	SF 681X-2Z	-	-
standard	1.5	5.0	1.7	X 1.5	SX 1.5	-	-	-	-
standard	1.5	5.0	2.0	691X	S691X	-	-	-	-
flanged	1.5	5.0	2.0	F 691X	SF 691X	-	-	-	-
standard	1.5	5.0	2.6	-	-	691X-2Z	S691X-2Z	-	-
flanged	1.5	5.0	2.6	-	-	F 691X-2Z	SF 691X-2Z	-	-
standard	1.5	6.0	2.5	601X	S601X	-	-	-	-
flanged	1.5	6.0	2.5	F 601X	SF 601X	-	-	-	-
standard	1.5	6.0	3.0	-	-	601X-2Z	S601X-2Z	-	-
flanged	1.5	6.0	3.0	-	-	F 601X-2Z	SF 601X-2Z	-	-
standard	2.0	4.0	1.2	672	S672	-	-	-	-
standard	2.0	5.0	1.5	682	S682	-	-	-	-
flanged	2.0	5.0	1.5	F 682	SF 682	-	-	-	-
standard	2.0	5.0	2.0	MR 52	SMR 52	-	-	-	-
standard	2.0	5.0	2.3	-	-	682-2Z	S682-2Z	-	-
flanged	2.0	5.0	2.3	-	-	F 682-2Z	SF 682-2Z	-	-
standard	2.0	5.0	2.5	-	-	MR 52-2Z	SMR 52-2Z	-	-
flanged	2.0	5.0	2.5	-	-	MF 52-2Z	SMF 52-2Z	-	-
standard	2.0	6.0	2.3	692	S692	692-2ZW2.3	S692-2ZW2.3	-	-
flanged	2.0	6.0	2.3	F 692	SF 692	F 692-2ZW2.3	SF 692-2ZW2.3	-	-
standard	2.0	6.0	2.5	MR 62	SMR 62	MR 62-2Z	SMR 62-2Z	-	-
flanged	2.0	6.0	2.5	MF 62	SMF 62	MF 62-2Z	SMF 62-2Z	-	-



*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
96	26	130.0	150.0	W	< 1 g
96	26	130.0	150.0	W	< 1 g
96	26	130.0	150.0	W	< 1 g
141	37	100.0	120.0	W	< 1 g
141	37	100.0	120.0	W	< 1 g
112	33	110.0	130.0	W	< 1 g
112	33	100.0	120.0	W	< 1 g
112	33	100.0	120.0	W	< 1 g
112	33	100.0	120.0	W	< 1 g
112	33	100.0	120.0	W	< 1 g
169	50	85.0	100.0	W	< 1 g
169	50	85.0	100.0	W	< 1 g
169	50	85.0	100.0	W	< 1 g
169	50	85.0	100.0	W	< 1 g
330	99	75.0	90.0	W	< 1 g
330	99	75.0	90.0	W	< 1 g
330	99	75.0	90.0	W	< 1 g
330	99	75.0	90.0	W	< 1 g
124	40	91.0	104.0	W	< 1 g
169	50	85.0	100.0	W,J	< 1 g
169	50	85.0	100.0	W,J	< 1 g
169	50	85.0	100.0	W,J	< 1 g
169	50	85.0	100.0	W,J	< 1 g
169	50	85.0	100.0	W	< 1 g
169	50	85.0	100.0	W	< 1 g
330	99	75.0	90.0	W	< 1 g
330	99	75.0	90.0	W	< 1 g
330	99	75.0	90.0	W	< 1 g
330	99	75.0	90.0	W	< 1 g

19

Metrische Miniaturrillenkugellager / Miniature Metric Series



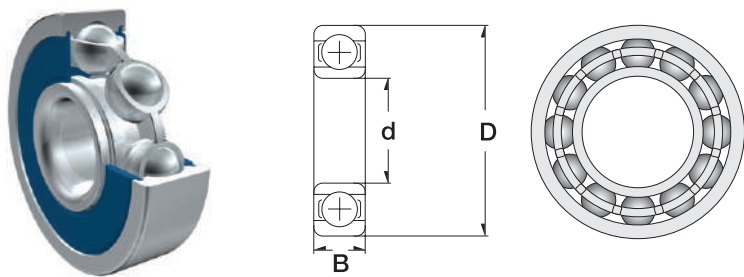
20

standard or flanged	Dimension (mm)			Designation/Type					
	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	2.0	6.0	3.0	-	-	692-2Z	S692-2Z	-	-
flanged	2.0	6.0	3.0	-	-	F 692-2Z	SF 692-2Z	-	-
standard	2.0	7.0	2.8	602	S602	-	-	-	-
standard	2.0	7.0	2.8	MR 72	SMR 72	-	-	-	-
standard	2.0	7.0	3.5	-	-	602-2Z	S602-2Z	-	-
flanged	2.0	7.0	3.5	-	-	F 602-2Z	SF 602-2Z	-	-
standard	2.0	7.0	3.0	-	-	MR 72-2Z	SMR 72-2Z	-	-
flanged	2.0	7.0	3.0	-	-	MF 72-2Z	SMF 72-2Z	-	-
standard	2.5	6.0	1.8	682X	S682X	-	-	-	-
flanged	2.5	6.0	1.8	F 682X	SF 682X	-	-	-	-
standard	2.5	6.0	2.6	-	-	682X-2Z	S682X-2Z	-	-
flanged	2.5	6.0	2.6	-	-	F 682X-2Z	SF 682X-2Z	-	-
standard	2.5	7.0	2.5	692X	S692X	-	-	-	-
flanged	2.5	7.0	2.5	F 692X	SF 692X	-	-	-	-
standard	2.5	7.0	3.0	-	-	X 2.5-2Z	SX 2.5-2Z	-	-
standard	2.5	7.0	3.5	-	-	692X-2Z	S692X-2Z	-	-
flanged	2.5	7.0	3.5	-	-	F 692X-2Z	SF 692X-2Z	-	-
standard	2.5	8.0	2.5	MR 82X	SMR 82X	-	-	-	-
standard	2.5	8.0	2.8	602X	S602X	-	-	-	-
flanged	2.5	8.0	2.8	F 602X	SF 602X	-	-	-	-
standard	2.5	8.0	4.0	-	-	602X-2Z	S602X-2Z	-	-
flanged	2.5	8.0	4.0	-	-	F 602X-2Z	SF 602X-2Z	-	-
standard	3.0	6.0	2.0	MR 63	SMR 63	-	-	-	-
flanged	3.0	6.0	2.0	MF 63	SMF 63	-	-	-	-
standard	3.0	6.0	2.5	-	-	MR 63-2Z	SMR 63-2Z	-	-
flanged	3.0	6.0	2.5	-	-	MF 63-2Z	SMF 63-2Z	-	-
standard	3.0	7.0	2.0	683	S683	-	-	-	-
flanged	3.0	7.0	2.0	F 683	SF 683	-	-	-	-
standard	3.0	7.0	3.0	-	-	683-2Z	S683-2Z	683-2TS	S683-2TS
flanged	3.0	7.0	3.0	-	-	F 683-2Z	SF 683-2Z	-	-
standard	3.0	8.0	2.5	MR 83	SMR 83	-	-	-	-
flanged	3.0	8.0	2.5	MF 83	SMF 83	-	-	-	-

21

*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
330	99	75.0	90.0	W	< 1 g
330	99	75.0	90.0	W	< 1 g
386	129	60.0	71.0	W	< 1 g
386	129	63.0	75.0	W	< 1 g
386	129	60.0	71.0	W	< 1 g
386	129	60.0	71.0	W	< 1 g
386	129	63.0	75.0	W	< 1 g
386	129	63.0	75.0	W	< 1 g
209	74	71.0	80.0	W	< 1 g
209	74	71.0	80.0	W	< 1 g
209	74	71.0	80.0	W	< 1 g
209	74	71.0	80.0	W	< 1 g
386	129	63.0	75.0	W	< 1 g
386	129	63.0	75.0	W	< 1 g
386	129	63.0	75.0	W	< 1 g
386	129	63.0	75.0	W	< 1 g
558	180	60.0	67.0	W	< 1 g
552	177	60.0	71.0	W	< 1 g
552	177	60.0	71.0	W	< 1 g
552	177	60.0	71.0	W	< 1 g
552	177	60.0	71.0	W	< 1 g
209	74	71.0	80.0	W	< 1 g
209	74	71.0	80.0	W	< 1 g
209	74	71.0	80.0	W	< 1 g
209	74	71.0	80.0	W	< 1 g
311	112	63.0	75.0	W,J	< 1 g
311	112	63.0	75.0	W,J	< 1 g
311	112	63.0	75.0	W,J	< 1 g
311	112	63.0	75.0	W,J	< 1 g
395	141	60.0	67.0	W	< 1 g
395	141	60.0	67.0	W	< 1 g

Metrische Miniaturrillenkugellager / Miniature Metric Series



22

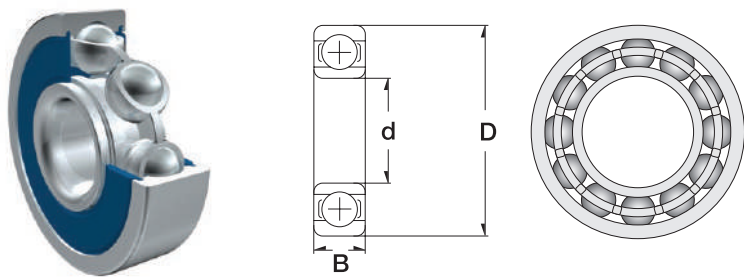
standard or flanged	Dimension (mm)			Designation/Type					
	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	3.0	8.0	3.0	693	S693	-	-	-	-
flanged	3.0	8.0	3.0	F 693	SF 693	-	-	-	-
standard	3.0	8.0	3.0	-	-	MR 83-2Z	SMR 83-2Z	-	-
flanged	3.0	8.0	3.0	-	-	MF 83-2Z	SMF 83-2Z	-	-
standard	3.0	8.0	4.0	-	-	693-2Z	S693-2Z	-	-
flanged	3.0	8.0	4.0	-	-	F 693-2Z	SF 693-2Z	-	-
standard	3.0	9.0	2.5	MR 93	SMR 93	-	-	-	-
flanged	3.0	9.0	2.5	MF 93	SMF 93	-	-	-	-
standard	3.0	9.0	3.0	603	S603	-	-	-	-
flanged	3.0	9.0	3.0	F 603	SF 603	-	-	-	-
standard	3.0	9.0	4.0	-	-	MR 93-2Z	SMR 93-2Z	-	-
flanged	3.0	9.0	4.0	-	-	MF 93-2Z	SMF 93-2Z	-	-
standard	3.0	9.0	5.0	-	-	603-2Z	S603-2Z	-	-
flanged	3.0	9.0	5.0	-	-	F 603-2Z	SF 603-2Z	-	-
standard	3.0	10.0	4.0	623	S623	623-2Z	S623-2Z	623-2RS	S623-2RS
flanged	3.0	10.0	4.0	F 623	SF 623	F 623-2Z	SF 623-2Z	F 623-2RS	SF 623-2RS
standard	3.0	13.0	5.0	-	-	633-2Z	S633-2Z	-	-
standard	3.5	9.0	4.0	-	-	MR 93X-2Z	SMR 93X-2Z	-	-
standard	4.0	7.0	2.0	MR 74	SMR 74	-	-	-	-
flanged	4.0	7.0	2.0	MF 74	SMF 74	-	-	-	-
standard	4.0	7.0	2.5	-	-	MR 74-2Z	SMR 74-2Z	-	-
flanged	4.0	7.0	2.5	-	-	MF 74-2Z	SMF 74-2Z	-	-
standard	4.0	8.0	2.0	MR 84	SMR 84	-	-	-	-
flanged	4.0	8.0	2.0	MF 84	SMF 84	-	-	-	-
standard	4.0	8.0	3.0	-	-	MR 84-2Z	SMR 84-2Z	MR 84-2RS	SMR 84-2RS
flanged	4.0	8.0	3.0	-	-	MF 84-2Z	SMF 84-2Z	MF 84-2RS	SMF 84-2RS
standard	4.0	9.0	2.5	684	S684	-	-	-	-
flanged	4.0	9.0	2.5	F 684	SF 684	-	-	-	-
standard	4.0	9.0	4.0	-	-	684-2Z	S684-2Z	684-2RS	S684-2RS
flanged	4.0	9.0	4.0	-	-	F 684-2Z	SF 684-2Z	F 684-2RS	SF 684-2RS
standard	4.0	10.0	3.0	MR 104	SMR 104	-	-	-	-
flanged	4.0	10.0	3.0	MF 104	SMF 104	-	-	-	-



23

*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
558	180	60.0	67.0	W	< 1 g
558	180	60.0	67.0	W	< 1 g
395	141	60.0	67.0	W	< 1 g
395	141	60.0	67.0	W	< 1 g
558	180	60.0	67.0	W	< 1 g
558	180	60.0	67.0	W	< 1 g
571	189	56.0	67.0	W	< 1 g
571	189	56.0	67.0	W	< 1 g
571	189	56.0	67.0	W	< 2 g
571	189	56.0	67.0	W	< 2 g
571	189	56.0	67.0	W	< 2 g
571	189	56.0	67.0	W	< 2 g
631	219	50.0	60.0	W,J	< 2 g
631	219	50.0	60.0	W,J	< 2 g
1301	488	40.0	48.0	J	< 4 g
571	189	56.0	67.0	W	< 3 g
255	108	60.0	67.0	W	< 1 g
255	108	60.0	67.0	W	< 1 g
255	108	60.0	67.0	W	< 1 g
255	108	60.0	67.0	W	< 1 g
395	141	56.0	67.0	W	< 1 g
395	141	56.0	67.0	W	< 1 g
395	141	56.0	67.0	W	< 2 g
395	141	56.0	67.0	W	< 2 g
641	227	53.0	63.0	W,J	< 2 g
641	227	53.0	63.0	W,J	< 2 g
641	227	53.0	63.0	W,J	< 2 g
641	227	53.0	63.0	W,J	< 2 g
711	272	48.0	56.0	W,J	< 2 g
711	272	48.0	56.0	W,J	< 2 g

Metrische Miniaturrillenkugellager / Miniature Metric Series



24

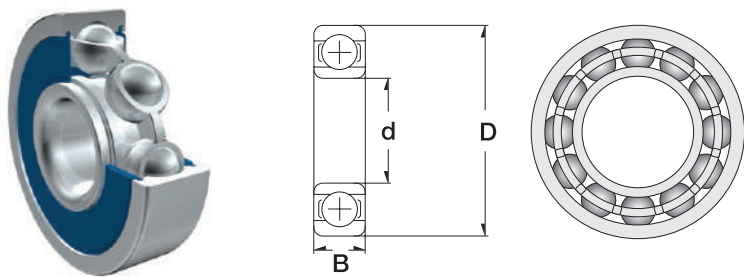
	Dimension (mm)			Designation/Type					
standard or flanged	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	4.0	10.0	4.0	-	-	MR 104-2Z	SMR 104-2Z	MR 104-2TS	SMR 104-2TS
flanged	4.0	10.0	4.0	-	-	MF 104-2Z	SMF 104-2Z	MF 104-2TS	SMF 104-2TS
standard	4.0	11.0	4.0	694	S694	694-2Z	S694-2Z	694-2RS	S694-2RS
flanged	4.0	11.0	4.0	F 694	SF 694	F 694-2Z	SF 694-2Z	F 694-2RS	SF 694-2RS
standard	4.0	12.0	4.0	604	S604	604-2Z	S604-2Z	604-2RS	S604-2RS
flanged	4.0	12.0	4.0	F 604	SF 604	F 604-2Z	SF 604-2Z	F 604-2RS	SF 604-2RS
standard	4.0	13.0	5.0	624	S624	624-2Z	S624-2Z	624-2RS	S624-2RS
flanged	4.0	13.0	5.0	F 624	SF 624	F 624-2Z	SF 624-2Z	F 624-2RS	SF 624-2RS
standard	4.0	16.0	5.0	634	S634	634-2Z	S634-2Z	634-2RS	S634-2RS
flanged	4.0	16.0	5.0	F 634	SF 634	F 634-2Z	SF 634-2Z	F 634-2RS	SF 634-2RS
standard	5.0	8.0	2.0	MR 85	SMR 85	-	-	-	-
flanged	5.0	8.0	2.0	MF 85	SMF 85	-	-	-	-
standard	5.0	8.0	2.5	-	-	MR 85-2Z	SMR 85-2Z	-	-
flanged	5.0	8.0	2.5	-	-	MF 85-2Z	SMF 85-2Z	-	-
standard	5.0	9.0	2.5	MR 95	SMR 95	-	-	-	-
flanged	5.0	9.0	2.5	MF 95	SMF 95	-	-	-	-
standard	5.0	9.0	3.0	-	-	MR 95-2Z	SMR 95-2Z	MR 95-2TS	SMR 95-2TS
flanged	5.0	9.0	3.0	-	-	MF 95-2Z	SMF 95-2Z	MF 95-2TS	SMF 95-2TS
standard	5.0	10.0	3.0	MR 105	SMR 105	-	-	-	-
flanged	5.0	10.0	3.0	MF 105	SMF 105	-	-	-	-
standard	5.0	10.0	4.0	-	-	MR 105-2Z	SMR 105-2Z	MR 105-2RS	SMR 105-2RS
flanged	5.0	10.0	4.0	-	-	MF 105-2Z	SMF 105-2Z	MF 105-2RS	SMF 105-2RS
standard	5.0	11.0	3.0	S685	S685	-	-	-	-
flanged	5.0	11.0	3.0	F 685	SF 685	-	-	-	-
standard	5.0	11.0	4.0	-	-	MR 115-2Z	SMR 115-2Z	MR 115-2RS	SMR 115-2RS
flanged	5.0	11.0	4.0	-	-	MF 115-2Z	SMF 115-2Z	MF 115-2RS	SMF 115-2RS
standard	5.0	11.0	5.0	-	-	685-2Z	S685-2Z	685-2RS	S685-2RS
flanged	5.0	11.0	5.0	-	-	F 685-2Z	SF 685-2Z	F 685-2RS	SF 685-2RS
standard	5.0	13.0	4.0	695	S695	695-2Z	S695-2Z	695-2RS	S695-2RS
flanged	5.0	13.0	4.0	F 695	SF 695	F695-2Z	SF695-2Z	F695-2RS	SF695-2RS
standard	5.0	13.0	5.0	695W5	S695W5	695-2ZW5	S695-2Z W5	695-2RSW5	S695-2RSW5
standard	5.0	14.0	5.0	605	S605	605-2Z	S605-2Z	605-2RS	S605-2RS
flanged	5.0	14.0	5.0	F 605	SF 605	F 605-2Z	SF 605-2Z	F 605-2RS	SF 605-2RS



*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
711	272	48.0	56.0	W,J	< 2 g
711	272	48.0	56.0	W,J	< 2 g
957	350	48.0	56.0	W,J	< 2 g
957	350	48.0	56.0	W,J	< 2 g
957	350	48.0	56.0	W,J	< 3 g
957	350	48.0	56.0	W,J	< 3 g
1301	488	40.0	48.0	W,J	< 4 g
1301	488	40.0	48.0	W,J	< 4 g
1340	523	36.0	43.0	W,J	< 6 g
1340	523	36.0	43.0	W,J	< 6 g
218	90	53.0	63.0	W	< 1 g
218	90	53.0	63.0	W	< 1 g
218	90	53.0	63.0	W	< 1 g
218	90	53.0	63.0	W	< 1 g
431	169	50.0	60.0	W	< 1 g
431	169	50.0	60.0	W	< 1 g
431	169	50.0	60.0	W	< 1 g
431	169	50.0	60.0	W	< 1 g
431	169	50.0	60.0	W,J	< 2 g
431	169	50.0	60.0	W,J	< 2 g
431	169	50.0	60.0	W,J	< 2 g
431	169	50.0	60.0	W,J	< 2 g
716	282	45.0	53.0	W	< 2 g
716	282	45.0	53.0	W	< 2 g
716	282	45.0	53.0	W,J	< 1 g
716	282	45.0	53.0	W,J	< 1 g
716	282	45.0	53.0	W	< 2 g
716	282	45.0	53.0	W	< 2 g
1077	432	43.0	50.0	W,J	< 3 g
1077	432	43.0	50.0	W,J	< 3 g
1077	432	43.0	50.0	W,J	< 3 g
1329	507	40.0	50.0	W,J	< 5 g
1329	507	40.0	50.0	W,J	< 5 g

25

Metrische Miniaturrillenkugellager / Miniature Metric Series



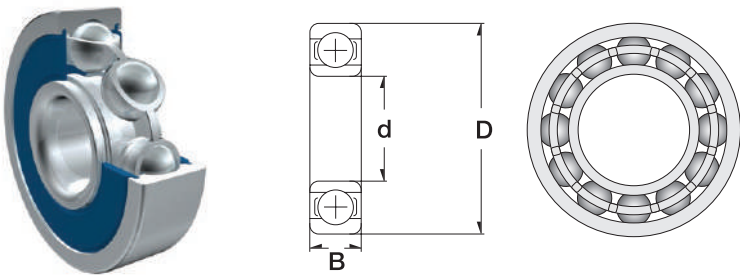
26

standard or flanged	Dimension (mm)			Designation/Type					
	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	5.0	14.0	7.0	Zweieihiges Radiallager	Double Row Bearing	30/5-2Z	-	30/5-2RS	-
standard	5.0	16.0	5.0	625	S625	625-2Z	S625-2Z	625-2RS	S625-2RS
flanged	5.0	16.0	5.0	F 625	SF 625	F 625-2Z	SF 625-2Z	F 625-2RS	SF 625-2RS
standard	5.0	19.0	6.0	635	S635	635-2Z	S635-2Z	635-2RS	S635-2RS
flanged	5.0	19.0	6.0	F 635	SF 635	F 635-2Z	SF 635-2Z	F 635-2RS	SF 635-2RS
standard	6.0	10.0	2.5	MR 106	SMR 106	-	-	-	-
flanged	6.0	10.0	2.5	MF 106	SMF 106	-	-	-	-
standard	6.0	10.0	3.0	-	-	MR 106-2Z	SMR 106-2Z	MR 106-2RS	SMR 106-2RS
flanged	6.0	10.0	3.0	-	-	MF 106-2Z	SMF 106-2Z	MF 106-2RS	SMF 106-2RS
standard	6.0	12.0	3.0	MR 126	SMR 126	-	-	-	-
flanged	6.0	12.0	3.0	MF 126	SMF 126	-	-	-	-
standard	6.0	12.0	4.0	-	-	MR 126-2Z	SMR 126-2Z	MR 126-2RS	SMR 126-2RS
flanged	6.0	12.0	4.0	-	-	MF 126-2Z	SMF 126-2Z	MF 126-2RS	SMF 126-2RS
standard	6.0	13.0	3.5	686	S686	-	-	-	-
flanged	6.0	13.0	3.5	F 686	SF 686	-	-	-	-
standard	6.0	13.0	4.5	-	-	686-2ZW4.5	S686-2ZW4.5	686-2TS4.5	S686-2TS4.5
standard	6.0	13.0	5.0	686W5	S686W5	686-2Z	S686-2Z	686-2RS	S686-2RS
flanged	6.0	13.0	5.0			F 686-2Z	SF 686-2Z	F 686-2RS	SF 686-2RS
standard	6.0	15.0	5.0	696W5	S696W5	696-2ZW5	S696-2ZW5	696-2RSW5	S696-2RSW5
flanged	6.0	15.0	5.0	F 696	SF 696	F 696-2Z	SF 696-2Z	F 696-2RS	SF 696-2RS
standard	6.0	16.0	5.0	696A	S696A	696A-2Z	S696A-2Z	696A-2RS	S696A-2RS
flanged	6.0	16.0	5.0	F 696A	SF 696A	F 696A-2Z	SF 696A-2Z	F 696A-RS	SF 696A-2RS
standard	6.0	17.0	6.0	606	S606	606-2Z	S606-2Z	606-2RS	S606-2RS
flanged	6.0	17.0	6.0	F 606	SF 606	F 606-2Z	SF 606-2Z	F 606-2RS	SF 606-2RS
standard	6.0	17.0	6.0	Zweieihiges Radiallager	Double Row Bearing	30/6-2Z	-	30/6-2RS	-
standard	6.0	19.0	6.0	626	S626	626-2Z	S626-2Z	626-2RS	S626-2RS
flanged	6.0	19.0	6.0	F 626	SF 626	F 626-2Z	SF 626-2Z	F 626-2RS	SF 626-2RS
standard	6.0	22.0	7.0	636	S636	636-2Z	S636-2Z	636-2RS	S636-2RS
standard	7.0	11.0	2.5	MR 117	SMR 117	-	-	-	-
flanged	7.0	11.0	2.5	MF 117	SMF 117	-	-	-	-
standard	7.0	11.0	3.0	-	-	MR 117-2Z	SMR 117-2Z	MR 117-2RS	SMR 117-2RS
flanged	7.0	11.0	3.0	-	-	MF 117-2Z	SMF 117-2Z	MF 117-2RS	SMF 117-2RS

27

*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
2020	930	30.0	38.0	J	< 8 g
1729	675	36.0	43.0	W,J	< 6 g
1729	675	36.0	43.0	W,J	< 6 g
2336	896	32.0	40.0	J	< 8 g
2336	896	32.0	40.0	J	< 10 g
496	218	45.0	53.0	W	< 1 g
496	218	45.0	53.0	W	< 1 g
496	218	45.0	53.0	W	< 1 g
496	218	45.0	53.0	W	< 1 g
716	295	43.0	50.0	W,J	< 2 g
716	295	43.0	50.0	W,J	< 2 g
716	295	43.0	50.0	W,J	< 2 g
716	295	43.0	50.0	W,J	< 2 g
1082	442	40.0	50.0	W,J	< 3 g
1082	442	40.0	50.0	W,J	< 4 g
1082	442	40.0	50.0	W,J	< 4 g
1082	442	40.0	50.0	W,J	< 4 g
1340	523	40.0	45.0	W,J	< 4 g
1340	523	40.0	45.0	W,J	< 4 g
1340	523	40.0	45.0	J	< 7 g
1340	523	40.0	45.0	J	< 7 g
2263	846	38.0	45.0	J	< 7 g
2263	846	38.0	45.0	J	< 8 g
3080	1450	30.0	39.0	J	< 10 g
2336	896	32.0	40.0	J	< 8 g
2336	896	32.0	40.0	J	< 10 g
3333	1423	30.0	36.0	J	< 5 g
455	202	43.0	50.0	W	< 1 g
455	202	43.0	50.0	W	< 1 g
455	202	43.0	50.0	W	< 1 g
455	202	43.0	50.0	W	< 1 g

Metrische Miniaturrillenkugellager / Miniature Metric Series



28

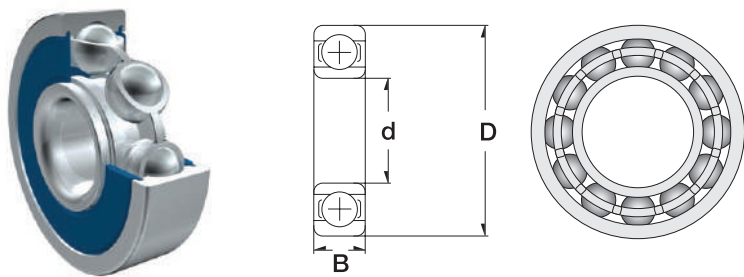
standard or flanged	Dimension (mm)			Designation/Type					
	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	7.0	13.0	3.0	MR 137	SMR 137	-	-	-	-
flanged	7.0	13.0	3.0	MF 137	SMF 137	-	-	-	-
standard	7.0	13.0	4.0	-	-	MR 137-2Z	SMR 137-2Z	MR 137-2RS	SMR 137-2RS
flanged	7.0	13.0	4.0	-	-	MF 137-2Z	SMF 137-2Z	MF 137-2RS	SMF 137-2RS
standard	7.0	14.0	3.5	687	S687	-	-	-	-
flanged	7.0	14.0	3.5	F 687	SF 687	-	-	-	-
standard	7.0	14.0	5.0	-	-	687-2Z	S687-2Z	687-2RS	S687-2RS
flanged	7.0	14.0	5.0	-	-	F 687-2Z	SF 687-2Z	F 687-2RS	SF 687-2RS
standard	7.0	17.0	5.0	697	S697	697-2Z	S697-2Z	697-2RS	S697-2RS
flanged	7.0	17.0	5.0	F 697	SF 697	F 697-2Z	SF 697-2Z	F 697-2RS	SF 697-2RS
standard	7.0	19.0	6.0	607	S607	607-2Z	S607-2Z	607-2RS	S607-2RS
flanged	7.0	19.0	6.0	F 607	SF 607	F 607-2Z	SF 607-2Z	F 607-2RS	SF 607-2RS
standard	7.0	19.0	10.0	Zweireihiges Radiallager	Double Row Bearing	30/7-2Z	-	30/7-2RS	-
standard	7.0	22.0	7.0	627	S627	627-2Z	S627-2Z	627-2RS	S627-2RS
flanged	7.0	22.0	7.0	F 627	SF 627	F 627-2Z	SF 627-2Z	F 627-2RS	SF 627-2RS
standard	8.0	12.0	2.5	MR 128	SMR 128	-	-	-	-
flanged	8.0	12.0	2.5	MF 128	SMF 128	-	-	-	-
standard	8.0	12.0	3.5	-	-	MR 128-2Z	SMR 128-2Z	MR 128-2RS	SMR 128-2RS
flanged	8.0	12.0	3.5	-	-	MF 128-2Z	SMF 128-2Z	MF 128-2RS	SMF 128-2RS
standard	8.0	14.0	3.5	MR 148	SMR 148	-	-	-	-
flanged	8.0	14.0	3.5	MF 148	SMF 148	-	-	-	-
standard	8.0	14.0	4.0	-	-	MR 148-2Z	SMR 148-2Z	MR 148-2RS	SMR 148-2RS
flanged	8.0	14.0	4.0	-	-	MF 148-2Z	SMF 148-2Z	MF 148-2RS	SMF 148-2RS
standard	8.0	16.0	4.0	688	S688	688-2ZW4	S688-2ZW4	688-2RSW4	S688-2RSW4
flanged	8.0	16.0	4.0	F 688	SF 688	F 688-2ZW4	SF 688-2ZW4	F 688-2RSW4	SF 688-2RSW4
standard	8.0	16.0	5.0	688W5	S688W5	688-2Z	S688-2Z	688-2RS	S688-2RS
flanged	8.0	16.0	5.0	F 688W5	SF 688W5	F 688-2Z	SF 688-2Z	F 688-2RS	SF 688-2RS
standard	8.0	16.0	6.0	688W6	S688W6	688-2ZW6	S688-2ZW6	688-2RSW6	S688-2RSW6
flanged	8.0	16.0	6.0	F 688W6	SF 688W6	F 688-2ZW6	SF 688-2ZW6	F 688-2RSW6	SF 688-2RSW6
standard	8.0	19.0	6.0	698	S698	698-2Z	S698-2Z	698-2RS	S698-2RS
flanged	8.0	19.0	6.0	F 698	SF 698	F 698-2Z	SF 698-2Z	F 698-2RS	SF 698-2RS
standard	8.0	22.0	6.0	608W6	S608W6	608-2ZW6	S608-2ZW6	608-2RSW6	S608-2RSW6



29

*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
541	276	40.0	48.0	W	< 3 g
541	276	40.0	48.0	W	< 3 g
541	276	40.0	48.0	W	< 3 g
541	276	40.0	48.0	W	< 3 g
1173	513	40.0	50.0	W,J	< 4 g
1173	513	40.0	50.0	W,J	< 4 g
1173	513	40.0	50.0	W,J	< 4 g
1173	513	40.0	50.0	W,J	< 4 g
1605	719	36.0	43.0	J	< 6 g
1605	719	36.0	43.0	J	< 6 g
2336	896	36.0	43.0	J	< 8 g
2336	896	36.0	43.0	J	<10 g
3650	2000	28.0	30.0	J	< 12 g
3287	1379	30.0	36.0	J	< 14 g
3287	1379	30.0	36.0	J	< 15 g
543	274	40.0	48.0	W	< 1 g
543	274	40.0	48.0	W	< 2 g
543	274	40.0	48.0	W	< 2 g
543	274	40.0	48.0	W	< 2 g
817	386	38.0	45.0	W	< 3 g
817	386	38.0	45.0	W	< 3 g
817	386	38.0	45.0	W	< 3 g
817	386	38.0	45.0	W	< 3 g
1252	592	36.0	43.0	W,J	< 4 g
1252	592	36.0	43.0	W,J	< 4 g
1252	592	36.0	43.0	W,J	< 4 g
1252	592	36.0	43.0	W,J	< 4 g
1252	592	36.0	43.0	W,J	< 5 g
1252	592	36.0	43.0	W,J	< 5 g
2237	917	36.0	43.0	J	< 8 g
2237	917	36.0	43.0	J	< 8 g
3293	1379	34.0	40.0	J	< 13 g

Metrische Miniaturrillenkugellager / Miniature Metric Series



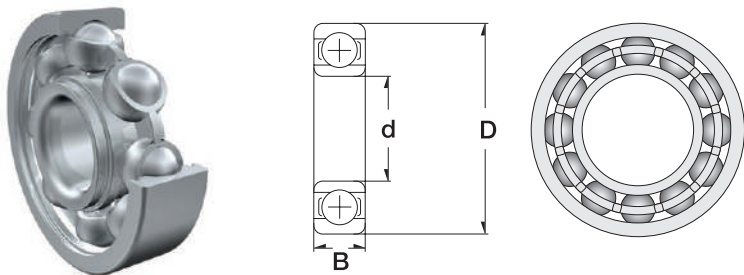
30

standard or flanged	Dimension (mm)			Designation/Type					
	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	8.0	22.0	7.0	608	S608	608-2Z	S608-2Z	608-2RS	S608-2RS
flanged	8.0	22.0	7.0	F 608	SF 608	F 608-2Z	SF 608-2Z	F 608-2RS	SF 608-2RS
standard	8.0	22.0	11.0	-	-	630/8-2Z	-	630/8-2RS	-
standard	8.0	22.0	11.0	Zweireihiges Radiallager	Double Row Bearing	30/8-2Z	-	30/8-2RS	-
standard	8.0	24.0	7.0	608/24	S608/24	608/24-2Z	S608/24-2Z	608/24-2RS	S608/24-2RS
standard	8.0	24.0	8.0	628	S628	628-2Z	S628-2Z	628-2RS	S628-2RS
flanged	8.0	24.0	8.0	F 628	SF 628	F 628-2Z	SF 628-2Z	F 628-2RS	SF 628-2RS
standard	8.0	26.0	7.0	608/26	S608/26	608/26-2Z	S608/26-2Z	608/26-2RS	S608/26-2RS
standard	8.0	28.0	9.0	638	S638	638-2Z	S638-2Z	638-2RS	S638-2RS
standard	9.0	14.0	3.0	679	S679	-	-	-	-
standard	9.0	17.0	4.0	689	S689	-	-	-	-
flanged	9.0	17.0	4.0	F 689	SF 689	-	-	-	-
standard	9.0	17.0	5.0	-	-	689-2Z	S689-2Z	689-2RS	S689-2RS
flanged	9.0	17.0	5.0	-	-	F 689-2Z	SF 689-2Z	F 689-2RS	SF 689-2RS
standard	9.0	17.0	6.0	689W6	S689W6	689-2ZW6	S689-2ZW6	689-2RSW6	S689-2RSW6
standard	9.0	20.0	6.0	699	S699	699-2Z	S699-2Z	699-2RS	S699-2RS
flanged	9.0	20.0	6.0	F 699	SF 699	F 699-2Z	SF 699-2Z	F 699-2RS	SF 699-2RS
standard	9.0	24.0	7.0	609	S609	609-2Z	S609-2Z	609-2RS	S609-2RS
flanged	9.0	24.0	7.0	F 609	SF 609	F 609-2Z	SF 609-2Z	F 609-2RS	SF 609-2RS
standard	9.0	26.0	8.0	629	S629	629-2Z	S629-2Z	629-2RS	S629-2RS
flanged	9.0	26.0	8.0	F 629	SF 629	F 629-2Z	SF 629-2Z	F 629-2RS	SF 629-2RS

*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
3293	1379	34.0	40.0	J	< 14 g
3293	1379	34.0	40.0	J	< 15 g
3293	1379	34.0	40.0	J	< 19 g
5070	2580	30.0	36.0	J	< 20 g
3293	1379	34.0	40.0	J	< 25 g
3333	1423	28.0	34.0	J	< 18 g
3333	1423	28.0	34.0	J	< 20 g
3293	1379	34.0	40.0	J	< 28 g
4563	1983	28.0	34.0	J	< 31 g
919	468	36.0	42.0	W	< 3 g
1327	668	36.0	43.0	J	< 5 g
1327	668	36.0	43.0	J	< 5 g
1327	668	36.0	43.0	J	< 5 g
1327	668	36.0	43.0	J	< 5 g
1327	668	36.0	43.0	J	< 5 g
2467	1081	34.0	40.0	J	< 8 g
2467	1081	34.0	40.0	J	< 10 g
3356	1444	32.0	38.0	J	< 16 g
3356	1444	32.0	38.0	J	< 18 g
4575	1983	28.0	34.0	J	< 22 g
4575	1983	28.0	34.0	J	< 24 g

31

Zöllige Miniaturrillenkugellager / Miniature Inch Series



32

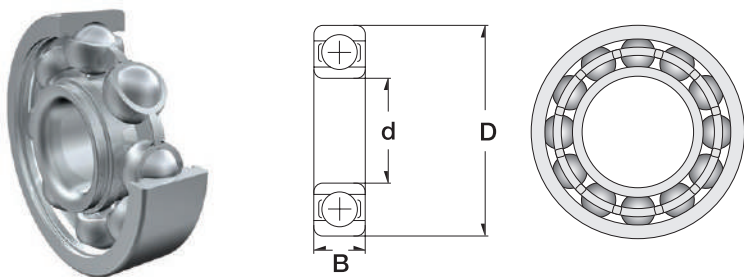
	Dimension (mm)			Dimension (inch)			Dimension (inch)		
standard or flanged	d	D	B	d	D	B	d	D	B
standard	1.984	6.350	2.380	0.0781	0.2500	0.0937	5/64	1/4	3/32
flanged	1.984	6.350	2.380	0.0781	0.2500	0.0937	5/64	1/4	3/32
standard	1.984	6.350	3.571	0.0781	0.2500	0.1406	5/64	1/4	9/64
flanged	1.984	6.350	3.571	0.0781	0.2500	0.1406	5/64	1/4	9/64
standard	2.380	4.763	1.588	0.0937	0.1875	0.0625	3/32	3/16	1/16
flanged	2.380	4.763	1.588	0.0937	0.1875	0.0625	3/32	3/16	1/16
standard	2.380	4.763	2.380	0.0937	0.1875	0.0937	3/32	3/16	3/32
flanged	2.380	4.763	2.380	0.0937	0.1875	0.0937	3/32	3/16	3/32
standard	2.380	7.938	2.779	0.0937	0.3125	0.1094	3/32	5/16	7/64
flanged	2.380	7.938	2.779	0.0937	0.3125	0.1094	3/32	5/16	7/64
standard	2.380	7.938	3.571	0.0937	0.3125	0.1406	3/32	5/16	9/64
flanged	2.380	7.938	3.571	0.0937	0.3125	0.1406	3/32	5/16	9/64
standard	3.175	6.350	2.380	0.1250	0.2500	0.0937	1/8	1/4	3/32
flanged	3.175	6.350	2.380	0.1250	0.2500	0.0937	1/8	1/4	3/32
standard	3.175	6.350	2.779	0.1250	0.2500	0.1094	1/8	1/4	7/64
flanged	3.175	6.350	2.779	0.1250	0.2500	0.1094	1/8	1/4	7/64
standard	3.175	7.938	2.779	0.1250	0.3125	0.1094	1/8	5/16	7/64
flanged	3.175	7.938	2.779	0.1250	0.3125	0.1094	1/8	5/16	7/64
standard	3.175	7.938	3.571	0.1250	0.3125	0.1406	1/8	5/16	9/64
flanged	3.175	7.938	3.571	0.1250	0.3125	0.1406	1/8	5/16	9/64
standard	3.175	9.525	2.779	0.1250	0.3750	0.1094	1/8	3/8	7/64
flanged	3.175	9.525	2.779	0.1250	0.3750	0.1094	1/8	3/8	7/64
standard	3.175	9.525	3.571	0.1250	0.3750	0.1406	1/8	3/8	9/64
flanged	3.175	9.525	3.571	0.1250	0.3750	0.1406	1/8	3/8	9/64
standard	3.175	9.525	3.967	0.1250	0.3750	0.1562	1/8	3/8	5/32
flanged	3.175	9.525	3.967	0.1250	0.3750	0.1562	1/8	3/8	5/32
standard	3.175	12.700	4.366	0.1250	0.5000	0.1719	1/8	1/2	11/64
flanged	3.175	12.700	4.366	0.1250	0.5000	0.1719	1/8	1/2	11/64
standard	3.967	7.938	2.779	0.1562	0.3125	0.1094	5/32	5/16	7/64
flanged	3.967	7.938	2.779	0.1562	0.3125	0.1094	5/32	5/16	7/64
standard	3.967	7.938	3.175	0.1562	0.3125	0.1250	5/32	5/16	1/8
flanged	3.967	7.938	3.175	0.1562	0.3125	0.1250	5/32	5/16	1/8
standard	4.763	7.938	2.779	0.1875	0.3125	0.1094	3/16	5/16	7/64
flanged	4.763	7.938	2.779	0.1875	0.3125	0.1094	3/16	5/16	7/64
standard	4.763	7.938	3.175	0.1875	0.3125	0.1250	3/16	5/16	1/8
flanged	4.763	7.938	3.175	0.1875	0.3125	0.1250	3/16	5/16	1/8
standard	4.763	9.525	3.175	0.1875	0.3750	0.1250	3/16	3/8	1/8
flanged	4.763	9.525	3.175	0.1875	0.3750	0.1250	3/16	3/8	1/8



33

Designation/Type						*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Weight (g) approx.
open		2Z		2RS/2TS						
Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless	C, dyn. N	C, stat. N	Grease	Oil	
R 1-4	SR 1-4	-	-	-	-	284	96	67.0	80.0	< 1 g
FR 1-4	SFR 1-4	-	-	-	-	284	96	67.0	80.0	< 1 g
-	-	R 1-4-2Z	SR 1-4-2Z	-	-	284	96	67.0	80.0	< 1 g
-	-	FR 1-4-2Z	SFR 1-4-2Z	-	-	284	96	67.0	80.0	< 1 g
R 133	SR 133	-	-	-	-	144	53	80.0	95.0	< 1 g
FR 133	SFR 133	-	-	-	-	144	53	80.0	95.0	< 1 g
-	-	R 133-2Z	SR 133-2Z	-	-	144	53	80.0	95.0	< 1 g
-	-	FR 133-2Z	SFR 133-2Z	-	-	144	53	80.0	95.0	< 1 g
R 1-5	SR 1-5	-	-	-	-	552	176	60.0	71.0	< 1 g
FR 1-5	SFR 1-5	-	-	-	-	552	176	60.0	71.0	< 1 g
-	-	R 1-5-2Z	SR 1-5-2Z	-	-	552	176	60.0	71.0	< 1 g
-	-	FR 1-5-2Z	SFR 1-5-2Z	-	-	552	176	60.0	71.0	< 1 g
R 144	SR 144	-	-	-	-	284	96	67.0	80.0	< 1 g
FR 144	SFR 144	-	-	-	-	284	96	67.0	80.0	< 1 g
-	-	R 144-2Z	SR 144-2Z	-	-	284	96	67.0	80.0	< 1 g
-	-	FR 144-2Z	SFR 144-2Z	-	-	284	96	67.0	80.0	< 1 g
R 2-5	SR 2-5	-	-	-	-	558	180	60.0	67.0	< 1 g
FR 2-5	SFR 2-5	-	-	-	-	558	180	60.0	67.0	< 1 g
-	-	R 2-5-2Z	SR 2-5-2Z	-	-	558	180	60.0	67.0	< 1 g
-	-	FR 2-5-2Z	SFR 2-5-2Z	-	-	558	180	60.0	67.0	< 1 g
R 2-6	SR 2-6	-	-	-	-	640	227	53.0	63.0	< 2 g
FR 2-6	SFR 2-6	-	-	-	-	640	227	53.0	63.0	< 2 g
-	-	R 2-6-2Z	SR 2-6-2Z	-	-	640	227	53.0	63.0	< 2 g
-	-	FR 2-6-2Z	SFR 2-6-2Z	-	-	640	227	53.0	63.0	< 2 g
R 2	SR 2	R 2-2Z	SR 2-2Z	R 2-2RS	SR 2-2RS	631	219	56.0	67.0	< 2 g
FR 2	SFR 2	FR 2-2Z	SFR 2-2Z	FR 2-2RS	SFR 2-2RS	631	219	56.0	67.0	< 2 g
R 2A	SR 2A	R 2A-2Z	SR 2A-2Z	R 2A-2RS	SR 2A -2RS	640	227	53.0	63.0	< 3 g
FR 2A	SFR 2A	FR 2A-2Z	SFR 2A-2Z	FR 2A-2RS	SFR 2A -2RS	640	227	53.0	63.0	< 3 g
R 155	SR 155	-	-	-	-	359	150	53.0	63.0	< 1 g
FR 155	SFR 155	-	-	-	-	359	150	53.0	63.0	< 1 g
-	-	R 155-2Z	SR 155-2Z	-	-	359	150	53.0	63.0	< 1 g
-	-	FR 155-2Z	SFR 155-2Z	-	-	359	150	53.0	63.0	< 1 g
R 156	SR 156	-	-	-	-	359	150	53.0	63.0	< 1 g
FR 156	SFR 156	-	-	-	-	359	150	53.0	63.0	< 1 g
-	-	R 156-2Z	SR 156-2Z	R 156-2TS	SR 156-2TS	359	150	53.0	63.0	< 1 g
-	-	FR 156-2Z	SFR 156-2Z	FR 156-2TS	SFR 156-2TS	359	150	53.0	63.0	< 1 g
R 166	SR 166	R 166-2Z	SR 166-2Z	R 166-2TS	SR 166-2TS	709	272	50.0	60.0	< 1 g
FR 166	SFR 166	FR 166-2Z	SFR 166-2Z	FR 166-2TS	SFR 166-2TS	709	272	50.0	60.0	< 1 g

Zöllige Miniaturrillenkugellager / Miniature Inch Series



34

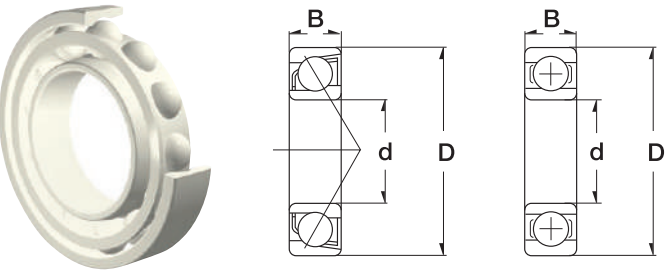
	Dimension (mm)			Dimension (inch)			Dimension (inch)		
standard or flanged	d	D	B	d	D	B	d	D	B
standard	4.763	12.700	3.967	0.1875	0.5000	0.1562	3/16	1/2	5/32
flanged	4.763	12.700	3.967	0.1875	0.5000	0.1562	3/16	1/2	5/32
standard	4.763	12.700	4.978	0.1875	0.5000	0.1960	3/16	1/2	-
flanged	4.763	12.700	4.978	0.1875	0.5000	0.1960	3/16	1/2	-
standard	4.763	15.875	4.978	0.1875	0.6250	0.1960	3/16	5/8	-
flanged	4.763	15.875	4.978	0.1875	0.6250	0.1960	3/16	5/8	-
standard	6.350	9.525	3.175	0.2500	0.3750	0.1250	1/4	3/8	1/8
flanged	6.350	9.525	3.175	0.2500	0.3750	0.1250	1/4	3/8	1/8
standard	6.350	12.700	3.175	0.2500	0.5000	0.1250	1/4	1/2	1/8
flanged	6.350	12.700	3.175	0.2500	0.5000	0.1250	1/4	1/2	1/8
standard	6.350	12.700	4.763	0.2500	0.5000	0.1875	1/4	1/2	3/16
flanged	6.350	12.700	4.763	0.2500	0.5000	0.1875	1/4	1/2	3/16
standard	6.350	15.875	4.978	0.2500	0.6250	0.1960	1/4	5/8	-
flanged	6.350	15.875	4.978	0.2500	0.6250	0.1960	1/4	5/8	-
standard	6.350	15.875	8.733	0.2500	0.6250	0.3438	1/4	5/8	11/32
standard	6.350	19.050	5.558	0.2500	0.7500	0.2188	1/4	3/4	7/32
standard	6.350	19.050	7.142	0.2500	0.7500	0.2812	1/4	3/4	9/32
standard	7.938	12.700	3.967	0.3125	0.5000	0.1562	5/16	1/2	5/32
flanged	7.938	12.700	3.967	0.3125	0.5000	0.1562	5/16	1/2	5/32
standard	9.525	22.225	5.558	0.3750	0.8750	0.2188	3/8	7/8	7/32
flanged	9.525	22.225	5.558	0.3750	0.8750	0.2188	3/8	7/8	7/32
standard	9.525	22.225	7.142	0.3750	0.8750	0.2812	3/8	7/8	9/32
flanged	9.525	22.225	7.142	0.3750	0.8750	0.2812	3/8	7/8	9/32
standard	9.525	22.225	9.525	0.3750	0.8750	0.3750	3/8	7/8	3/8



Designation/Type						*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Weight (g) approx.
open		2Z		2RS/2TS		C, dyn. N	C, stat. N	Grease	Oil	
Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless					
R 3	SR 3	R 3-2ZW.15	-	-	-	1301	488	43.0	53.0	< 3 g
FR 3	SFR 3	-	-	-	-	1301	488	43.0	53.0	< 3 g
-	-	R 3-2Z	SR 3-2Z	R 3-2RS	SR 3-2RS	1301	488	43.0	53.0	< 3 g
-	-	FR 3-2Z	SFR 3-2Z	FR 3-2RS	SFR 3-2RS	1301	488	43.0	53.0	< 5 g
R 3A	SR 3A	R 3A-2Z	SR 3A-2Z	-	-	1480	621	38.0	45.0	< 5 g
FR 3A	SFR 3A	FR 3A-2Z	SFR 3A-2Z	-	-	1480	621	38.0	45.0	< 5 g
R 168	SR 168	R 168-2Z	SR 168-2Z	R 168-2TS	SR 168-2TS	373	172	48.0	56.0	< 1 g
FR 168	SFR 168	FR 168-2Z	SFR 168-2Z	FR 168-2TS	SFR 168-2TS	373	172	48.0	56.0	< 1 g
R 188	SR 188	-	-	-	-	1082	442	40.0	50.0	< 3 g
FR 188	SFR 188	-	-	-	-	1082	442	40.0	50.0	< 3 g
-	-	R 188-2Z	SR 188-2Z	-	-	1082	442	40.0	50.0	< 3 g
-	-	FR 188-2Z	SFR 188-2Z	-	-	1082	442	40.0	50.0	< 3 g
R 4	SR 4	R 4-2Z	SR 4-2Z	R 4-2RS	SR 4-2RS	1480	621	38.0	45.0	< 5 g
FR 4	SFR 4	FR 4-2Z	SFR 4-2Z	FR 4-2RS	SFR 4-2RS	1480	621	38.0	45.0	< 5 g
-	-	WR 4-2Z	WSR 4-2Z	-	-	-	-	-	-	< 8 g
R 4A	SR 4A	-	-	-	-	2336	896	36.0	43.0	< 10 g
-	-	R 4A-2Z	SR 4A-2Z	R 4A-2RS	SR 4A-2RS	2336	896	36.0	43.0	< 10 g
-	-	R 1810-2Z	SR 1810-2Z	-	-	542	276	40.0	48.0	< 2 g
-	-	FR 1810-2Z	SFR 1810-2Z	-	-	542	276	40.0	48.0	< 2 g
R 6	SR 6	-	-	-	-	3332	1422	32.0	38.0	12 g
FR 6	SFR 6	-	-	-	-	3332	1422	32.0	38.0	12 g
-	-	R 6-2Z	SR 6-2Z	R 6-2RS	SR 6-2RS	3332	1422	32.0	38.0	12 g
-	-	FR 6-2Z	SFR 6-2Z	FR 6-2RS	SFR 6-2S	3332	1422	32.0	38.0	12 g
-	-	WR 6-2Z	WSR 6-2Z	-	-	-	-	-	-	20 g

35

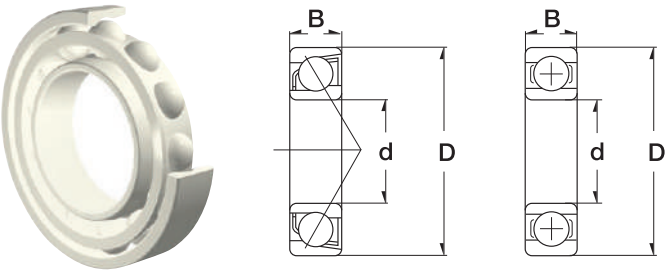
Keramiklager / Solid Ceramic Bearings



36

Dimension (mm)			Designation/Type	*Load Rating		Weight (g) approx.
d	D	B		C, dyn. N	C, stat. N	
8.0	22.0	7.0	608	1976	827	14 g
9.0	24.0	7.0	609	2014	866	16 g
8.0	24.0	8.0	628	2000	854	18 g
9.0	26.0	8.0	629	2745	1190	22 g
8.0	16.0	5.0	688	751	355	4 g
9.0	17.0	5.0	689	796	401	5 g
8.0	19.0	6.0	698	1342	550	8 g
9.0	20.0	6.0	699	1480	649	8 g
10.0	26.0	8.0	6000	2730	1182	18 g
10.0	30.0	9.0	6200	3060	1434	32 g
10.0	35.0	11.0	6300	4860	2070	52 g
12.0	28.0	8.0	6001	3060	1422	22 g
12.0	32.0	10.0	6201	4080	1830	37 g
12.0	37.0	12.0	6301	5820	2520	60 g
15.0	32.0	9.0	6002	3360	1698	31 g
15.0	35.0	11.0	6202	4590	2250	45 g
15.0	42.0	13.0	6302	6840	3270	83 g
17.0	35.0	10.0	6003	3600	1950	41 g
17.0	40.0	12.0	6203	5730	2880	67 g
17.0	47.0	14.0	6303	8160	3990	113 g
17.0	62.0	17.0	6403	13740	6480	270 g
20.0	42.0	12.0	6004	5640	3000	68 g
20.0	47.0	14.0	6204	7680	3960	107 g
20.0	52.0	15.0	6304	9540	4740	145 g

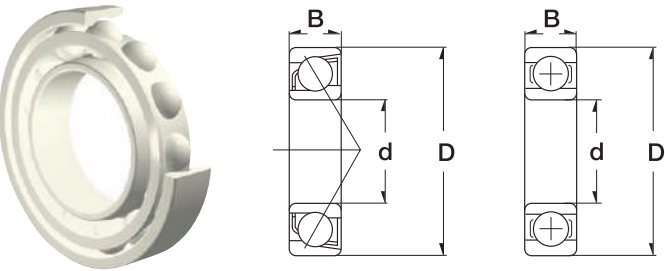
Keramiklager / Solid Ceramic Bearings



37

Dimension (mm)			Designation/Type	*Load Rating		Weight (g) approx.
d	D	B		C, dyn. N	C, stat. N	
20.0	72.0	19.0	6404	18420	9000	400 g
25.0	47.0	12.0	6005	6060	3510	79 g
25.0	52.0	15.0	6205	8400	4710	129 g
25.0	62.0	17.0	6305	12360	6720	235 g
25.0	80.0	21.0	6405	21000	11460	530 g
30.0	55.0	13.0	6006	7920	4980	116 g
30.0	62.0	16.0	6206	11700	6780	199 g
30.0	72.0	19.0	6306	16020	9000	345 g
30.0	90.0	23.0	6406	26100	14280	740 g
35.0	62.0	14.0	6007	9600	6180	151 g
35.0	72.0	17.0	6207	15420	9180	284 g
35.0	80.0	21.0	6307	20100	11520	464 g
35.0	100.0	25.0	6407	33120	18900	950 g
40.0	68.0	15.0	6008	10080	6900	190 g
40.0	80.0	18.0	6208	17460	10740	366 g
40.0	90.0	23.0	6308	24300	14400	636 g
40.0	110.0	27.0	6408	37800	21600	1250 g
10.0	19.0	5.0	6800	1030	504	5.5 g
10.0	22.0	6.0	6900	1617	764	10 g
12.0	21.0	5.0	6801	1149	625	6.3 g
12.0	24.0	6.0	6901	1732	880	11 g
15.0	24.0	5.0	6802	1244	752	7.4 g
15.0	28.0	7.0	6902	2593	1355	16 g
17.0	26.0	5.0	6803	1340	874	8.2 g

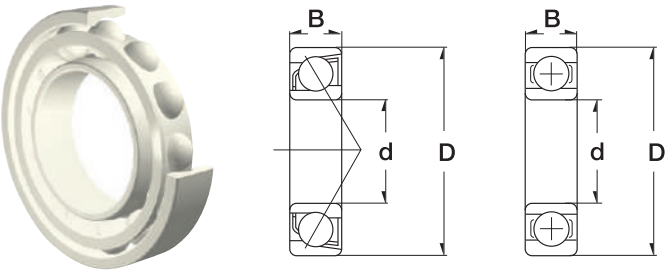
Keramiklager / Solid Ceramic Bearings



38

Dimension (mm)			Designation/Type	*Load Rating		Weight (g) approx.
d	D	B		C, dyn. N	C, stat. N	
17.0	30.0	7.0	6903	2753	1539	18 g
20.0	32.0	7.0	6804	2409	1477	18 g
20.0	37.0	9.0	6904	3829	2209	38 g
25.0	37.0	7.0	6805	2582	1759	22 g
25.0	42.0	9.0	6905	4201	2724	45 g
30.0	42.0	7.0	6806	2723	2041	27 g
30.0	47.0	9.0	6906	4345	3002	51 g
35.0	47.0	7.0	6807	2837	2293	30 g
35.0	55.0	10.0	6907	6540	4691	80 g
40.0	52.0	7.0	6808	2954	2507	34 g
10.0	26.0	8.0	7000	2268	1290	18 g
10.0	30.0	9.0	7200	3120	1530	30 g
12.0	28.0	8.0	7001	2448	1452	20 g
12.0	32.0	10.0	7201	3390	1890	35 g
15.0	32.0	9.0	7002	2880	1770	28 g
15.0	35.0	11.0	7202	4980	2580	43 g
17.0	35.0	10.0	7003	3048	1932	36 g
17.0	40.0	12.0	7203	5028	3228	62 g
20.0	42.0	12.0	7004	6300	3612	67 g
20.0	47.0	14.0	7204	8760	4920	100 g
25.0	47.0	12.0	7005	5832	3750	89 g
25.0	52.0	15.0	7205	8400	5232	146 g
30.0	55.0	13.0	7006	7500	5172	130 g
30.0	62.0	16.0	7206	11700	7500	222 g

Keramiklager / Solid Ceramic Bearings

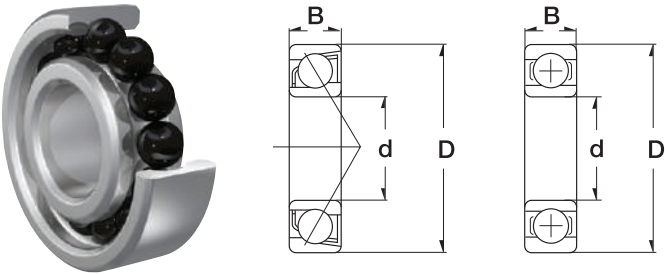


39

Dimension (mm)			Designation/Type	*Load Rating		Weight (g) approx.
d	D	B		C, dyn. N	C, stat. N	
35.0	62.0	14.0	7007	9660	6960	173 g
35.0	72.0	17.0	7207	15420	10200	318 g
40.0	68.0	15.0	7008	10260	8040	215 g
40.0	80.0	18.0	7208	19500	13620	406 g
45.0	75.0	16.0	7009	12720	10140	271 g
45.0	85.0	19.0	7209	20340	14940	467 g
50.0	80.0	16.0	7010	14040	11400	288 g
50.0	90.0	20.0	7210	21420	16020	521 g

Dimension (mm)				Designation/Type	*Load Rating	
d	D	B1	B2		C, dyn. N	C, stat. N
12.00	47.00	17.00	31.00	UC 201	7500	4500
15.00	47.00	17.00	31.00	UC 202	7500	4500
17.00	47.00	17.00	31.00	UC 203	7500	4500
20.00	47.00	17.00	31.00	UC 204	10000	6300
25.00	52.00	17.00	34.10	UC 205	11000	7100
30.00	62.00	19.00	38.10	UC 206	15200	10200
35.00	72.00	20.00	42.90	UC 207	20100	18100

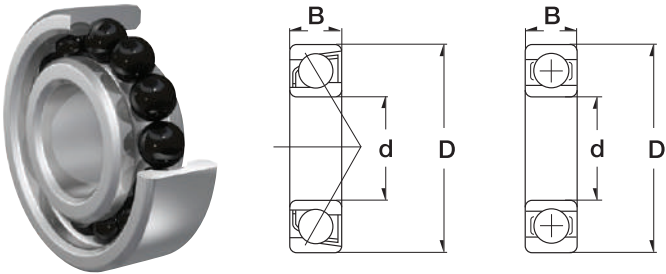
Hybridkugellager / Hybid Bearings



40

Dimension (mm)			Designation/Type	*Load Rating		Weight (g) approx.
d	D	B		C, dyn. N	C, stat. N	
3.0	7.0	2.0	HYB 683	187	67	1 g
3.0	8.0	3.0	HYB 693	335	108	1 g
4.0	8.0	2.0	HYB MR 84	237	85	1 g
4.0	9.0	2.5	HYB 684	385	136	2 g
4.0	10.0	3.0	HYB MR 104	427	163	2 g
4.0	11.0	4.0	HYB 694	574	210	2 g
5.0	8.0	2.0	HYB MR 85	131	54	1 g
5.0	10.0	3.0	HYB MR 105	259	101	2 g
5.0	11.0	3.0	HYB 685	430	169	2 g
5.0	11.0	4.0	HYB MR 115	430	169	1 g
5.0	13.0	4.0	HYB 695	646	259	3 g
6.0	10.0	2.5	HYB MR 106	298	131	1 g
6.0	12.0	3.0	HYB MR 126	430	177	2 g
6.0	13.0	3.5	HYB 686	649	265	3 g
6.0	15.0	5.0	HYB 696	804	314	4 g
7.0	14.0	3.5	HYB 687	704	308	4 g
7.0	17.0	5.0	HYB 697	963	431	6 g
8.0	12.0	2.5	HYB MR 128	326	164	1 g
8.0	14.0	3.5	HYB MR 148	490	232	3 g
8.0	16.0	4.0	HYB 688	751	355	4 g
8.0	19.0	6.0	HYB 698	1342	550	8 g
2.38	4.763	1.588	HYB R 133	86	32	1 g
3.175	6.35	2.38	HYB R 144	170	58	1 g
3.175	7.938	2.779	HYB R 2-5	335	108	1 g

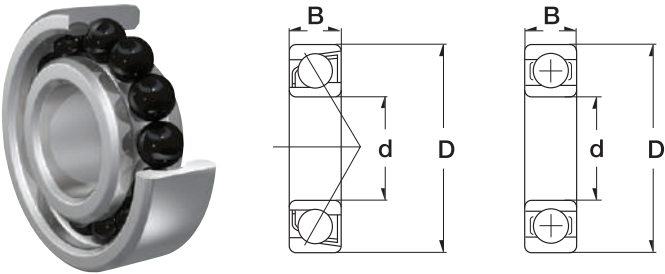
Hybridkugellager / Hybid Bearings



41

Dimension (mm)			Designation/Type	*Load Rating		Weight (g) approx.
d	D	B		C, dyn. N	C, stat. N	
3.175	9.525	3.967	HYB R 2	379	131	2 g
3.967	7.938	2.779	HYB R 155	215	90	1 g
4.763	9.525	3.175	HYB R 166	425	163	1 g
4.763	12.7	3.967	HYB R 3	781	293	3 g
6.35	9.525	3.175	HYB R 168	224	103	1 g
6.35	12.7	3.175	HYB R 188	649	265	3 g
6.35	15.875	4.978	HYB R 4	888	373	5 g
9.525	22.225	5.558	HYB R 6	1994	853	12 g
8.0	22.0	7.0	HYB 608	1976	827	14 g
9.0	24.0	7.0	HYB 609	2014	866	16 g
8.0	24.0	8.0	HYB 628	2000	854	18 g
9.0	26.0	8.0	HYB 629	2745	1190	22 g
8.0	16.0	5.0	HYB 688	751	355	4 g
9.0	17.0	5.0	HYB 689	796	401	5 g
8.0	19.0	6.0	HYB 698	1342	550	8 g
9.0	20.0	6.0	HYB 699	1480	649	8 g
10.0	26.0	8.0	HYB 6000	2730	1182	18 g
10.0	30.0	9.0	HYB 6200	3060	1434	32 g
10.0	35.0	11.0	HYB 6300	4860	2070	52 g
12.0	28.0	8.0	HYB 6001	3060	1422	22 g
12.0	32.0	10.0	HYB 6201	4080	1830	37 g
12.0	37.0	12.0	HYB 6301	5820	2520	60 g
15.0	32.0	9.0	HYB 6002	3360	1698	31 g

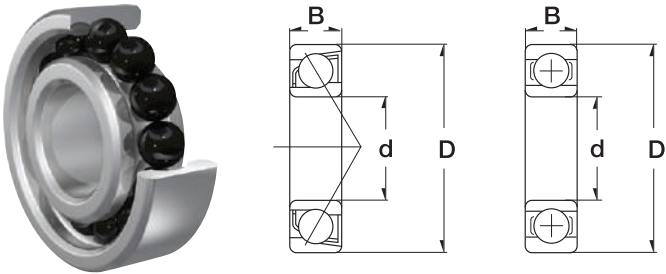
Hybridkugellager / Hybid Bearings



42

Dimension (mm)			Designation/Type	*Load Rating		Weight (g) approx.
d	D	B		C, dyn. N	C, stat. N	
15.0	35.0	11.0	HYB 6202	4590	2250	45 g
15.0	42.0	13.0	HYB 6302	6840	3270	83 g
17.0	35.0	10.0	HYB 6003	3600	1950	41 g
17.0	40.0	12.0	HYB 6203	5730	2880	67 g
17.0	47.0	14.0	HYB 6303	8160	3990	113 g
17.0	62.0	17.0	HYB 6403	13740	6480	270 g
20.0	42.0	12.0	HYB 6004	5640	3000	68 g
20.0	47.0	14.0	HYB 6204	7680	3960	107 g
20.0	52.0	15.0	HYB 6304	9540	4740	145 g
20.0	72.0	19.0	HYB 6404	18420	9000	400 g
25.0	47.0	12.0	HYB 6005	6060	3510	79 g
25.0	52.0	15.0	HYB 6205	840	4710	129 g
25.0	62.0	17.0	HYB 6305	12360	6720	235 g
25.0	80.0	21.0	HYB 6405	21000	11460	530 g
30.0	55.0	13.0	HYB 6006	7920	4980	116 g
30.0	62.0	16.0	HYB 6206	11700	6780	199 g
30.0	72.0	19.0	HYB 6306	16020	9000	345 g
30.0	90.0	23.0	HYB 6406	26100	14280	740 g
35.0	62.0	14.0	HYB 6007	9600	6180	151 g
35.0	72.0	17.0	HYB 6207	15420	9180	284 g
35.0	80.0	21.0	HYB 6307	20100	11520	464 g
35.0	100.0	25.0	HYB 6407	33120	18900	950 g
40.0	68.0	15.0	HYB 6008	10080	6900	190 g
40.0	80.0	18.0	HYB 6208	17460	10740	366 g

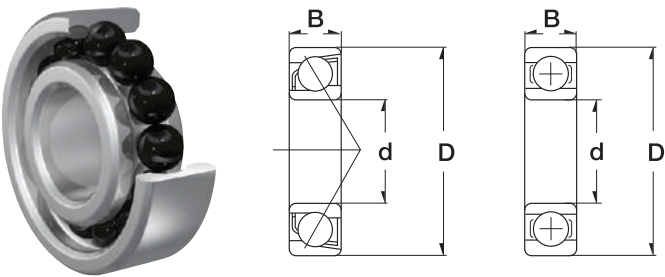
Hybridkugellager / Hybid Bearings



43

Dimension (mm)			Designation/Type	*Load Rating		Weight (g) approx.
d	D	B		C, dyn. N	C, stat. N	
40.0	90.0	23.0	HYB 6308	24300	14400	636 g
40.0	110.0	27.0	HYB 6408	37800	21600	1250 g
10.0	19.0	5.0	HYB 6800	1030	504	5.5 g
10.0	22.0	6.0	HYB 6900	1617	764	10 g
12.0	21.0	5.0	HYB 6801	1149	625	6.3 g
12.0	24.0	6.0	HYB 6901	1732	880	11 g
15.0	24.0	5.0	HYB 6802	1244	752	7.4 g
15.0	28.0	7.0	HYB 6902	2593	1355	16 g
17.0	26.0	5.0	HYB 6803	1340	874	8.2 g
17.0	30.0	7.0	HYB 6903	2753	1539	18 g
20.0	32.0	7.0	HYB 6804	2409	1477	18 g
20.0	37.0	9.0	HYB 6904	3829	2209	38 g
25.0	37.0	7.0	HYB 6805	2582	1759	22 g
25.0	42.0	9.0	HYB 6905	4201	2724	45 g
30.0	42.0	7.0	HYB 6806	2723	2041	27 g
30.0	47.0	9.0	HYB 6906	4345	3002	51 g
35.0	47.0	7.0	HYB 6807	2837	2293	30 g
35.0	55.0	10.0	HYB 6907	6540	4691	80 g
40.0	52.0	7.0	HYB 6808	2954	2507	34 g
10.0	26.0	8.0	HYB 7000	2268	1290	18 g
10.0	30.0	9.0	HYB 7200	3120	1530	30 g
12.0	28.0	8.0	HYB 7001	2448	1452	20 g
12.0	32.0	10.0	HYB 7201	3390	1890	35 g

Hybridkugellager / Hybid Bearings



44

Dimension (mm)			Designation/Type	*Load Rating		Weight (g) approx.
d	D	B		C, dyn. N	C, stat. N	
15.0	32.0	9.0	HYB 7002	2880	1770	28 g
15.0	35.0	11.0	HYB 7202	4980	2580	43 g
17.0	35.0	10.0	HYB 7003	3048	1932	36 g
17.0	40.0	12.0	HYB 7203	5028	3228	62 g
20.0	42.0	12.0	HYB 7004	6300	3612	67 g
20.0	47.0	14.0	HYB 7204	8760	4920	100 g
25.0	47.0	12.0	HYB 7005	5832	3750	89 g
25.0	52.0	15.0	HYB 7205	8400	5232	146 g
30.0	55.0	13.0	HYB 7006	7500	5172	130 g
30.0	62.0	16.0	HYB 7206	11700	7500	222 g
35.0	62.0	14.0	HYB 7007	9660	6960	173 g
35.0	72.0	17.0	HYB 7207	15420	10200	318 g
40.0	68.0	15.0	HYB 7008	10260	8040	215 g
40.0	80.0	18.0	HYB 7208	19500	13620	406 g
45.0	75.0	16.0	HYB 7009	12720	10140	271 g
45.0	85.0	19.0	HYB 7209	20340	14940	467 g
50.0	80.0	16.0	HYB 7010	14040	11400	288 g
50.0	90.0	20.0	HYB 7210	21420	16020	521 g



Produktfokus / Product focus



Keramiklager
Solid Ceramic Bearings



- ✓ Spannungsisolierte Elektromotoren
Voltage isolated electrical motors
- ✓ Gasturbinen
Gas turbine engines
- ✓ Anwendungen in chemisch aggressiven Medien
Chemically resistant applications
- ✓ Anwendungen in nassen Medien
Wet environments
- ✓ Vakuumpumpen
Vacuum process equipment
- ✓ Elektrische Ausrüstungen
Electro equipment
- ✓ Öfen
Furnaces

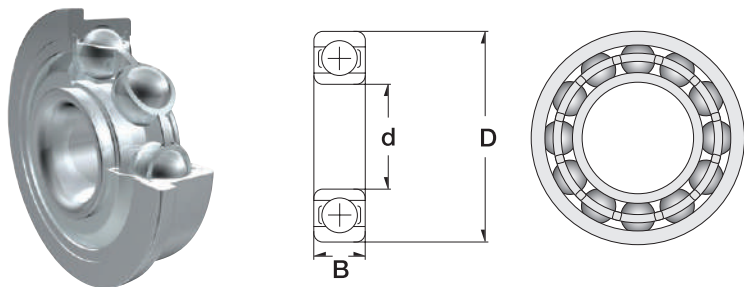
Vollkeramische Lager können noch dort verwendet werden, wo herkömmliche Lager nicht mehr eingesetzt werden können. Keramik ist extrem korrosionsbeständig, nicht magnetisch, nicht leitend und hitzebeständig.

Full Ceramic bearings are normally used in extreme operating environments where standard bearings fail.

The advantage of solid Ceramic Bearings is that they are corrosion resistant, non magnetic, non conductive and can withstand extreme heat.

SIEHE SEITE 36 / SEE PAGE 36

Zöllige Rillenkugellager / Inch Series



46

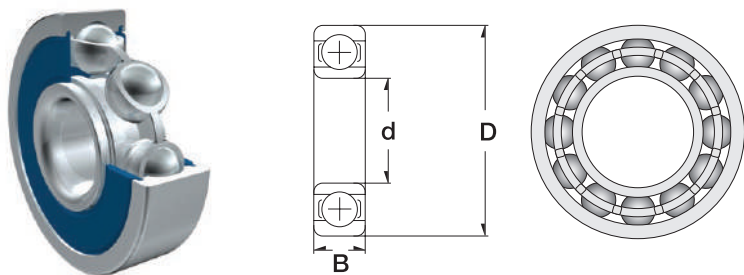
	Dimension (mm)			Dimension (inch)			Dimension (inch)		
	d	D	B	d	D	B	d	D	B
standard	12.700	19.050	3.967	0.5000	0.7500	0.1562	1/2	3/4	5/32
standard	12.700	28.575	6.350	0.5000	1.1250	0.2500	1/2	1 1/8	1/4
standard	12.700	28.575	7.938	0.5000	1.1250	0.3125	1/2	1 1/8	5/16
flanged	12.700	28.575	7.938	0.5000	1.1250	0.3125	1/2	1 1/8	5/16
standard	12.700	33.338	9.525	0.5000	1.3125	0.3750	1/2	1 5/16	3/8
standard	15.875	22.225	3.967	0.6250	0.8750	0.1562	5/8	7/8	5/32
standard	15.875	34.925	7.142	0.6250	1.3750	0.2812	5/8	1 3/8	9/32
standard	15.875	34.925	8.733	0.6250	1.3750	0.3438	5/8	1 3/8	11/32
standard	15.875	39.688	11.113	0.6250	1.5625	0.4375	5/8	1 9/16	7/16
standard	19.050	25.400	3.967	0.7500	1.0000	0.1562	3/4	1	5/32
standard	19.050	41.275	7.938	0.7500	1.6250	0.3125	3/4	1 5/8	5/16
standard	19.050	41.275	11.113	0.7500	1.6250	0.4375	3/4	1 5/8	7/16
standard	19.050	47.625	14.288	0.7500	1.8750	0.5625	3/4	1 7/8	9/16
standard	22.225	47.625	9.525	0.8750	1.8750	0.3750	7/8	1 7/8	3/8
standard	22.225	47.625	12.700	0.8750	1.8750	0.5000	7/8	1 7/8	1/2
standard	22.225	50.800	14.288	0.8750	2.0000	0.5625	7/8	2	9/16
standard	25.400	50.800	9.525	1.0000	2.0000	0.3750	1	2	3/8
standard	25.400	50.800	12.700	1.0000	2.0000	0.5000	1	2	1/2
standard	25.400	57.150	15.875	1.0000	2.2500	0.6250	1	2 1/4	5/8
standard	28.575	53.975	9.500	1.1250	2.1250	0.3740	1 1/8	2 1/8	3/8
standard	28.575	53.975	12.700	1.1250	2.1250	0.5000	1 1/8	2 1/8	1/2
standard	28.575	63.500	15.875	1.1250	2.5000	0.6250	1 1/8	2 1/5	5/8
standard	31.750	57.150	9.525	1.2500	2.2500	0.3750	1 1/4	2 1/4	3/8
standard	31.750	57.150	12.700	1.2500	2.2500	0.5000	1 1/4	2 1/4	1/2
standard	31.750	69.850	17.463	1.2500	2.7500	0.6875	1 1/4	2 3/4	11/16
standard	34.925	63.500	11.113	1.3750	2.5000	0.4375	1 3/8	2 1/2	7/16
standard	34.925	63.500	14.288	1.3750	2.5000	0.5625	1 3/8	2 1/2	9/16
standard	38.100	82.550	19.050	1.5000	3.2500	0.7500	1 1/2	3 1/4	3/4



Designation/Type						*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Weight (g) approx.
open		2Z		2RS/2TS						
Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless	C, dyn. N	C, stat. N	Grease	Oil	
-	-	R 1212-2Z	SR 1212-2Z	-	-	9400	5500	24.0	-	5 g
R 8	SR 8	-	-	-	-	5108	2413	27.0	32.0	25 g
-	-	R 8-2Z	SR 8-2Z	R 8-2RS	SR 8-2RS	5108	2413	27.0	32.0	25 g
-	-	FR 8-2Z	SFR 8-2Z	-	-	5108	2413	27.0	32.0	25 g
RLS 4	SRLS 4	RLS 4-2Z	-	RLS 4-2RS	SRLS 4-2RS	6950	3220	21.0	28.5	37 g
-	-	RI 1458-2Z	SRI 1458-2Z	-	-	9900	6300	20.0	-	7 g
R 10	-	-	-	-	-	5988	3287	21.0	25.0	38 g
-	-	R 10-2Z	SR 10-2Z	R 10-2RS	SR 10-2RS	5988	3287	21.0	25.0	40 g
RLS 5	SRLS 5	RLS 5-2Z	-	RLS 5-2RS	SRLS 5-2RS	10900	5250	18.0	-	67 g
-	-	R 1634-2Z	SR 1634-2Z	-	-	10300	7000	17.0	21.0	9 g
R 12	-	-	-	-	-	9378	5057	17.0	21.0	65 g
-	-	R 12-2Z	SR 12-2Z	R 12-2RS	SR 12-2RS	9378	5057	17.0	21.0	70 g
RLS 6	SRLS 6	RLS 6-2Z	-	RLS 6-2RS	SRLS 6-2RS	14200	6700	15.5	-	109 g
R 14	-	-	-	-	-	12000	6400	15.0	-	78 g
-	-	R 14-2Z	SR 14-2Z	R 14-2RS	SR 14-2RS	12000	6400	15.0	-	102 g
RLS 7	-	RLS 7-2Z	-	RLS 7-2RS	-	14400	7000	14.3	-	116 g
R 16	-	-	-	-	-	11800	7200	13.6	-	85 g
-	-	R 16-2Z	SR 16-2Z	R 16-2RS	SR 16-2RS	11800	7200	13.6	-	112 g
RLS 8	SRLS 8	RLS 8-2Z	-	RLS 8-2RS	SRLS 8-2RS	-	-	-	-	174 g
R 18	-	-	-	-	-	11700	7300	13.0	-	88 g
-	-	R 18-2Z	-	R 18-2RS	-	11700	7300	13.0	-	118 g
RLS 9	-	RLS 9-2Z	-	RLS 9-2RS	-	22000	11300	11.7	-	219 g
R 20	-	-	-	-	-	12800	8700	12.0	-	96 g
-	-	R 20-2Z	-	R 20-2RS	-	12800	8700	12.0	-	128 g
RLS 10	SRLS 10	RLS 10-2Z	-	RLS 10-2RS	SRLS 10-2RS	27700	15000	10.6	-	310 g
R 22	-	-	-	-	-	14400	9360	11.1	-	134 g
-	-	R 22-2Z	-	R 22-2RS	-	14400	9360	11.1	-	162 g
RLS 12	SRLS 12	-	-	RLS 12-2RS	SRLS 12-2RS	30200	17500	9.8	-	512 g

47

Zöllige Radialrillenkugellager (Sondergrössen) / Commercial Inch Series



48

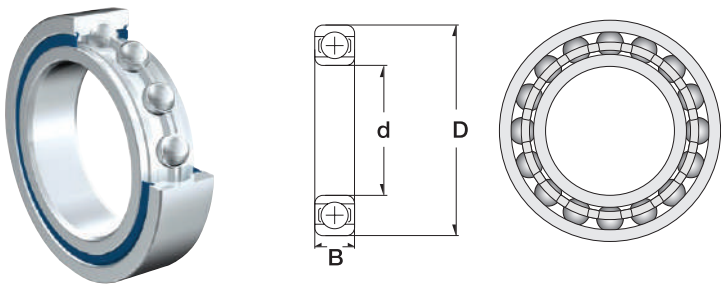
Dimension (mm)			Dimension (inch)			Dimension (inch)		
d	D	B	d	D	B	d	D	B
4.762	17.462	6.350	0.188	0.688	0.250	3/16	11/16	1/4
4.762	17.462	7.937	0.188	0.688	0.313	3/16	11/16	5/16
6.350	17.462	6.350	0.250	0.688	0.250	1/4	11/16	1/4
6.350	17.462	7.937	0.250	0.688	0.313	1/4	11/16	5/16
7.937	22.225	7.143	0.313	0.875	0.281	5/16	7/8	9/32
7.937	22.225	8.731	0.313	0.875	0.344	5/16	7/8	11/32
9.525	22.225	7.143	0.375	0.875	0.281	3/8	7/8	9/32
9.525	22.225	8.731	0.375	0.875	0.344	3/8	7/8	11/32
7.937	23.018	7.937	0.313	0.906	0.313	5/16	29/32	5/16
9.525	23.018	7.937	0.375	0.906	0.313	3/8	29/32	5/16
11.112	23.018	7.937	0.438	0.906	0.313	7/16	29/32	5/16
9.525	28.575	9.525	0.375	1.125	0.375	3/8	1 1/8	3/8
11.112	28.575	9.525	0.438	1.125	0.375	7/16	1 1/8	3/8
12.700	28.575	9.525	0.500	1.125	0.375	1/2	1 1/8	3/8
11.112	34.925	11.112	0.438	1.375	0.438	7/16	1 3/8	7/16
12.700	34.925	11.112	0.500	1.375	0.438	1/2	1 3/8	7/16
14.287	34.925	11.112	0.563	1.375	0.438	9/16	1 3/8	7/16
15.875	34.925	11.112	0.625	1.375	0.438	5/8	1 3/8	7/16
15.875	41.275	12.700	0.625	1.625	0.500	5/8	1 5/8	1/2
19.050	44.450	12.700	0.750	1.750	0.500	3/4	1 3/4	1/2
22.225	50.800	14.287	0.875	2.000	0.563	7/8	2	9/16



49

Designation/Type				*Load Rating (only 100 Cr6)		Weight (g) approx.
2Z		2RS		C, dyn. N	C, stat. N	
Chrome Steel	Stainless	Chrome Steel	Stainless			
1601-2Z	S1601-2Z			1308	650	5 g
		1601-2RS	S1601-2RS	1308	650	5 g
1602-2Z	S1602-2Z			1308	650	6 g
		1602-2RS	S1602-2RS	1308	650	6 g
1603-2Z	S1603-2Z			2065	1014	9 g
		1603-2RS	S1603-2RS	2065	1014	9 g
1604-2Z	S1604-2Z			2065	1014	8 g
		1604-2RS	S1604-2RS	2065	1014	8 g
1605-2Z	S1605-2Z	1605-2RS	S1605-2RS	2065	1014	16 g
1606-2Z	S1606-2Z	1606-2RS	S1606-2RS	2065	1014	21 g
1607-2Z	S1607-2Z	1607-2RS	S1607-2RS	1780	1020	22 g
1614-2Z	S1614-2Z	1614-2RS	S1614-2RS	1780	1020	35 g
1615-2Z	S1615-2Z	1615-2RS	S1615-2RS	1780	1020	32 g
1616-2Z	S1616-2Z	1616-2RS	S1616-2RS	1780	1020	29 g
1620-2Z	S1620-2Z	1620-2RS	S1620-2RS	2670	1575	45 g
1621-2Z	S1621-2Z	1621-2RS	S1621-2RS	2670	1575	50 g
1622-2Z	S1622-2Z	1622-2RS	S1622-2RS	2670	1575	46 g
1623-2Z	S1623-2Z	1623-2RS	S1623-2RS	2670	1575	40 g
1628-2Z	S1628-2Z	1628-2RS	S1628-2RS	3284	2020	72 g
1635-2Z	S1635-2Z	1635-2RS	S1635-2RS	3284	2020	84 g
1640-2Z	S1640-2Z	1640-2RS	S1640-2RS	4895	3155	111 g

Dünnringlager / Thin Section Series



50

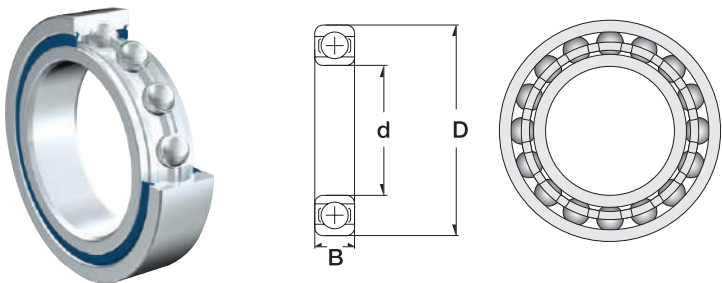
standard or flanged	Dimension (mm)			Designation/Type					
	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	10.0	15.0	3.0	61700	S61700	-	-	-	-
flanged	10.0	15.0	3.0	F 61700	SF 61700	-	-	-	-
standard	10.0	15.0	4.0	-	-	61700-2Z	S61700-2Z	61700-2RS	S61700-2RS
flanged	10.0	15.0	4.0	-	-	F 61700-2Z	SF 61700-2Z	F 61700-2RS	SF 61700-2RS
standard	10.0	19.0	5.0	61800	S61800	61800-2Z	S61800-2Z	61800-2RS	S61800-2RS
flanged	10.0	19.0	5.0	F 61800	SF 61800	F 61800-2Z	SF 61800-2Z	F 61800-2RS	SF 61800-2RS
standard	10.0	19.0	6.0	62800	-	62800-2Z	-	62800-2RS	-
standard	10.0	19.0	7.0	63800	S63800	63800-2Z	S63800-2Z	63800-2RS	-
flanged	10.0	19.0	7.0	F 63800	SF 63800	F 63800-2Z	SF 63800-2Z	-	-
standard	10.0	22.0	6.0	61900	S61900	61900-2Z	S61900-2Z	61900-2RS	S61900-2RS
flanged	10.0	22.0	6.0	F 61900	SF 61900	F 61900-2Z	SF 61900-2Z	F 61900-2RS	SF 61900-2RS
standard	11.0	22.0	6.0	-	-	619/11-2Z	-	-	-
standard	12.0	18.0	4.0	61701	S61701	61701-2Z	S61701-2Z	61701-2RS	S61701-2RS
flanged	12.0	18.0	4.0	F 61701	SF 61701	F 61701-2Z	SF 61701-2Z	F 61701-2RS	SF 61701-2RS
standard	12.0	21.0	5.0	61801	S61801	61801-2Z	S61801-2Z	61801-2RS	S61801-2RS
flanged	12.0	21.0	5.0	F 61801	SF 61801	F 61801-2Z	SF 61801-2Z	F 61801-2RS	SF 61801-2RS
standard	12.0	21.0	6.0	62801	-	62801-2Z	-	62801-2RS	-
standard	12.0	21.0	7.0	63801	-	63801-2Z	-	63801-2RS	-
standard	12.0	24.0	6.0	61901	S61901	61901-2Z	S61901-2Z	61901-2RS	S61901-2RS
flanged	12.0	24.0	6.0	F 61901	SF 61901	F 61901-2Z	SF 61901-2Z	F 61901-2RS	SF 61901-2RS
standard	12.0	24.0	6.0	61901.T9H	-	-	-	-	-
standard	13.0	24.0	6.0	619/13	-	-	-	-	-
standard	13.0	24.0	6.0	619/13.TNH	-	-	-	-	-
standard	15.0	21.0	4.0	61702	S61702	61702-2Z	S61702-2Z	61702-2RS	S61702-2RS
flanged	15.0	21.0	4.0	F 61702	SF 61702	F 61702-2Z	SF 61702-2Z	F 61702-2RS	SF 61702-2RS
standard	15.0	24.0	5.0	61802	S61802	61802-2Z	S61802-2Z	61802-2RS	S61802-2RS
flanged	15.0	24.0	5.0	F61802	SF 61802	F 61802-2Z	SF 61802-2Z	F 61802-2RS	SF 61802-2RS
standard	15.0	24.0	7.0	63802	-	63802-2Z	-	63802-2RS	-
standard	15.0	28.0	7.0	61902	S61902	61902-2Z	S61902-2Z	61902-2RS	S61902-2RS
flanged	15.0	28.0	7.0	F 61902	SF 61902	F 61902-2Z	SF 61902-2Z	F 61902-2RS	SF 61902-2RS

Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3
Weitere Abmessungen auf Anfrage / Non-standard sizes on request

*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
855	435	15.0	17.0	W	< 2 g
855	435	15.0	17.0	W	< 2 g
855	435	15.0	17.0	W	< 2 g
855	435	15.0	17.0	W	< 2 g
1716	840	37.0	43.0	J	< 6 g
1716	840	37.0	43.0	J	< 6 g
-	-	-	-	J	< 7 g
1716	840	37.0	43.0	J	< 8 g
1716	840	37.0	43.0	J	< 8 g
2695	1273	34.0	41.0	J	10 g
2695	1273	34.0	41.0	J	11 g
-	-	-	-	J	14 g
926	530	13.0	15.0	W	< 4 g
926	530	13.0	15.0	W	< 4 g
1915	1041	33.0	39.0	J	< 7 g
1915	1041	33.0	39.0	J	< 9 g
-	-	-	-	J	< 9 g
1915	1041	33.0	39.0	J	10 g
2886	1466	31.0	36.0	J	10 g
2886	1466	31.0	36.0	J	12 g
2886	1466	31.0	36.0	J	10 g
2886	1466	31.0	36.0	J	10 g
2886	1466	31.0	36.0	J	10 g
937	582	11.0	13.0	W	< 4 g
937	582	11.0	13.0	W	< 4 g
2073	1253	28.0	33.0	J	< 9 g
2073	1253	28.0	33.0	J	10 g
2073	1253	28.0	33.0	J	11 g
4321	2259	26.0	30.0	J	15 g
4321	2259	26.0	30.0	J	18 g

51

Dünnringlager / Thin Section Series



52

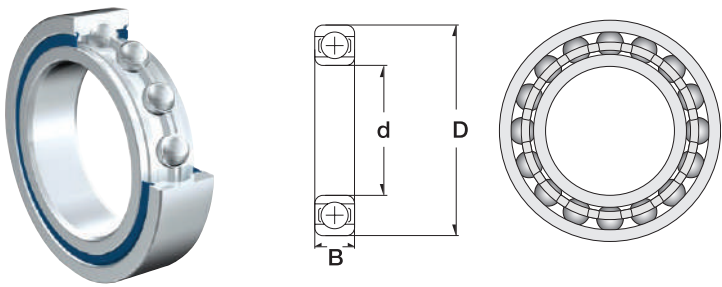
standard or flanged	Dimension (mm)			Designation/Type					
	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	17.0	23.0	4.0	61703	S61703	61703-2Z	S61703-2Z	61703-2RS	S61703-2RS
flanged	17.0	23.0	4.0	F 61703	SF 61703	F 61703-2Z	SF 61703-2Z	F 61703-2RS	SF 61703-2RS
standard	17.0	26.0	5.0	61803	S61803	61803-2Z	S61803-2Z	61803-2RS	S61803-2RS
flanged	17.0	26.0	5.0	F 61803	SF 61803	F 61803-2Z	SF 61803-2Z	F 61803-2RS	SF 61803-2RS
standard	17.0	26.0	7.0	-	-	63803-2Z	-	63803-2RS	-
standard	17.0	30.0	7.0	61903	S61903	61903-2Z	S61903-2Z	61903-2RS	S61903-2RS
flanged	17.0	30.0	7.0	F 61903	SF 61903	F 61903-2Z	SF 61903-2Z	F 61903-2RS	SF 61903-2RS
standard	17.0	32.0	8.0	-	-	Y 17-2Z	-	-	-
standard	17.0	32.0	8.0	Y 17.C3	-	-	-	-	-
standard	20.0	27.0	4.0	61704	S61704	61704-2Z	S61704-2RS	61704-2Z	S61704-2RS
flanged	20.0	27.0	4.0	F 61704	SF 61704	F 61704-2Z	SF 61704-2RS	F 61704-2Z	SF 61704-2RS
standard	20.0	32.0	7.0	61804	S61804	61804-2Z	S61804-2Z	61804-2RS	S61804-2RS
flanged	20.0	32.0	7.0	F 61804	SF 61804	F 61804-2Z	SF 61804-2Z	F 61804-2RS	SF 61804-2RS
standard	20.0	37.0	9.0	61904	S61904	61904-2Z	S61904-2Z	61904-2RS	S61904-2RS
flanged	20.0	37.0	9.0	F 61904	SF 61904	F 61904-2Z	SF 61904-2Z	F 61904-2RS	SF 61904-2RS
standard	25.0	32.0	4.0	61705	S61705	61705-2Z	S61705-2Z	61705-2RS	S61705-2RS
flanged	25.0	32.0	4.0	F 61705	SF 61705	F 61705-2Z	SF 61705-2Z	F 61705-2RS	SF 61705-2RS
standard	25.0	37.0	7.0	61805	S61805	61805-2Z	S61805-2Z	61805-2RS	S61805-2RS
flanged	25.0	37.0	7.0	F 61805	SF 61805	F 61805-2Z	SF 61805-2Z	F 61805-2RS	SF 61805-2RS
standard	25.0	42.0	9.0	61905	S61905	61905-2Z	S61905-2Z	61905-2RS	S61905-2RS
flanged	25.0	42.0	9.0	F 61905	SF 61905	F 61905-2Z	SF 61905-2Z	F 61905-2RS	SF 61905-2RS
standard	30.0	37.0	4.0	61706	S61706	61706-2Z	S61706-2Z	61706-2RS	S61706-2RS
flanged	30.0	37.0	4.0	F 61706	SF 61706	F 61706-2Z	SF 61706-2Z	F 61706-2RS	SF 61706-2RS
standard	30.0	42.0	7.0	61806	S61806	61806-2Z	S61806-2Z	61806-2RS	S61806-2RS
flanged	30.0	42.0	7.0	F 61806	SF 61806	F 61806-2Z	SF 61806-2Z	F 61806-2RS	SF 61806-2RS
standard	30.0	47.0	9.0	61906	S61906	61906-2Z	S61906-2Z	61906-2RS	S61906-2RS
flanged	30.0	47.0	9.0	F 61906	SF 61906	F 61906-2Z	SF 61906-2Z	F 61906-2RS	SF 61906-2RS
standard	35.0	44.0	5.0	61707	-	61707-2Z	-	61707-2RS	-
standard	35.0	47.0	7.0	61807	S61807	61807-2Z	-	61807-2RS	S61807-2RS
standard	35.0	55.0	10.0	61907	S61907	61907-2Z	-	61907-2RS	S61907-2RS
standard	40.0	50.0	6.0	61708	S61708	61708-2Z	-	61708-2RS	S61708-2RS

Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3

53

*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
1000	658	9.5	11.0	W	< 5 g
1000	658	9.5	11.0	W	< 5 g
2233	1456	26.0	30.0	J	< 9 g
2233	1456	26.0	30.0	J	10 g
2233	1456	26.0	30.0	J	11 g
4588	2565	23.0	38.0	J	10 g
4588	2565	23.0	38.0	J	12 g
-	-	-	-	J	14 g
-	-	-	-	J	14 g
1402	729	8.5	10.0	W	< 6 g
1402	729	8.5	10.0	W	< 6 g
4015	2462	21.0	25.0	J	18 g
4015	2462	21.0	25.0	J	20 g
6381	3682	19.0	23.0	J	40 g
6381	3682	19.0	23.0	J	43 g
1091	838	7.0	8.0	W	< 8 g
1091	838	7.0	8.0	W	< 8 g
4303	2932	18.0	21.0	J	24 g
4303	2932	18.0	21.0	J	27 g
7001	4540	16.0	19.0	J	47 g
7001	4540	16.0	19.0	J	47 g
1143	947	5.5	7.0	W	< 9 g
1143	947	5.5	7.0	W	< 9 g
4538	3402	15.0	18.0	J	27 g
4538	3402	15.0	18.0	J	29 g
7242	5003	14.0	17.0	J	53 g
7242	5003	14.0	17.0	J	57 g
1866	1635	4.9	6.0	W	15 g
4729	3821	13.0	16.0	J	32 g
10900	7818	12.0	14.0	W	88 g
2516	2233	4.3	5.0	J	23 g

Dünnringlager / Thin Section Series



54

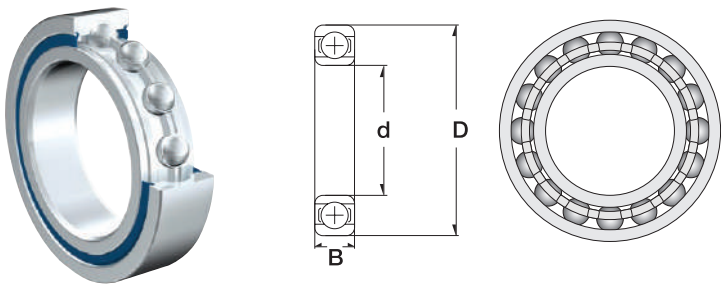
standard or flanged	Dimension (mm)			Designation/Type					
	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	40.0	52.0	7.0	61808	S61808	61808-2Z	-	61808-2RS	S61808-2RS
standard	40.0	62.0	12.0	61908	S61908	61908-2Z	-	61908-2RS	S61908-2RS
standard	45.0	55.0	6.0	61709	S61709	61709-2Z	-	61709-2RS	S61709-2RS
standard	45.0	58.0	7.0	61809	S61809	61809-2Z	-	61809-2RS	S61809-2RS
standard	45.0	68.0	12.0	61909	S61909	61909-2Z	-	61909-2RS	S61909-2RS
standard	50.0	65.0	7.0	61810	S61810	61810-2Z	-	61810-2RS	S61810-2RS
standard	50.0	72.0	12.0	61910	S61910	61910-2Z	-	61910-2RS	S61910-2RS
standard	55.0	72.0	9.0	61811	S61811	61811-2Z	-	61811-2RS	S61811-2RS
standard	55.0	80.0	13.0	61911	S61911	61911-2Z	-	61911-2RS	S61911-2RS
standard	60.0	78.0	10.0	61812	S61812	61812-2Z	-	61812-2RS	S61812-2RS
standard	60.0	85.0	13.0	61912	S61912	61912-2Z	-	61912-2RS	S61912-2RS
standard	65.0	85.0	10.0	61813	S61813	61813-2Z	-	61813-2RS	S61813-2RS
standard	65.0	90.0	13.0	61913	S61913	61913-2Z	-	61913-2RS	S61913-2RS
standard	70.0	90.0	10.0	61814	S61814	61814-2Z	-	61814-2RS	S61814-2RS
standard	70.0	100.0	16.0	61914	S61914	61914-2Z	-	61914-2RS	S61914-2RS
standard	75.0	95.0	10.0	61815	S61815	61815-2Z	-	61815-2RS	S61815-2RS
standard	75.0	105.0	16.0	61915	S61915	61915-2Z	-	61915-2RS	S61915-2RS
standard	80.0	100.0	10.0	61816	S61816	61816-2Z	-	61816-2RS	S61816-2RS
standard	80.0	110.0	16.0	61916	S61916	61916-2Z	-	61916-2RS	S61916-2RS
standard	85.0	110.0	13.0	61817	S61817	61817-2Z	-	61817-2RS	S61817-2RS
standard	85.0	120.0	18.0	61917	S61917	61917-2Z	-	61917-2RS	S61917-2RS
standard	90.0	115.0	13.0	61818	S61818	61818-2Z	-	61818-2RS	S61818-2RS
standard	90.0	125.0	18.0	61918	S61918	61918-2Z	-	61918-2RS	S61918-2RS
standard	95.0	120.0	13.0	61819		61819-2Z		61819-2RS	
standard	95.0	120.0	13.0	61919		61919-2Z		61919-2RS	

Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3

55

*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
4923	4178	12.0	14.0	J	35 g
13678	9968	11.0	13.0	J	132 g
2580	2397	3.9	4.6	W	25 g
6187	5381	11.0	13.0	J	42 g
14100	10830	9.7	11.0	J	148 g
6610	6090	9.6	11.0	J	65 g
14540	11710	9.0	11.0	J	145 g
8800	8100	8.7	10.0	J	84 g
16600	14100	8.1	9.6	J	185 g
11500	10600	8.0	9.4	J	105 g
20200	17300	7.5	8.9	J	192 g
11900	11500	7.3	8.6	J	126 g
17400	16100	7.1	8.4	J	212 g
12100	11900	6.8	8.1	J	134 g
23700	21200	6.4	7.6	J	344 g
12500	12900	12.5	12.9	J	144 g
24400	22600	6.1	7.2	J	365 g
12700	13300	12.7	13.3	J	150 g
25000	24000	5.7	6.8	J	384 g
18700	19000	5.6	6.6	J	266 g
31900	29600	5.3	6.3	J	540 g
19000	19700	5.3	6.3	J	280 g
32800	31600	5.1	6.0	J	570 g
18500	19500	5.5	6.5	J	270 g
18500	19500	5.5	6.5	J	270 g

Dünnringlager / Thin Section Series



56

standard or flanged	Dimension (mm)			Designation/Type					
	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	100.0	125.0	13.0	61820	S61820	61820-2Z	-	61820-2RS	S61820-2RS
standard	100.0	140.0	20.0	61920	S61920	61920-2Z	-	61920-2RS	S61920-2RS
standard	105.0	130.0	13.0	61821	S61821	61821-2Z	-	61821-2RS	S61821-2RS
standard	105.0	145.0	20.0	61921	S61921	61921-2Z	-	61921-2RS	S61921-2RS
standard	110.0	140.0	16.0	61822	S61822	61822-2Z	-	61822-2RS	S61822-2RS
standard	110.0	150.0	20.0	61922	S61922	61922-2Z	-	61922-2RS	S61922-2RS
standard	120.0	150.0	16.0	61824	S61824	61824-2Z	-	61824-2RS	S61824-2RS
standard	120.0	165.0	22.0	61924	S61924	61924-2Z	-	61924-2RS	S61924-2RS
standard	130.0	165.0	18.0	61826	S61826	61826-2Z	-	61826-2RS	S61826-2RS
standard	130.0	180.0	24.0	61926	S61926	61926-2Z	-	61926-2RS	S61926-2RS
standard	140.0	175.0	18.0	61828	S61828	61828-2Z	-	61828-2RS	S61828-2RS
standard	140.0	190.0	24.0	61928	S61928	61928-2Z	-	61928-2RS	S61928-2RS
standard	150.0	190.0	20.0	61830	S61830	61830-2Z		61830-2RS	S61830-2RS
standard	150.0	210.0	28.0	61930	-	61930-2Z		61930-2RS	-
standard	160.0	200.0	20.0	61832	-	61832-2Z		61832-2RS	-
standard	160.0	220.0	25.0	61932	-	61932-2Z		61932-2RS	-
standard	170.0	215.0	22.0	61834	-	61834-2Z		61834-2RS	-
standard	170.0	230.0	28.0	61934	-	61934-2Z		61934-2RS	-
standard	180.0	225.0	22.0	61836	-	61836-2Z		61836-2RS	-
standard	180.0	250.0	33.0	61936	-	61936-2Z		61936-2RS	-
standard	190.0	240.0	24.0	61838	-	61838-2Z		61838-2RS	-
standard	190.0	260.0	33.0	61938	-	61938-2Z		61938-2RS	-
standard	200.0	250.0	24.0	61840	-	61840-2Z		61840-2RS	-
standard	200.0	280.0	38.0	61940	-	61940-2Z		61940-2RS	-
standard	220.0	270.0	24.0	61844	-	61844-2Z		61844-2RS	-

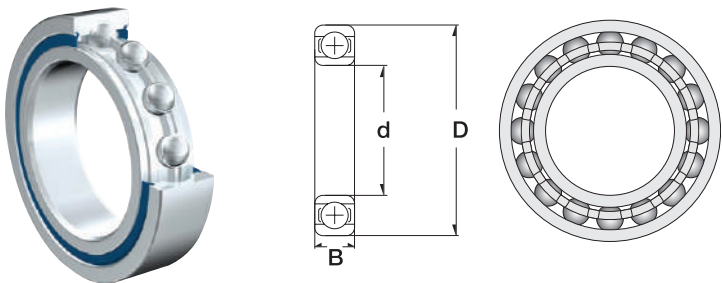
Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3



*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
20100	22000	4.8	5.1	J	310 g
42300	41500	4.5	5.3	J	830 g
20800	23600	4.6	5.3	J	330 g
44200	44000	4.3	5.0	J	870 g
28000	30500	4.3	5.0	J	500 g
43600	45000	4.0	4.8	J	900 g
29000	33000	4.0	4.6	J	550 g
55300	57000	3.6	4.3	J	1200 g
38000	43000	3.6	4.4	J	780 g
65000	67000	3.4	4.0	J	1600 g
39000	46000	3.4	4.1	J	860 g
66300	72000	3.2	3.8	J	1700 g
49000	57000	3.0	4.6	J	1200 g
66500	75000	2.8	3.2	J	3000 g
49500	59000	2.8	3.4	J, M, MA, MB	1250 g
65500	75500	2.6	3.0	J, M, MA, MB	3200 g
61000	73000	2.6	3.2	J, M, MA, MB	1630 g
67500	80000	2.4	2.9	J, M, MA, MB	3400 g
62000	76000	2.4	3.0	J, M, MA, MB	1720 g
86000	99500	2.2	2.6	J, M, MA, MB	4500 g
75000	92000	2.2	2.8	J, M, MA, MB	2200 g
88500	105000	2.0	2.6	J, M, MA, MB	4800 g
76000	95000	2.1	2.6	J, M, MA, MB	2300 g
112000	132000	2.0	2.4	J, M, MA, MB	6600 g
78000	102000	1.9	2.4	J, M, MA, MB	2530 g

57

Dünnringlager / Thin Section Series



58

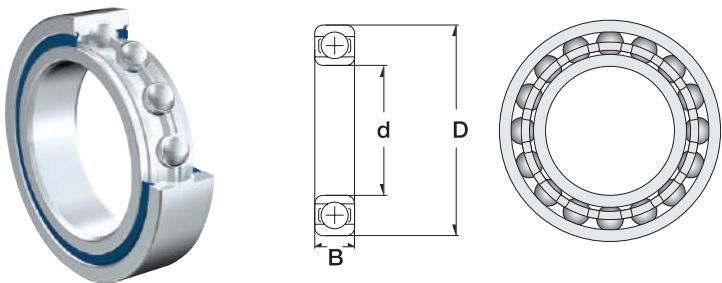
standard or flanged	Dimension (mm)			Designation/Type					
	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	220.0	300.0	38.0	61944	-	61944-2Z		61944-2RS	-
standard	240.0	300.0	28.0	61848	-	61848-2Z		61848-2RS	-
standard	240.0	320.0	38.0	61948	-	61948-2Z		61948-2RS	-
standard	260.0	320.0	28.0	61852	-	61852-2Z	-	61852-2RS	-
standard	260.0	360.0	46.0	61952	-	61952-2Z		61952-2RS	-
standard	280.0	350.0	33.0	61856	-	-	-	61856-2RS	-
standard	280.0	380.0	46.0	61956	-	61956-2Z		61956-2RS	-
standard	300.0	380.0	38.0	61860	-	-	-	61860-2RS	-
standard	300.0	420.0	56.0	61960	-	61960-2Z		61960-2RS	-
standard	320.0	400.0	38.0	61864	-	-	-	-	-
standard	320.0	440.0	56.0	61964	-	-	-	-	-
standard	340.0	420.0	38.0	61868	-	-	-	-	-
standard	340.0	460.0	56.0	61968	-	-	-	-	-
standard	360.0	440.0	38.0	61872	-	-	-	-	-
standard	380.0	480.0	46.0	61876	-	-	-	-	-
standard	360.0	480.0	56.0	61972	-	-	-	-	-
standard	400.0	500.0	46.0	61880	-	-	-	-	-
standard	420.0	520.0	46.0	61884	-	-	-	-	-
standard	440.0	540.0	46.0	61888	-	-	-	-	-
standard	460.0	580.0	56.0	61892	-	-	-	-	-
standard	480.0	600.0	56.0	61896	-	-	-	-	-
standard	500.0	620.0	56.0	618/500	-	-	-	-	-
standard	500.0	670.0	78.0	619/500	-	-	-	-	-
standard	530.0	650.0	56.0	618/530	-	-	-	-	-
standard	530.0	710.0	82.0	619/530	-	-	-	-	-

Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3

59

*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
118000	132000	1.9	2.4	J, M, MA, MB	7800 g
108000	139000	1.8	2.1	J, M, MA, MB	3840 g
122000	146000	1.8	2.2	J, M, MA, MB	8450 g
79500	119000	1.6	2.0	J, M, MA, MB	4900 g
163000	200000	1.6	1.9	M, MA, MB	14500 g
102000	149000	1.5	1.8	M, MA, MB	7300 g
166000	212000	1.5	1.8	M, MA, MB	15000 g
144000	189000	1.4	1.6	M, MA, MB	10400 g
208000	280000	1.3	1.6	M, MA, MB	24000 g
168000	235000	1.0	1.3	M, MA, MB	12000 g
212000	290000	1.2	1.5	M, MA, MB	25500 g
137000	196000	1.2	1.5	M, MA, MB	11500 g
220000	310000	1.1	1.4	M, MA, MB	26500 g
140000	200000	1.4	-	M, MA, MB	12000 g
190000	280000	1.3	-	M, MA, MB	20000 g
224000	325000	1.4	-	M, MA, MB	28000 g
190000	290000	1.3	-	M, MA, MB	20500 g
193000	300000	1.2	-	M, MA, MB	21500 g
228000	355000	2.6	-	M, MA, MB	23800 g
290000	480000	2.4	-	M, MA, MB	35800 g
290000	500000	2.2	-	M, MA, MB	37300 g
300000	510000	2.0	-	M, MA, MB	38700 g
445000	808000	5.0	6.3	M, MA, MB	80000 g
305000	550000	2.0	-	M, MA, MB	41300 g
468000	885000	7.0	8.5	M, MA, MB	91600 g

Dünnringlager / Thin Section Series



60

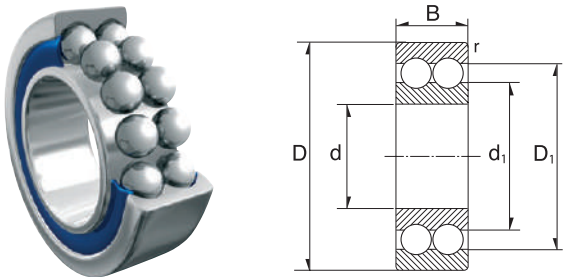
standard or flanged	Dimension (mm)			Designation/Type					
	d	D	B	open		2Z		2RS/2TS	
				Chrome Steel	Stainless	Chrome Steel	Stainless	Chrome Steel	Stainless
standard	560.0	680.0	56.0	618/560	-	-	-	-	-
standard	560.0	750.0	85.0	619/560	-	-	-	-	-
standard	600.0	730.0	60.0	618/600	-	-	-	-	-
standard	630.0	780.0	69.0	618/630	-	-	-	-	-
standard	630.0	850.0	100.0	619/630	-	-	-	-	-
standard	670.0	820.0	69.0	618/670	-	-	-	-	-
standard	670.0	900.0	103.0	619/670	-	-	-	-	-
standard	710.0	870.0	74.0	618/710	-	-	-	-	-
standard	710.0	950.0	106.0	619/710	-	-	-	-	-
standard	750.0	920.0	78.0	618/750	-	-	-	-	-
standard	750.0	1000.0	112.0	619/750	-	-	-	-	-
standard	800.0	980.0	82.0	618/800	-	-	-	-	-
standard	800.0	1060.0	115.0	619/800	-	-	-	-	-
standard	850.0	1030.0	82.0	618/850	-	-	-	-	-
standard	850.0	1120.0	118.0	619/850	-	-	-	-	-
standard	900.0	1090.0	85.0	618/900	-	-	-	-	-
standard	900.0	1180.0	122.0	619/900	-	-	-	-	-
standard	950.0	1150.0	90.0	618/950	-	-	-	-	-
standard	950.0	1250.0	132.0	619/950	-	-	-	-	-
standard	1000.0	1220.0	100.0	618/1000	-	-	-	-	-
standard	1000.0	1320.0	140.0	619/1000	-	-	-	-	-

Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3

61

*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open & 2Z)		Standard cage type Others on request	Weight (g) approx.
C, dyn. N	C, stat. N	Grease	Oil		
310000	560000	1.9	-	M, MA, MB	35100 g
475000	925000	6.7	8.0	M, MA, MB	11000 g
355000	670000	1.8	-	M, MA, MB	54200 g
400000	780000	1.6	-	M, MA, MB	75900 g
610000	133000	6.0	7.1	M, MA, MB	16300 g
405000	815000	1.5	-	M, MA, MB	80400 g
670000	145000	5.3	6.3	M, MA, MB	19400 g
465000	980000	1.4	-	M, MA, MB	96000 g
645000	151000	5.0	6.1	M, MA, MB	21800 g
510000	1120000	1.3	-	M, MA, MB	114000 g
745000	1790000	4.9	5.7	M, MA, MB	26000 g
550000	1270000	1.3	-	M, MA, MB	136000 g
815000	2100000	4.3	5.0	M, MA, MB	280000 g
560000	1290000	1.2	-	M, MA, MB	144000 g
815000	2150000	4.0	4.8	M, MA, MB	315000 g
600000	1430000	3.8	4.5	M, MA, MB	155000 g
830000	2270000	3.6	4.4	M, MA, MB	355000 g
663000	1620000	3.6	4.3	M, MA, MB	188000 g
985000	2850000	3.3	4.1	M, MA, MB	395000 g
635000	1720000	3.4	4.0	M, MA, MB	230000 g
985000	2880000	3.3	3.9	M, MA, MB	525000 g

Zweireihiges Dünnringlager / Double Row Thin Section



62

Dimension (mm)			Designation/Type				*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open)		Weight (g) approx.
d	D	B	Open		2RS						
			Chrome Steel	Stainless	Chrome Steel	Stainless	C, dyn. N	C, stat. N	Grease	Oil	
10.0	30.0	14.0	4200	S4200	4200-2RS	S4200-2RS	6400	5100	18.0	22.0	54 g
12.0	32.0	14.0	4201	S4201	4201-2RS	S4201-2RS	7100	5700	17.0	20.0	60 g
15.0	35.0	14.0	4202	S4202	4202-2RS	S4202-2RS	7800	6800	14.0	17.0	80 g
17.0	40.0	16.0	4203	S4203	4203-2RS	S4203-2RS	11700	10400	10.0	14.2	100 g
20.0	47.0	18.0	4204	S4204	4204-2RS	S4204-2RS	16400	16000	9.0	12.4	159 g
25.0	52.0	18.0	4205	S4205	4205-2RS	S4205-2RS	16300	16900	7.5	11.0	181 g
30.0	62.0	20.0	4206	S4206	4206-2RS	S4206-2RS	22000	24700	6.4	9.5	277 g
35.0	72.0	23.0	4207	S4207	4207-2RS	S4207-2RS	26400	30700	5.6	8.2	463 g
40.0	80.0	23.0	4208	S4208	4208-2RS	S4208-2RS	33200	42400	4.7	7.3	553 g
45.0	85.0	23.0	4209	S4209	4209-2RS	S4209-2RS	31800	43900	4.6	6.8	621 g
50.0	90.0	28.0	4210	S4210	4210-2RS	S4210-2RS	31400	44600	4.2	6.3	635 g

Produktfokus / Product focus

Nahrungsmittelkonforme
Befettung
FDA Lubrication



- ✓ Nahrungsmittelindustrie
Food processing industry
- ✓ Getränkeindustrie
Beverage bottling
- ✓ Niedertemperaturanwendung
Low temperature applications
- ✓ Hygienerelevante Anwendungen
Sanitation and cleaning
- ✓ Pharmaindustrie
Pharmaceutical



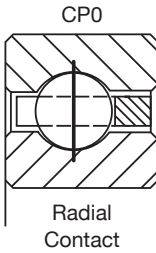
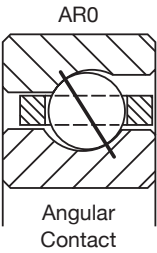
Um entsprechende gesetzliche Vorgaben zu erfüllen, können unsere rostfreien Wälzlager wahlweise mit einer FDA-zertifizierten Befettung geliefert werden. Unsere FDA-zertifizierten Fette überzeugen neben den gesetzlichen Anforderungen durch geschmacks- und geruchslosigkeit. Sie sind weitgehend wasserunlöslich, verschleissarm, temperaturstabil und oxidationsfrei.

Besuchen Sie unsere website unter www.zen.biz um weitere Informationen über unsere nahrungsmittelkonformen Produkte zu erfahren.

ZEN Bearings lubricated with approved FDA grease are specially recommended for critical applications where required by law. The grease approved by the FDA is suitable for these environments, due to their odourless and insipid qualities. They provide water resistance, mechanical and temperature stability and protection against oxidation and corrosion.

Visit www.zen.biz to discover our product ranges lubricated with FDA grease.

Sonder-Dünnringlager / Ultra Thin Section Series



64

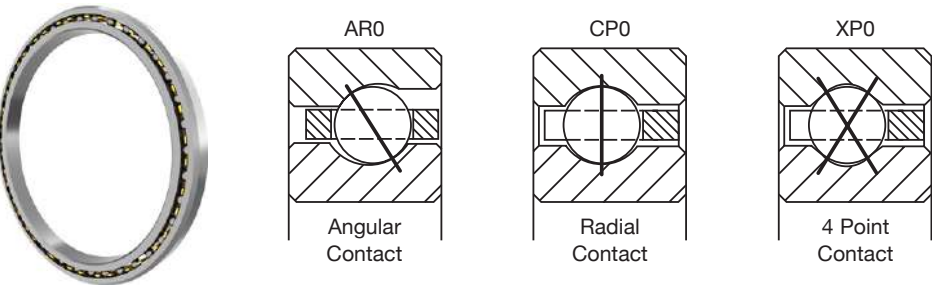
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
4.00	101.60	4.75	120.65	0.50	12.70	JU040CP0	L10SG400 2RSD	CSCU040.2RS
4.00	101.60	4.75	120.65	0.50	12.70	JU040XP0	L18SG400 2RSSD	CSXU0402RS
4.25	107.95	5.00	127.00	0.50	12.70	JU042CP0	L10SG404 2RSD	CSCU042.2RS
4.25	107.95	5.00	127.00	0.50	12.70	JU042XP0	L18SG404 2RSD	-
4.50	114.30	5.25	133.35	0.50	12.70	JU045CP0	L10SG408 2RSD	CSCU045.2RS
4.50	114.30	5.25	133.35	0.50	12.70	JU045XP0	L18SG408 2RSD	CSXU0452RS
4.75	120.65	5.50	139.70	0.50	12.70	JU047CP0	L10SG412 2RSD	CSCU047.2RS
4.75	120.65	5.50	139.70	0.50	12.70	JU047XP0	L18SG412 2RSD	CSXU0472RS
5.00	127.00	5.75	146.05	0.50	12.70	JU050CP0	L10SG500 2RSD	CSCU050.2RS
5.00	127.00	5.75	146.05	0.50	12.70	JU050XP0	L18SG500 2RSD	CSXU050.2RS
5.50	139.70	6.25	158.75	0.50	12.70	JU055CP0	L10SG508 2RSD	CSCU055.2RS
5.50	139.70	6.25	158.75	0.50	12.70	JU055XP0	L18SG508 2RSD	CSXU055.2RS
6.00	152.40	6.75	171.45	0.50	12.70	JU060CP0	L10SG600 2RSD	CSCU060.2RS
6.00	152.40	6.75	171.45	0.50	12.70	JU060XP0	L18SG600 2RSD	CSXU060.2RS
6.50	165.10	7.25	184.15	0.50	12.70	JU065CP0	L10SG608 2RSD	CSCU065.2RS
6.50	165.10	7.25	184.15	0.50	12.70	JU065XP0	L18SG608 2RSD	CSXU065.2RS
7.00	177.80	7.75	196.85	0.50	12.70	JU070CP0	L10SG700 2RSD	CSCU070.2RS
7.00	177.80	7.75	196.85	0.50	12.70	JU070XP0	L18SG700 2RSD	-
7.50	190.50	8.25	209.55	0.50	12.70	JU075CP0	L10SG708 2RSD	CSCU075.2RS
7.50	190.50	8.25	209.55	0.50	12.70	JU075XP0	L18SG708 2RSD	CSXU075.2RS
8.00	203.20	8.75	222.25	0.50	12.70	JU080CP0	L10SG800 2RSD	CSCU080.2RS
8.00	203.20	8.75	222.25	0.50	12.70	JU080XP0	L18SG800 2RSD	CSXU080.2RS
9.00	228.60	9.75	247.65	0.50	12.70	JU090CP0	L10SG900 2RSD	CSCU090.2RS
9.00	228.60	9.75	247.65	0.50	12.70	JU090XP0	L18SG900 2RSD	CSXU090.2RS
10.0	254.00	10.75	273.05	0.50	12.70	JU100CP0	L10SG1000 2RSD	CSCU100.2RS



65

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
-	FPCU400-2RS1	7800	8200	2500	0.25 kg
NBX10112DD	FPXU400-2RS1	10400	14400	2500	0.25 kg
-	FPCU404-2RS1	4929	9876	1520	0.27 kg
NBX10712DD	FPXU404-2RS1	6513	9876	590	0.27 kg
-	FPCU408-2RS1	8200	9200	2250	0.28 kg
NBX11412DD	FPXU408-2RS1	10800	16100	2250	0.28 kg
-	FPCU412-2RS1	5230	10940	1360	0.30 kg
NBX12012DD	FPXU412-2RS1	6920	10940	520	0.30 kg
-	FPCU500-2RS1	8500	10200	2030	0.31 kg
NBX12712DD	FPXU500-2RS1	11200	17800	2030	0.31 kg
-	FPCU508-2RS1	8700	11200	1850	0.34 kg
NBX13912DD	FPXU508-2RS1	11600	19600	1850	0.34 kg
-	FPCU600-2RS1	9000	12200	1700	0.37 kg
NBX15212DD	FPXU600-2RS1	12000	21300	1700	0.37 kg
-	FPCU608-2RS1	9300	13200	1570	0.39 kg
NBX16512DD	FPXU608-2RS1	12300	23000	1570	0.39 kg
-	FPCU700-2RS1	9500	14200	1460	0.42 kg
NBX17512DD	FPXU700-2RS1	8580	15790	350	0.43 kg
-	FPCU708-2RS1	9800	15200	1370	0.45 kg
NBX19012DD	FPXU708-2RS1	13000	26500	1370	0.45 kg
-	FPCU800-2RS1	10000	16200	1290	0.48 kg
NBX20312DD	FPXU800-2RS1	13300	28000	1290	0.48 kg
-	FPCU900-2RS1	10400	18200	1150	0.53 kg
NBX22812DD	FPXU900-2RS1	13800	31500	1150	0.53 kg
-	FPCU1000-2RS1	10800	20200	1030	0.59 kg

Sonder-Dünnringlager / Ultra Thin Section Series



66

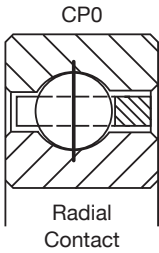
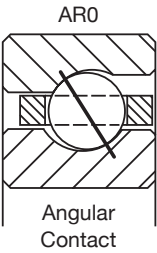
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
10.00	254.00	10.75	273.05	0.50	12.70	JU100XP0	L18SG1000 2RSD	CSXU100.2RS
11.00	279.40	11.75	298.45	0.50	12.70	JU110CP0	L10SG1100 2RSD	CSCU110.2RS
11.00	279.40	11.75	298.45	0.50	12.70	JU110XP0	L18SG1100 2RSD	CSXU110.2RS
12.00	304.80	12.75	323.85	0.50	12.70	JU120CP0	L10SG1200 2RSD	-
12.00	304.80	12.75	323.85	0.50	12.70	JU120XP0	L18SG1200 2RSD	-
2.00	50.80	2.50	63.50	0.25	6.35	KA020AR0	L15QA200	CSEA020
2.00	50.80	2.50	63.50	0.25	6.35	KA020CP0	L10QA200	CSCA020
2.00	50.80	2.50	63.50	0.25	6.35	KA020XP0	L18QA200	CSXA020
2.50	63.50	3.00	76.20	0.25	6.35	KA025AR0	L15QA208	CSEA025
2.50	63.50	3.00	76.20	0.25	6.35	KA025CP0	L10QA208	CSCA025
2.50	63.50	3.00	76.20	0.25	6.35	KA025XP0	L18QA208	CSXA025
3.00	76.20	3.50	88.90	0.25	6.35	KA030AR0	L15QA300	CSEA030
3.00	76.20	3.50	88.90	0.25	6.35	KA030CP0	L10QA300	CSCA030
3.00	76.20	3.50	88.90	0.25	6.35	KA030XP0	L18QA300	CSXA030
3.50	88.90	4.00	101.60	0.25	6.35	KA035AR0	L15QA308	CSEA035
3.50	88.90	4.00	101.60	0.25	6.35	KA035CP0	L10QA308	CSCA035
3.50	88.90	4.00	101.60	0.25	6.35	KA035XP0	L18QA308	CSXA035
4.00	101.60	4.50	114.30	0.25	6.35	KA040AR0	L15QA400	CSEA040
4.00	101.60	4.50	114.30	0.25	6.35	KA040CP0	L10QA400	CSCA040
4.00	101.60	4.50	114.30	0.25	6.35	KA040XP0	L18QA400	CSXA040
4.25	107.95	4.75	120.65	0.25	6.35	KA042AR0	L15QA404	CSEA042
4.25	107.95	4.75	120.65	0.25	6.35	KA042CP0	L10QA404	CSCA042
4.25	107.95	4.75	120.65	0.25	6.35	KA042XP0	L18QA404	CSXA042
4.50	114.30	5.00	127.00	0.25	6.35	KA045AR0	L15QA408	CSEA045
4.50	114.30	5.00	127.00	0.25	6.35	KA045CP0	L10QA408	CSCA045



67

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
NBX25412DD	FPXU1000-2RS1	14300	35000	1030	0.59 kg
-	FPCU1100-2RS1	11200	22200	940	0.65 kg
NBX27912DD	FPXU1100-2RS1	14800	38500	940	0.65 kg
-	FPCU1200-2RS1	8780	26460	540	0.71 kg
NBX30412DD	FPXU1200-2RS1	11660	26460	160	0.71 kg
NBA5006	FPAA200	3300	3100	10500	0.05 kg
NBC5006	FPCA200	3300	2650	10400	0.05 kg
NBX5006	FPXA200	4400	4600	6900	0.05 kg
NBA6306	FPAA208	3550	3800	8500	0.06 kg
NBC6306	FPCA208	3600	3250	8500	0.06 kg
NBX6306	FPXA208	4750	5700	5600	0.06 kg
NBA7606	FPAA300	3750	4550	7200	0.07 kg
NBC7606	FPCA300	3800	3900	7100	0.07 kg
NBX7606	FPXA300	5100	6800	4550	0.07 kg
NBA8806	FPAA308	4000	5300	6200	0.08 kg
NBC8806	FPCA308	4000	4550	6200	0.08 kg
NBX8806	FPXA308	5300	7900	3850	0.08 kg
NBA10106	FPAA400	4150	6000	5400	0.09 kg
NBC10106	FPCA400	4200	5200	5400	0.09 kg
NBX10106	FPXA400	5600	9000	3300	0.09 kg
NBA10706	FPAA404	3430	7030	4440	0.20 kg
NBC10706	FPCA404	4300	5500	5100	0.09 kg
NBX10706	FPXA404	3430	7030	4440	0.20 kg
NBA11406	FPAA408	4350	6700	4850	0.10 kg
NBC11406	FPCA408	4400	5800	4800	0.10 kg

Sonder-Dünnringlager / Ultra Thin Section Series



68

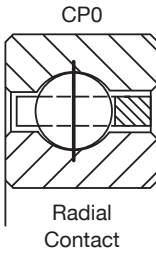
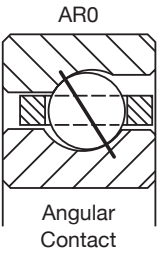
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
4.50	114.30	5.00	127.00	0.25	6.35	KA045XP0	L18QA408	CSXA045
4.75	120.65	5.25	133.35	0.25	6.35	KA047AR0	L15QA4012	CSEA047
4.75	120.65	5.25	133.35	0.25	6.35	KA047CP0	L10QA412	CSCA047
4.75	120.65	5.25	133.35	0.25	6.35	KA047XP0	L18QA4012	CSXA047
5.00	127.00	5.50	139.70	0.25	6.35	KA050AR0	L15QA500	CSEA050
5.00	127.00	5.50	139.70	0.25	6.35	KA050CP0	L10QA500	CSCA050
5.00	127.00	5.50	139.70	0.25	6.35	KA050XP0	L18QA500	CSXA050
5.50	139.70	6.00	152.40	0.25	6.35	KA055AR0	L15QA508	CSEA055
5.50	139.70	6.00	152.40	0.25	6.35	KA055CP0	L10QA508	CSCA055
5.50	139.70	6.00	152.40	0.25	6.35	KA055XP0	L18QA508	CSXA055
6.00	152.40	6.50	165.10	0.25	6.35	KA060AR0	L15QA600	CSEA060
6.00	152.40	6.50	165.10	0.25	6.35	KA060CP0	L10QA600	CSCA060
6.00	152.40	6.50	165.10	0.25	6.35	KA060XP0	L18QA600	CSXA060
6.50	165.10	7.00	177.80	0.25	6.35	KA065AR0	L15QA608	CSEA065
6.50	165.10	7.00	177.80	0.25	6.35	KA065CP0	L10QA608	CSCA065
6.50	165.10	7.00	177.80	0.25	6.35	KA065XP0	L18QA608	CSXA065
7.00	177.80	7.50	190.50	0.25	6.35	KA070AR0	L15QA700	CSEA070
7.00	177.80	7.50	190.50	0.25	6.35	KA070CP0	L10QA700	CSCA070
7.00	177.80	7.50	190.50	0.25	6.35	KA070XP0	L18QA700	CSXA070
7.50	190.50	8.00	203.20	0.25	6.35	KA075AR0	L15QA708	CSEA075
7.50	190.50	8.00	203.20	0.25	6.35	KA075CP0	L10QA708	CSCA075
7.50	190.50	8.00	203.20	0.25	6.35	KA075XP0	L18QA708	CSXA075
8.00	203.20	8.50	215.90	0.25	6.35	KA080AR0	L15QA800	CSEA080
8.00	203.20	8.50	215.90	0.25	6.35	KA080CP0	L10QA800	CSCA080
8.00	203.20	8.50	215.90	0.25	6.35	KA080XP0	L18QA800	CSXA080



69

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
NBX11406	FPXA408	5800	10100	2900	0.10 kg
NBA12006	FPAA412	4450	7100	4600	0.10 kg
NBC12006	FPCA412	4500	6100	4550	0.10 kg
NBX12006	FPXA412	6000	10600	2700	0.10 kg
NBA12706	FPAA500	4500	7500	4350	0.11 kg
NBC12706	FPCA500	4550	6400	4350	0.11 kg
NBX12706	FPXA500	6100	11200	2550	0.11 kg
NBA13906	FPAA508	4650	8200	3950	0.11 kg
NBC13906	FPCA508	4700	7100	3950	0.11 kg
NBX13906	FPXA508	6300	12300	2290	0.11 kg
NBA15206	FPAA600	4800	8900	3650	0.13 kg
NBC 15206	FPCA600	4850	7700	3600	0.13 kg
NBX15206	FPXA600	6500	13400	2070	0.13 kg
NBA16506	FPAA608	4950	9600	3350	0.14 kg
NBC 16506	FPCA608	5000	8300	3350	0.14 kg
NBX16506	FPXA608	6600	14500	1880	0.14 kg
NBA17706	FPAA700	5100	10400	3100	0.15 kg
NBC 17706	FPCA700	5100	9000	3100	0.14 kg
NBX17706	FPXA700	6800	15600	1720	0.15 kg
-	FPAA708	5200	11100	2900	0.16 kg
-	FPCA708	5300	9600	2900	0.15 kg
-	FPXA708	7000	16700	1590	0.16 kg
-	FPAA800	4270	12860	2420	0.17 kg
-	FPCA800	5400	10200	2700	0.17 kg
-	FPXA800	8400	27840	1450	0.17 kg

Sonder-Dünnringlager / Ultra Thin Section Series



70

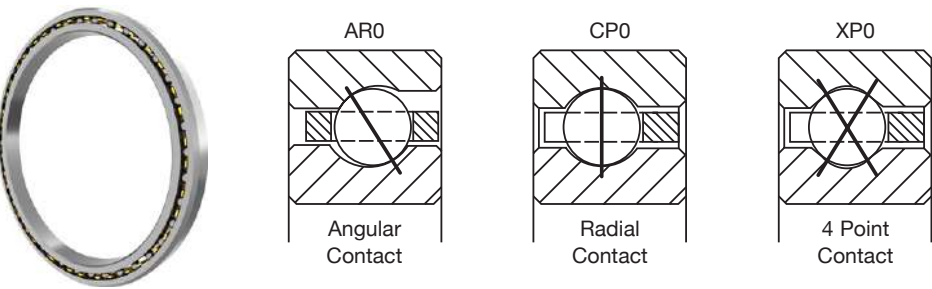
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
9.00	228.60	9.50	241.30	0.25	6.35	KA090AR0	L15QA900	CSEA090
9.00	228.60	9.50	241.30	0.25	6.35	KA090CP0	L10QA900	CSCA090
9.00	228.60	9.50	241.30	0.25	6.35	KA090XP0	L18QA900	CSXA090
10.00	254.00	10.50	266.70	0.25	6.35	KA100AR0	L15QA1000	CSEA100
10.00	254.00	10.50	266.70	0.25	6.35	KA100CP0	L10QA1000	CSCA100
10.00	254.00	10.50	266.70	0.25	6.35	KA100XP0	L18QA1000	CSXA100
11.00	279.40	11.50	292.10	0.25	6.35	KA110AR0	L15QA1000	CSEA110
11.00	279.40	11.50	292.10	0.25	6.35	KA110CP0	L10QA1100	CSCA110
11.00	279.40	11.50	292.10	0.25	6.35	KA110XP0	L18QA1000	CSXA110
12.00	304.80	12.50	317.50	0.25	6.35	KA120AR0	L15QA1200	CSEA120
12.00	304.80	12.50	317.50	0.25	6.35	KA120CP0	L10QA1200	CSCA120
12.00	304.80	12.50	317.50	0.25	6.35	KA120XP0	L18QA1200	CSXA120
16.00	406.40	16.625	422.275	0.3125	7.9375	KA160AR0	-	-
16.00	406.40	16.625	422.275	0.3125	7.9375	KA160CP0	-	-
16.00	406.40	16.625	422.275	0.3125	7.9375	KA160XP0	-	-
18.00	457.20	18.625	473.075	0.3125	7.9375	KA180AR0	-	-
18.00	457.20	18.625	473.075	0.3125	7.9375	KA180CP0	-	-
18.00	457.20	18.625	473.075	0.3125	7.9375	KA180XP0	-	-
20.00	508.00	20.625	523.875	0.3125	7.9375	KA200AR0	-	-
20.00	508.00	20.625	523.875	0.3125	7.9375	KA200CP0	-	-
20.00	508.00	20.625	523.875	0.3125	7.9375	KA200XP0	-	-
2.00	50.80	2.625	66.675	0.3125	7.9375	KB020AR0	L15RA200	CSEB020
2.00	50.80	2.625	66.675	0.3125	7.9375	KB020CP0	L10RA200	CSCB020
2.00	50.80	2.625	66.675	0.3125	7.9375	KB020XP0	L18RA200	CSXB020
2.50	63.50	3.125	79.375	0.3125	7.9375	KB025AR0	L15RA208	CSEB025



71

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
-	FPAA900	4400	14410	2160	0.20 kg
-	FPCA900	5600	11500	2390	0.20 kg
-	FPXA900	9000	31200	1300	0.20 kg
-	FPAA1000	4580	15970	1950	0.22 kg
-	FPCA1000	5800	12800	2150	0.23 kg
-	FPXA1000	9600	34600	1200	0.23 kg
-	FPAA1100	4770	17530	1780	0.24 kg
-	FPCA1100	4500	15160	1780	0.24 kg
-	FPXA1100	10300	37900	1100	0.24 kg
-	FPAA1200	5020	19080	1630	0.25 kg
-	FPCA1200	6200	15300	1780	0.25 kg
NBX30412	FPXA1200	10800	41300	980	0.26 kg
-	FPAA1600	8480	34300	1230	0.55 kg
-	FPCA1600	8480	34300	1230	0.55 kg
-	FPXA1600	18230	73700	750	0.55 kg
-	FPAA1800	9070	38520	1090	0.61 kg
-	FPCA1800	9070	38520	1090	0.61 kg
-	FPXA1800	19500	82000	650	0.61 kg
-	FPAA2000	9620	42750	980	0.68 kg
-	FPCA2000	9620	42750	980	0.68 kg
-	FPXA2000	20600	91900	570	0.68 kg
NBA5007	FPAB200	4750	4200	10000	0.07 kg
NBC5007	FPCB200	4750	3550	9900	0.07 kg
NBX5007	FPXB200	6300	6200	6700	0.07 kg
NBA6307	FPAB208	5200	5200	8200	0.09 kg

Sonder-Dünnringlager / Ultra Thin Section Series



72

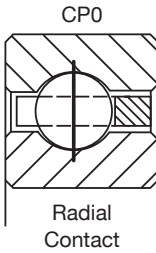
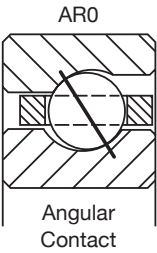
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
2.50	63.50	3.125	79.375	0.3125	7.9375	KB025CP0	L10RA208	CACB025
2.50	63.50	3.125	79.375	0.3125	7.9375	KB025XP0	L18RA208	CSXB025
3.00	76.20	3.625	92.075	0.3125	7.9375	KB030AR0	L15RA300	CSEB030
3.00	76.20	3.625	92.075	0.3125	7.9375	KB030CP0	L10RA300	CACB030
3.00	76.20	3.625	92.075	0.3125	7.9375	KB030XP0	L18RA300	CSXB030
3.50	88.90	4.125	104.775	0.3425	7.9375	KB035AR0	L15RA308	CSEB035
3.50	88.90	4.125	104.775	0.3125	7.9375	KB035CP0	L10RA308	CACB035
3.50	88.90	4.125	104.775	0.3125	7.9375	KB035XP0	L18RA308	CSXB035
4.00	101.60	4.625	117.475	0.3125	7.9375	KB040AR0	L15RA400	CSEB040
4.00	101.60	4.625	117.475	0.3125	7.9375	KB040CP0	L10RA400	CACB040
4.00	101.60	4.625	117.475	0.3125	7.9375	KB040XP0	L18RA400	CSXB040
4.25	107.95	4.875	123.825	0.3125	7.9375	KB042AR0	L15RA404	CSEB042
4.25	107.95	4.875	123.825	0.3125	7.9375	KB042CP0	L10RA404	CACB042
4.25	107.95	4.875	123.825	0.3125	7.9375	KB042XP0	L18RA404	CSXB042
4.50	114.30	5.125	130.175	0.3125	7.9375	KB045AR0	L15RA408	CSEB045
4.50	114.30	5.125	130.175	0.3125	7.9375	KB045CP0	L10RA408	CACB045
4.50	114.30	5.125	130.175	0.3125	7.9375	KB045XP0	L18RA408	CSXB045
4.75	120.65	5.375	136.525	0.3125	7.9375	KB047AR0	L15RA412	CSEB047
4.75	120.65	5.375	136.525	0.3125	7.9375	KB047CP0	L10RA412	CACB047
4.75	120.65	5.375	136.525	0.3125	7.9375	KB047XP0	L18RA412	CSXB047
5.00	127.00	5.625	142.875	0.3125	7.9375	KB050AR0	L15RA500	CSEB050
5.00	127.00	5.625	142.875	0.3125	7.9375	KB050CP0	L10RA500	CACB050
5.00	127.00	5.625	142.875	0.3125	7.9375	KB050XP0	L18RA500	CSXB050
5.50	139.70	6.125	155.575	0.3125	7.9375	KB055AR0	L15RA508	CSEB055
5.50	139.70	6.125	155.575	0.3125	7.9375	KB055CP0	L10RA508	CACB055



73

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
NBC6307	FPCB208	2800	5070	8200	0.10 kg
NBX6307	FPXB208	6800	7700	5400	0.09 kg
NBA7607	FPAB300	5400	6100	7000	0.11 kg
NBC7607	FPCB300	3100	5900	7000	0.11 kg
NBX7607	FPXB300	7300	9100	4400	0.11 kg
NBA8807	FPAB308	5800	7100	6000	0.12 kg
NBC8807	FPCB308	3400	6800	6000	0.13 kg
NBX8807	FPXB308	7700	10600	3750	0.12 kg
NBA10107	FPAB400	6000	8100	5300	0.13 kg
NBC10107	FPCB400	3600	7700	5300	0.14 kg
NBX10107	FPXB400	8100	12100	3200	0.13 kg
NBA10707	FPAB404	6200	8600	5000	0.14 kg
NBC10707	FPCB404	3760	8140	5000	0.15 kg
NBX10707	FPXB404	8200	12600	3000	0.14 kg
NBA10407	FPAB408	6300	9000	4750	0.15 kg
NBC11407	FPCB408	3900	8670	4750	0.15 kg
NBX10407	FPXB408	8400	13500	2800	0.15 kg
NBA12007	FPAB412	5070	10630	3950	0.16 kg
NBC12007	FPCB412	4000	9020	3950	0.16 kg
NBX12007	FPXB412	5300	9020	2300	0.16 kg
NBA12707	FPAB500	5160	11120	3760	0.18 kg
NBC12707	FPCB500	4150	9560	3760	0.18 kg
NBX12707	FPXB500	5490	9560	2200	0.18 kg
NBA13907	FPAB508	6700	11100	3900	0.19 kg
NBC13907	FPCB508	4370	10400	3900	0.19 kg

Sonder-Dünnringlager / Ultra Thin Section Series



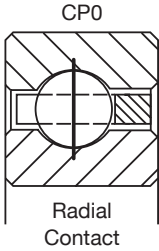
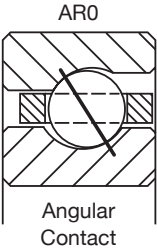
74

Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
5.50	139.70	6.125	155.575	0.3125	7.9375	KB055XP0	L18RA508	CSXB055
6.00	152.40	6.625	168.275	0.3125	7.9375	KB060AR0	L15RA600	CSEB060
6.00	152.40	6.625	168.275	0.3125	7.9375	KB060CP0	L10RA600	CACB060
6.00	152.40	6.625	168.275	0.3125	7.9375	KB060XP0	L18RA600	CSXB060
6.50	165.10	7.125	180.975	0.3125	7.9375	KB065AR0	L15RA608	CSEB065
6.50	165.10	7.125	180.975	0.3125	7.9375	KB065CP0	L10RA608	CACB065
6.50	165.10	7.125	180.975	0.3125	7.9375	KB065XP0	L18RA608	CSXB065
7.00	177.80	7.625	193.675	0.3125	7.9375	KB070AR0	L15RA700	-
7.00	177.80	7.625	193.675	0.3125	7.9375	KB070CP0	L10RA700	-
7.00	177.80	7.625	193.675	0.3125	7.9375	KB070XP0	L18RA700	-
7.50	190.50	8.125	206.375	0.3125	7.9375	KB075CP0	L10RA708	-
8.00	203.20	8.625	219.075	0.3125	7.9375	KB080AR0	L15RA800	CSEB080
8.00	203.20	8.625	219.075	0.3125	7.9375	KB080CP0	L10RA800	CACB080
8.00	203.20	8.625	219.075	0.3125	7.9375	KB080XP0	L18RA800	CSXB080
9.00	228.60	9.625	244.475	0.3125	7.9375	KB090AR0	L15RA900	CSEB090
9.00	228.60	9.625	244.475	0.3125	7.9375	KB090CP0	L10RA900	CACB090
9.00	228.60	9.625	244.475	0.3125	7.9375	KB090XP0	L18RA900	CSXB090
10.00	254.00	10.625	269.875	0.3125	7.9375	KB100AR0	-	-
10.00	254.00	10.625	269.875	0.3125	7.9375	KB100CP0	-	-
10.00	254.00	10.625	269.875	0.3125	7.9375	KB100XP0	-	-
11.00	279.40	11.625	295.275	0.3125	7.9375	KB110AR0	-	-
11.00	279.40	11.625	295.275	0.3125	7.9375	KB110CP0	-	-
11.00	279.40	11.625	295.275	0.3125	7.9375	KB110XP0	-	-
12.00	304.80	12.625	320.675	0.3125	7.9375	KB120AR0	-	-
12.00	304.80	12.625	320.675	0.3125	7.9375	KB120CP0	-	-

75

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
NBX13907	FPXB508	9000	16400	2240	0.19 kg
NBA15207	FPAB600	7000	12100	3550	0.20 kg
NBC 15207	FPCB600	4500	11300	3550	0.20 kg
NBX15207	FPXB600	9300	17900	2030	0.20 kg
NBA16507	FPAB608	7100	13000	3300	0.21 kg
NBC 16507	FPCB608	4800	12200	3300	0.22 kg
NBX16507	FPXB608	9600	19400	1850	0.21 kg
NBA17707	FPAB700	5780	15350	2740	0.23 kg
NBC 17707	FPCB700	5000	13200	2740	0.23 kg
NBX17707	FPXB700	6600	13200	1640	0.23 kg
-	FPCB708	5200	14100	1540	0.24 kg
-	FPAB800	6050	17530	2410	0.26 kg
-	FPCB800	5400	14900	2410	0.26 kg
NBX20307	FPXB800	10300	23700	1450	0.26 kg
-	FPAB900	6270	19570	2150	0.30 kg
-	FPCB900	5800	16800	2150	0.30 kg
-	FPXB900	7700	16800	1290	0.30 kg
-	FPAB1000	6580	21750	1940	0.33 kg
-	FPCB1000	6100	18600	1940	0.34 kg
-	FPXB1000	8180	18600	1160	0.34 kg
-	FPAB1100	6850	23800	1770	0.34 kg
-	FPCB1100	6510	20400	1770	0.35 kg
-	FPXB1100	8650	20400	1060	0.35 kg
-	FPAB1200	7220	25980	1620	0.38 kg
-	FPCB1200	6840	22240	1620	0.38 kg

Sonder-Dünnringlager / Ultra Thin Section Series



76

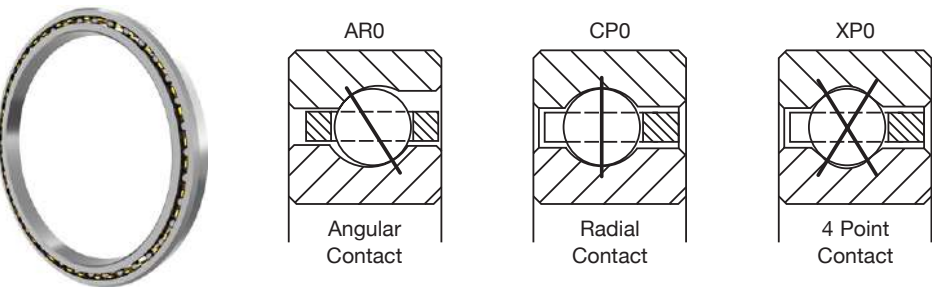
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
12.00	304.80	12.625	320.675	0.3125	7.9375	KB120XP0	-	-
14.00	355.60	14.62	371.348	0.3125	7.9375	KB140AR0	-	-
14.00	355.60	14.62	371.348	0.3125	7.9375	KB140CP0	-	-
14.00	355.60	14.62	371.348	0.3125	7.9375	KB140XP0	-	-
16.00	406.40	16.75	425.45	0.375	9.525	KB160AR0	-	-
16.00	406.40	16.75	425.45	0.375	9.525	KB160XP0	-	CSXB160
18.00	457.20	18.75	476.25	0.375	9.525	KB180AR0	-	-
18.00	457.20	18.75	476.25	0.375	9.525	KB180CP0	-	-
18.00	457.20	18.75	476.25	0.375	9.525	KB180XP0	-	-
20.00	508.00	20.75	527.05	0.375	9.525	KB200AR0	-	-
20.00	508.00	20.75	527.05	0.375	9.525	KB200CP0	-	-
20.00	508.00	20.75	527.05	0.375	9.525	KB200XP0	-	-
4.00	101.60	4.75	120.65	0.375	9.525	KC040AR0	L15SA400	CSEC040
4.00	101.60	4.75	120.65	0.375	9.525	KC040CP0	L10SA400	CACC040
4.00	101.60	4.75	120.65	0.375	9.525	KC040XP0	L18SA400	CSXC040
4.25	107.95	5.00	127.00	0.375	9.525	KC042AR0	L15SA404	CSEC042
4.25	107.95	5.00	127.00	0.375	9.525	KC042CP0	L10SA404	CACC042
4.25	107.95	5.00	127.00	0.375	9.525	KC042XP0	L18SA404	CSXC042
4.50	114.30	5.25	133.35	0.375	9.525	KC045AR0	L15SA408	CSEC045
4.50	114.30	5.25	133.35	0.375	9.525	KC045CP0	L10SA408	CACC045
4.50	114.30	5.25	133.35	0.375	9.525	KC045XP0	L18SA408	CSXC045
4.75	120.65	5.50	139.70	0.375	9.525	KC047AR0	L15SA412	CSEC047
4.75	120.65	5.50	139.70	0.375	9.525	KC047CP0	L10SA412	CACC047
4.75	120.65	5.50	139.70	0.375	9.525	KC047XP0	L18SA412	CSXC047
5.00	127.00	5.75	146.05	0.375	9.525	KC050AR0	L15SA500	CSEC050



77

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
-	FPXB1200	9090	22240	970	0.38 kg
-	FPAB1400	10440	37770	1390	0.69 kg
-	FPCB1400	7470	25800	1390	0.48 kg
-	FPXB1400	9930	25800	840	0.48 kg
-	FPAB1600	11270	43060	1220	0.79 kg
-	FPXB1600	10700	29400	740	0.55 kg
-	FPAB1800	12040	48400	1090	0.88 kg
-	FPCB1800	8600	33000	1090	0.62 kg
-	FPXB1800	11400	33000	660	0.62 kg
-	FPAB2000	12740	53510	980	0.98 kg
-	FPCB2000	9130	36600	980	0.69 kg
-	FPXB2000	12140	36600	590	0.69 kg
NBA10109	FPAC400	8000	10100	5200	0.20 kg
NBC10109	FPCC400	4770	9340	5200	0.21 kg
NBX10109	FPXC400	10400	14400	3150	0.20 kg
NBA10709	FPAC404	6410	12050	4320	0.22 kg
NBC10709	FPCC404	4920	9870	4320	0.21 kg
NBX10709	FPXC404	6500	9870	2590	0.21 kg
NBA10409	FPAC408	8400	11400	4650	0.22 kg
NBC11409	FPCC408	5000	10400	4650	0.22 kg
NBX10409	FPXC408	10800	16100	2750	0.22 kg
NBA12009	FPAC412	8600	12000	4400	0.23 kg
NBC12009	FPCC412	5200	10900	4400	0.23 kg
NBX12009	FPXC412	6900	10900	2340	0.23 kg
NBA12709	FPAC500	8700	12600	4200	0.26 kg

Sonder-Dünnringlager / Ultra Thin Section Series



78

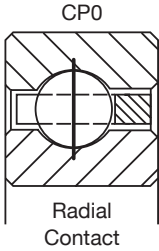
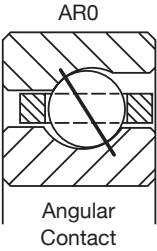
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
5.00	127.00	5.75	146.05	0.375	9.525	KC050CP0	L10SA500	CACC050
5.00	127.00	5.75	146.05	0.375	9.525	KC050XP0	L18SA500	CSXC050
5.50	139.70	6.25	158.75	0.375	9.525	KC055AR0	L15SA508	CSEC055
5.50	139.70	6.25	158.75	0.375	9.525	KC055CP0	L10SA508	CACC055
5.50	139.70	6.25	158.75	0.375	9.525	KC055XP0	L18SA508	CSXC055
6.00	152.40	6.75	171.45	0.375	9.525	KC060AR0	L15SA600	CSEC060
6.00	152.40	6.75	171.45	0.375	9.525	KC060CP0	L10SA600	CACC060
6.00	152.40	6.75	171.45	0.375	9.525	KC060XP0	L18SA600	CSXC060
6.50	165.10	7.25	184.15	0.375	9.525	KC065AR0	L15SA608	CSEC065
6.50	165.10	7.25	184.15	0.375	9.525	KC065CP0	L10SA608	CACC065
6.50	165.10	7.25	184.15	0.375	9.525	KC065XP0	L18SA608	CSXC065
7.00	177.80	7.75	196.85	0.375	9.525	KC070AR0	L15SA700	CSEC070
7.00	177.80	7.75	196.85	0.375	9.525	KC070CP0	L10SA700	CACC070
7.00	177.80	7.75	196.85	0.375	9.525	KC070XP0	L18SA700	CSXC070
7.50	190.50	8.25	209.55	0.375	9.525	KC075AR0	L15SA700	CSEC075
7.50	190.50	8.25	209.55	0.375	9.525	KC075CP0	L10SA708	CACC075
7.50	190.50	8.25	209.55	0.375	9.525	KC075XP0	L18SA700	CSXC075
8.00	203.20	8.75	222.25	0.375	9.525	KC080AR0	L15SA800	CSEC080
8.00	203.20	8.75	222.25	0.375	9.525	KC080CP0	L10SA800	CACC080
8.00	203.20	8.75	222.25	0.375	9.525	KC080XP0	L18S800	CSXC080
9.00	228.60	9.75	247.65	0.375	9.525	KC090AR0	L15SA900	CSEC090
9.00	228.60	9.75	247.65	0.375	9.525	KC090CP0	L10SA900	CACC090
9.00	228.60	9.75	247.65	0.375	9.525	KC090XP0	L18SA900	CSXC090
10.00	254.00	10.75	273.05	0.375	9.525	KC100AR0	L15SA1000	CSEC100
10.00	254.00	10.75	273.05	0.375	9.525	KC100CP0	L10SA1000	CACC100



79

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
NBC12709	FPCC500	5370	11520	4200	0.27 kg
NBX12709	FPXC500	11200	17800	2450	0.26 kg
NBA13909	FPAC508	9000	13700	3850	0.27 kg
NBC13909	FPCC508	5660	12580	3850	0.27 kg
NBX13909	FPXC508	11600	19600	2200	0.27 kg
NBA15209	FPAC600	9300	15000	3500	0.29 kg
NBC15209	FPCC600	5940	13650	3500	0.29 kg
NBX15209	FPXC600	12000	21300	1990	0.29 kg
NBA16509	FPAC608	7430	18060	2910	0.31 kg
NBC16509	FPCC608	6200	14720	2910	0.31 kg
NBX16509	FPXC608	12400	23000	1840	0.31 kg
NBA17709	FPAC700	9800	17400	3000	0.34 kg
NBC17709	FPCC700	6480	15700	3000	0.34 kg
NBX17709	FPXC700	12600	24700	1660	0.33 kg
-	FPAC708	7780	20600	2540	0.36 kg
-	FPCC708	6730	16800	2540	0.36 kg
NBX19	FPXC708	8920	16800	1520	0.36 kg
-	FPAC800	8010	22020	2390	0.39 kg
-	FPCC800	6900	17920	2390	0.39 kg
-	FPXC800	13300	28000	1430	0.38 kg
-	FPAC900	8270	24550	2130	0.43 kg
-	FPCC900	7460	20060	2130	0.43 kg
NBX22	FPXC900	13800	31500	1240	0.43 kg
-	FPAC1000	8640	27310	1930	0.49 kg
-	FPCC1000	7920	22190	1930	0.49 kg

Sonder-Dünnringlager / Ultra Thin Section Series



80

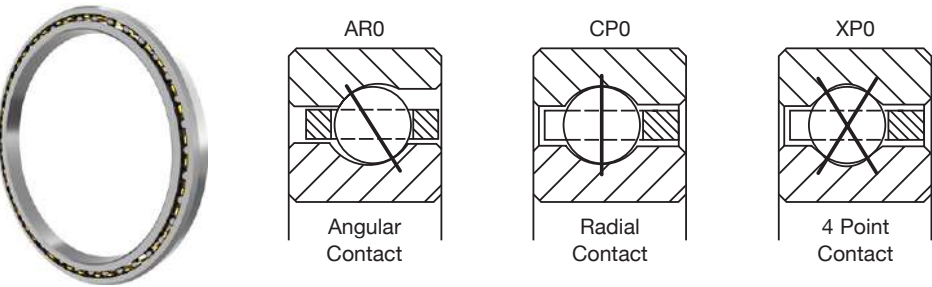
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
10.00	254.00	10.75	273.05	0.375	9.525	KC100XP0	L18SA1000	CSXC100
11.00	279.40	11.75	298.45	0.375	9.525	KC110AR0	L15SA1100	CSEC110
11.00	279.40	11.75	298.45	0.375	9.525	KC110CP0	L10SA1100	CACC110
11.00	279.40	11.75	298.45	0.375	9.525	KC110XP0	L18SA1100	CSXC110
12.00	304.80	12.75	323.85	0.375	9.525	KC120AR0	L15SA1200	CSEC120
12.00	304.80	12.75	323.85	0.375	9.525	KC120CP0	L10SA1200	CACC120
12.00	304.80	12.75	323.85	0.375	9.525	KC120XP0	L18SA1200	CSXC120
14.00	355.60	14.75	374.65	0.375	9.525	KC140AR0	-	-
14.00	355.60	14.75	374.65	0.375	9.525	KC140CP0	-	-
14.00	355.60	14.75	374.65	0.375	9.525	KC140XP0	-	-
16.00	406.40	17.00	431.80	0.50	12.70	KC160AR0	-	-
16.00	406.40	16.75	425.45	0.375	9.525	KC160CP0	-	-
16.00	406.40	17.00	431.80	0.50	12.70	KC160XP0	-	CSXC160
18.00	457.20	19.00	482.60	0.50	12.70	KC180AR0	-	-
18.00	457.20	19.00	482.60	0.50	12.70	KC180CP0	-	-
18.00	457.20	19.00	482.60	0.50	12.70	KC180XP0	-	-
20.00	508.00	21.00	533.40	0.50	12.70	KC200AR0	-	-
20.00	508.00	21.00	533.40	0.50	12.70	KC200CP0	-	-
20.00	508.00	21.00	533.40	0.50	12.70	KC200XP0	-	-
4.00	101.60	5.00	127.00	0.50	12.70	KD040AR0	L15TA400	CSXD040
4.00	101.60	5.00	127.00	0.50	12.70	KD040CP0	L10TA400	CSXD040
4.00	101.60	5.00	127.00	0.50	12.70	KD040XP0	L18TA400	CSXD040
4.25	107.95	5.25	133.35	0.50	12.70	KD042AR0	L15TA404	CSXD042
4.25	107.95	5.25	133.35	0.50	12.70	KD042CP0	L10TA404	CSXD042
4.25	107.95	5.25	133.35	0.50	12.70	KD042XP0	L18TA404	CSXD042



81

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
-	FPXC1000	14300	35000	1100	0.48 kg
-	FPAC1100	9110	29890	1760	0.53 kg
-	FPCC1100	8350	24300	1760	0.53 kg
NBX27909	FPXC1100	14800	38500	980	0.53 kg
-	FPAC1200	9550	32430	1620	0.57 kg
-	FPCC1200	8780	26400	1620	0.57 kg
-	FPXC1200	15400	42000	920	0.57 kg
-	FPAC1400	15930	50930	1380	1.24 kg
-	FPCC1400	9580	30700	1380	0.69 kg
-	FPXC1400	12700	30700	800	0.69 kg
-	FPAC1600	17150	57960	1210	1.41 kg
-	FPCB1600	10320	35000	1210	0.79 kg
-	FPXC1600	13720	35000	700	0.79 kg
-	FPAC1800	18300	64990	1080	1.58 kg
-	FPCC1800	11020	39300	1080	0.88 kg
-	FPXC1800	14650	39300	650	0.88 kg
-	FPAC2000	19380	72020	980	1.75 kg
-	FPCC2000	11680	43590	980	0.98 kg
-	FPXC2000	15500	43590	570	0.98 kg
NBA10112	FPAD400	12300	13900	4950	0.35 kg
NBC10112	FPCD400	12400	11900	4900	0.35 kg
NBX10112	FPXD400	16500	20800	3000	0.35 kg
NBA10712	FPAD404	10720	16680	4210	0.38 kg
NBC10712	FPCD404	7900	14100	4210	0.38 kg
NBX10712	FPXD404	10470	14100	2530	0.38 kg

Sonder-Dünnringlager / Ultra Thin Section Series



82

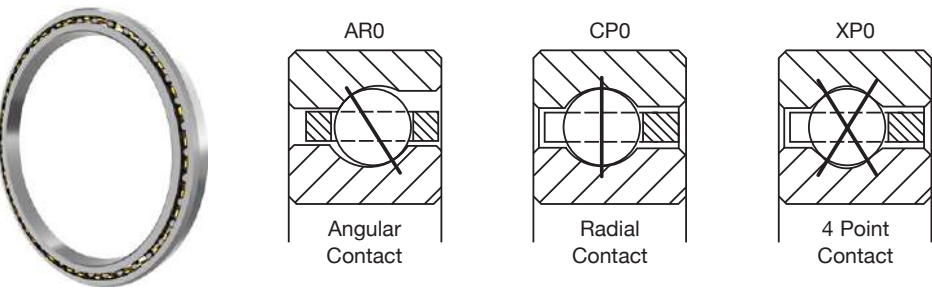
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
4.50	114.30	5.50	139.70	0.50	12.70	KD045AR0	L15TA408	CSED045
4.50	114.30	5.50	139.70	0.50	12.70	KD045CP0	L10TA408	CSCD045
4.50	114.30	5.50	139.70	0.50	12.70	KD045XP0	L18TA408	CSXD045
4.75	120.65	5.75	146.05	0.50	12.70	KD047AR0	L15TA412	CSED047
4.75	120.65	5.75	146.05	0.50	12.70	KD047CP0	L10TA412	CSCD047
4.75	120.65	5.75	146.05	0.50	12.70	KD047XP0	L18TA412	CSXD047
5.00	127.00	6.00	152.40	0.50	12.70	KD050AR0	L15TA500	CSED050
5.00	127.00	6.00	152.40	0.50	12.70	KD050CP0	L10TA500	CSCD050
5.00	127.00	6.00	152.40	0.50	12.70	KD050XP0	L18TA500	CSXD050
5.50	139.70	6.50	165.10	0.50	12.70	KD055AR0	L15TA508	CSED055
5.50	139.70	6.50	165.10	0.50	12.70	KD055CP0	L10TA508	CSCD055
5.50	139.70	6.50	165.10	0.50	12.70	KD055XP0	L18TA508	CSXD055
6.00	152.40	7.00	177.80	0.50	12.70	KD060AR0	L15TA600	CSED060
6.00	152.40	7.00	177.80	0.50	12.70	KD060CP0	L10TA600	CSCD060
6.00	152.40	7.00	177.80	0.50	12.70	KD060XP0	L18TA600	CSXD060
6.50	165.10	7.50	190.50	0.50	12.70	KD065AR0	L15TA608	CSED065
6.50	165.10	7.50	190.50	0.50	12.70	KD065CP0	L10TA608	CSCD065
6.50	165.10	7.50	190.50	0.50	12.70	KD065XP0	L18TA608	CSXD065
7.00	177.80	8.00	203.20	0.50	12.70	KD070AR0	L15TA700	CSED070
7.00	177.80	8.00	203.20	0.50	12.70	KD070CP0	L10TA700	CSCD070
7.00	177.80	8.00	203.20	0.50	12.70	KD070XP0	L18TA700	CSXD070
7.50	190.50	8.50	215.90	0.50	12.70	KD075AR0	L15TA708	CSED075
7.50	190.50	8.50	215.90	0.50	12.70	KD075CP0	L10TA708	CSCD075
7.50	190.50	8.50	215.90	0.50	12.70	KD075XP0	L18TA708	CSXD075
8.00	203.20	9.00	228.60	0.50	12.70	KD080AR0	L15TA800	CSED080



83

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
NBA10412	FPAD408	12800	15500	4450	0.40 kg
NBC11412	FPCD408	12900	13300	4400	0.40 kg
NBX10412	FPXD408	17200	23300	2650	0.40 kg
NBA12012	FPAD412	11170	18460	3810	0.43 kg
NBC12012	FPCD412	8410	15700	3810	0.43 kg
NBX12012	FPXD412	11100	15700	2290	0.43 kg
NBA12712	FPAD500	13200	17200	4050	0.45 kg
NBC12712	FPCD500	13400	14700	4000	0.45 kg
NBX12712	FPXD500	17800	25500	2350	0.45 kg
NBA13912	FPAD508	13700	18800	3700	0.48 kg
NBC13912	FPCD508	13800	16200	3650	0.48 kg
NBX13912	FPXD508	18400	28000	2110	0.48 kg
NBA15212	FPAD600	14100	20400	3400	0.53 kg
NBC15212	FPCD600	14300	17600	3350	0.53 kg
NBX15212	FPXD600	19000	30500	1920	0.53 kg
NBA16512	FPAD608	14500	22100	3150	0.55 kg
NBC16512	FPCD608	14700	19000	3150	0.55 kg
NBX16512	FPXD608	19500	33000	1760	0.55 kg
-	FPAD700	14900	23700	2950	0.59 kg
-	FPCD700	15000	20400	2900	0.59 kg
NBX17712	FPXD700	20000	35500	1620	0.59 kg
-	FPAD708	15600	27000	2600	0.69 kg
-	FPCD708	10800	24300	2600	0.64 kg
NBX19012	FPXD708	14330	24300	1500	0.64 kg
-	FPAD800	15600	27000	2600	0.69 kg

Sonder-Dünnringlager / Ultra Thin Section Series



84

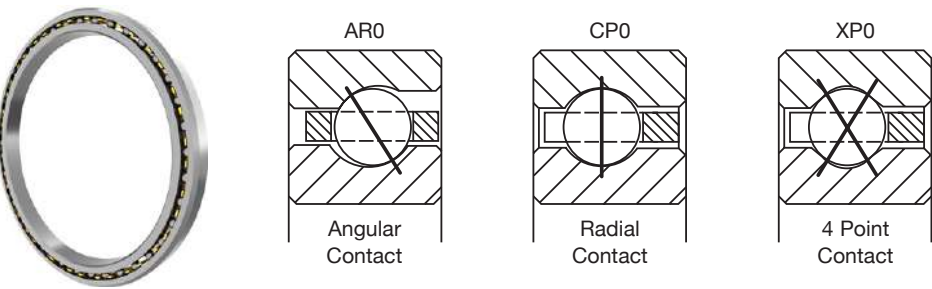
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
8.00	203.20	9.00	228.60	0.50	12.70	KD080CP0	L10TA800	CSCD080
8.00	203.20	9.00	228.60	0.50	12.70	KD080XP0	L18TA800	CSXD080
9.00	228.60	10.00	254.00	0.50	12.70	KD090AR0	L15TA900	CSED090
9.00	228.60	10.00	254.00	0.50	12.70	KD090CP0	L10TA900	CSCD090
9.00	228.60	10.00	254.00	0.50	12.70	KD090XP0	L18TA900	CSXD090
10.00	254.00	11.00	279.40	0.50	12.70	KD100AR0	L15TA1000	CSED100
10.00	254.00	11.00	279.40	0.50	12.70	KD100CP0	L10TA1000	CSCD100
10.00	254.00	11.00	279.40	0.50	12.70	KD100XP0	L18TA1000	CSXD100
11.00	279.40	12.00	304.80	0.50	12.70	KD110AR0	L15TA1100	CSED110
11.00	279.40	12.00	304.80	0.50	12.70	KD110CP0	L10TA1100	CSCD110
11.00	279.40	12.00	304.80	0.50	12.70	KD110XP0	L18TA1100	CSXD110
12.00	304.80	13.00	330.20	0.50	12.70	KD120AR0	L15TA1200	CSED120
12.00	304.80	13.00	330.20	0.50	12.70	KD120CP0	L10TA1200	CSCD120
12.00	304.80	13.00	330.20	0.50	12.70	KD120XP0	L18TA1200	CSXD120
14.00	355.60	15.00	381.00	0.50	12.70	KD140AR0	-	CSED140
14.00	355.60	15.00	381.00	0.50	12.70	KD140CP0	-	CSCD140
14.00	355.60	15.00	381.00	0.50	12.70	KD140XP0	L18TA1400	CSXD140
16.00	406.40	17.00	431.80	0.50	12.70	KD160CP0	-	-
4.00	101.60	5.50	139.70	0.75	19.05	KF040AR0	L15VA400	CSEF040
4.00	101.60	5.50	139.70	0.75	19.05	KF040CP0	L10VA400	CSCF040
4.00	101.60	5.50	139.70	0.75	19.05	KF040XP0	L18VA400	CSXF040
4.25	107.95	5.75	146.05	0.75	19.05	KF042AR0	L15VA404	CSEF042
4.25	107.95	5.75	146.05	0.75	19.05	KF042CP0	L10VA404	CSCF042
4.25	107.95	5.75	146.05	0.75	19.05	KF042XP0	L18VA404	CSXF042
4.50	114.30	6.00	152.40	0.75	19.05	KF045AR0	L15VA408	CSEF045



85

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
-	FPCD800	15800	23300	2550	0.69 kg
NBX20312	FPXD800	21000	40500	1390	0.69 kg
-	FPAD900	16300	30500	2290	0.77 kg
-	FPCD900	16400	26000	2280	0.78 kg
NBX22812	FPXD900	21800	45500	1210	0.78 kg
-	FPAD1000	16900	33500	2070	0.85 kg
-	FPCD1000	17100	29000	2060	0.85 kg
NBX25412	FPXD1000	22700	50000	1080	0.85 kg
-	FPAD1100	17400	37000	1880	0.93 kg
-	FPCD1100	17600	32000	1870	0.93 kg
NBX27912	FPXD1100	23400	55000	960	0.93 kg
-	FPAD1200	18000	40000	1720	1.02 kg
-	FPCD1200	17100	34500	1710	1.03 kg
NBX30409	FPXD1200	24200	60000	870	1.02 kg
-	FPAD1400	19000	47000	1470	1.24 kg
-	FPCD1400	18100	40500	1470	1.24 kg
NBX35512	FPXD1400	25500	70000	720	1.24 kg
-	FPCC1600	16400	50220	730	1.41 kg
NBA10119	FPAF400	19350	28250	4210	0.87 kg
NBC10119	FPCF 400	15800	23800	4210	0.87 kg
NBX10119	FPXF400	31500	35000	2700	0.86 kg
NBA10719	FPAF404	19530	29360	4000	0.91 kg
NBC10719	FPCF404	16250	25000	4000	0.91 kg
NBX10719	FPXF404	21300	25000	2400	0.91 kg
NBA10419	FPAF408	20240	31540	3810	0.96 kg

Sonder-Dünnringlager / Ultra Thin Section Series



86

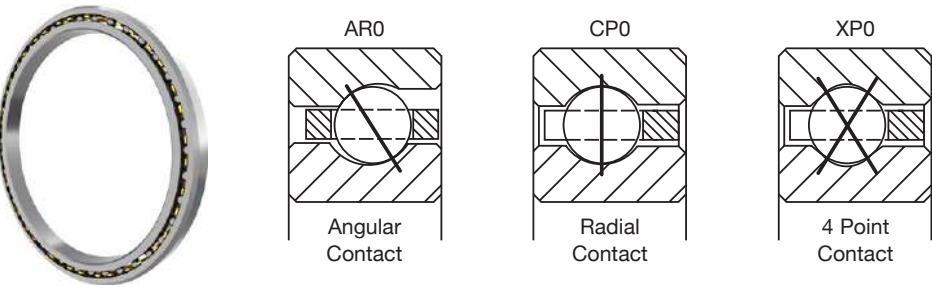
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
4.50	114.30	6.00	152.40	0.75	19.05	KF045CP0	L10VA408	CSCF045
4.50	114.30	6.00	152.40	0.75	19.05	KF045XP0	L18VA408	CSXF045
4.75	120.65	6.25	158.75	0.75	19.05	KF047AR0	L15VA412	CSEF047
4.75	120.65	6.25	158.75	0.75	19.05	KF047CP0	L10VA412	CSCF047
4.75	120.65	6.25	158.75	0.75	19.05	KF047XP0	L18VA412	CSXF047
5.00	127.00	6.50	165.10	0.75	19.05	KF050AR0	L15VA412	CSEF050
7.00	177.80	8.50	215.90	0.75	19.05	KF050AR0	L15VA700	CSEF070
5.00	127.00	6.50	165.10	0.75	19.05	KF050CP0	L10VA500	CSCF050
20.00	508.00	21.5	546.10	0.75	19.05	KF050XP0	-	-
5.00	127.00	6.50	165.10	0.75	19.05	KF050XP0	L18VA500	CSXF050
7.00	177.80	8.50	215.90	0.75	19.05	KF050XP0	L18VA700	CSXF070
14.00	355.60	15.50	393.70	0.75	19.05	KF050XP0	L18VA1400	CSXF140
5.50	139.70	7.00	177.80	0.75	19.05	KF055AR0	L15VA508	CSEF055
5.50	139.70	7.00	177.80	0.75	19.05	KF055CP0	L10VA508	CSCF055
5.50	139.70	7.00	177.80	0.75	19.05	KF055XP0	L18VA508	CSXF055
6.00	152.40	7.50	190.50	0.75	19.05	KF060AR0	L15VA600	CSEF060
6.00	152.40	7.50	190.50	0.75	19.05	KF060CP0	L10VA600	CSCF060
6.00	152.40	7.50	190.50	0.75	19.05	KF060XP0	L18VA600	CSXF060
6.50	165.10	8.00	203.20	0.75	19.05	KF065AR0	L15VA608	CSEF065
6.50	165.10	8.00	203.20	0.75	19.05	KF065CP0	L10VA608	CSCF065
6.50	165.10	8.00	203.20	0.75	19.05	KF065XP0	L18VA608	CSXF065
7.00	177.80	8.50	215.90	0.75	19.05	KF070CP0	L10VA700	CSCF070
7.50	190.50	9.00	228.60	0.75	19.05	KF075AR0	L15VA708	CSEF075
7.50	190.50	9.00	228.60	0.75	19.05	KF075CP0	L10VA708	CSCF075
7.50	190.50	9.00	228.60	0.75	19.05	KF075XP0	L18VA708	CSXF075



87

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
NBC11419	FPCF408	16680	26370	3810	0.96 kg
NBX10419	FPXF408	21900	26370	2290	0.96 kg
NBA12019	FPAF412	20510	326210	3640	1.00 kg
NBC12019	FPCF412	17090	27600	3640	1.00 kg
NBX12019	FPXF412	22450	27600	2180	1.00 kg
NBA12719	FPAF500	20680	33670	3480	1.05 kg
NBA17719	FPAF700	29000	41500	2800	1.45 kg
NBC12719	FPCF500	25500	24700	3700	1.04 kg
-	FPXF500	23000	28800	2090	1.05 kg
NBX12719	FPXF500	34000	43500	2160	1.04 kg
NBX17719	FPXF700	38000	60000	1520	1.45 kg
NBX35519	FPXF500	48500	116000	700	2.72 kg
NBA13919	FPAF508	26500	32000	3450	1.13 kg
NBC13919	FPCF508	26500	27000	3400	1.13 kg
NBX13919	FPXF508	35000	47500	1960	1.13 kg
NBA15219	FPAF600	27500	35000	3200	1.22 kg
NBC15219	FPCF600	27000	29500	3150	1.22 kg
NBX15219	FPXF600	36000	51000	1790	1.22 kg
NBA16519	FPAF608	28500	38000	2950	1.32 kg
NBC16519	FPCF608	28000	31500	2950	1.32 kg
NBX16519	FPXF608	26100	36380	1660	1.32 kg
NBC17719	FPCF700	28500	34000	2750	1.45 kg
NBA19019	FPAF708	29500	43500	2600	1.54 kg
NBC19019	FPCF708	29500	36500	2600	1.54 kg
NBX19019	FPXF708	39000	64000	1410	1.54 kg

Sonder-Dünnringlager / Ultra Thin Section Series



88

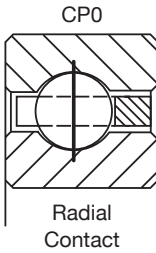
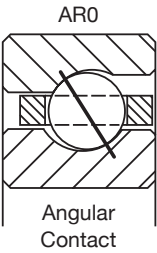
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
8.00	203.20	9.50	241.30	0.75	19.05	KF080AR0	L15VA800	CSEF080
8.00	203.20	9.50	241.30	0.75	19.05	KF080CP0	L10VA800	CSCF080
8.00	203.20	9.50	241.30	0.75	19.05	KF080XP0	L18VA800	CSXF080
9.00	228.60	10.50	266.70	0.75	19.05	KF090AR0	L15VA900	CSEF090
9.00	228.60	10.50	266.70	0.75	19.05	KF090CP0	L10VA900	CSCF090
9.00	228.60	10.50	266.70	0.75	19.05	KF090XP0	L18VA900	CSXF090
10.00	254.00	11.50	292.10	0.75	19.05	KF100AR0	L15VA1000	CSEF100
10.00	254.00	11.50	292.10	0.75	19.05	KF100CP0	L10VA1000	CSCF100
10.00	254.00	11.50	292.10	0.75	19.05	KF100XP0	L18VA1000	CSXF100
11.00	279.40	12.50	317.50	0.75	19.05	KF110AR0	L15VA1100	CSEF110
11.00	279.40	12.50	317.50	0.75	19.05	KF110CP0	L10VA1100	CSCF110
11.00	279.40	12.50	317.50	0.75	19.05	KF110XP0	L18VA1100	CSXF110
12.00	304.80	13.50	342.90	0.75	19.05	KF120AR0	L15VA1200	CSEF120
12.00	304.80	13.50	342.90	0.75	19.05	KF120CP0	L10VA1200	CSCF120
12.00	304.80	13.50	342.90	0.75	19.05	KF120XP0	L18VA1200	CSXF120
14.00	355.60	15.50	393.70	0.75	19.05	KF140CP0	-	-
16.00	406.40	17.50	444.50	0.75	19.05	KF160AR0	-	-
16.00	406.40	17.50	444.50	0.75	19.05	KF160CP0	-	-
16.00	406.40	17.50	444.50	0.75	19.05	KF160XP0	-	-
18.00	457.20	19.50	495.30	0.75	19.05	KF180AR0	-	-
18.00	457.20	19.50	495.30	0.75	19.05	KF180CP0	-	-
18.00	457.20	19.50	495.30	0.75	19.05	KF180XP0	-	-
20.00	508.00	21.50	546.10	0.75	19.05	KF200CP0	-	-
4.00	101.60	6.00	152.40	1.00	25.4	KG040AR0	-	CSEG040
4.00	101.60	6.00	152.40	1.00	25.4	KG040CP0	-	CSCG040



89

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
NBA20319	FPAF800	30500	46500	2450	1.59 kg
NBC20319	FPCF800	30000	38500	2430	1.59 kg
NBX20319	FPXF800	40000	68000	1320	1.59 kg
NBA22819	FPAF900	32000	52000	2190	1.77 kg
NBC22819	FPCF900	31500	43500	2180	1.77 kg
NBX22819	FPXF900	41500	76000	1160	1.77 kg
NBA25419	FPAF1000	33000	58000	1980	1.95 kg
NBC25419	FPCF1000	32500	48000	1970	1.95 kg
NBX25419	FPXF1000	43000	84000	1030	1.95 kg
-	FPAF1100	34000	64000	1810	2.18 kg
-	FPCF1100	33500	53000	1800	2.18 kg
NBX27919	FPXF1100	44500	92000	920	2.18 kg
-	FPAF1200	35000	69000	1660	2.36 kg
-	FPCF1200	32500	58000	1650	2.36 kg
NBX30419	FPXF1200	46000	100000	840	2.36 kg
-	FPCG1400	29400	74060	810	2.73 kg
-	FPAF1600	33640	100000	1190	3.23 kg
-	FPCF1600	31600	84000	1190	3.23 kg
-	FPXF1600	41900	84000	720	3.23 kg
-	FPAF1800	36040	113030	1070	3.59 kg
-	FPCF1800	33600	94120	1070	3.59 kg
-	FPXF1800	44600	94120	1070	3.59 kg
-	FPCF2000	35500	104100	960	4.04 kg
NBA10125	FPAG400	32650	42170	4000	1.64 kg
NBC 10125	FPCG400	27200	36500	4000	1.64 kg

Sonder-Dünnringlager / Ultra Thin Section Series



90

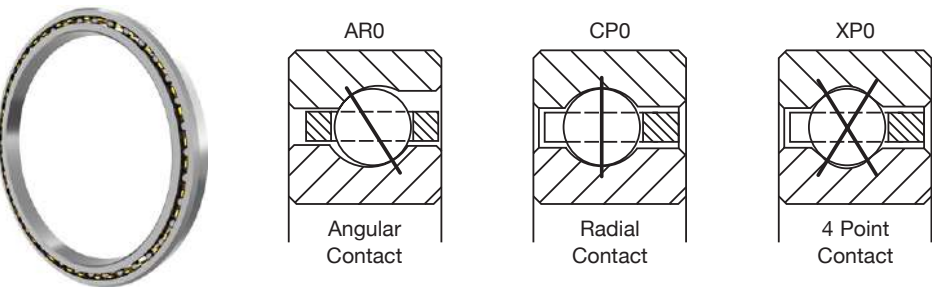
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
4.00	101.60	6.00	152.40	1.00	25.40	KG040XP0	-	CSXG040
4.25	107.95	6.25	158.75	1.00	25.40	KG042AR0	-	CSEG042
4.25	107.95	6.25	158.75	1.00	25.40	KG042CP0	-	CSCG042
4.25	107.95	6.25	158.75	1.00	25.40	KG042XP0	-	CSXG042
4.50	114.30	6.50	165.10	1.00	25.40	KG045AR0	-	CSEG045
4.50	114.30	6.50	165.10	1.00	25.40	KG045CP0	-	CSCG045
4.50	114.30	6.50	165.10	1.00	25.40	KG045XP0	L18WA408	CSXG045
4.75	120.65	6.75	171.45	1.00	25.40	KG047AR0	-	CSEG047
4.75	120.65	6.75	171.45	1.00	25.40	KG047CP0	-	CSCG047
4.75	120.65	6.75	171.45	1.00	25.40	KG047XP0	L18WA412	CSXG047
5.00	127.00	7.00	177.80	1.00	25.40	KG050AR0	-	CSEG050
5.00	127.00	7.00	177.80	1.00	25.40	KG050CP0	L10WA500	CSCG050
5.00	127.00	7.00	177.80	1.00	25.40	KG050XP0	L18WA500	CSXG050
5.50	139.70	7.50	190.50	1.00	25.40	KG055AR0	-	CSEG055
5.50	139.70	7.50	190.50	1.00	25.40	KG055CP0	L10WA508	CSCG055
5.50	139.70	7.50	190.50	1.00	25.40	KG055XP0	L18WA508	CSXG055
6.00	152.40	8.00	203.20	1.00	25.40	KG060AR0	L15WA600	CSEG060
6.00	152.40	8.00	203.20	1.00	25.40	KG060CP0	L10WA600	CSCG060
6.00	152.40	8.00	203.20	1.00	25.40	KG060XP0	L18WA600	CSXG060
6.50	165.10	8.50	215.90	1.00	25.40	KG065AR0	L15WA608	CSEG065
6.50	165.10	8.50	215.90	1.00	25.40	KG065CP0	L10WA608	CSCG065
6.50	165.10	8.50	215.90	1.00	25.40	KG065XP0	L18WA608	CSXG065
7.00	177.80	9.00	228.60	1.00	25.40	KG070AR0	L15WA700	CSEG70
7.00	177.80	9.00	228.60	1.00	25.40	KG070CP0	L10WA700	CSCG070
7.00	177.80	9.00	228.60	1.00	25.40	KG070XP0	L18WA700	CSXG70



91

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
NBX10125	FPXG400	35492	36500	2400	1.64 kg
NBA10725	FPAG404	33720	44260	3810	1.73 kg
NBC10725	FPCG404	26900	36500	3810	1.73 kg
NBX10725	FPXG404	35200	36500	2290	1.73 kg
NBA10425	FPAG408	34790	46390	3640	1.82 kg
NBC11425	FPCG408	27600	38900	3640	1.82 kg
NBX10425	FPXG408	36400	38900	2180	1.82 kg
NBA12025	FPAG412	35850	48490	3480	1.87 kg
NBC12025	FPCG412	28800	41300	3480	1.86 kg
NBX12025	FPXG412	37700	41300	2090	1.86 kg
NBA12725	FPAG500	36880	50580	3330	1.96 kg
NBC12725	FPCG500	29700	43800	3330	1.96 kg
NBX12725	FPXG500	38900	43800	2000	1.96 kg
NBA13925	FPAG508	38300	54800	3080	2.14 kg
NBC13925	FPCG508	41500	39000	3200	2.13 kg
NBX13925	FPXG508	56000	69000	1830	2.13 kg
NBA15225	FPAG600	43500	51000	3000	2.31 kg
NBC15225	FPCG600	32200	51100	3000	2.32 kg
NBX15225	FPXG600	58000	76000	1680	2.31 kg
NBA16525	FPAG608	40520	63250	2670	2.45 kg
NBC16525	FPCG608	44000	46000	2800	2.45 kg
NBX16525	FPXG608	43200	53500	1600	2.45 kg
NBA17725	FPAG700	45500	59000	2650	2.63 kg
NBC17725	FPCG700	46000	50000	2600	2.63 kg
NBX17725	FPXG700	61000	88000	1440	2.63 kg

Sonder-Dünnringlager / Ultra Thin Section Series



92

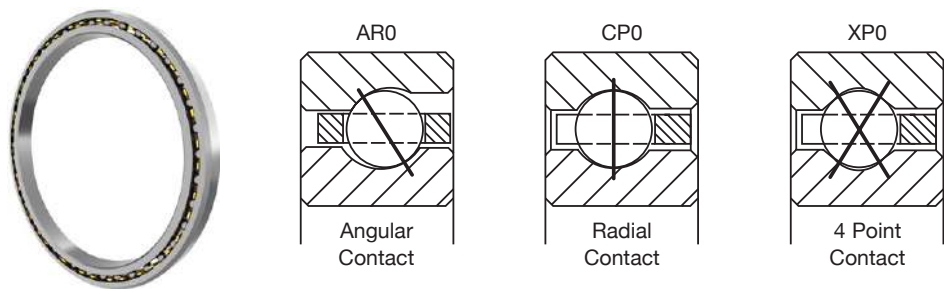
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
7.50	190.50	9.50	241.30	1.00	25.40	KG075AR0	L15WA708	CSEG075
7.50	190.50	9.50	241.30	1.00	25.40	KG075CP0	L10WA708	CSCG075
7.50	190.50	9.50	241.30	1.00	25.40	KG075XP0	L18WA708	CSXG075
8.00	203.20	10.00	254.00	1.00	25.40	KG080AR0	L15WA800	CSEG080
8.00	203.20	10.00	254.00	1.00	25.40	KG080CP0	L10WA800	CSCG080
8.00	203.20	10.00	254.00	1.00	25.40	KG080XP0	L18WA800	CSXG080
9.00	228.60	11.00	279.40	1.00	25.40	KG090AR0	L15WA900	CSEG092
9.00	228.60	11.00	279.40	1.00	25.40	KG090CP0	L10WA900	CSCG090
9.00	228.60	11.00	279.40	1.00	25.40	KG090XP0	L18WA900	CSXG090
10.00	254.00	12.00	304.80	1.00	25.40	KG100AR0	L10WA1000	SCEG100
10.00	254.00	12.00	304.80	1.00	25.40	KG100CP0	L10WA1000	CSCG100
10.00	254.00	12.00	304.80	1.00	25.40	KG100XP0	L10WA1000	SCXG100
11.00	279.40	13.00	330.20	1.00	25.40	KG110AR0	L15WA1100	CSEG110
11.00	279.40	13.00	330.20	1.00	25.40	KG110CP0	L10WA1100	CSCG110
11.00	279.40	13.00	330.20	1.00	25.40	KG110XP0	L18WA1100	CSXG110
12.00	304.80	14.00	355.60	1.00	25.40	KG120AR0	L15WA1200	CSEG120
12.00	304.80	14.00	355.60	1.00	25.40	KG120CP0	L10WA1200	CSCG120
12.00	304.80	14.00	355.60	1.00	25.40	KG120XP0	L18WA1200	CSXG120
14.00	355.60	16.00	406.40	1.00	25.40	KG140AR0	L15WA1400	CSEG140
14.00	355.60	16.00	406.40	1.00	25.40	KG140CP0	L10WA1400	CSCG140
14.00	355.60	16.00	406.40	1.00	25.40	KG140XP0	L18WA1400	CSXG140
16.00	406.40	18.00	457.20	1.00	25.40	KG160AR0	L15WA1600	CSEG160
16.00	406.40	18.00	457.20	1.00	25.40	KG160CP0	L10WA1600	CSCG160
16.00	406.40	18.00	457.20	1.00	25.40	KG160XP0	L18WA1600	CSXG162
18.00	457.20	20.00	508.00	1.00	25.40	KG180AR0	L15WA1800	CSEG180



93

Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
NBA19025	FPAG708	47000	63000	2480	2.77 kg
NBC19025	FPCG708	46500	53000	2450	2.77 kg
NBX19025	FPXG708	62000	92000	1340	2.77 kg
NBA20325	FPAG800	48000	67000	2340	2.95 kg
NBC20325	FPCG800	48000	57000	2320	2.95 kg
NBX20325	FPXG800	64000	100000	1250	2.95 kg
NBA22827	FPAG900	45330	84340	2000	3.27 kg
NBC22825	FPCG900	50000	64000	2080	3.27 kg
NBX22825	FPXG900	67000	112000	1100	3.27 kg
NBA25425	FPAG1000	46970	92750	1820	3.59 kg
NBC25425	FPCG1000	52000	71000	1890	3.58 kg
NBCX25425	FPXG1000	54000	80330	1090	3.59 kg
NBA27925	FPAG1100	48570	101200	1670	3.91 kg
NBC27925	FPCG1100	42910	87600	1670	3.91 kg
NBX27925	FPXG1100	56600	87600	1000	3.91 kg
NBA 30425	FPAG1200	55000	98000	1610	4.30 kg
NBC 30425	FPCG1200	52000	84000	1600	4.22 kg
NBX 30425	FPXG1200	74000	147000	810	4.22 kg
NBA35525	FPAG1400	52360	126460	1330	4.90 kg
NBC35525	FPCG1400	55000	98000	1380	4.90 kg
NBX35525	FPXG1400	78000	171000	680	4.90 kg
NBA40625	FPAG1600	54980	143320	1180	5.58 kg
NBC40625	FPCG1600	58000	112000	1210	5.58 kg
NBX40625	FPXG1600	67800	124100	710	5.58 kg
NBA45725	FPAG1800	57370	160220	1050	6.21 kg

Sonder-Dünnringlager / Ultra Thin Section Series



94

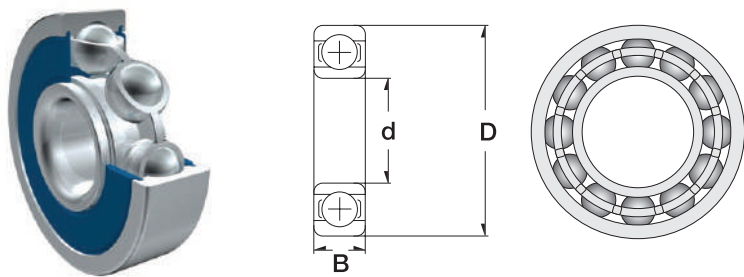
Dimension (inch / mm)						Designation/Type		
ID inch	ID mm	OD inch	OD mm	Width inch	Width mm	ZEN	FAG	INA
18.00	457.20	20.00	508.00	1.00	25.40	KG180CP0	L10WA1800	CSCG180
18.00	457.20	20.00	508.00	1.00	25.40	KG180XP0	L18WA1800	CSXG180
20.00	508.00	22.00	558.80	1.00	25.40	KG200AR0	L15WA2000	CSEG200
20.00	508.00	22.00	558.80	1.00	25.40	KG200CP0	L10WA2000	CSCG200
20.00	508.00	22.00	558.80	1.00	25.40	KG200XP0	L18WA2000	CSXG200



Designation/Type		*Load Rating C, dyn. N	*Load Rating C, stat. N	*Limiting Speed (rpm) Grease	Weight (kg) approx.
NSK	SKF				
NBC45725	FPCG1800	60000	126000	1080	6.21 kg
NBX45725	FPXG1800	85000	219000	510	6.21 kg
NBA50825	FPAG2000	60550	177080	950	7.17 kg
NBC50825	FPCG2000	63000	139000	970	7.16 kg
NBX50825	FPXG2000	88000	242000	450	7.16 kg

95

Standardrillen­kugellager / Popular Metric Series

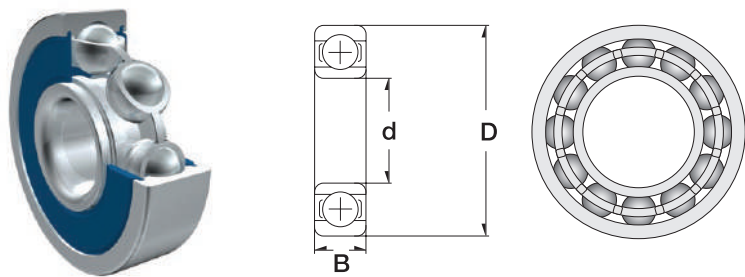


96

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed x1000rpm (open & 2Z)	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N		
				Chrome Steel	Chrome Steel	Chrome Steel				
standard	10.0	26.0	8.0	6000	6000-2Z	6000-2RS	4550	1970	30.0	18 g
flanged	10.0	26.0	8.0	F 6000	F 6000-2Z	F 6000-2RS	4550	1970	30.0	20 g
standard	10.0	28.0	8.0	16100	16100-2Z	16100-2RS	4620	1960	28.0	22 g
standard	10.0	30.0	9.0	6200	6200-2Z	6200-2RS	5100	2390	24.0	32 g
standard	10.0	30.0	14.0	-	-	62200-2RS	5070	2360	17.0	40 g
standard	10.0	35.0	11.0	6300	6300-2Z	6300-2RS	8100	3450	22.0	52 g
flanged	10.0	35.0	11.0	F 6300	F 6300-2Z	F 6300-2RS	8100	3450	22.0	57 g
standard	10.0	35.0	17.0	-	-	62300-2RS	8060	3400	15.0	60 g
standard	12.0	28.0	7.0	16001	16001-2Z	16001-2RS	4650	1980	27.0	22 g
standard	12.0	28.0	8.0	6001	6001-2Z	6001 -2RS	5100	2370	28.0	22 g
flanged	12.0	28.0	8.0	F 6001	F 6001-2Z	F 6001 -2RS	5100	2370	28.0	24 g
standard	12.0	30.0	8.0	16101	16101-2Z	16101-2RS	5070	2360	26.0	23 g
standard	12.0	32.0	10.0	6201	6201-2Z	6201-2RS	6800	3050	22.0	37 g
standard	12.0	32.0	14.0	-	-	62201-2RS	6890	3100	15.0	45 g
standard	12.0	37.0	12.0	6301	6301-2Z	6301-2RS	9700	4200	20.0	60 g
standard	12.0	37.0	17.0	-	-	62301-RS	9750	4150	14.0	70 g
standard	15.0	32.0	8.0	16002	16002-2Z	16002-2RS	5590	2850	22.0	25 g
standard	15.0	32.0	9.0	6002	6002-2Z	6002-2RS	5600	2830	24.0	31 g
flanged	15.0	32.0	9.0	F 6002	F 6002-2Z	F 6002-2RS	5600	2830	24.0	34 g
standard	15.0	35.0	11.0	6202	6202-2Z	6202-2RS	7650	3750	20.0	45 g
flanged	15.0	35.0	11.0	F 6202	F 6202-2Z	F 6202-2RS	7650	3750	20.0	50 g
standard	15.0	35.0	14.0	-	-	62202-2RS	7800	3750	13.0	54 g
standard	15.0	42.0	13.0	6302	6302-2Z	6302-2RS	11400	5450	17.0	83 g
standard	15.0	42.0	17.0	-	-	62302-2RS	11400	5400	12.0	110 g
standard	17.0	35.0	8.0	16003	16003-2Z	16003-2RS	6050	3250	19.0	32 g
standard	17.0	35.0	10.0	6003	6003-2Z	6003-2RS	6000	3250	22.0	41 g
flanged	17.0	35.0	10.0	F 6003	F 6003-2Z	F 6003-2RS	6000	3250	22.0	45 g

Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3

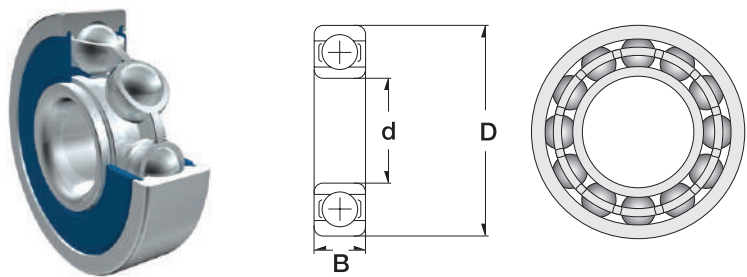
Standardrillen­kugellager / Popular Metric Series



97

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N	x1000rpm (open & 2Z)	
				Chrome Steel	Chrome Steel	Chrome Steel			Grease	
standard	17.0	40.0	12.0	6203	6203-2Z	6203-2RS	9550	4800	17.0	67 g
flanged	17.0	40.0	12.0	F 6203	F 6203-2Z	F 6203-2RS	9550	4800	17.0	74 g
standard	17.0	40.0	16.0	-	-	62203-2RS	9560	4750	12.0	83 g
standard	17.0	47.0	14.0	6303	6303-2Z	6303-2RS	13600	6650	15.0	113 g
standard	17.0	47.0	19.0	-	-	62303-2RS	13500	6550	11.0	150 g
standard	17.0	62.0	17.0	6403	6403-2Z	6403-2RS	22900	10800	15.0	270 g
standard	20.0	42.0	8.0	16004	16004-2Z	16004-2RS	6900	4050	17.0	50 g
standard	20.0	42.0	12.0	6004	6004-2Z	6004-2RS	9400	5000	18.0	68 g
flanged	20.0	42.0	12.0	F 6004	F 6004-2Z	F 6004-2RS	9400	5000	18.0	75 g
standard	20.0	47.0	14.0	6204	6204-2Z	6204-2RS	12800	6600	15.0	107 g
flanged	20.0	47.0	14.0	F 6204	F 6204-2Z	F 6204-2RS	12800	6600	15.0	118 g
standard	20.0	47.0	18.0	-	-	62204-2RS	12700	6550	10.0	130 g
standard	20.0	52.0	15.0	6304	6304-2Z	6304-2RS	15900	7900	14.0	145 g
standard	20.0	52.0	21.0	-	-	62304-2RS	15900	7800	9.5	200 g
standard	20.0	72.0	19.0	6404	6404-2Z	6404-2RS	30700	15000	9.9	400 g
standard	25.0	47.0	8.0	16005	16005-2Z	16005-2RS	7600	4700	14.0	60 g
standard	25.0	47.0	12.0	6005	6005-2Z	6005-2RS	10100	5850	15.0	79 g
flanged	25.0	47.0	12.0	F 6005	F 6005-2Z	F 6005-2RS	10100	5850	15.0	87 g
standard	25.0	52.0	15.0	6205	6205-2Z	6205-2RS	14000	7850	13.0	129 g
flanged	25.0	52.0	15.0	F 6205	F 6205-2Z	F 6205-2RS	14000	7850	13.0	142 g
standard	25.0	52.0	18.0	-	-	62205-2RS	14000	7800	8.5	150 g
standard	25.0	62.0	17.0	6305	6305-2Z	6305-2RS	20600	11200	11.0	235 g
standard	25.0	62.0	24.0	-	-	62305-2RS	22500	11600	7.5	320 g
standard	25.0	80.0	21.0	6405	6405-2Z	6405-2RS	35000	19100	8.8	530 g
standard	30.0	55.0	9.0	16006	16006-2Z	16006-2RS	8300	5800	12.0	85 g
standard	30.0	55.0	13.0	6006	6006-2Z	6006-2RS	13200	8300	13.0	116 g
flanged	30.0	55.0	13.0	F 6006	F 6006-2Z	F 6006-2RS	13200	8300	13.0	128 g

Standarddrillenkugellager / Popular Metric Series

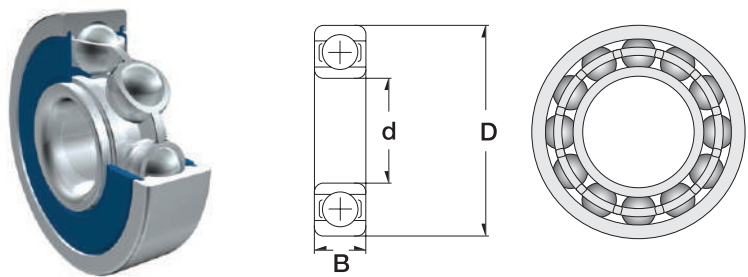


98

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed x1000rpm (open & 2Z)	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N	Grease	
				Chrome Steel	Chrome Steel	Chrome Steel				
standard	30.0	62.0	16.0	6206	6206-2Z	6206-2RS	19500	11300	11.0	199 g
flanged	30.0	62.0	16.0	F 6206	F 6206-2Z	F 6206-2RS	19500	11300	11.0	219 g
standard	30.0	62.0	20.0	-	-	62206-2RS	19500	11200	7.5	240 g
standard	30.0	72.0	19.0	6306	6306-2Z	6306-2RS	26700	15000	9.5	345 g
standard	30.0	72.0	27.0	-	-	62306-2RS	28100	16000	6.3	480 g
standard	30.0	90.0	23.0	6406	-	-	43500	23800	8.7	740 g
standard	35.0	62.0	9.0	16007	16007-2Z	16007-2RS	9000	6600	9.5	110 g
standard	35.0	62.0	14.0	6007	6007-2Z	6007-2RS	16000	10300	11.0	151 g
flanged	35.0	62.0	14.0	F 6007	F 6007-2Z	F 6007-2RS	16000	10300	11.0	166 g
standard	35.0	72.0	17.0	6207	6207-2Z	6207-2RS	25700	15300	9.5	284 g
flanged	35.0	72.0	17.0	F 6207	F 6207-2Z	F 6207-2RS	25700	15300	9.5	312 g
standard	35.0	72.0	23.0	-	-	62207-2RS	25500	15300	6.3	370 g
standard	35.0	80.0	21.0	6307	6307-2Z	6307-2RS	33500	19200	8.5	464 g
standard	35.0	80.0	31.0	-	-	62307-2RS	33200	19000	6.0	660 g
standard	35.0	100.0	25.0	6407	-	-	55200	31500	6.8	950 g
standard	40.0	68.0	9.0	16008	16008-2Z	16008-2RS	9700	7450	9.0	130 g
standard	40.0	68.0	15.0	6008	6008-2Z	6008-2RS	16800	11500	10.0	190 g
flanged	40.0	68.0	15.0	F 6008	F 6008-2Z	F 6008-2RS	16800	11500	10.0	209 g
standard	40.0	80.0	18.0	6208	6208-2Z	6208-2RS	29100	17900	8.5	366 g
standard	40.0	80.0	23.0	62208	-	62208-2RS	30700	19000	5.6	440 g
standard	40.0	90.0	23.0	6308	6308-2Z	6308-2RS	40500	24000	7.5	636 g
standard	40.0	90.0	33.0	62308	-	62308-2RS	41000	24000	5.0	890 g
standard	40.0	110.0	27.0	6408	-	-	63000	36000	6.5	1250 g
standard	45.0	75.0	10.0	16009	16009-2Z	16009-2RS	11500	8950	8.5	170 g
standard	45.0	75.0	16.0	6009	6009-2Z	6009-2RS	20900	15200	9.0	241 g
flanged	45.0	75.0	16.0	F 6009	F 6009-2Z	F 6009-2RS	20900	15200	9.0	265 g
standard	45.0	85.0	19.0	6209	6209-2Z	6209-2RS	31500	20400	7.5	420 g

Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3

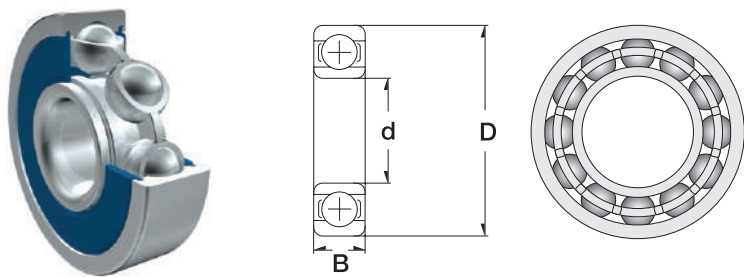
Standarddrillenkugellager / Popular Metric Series



99

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed x1000rpm (open & 2Z)	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N	Grease	
				Chrome Steel	Chrome Steel	Chrome Steel				
standard	45.0	85.0	23.0	62209	-	62209-2RS	33200	21600	5.0	480 g
standard	45.0	100.0	25.0	6309	6309-2Z	6309-2RS	53000	32000	6.7	829 g
standard	45.0	100.0	36.0	62309	-	62309-2RS	52700	31500	4.5	1150 g
standard	45.0	120.0	29.0	6409	-	-	75500	44500	5.8	1550 g
standard	50.0	80.0	10.0	16010	16010-2Z	16010-2RS	12000	9650	8.0	180 g
standard	50.0	80.0	16.0	6010	6010-2Z	6010-2RS	21800	16600	8.5	261 g
flanged	50.0	80.0	16.0	F 6010	F 6010-2Z	F 6010-2RS	21800	16600	8.5	287 g
standard	50.0	90.0	20.0	6210	6210-2Z	6210-2RS	35000	23200	7.1	459 g
standard	50.0	90.0	20.0	6210 M	-	-	35000	23200	7.1	560 g
standard	50.0	90.0	23.0	62210	-	62210-2RS	35100	23200	4.8	520 g
standard	50.0	110.0	27.0	6310	6310-2Z	6310-2RS	62000	38500	6.0	1060 g
standard	50.0	110.0	27.0	6310 M	-	-	62000	38500	6.2	1070 g
standard	50.0	110.0	40.0	62310	-	62310-2RS	61800	38000	4.3	1550 g
standard	50.0	130.0	31.0	6410	-	-	87000	51500	5.2	1900 g
standard	50.0	130.0	31.0	6410 M	-	-	87000	51500	5.2	2070 g
standard	55.0	90.0	11.0	16011	16011-2Z	16011-2RS	16600	14000	19.0	270 g
standard	55.0	90.0	18.0	6011	6011-2Z	6011-2RS	28500	21200	7.5	410 g
standard	55.0	100.0	21.0	6211	6211-2Z	6211-2RS	43000	29000	6.7	630 g
standard	55.0	100.0	21.0	6211 M	-	-	43000	29000	6.7	670 g
standard	55.0	120.0	29.0	6311	6311-2Z	6311-2RS	76500	47500	5.3	1430 g
standard	55.0	120.0	29.0	6311 M	-	-	76500	47500	5.3	1560 g
standard	55.0	140.0	33.0	6411	-	-	99500	62000	4.9	2300 g
standard	55.0	140.0	33.0	6411 M	-	-	99500	62000	4.9	2590 g
standard	60.0	95.0	11.0	16012	16012-2Z	16012-2RS	20000	17600	17.0	280 g
standard	60.0	95.0	18.0	6012	6012-2Z	6012-2RS	29000	23200	7.0	430 g

Standardrillen­kugellager / Popular Metric Series

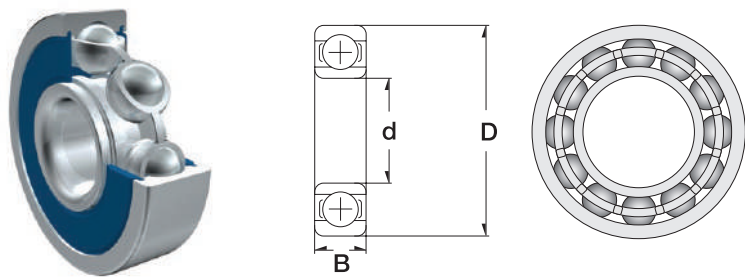


100

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N	x1000rpm (open & 2Z)	
				Chrome Steel	Chrome Steel	Chrome Steel			Grease	
standard	60.0	110.0	22.0	6212	6212-2Z	6212-2RS	52000	36000	6.0	810 g
standard	60.0	110.0	22.0	6212 M	-	-	52000	36000	6.0	880 g
standard	60.0	130.0	31.0	6312	6312-2Z	6312-2RS	81500	52000	5.0	1790 g
standard	60.0	130.0	31.0	6312 M	-	-	81500	52000	5.0	1920 g
standard	60.0	150.0	35.0	6412	-	-	109000	70000	4.7	2750 g
standard	60.0	150.0	35.0	6412 M	-	-	109000	70000	4.7	3110 g
standard	65.0	100.0	11.0	16013	16013-2Z	16013-2RS	21200	19600	16.0	300 g
standard	65.0	100.0	18.0	6013	6013-2Z	6013-2RS	30500	25000	6.3	460 g
standard	65.0	120.0	23.0	6213	6213-2Z	6213-2RS	60000	41500	5.3	1030 g
standard	65.0	120.0	23.0	6213 M	-	-	60000	41500	5.3	1080 g
standard	65.0	140.0	33.0	6313	6313-2Z	6313-2RS	93000	60000	4.5	2180 g
standard	65.0	140.0	33.0	6313 M	-	-	93000	60000	4.5	2350 g
standard	65.0	160.0	37.0	6413	-	-	120000	77000	4.5	3300 g
standard	65.0	160.0	37.0	6413 M	-	-	120000	77000	4.5	3640 g
standard	70.0	110.0	13.0	16014	16014-2Z	16014-2RS	28000	25000	14.0	440 g
standard	70.0	110.0	20.0	6014	6014-2Z	6014-2RS	38000	31000	14.0	640 g
standard	70.0	125.0	24.0	6214	6214-2Z	6214-2RS	62000	44000	5.0	1110 g
standard	70.0	125.0	24.0	6214 M	-	-	62000	44000	5.0	1290 g
standard	70.0	150.0	35.0	6314	6314-2Z	6314-2RS	104000	68000	4.3	260 g
standard	70.0	150.0	35.0	6314 M	-	-	104000	68000	4.3	2860 g
standard	70.0	170.0	42.0	6414	-	-	145000	99000	3.7	4850 g
standard	70.0	170.0	42.0	6414 M	-	-	145000	99000	3.7	5300 g
standard	75.0	115.0	13.0	16015	16015-2Z	16015-2RS	28500	27000	13.0	460 g
standard	75.0	115.0	20.0	6015	6015-2Z	6015-2RS	39000	33500	12.0	850 g
standard	75.0	130.0	25.0	6215	6215-2Z	6215-2RS	65500	49000	4.8	1210 g

Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3

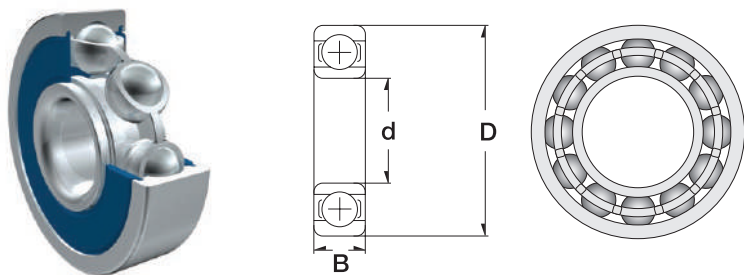
Standardrillen­kugellager / Popular Metric Series



101

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N	x1000rpm (open & 2Z)	
				Chrome Steel	Chrome Steel	Chrome Steel			Grease	
standard	75.0	130.0	25.0	6215 M	-	-	65500	49000	4.8	1350 g
standard	75.0	160.0	37.0	6315	6315-2Z	6315-2RS	114000	76500	7.0	3180 g
standard	75.0	160.0	37.0	6315 M	-	-	114000	76500	7.0	3470 g
standard	75.0	190.0	45.0	6415	-	-	152000	114000	3.6	6800 g
standard	75.0	190.0	45.0	6415 M	-	-	152000	114000	3.6	6240 g
standard	80.0	125.0	14.0	16016	16016-2Z	16016-2RS	32000	31000	13.0	610 g
standard	80.0	125.0	22.0	6016	6016-2Z	6016 2RS	47500	40000	5.0	890 g
standard	80.0	140.0	26.0	6216	6216-2Z	6216-2RS	72000	54000	4.5	1490 g
standard	80.0	140.0	26.0	6216 M	-	-	72000	54000	4.5	1590 g
standard	80.0	170.0	39.0	6316	6316-2Z	6316-2RS	122000	86500	6.7	3750 g
standard	80.0	170.0	39.0	6316 M	-	-	122000	86500	6.7	4080 g
standard	80.0	200.0	48.0	6416	-	-	164000	126000	3.4	8000 g
standard	80.0	200.0	48.0	6416 M	-	-	164000	126000	3.4	7430 g
standard	85.0	130.0	14.0	16017	16017-2Z	16017-2RS	34000	33500	12.0	670 g
standard	85.0	130.0	22.0	6017	6017-2Z	6017-2RS	49000	43000	4.8	940 g
standard	85.0	150.0	28.0	6217	6217-2Z	6217-2RS	83000	64000	4.3	1910 g
standard	85.0	150.0	28.0	6217 M	-	-	83000	64000	4.3	2000 g
standard	85.0	180.0	41.0	6317	6317-2Z	6317-2RS	132000	96500	6.3	4250 g
standard	85.0	180.0	41.0	6317 M	-	-	132000	96500	6.3	4850 g
standard	85.0	210.0	52.0	6417	-	-	165000	136000	3.2	8120 g
standard	85.0	210.0	52.0	6417 M	-	-	165000	136000	3.2	9090 g
standard	90.0	140.0	16.0	16018	16018-2Z	16018-2RS	41500	39000	11.0	870 g
standard	90.0	140.0	24.0	6018	6018-2Z	6018-2RS	58500	50000	4.5	1230 g
standard	90.0	140.0	24.0	6018 M	-	-	58500	50000	4.5	1230 g
standard	90.0	160.0	30.0	6218	6218-2Z	6218-2RS	96500	72000	3.8	2260 g

Standardrillen­kugellager / Popular Metric Series

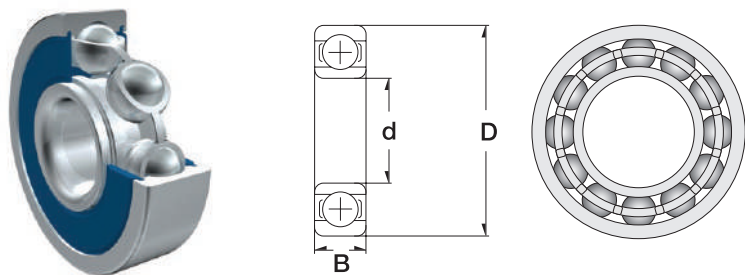


102

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed x1000rpm (open & 2Z)	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N	Grease	
				Chrome Steel	Chrome Steel	Chrome Steel				
standard	90.0	160.0	30.0	6218 M	-	-	96500	72000	3.8	2430 g
standard	90.0	190.0	43.0	6318	6318-2Z	6318-2RS	134000	102000	6.0	5530 g
standard	90.0	190.0	43.0	6318 M	-	-	134000	102000	6.0	5570 g
standard	90.0	225.0	54.0	6418	-	-	193000	158000	3.0	9470 g
standard	90.0	225.0	54.0	6418 M	-	-	193000	158000	3.0	10600 g
standard	95.0	145.0	16.0	16019	16019-2Z	16019-2RS	40000	40500	11.0	920 g
standard	95.0	145.0	24.0	6019	6019-2Z	6019-2RS	60000	54000	4.2	1290 g
standard	95.0	145.0	24.0	6019 M	-	-	60000	54000	4.2	1290 g
standard	95.0	170.0	32.0	6219	6219-2Z	6219-2RS	108000	81500	3.6	2790 g
standard	95.0	170.0	32.0	6219 M	-	-	108000	81500	3.6	2900 g
standard	95.0	200.0	45.0	6319	6319-2Z	6319-2RS	146000	114000	4.5	7140 g
standard	95.0	200.0	45.0	6319 M	-	-	146000	114000	4.5	6330 g
standard	95.0	240.0	55.0	6419	-	-	204000	171000	3.4	13400 g
standard	95.0	240.0	55.0	6419 M	-	-	204000	171000	3.4	15000 g
standard	100.0	150.0	16.0	16020	16020-2Z	16020-2RS	44000	44000	10.0	960 g
standard	100.0	150.0	24.0	6020	6020-2Z	6020-2RS	60000	54000	4.0	1350 g
standard	100.0	150.0	24.0	6020 M	-	-	60000	54000	4.0	1350 g
standard	100.0	180.0	34.0	6220	6220-2Z	6220-2RS	122000	93000	3.4	3660 g
standard	100.0	180.0	34.0	6220 M	-	-	122000	93000	3.4	3550 g
standard	100.0	215.0	47.0	6320	6320-2Z	6320-2RS	163000	134000	4.0	7780 g
standard	100.0	215.0	47.0	6320 M	-	-	163000	134000	4.0	7850 g
standard	100.0	250.0	58.0	6420	-	-	224000	195000	2.6	12800 g
standard	100.0	250.0	58.0	6420 M	-	-	224000	195000	2.6	14340 g
standard	105.0	160.0	18.0	16021	-	-	76300	86500	3.1	1230 g
standard	105.0	160.0	18.0	16021 M	-	-	76300	86500	3.1	1400 g

Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3

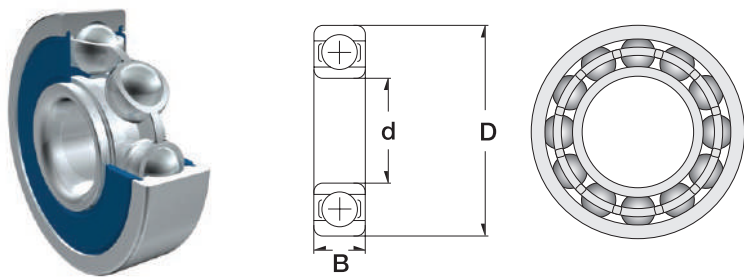
Standardrillen­kugellager / Popular Metric Series



103

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed x1000rpm (open & 2Z)	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N	Grease	
				Chrome Steel	Chrome Steel	Chrome Steel				
standard	105.0	190.0	36.0	6221	-	-	132000	105000	3.2	3660 g
standard	105.0	190.0	36.0	6221 M	-	-	132000	105000	3.2	4060 g
standard	105.0	190.0	36.0	6221-2RS	-	-	132000	105000	3.2	3840 g
standard	105.0	190.0	36.0	6221-2Z	-	-	132000	105000	3.2	3840 g
standard	110.0	170.0	19.0	16022	-	-	43000	41500	4.3	1450 g
standard	110.0	170.0	19.0	16022 M	-	-	43000	41500	4.3	1450 g
standard	110.0	170.0	28.0	6022	6022-2Z	6022-2RS	62500	56000	3.6	1950 g
standard	110.0	200.0	38.0	6222	6222-2Z	6222-2RS	111500	99000	2.8	4350 g
standard	110.0	200.0	38.0	6222 M	-	-	111500	99000	2.8	4500 g
standard	110.0	240.0	50.0	6322	6322-2Z	6322-2RS	155500	165000	2.4	7290 g
standard	110.0	240.0	50.0	6322 M	-	-	155500	165000	2.4	7850 g
standard	120.0	180.0	19.0	16024	-	-	46500	46500	3.8	1600 g
standard	120.0	180.0	19.0	16024 M	-	-	46500	46500	3.8	1600 g
standard	120.0	180.0	28.0	6024	6024-2Z	6024-2RS	65000	60000	3.2	2050 g
standard	120.0	215.0	40.0	6224	6224-2Z	6224-2RS	111500	99000	2.6	5150 g
standard	120.0	215.0	40.0	6224 M	-	-	111500	99000	2.6	5500 g
standard	120.0	260.0	55.0	6324	6324-2Z	6324-2RS	159500	165000	2.2	14500 g
standard	120.0	260.0	55.0	6324 M			159500	165000	2.2	13660 g
standard	130.0	200.0	22.0	16026	-	-	60000	60000	3.6	2350 g
standard	130.0	200.0	22.0	16026 M	-	-	108400	113200	2.4	2600 g
standard	130.0	200.0	33.0	6026	6026-2Z	6026-2RS	81000	77000	3.0	3150 g
standard	130.0	200.0	33.0	6026 M	-	-	81000	77000	3.0	3151 g
standard	130.0	230.0	40.0	6226	6226-2Z	6226-2RS	119500	111000	2.4	6040 g
standard	130.0	230.0	40.0	6226 M			119500	111000	2.4	6340 g
standard	130.0	280.0	58.0	6326	6326-2Z	6326-2RS	175500	192000	2.0	15200 g

Standardrillen­kugellager / Popular Metric Series

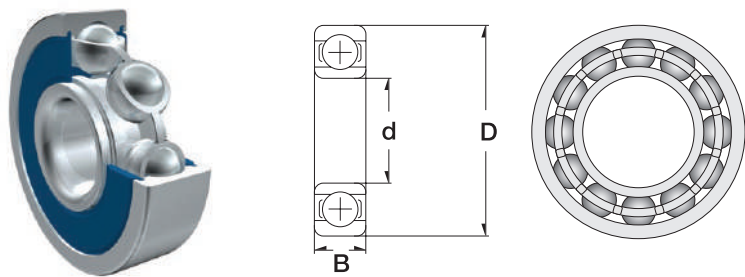


104

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed x1000rpm (open & 2Z)	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N		
				Chrome Steel	Chrome Steel	Chrome Steel				
standard	130.0	280.0	58.0	6326 M	-	-	175500	192000	2.0	16460 g
standard	140.0	210.0	22.0	16028	-	-	61000	63000	3.4	2500 g
standard	140.0	210.0	22.0	16028 M	-	-	61000	63000	3.4	2500 g
standard	140.0	210.0	33.0	6028	6028-2Z	6028-2RS	84500	82000	2.8	3350 g
standard	140.0	210.0	33.0	6028 M	-	-	84500	82000	2.8	3350 g
standard	140.0	250.0	42.0	6228	6228-2Z	6228-2RS	126500	121000	2.2	7700 g
standard	140.0	250.0	42.0	6228 M	-	-	126500	121000	2.2	8230 g
standard	140.0	300.0	62.0	6328	6328-2Z	6328-2RS	195500	223000	1.8	22000 g
standard	140.0	300.0	62.0	6328 M	-	-	195500	223000	1.8	22000 g
standard	150.0	225.0	24.0	16030	-	-	70000	72500	3.0	3150 g
standard	150.0	225.0	24.0	16030 M	-	-	70000	72500	3.0	3150 g
standard	150.0	225.0	35.0	6030	-	-	96000	95500	2.4	4800 g
standard	150.0	225.0	35.0	6030 M	6030-2Z	6030-2RS	96000	95500	2.4	4800 g
standard	150.0	270.0	45.0	6230	6230-2Z	6230-2RS	133500	136000	1.8	9400 g
standard	150.0	270.0	45.0	6230 M	-	-	133500	136000	1.8	9400 g
standard	150.0	320.0	65.0	6330	6330-2Z	6330-2RS	277000	280000	1.7	21400 g
standard	150.0	320.0	65.0	6330 M	-	-	277000	280000	1.7	23970 g
standard	160.0	240.0	25.0	16032	-	-	75500	79000	2.8	3700 g
standard	160.0	240.0	25.0	16032 M	-	-	75500	79000	2.8	3700 g
standard	160.0	240.0	38.0	6032	6032-2Z	6032-2RS	109500	111000	2.2	5900 g
standard	160.0	240.0	38.0	6032 M	-		109500	111000	2.2	5900 g
standard	160.0	290.0	48.0	6232	6232-2Z	6232-2RS	142500	145000	1.7	14500 g
standard	160.0	290.0	48.0	6232 M	-	-	142500	145000	1.7	14500 g
standard	170.0	260.0	28.0	16034	-	16034-2RS	141000	158000	1.4	5930 g
standard	170.0	260.0	28.0	16034 M	-	-	90500	95500	2.6	5000 g

Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3

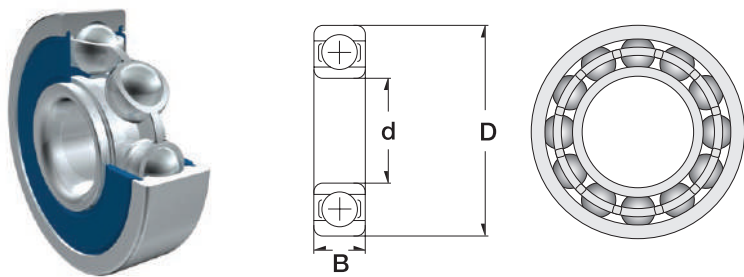
Standardrillen­kugellager / Popular Metric Series



105

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N	x1000rpm (open & 2Z)	
				Chrome Steel	Chrome Steel	Chrome Steel			Grease	
standard	170.0	260.0	42.0	6034	6034-2Z	6034-2RS	128500	133000	2.0	5000 g
standard	170.0	260.0	42.0	6034 M	-	-	128500	133000	2.0	7900 g
standard	170.0	310.0	52.0	6234	6234-2Z	6234-2RS	162500	179000	1.7	15960 g
standard	170.0	310.0	52.0	6234 M	-	-	162500	179000	1.7	16870 g
standard	170.0	360.0	72.0	6334	-	-	350000	380000	1.7	30900 g
standard	170.0	360.0	72.0	6334 M	-	-	350000	380000	1.7	34610 g
standard	180.0	280.0	31.0	16036	-	-	105000	111000	2.4	17500 g
standard	180.0	280.0	31.0	16036 M	-	-	105000	111000	2.4	6600 g
standard	180.0	280.0	46.0	6036	6036-2Z	6036-2RS	145500	155000	2.0	6600 g
standard	180.0	280.0	46.0	6036 M	-	-	145500	155000	2.0	10500 g
standard	180.0	320.0	52.0	6236	6236-2Z	6236-2RS	175500	195000	1.6	10500 g
standard	180.0	320.0	52.0	6236 M	-	-	175500	195000	1.6	18500 g
standard	180.0	380.0	75.0	6336	-	-	340000	400000	1.7	49500 g
standard	180.0	380.0	75.0	6336 M	-	-	340000	400000	1.7	55440 g
standard	190.0	290.0	31.0	16038	-	-	113000	124000	2.4	7900 g
standard	190.0	290.0	31.0	16038 M	-	-	113000	124000	2.4	7900 g
standard	190.0	290.0	46.0	6038	6038-2Z	6038-2RS	149500	165000	1.8	11000 g
standard	190.0	290.0	46.0	6038 M	-	-	149500	165000	1.8	11000 g
standard	190.0	340.0	55.0	6238	6238-2Z	6238-2RS	195500	231000	1.5	19850 g
standard	190.0	340.0	55.0	6238 M	-	-	195500	231000	1.5	23000 g
standard	190.0	400.0	78.0	6338			360000	425000	1.6	50000 g
standard	190.0	400.0	78.0	6338 M			360000	425000	1.6	66000 g
standard	200.0	310.0	34.0	16040	16040-2Z	16040-2RS	128000	142000	2.2	8850 g
standard	200.0	310.0	34.0	16040 M	-	-	128000	142000	2.2	8850 g
standard	200.0	310.0	51.0	6040	6040-2Z	6040-2RS	165500	189000	1.7	14000 g

Standardrillenkugellager / Popular Metric Series

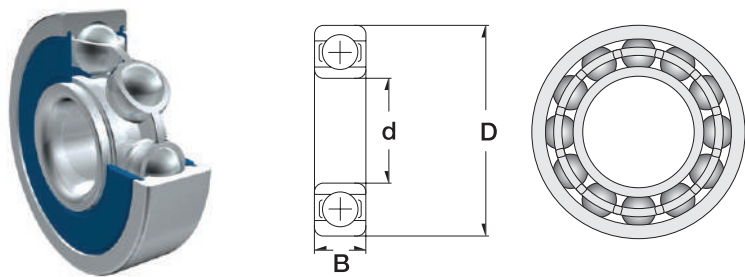


106

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed x1000rpm (open & 2Z)	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N	Grease	
				Chrome Steel	Chrome Steel	Chrome Steel				
standard	200.0	310.0	51.0	6040 M	-	-	165500	189000	1.7	14000 g
standard	200.0	360.0	58.0	6240	-	-	207500	249000	1.5	28000 g
standard	200.0	360.0	58.0	6240 M	-	-	207500	249000	1.5	28000 g
standard	220.0	340.0	37.0	16044	-	-	133000	152000	2.0	11500 g
standard	220.0	340.0	37.0	16044 M	-	-	133000	152000	2.0	11500 g
standard	220.0	340.0	56.0	6044	6044-2Z	6044-2RS	189500	227000	1.6	18500 g
standard	220.0	340.0	56.0	6044 M	-	-	189500	227000	1.6	18500 g
standard	220.0	400.0	65.0	6244	-	-	227500	289000	1.3	37000 g
standard	220.0	400.0	65.0	6244 M	-	-	227500	289000	1.3	37000 g
standard	240.0	360.0	37.0	16048	-	-	136000	159000	1.8	14500 g
standard	240.0	360.0	37.0	16048 M	-	-	136000	159000	1.8	14500 g
standard	240.0	360.0	56.0	6048	-	6048-2RS	195500	244000	1.5	19500 g
standard	240.0	360.0	56.0	6048 M	-	-	195500	244000	1.5	19500 g
standard	240.0	440.0	72.0	6248	-	-	360000	470000	1.3	51800 g
standard	240.0	440.0	72.0	6248 M	-	-	360000	470000	1.4	57500 g
standard	260.0	400.0	44.0	16052	-	-	182000	231000	1.6	21500 g
standard	260.0	400.0	44.0	16052 M	-	-	182000	231000	1.6	21500 g
standard	260.0	400.0	65.0	6052	-	6052-2RS	223500	289000	1.3	29500 g
standard	260.0	400.0	65.0	6052 M	-	-	223500	289000	1.3	29500 g
standard	260.0	480.0	80.0	6252	-	-	430000	592000	1.1	68800 g
standard	260.0	480.0	80.0	6252 M	-	-	430000	592000	1.2	76370 g
standard	260.0	540.0	102.0	6352 M			501000	710000	1.0	120000 g
standard	280.0	420.0	44.0	16056			235000	330000	1.3	22500 g
standard	280.0	420.0	44.0	16056 M			235000	330000	1.3	24800 g
standard	280.0	420.0	65.0	6056		6056-2RS	231500	314000	1.2	31000 g

Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3

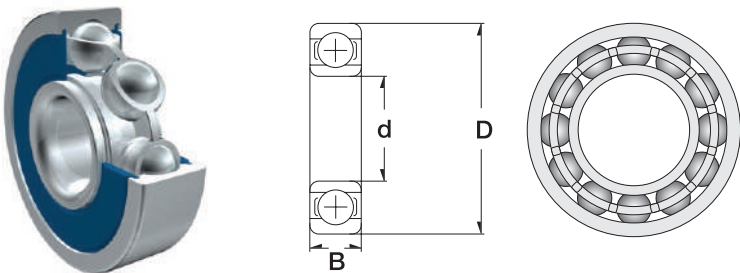
Standardrillenkugellager / Popular Metric Series



107

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N	x1000rpm (open & 2Z)	
				Chrome Steel	Chrome Steel	Chrome Steel			Grease	
standard	280.0	420.0	65.0	6056 M	-	-	231500	314000	1.2	31000 g
standard	300.0	460.0	50.0	16060			289000	400000	1.2	31500 g
standard	300.0	460.0	50.0	16060 M			289000	400000	1.2	36400 g
standard	300.0	460.0	74.0	6060			274500	389000	1.0	44000 g
standard	300.0	460.0	74.0	6060 M	-	-	274500	389000	1.0	44000 g
standard	320.0	480.0	50.0	16064			275000	400000	1.1	34000 g
standard	320.0	480.0	50.0	16064 M			275000	400000	1.1	37400 g
standard	320.0	480.0	74.0	6064			284500	414000	0.9	46000 g
standard	320.0	480.0	74.0	6064 M	-	-	284500	414000	0.9	46000 g
standard	340.0	520.0	57.0	16068			335000	520000	0.9	46000 g
standard	340.0	520.0	57.0	16068 M			335000	520000	0.9	50600 g
standard	340.0	520.0	82.0	6068			339500	539000	0.8	62000 g
standard	340.0	520.0	82.0	6068 M	-	-	339500	539000	0.8	62000 g
standard	360.0	540.0	57.0	16072	-	-	340000	540000	1.0	50000 g
standard	360.0	540.0	57.0	16072 M	-	-	340000	540000	1.0	55000 g
standard	360.0	540.0	82.0	6072	-	-	400000	622000	0.7	68000 g
standard	360.0	540.0	82.0	6072 M	-	-	400000	622000	0.7	75500 g
standard	380.0	560.0	57.0	16076	-	-	368000	615000	0.9	50000 g
standard	380.0	560.0	57.0	16076 M	-	-	368000	615000	0.9	65000 g
standard	380.0	560.0	82.0	6076	-	-	464000	663000	0.7	79000 g
standard	380.0	560.0	82.0	6076 M	-	-	464000	663000	0.7	82600 g
standard	400.0	600.0	90.0	6080	-	-	512000	868000	0.6	89400 g
standard	400.0	600.0	90.0	6080 M	-	-	51200	868000	0.6	90500 g
standard	420.0	620.0	90.0	6084	-	-	522000	908000	0.6	107120 g
standard	420.0	620.0	90.0	6084 M	-	-	522000	908000	0.6	110300 g

Standardrillen­kugellager / Popular Metric Series



108

	Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed x1000rpm (open & 2Z)	Weight (g) approx.
standard or flanged	d	D	B	Open	2Z	2RS/2TS	C, dyn. N	C, stat. N	Grease	
				Chrome Steel	Chrome Steel	Chrome Steel				
standard	440.0	650.0	94.0	6088	-	-	525000	917000	0.8	125600 g
standard	440.0	650.0	94.0	6088 M	-	-	525000	917000	0.8	125600 g
standard	460.0	680.0	100.0	6092	-	-	582000	1060000	0.8	130000 g
standard	460.0	680.0	100.0	6092 M	-	-	582000	1060000	0.8	136500 g
standard	480.0	700.0	100.0	6096	-	-	601000	1098000	0.6	136000 g
standard	480.0	700.0	100.0	6096 M	-	-	601000	1098000	0.6	152300 g
standard	500.0	720.0	100.0	60/500	-	-	625000	1178000	0.4	140000 g
standard	500.0	720.0	100.0	60/500 M	-	-	625000	1178000	0.4	160500 g
standard	560.0	820.0	115.0	60/560	-	-	663000	1385000	0.6	213000 g
standard	560.0	820.0	115.0	60/560 M	-	-	663000	1385000	0.6	215500 g

Auch erhältlich in C2, C0 und C3 / Also available in C2, C0 and C3

Produktfokus / Product focus



Nadellager
Needle Roller Bearings



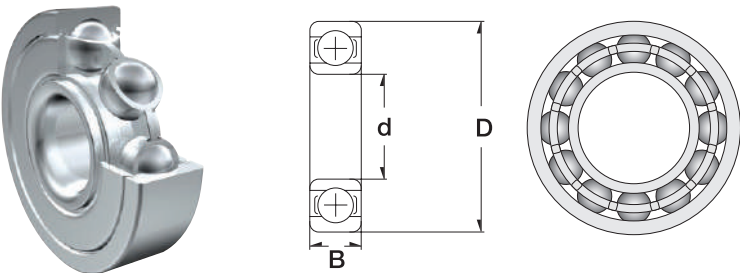
- ✓ Automobilindustrie
Automotive Industry
- ✓ Pumpen und Kompressoren
Pumps and Compressors
- ✓ Automatische und manuelle Getriebe
Automatic and Manual Transmissions
- ✓ Marine
Marine Applications
- ✓ Elektrowerkzeuge und Industriemaschinen
Power Tools and Industrial Machinery

Nadellager haben einen sehr kleinen Aussendurchmesser im Verhältnis zum Bohrung. Daher bieten sich Nadellager als Lösung an, wenn andere Wälzlager aus Platzmangel nicht verbaut werden können. In Verbindung mit käfiggeführten Nadeln sind zudem hohe Drehzahlen möglich. Durch ihre zusätzlich hohe Tragzahl eignen sich Nadellager auch bei Konstruktionen mit hohen Lasten.

Needle bearings have much smaller cylindrical rollers for a given bore size. This gives the advantage of a much higher speed capacity. Needle bearings are not as wide as standard types, but their load carrying capacity is much higher which makes them suitable for applications where the load is high and the radial space is limited.

SIEHE SEITE 140 / SEE PAGE 140

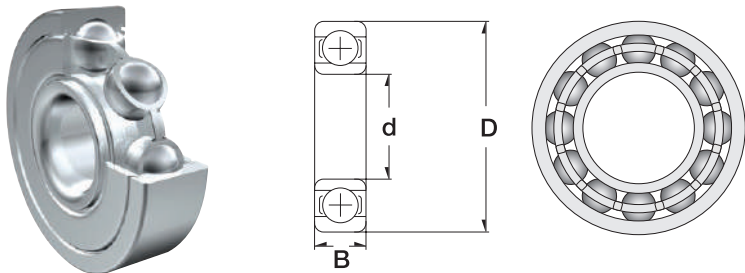
Rostfreie Standarddrillenkugellager / Stainless Steel Popular Metric Series



110

standard		flanged	Designation/Type					*Load Rating		Weight (g) approx.
Dimension (mm)										
d	D	B	Open	2Z	2RS	2TS	in C3	C, dyn. N	C, stat. N	
10.0	26.0	8.0	S6000	S6000-2Z	S6000-2RS	S6000-2TS	avail. / lieferb.	4620	1990	19 g
10.0	26.0	8.0	SF6000	SF6000-2Z	SF6000-2RS	-	-	3234	1393	21g
10.0	28.0	8.0	S16100	S16100-2Z	S16100-2RS	-	avail. / lieferb.	on request	auf Anfrage	22 g
10.0	30.0	9.0	S6200	S6200-2Z	S6200-2RS	S6200-2TS	avail. / lieferb.	5070	2360	32 g
10.0	30.0	9.0	SF6200	SF6200-2Z	SF6200-2RS	-	-	5070	2360	35 g
10.0	30.0	14.0	-	-	S62200-2RS	-	avail. / lieferb.	on request	auf Anfrage	40 g
10.0	35.0	11.0	S6300	S6300-2Z	S6300-2RS	-	avail. / lieferb.	8060	3400	53 g
10.0	35.0	17.0	-	-	S62300-2RS	-	avail. / lieferb.	on request	auf Anfrage	60 g
12.0	28.0	8.0	S6001	S6001-2Z	S6001-2RS	S6001-2TS	avail. / lieferb.	5070	2360	22 g
12.0	28.0	8.0	SF6001	SF6001-2Z	SF6001-2RS	-	-	5070	2360	24 g
12.0	30.0	8.0	S16001	S16001-2Z	S16001-2RS	-	avail. / lieferb.	on request	auf Anfrage	22 g
12.0	32.0	10.0	S6201	S6201-2Z	S6201-2RS	S6201-2TS	avail. / lieferb.	6870	3100	37 g
12.0	32.0	10.0	SF6201	SF6201-2Z	SF6201-2RS	-	-	6870	3100	41 g
12.0	32.0	14.0	-	-	S62201-2RS	-	avail. / lieferb.	on request	auf Anfrage	45 g
12.0	37.0	12.0	S6301	S6301-2Z	S6301-2RS	-	avail. / lieferb.	9750	4150	60 g
12.0	37.0	17.0	-	-	S62301-2RS	-	avail. / lieferb.	on request	auf Anfrage	70 g
15.0	32.0	8.0	S16002	S16002-2Z	S16002-2RS	-	avail. / lieferb.	on request	auf Anfrage	25 g
15.0	32.0	9.0	S6002	S6002-2Z	S6002-2RS	S6002-2TS	avail. / lieferb.	5590	2850	30 g
15.0	32.0	9.0	SF6002	SF6002-2Z	SF6002-2RS	-	-	5590	2850	33 g
15.0	35.0	11.0	S6202	S6202-2Z	S6202-2RS	S6202-2TS	avail. / lieferb.	7800	3100	45 g
15.0	35.0	11.0	SF6202	SF6202-2Z	SF6202-2RS	-	-	7800	3100	50 g
15.0	35.0	14.0	-	-	S62202-2RS	-	avail. / lieferb.	on request	auf Anfrage	54 g
15.0	42.0	13.0	S6302	S6302-2Z	S6302-2RS	-	avail. / lieferb.	11400	5400	82 g
15.0	42.0	17.0	-	-	S62302-2RS	-	avail. / lieferb.	on request	auf Anfrage	110 g
17.0	35.0	8.0	S16003	S16003-2Z	S16003-2RS	-	avail. / lieferb.	on request	auf Anfrage	32 g
17.0	35.0	10.0	S6003	S6003-2Z	S6003-2RS	S6003-2TS	avail. / lieferb.	6050	3250	39 g
17.0	40.0	12.0	S6203	S6203-2Z	S6203-2RS	S6203-2TS	avail. / lieferb.	9650	4750	65 g

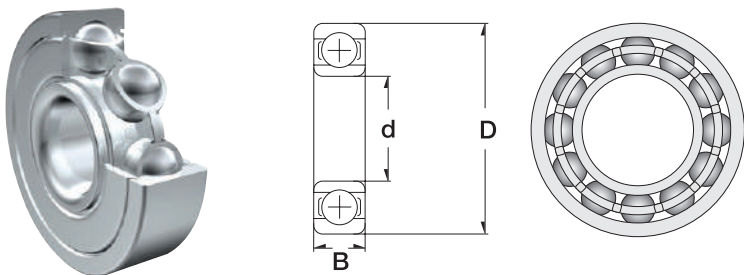
Rostfreie Standarddrillenkugellager / Stainless Steel Popular Metric Series



111

standard		flanged	Designation/Type					*Load Rating		Weight (g) approx.
Dimension (mm)										
d	D	B	Open	2Z	2RS	2TS	in C3	C, dyn. N	C, stat. N	
17.0	40.0	16.0	-	-	S62203-2RS	-	avail. / lieferb.	on request	auf Anfrage	83 g
17.0	47.0	14.0	S6303	S6303-2Z	S6303-2RS	-	avail. / lieferb.	13500	6550	120 g
17.0	47.0	19.0	-	-	S62303-2RS	-	avail. / lieferb.	on request	auf Anfrage	150 g
20.0	42.0	8.0	S16004	S16004-2Z	S16004-2RS	-	avail. / lieferb.	on request	auf Anfrage	50 g
20.0	42.0	12.0	S6004	S6004-2Z	S6004-2RS	S6004-2TS	avail. / lieferb.	9360	5000	69 g
20.0	47.0	14.0	S6204	S6204-2Z	S6204-2RS	S6204-2TS	avail. / lieferb.	12700	6550	110 g
20.0	47.0	18.0	-	-	S62204-2RS	-	avail. / lieferb.	on request	auf Anfrage	130 g
20.0	52.0	15.0	S6304	S6304-2Z	S6304-2RS	-	avail. / lieferb.	15900	7800	140 g
20.0	52.0	21.0	-	-	S62304-2RS	-	avail. / lieferb.	on request	auf Anfrage	200 g
25.0	47.0	8.0	S16005	S16005-2Z	S16005-2RS	-	avail. / lieferb.	on request	auf Anfrage	60 g
25.0	47.0	12.0	S6005	S6005-2Z	S6005-2RS	-	avail. / lieferb.	11200	6550	80 g
25.0	52.0	15.0	S6205	S6205-2Z	S6205-2RS	-	avail. / lieferb.	14000	7800	130 g
25.0	52.0	18.0	-	-	S62205-2RS	-	avail. / lieferb.	on request	auf Anfrage	150 g
25.0	62.0	17.0	S6305	S6305-2Z	S6305-2RS	-	avail. / lieferb.	22500	11600	230 g
25.0	62.0	24.0	-	-	S62305-2RS	-	avail. / lieferb.	on request	auf Anfrage	320 g
30.0	55.0	13.0	S6006	S6006-2Z	S6006-2RS	-	avail. / lieferb.	13300	8300	120 g
30.0	62.0	16.0	S6206	S6206-2Z	S6206-2RS	-	avail. / lieferb.	19500	11200	200 g
30.0	72.0	19.0	S6306	S6306-2Z	S6306-2RS	-	avail. / lieferb.	28100	16000	350 g
35.0	62.0	14.0	S6007	S6007-2Z	S6007-2RS	-	avail. / lieferb.	15900	10200	160 g
35.0	72.0	17.0	S6207	S6207-2Z	S6207-2RS	-	avail. / lieferb.	25500	15300	290 g
35.0	80.0	21.0	S6307	S6307-2Z	S6307-2RS	-	avail. / lieferb.	on request	auf Anfrage	450 g
40.0	68.0	15.0	S6008	S6008-2Z	S6008-2RS	-	avail. / lieferb.	16800	11600	190 g
40.0	80.0	18.0	S6208	S6208-2Z	S6208-2RS	-	avail. / lieferb.	30700	19000	370 g
40.0	90.0	23.0	S6308	S6308-2Z	S6308-2RS	-	avail. / lieferb.	33200	19000	460 g

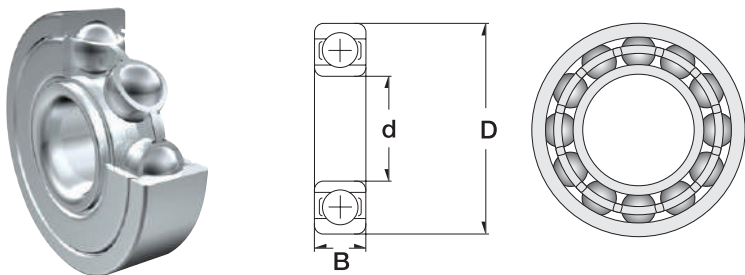
Rostfreie Standarddrillenkugellager / Stainless Steel Popular Metric Series



112

standard		flanged	Designation/Type					*Load Rating		Weight (g) approx.
Dimension (mm)										
d	D	B	Open	2Z	2RS	2TS	in C3	C, dyn. N	C, stat. N	
45.0	75.0	16.0	S6009	S6009-2Z	S6009-2RS	-	avail. / lieferb.	20860	14600	250 g
45.0	85.0	19.0	S6209	S6209-2Z	S6209-2RS	-	avail. / lieferb.	33200	21600	410 g
50.0	80.0	16.0	S6010	S6010-2Z	S6010-2RS	-	avail. / lieferb.	21600	16000	260 g
50.0	90.0	20.0	S6210	S6210-2Z	S6210-2RS	-	avail. / lieferb.	35100	23200	460 g
50.0	110.0	27.0	S6310	S6310-2Z	S6310-2RS	-	avail. / lieferb.	on request	auf Anfrage	1060 g
55.0	90.0	18.0	S6011	-	S6011-2RS	-	avail. / lieferb.	28100	21100	390 g
55.0	100.0	21.0	S6211	-	S6211-2RS	-	avail. / lieferb.	43600	29000	610 g
55.0	120.0	29.0	S6311		S6311-2RS	-	avail. / lieferb.	on request	auf Anfrage	1350 g
60.0	95.0	18.0	S6012	-	S6012-2RS	-	avail. / lieferb.	29600	23200	420 g
60.0	110.0	22.0	S6212	-	S6212-2RS	-	avail. / lieferb.	47500	32500	780 g
60.0	130.0	31.0	S6312		S6312-2RS	-	avail. / lieferb.	on request	auf Anfrage	1690 g
65.0	100.0	18.0	S6013	-	S6013-2RS	-	avail. / lieferb.	30700	25000	440 g
65.0	120.0	23.0	S6213	-	S6213-2RS	-	avail. / lieferb.	55900	40500	990 g
65.0	140.0	33.0	S6313		S6313-2RS	-	avail. / lieferb.	on request	auf Anfrage	2070 g
70.0	110.0	20.0	S6014	-	S6014-2RS	-	avail. / lieferb.	29680	24200	580 g
70.0	125.0	24.0	S6214	-	S6214-2RS	-	avail. / lieferb.	46790	37590	1080 g
70.0	150.0	35.0	S6314		S6314-2RS	-	avail. / lieferb.	on request	auf Anfrage	2490 g
75.0	115.0	20.0	S6015	-	S6015-2RS	-	avail. / lieferb.	30910	26600	610 g
75.0	130.0	25.0	S6215	-	S6215-2RS	-	avail. / lieferb.	50850	41260	1180 g
75.0	160.0	37.0	S6315		S6315-2RS	-	avail. / lieferb.	on request	auf Anfrage	2980 g
80.0	125.0	22.0	S6016	-	S6016-2RS	-	avail. / lieferb.	on request	auf Anfrage	850 g
80.0	140.0	26.0	S6216	-	S6216-2RS	-	avail. / lieferb.	on request	auf Anfrage	1400 g
80.0	170.0	39.0	S6316		S6316-2RS	-	avail. / lieferb.	on request	auf Anfrage	3580 g
90.0	140.0	24.0	S6018	-	S6018-2RS	-	avail. / lieferb.	on request	auf Anfrage	1150 g

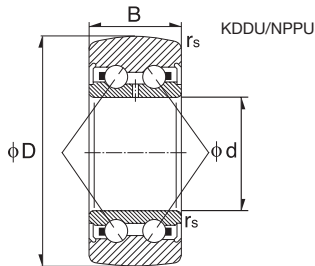
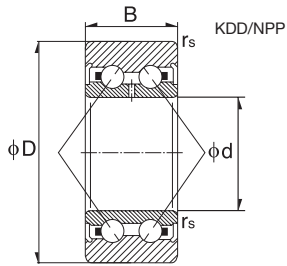
Rostfreie Standarddrillenkugellager / Stainless Steel Popular Metric Series



113

standard	flanged		Designation/Type					*Load Rating		Weight (g) approx.
Dimension (mm)										
d	D	B	Open	2Z	2RS	2TS	in C3	C, dyn. N	C, stat. N	
90.0	160.0	30.0	S6218	-	S6218-2RS	-	avail. / lieferb.	on request	auf Anfrage	2150 g
100.0	150.0	24.0	S6020	-	S6020-2RS	-	avail. / lieferb.	on request	auf Anfrage	1250 g
100.0	180.0	34.0	S6220	-	S6220-2RS	-	avail. / lieferb.	on request	auf Anfrage	3150 g
110.0	170.0	28.0	S6022	-	S6022-2RS	-	avail. / lieferb.	on request	auf Anfrage	1950 g
110.0	200.0	38.00	S6222	-	S6700-2RS	-	avail. / lieferb.	on request	auf Anfrage	4290 g
120.0	180.0	28.0	S6024	-	S6024-2RS	-	avail. / lieferb.	on request	auf Anfrage	2880 g
120.0	215.0	40.00	S6224	-	S6224-2RS	-	avail. / lieferb.	on request	auf Anfrage	5500 g
130.0	200.0	33.00	S6026	-	S6026-2RS	-	avail. / lieferb.	on request	auf Anfrage	4550 g
130.0	230.0	40.00	S6226	-	S6226-2RS	-	avail. / lieferb.	on request	auf Anfrage	6340 g
140.0	210.0	33.00	S6028	-	S6028-2RS	-	avail. / lieferb.	on request	auf Anfrage	4630 g
140.0	250.0	42.00	S6228	-	S6228-2RS	-	avail. / lieferb.	on request	auf Anfrage	7700 g
150.0	225.0	35.00	S6030	-	S6030-2RS	-	avail. / lieferb.	on request	auf Anfrage	4290 g
150.0	270.0	45.00	S6230	-	S6230-2RS	-	avail. / lieferb.	on request	auf Anfrage	10250 g

Laufrollen der LR Serie / LR Series (Track Rollers)



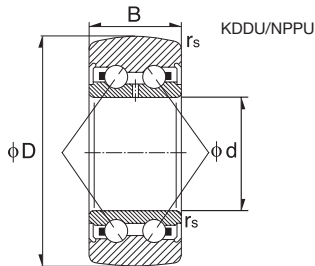
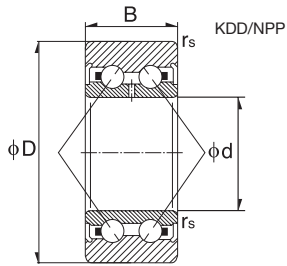
114

Dimension (mm)			Designation/Type			
d	D	B	KDD	KDDU	NPP	NPPU
5.0	16.0	5.0	-	-	-	LR 605 NPPU
5.0	17.0	7.0	-	-	-	LR 50/5 NPPU
6.0	19.0	6.0	-	-	-	LR 606 NPPU
6.0	19.0	9.0	-	-	-	LR 50/6 NPPU
7.0	22.0	6.0	-	-	-	LR 607 NPPU
7.0	22.0	6.0	-	-	-	LR 607 NPP
7.0	22.0	10.0	-	-	-	LR 50/7 NPPU
8.0	24.0	7.0	-	-	-	LR 608 NPPU
8.0	24.0	7.0	-	-	-	LR 608 NPP
8.0	24.0	7.0	-	LR 608 KDDU	-	-
8.0	24.0	7.0	LR 608 KDD	-	-	-
8.0	24.0	11.0	-	-	-	LR 50/8 NPPU
10.0	28.0	8.0	-	-	-	LR 6000 NPPU
10.0	28.0	8.0	-	-	LR 6000 NPP	-
10.0	28.0	12.0	-	-	-	LR 5000 NPPU
10.0	32.0	9.0	-	-	LR 200 NPP	LR 200 NPPU
10.0	32.0	14.0	LR 5200 KDD	LR 5200 KDDU	-	LR 5200 NPPU
12.0	30.0	8.0	-	-	-	LR 6001 NPPU
12.0	30.0	8.0	-	-	LR 6001 NPP	-
12.0	30.0	12.0	-	-	-	LR 5001 NPPU
12.0	35.0	10.0	-	-	LR 201 NPP	LR 201 NPPU
12.0	35.0	15.9	LR 5201 KDD	LR 5201 KDDU	-	LR 5201 NPPU
12.0	42.0	19.0	-	-	-	LR 5301 NPPU
15.0	35.0	9.0	-	-	-	LR 6002 NPPU
15.0	35.0	13.0	-	-	-	LR 5002 NPPU

115

* Load Rating		Radius r _{min}	*Limiting Speed x1000rpm		Weight (g) approx.
C, dyn. N	C, stat. N		NPP(U)	KDD(U)	
1160	459	0.2	12.0	-	10 g
1650	950	0.2	12.0	-	10 g
1750	710	0.3	11.0	-	10 g
2650	1310	0.3	11.0	-	20 g
2020	790	0.3	10.0	-	10 g
2020	790	0.3	10.0	-	10 g
3300	1690	0.3	10.0	-	20 g
2650	1100	0.3	20.0	-	30 g
2650	1100	0.3	20.0	-	30 g
2650	1100	0.3	-	20.0	30 g
2650	1100	0.3	-	20.0	30 g
4200	2360	0.3	10.0	-	30 g
5000	2490	0.3	16.0	-	20 g
5000	2490	0.3	16.0	-	20 g
4750	2850	0.3	9.0	-	30 g
4350	2130	0.6	13.0	-	50 g
6800	4050	0.6	8.0	11.0	70 g
5300	2750	0.3	15.0	-	25 g
5300	2750	0.3	15.0	-	25 g
4950	3100	0.3	8.0	-	30 g
5600	2700	0.6	12.0	-	50 g
8600	5100	0.6	7.0	10.0	80 g
11300	7100	1.0	5.0	-	120 g
6900	3800	0.3	10.0	-	45 g
6500	4100	0.3	7.0	-	50 g

Laufrollen der LR Serie / LR Series (Track Rollers)



116

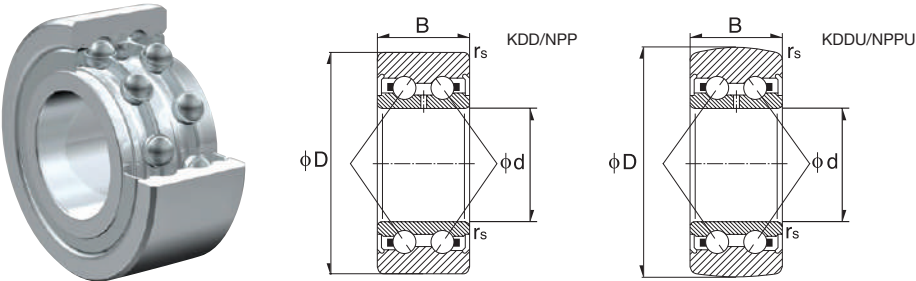
Dimension (mm)			Designation/Type			
d	D	B	KDD	KDDU	NPP	NPPU
15.0	40.0	11.0	-	-	LR 202 NPP	LR 202 NPPU
15.0	40.0	15.9	LR 5202 KDD	LR 5202 KDDU	-	LR 5202 NPPU
15.0	47.0	19.0	-	-	-	LR 5302 NPPU
17.0	40.0	14.0	-	-	-	LR 5003 NPPU
17.0	47.0	12.0	-	-	LR 203 NPP	LR 203 NPPU
17.0	47.0	17.5	LR 5203 KDD	LR 5203 KDDU	-	LR 5203 NPPU
17.0	52.0	22.2	-	-	-	LR 5303 NPPU
20.0	47.0	16.0	-	-	-	LR 5004 NPPU
20.0	52.0	14.0	-	-	LR 204 NPP	LR 204 NPPU
20.0	52.0	20.6	LR 5204 KDD	LR 5204 KDDU	-	LR 5204 NPPU
20.0	62.0	22.2	LR 5304 KDD	LR 5304 KDDU	-	LR 5304 NPPU
25.0	52.0	16.0	-	-	-	LR 5005 NPPU
25.0	62.0	15.0	-	-	LR 205 NPP	LR 205 NPPU
25.0	62.0	20.6	LR 5205 KDD	LR 5205 KDDU	-	LR 5205 NPPU
25.0	72.0	25.4	LR 5305 KDD	LR 5305 KDDU	-	LR 5305 NPPU
30.0	62.0	19.0	-	-	-	LR 5006 NPPU
30.0	72.0	16.0	-	-	LR 206 NPP	LR 206 NPPU
30.0	72.0	23.8	LR 5206 KDD	LR 5206 KDDU	-	LR 5206 NPPU
30.0	80.0	30.2	LR 5306 KDD	LR 5306 KDDU	-	LR 5306 NPPU
35.0	68.0	20.0	-	-	-	LR 5007 NPPU
35.0	80.0	17.0	-	-	LR 207 NPP	LR 207 NPPU
35.0	80.0	27.0	LR 5207 KDD	LR 5207 KDDU	-	LR 5207 NPPU
35.0	90.0	34.9	LR 5307 KDD	LR 5307 KDDU	-	LR 5307 NPPU
40.0	75.0	21.0	-	-	-	LR 5008 NPPU
40.0	85.0	18.0	-	-	LR 208 NPP	LR 208 NPPU



* Load Rating		Chamfer Radius r_{min}	*Limiting Speed x1000rpm		Weight (g) approx.
C, dyn. N	C, stat. N		NPP(U)	KDD(U)	
6500	3300	0.6	11.0	-	70 g
9800	6200	0.6	7.0	10.0	110 g
14600	9200	1.0	5.0	-	150 g
7700	5200	0.3	6.0	-	70 g
8400	4400	0.6	9.0	-	110 g
12600	8200	0.6	5.5	7.0	170 g
17200	11100	0.6	4.7	-	210 g
11500	7700	0.6	5.5	-	120 g
10500	5600	1.0	8.0	-	150 g
15800	10500	1.0	5.0	7.0	230 g
21100	14500	1.1	4.5	6.5	340 g
11600	8100	0.6	4.7	-	150 g
12500	7100	1.0	7.0	-	230 g
18500	13000	1.1	4.5	6.5	340 g
27500	19500	1.1	3.9	5.5	500 g
15800	11800	1.0	4.0	-	250 g
16600	9600	1.0	5.5	-	330 g
24600	21400	1.0	3.5	5.0	510 g
36500	26500	1.1	3.1	4.3	670 g
17600	13100	1.0	4.3	-	300 g
20200	11900	1.1	4.5	-	400 g
30500	22400	1.1	2.8	3.9	660 g
44500	33000	1.5	2.5	3.6	970 g
18400	14600	1.0	3.1	-	370 g
22800	13600	1.1	4.0	-	450 g

117

Laufrollen der LR Serie / LR Series (Track Rollers)



118

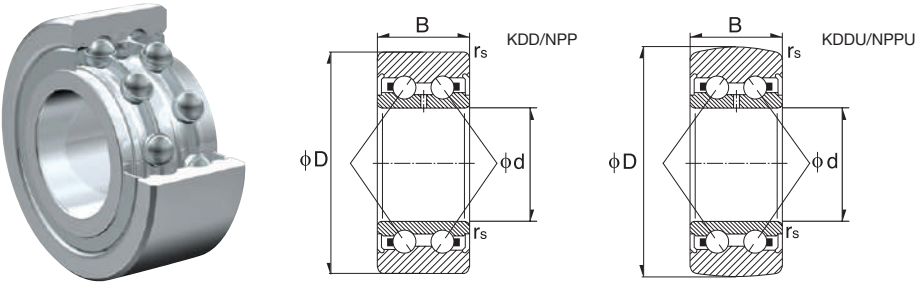
Dimension (mm)			Designation/Type			
d	D	B	KDD	KDDU	NPP	NPPU
40.0	85.0	30.2	LR 5208 KDD	LR 5208 KDDU	-	LR 5208 NPPU
40.0	100.0	36.5	LR 5308 KDD	LR 5308 KDDU	-	LR 5308 NPPU
45.0	90.0	19.0	-	-	LR 209 NPP	LR 209 NPPU



119

* Load Rating		Radius r _{min}	*Limiting Speed x1000rpm		Weight (g) approx.
C, dyn. N	C, stat. N		NPP(U)	KDD(U)	
34500	25500	1.1	2.5	3.5	750 g
56000	4200	1.5	2.3	3.3	1200 g
22500	13700	1.1	3.6	-	500 g

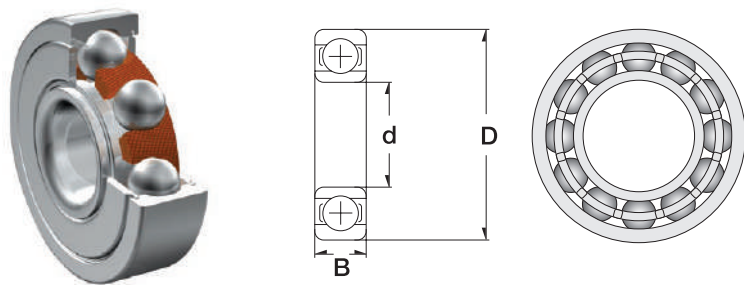
Rostfreie Laufrolle der LR Serie / Stainless Steel LR Series (Track Rollers)



Dimension (mm)			Designation/Type			
d	D	B	KDD	KDDU	NPP	NPPU
12.0	35.0	15.9	-	-	-	SLR 5201 NPPU
15.0	40.0	11.0	-	-	-	SLR 202 NPPU
15.0	40.0	15.9	-	-	-	SLR 5202 NPPU
17.0	47.0	17.5	-	-	-	SLR 5203 NPPU
20.0	52.0	20.6	-	-	-	SLR 5204 NPPU
25.0	62.0	15.0	-	-	SLR 205 NPP	-
25.0	62.0	15.0	-	-	-	SLR 205 NPPU

* Load Rating		Radius r _{min}	*Limiting Speed x1000rpm		Weight (g) approx.
C, dyn. N	C, stat. N		NPP(U)	KDD(U)	
8200	4900	0.6	7.0	-	80 g
5200	2640	0.6	11.0	-	70 g
9000	5800	0.6	7.0	-	110 g
12100	8000	0.6	5.5	-	170 g
16000	10600	1.0	5.0	-	230 g
10000	5680	1.0	7.0	-	230 g
10000	5680	1.0	7.0	-	230 g

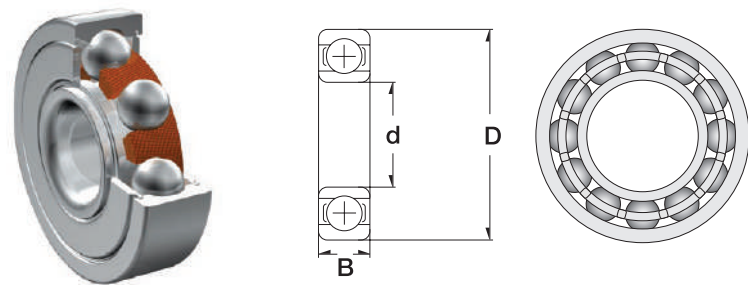
Radialkugellager mit Kunststoffkäfig / Ball Bearings with Plastic Cages



120

Dimension (mm)			Designation/Type	*Limiting Speed x1000rpm	*Load Rating		Lubrication	Weight (g) approx.
d	D	B			C, dyn. N	C, stat. N		
4.0	13.0	5.0	624-2Z.T9H.C3	40.0	1300	485	Oil	4 g
5.0	16.0	5.0	625-2Z.T9H.C3	36.0	1730	670	Oil	6 g
6.0	13.0	5.0	686-2Z.T9H.C3	40.0	1080	440	Oil	4 g
6.0	19.0	6.0	626-2Z.T9H.C3	32.0	2340	885	Oil	10 g
7.0	14.0	5.0	687-2Z.T9H.C3	40.0	1170	510	Oil	4 g
7.0	19.0	6.0	607-2Z.T9H.C3	36.0	2340	885	Oil	8 g
7.0	22.0	7.0	627-2Z.T9H.C3	30.0	3300	1370	Oil	14 g
8.0	16.0	5.0	688-2Z.T9H.C3	36.0	1260	590	Oil	4 g
8.0	22.0	7.0	608-2Z.T9H.C3	34.0	3300	1370	Oil	14 g
8.0	24.0	8.0	628-2Z.T9H.C3	28.0	3350	1430	Oil	18 g
9.0	17.0	5.0	689-2Z.T9H.C3	36.0	1330	665	Oil	5 g
9.0	26.0	8.0	629-2Z.T9H.C3	28.0	4550	1970	Oil	22 g
10.0	26.0	8.0	6000-2Z.T9H.C3	30.0	4550	1970	Oil	18 g
10.0	30.0	9.0	6200-2Z.T9H.C3	24.0	5100	2390	Oil	32 g
10.0	19.0	5.0	61800-Z.T9H.C3	34.0	1720	840	Oil	6 g
10.0	22.0	6.0	61900-Z.T9H.C3	32.0	2700	1270	Oil	9 g
12.0	28.0	8.0	6001-2Z.T9H.C3	28.0	5100	2370	Oil	22 g
12.0	32.0	10.0	6201-2Z.T9H.C3	22.0	6800	3050	Oil	37 g
12.0	21.0	5.0	61801-Z.T9H.C3	32.0	1920	1040	Oil	7 g
12.0	24.0	6.0	61901-Z.T9H.C3	30.0	2890	1460	Oil	10 g
15.0	32.0	9.0	6002-2Z.T9H.C3	24.0	5600	2830	Oil	31 g
15.0	35.0	11.0	6202-2Z.T9H.C3	20.0	7650	3750	Oil	45 g
15.0	24.0	5.0	61802-Z.T9H.C3	28.0	2070	1260	Oil	8 g
15.0	28.0	7.0	61902-Z.T9H.C3	26.0	4350	2260	Oil	15 g
17.0	35.0	10.0	6003-2Z.T9H.C3	22.0	6000	3250	Oil	41 g

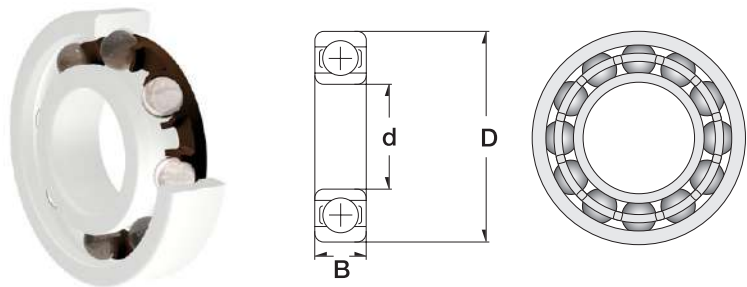
Radialkugellager mit Kunststoffkäfig / Ball Bearings with Plastic Cages



121

Dimension (mm)			Designation/Type	*Limiting Speed x1000rpm	*Load Rating		Lubrication	Weight (g) approx.
d	D	B			C, dyn. N	C, stat. N		
17.0	40.0	12.0	6203-2Z.T9H.C3	17.0	9550	4800	Oil	67 g
17.0	26.0	5.0	61803-Z.T9H.C3	26.0	2630	1570	Oil	9 g
17.0	30.0	7.0	61903-Z.T9H.C3	24.0	4600	2550	Oil	10 g
20.0	42.0	12.0	6004-2Z.T9H.C3	18.0	9400	5000	Oil	68 g
20.0	47.0	14.0	6204-2Z.T9H.C3	15.0	12800	6600	Oil	107 g

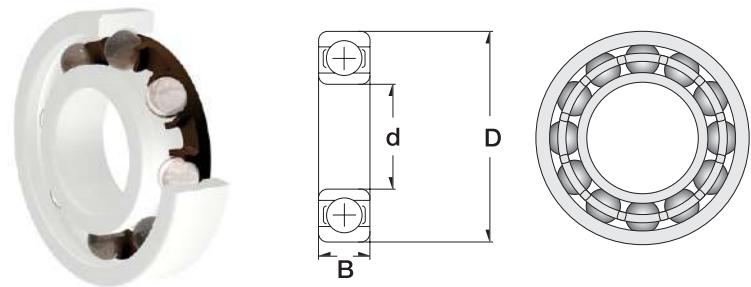
Kunststofflager (POM) / Plastic Bearings



122

Dimension (mm)						Designation/Type		*Load Rating		Weight (g)
d	d Tolerance	D	D Tolerance	B	B Tolerance	Glass Balls	Stainless Steel Balls	C, dyn. N	C, stat. N	
8.0	0,+0.12	22.0	0,-0.12	7.0	0,-0.15	P608-GB	P608-SB	98.0	-	3 g
9.0	0,+0.12	24.0	0,-0.12	7.0	0,-0.15	P609-GB	P609-SB	107.8	-	3 g
10.0	0,+0.12	26.0	0,-0.12	8.0	0,-0.15	P6000-GB	P6000-SB	117.6	-	4 g
12.0	0,+0.12	28.0	0,-0.12	8.0	0,-0.15	P6001-GB	P6001-SB	117.6	-	4 g
15.0	0,+0.12	32.0	0,-0.12	9.0	0,-0.15	P6002-GB	P6002-SB	127.4	-	6 g
17.0	0,+0.12	35.0	0,-0.12	10.0	0,-0.15	P6003-GB	P6003-SB	127.4	-	8 g
20.0	0,+0.12	42.0	0,-0.12	12.0	0,-0.15	P6004-GB	P6004-SB	137.2	-	13 g
25.0	0,+0.12	47.0	0,-0.12	12.0	0,-0.15	P6005-GB	P6005-SB	147.0	-	15 g
30.0	0,+0.12	55.0	0,-0.12	13.0	0,-0.15	P6006-GB	P6006-SB	166.6	-	22 g
35.0	0,+0.12	62.0	0,-0.12	14.0	0,-0.15	P6007-GB	P6007-SB	176.4	-	29 g
40.0	0,+0.12	68.0	0,-0.12	15.0	0,-0.15	P6008-GB	P6008-SB	196.0	-	37 g
45.0	0,+0.12	75.0	0,-0.12	16.0	0,-0.15	P6009-GB	P6009-SB	215.6	-	46 g
50.0	0,+0.12	80.0	0,-0.12	16.0	0,-0.15	P6010-GB	P6010-SB	245.0	-	50 g
6.0	0,+0.12	19.0	0,-0.12	6.0	0,-0.15	P626-GB	P626-SB	78.4	-	2 g
7.0	0,+0.12	22.0	0,-0.12	7.0	0,-0.15	P627-GB	P627-SB	88.2	-	3 g
8.0	0,+0.12	24.0	0,-0.12	8.0	0,-0.15	P628-GB	P628-SB	98.0	-	4 g
9.0	0,+0.12	26.0	0,-0.12	8.0	0,-0.15	P629-GB	P629-SB	107.8	-	4 g
10.0	0,+0.12	30.0	0,-0.12	9.0	0,-0.15	P6200-GB	P6200-SB	117.6	-	6 g
12.0	0,+0.12	32.0	0,-0.12	10.0	0,-0.15	P6201-GB	P6201-SB	127.4	-	7 g
15.0	0,+0.12	35.0	0,-0.12	11.0	0,-0.15	P6202-GB	P6202-SB	147.0	-	9 g
17.0	0,+0.12	40.0	0,-0.12	12.0	0,-0.15	P6203-GB	P6203-SB	156.8	-	13 g
20.0	0,+0.12	47.0	0,-0.12	14.0	0,-0.15	P6204-GB	P6204-SB	166.6	-	21 g
25.0	0,+0.12	52.0	0,-0.12	15.0	0,-0.15	P6205-GB	P6205-SB	176.4	-	25 g
30.0	0,+0.12	62.0	0,-0.12	16.0	0,-0.15	P6206-GB	P6206-SB	196.0	-	38 g
35.0	0,+0.12	72.0	0,-0.12	17.0	0,-0.15	P6207-GB	P6207-SB	215.6	-	55 g

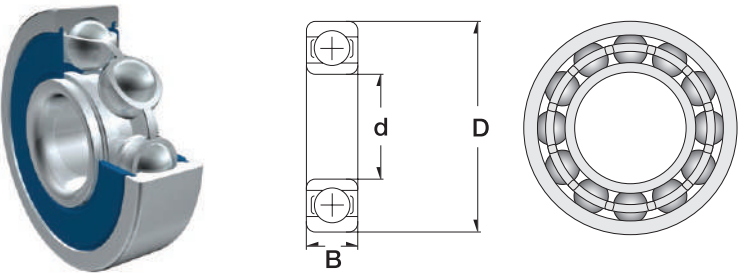
Kunststofflager (POM) / Plastic Bearings



123

Dimension (mm)						Designation/Type		*Load Rating		Weight (g)
d	d Tolerance	D	D Tolerance	B	B Tolerance	Glass Balls	Stainless Steel Balls	C, dyn. N	C, stat. N	
40.0	0,+0.12	80.0	0,-0.12	18.0	0,-0.15	P6208-GB	P6208-SB	245.0	-	70 g
10.0	0,+0.12	35.0	0,-0.12	11.0	0,-0.15	P6300-GB	P6300-SB	137.2	-	10 g
12.0	0,+0.12	37.0	0,-0.12	12.0	0,-0.15	P6301-GB	P6301-SB	156.8	-	12 g
15.0	0,+0.12	42.0	0,-0.12	13.0	0,-0.15	P6302-GB	P6302-SB	176.4	-	16 g
17.0	0,+0.12	47.0	0,-0.12	14.0	0,-0.15	P6303-GB	P6303-SB	196.0	-	22 g
20.0	0,+0.12	52.0	0,-0.12	15.0	0,-0.15	P6304-GB	P6304-SB	225.4	-	28 g
25.0	0,+0.12	62.0	0,-0.12	17.0	0,-0.15	P6305-GB	P6305-SB	254.8	-	45 g
30.0	0,+0.12	72.0	0,-0.12	19.0	0,-0.15	P6306-GB	P6306-SB	274.4	-	66 g
35.0	0,+0.12	80.0	0,-0.12	21.0	0,-0.15	P6307-GB	P6307-SB	313.6	-	89 g
40.0	0,+0.12	90.0	0,-0.12	23.0	0,-0.15	P6308-GB	P6308-SB	343.0	-	120 g
8.0	0,+0.12	19.0	0,-0.12	6.0	0,-0.15	P698-GB	P698-SB	78.4	-	2 g
9.0	0,+0.12	20.0	0,-0.12	6.0	0,-0.15	P699-GB	P699-SB	78.4	-	2 g
10.0	0,+0.12	22.0	0,-0.12	6.0	0,-0.15	P6900-GB	P6900-SB	78.4	-	2 g
12.0	0,+0.12	24.0	0,-0.12	6.0	0,-0.15	P6901-GB	P6901-SB	88.2	-	2 g
15.0	0,+0.12	28.0	0,-0.12	7.0	0,-0.15	P6902-GB	P6902-SB	98.0	-	3 g
17.0	0,+0.12	30.0	0,-0.12	7.0	0,-0.15	P6903-GB	P6903-SB	107.8	-	4 g
20.0	0,+0.12	37.0	0,-0.12	9.0	0,-0.15	P6904-GB	P6904-SB	117.6	-	7 g
25.0	0,+0.12	42.0	0,-0.12	9.0	0,-0.15	P6905-GB	P6905-SB	137.2	-	10 g
30.0	0,+0.12	47.0	0,-0.12	9.0	0,-0.15	P6906-GB	P6906-SB	147.0	-	10 g
35.0	0,+0.12	55.0	0,-0.12	10.0	0,-0.15	P6907-GB	P6907-SB	166.6	-	14 g
40.0	0,+0.12	62.0	0,-0.12	12.0	0,-0.15	P6908-GB	P6908-SB	186.2	-	22 g

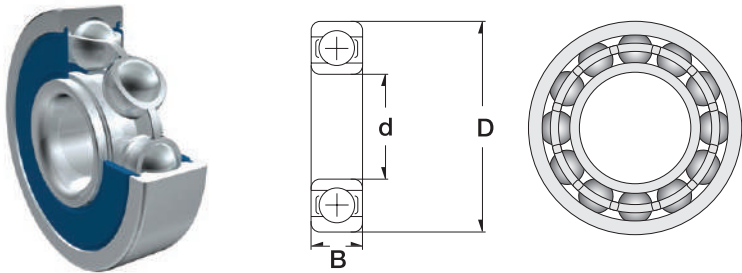
Sondermaße / Special Dimension Bearings



124

Dimension (mm)			Dimension (inch)	Designation/Type Chrome Steel		*Load Rating		*Limiting Speed x1000 rpm Grease	Weight (g) approx.
d	D	B		2Z	2RS	C, dyn. N	C, stat. N		
6.000	21.00	6.00	-	626-2Z-OD21	626-2RS-OD21	2336	896	32.0	8 g
7.000	22.00	7.938	-	608-2Z-W5/16	608-2RS-W5/16	3293	1379	34.0	12 g
7.938	22.00	7.00	0.3125 (5/16)	608-2Z-ID5/16	608-2RS-ID5/16	3293	1379	34.0	12 g
8.000	22.00	6.00	-	608-2Z-W6	608-2RS-W6	3293	1379	34.0	12 g
8.000	23.00	7.00	-	608-2Z-OD23	608-2RS-OD23	3293	1379	34.0	12 g
8.000	24.00	7.00	-	608-2Z-OD24	608-2RS-OD24	3293	1379	34.0	12 g
8.000	26.00	7.00	-	608-2Z-OD26	608-2RS-OD26	3293	1379	34.0	12 g
10.000	20.00	6.00	-	61900-2Z-OD20	61900-2RS-OD20	2695	1273	34.0	10 g
10.000	30.00	8.00	-	6000-2Z-OD30	6000-2RS-OD30	4550	1970	30.0	18 g
12.700	28.00	8.00	0.5000 (1/2)	6001-2Z-ID1/2	6001-2RS-ID1/2	5100	2370	28.0	22 g
10.000	35.00	9.00	-	6200-2Z-OD35	6200-2RS-OD35	5100	2390	24.0	45 g
8.000	32.00	10.00	-	6201-2Z-ID8	6201-2RS-ID8	6800	3050	22.0	37 g
10.000	32.00	10.00	-	S6201-2Z-ID10	S6201-2RS-ID10	6800	3050	22.0	37 g
12.700	32.00	10.00	0.5000 (1/2)	6201-2Z-ID1/2	6201-2RS-ID1/2	6800	3050	22.0	37 g
13.000	32.00	10.00	-	6201-2Z-ID13	6201-2RS-ID13	6800	3050	22.0	37 g
12.700	35.00	11.00	0.5000 (1/2)	6202-2Z-ID1/2-C3	6202-2RS-ID1/2-C3	7650	3750	20.0	45 g
12.700	35.00	11.00	0.5000 (1/2)	6202-2Z-ID1/2	6202-2RS-ID1/2	7650	3750	20.0	45 g
13.000	35.00	11.00	-	6202-2Z-ID13	6202-2RS-ID13	7650	3750	20.0	45 g
15.000	47.00	11.00	-	6202-2Z-OD47	6202-2RS-OD47	7650	3750	20.0	45 g
15.875	35.00	11.00	0.6250 (5/8)	6202-2Z-ID5/8	6202-2RS-ID5/8	7650	3750	20.0	45 g
16.000	35.00	11.00	-	6202-2Z-ID16	6202-2RS-ID16	7650	3750	20.0	45 g
13.000	28.00	6.00	-	619/13-2OD28-T9H	-	2886	1466	31.0	10 g
12.700	40.00	12.00	-	6203-2Z-ID12	6203-2RS-ID12	9550	4800	17.0	67 g
12.700	40.00	12.00	0.5000 (1/2)	6203-2Z-ID1/2	6203-2RS-ID1/2	9550	4800	17.0	67 g
15.000	40.00	12.00	-	6203-2Z-ID15	6203-2RS-ID15	9550	4800	17.0	67 g

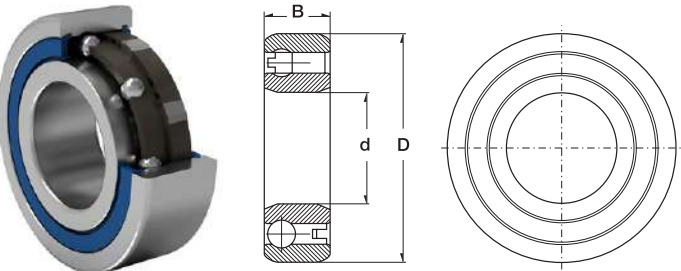
Sondermaße / Special Dimension Bearings



125

Dimension (mm)			Dimension (inch)	Designation/Type Chrome Steel		*Load Rating		*Limiting Speed x1000 rpm Grease	Weight (g) approx.
d	D	B		2Z	2RS	C, dyn. N	C, stat. N		
15.875	40.00	12.00	0.6250 (5/8)	6203-2Z-ID5/8	6203-2RS-ID5/8	9550	4800	17.0	67 g
16.000	40.00	12.00	-	6203-2Z-ID16	6203-2RS-ID16	9550	4800	17.0	67 g
19.050	40.00	12.00	0.7500 (3/4)	6203-2Z-ID3/4	6203-2RS-ID3/4	9550	4800	17.0	67 g
19.050	47.00	14.00	0.7500 (3/4)	6204-2Z-ID3/4	6204-2RS-ID3/4	12800	6600	15.0	107 g
22.225	47.00	14.00	-	6204-2Z-ID7/8	6204-2RS-ID7/8	12800	6600	15.0	107 g
25.400	47.00	12.00	-	6005-2Z-ID1	6005-2RS-ID1	10100	5850	15.0	79 g
25.400	52.00	15.00	1.0000 (1)	6205-2Z-ID1	6205-2RS-ID1	1400	7850	13.0	129 g
25.400	52.00	21.00	1.0000 (1)	62304-2Z-ID1	62304-2RS-ID1	15900	7800	9.5	200 g

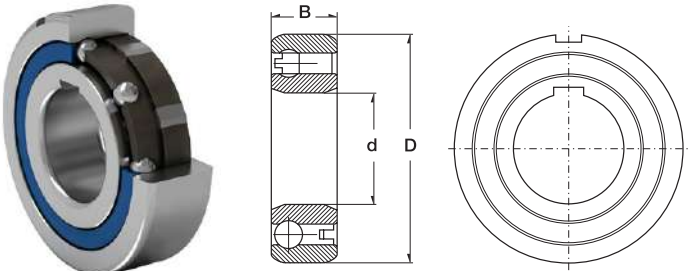
CSK-2RS Kugellagerfreilauf / One-way Clutch Bearings



126

Dimension (mm)			Designation/Type	Series	*Load Rating		Resistent torque T_R (Ncm)*	T_{KM} (Nm)*	Weight (g) approx.
d	D	B			C, dyn. kN	C, stat. kN			
12.0	32.0	14.0	CSK12-2RS	-	6.1	2.77	3.00	7.40	50 g
15.0	35.0	16.0	CSK15-2RS	-	7.4	3.42	4.00	13.50	70 g
17.0	40.0	17.0	CSK17-2RS	-	7.9	3.8	5.60	24.50	90 g
20.0	47.0	19.0	CSK20-2RS	-	9.4	4.46	6.00	40.00	145 g
25.0	52.0	20.0	CSK25-2RS	-	10.7	5.46	6.00	68.00	175 g
30.0	62.0	21.0	CSK30-2RS	-	11.7	6.45	7.50	110.00	270 g
35.0	72.0	22.0	CSK35-2RS	-	12.6	7.28	8.20	140.00	400 g
40.0	80.0	27.0	CSK40-2RS	-	15.54	12.25	10.00	260.00	600 g

CSK-PP Kugellagerfreilauf / One-way Clutch Bearings

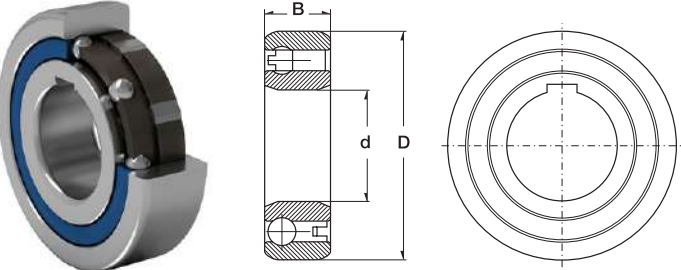


127

Dimension (mm)			Designation/Type	Series	*Load Rating		Resistent torque T_R (Ncm)*	T_{KM} (Nm)*	Weight (g) approx.
d	D	B			C, dyn. kN	C, stat. kN			
15.0	35.0	11.0	CSK15-PP	6202	7.4	3.42	0.90	13.50	60 g
17.0	40.0	12.0	CSK17-PP	6203	7.9	3.8	1.10	24.50	70 g
20.0	47.0	14.0	CSK20-PP	6204	9.4	4.46	1.30	40.00	110 g
25.0	52.0	15.0	CSK25-PP	6205	10.7	5.46	2.00	68.00	140 g
30.0	62.0	16.0	CSK30-PP	6206	11.7	6.45	4.40	110.00	210 g
35.0	72.0	17.0	CSK35-PP	6207	12.6	7.28	5.80	140.00	300 g
40.0	80.0	22.0	CSK40-PP	-	15.54	12.25	7.00	260.00	500 g

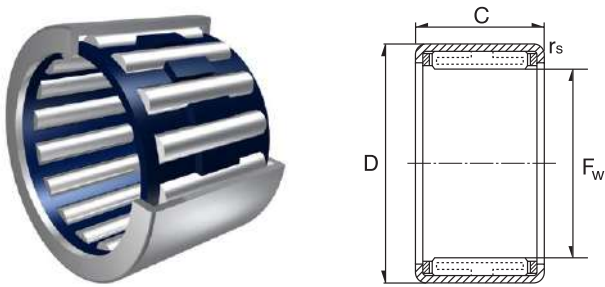
*Friction resistance of rotation *Limited transmission torque

CSK-P Kugellagerfreilauf / One-way Clutch Bearings



Dimension (mm)			Designation/Type	Series	*Load Rating		Resistent torque T_R (Ncm)*	T_{KM} (Nm)*	Weight (g) approx.
d	D	B			C, dyn. kN	C, stat. kN			
15.0	35.0	11.0	CSK15-P	6202	7.4	3.42	0.90	13.50	60 g
17.0	40.0	12.0	CSK17-P	6203	7.9	3.8	1.10	24.50	70 g
20.0	47.0	14.0	CSK20-P	6204	9.4	4.46	1.30	40.00	110 g
25.0	52.0	15.0	CSK25-P	6205	10.7	5.46	2.00	68.00	110 g
30.0	62.0	15.0	CSK30-P	6206	11.7	6.45	4.40	110.00	210 g
35.0	72.0	17.0	CSK35-P	6207	12.6	7.28	5.80	140.00	300 g
40.0	80.0	22.0	CSK40-P	-	15.54	12.25	7.00	260.00	500 g

Hülsenfreiläufe der Type HF / HF One-way Clutch Bearing



128

Dimension (mm)			Designation/Type		Permissible Torque Md / Nm	*Limiting Speed rpm		Suitable Drawn Cup Bearing	Mass (g) approx.
F _w	D	C	Plastic Springs	Steel Springs		Rotating Shaft	Rotating Outer Ring		
4.0	8.0	6.0	HF0406KF	--	0.34	34000	8000	HK0408TN	1 g
4.0	8.0	6.0	HF0406KFR	--	0.1	34000	8000	HD0408TN	1 g
6.0	10.0	12.0	HF0612KF	HF0612	1.76	23000	13000	HK0608	3 g
6.0	10.0	12.0	HF0612KFR	HF0612R	0.5	23000	13000	HK0608	3 g
8.0	12.0	12.0	HF0812KF	HF0812	3.15	17000	12000	HK0808	4 g
8.0	12.0	12.0	HF0812KFR	HF0812R	1	17000	12000	HK0808	4 g
10.0	14.0	12.0	HF1012KF	HF1012	5.3	14000	11000	HK1010	4 g
10.0	14.0	12.0	HF1012KFR	HF1012R	1.5	14000	11000	HK1010	4 g
12.0	18.0	16.0	--	HF1216	12.2	11000	8000	HK1212	11 g
14.0	20.0	16.0	--	HF1416	17.3	9500	8000	HK1412	13 g
16.0	22.0	16.0	--	HF1616	20.5	8500	7500	HK1612	14 g
18.0	24.0	16.0	--	HF1816	24.1	7500	7500	HK1812	16 g
20.0	26.0	16.0	--	HF2016	28.5	7000	6500	HK2010	17 g
25.0	32.0	20.0	--	HF2520	66	5500	5500	HK2512	30 g
30.0	37.0	20.0	--	HF3020	90	4500	4500	HK3012	36 g
35.0	42.0	20.0	--	HF3520	121	3900	3900	HK3512	40 g

*Grenzdrehzahl gilt für Fett- und Ölschmierung
*The limiting speeds are valid for both grease and oil lubrication.

HF..R mit Stahlfeder und Rändelung
HF..R with steel spring and knurling

HF..KF mit Kunststofffeder
HF..KF with plastic springs

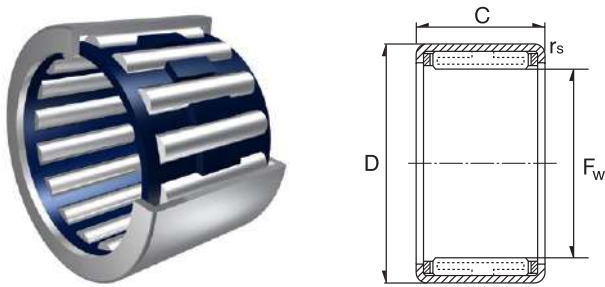
HF..KFR mit Kunststofffeder und Rändelung
HF..KFR with additional knurling

HFL..R mit Stahlfeder und Rändelung
HFL..R with steel spring and knurling

HFL..KF mit Kunststofffeder
HFL..KF with plastic springs

HFL..KFR mit Kunststofffeder und Rändelung
HFL..KFR with additional knurling

Hülsenfreiläufe der Type HF / HF One-way Clutch Bearing



129

Dimension (mm)			Designation/Type		Permissible Torque Md / Nm	*Limiting Speed rpm		*Load Rating		Mass (g) approx.
F _w	D	C	Plastic Springs	Steel Springs		Rotating Shaft	Rotating Outer Ring	C, dyn. kN	C, stat. kN	
6.0	10.0	15.0	HFL0615KF	HFL0615	1.76	23000	13000	--	--	4 g
6.0	10.0	15.0	HFL0615KFR	HFL0615R	0.5	23000	13000	--	--	4 g
8.0	12.0	22.0	HFL0822KF	HFL0822	3.15	17000	12000	4.05	4.15	7 g
8.0	12.0	22.0	HFL0822KFR	HFL0822R	1	17000	12000	--	--	7 g
10.0	14.0	22.0	HFL1022KF	HFL1022	5.3	14000	11000	4.3	4.65	8 g
10.0	14.0	22.0	HFL1022KFR	HFL1022R	1.5	14000	11000	--	--	8 g
12.0	18.0	26.0	--	HFL1226	12.2	11000	8000	6.3	6.5	18 g
14.0	20.0	26.0	--	HFL1426	17.3	9500	8000	7.1	7.7	20 g
16.0	22.0	26.0	--	HFL1626	20.5	8500	7500	7.7	9	22 g
18.0	24.0	26.0	--	HFL1826	24.1	7500	7500	8.3	10.3	25 g
20.0	26.0	26.0	--	HFL2026	28.5	7000	6500	8.9	11.5	27 g
25.0	32.0	30.0	--	HFL2530	66	5500	5500	10.9	14.1	44 g
30.0	37.0	30.0	--	HFL3030	90	4500	4500	12.6	17.6	51 g
35.0	42.0	30.0	--	HFL3530	121	3900	3900	13	19.3	58 g

*Grenzdrehzahl gilt für Fett- und Ölschmierung
*The limiting speeds are valid for both grease and oil lubrication.

HF..R mit Stahlfeder und Rändelung
HF..R with steel spring and knurling

HF..KF mit Kunststofffeder
HF..KF with plastic springs

HF..KFR mit Kunststofffeder und Rändelung
HF..KFR with additional knurling

HFL..R mit Stahlfeder und Rändelung
HFL..R with steel spring and knurling

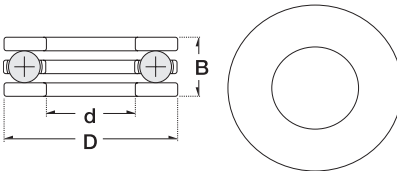
HFL..KF mit Kunststofffeder
HFL..KF with plastic springs

HFL..KFR mit Kunststofffeder und Rändelung
HFL..KFR with additional knurling

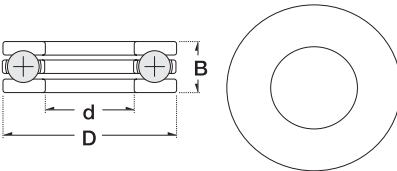
Axialrillenkugellager / Three Part Thrust Series



Type F ohne Laufnute / without groove



Type B mit Laufnute / with groove



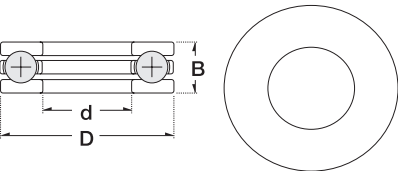
130

Dimension (mm)			Designation/Type		*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm		Weight (g) approx.
d	D	B	Chrome Steel	Stainless	C, dyn. N	C, stat. N	Grease	Oil	
2.0	6.0	3.0	F 2-6	-	123	82	-	7.5	< 1 g
4.0	9.0	4.0	F 4-9	-	167	157	-	6.5	< 1 g
4.0	10.0	4.5	F 4-10	-	274	245	-	6.0	< 2 g
5.0	11.0	4.5	F 5-11	-	284	284	-	5.0	< 3 g
6.0	12.0	4.5	F 6-12	-	274	284	-	4.0	< 3 g
7.0	15.0	5.0	F 7-15	-	559	549	-	3.8	< 5 g
8.0	16.0	5.0	F 8-16	-	598	627	-	3.5	< 5 g
9.0	17.0	5.0	F 9-17	-	578	627	-	3.5	< 6 g
10.0	18.0	5.5	F10-18	-	617	706	-	3.0	< 6 g
3.0	8.0	3.5	B 3	SB 3	602	611	-	15.0	< 2 g
4.0	10.0	4.0	B 4	SB 4	602	611	-	15.0	< 2 g
5.0	12.0	4.0	B 5	SB 5	640	810	-	13.0	< 2 g
6.0	14.0	5.0	B 6	SB 6	1275	1560	-	10.0	< 2 g
7.0	17.0	6.0	B 7	SB 7	1830	2450	-	10.0	< 2 g
8.0	19.0	7.0	B 8	SB 8	2340	3190	-	8.0	< 2 g
9.0	20.0	7.0	B 9	SB 9	2400	3190	-	8.0	< 2 g
10.0	24.0	9.0	51100	S51100	8710	8800	7.5	9.5	20 g
10.0	26.0	11.0	51200	S51200	12700	17000	6.0	8.0	29 g
12.0	26.0	9.0	51101	S51101	9035	10000	7.0	9.5	22 g
12.0	28.0	11.0	51201	S51201	13200	19000	6.0	8.0	32 g
15.0	28.0	9.0	51102	S51102	9360	11200	6.3	8.5	24 g
15.0	32.0	12.0	51202	S51202	16600	25000	5.0	6.7	43 g
17.0	30.0	9.0	51103	S51103	9750	12200	6.3	8.5	28 g
17.0	35.0	12.0	51203	S51203	17300	27500	5.0	6.7	50 g
20.0	35.0	10.0	51104	S51104	12740	16600	5.6	7.5	40 g

Axialrillenkugellager / Three Part Thrust Series



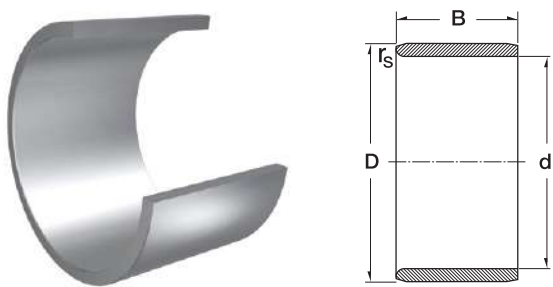
Type 51... mit Laufnute / with groove



131

Dimension (mm)			Designation/Type		*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm		Weight (g) approx.
d	D	B	Chrome Steel	Stainless	C, dyn. N	C, stat. N	Grease	Oil	
20.0	40.0	14.0	51204	S51204	19890	25000	4.3	5.6	82 g
25.0	42.0	11.0	51105	S51105	15860	22800	4.8	6.3	59 g
25.0	47.0	15.0	51205	S51205	25090	34000	3.8	5.0	120 g
25.0	52.0	18.0	51305	-	34500	55000	3.2	4.3	154 g
30.0	47.0	11.0	51106	S51106	16770	26500	4.5	6.0	68 g
30.0	52.0	16.0	51206	S51206	25480	37500	3.6	4.5	150 g
30.0	60.0	21.0	51306	-	38000	65500	3.0	4.0	244 g
35.0	52.0	12.0	51107	S51107	17420	30000	4.3	5.6	90 g
35.0	62.0	18.0	51207	S51207	39000	78000	3.0	4.0	220 g
35.0	68.0	24.0	51307	-	50000	88000	2.7	3.6	351 g
40.0	60.0	13.0	51108	S51108	23400	40000	3.8	5.0	120 g
40.0	68.0	19.0	51208	S51208	46500	98000	2.9	3.8	270 g
40.0	78.0	26.0	51308	-	61000	112000	2.4	3.2	536 g
45.0	65.0	14.0	51109	S51109	24180	45000	3.4	4.5	150 g
45.0	73.0	20.0	51209	S51209	47500	105000	2.5	3.5	320 g
45.0	85.0	28.0	51309	-	75000	14000	2.1	3.0	612 g
50.0	70.0	14.0	51110	S51110	25480	50000	3.3	4.5	160 g
50.0	78.0	22.0	51210	S51210	48500	111000	2.4	3.4	390 g
50.0	95.0	31.0	51310	-	86500	170000	1.9	2.8	932 g
55.0	78.0	16.0	51111	S51111	34500	93000	2.7	3.8	240 g
55.0	90.0	25.0	51211	S51211	69000	159000	1.9	2.8	610 g
55.0	105.0	35.0	51311	-	102000	208000	1.7	2.4	1300 g
60.0	85.0	17.0	51112	S51112	41500	113000	2.6	3.7	290 g
60.0	85.0	17.0	51212	S51212	73000	179000	1.9	2.7	690 g
60.0	110.0	35.0	51312	S51312	100000	208000	1.6	2.2	1360 g

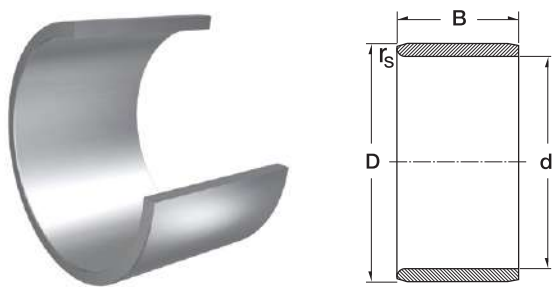
Innenringe der Type IR / IR Inner Ring Series



132

Dimension (mm)			Designation/Type	Shaft Diameter (mm)	Mass (g) approx.
d	D	B			
5.0	8.0	12.0	IR 5X8X12	5.0	3 g
5.0	8.0	16.0	IR 5X8X16	5.0	4 g
6.0	9.0	12.0	IR 6X9X12	6.0	3 g
6.0	9.0	16.0	IR 6X9X16	6.0	4 g
7.0	10.0	12.0	IR 7X10X12	7.0	4 g
7.0	10.0	10.5	IR 7X10X10.5	7.0	3 g
7.0	10.0	10.5	LR 7X10X10.5	7.0	3 g
7.0	10.0	16.0	IR 7X10X16	7.0	4 g
8.0	12.0	12.5	IR 8X12X12.5	8.0	6 g
8.0	12.0	10.5	IR 8X12X10.5	8.0	5 g
8.0	12.0	10.5	LR 8X12X10.5	8.0	5 g
9.0	12.0	12.0	IR 9X12X12	9.0	4 g
9.0	12.0	16.0	IR 9X12X16	9.0	6 g
10.0	13.0	12.5	IR 10X13X12.5	10.0	5 g
10.0	13.0	12.5	LR 10X13X12.5	10.0	5 g
10.0	14.0	13.0	IR 10X14X13	10.0	7 g
10.0	14.0	16.0	IR 10X14X16	10.0	9 g
10.0	14.0	20.0	IR 10X14X20	10.0	12 g
12.0	15.0	12.5	IR 12X15X12.5	12.0	6 g
12.0	16.0	12.0	IR 12X16X12	12.0	8 g
12.0	15.0	12.0	IR 12X15X12	12.0	6 g
12.0	15.0	12.5	LR 12X15X12.5	12.0	6 g
12.0	15.0	16.0	IR 12X15X16	12.0	8 g
12.0	15.0	16.5	IR 12X15X16.5	12.0	8 g
12.0	15.0	16.5	LR 12X15X16.5	12.0	8 g
12.0	15.0	22.5	IR 12X15X22.5	12.0	11 g
12.0	15.0	22.5	LR 12X15X22.5	12.0	11 g
12.0	16.0	13.0	IR 12X16X13	12.0	9 g
12.0	16.0	16.0	IR 12X16X16	12.0	11 g
12.0	16.0	20.0	IR 12X16X20	12.0	14 g

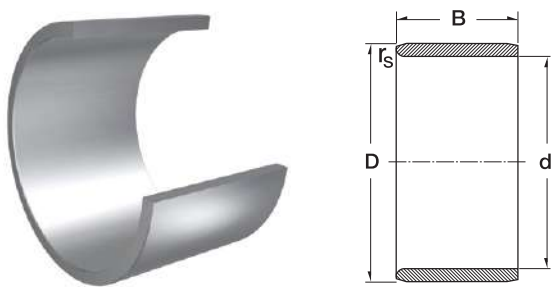
Innenringe der Type IR / IR Inner Ring Series



133

Dimension (mm)			Designation/Type	Shaft Diameter (mm)	Mass (g) approx.
d	D	B			
12.0	16.0	22.0	IR 12X16X22	12.0	15 g
14.0	17.0	17.0	IR 14X17X17	14.0	10 g
15.0	18.0	16.5	IR 15X18X16.5	15.0	10 g
15.0	20.0	23.0	IR 15X20X23	15.0	25 g
15.0	18.0	12.5	LR 15X18X12.5	15.0	7 g
15.0	18.0	16.0	IR 15X18X16	15.0	9 g
15.0	18.0	16.5	LR 15X18X16.5	15.0	10 g
15.0	19.0	16.0	IR 15X19X16	15.0	12 g
15.0	19.0	20.0	IR 15X19X20	15.0	16 g
15.0	20.0	13.0	IR 15X20X13	15.0	14 g
17.0	20.0	16.0	IR 17X20X16	17.0	11 g
17.0	20.0	20.0	IR 17X20X20	17.0	14 g
17.0	21.0	20.0	IR 17X21X20	17.0	19 g
17.0	22.0	13.0	IR 17X22X13	17.0	15 g
17.0	20.0	16.5	IR 17X20X16.5	17.0	11 g
17.0	20.0	16.5	LR 17X20X16.5	17.0	11 g
17.0	20.0	20.5	IR 17X20X20.5	17.0	14 g
17.0	20.0	20.5	LR 17X20X20.5	17.0	14 g
17.0	20.0	30.5	IR 17X20X30.5	17.0	21 g
17.0	20.0	30.5	LR 17X20X30.5	17.0	21 g
17.0	21.0	16.0	IR 17X21X16	17.0	15 g
17.0	22.0	16.0	IR 17X22X16	17.0	18 g
17.0	22.0	23.0	IR 17X22X23	17.0	27 g
17.0	24.0	20.0	IR 17X24X20	17.0	34 g
20.0	24.0	20.0	IR 20X24X20	20.0	21 g
20.0	25.0	12.5	LR 20X25X12.5	20.0	17 g
20.0	25.0	20.5	LR 20X25X20.5	20.0	28 g
20.0	24.0	16.0	IR 20X24X16	20.0	15 g
20.0	25.0	16.5	LR 20X25X16.5	20.0	22 g
20.0	25.0	17.0	IR 20X25X17	20.0	25 g

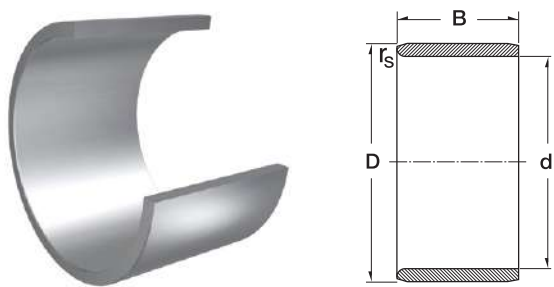
Innenringe der Type IR / IR Inner Ring Series



134

Dimension (mm)			Designation/Type	Shaft Diameter (mm)	Mass (g) approx.
d	D	B			
20.0	25.0	20.0	IR 20X25X20	20.0	28 g
20.0	25.0	20.5	IR 20X25X20.5	20.0	27 g
20.0	25.0	26.5	IR 20X25X26.5	20.0	38 g
20.0	25.0	26.5	LR 20X25X26.5	20.0	38 g
20.0	25.0	30.0	IR 20X25X30	20.0	40 g
20.0	25.0	38.5	IR 20X25X38.5	20.0	53 g
20.0	25.0	38.5	LR 20X25X38.5	20.0	53 g
20.0	28.0	20.0	IR 20X28X20	20.0	45 g
22.0	28.0	20.5	IR 22X28X20.5	22.0	36 g
22.0	26.0	16.0	IR 22X26X16	22.0	18 g
22.0	26.0	20.0	IR 22X26X20	22.0	23 g
22.0	28.0	17.0	IR 22X28X17	22.0	30 g
22.0	28.0	20.0	IR 22X28X20	22.0	35 g
22.0	28.0	20.5	LR 22X28X20.5	22.0	36 g
22.0	28.0	30.0	IR 22X28X30	22.0	54 g
25.0	30.0	12.5	IR 25X30X12.5	25.0	20 g
25.0	30.0	20.0	IR 25X30X20	25.0	33 g
25.0	30.0	32.0	IR 25X30X32	25.0	54 g
25.0	29.0	20.0	IR 25X29X20	25.0	26 g
25.0	29.0	30.0	IR 25X29X30	25.0	39 g
25.0	30.0	12.5	LR 25X30X12.5	25.0	20 g
25.0	30.0	16.5	LR 25X30X16.5	25.0	27 g
25.0	30.0	20.5	IR 25X30X20.5	25.0	33 g
25.0	30.0	20.5	LR 25X30X20.5	25.0	33 g
25.0	30.0	26.5	IR 25X30X26.5	25.0	46 g
25.0	30.0	26.5	LR 25X30X26.5	25.0	46 g
25.0	30.0	30.0	IR 25X30X30	25.0	53 g
25.0	30.0	38.5	IR 25X30X38.5	25.0	65 g
25.0	30.0	38.5	LR 25X30X38.5	25.0	65 g
25.0	32.0	22.0	IR 25X32X22	25.0	53 g

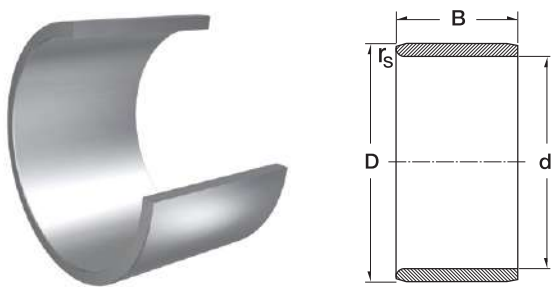
Innenringe der Type IR / IR Inner Ring Series



135

Dimension (mm)			Designation/Type	Shaft Diameter (mm)	Mass (g) approx.
d	D	B			
28.0	32.0	17.0	IR 28X32X17	28.0	25 g
28.0	32.0	20.0	IR 28X32X20	28.0	29 g
28.0	32.0	30.0	IR 28X32X30	28.0	44 g
30.0	35.0	16.0	IR 30X35X16	30.0	31 g
30.0	35.0	20.5	IR 30X35X20.5	30.0	39 g
30.0	35.0	30.0	IR 30X35X30	30.0	59 g
30.0	35.0	12.5	LR 30X35X12.5	30.0	23 g
30.0	35.0	13.0	IR 30X35X13	30.0	25 g
30.0	35.0	16.5	LR 30X35X16.5	30.0	31 g
30.0	35.0	17.0	IR 30X35X17	30.0	36 g
30.0	35.0	20.0	IR 30X35X20	30.0	39 g
30.0	35.0	20.5	LR 30X35X20.5	30.0	40 g
30.0	35.0	26.0	IR 30X35X26	30.0	50 g
30.0	37.0	18.0	IR 30X37X18	30.0	50 g
30.0	37.0	22.0	IR 30X37X22	30.0	62 g
32.0	37.0	20.0	IR 32X37X20	32.0	42 g
32.0	37.0	30.0	IR 32X37X30	32.0	62 g
32.0	40.0	20.0	IR 32X40X20	32.0	68 g
32.0	40.0	36.0	IR 32X40X36	32.0	124 g
33.0	37.0	13.0	IR 33X37X13	33.0	22 g
35.0	40.0	17.0	IR 35X40X17	35.0	39 g
35.0	40.0	20.0	IR 35X40X20	35.0	46 g
35.0	40.0	30.0	IR 35X40X30	35.0	68 g
35.0	40.0	12.5	LR 35X40X12.5	35.0	27 g
35.0	40.0	16.5	LR 35X40X16.5	35.0	37 g
35.0	40.0	20.5	IR 35X40X20.5	35.0	46 g
35.0	40.0	20.5	LR 35X40X20.5	35.0	46 g
35.0	42.0	36.0	IR 35X42X36	35.0	117 g
35.0	43.0	22.0	IR 35X43X22	35.0	82 g
38.0	43.0	20.0	IR 38X43X20	38.0	48 g

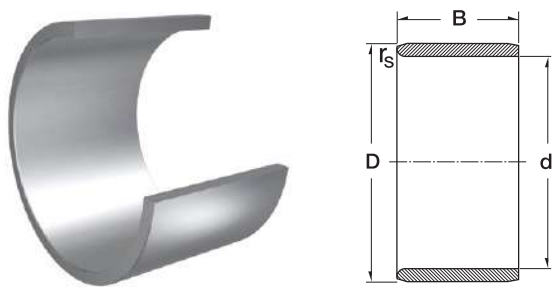
Innenringe der Type IR / IR Inner Ring Series



136

Dimension (mm)			Designation/Type	Shaft Diameter (mm)	Mass (g) approx.
d	D	B			
38.0	43.0	30.0	IR 38X43X30	38.0	74 g
40.0	45.0	10.0	IR 40X45X10	40.0	26 g
40.0	45.0	20.0	IR 40X45X20	40.0	51 g
40.0	45.0	30.0	IR 40X45X30	40.0	77 g
40.0	45.0	16.5	LR 40X45X16.5	40.0	41 g
40.0	45.0	17.0	IR 40X45X17	40.0	43 g
40.0	45.0	20.5	IR 40X45X20.5	40.0	52 g
40.0	45.0	20.5	LR 40X45X20.5	40.0	52 g
40.0	48.0	22.0	IR 40X48X22	40.0	92 g
40.0	48.0	40.0	IR 40X48X40	40.0	170 g
40.0	50.0	22.0	IR 40X50X22	40.0	118 g
42.0	47.0	20.0	IR 42X47X20	42.0	53 g
42.0	47.0	30.0	IR 42X47X30	42.0	81 g
45.0	50.0	20.0	IR 45X50X20	45.0	57 g
45.0	50.0	35.0	IR 45X50X35	45.0	101 g
45.0	52.0	22.0	IR 45X52X22	45.0	88 g
45.0	50.0	20.5	LR 45X50X20.5	45.0	59 g
45.0	50.0	25.0	IR 45X50X25	45.0	71 g
45.0	50.0	25.5	IR 45X50X25.5	45.0	75 g
45.0	50.0	25.5	LR 45X50X25.5	45.0	75 g
45.0	52.0	40.0	IR 45X52X40	45.0	164 g
45.0	55.0	22.0	IR 45X55X22	45.0	129 g
50.0	55.0	20.0	IR 50X55X20	50.0	63 g
50.0	55.0	35.0	IR 50X55X35	50.0	112 g
50.0	58.0	22.0	IR 50X58X22	50.0	115 g
50.0	58.0	40.0	IR 50X58X40	50.0	209 g
50.0	60.0	25.0	IR 50X60X25	50.0	163 g
50.0	60.0	28.0	IR 50X60X28	50.0	183 g
50.0	55.0	20.5	LR 50X55X20.5	50.0	64 g
50.0	55.0	25.0	IR 50X55X25	50.0	78 g

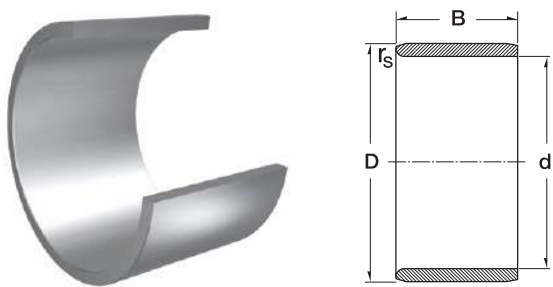
Innenringe der Type IR / IR Inner Ring Series



137

Dimension (mm)			Designation/Type	Shaft Diameter (mm)	Mass (g) approx.
d	D	B			
55.0	60.0	35.0	IR 55X60X35	55.0	121 g
55.0	60.0	25.0	IR 55X60X25	55.0	86 g
55.0	63.0	25.0	IR 55X63X25	55.0	141 g
55.0	63.0	45.0	IR 55X63X45	55.0	256 g
55.0	65.0	28.0	IR 55X65X28	55.0	198 g
60.0	68.0	45.0	IR 60X68X45	60.0	275 g
60.0	70.0	25.0	IR 60X70X25	60.0	195 g
60.0	70.0	60.0	IR 60X70X60	60.0	463 g
60.0	68.0	25.0	IR 60X68X25	60.0	152 g
60.0	68.0	35.0	IR 60X68X35	60.0	213 g
60.0	70.0	28.0	IR 60X70X28	60.0	215 g
65.0	72.0	45.0	IR 65X72X45	65.0	259 g
65.0	75.0	28.0	IR 65X75X28	65.0	236 g
65.0	72.0	25.0	IR 65X72X25	65.0	414 g
65.0	73.0	25.0	IR 65X73X25	65.0	164 g
65.0	73.0	35.0	IR 65X73X35	65.0	231 g
70.0	80.0	25.0	IR 70X80X25	70.0	224 g
70.0	80.0	54.0	IR 70X80X54	70.0	480 g
70.0	80.0	30.0	IR 70X80X30	70.0	267 g
70.0	80.0	35.0	IR 70X80X35	70.0	312 g
75.0	85.0	25.0	IR 75X85X25	75.0	238 g
75.0	85.0	30.0	IR 75X85X30	75.0	287 g
75.0	85.0	35.0	IR 75X85X35	75.0	336 g
75.0	85.0	54.0	IR 75X85X54	75.0	520 g
80.0	90.0	35.0	IR 80X90X35	80.0	355 g
80.0	90.0	25.0	IR 80X90X25	80.0	253 g
80.0	90.0	30.0	IR 80X90X30	80.0	304 g
80.0	90.0	54.0	IR 80X90X54	80.0	556 g
85.0	95.0	26.0	IR 85X95X26	85.0	277 g
85.0	95.0	36.0	IR 85X95X36	85.0	388 g

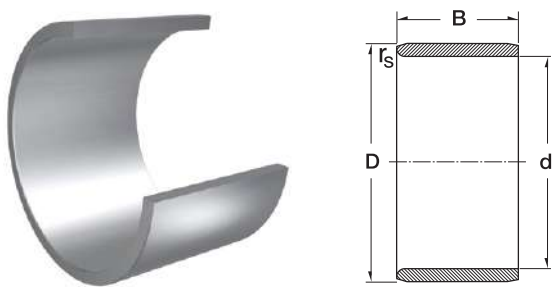
Innenringe der Type IR / IR Inner Ring Series



138

Dimension (mm)			Designation/Type	Shaft Diameter (mm)	Mass (g) approx.
d	D	B			
85.0	100.0	35.0	IR 85X100X35	85.0	582 g
85.0	100.0	63.0	IR 85X100X63	85.0	1054 g
90.0	100.0	26.0	IR 90X100X26	90.0	294 g
90.0	100.0	30.0	IR 90X100X30	90.0	340 g
90.0	100.0	36.0	IR 90X100X36	90.0	406 g
90.0	105.0	35.0	IR 90X105X35	90.0	610 g
90.0	105.0	63.0	IR 90X105X63	90.0	1110 g
95.0	105.0	26.0	IR 95X105X26	95.0	313 g
95.0	105.0	36.0	IR 95X105X36	95.0	431 g
95.0	110.0	35.0	IR 95X110X35	95.0	657 g
95.0	110.0	63.0	IR 95X110X63	95.0	1170 g
100.0	110.0	30.0	IR 100X110X30	100.0	350 g
100.0	110.0	40.0	IR 100X110X40	100.0	505 g
100.0	115.0	40.0	IR 100X115X40	100.0	797 g
110.0	120.0	30.0	IR 110X120X30	110.0	409 g
110.0	125.0	40.0	IR 110X125X40	110.0	840 g
120.0	130.0	30.0	IR 120X130X30	120.0	442 g
120.0	135.0	45.0	IR 120X135X45	120.0	1044 g
130.0	145.0	35.0	IR 130X145X35	130.0	855 g
130.0	150.0	50.0	IR 130X150X30	130.0	1690 g
140.0	155.0	35.0	IR 140X155X35	140.0	917 g
140.0	160.0	50.0	IR 140X160X50	140.0	1800 g
150.0	165.0	40.0	IR 150X165X40	150.0	1122 g
160.0	175.0	40.0	IR 160X175X40	160.0	1200 g
170.0	185.0	45.0	IR 170X185X45	170.0	1441 g
180.0	195.0	45.0	IR 180X195X45	180.0	1510 g
190.0	210.0	50.0	IR 190X210X50	190.0	2410 g
200.0	220.0	50.0	IR 200X220X50	200.0	2518 g
220.0	240.0	50.0	IR 220X240X50	220.0	2753 g
240.0	265.0	60.0	IR 240X265X60	240.0	4600 g

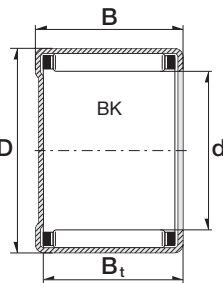
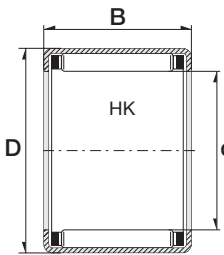
Innenringe der Type IR / IR Inner Ring Series



139

Dimension (mm)			Designation/Type	Shaft Diameter (mm)	Mass (g) approx.
d	D	B			
260.0	285.0	60.0	IR 260X285X60	260.0	4980 g
280.0	305.0	69.0	IR 280X305X69	280.0	6100 g
300.0	330.0	80.0	IR 300X330X80	300.0	9200 g
320.0	350.0	80.0	IR 320X350X80	320.0	9800 g
340.0	370.0	80.0	IR 340X370X80	340.0	10200 g
360.0	390.0	80.0	IR 360X390X80	360.0	10900 g
380.0	415.0	100.0	IR 380X415X100	380.0	16700 g

Nadellager der Type HK & BK / Needle Roller Bearings



Needle Roller Bearings
HK series with open ends

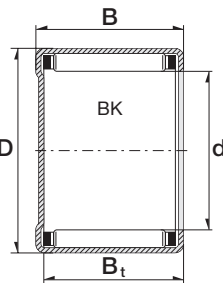
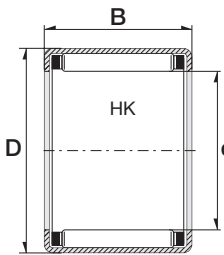
Drawn Cup
Needle Roller Bearings
BK series with closed ends



140

Designation/Type		Dimension (mm)				* Load Rating		* Limiting speed x1000rpm	Mass (g) approx.
with open ends	with closed end	d	D	B (Tol.-0.3)	B _t min. only BK	C, dyn. N	C, stat. N		
HK 0306-TV	BK 0306	3.0	6.5	6.0	0.0	1230	840	46.0	1 g
HK 0408	-	4.0	8.0	8.0	0.0	1780	1310	41.0	2 g
HK 0509	BK 0509	5.0	9.0	9.0	0.0	2400	1990	38.0	2 g
HK 0606	-	6.0	10.0	6.0	0.0	1610	1220	35.0	2 g
HK 0608	-	6.0	10.0	8.0	-	2030	1650	35.0	2 g
HK 0609	BK 0609	6.0	10.0	9.0	7.4	2850	2600	35.0	3 g
HK 0709	BK 0709	7.0	11.0	9.0	7.4	3100	2950	31.0	3 g
HK 0808	BK 0808	8.0	12.0	8.0	6.4	2750	2600	28.0	3 g
HK 0810	BK 0810	8.0	12.0	10.0	8.4	3800	3950	28.0	3 g
HK0810-RS	-	8.0	12.0	10.0	0.0	3800	3950	28.0	3 g
HK0810-2RS	-	8.0	12.0	10.0	0.0	3800	3950	28.0	3 g
HK0812-RS	-	8.0	12.0	12.0	0.0	3800	3950	28.0	3 g
HK0812-2RS	-	8.0	12.0	12.0	0.0	3800	3950	28.0	3 g
HK 0908	-	9.0	13.0	8.0	-	3550	3750	25.5	3 g
HK 0910	BK 0910	9.0	13.0	10.0	8.4	4250	4650	25.5	4 g
HK 0912	BK 0912	9.0	13.0	12.0	10.4	5300	6300	25.5	5 g
HK 1010	BK 1010	10.0	14.0	10.0	8.4	4400	5100	23.3	4 g
HK 1012	BK 1012	10.0	14.0	12.0	10.4	5500	6800	23.3	5 g
HK1012-RS	-	10.0	14.0	12.0	0.0	5500	6800	23.3	4 g
HK1012-2RS	-	10.0	14.0	12.0	0.0	5500	6800	23.3	4 g
HK1014-2RS	-	10.0	14.0	12.0	0.0	4400	5100	23.3	4 g
HK 1015	BK 1015	10.0	14.0	15.0	13.4	6800	8800	23.3	6 g
HK 1210	BK 1210	12.0	16.0	10.0	8.4	4950	6200	20.0	5 g
HK 1212	BK 1212	12.0	18.0	12.0	9.3	6500	7300	18.7	9 g
HK1214-2RS	-	12.0	16.0	14.0	0.0	6500	7300	20.0	8 g
HK1214-RS	-	12.0	18.0	14.0	0.0	6500	7300	18.7	10 g
HK1216-2RS	-	12.0	18.0	14.0	0.0	6500	7300	18.7	10 g
HK 1312	BK 1312	13.0	19.0	12.0	9.3	6300	7300	17.5	10 g
HK 1412	BK 1412	14.0	20.0	12.0	9.3	7100	8500	16.5	11 g
HK1414-RS	-	14.0	20.0	14.0	0.0	7100	8500	16.5	12 g

Nadellager der Type HK & BK / Needle Roller Bearings



Needle Roller Bearings
HK series with open ends

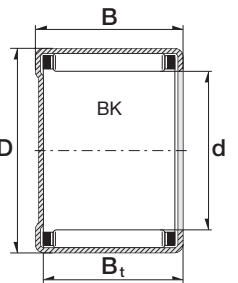
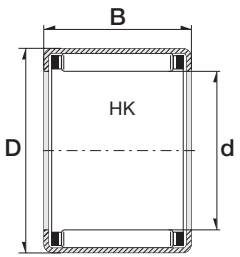
Drawn Cup
Needle Roller Bearings
BK series with closed ends



141

Designation/Type		Dimension (mm)				* Load Rating		* Limiting speed x1000rpm	Mass (g) approx.
with open ends	with closed end	d	D	B (Tol.-0.3)	B _t min. only BK	C, dyn. N	C, stat. N		
HK1416-2RS	-	14.0	20.0	14.0	0.0	7100	8500	16.5	12 g
HK 1512	BK 1512	15.0	21.0	12.0	9.3	7900	9400	15.6	11 g
HK1514-RS	-	15.0	21.0	14.0	0.0	7800	9800	15.6	12 g
HK 1516	BK 1516	15.0	21.0	16.0	13.3	10500	14400	15.6	15 g
HK1516-2RS	-	15.0	21.0	14.0	0.0	10500	14400	15.6	12 g
HK1518-RS	-	15.0	21.0	18.0	0.0	10500	14400	15.6	16 g
HK1520-2RS	-	15.0	21.0	18.0	0.0	10500	14400	15.6	18 g
HK1522-ZW	-	15.0	21.0	22.0	0.0	13400	19500	15.6	20 g
HK 1612	BK 1612	16.0	22.0	12.0	9.3	7600	9700	14.7	12 g
HK 1614-RS	-	16.0	22.0	14.0	0.0	7600	9700	14.7	13 g
HK 1616	BK 1616	16.0	22.0	16.0	13.3	10900	15300	14.7	16 g
HK1616-2RS	-	16.0	22.0	14.0	0.0	10900	15300	14.7	13 g
HK1620-2RS	-	16.0	22.0	20.0	0.0	10900	15300	14.7	18 g
HK 1622-ZW	BK 1622-ZW	16.0	22.0	22.0	0.0	13100	19400	14.7	22 g
HK 1712	-	17.0	23.0	12.0	-	7900	10300	14.0	12 g
HK 1812	BK 1812	18.0	24.0	12.0	9.3	8100	10900	13.3	13 g
HK1814-RS	-	18.0	24.0	14.0	0.0	8100	10900	13.3	14 g
HK 1816	BK 1816	18.0	24.0	16.0	13.3	11600	17300	13.3	18 g
HK1816-2RS	-	18.0	24.0	14.0	0.0	11600	17300	13.3	15 g
HK 2010	-	20.0	26.0	10.0	-	6400	8200	12.2	12 g
HK 2012	-	20.0	26.0	12.0	-	8600	12100	12.2	14 g
HK 2016	BK 2016	20.0	26.0	16.0	13.3	12700	20100	12.2	19 g
HK2016-2RS	-	20.0	26.0	16.0	0.0	12700	20100	12.2	18 g
HK2018-RS	-	20.0	26.0	18.0	0.0	12700	20100	12.2	21 g
HK 2020	BK 2020	20.0	26.0	20.0	17.3	15700	26000	12.2	24 g
HK2020-2RS	-	20.0	26.0	18.0	0.0	15700	26000	12.2	23 g
HK2030-ZW	-	20.0	26.0	30.0	0.0	21800	40000	12.2	35 g
HK 2210	-	22.0	28.0	10.0	-	7500	10500	11.2	13 g
HK 2212	BK 2212	22.0	28.0	12.0	9.3	9100	13400	11.2	15 g
HK2214-RS	-	22.0	28.0	14.0	0.0	9100	13400	11.2	16 g

Nadellager der Type HK & BK / Needle Roller Bearings



Needle Roller Bearings
HK series with open ends

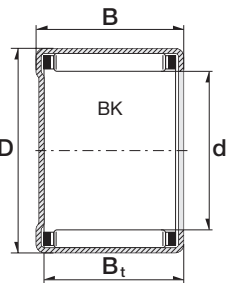
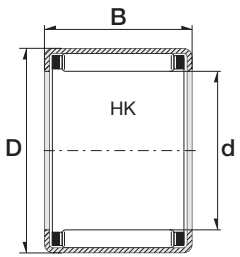
Drawn Cup
Needle Roller Bearings
BK series with closed ends



142

Designation/Type		Dimension (mm)				* Load Rating		* Limiting speed x1000rpm	Mass (g) approx.
with open ends	with closed end	d	D	B (Tol.-0.3)	B _t min. only BK	C, dyn. N	C, stat. N		
HK 2216	BK 2216	22.0	28.0	16.0	13.3	13400	22100	11.2	21 g
HK2216-2RS	-	22.0	28.0	14.0	0.0	13400	22100	11.2	16 g
HK2218-RS	-	22.0	28.0	18.0	0.0	13400	22100	11.2	24 g
HK 2220	-	22.0	28.0	20.0	-	16500	29000	11.2	26 g
HK2220-2RS	-	22.0	28.0	18.0	0.0	16500	29000	11.2	24 g
HK 2512	-	25.0	32.0	12.0	-	11000	15200	9.8	20 g
HK 2516	BK2516	25.0	32.0	16.0	-	15600	24000	9.8	27 g
HK2516-2RS	-	25.0	32.0	16.0	0.0	15600	24000	9.8	27 g
HK2518-RS	-	25.0	32.0	18.0	0.0	15600	24000	9.8	29 g
HK 2520	BK 2520	25.0	32.0	20.0	17.3	19900	33000	9.8	33 g
HK2520-2RS	-	25.0	32.0	18.0	0.0	19900	33000	9.8	29 g
HK2524-2RS	-	25.0	32.0	24.0	0.0	19900	33000	9.8	40 g
HK 2526	BK 2526	25.0	32.0	26.0	23.3	25500	45000	9.8	44 g
HK2530-2RS	-	25.0	32.0	30.0	0.0	25500	45000	9.8	47 g
HK2538.ZW	BK2538-ZW	25.0	32.0	38.0	0.0	34000	66000	9.8	64 g
HK 2816	-	28.0	35.0	16.0	-	16400	26500	8.9	29 g
HK2818-RS		28.0	35.0	18.0	0.0	16400	26500	8.9	31 g
HK 2820	-	28.0	35.0	20.0	-	20900	36000	8.9	36 g
HK2820-2RS	-	28.0	35.0	18.0	0.0	20900	26500	8.9	34 g
HK 3012	BK 3012	30.0	37.0	12.0	9.3	12100	18200	8.4	23 g
HK 3016	BK 3016	30.0	37.0	16.0	13.3	17200	29000	8.4	31 g
HK3016-2RS	-	30.0	37.0	16.0	0.0	17200	29000	8.4	31 g
HK3018-RS	-	30.0	37.0	18.0	0.0	17200	29000	8.4	37 g
HK 3020	BK 3020	30.0	37.0	20.0	17.3	22000	39500	8.4	39 g
HK3020-2RS	-	30.0	37.0	18.0	0.0	22000	39500	8.4	37 g
HK3022	-	30.0	37.0	22.0	0.0	24800	46000	8.4	42 g
HK3024-2RS	-	30.0	37.0	24.0	0.0	22000	39500	8.4	44 g
HK 3026	BK 3026	30.0	37.0	26.0	23.3	28000	54000	8.4	51 g
HK3038-ZW	BK3038-ZW	30.0	37.0	38.0	0.0	37500	79000	8.4	76 g
HK3220	-	32.0	39.0	20.0	0.0	23000	42500	7.9	41 g

Nadellager der Type HK & BK / Needle Roller Bearings



Needle Roller Bearings
HK series with open ends

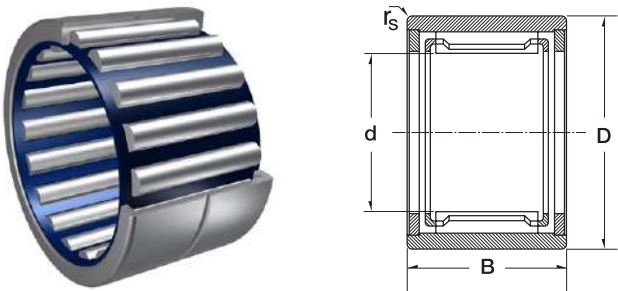
Drawn Cup
Needle Roller Bearings
BK series with closed ends



143

Designation/Type		Dimension (mm)				* Load Rating		* Limiting speed x1000rpm	Mass (g) approx.
with open ends	with closed end	d	D	B (Tol.-0.3)	B _t min. only BK	C, dyn. N	C, stat. N		
HK3224	-	32.0	39.0	24.0	0.0	27500	54000	7.9	49 g
HK 3512	-	35.0	42.0	12.0	-	13100	21300	7.3	27 g
HK 3516	-	35.0	42.0	16.0	-	18700	33500	7.3	36 g
HK3516-2RS	-	35.0	42.0	16.0	0.0	18700	33500	7.3	32 g
HK3518-RS	-	35.0	42.0	18.0	0.0	18700	33500	7.3	39 g
HK 3520	BK 3520	35.0	42.0	20.0	17.3	23800	46000	7.3	44 g
HK3520-2RS	-	35.0	42.0	18.0	0.0	18700	46000	7.3	41 g
HK 4012	-	40.0	47.0	12.0	-	14000	24300	6.4	30 g
HK 4016	-	40.0	47.0	16.0	-	20000	38500	6.4	39 g
HK4016-2RS	-	40.0	47.0	16.0	0.0	20000	38500	6.4	37 g
HK4018-RS	-	40.0	47.0	18.0	0.0	20000	38500	6.4	45 g
HK 4020	BK 4020	40.0	47.0	20.0	17.3	25500	52000	6.4	54 g
HK4020-2RS	-	40.0	47.0	18.0	0.0	25500	52000	6.4	48 g
HK 4512	-	45.0	52.0	12.0	-	14900	27500	5.8	33 g
HK 4516	-	45.0	52.0	16.0	-	21300	43000	5.8	46 g
HK4518-RS		45.0	52.0	18.0	0.0	21300	43000	5.8	50 g
HK 4520	BK 4520	45.0	52.0	20.0	17.3	27000	59000	5.8	56 g
HK4520-2RS	-	45.0	52.0	18.0	0.0	27000	59000	5.8	50 g
HK 5020	-	50.0	58.0	20.0	-	31000	63000	5.2	70 g
HK5022-RS	-	50.0	58.0	22.0	0.0	31000	63000	5.2	76 g
HK5024-2RS	-	50.0	58.0	22.0	0.0	31000	63000	5.2	76 g
HK 5025	-	50.0	58.0	25.0	-	38500	84000	5.2	90 g
HK 5520	-	55.0	63.0	20.0	-	31500	67000	4.8	74 g
HK 5528	-	55.0	63.0	28.0	-	44000	103000	4.8	105 g
HK 6012	-	60.0	68.0	12.0	-	17400	32000	4.4	49 g
HK 6020	-	60.0	68.0	20.0	-	33500	75000	4.4	81 g
HK 6032	-	60.0	68.0	32.0	-	53000	135000	4.4	136 g

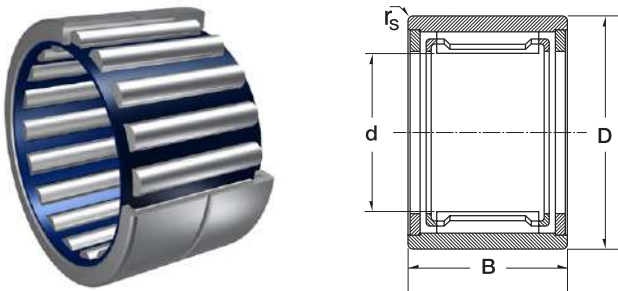
Nadellager der Type NK / NK Needle Roller Bearings



144

Dimension (mm)				Designation/Type	*Load Rating		*Limiting Speed x1000rpm		Mass (g) approx.
d	D	B	rs		C, dyn. N	C, stat. N	Grease	Oil	
5.0	10.0	10.0	0.15	NK 5/10 B TN	2385	1728	24.0	39.0	3 g
5.0	10.0	12.0	0.15	NK 5/12 TN	3060	2385	24.0	39.0	4 g
6.0	12.0	10.0	0.15	NK 6/10	2655	2052	22.0	36.0	5 g
6.0	12.0	12.0	0.15	NK 6/12 TN	3420	2835	22.0	36.0	6 g
7.0	14.0	10.0	0.3	NK 7/10 TN	3060	2385	20.0	34.0	7 g
7.0	14.0	12.0	0.3	NK 7/12 TN	3690	3150	20.0	34.0	8 g
8.0	15.0	12.0	0.3	NK 8/12	4005	3690	19.0	32.0	8 g
8.0	15.0	16.0	0.3	NK 8/16	5220	5220	19.0	32.0	12 g
9.0	16.0	12.0	0.3	NK 9/12	4590	4500	18.0	30.0	10 g
9.0	16.0	16.0	0.3	NK 9/16	5940	6390	18.0	30.0	13 g
10.0	17.0	12.0	0.3	NK 10/12	4770	4950	17.0	28.0	10 g
10.0	17.0	16.0	0.3	NK 10/16	6300	7020	17.0	28.0	13 g
12.0	19.0	12.0	0.3	NK 12/12	6480	6390	16.0	26.0	12 g
12.0	19.0	16.0	0.3	NK 12/16	9090	9900	16.0	26.0	16 g
14.0	22.0	13.0	0.3	RNA 4900	8640	8280	15.0	25.0	16 g
14.0	22.0	16.0	0.3	NK 14/16	10260	10350	15.0	25.0	21 g
14.0	22.0	20.0	0.3	NK 14/20	13050	14040	15.0	25.0	25 g
14.0	22.0	13.0	0.3	RNA 4900-2RS	6930	6210	15.0	25.0	16 g
15.0	23.0	16.0	0.3	NK 15/16	10890	11430	14.4	24.0	21 g
15.0	23.0	20.0	0.3	NK 15/20	13860	15480	14.4	24.0	27 g
15.0	23.0	12.0	0.3	NK 15/12	10890	11430	21.0	-	19 g
16.0	24.0	13.0	0.3	RNA 4901	9540	9810	14.0	23.0	17 g
16.0	24.0	16.0	0.3	NK 16/16	11520	12510	14.0	23.0	22 g
16.0	24.0	20.0	0.3	NK 16/20	14670	16920	14.0	23.0	28 g
16.0	24.0	22.0	0.3	RNA 6901	16290	19440	14.0	23.0	31 g
16.0	24.0	13.0	0.3	RNA 4901-2RS	7740	7470	14.0	23.0	17 g
16.0	24.0	22.0	0.3	RNA 6901-2RS	14490	20880	14.0	23.0	31 g
17.0	25.0	16.0	0.3	NK 17/16	12150	13500	14.0	23.0	24 g
17.0	25.0	20.0	0.3	NK 17/20	15390	18360	14.0	23.0	30 g
18.0	26.0	16.0	0.3	NK 18/16	12690	14580	14.0	22.0	25 g

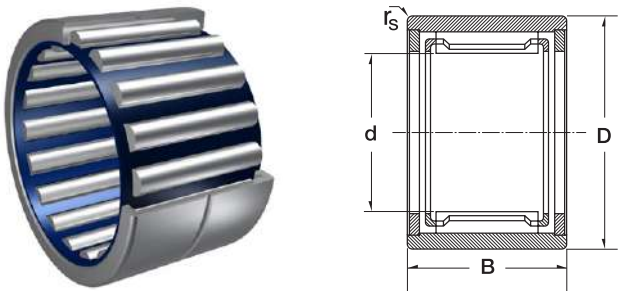
Nadellager der Type NK / NK Needle Roller Bearings



145

Dimension (mm)				Designation/Type	*Load Rating		*Limiting Speed x1000rpm		Mass (g) approx.
d	D	B	rs		C, dyn. N	C, stat. N	Grease	Oil	
18.0	26.0	20.0	0.3	NK 18/20	16110	19800	14.0	22.0	31 g
19.0	27.0	16.0	0.3	NK 19/16	13230	15660	14.0	22.0	26 g
19.0	27.0	20.0	0.3	NK 19/20	16830	21240	14.0	22.0	32 g
20.0	28.0	13.0	0.3	RNA 4902	10800	12240	13.0	20.0	22 g
20.0	28.0	16.0	0.3	NK 20/16	13140	15750	13.0	20.0	27 g
20.0	28.0	20.0	0.3	NK 20/20	16740	21420	13.0	20.0	34 g
20.0	28.0	23.0	0.3	RNA 6902	17550	22950	13.0	20.0	40 g
20.0	32.0	20.0	0.6	NKS 20	23400	22500	13.0	20.0	49 g
20.0	28.0	13.0	0.3	RNA 4902-2RS	8730	9270	13.0	20.0	22 g
20.0	28.0	23.0	0.3	RNA 6902-2RS	17550	22950	13.0	20.0	40 g
21.0	29.0	16.0	0.3	NK 21/16	13680	16830	13.0	20.0	28 g
21.0	29.0	20.0	0.3	NK 21/20	17370	22950	13.0	20.0	35 g
22.0	30.0	13.0	0.3	RNA 4903	11160	13140	12.0	19.0	22 g
22.0	30.0	16.0	0.3	NK 22/16	14220	17910	12.0	19.0	30 g
22.0	30.0	20.0	0.3	NK 22/20	18000	24300	12.0	19.0	37 g
22.0	30.0	23.0	0.3	RNA 6903	18990	26100	12.0	19.0	42 g
22.0	35.0	20.0	0.6	NKS 22	24750	25200	12.0	19.0	61 g
22.0	30.0	13.0	0.3	RNA 4903-2RS	9000	9900	12.0	19.0	22 g
22.0	30.0	23.0	0.3	RNA 6903-2RS	18990	26100	12.0	19.0	42 g
24.0	32.0	16.0	0.3	NK 24/16	15210	20070	10.0	17.0	32 g
24.0	32.0	20.0	0.3	NK 24/20	19260	27450	10.0	17.0	40 g
24.0	37.0	20.0	0.6	NKS 24	26550	27900	10.0	17.0	65 g
25.0	33.0	16.0	0.3	NK 25/16	15120	20160	10.0	17.0	33 g
25.0	33.0	20.0	0.3	NK 25/20	19170	27450	10.0	17.0	42 g
25.0	37.0	17.0	0.3	RNA 4904	21330	22950	10.0	17.0	52 g
25.0	37.0	30.0	0.3	RNA 6904	36450	45900	10.0	17.0	100 g
25.0	38.0	20.0	0.6	NKS 25	27900	30150	10.0	17.0	68 g
25.0	37.0	17.0	0.3	RNA 4904-2RS	17550	17910	10.0	17.0	52 g
25.0	37.0	30.0	0.3	RNA 6904-2RS	36450	45900	10.0	17.0	100 g
26.0	34.0	16.0	0.3	NK 26/16	15570	21240	9.5	16.0	34 g

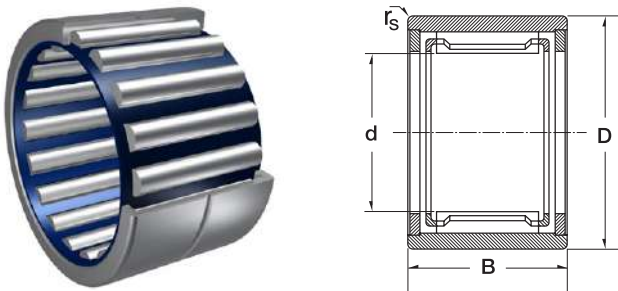
Nadellager der Type NK / NK Needle Roller Bearings



146

Dimension (mm)				Designation/Type	*Load Rating		*Limiting Speed x1000rpm		Mass (g) approx.
d	D	B	rs		C, dyn. N	C, stat. N	Grease	Oil	
26.0	34.0	20.0	0.3	NK 26/20	19800	28800	9.5	16.0	42 g
28.0	37.0	20.0	0.3	NK 28/20	22320	30600	9.0	15.0	52 g
28.0	37.0	30.0	0.3	NK 28/30	33300	51300	9.0	15.0	82 g
28.0	39.0	17.0	0.3	RNA 49/22	23400	26550	9.0	15.0	50 g
28.0	39.0	30.0	0.3	RNA 69/22	37800	49500	9.0	15.0	98 g
28.0	42.0	20.0	0.3	NKS 28	29250	32850	9.0	15.0	84 g
28.0	39.0	17.0	0.3	RNA 49/22-2RS	20970	28800	9.0	15.0	50 g
28.0	39.0	30.0	0.3	RNA 69/22-2RS	33210	51300	9.0	15.0	98 g
29.0	38.0	20.0	0.3	NK 29/20	24750	35100	8.5	14.0	54 g
29.0	38.0	30.0	0.3	NK 29/30	33300	51300	8.5	14.0	84 g
30.0	40.0	20.0	0.3	NK 30/20	25200	36900	8.5	14.0	65 g
30.0	40.0	30.0	0.3	NK 30/30	37800	62100	8.5	14.0	98 g
30.0	42.0	17.0	0.3	RNA 4905	23850	28350	8.5	14.0	61 g
30.0	42.0	30.0	0.3	RNA 6905	39600	53100	8.5	14.0	112 g
30.0	45.0	22.0	0.6	NKS 30	32850	36000	8.5	14.0	104 g
30.0	42.0	17.0	0.3	RNA 4905-2RS	19620	21780	8.5	14.0	61 g
30.0	42.0	30.0	0.3	RNA 6905-2RS	39600	53100	8.5	14.0	112 g
32.0	42.0	20.0	0.3	NK 32/20	26550	40050	8.0	13.0	68 g
32.0	42.0	30.0	0.3	NK 32/30	35100	56700	8.0	13.0	102 g
32.0	45.0	17.0	0.3	RNA 49/28	24750	30150	8.0	13.0	73 g
32.0	45.0	30.0	0.3	RNA 69/28	40950	56700	8.0	13.0	135 g
32.0	47.0	22.0	0.6	NKS 32	34200	39150	8.0	13.0	110 g
32.0	45.0	17.0	0.3	RNA 49/28-2RS	22590	32850	8.0	13.0	73 g
32.0	45.0	30.0	0.3	RNA 69/28-2RS	35640	58950	8.0	13.0	135 g
35.0	45.0	20.0	0.3	NK 35/20	27900	43650	7.5	12.0	74 g
35.0	45.0	30.0	0.3	NK 35/30	41400	72900	7.5	12.0	122 g
35.0	47.0	17.0	0.3	RNA 4906	25650	31950	7.5	12.0	69 g
35.0	47.0	30.0	0.3	RNA 6906	44100	63900	7.5	12.0	126 g
35.0	50.0	22.0	0.6	NKS 35	35550	42300	7.5	12.0	118 g
35.0	47.0	17.0	0.3	RNA 4906-2RS	21510	25650	7.5	12.0	69 g

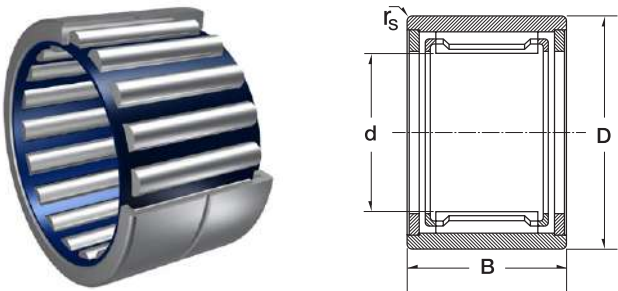
Nadellager der Type NK / NK Needle Roller Bearings



147

Dimension (mm)				Designation/Type	*Load Rating		*Limiting Speed x1000rpm		Mass (g) approx.
d	D	B	rs		C, dyn. N	C, stat. N	Grease	Oil	
35.0	47.0	30.0	0.3	RNA 6906-2RS	44100	63900	7.5	12.0	126 g
37.0	47.0	20.0	0.3	NK 37/20	25200	39150	7.0	11.0	77 g
37.0	47.0	30.0	0.3	NK 37/30	65700	37800	7.0	11.0	113 g
37.0	52.0	22.0	0.6	NKS 37	37350	45000	7.0	11.0	123 g
38.0	48.0	20.0	0.3	NK 38/20	26100	40500	7.0	11.0	79 g
38.0	48.0	30.0	0.3	NK 38/30	38700	68400	7.0	11.0	116 g
40.0	50.0	20.0	0.3	NK 40/20	30150	50400	6.7	10.0	83 g
40.0	50.0	30.0	0.3	NK 40/30	39600	71100	6.7	10.0	125 g
40.0	52.0	20.0	0.6	RNA 49/32	31050	42750	6.7	10.0	89 g
40.0	52.0	36.0	0.6	RNA 69/32	42570	81000	6.7	10.0	162 g
40.0	55.0	22.0	0.6	NKS 40	38250	48600	6.7	10.0	129 g
40.0	52.0	20.0	0.6	RNA 49/32-2RS	27720	45900	6.7	10.0	89 g
40.0	52.0	36.0	0.6	RNA 69/32-2RS	42570	81000	6.7	10.0	162 g
42.0	52.0	20.0	0.3	NK 42/20	27000	44100	6.7	10.0	86 g
42.0	52.0	30.0	0.3	NK 42/30	40050	73800	6.7	10.0	130 g
42.0	55.0	20.0	0.6	RNA 4907	31950	45000	6.7	10.0	107 g
42.0	55.0	36.0	0.6	RNA 6907	43560	83700	6.7	10.0	193 g
42.0	55.0	20.0	0.6	RNA 4907-2RS	26550	35550	6.7	10.0	107 g
42.0	55.0	36.0	0.6	RNA 6907-2RS	43560	83700	6.7	10.0	193 g
43.0	53.0	20.0	0.3	NK 43/20	27450	45900	6.3	9.5	86 g
43.0	53.0	30.0	0.3	NK 43/30	40950	76500	6.3	9.5	133 g
43.0	58.0	22.0	0.6	NKS 43	39600	51300	6.3	9.5	139 g
45.0	55.0	20.0	0.3	NK 45/20	31500	55800	6.3	9.5	91 g
45.0	55.0	30.0	0.3	NK 45/30	46800	92700	6.3	9.5	139 g
45.0	60.0	22.0	0.6	NKS 45	40950	54000	6.0	9.0	145 g
47.0	57.0	20.0	0.3	NK 47/20	29250	50400	6.0	9.0	94 g
47.0	57.0	30.0	0.3	NK 47/30	43650	84600	6.0	9.0	142 g
48.0	62.0	22.0	0.6	RNA 4908	43650	60300	5.6	8.5	140 g
48.0	62.0	40.0	0.6	RNA 6908	60390	112500	5.6	8.5	256 g
48.0	62.0	22.0	0.6	RNA 4908-2RS	36900	47700	5.6	8.5	140 g

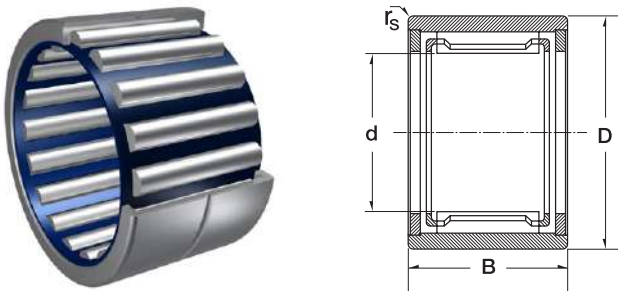
Nadellager der Type NK / NK Needle Roller Bearings



148

Dimension (mm)				Designation/Type	*Load Rating		*Limiting Speed x1000rpm		Mass (g) approx.
d	D	B	rs		C, dyn. N	C, stat. N	Grease	Oil	
48.0	62.0	40.0	0.6	RNA 6908-2RS	60390	112500	5.6	8.5	256 g
50.0	62.0	25.0	0.6	NK 50/25	43650	78300	5.6	8.5	158 g
50.0	62.0	35.0	0.6	NK 50/35	60300	118800	5.6	8.5	221 g
50.0	65.0	22.0	1	NKS 50	43200	60300	5.6	8.5	157 g
52.0	68.0	22.0	0.6	RNA 4909	45900	65700	5.3	8.0	182 g
52.0	68.0	40.0	0.6	RNA 6909	63360	123300	5.3	8.0	338 g
52.0	68.0	22.0	0.6	RNA 4909-2RS	38700	53100	5.3	8.0	182 g
52.0	68.0	40.0	0.6	RNA 6909-2RS	63360	123300	5.3	8.0	338 g
55.0	68.0	25.0	0.6	NK 55/25	40950	73800	5.0	7.5	180 g
55.0	68.0	35.0	0.6	NK 55/35	54000	106200	5.0	7.5	250 g
55.0	72.0	22.0	1	NKS 55	45900	66600	5.0	7.5	221 g
58.0	72.0	22.0	0.6	RNA 4910	47700	72000	4.8	7.0	163 g
58.0	72.0	40.0	0.6	RNA 6910	66330	135000	4.8	7.0	310 g
58.0	72.0	22.0	0.6	RNA 4910-2RS	40500	57600	4.8	7.0	163 g
58.0	72.0	40.0	0.6	RNA 6910-2RS	66330	135000	4.8	7.0	310 g
60.0	72.0	25.0	0.6	NK 60/25	47700	92700	4.8	7.0	185 g
60.0	72.0	35.0	0.6	NK 60/35	56700	117000	4.8	7.0	258 g
60.0	80.0	28.0	1.1	NKS 60	63900	88200	4.8	7.0	335 g
63.0	80.0	25.0	1	RNA 4911	58500	90000	4.5	6.7	255 g
63.0	80.0	45.0	1	RNA 6911	80730	171000	4.5	6.7	470 g
63.0	80.0	25.0	1	RNA 4911-2RS	51480	95400	4.5	6.7	255 g
63.0	80.0	45.0	1	RNA 6911-2RS	76950	150300	4.5	6.7	470 g
65.0	78.0	25.0	0.6	NK 65/25	45000	88200	4.5	6.3	221 g
65.0	78.0	35.0	0.6	NK 65/35	59400	127800	4.3	6.3	310 g
65.0	85.0	28.0	1.1	NKS 65	67500	97200	4.3	6.0	365 g
68.0	82.0	25.0	0.6	NK 68/25	44550	80100	4.0	6.0	241 g
68.0	82.0	35.0	0.6	NK 68/35	63000	125100	4.0	6.0	338 g
68.0	85.0	25.0	1	RNA 4912	61200	97200	4.0	6.0	275 g
68.0	85.0	45.0	1	RNA 6912	84150	183600	4.0	6.0	488 g
68.0	85.0	25.0	1	RNA 4912-2RS	51300	92340	4.0	6.0	275 g

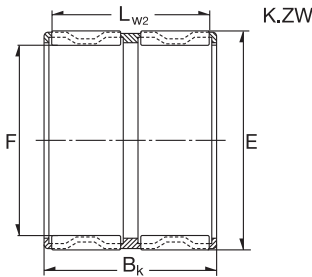
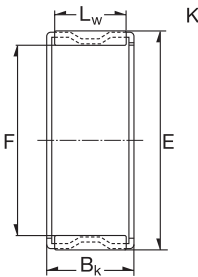
Nadellager der Type NK / NK Needle Roller Bearings



149

Dimension (mm)				Designation/Type	*Load Rating		*Limiting Speed x1000rpm		Mass (g) approx.
d	D	B	rs		C, dyn. N	C, stat. N	Grease	Oil	
68.0	85.0	45.0	1	RNA 6912-2RS	80370	163260	4.0	6.0	488 g
70.0	85.0	25.0	0.6	NK 70/25	45000	82800	4.0	6.0	260 g
70.0	85.0	35.0	0.6	NK 70/35	63900	129600	4.0	6.0	370 g
70.0	90.0	28.0	1.1	NKS 70	69300	101700	4.0	6.0	380 g
72.0	90.0	25.0	1	RNA 4913	62100	100800	4.0	6.0	312 g
72.0	90.0	45.0	1	RNA 6913	85680	190800	4.0	6.0	580 g
72.0	90.0	25.0	1	RNA 4913-2RS	51750	99450	4.0	6.0	312 g
72.0	90.0	45.0	1	RNA 6913-2RS	81225	169290	4.0	6.0	580 g
73.0	90.0	25.0	0.6	NK 73/25	54000	90000	3.8	5.6	302 g
73.0	90.0	35.0	0.6	NK 73/35	76500	140400	3.8	5.6	428 g
75.0	92.0	35.0	1	NK 75/35	78300	145800	6.1	-	445 g
85.0	105.0	35.0	1	NK 85/35	99900	173700	5.4	-	600 g
105.0	125.0	36.0	1	NK 105/36	116100	225000	4.4	-	713 g

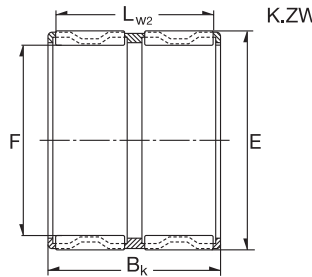
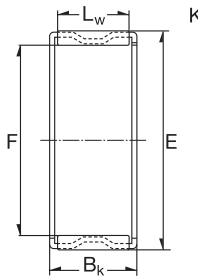
Nadelkränze der Type K / K Needle Roller Bearings



150

Dimension (mm)			Designation/Type	*Load Rating		*LimitingSpeed x1000rpm Oil	Mass (g) approx.
F	E	BK		C, dyn. N	C, stat. N		
5.0	8.0	8.0	K 5X8X8 TN	2300	1880	37.0	>1 g
5.0	8.0	10.0	K 5X8X10 TN	2800	2450	37.0	>1 g
6.0	9.0	8.0	K 6X9X8 TN	2560	2240	35.0	>1 g
6.0	9.0	10.0	K 6X9X10 TN	3300	3100	35.0	1 g
6.0	10.0	13.0	K 6X9X13 TN	3500	2800	33.0	>1 g
7.0	10.0	8.0	K 7X10X8 TN	2750	2550	32.0	1 g
7.0	10.0	10.0	K 7-X10X10 TN	3350	3400	32.0	1 g
8.0	11.0	8.0	K 8X11X8 TN	3000	2900	30.0	1 g
8.0	11.0	10.0	K 8X11X10 TN	3830	3950	30.0	1 g
8.0	11.0	13.0	K 8X11X13 TN	5000	5700	30.0	1 g
8.0	12.0	10.0	K 8X12X10 TN	4900	4600	30.0	1 g
9.0	12.0	10.0	K 9X12X10 TN	4200	4700	30.0	1 g
9.0	12.0	13.0	K 9X12X13 TN	5500	6700	30.0	1 g
10.0	13.0	10.0	K 10X13X10 TN	4500	5250	27.0	1 g
10.0	13.0	13.0	K 10X13X13 TN	6000	7600	27.0	2 g
10.0	13.0	16.0	K 10X13X16 TN	6300	7800	27.0	2 g
10.0	14.0	10.0	K 10X14X10 TN	7000	7900	26.0	2 g
10.0	14.0	13.0	K 10X14X13 TN	8000	9100	27.0	4 g
10.0	16.0	12.0	K 10X16X12 TN	7000	9300	27.0	3 g
12.0	15.0	9.0	K 12X15X9 TN	4120	5210	25.0	2 g
12.0	15.0	10.0	K 12X15X10 TN	4320	5730	25.0	1 g
12.0	15.0	13.0	K 12X15X13 TN	6000	8100	25.0	2 g
12.0	16.0	8.0	K 12X16X8 TN	4200	4700	25.0	2 g
12.0	16.0	10.0	K 12X16X10 TN	6000	6900	25.0	3 g
12.0	16.0	13.0	K 12X16X13 TN	7900	9200	25.0	3 g
12.0	17.0	13.0	K 12X17X13 TN	9300	10000	24.0	4 g
12.0	18.0	12.0	K 12X18X12 TN	9800	8000	24.0	5 g
12.0	15.0	20.0	K 12X15X20 TN	8200	12000	25.0	3 g
14.0	17.0	10.0	K 14X17X10	5100	6800	23.0	4 g
14.0	17.0	17.0	K 14X17X17	9300	14000	23.0	6 g
14.0	18.0	10.0	K 14X18X10	6800	8300	23.0	4 g

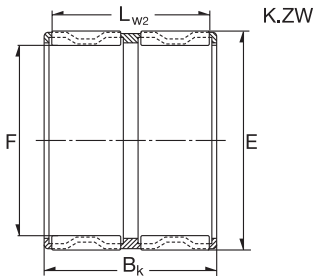
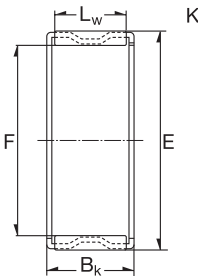
Nadelkränze der Type K / K Needle Roller Bearings



151

Dimension (mm)			Designation/Type	*Load Rating		*LimitingSpeed x1000rpm Oil	Mass (g) approx.
F	E	BK		C, dyn. N	C, stat. N		
14.0	18.0	13.0	K 14X18X13	8100	9800	23.0	6 g
14.0	18.0	14.0	K 14X18X14	9200	12000	23.0	5 g
14.0	18.0	15.0	K 14X18X15	10000	13000	23.0	7 g
14.0	18.0	17.0	K 14X18X17	10500	13900	23.0	8 g
14.0	20.0	12.0	K 14X20X12	9900	10500	22.0	18 g
15.0	18.0	14.0	K 15X18X14	7500	11000	23.0	5 g
15.0	18.0	17.0	K 15X18X17	9600	15900	23.0	5 g
15.0	19.0	10.0	K 15X19X10	7200	9000	23.0	5 g
15.0	19.0	13.0	K 15X19X13	8300	9800	22.0	7 g
15.0	19.0	17.0	K 15X19X17	10300	15000	22.0	8 g
15.0	19.0	24.0	K 15X19X24	12800	20100	22.0	10 g
15.0	20.0	13.0	K 15X20X13	9700	11000	22.0	8 g
15.0	21.0	12.0	K 15X21X12	10000	13000	22.0	10 g
15.0	21.0	15.0	K 15X21X15	13800	16000	22.0	13 g
15.0	21.0	21.0	K 15X21X21	18000	24000	22.0	18 g
16.0	20.0	10.0	K 16X20X10	7600	9700	22.0	5 g
16.0	20.0	13.0	K 16X20X13	8700	11300	22.0	7 g
16.0	20.0	17.0	K 16X20X17	11200	16300	22.0	9 g
16.0	21.0	10.0	K 16X21X10	9000	12000	22.0	6 g
16.0	22.0	12.0	K 16X22X12	11000	12000	21.0	10 g
16.0	22.0	13.0	K 16X22X13	12000	13400	21.0	11 g
16.0	22.0	16.0	K 16X22X16	14300	17000	21.0	13 g
16.0	22.0	20.0	K 16X22X20	18000	22300	21.0	16 g
16.0	23.0	14.0	K 16X23X14	19000	21000	19.0	20 g
16.0	24.0	20.0	K 16X24X20	21100	23000	20.0	24 g
17.0	21.0	10.0	K 17X21X10	7900	10100	21.0	5 g
17.0	21.0	13.0	K 17X21X13	10000	14100	21.0	7 g
17.0	21.0	17.0	K 17X21X17	12000	17400	21.0	9 g
17.0	23.0	14.0	K 17X23X14	11000	15000	21.0	11 g
18.0	22.0	10.0	K 18X22X10	8200	9900	20.0	6 g
18.0	22.0	13.0	K 18X22X13	9000	12100	20.0	7 g

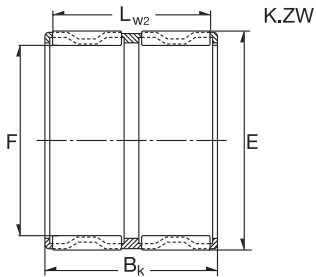
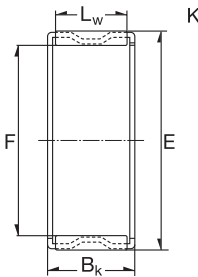
Nadelkränze der Type K / K Needle Roller Bearings



152

Dimension (mm)			Designation/Type	*Load Rating		*LimitingSpeed x1000rpm Oil	Mass (g) approx.
F	E	BK		C, dyn. N	C, stat. N		
18.0	22.0	17.0	K 18X22X17	11900	17600	20.0	10 g
18.0	24.0	12.0	K 18X24X12	11200	12900	20.0	11 g
18.0	24.0	13.0	K 18X24X13	12900	14900	20.0	12 g
18.0	24.0	13.5	K 18X24X13.5	12900	14900	20.0	13 g
18.0	24.0	20.0	K 18X24X20	20000	26500	20.0	19 g
18.0	25.0	14.0	K 18X25X14	16500	18800	20.0	14 g
18.0	25.0	22.0	K 18X25X22	22900	28400	20.0	24 g
18.0	26.0	14.0	K 18X26X14	18000	20000	18.0	19 g
18.0	28.0	16.0	K 18X28X16	19000	18400	19.0	24 g
19.0	23.0	13.0	K 19X23X13	9300	13000	20.0	8 g
19.0	23.0	17.0	K 19X23X17	12000	18600	20.0	11 g
20.0	24.0	10.0	K 20X24X10	8700	12100	19.0	6 g
20.0	24.0	12.0	K 20X24X12	9600	13800	19.0	8 g
20.0	24.0	13.0	K 20X24X13	9600	13800	19.0	8 g
20.0	24.0	17.0	K 20X24X17	12400	20000	19.0	11 g
20.0	26.0	12.0	K 20X26X12	13100	15700	19.0	13 g
20.0	26.0	16.0	K 20X26X16	18000	25000	18.5	17 g
20.0	26.0	17.0	K 20X26X17	18700	25500	19.0	18 g
20.0	26.0	20.0	K 20X26X20	20600	28500	18.0	22 g
20.0	28.0	20.0	K 20X28X20	23400	28000	18.0	26 g
20.0	28.0	25.0	K 20X28X25	30000	28500	18.0	36 g
20.0	30.0	30.0	K 20X30X30	35000	41000	19.0	56 g
21.0	25.0	13.0	K 21X25X13	9600	14500	19.0	9 g
21.0	25.0	17.0	K 21X25X17	12800	21000	18.0	12 g
22.0	26.0	10.0	K 22X26X10	8700	12900	18.0	7 g
22.0	26.0	13.0	K 22X26X13	10000	15400	18.0	9 g
22.0	26.0	17.0	K 22X26X17	13100	22100	18.0	12 g
22.0	27.0	13.0	K 22X27X13	14000	23000	18.0	10 g
22.0	28.0	17.0	K 22X28X17	19000	26500	19.0	19 g
22.0	28.0	23.0	K 22X28X23	20000	27000	17.0	26 g
22.0	29.0	16.0	K 22X29X16	19500	25000	17.0	22 g

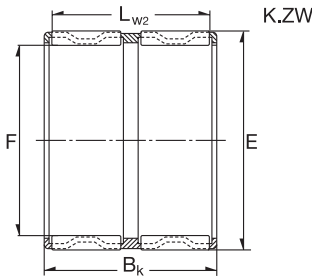
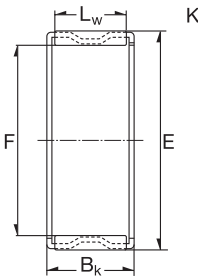
Nadelkränze der Type K / K Needle Roller Bearings



153

Dimension (mm)			Designation/Type	*Load Rating		*LimitingSpeed x1000rpm Oil	Mass (g) approx.
F	E	BK		C, dyn. N	C, stat. N		
22.0	30.0	15.0	K 22X30X15 TN	19600	22900	18.9	14 g
22.0	30.0	20.0	K 22X30X20	21000	23500	18.9	28 g
23.0	32.0	24.0	K 22X32X24	33500	39500	16.0	43 g
24.0	35.0	16.0	K 23X35X16 TN	24000	23400	15.0	30 g
24.0	28.0	10.0	K 24X28X10	9400	14300	17.0	8 g
24.0	28.0	13.0	K 24X28X13	10500	17000	17.0	10 g
24.0	28.0	17.0	K 24X28X17	14000	24500	17.0	13 g
24.0	29.0	13.0	K 24X29X13	13100	19100	16.0	13 g
24.0	30.0	17.0	K 24X30X17	19000	27000	16.0	21 g
24.0	30.0	31.0	K 24X30X31	27000	43000	16.0	39 g
25.0	29.0	10.0	K 25X29X10	9700	14900	16.0	8 g
25.0	29.0	13.0	K 25X29X13	10800	17900	16.0	10 g
25.0	29.0	17.0	K 25X29X17	14500	25500	16.0	13 g
25.0	30.0	13.0	K 25X30X13	14100	21300	16.0	12 g
25.0	30.0	20.0	K 25X30X20	21100	28000	16.0	20 g
25.0	30.0	25.0	K 25X30X25	21700	40400	15.0	21 g
25.0	30.0	26.0	K 25X30X26	20100	26500	15.0	21 g
25.0	31.0	17.0	K 25X31X17	19000	28000	16.0	21 g
25.0	31.0	21.0	K 25X31X21	24100	37500	16.0	26 g
25.0	32.0	16.0	K 25X32X16	20500	27500	15.0	24 g
25.0	33.0	20.0	K 25X33X20	28000	37500	15.0	32 g
25.0	33.0	24.0	K 25X33X24	33900	46500	15.0	38 g
25.0	34.0	18.0	K 25X34X18	48000	67000	15.0	32 g
25.0	35.0	30.0	K 25X35X30	46500	61500	14.0	65 g
25.0	30.0	26.0	K 25X30X26	21000	35000	14.0	27 g
26.0	30.0	10.0	K 26X30X10	9500	15500	16.0	9 g
26.0	30.0	13.0	K 26X30X13	11100	18700	16.0	11 g
26.0	30.0	17.0	K 26X30X17	14700	27000	16.0	15 g
26.0	31.0	13.0	K 26X31X13	12400	18400	15.0	9 g
26.0	30.0	22.0	K 26X30X22	15200	28000	16.0	12 g
27.0	32.0	17.0	K 27X32X17	16000	34000	17.0	29 g

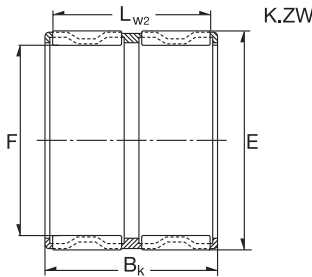
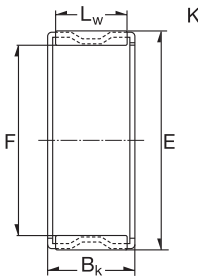
Nadelkränze der Type K / K Needle Roller Bearings



154

Dimension (mm)			Designation/Type	*Load Rating		*LimitingSpeed x1000rpm Oil	Mass (g) approx.
F	E	BK		C, dyn. N	C, stat. N		
28.0	32.0	16.5	K 28X32X16.5	15000	32400	14.0	18 g
28.0	32.0	17.0	K 28X32X17	15000	32400	14.0	18 g
28.0	33.0	13.0	K 28X33X13	14800	23600	14.0	15 g
28.0	33.0	17.0	K 28X33X17	19100	33000	14.0	19 g
28.0	33.0	27.0	K 28X33X27 TN	22800	40500	14.0	19 g
28.0	34.0	17.0	K 28X34X17	21300	35000	14.0	24 g
28.0	35.0	16.0	K 28X35X16	21000	29000	14.0	29 g
28.0	35.0	18.0	K 28X35X18	23500	33500	14.0	31 g
28.0	35.0	20.0	K 28X35X20	24000	34000	14.0	35 g
28.0	35.0	27.0	K 28X35X27	34500	54500	14.0	47 g
28.0	36.0	16.0	K 28X36X16	34000	47000	11.0	40 g
28.0	40.0	18.0	K 28X40X18	33000	36500	12.0	50 g
28.0	40.0	25.0	K 28X40X25	45000	54500	12.0	71 g
30.0	34.0	13.0	K 30X34X13	11800	21200	13.0	14 g
30.0	35.0	13.0	K 30X35X13	11500	25000	13.0	16 g
30.0	35.0	17.0	K 30X35X17	19100	33500	13.0	21 g
30.0	35.0	27.0	K 30X35X27	30000	58500	13.0	33 g
30.0	37.0	16.0	K 30X37X16	22500	33000	13.0	26 g
30.0	38.0	25.0	K 30X38X25	16000	39000	13.0	43 g
30.0	40.0	18.0	K 30X40X18	31500	39500	12.0	44 g
30.0	40.0	30.0	K 30X40X30	48500	68500	13.0	78 g
30.0	35.0	26.0	K 30X35X26	23500	43500	12.0	32 g
32.0	37.0	13.0	K 32X37X13	15000	25000	12.0	18 g
32.0	37.0	17.0	K 32X37X17	19400	35000	12.0	22 g
32.0	37.0	27.0	K 32X37X27	29500	59500	12.0	36 g
32.0	37.0	28.0	K 32X37X28 TN	23100	43000	12.0	22 g
32.0	38.0	16.0	K 32X38X16	21000	34000	12.0	25 g
32.0	38.0	20.0	K 32X38X20	26000	44500	12.0	31 g
32.0	38.0	26.0	K 32X38X26 TN	27000	46500	12.0	25 g
32.0	39.0	16.0	K 32X39X16	23500	35000	12.0	36 g
32.0	39.0	18.0	K 32X39X18	26000	40500	12.0	37 g

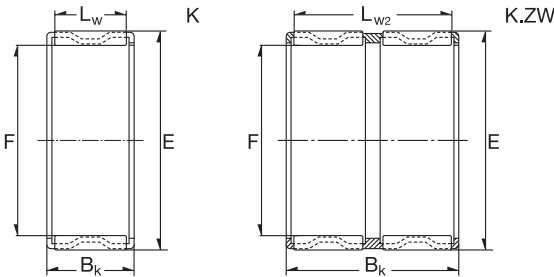
Nadelkränze der Type K / K Needle Roller Bearings



155

Dimension (mm)			Designation/Type	*Load Rating		*LimitingSpeed x1000rpm Oil	Mass (g) approx.
F	E	BK		C, dyn. N	C, stat. N		
32.0	40.0	20.0	K 32X40X20	37000	40500	12.0	48 g
32.0	40.0	36.0	K 32X40X36	53500	91500	12.0	73 g
32.0	46.0	32.0	K 32X46X32	65500	82500	11.0	119 g
32.0	40.0	42.0	K 32X40X42 TN	49500	83500	12.0	77 g
35.0	40.0	13.0	K 35X40X13	15800	27500	11.0	18 g
35.0	40.0	17.0	K 35X40X17	20300	38000	11.0	25 g
35.0	40.0	25.0	K 35X40X25	29000	59500	11.0	31 g
35.0	40.0	27.0	K 35X40X27 TN	24500	48000	11.0	23 g
35.0	40.0	27.0	K 35X40X27	27800	62100	11.0	28 g
35.0	40.0	30.0	K 35X40X30	25000	49500	11.0	43 g
35.0	42.0	16.0	K 35X42X16	23900	37000	11.0	34 g
35.0	42.0	18.0	K 35X42X18	27000	42500	11.0	39 g
35.0	42.0	30.0	K 35X42X30	38500	67500	11.0	62 g
35.0	43.0	18.0	K 35X43X18	28000	41500	11.0	38 g
35.0	45.0	20.0	K 35X45X20	36500	49500	10.0	55 g
35.0	45.0	30.0	K 35X45X30	52500	78500	10.0	80 g
35.0	45.0	49.0	K 35X45X49	81500	13400	10.0	120 g
35.0	40.0	30.0	K 35X40X30	31500	65500	11.0	48 g
35.0	42.0	20.0	K 35X42X20	29500	48500	11.0	41 g
36.0	41.0	30.0	K 36X41X30	23000	43000	11.0	52 g
36.0	42.0	16.0	K 36X42X16	24000	42000	11.0	50 g
37.0	42.0	17.0	K 37X42X17	21900	42500	10.0	25 g
37.0	42.0	27.0	K 37X42X27	31500	67500	10.0	40 g
37.0	45.0	26.0	K 37X45X26	43500	73500	10.0	60 g
38.0	43.0	17.0	K 38X43X17	20000	38000	10.0	26 g
38.0	43.0	27.0	K 38X43X27	31000	67500	10.0	43 g
38.0	46.0	20.0	K 38X46X20	35000	56500	10.0	46 g
38.0	46.0	32.0	K 38X46X32	54500	98500	10.0	72 g
39.0	44.0	24.0	K 39X44X24	28000	58500	10.0	38 g
39.0	44.0	26.0	K 39X44X26	27000	55500	10.0	29 g
40.0	44.0	13.0	K 40X44X13	13500	28000	10.0	20 g

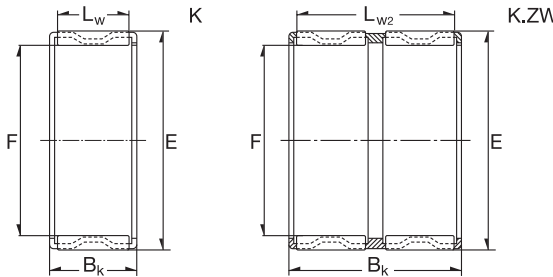
Nadelkränze der Type K / K Needle Roller Bearings



156

Dimension (mm)			Designation/Type	*Load Rating		*LimitingSpeed x1000rpm Oil	Mass (g) approx.
F	E	BK		C, dyn. N	C, stat. N		
40.0	45.0	13.0	K 40X45X13	17100	32000	10.0	21 g
40.0	45.0	17.0	K 40X45X17	20900	41000	10.0	27 g
40.0	45.0	21.0	K 40X45X21	24400	49500	10.0	36 g
40.0	45.0	27.0	K 40X45X27	32500	72500	10.0	46 g
40.0	46.0	17.0	K 40X46X17	24500	44500	9.0	30 g
40.0	47.0	18.0	K 40X47X18	29000	49500	9.0	45 g
40.0	47.0	20.0	K 40X47X20	32000	56500	9.0	42 g
40.0	48.0	20.0	K 40X48X20	35500	58500	9.0	57 g
40.0	45.0	30.0	K 40X45X30	26000	53500	9.0	48 g
42.0	47.0	13.0	K 42X47X13	17300	33000	9.0	22 g
42.0	47.0	17.0	K 42X47X17	21100	42500	9.0	31 g
42.0	47.0	25.0	K 42X47X25 TN	27000	57500	9.0	25 g
42.0	47.0	27.0	K 42X47X27	33000	74500	9.0	46 g
42.0	48.0	35.0	K 42X48X35	35000	76000	9.0	60 g
42.0	50.0	18.0	K 42X50X18	31000	49500	9.0	53 g
42.0	50.0	20.0	K 42X50X20	34500	56500	9.0	54 g
42.0	47.0	30.0	K 42X47X30	31000	75500	9.0	54 g
43.0	48.0	17.0	K 43X48X17	21000	42500	9.0	29 g
43.0	48.0	27.0	K 43X48X27	33000	74500	9.0	45 g
43.0	50.0	18.0	K 43X50X18	30500	53500	9.0	48 g
45.0	49.0	19.0	K 45X49X19	17500	40000	8.0	27 g
45.0	50.0	17.0	K 45X50X17	22000	45000	8.0	25 g
45.0	50.0	27.0	K 45X50X27	34000	79500	8.0	50 g
45.0	50.0	32.0	K 45X50X32 TN	38000	90500	8.0	45 g
45.0	52.0	18.0	K 45X52X18	31000	56500	8.0	51 g
45.0	52.0	21.0	K 45X52X21 TN	39500	57500	8.0	32 g
45.0	53.0	20.0	K 45X53X20	38500	66500	8.0	62 g
45.0	53.0	21.0	K 45X53X21	38000	66500	8.0	65 g
45.0	53.0	22.0	K 45X53X22	42000	66500	8.0	68 g
45.0	53.0	28.0	K 45X53X28	51500	97500	8.0	78 g
45.0	59.0	18.0	K 45X59X18 TN	43500	53500	7.0	60 g

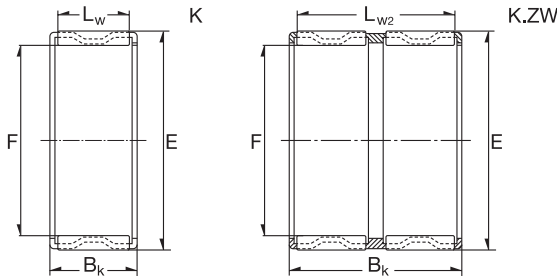
Nadelkränze der Type K / K Needle Roller Bearings



157

Dimension (mm)			Designation/Type	*Load Rating		*LimitingSpeed x1000rpm Oil	Mass (g) approx.
F	E	BK		C, dyn. N	C, stat. N		
45.0	59.0	32.0	K 45X59X32	72500	101500	7.0	145 g
45.0	59.0	36.0	K 45X59X36	75500	108500	7.0	195 g
45.0	51.0	36.0	K 45X51X36	44500	98500	7.0	85 g
47.0	52.0	17.0	K 47X52X17	22800	48500	8.0	32 g
47.0	52.0	27.0	K 47X52X27	34500	82500	8.0	50 g
47.0	53.0	25.0	K 47X53X25	38000	81500	8.0	53 g
47.0	55.0	28.0	K 47X55X28	52500	99500	7.5	62 g
48.0	54.0	19.0	K 48X54X19	30000	60500	7.5	44 g
48.0	54.0	25.0	K 48X54X25	31000	91000	7.5	55 g
50.0	55.0	13.5	K 50X55X13.5	17500	36000	7.5	31 g
50.0	55.0	17.0	K 50X55X17	21400	46500	7.5	35 g
50.0	55.0	20.0	K 50X55X20	26000	59500	7.5	39 g
50.0	55.0	30.0	K 50X55X30	38500	96500	7.5	59 g
50.0	57.0	18.0	K 50X57X18	33000	62500	7.0	53 g
50.0	58.0	20.0	K 50X58X20	35000	61500	7.0	64 g
50.0	58.0	25.0	K 50X58X25	43500	80500	7.0	81 g
52.0	57.0	12.0	K 52X57X12	17500	36000	7.0	24 g
55.0	60.0	20.0	K 55X60X20	28000	65500	6.5	43 g
55.0	60.0	27.0	K 55X60X27	37500	96500	6.5	60 g
55.0	60.0	30.0	K 55X60X30	40500	10300	6.5	68 g
55.0	61.0	20.0	K 55X61X20	41000	11000	6.5	56 g
55.0	62.0	18.0	K 55X62X18	35000	68500	6.5	58 g
55.0	63.0	15.0	K 55X63X15	24500	40500	6.5	53 g
55.0	63.0	20.0	K 55X63X20	39500	79500	6.5	73 g
55.0	63.0	25.0	K 55X63X25	49500	99500	6.5	88 g
55.0	63.0	32.0	K 55X63X32	61500	129500	6.5	117 g
55.0	60.0	40.0	K 55X60X40	48000	132000	6.5	96 g
56.0	61.0	20.0	K 56X61X20	27000	64500	6.5	45 g
58.0	63.0	17.0	K 58X63X17	21500	63500	6.0	42 g
58.0	64.0	19.0	K 58X64X19	24500	77500	6.0	53 g
58.0	65.0	18.0	K 58X65X18	34500	69500	6.0	52 g

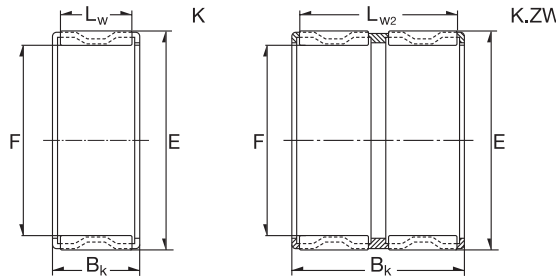
Nadelkränze der Type K / K Needle Roller Bearings



158

Dimension (mm)			Designation/Type	*Load Rating		*LimitingSpeed x1000rpm Oil	Mass (g) approx.
F	E	BK		C, dyn. N	C, stat. N		
58.0	65.0	38.0	K 58X65X38	48500	106500	6.0	106 g
60.0	65.0	20.0	K 60X65X20	29000	71500	6.0	50 g
60.0	65.0	30.0	K 60X65X30	42000	115500	6.0	71 g
60.0	68.0	20.0	K 60X68X20	43000	84500	5.5	79 g
60.0	68.0	23.0	K 60X68X23	49000	100500	5.5	94 g
60.0	68.0	25.0	K 60X68X25	52500	110500	5.5	97 g
60.0	68.0	27.0	K 60X68X27	59000	120500	6.0	98 g
60.0	75.0	42.0	K 60X75X42	11300	19200	5.5	240 g
60.0	66.0	33.0	K 60X66X33	45500	111500	6.0	104 g
60.0	66.0	40.0	K 60X66X40	57500	150500	5.5	116 g
60.0	68.0	30.0	K 60X68X30	44000	87500	5.5	136 g
60.0	68.0	34.0	K 60X68X34	47500	95500	5.5	140 g
62.0	70.0	40.0	K 62X70X40	65500	145500	5.5	147 g
63.0	70.0	21.0	K 63X70X21	45000	100500	5.5	75 g
64.0	70.0	16.0	K 64X70X16	27500	59500	5.5	53 g
65.0	70.0	20.0	K 65X70X20	30000	76500	5.5	49 g
65.0	70.0	30.0	K 65X70X30	43500	123500	5.5	83 g
65.0	73.0	23.0	K 65X73X23	45500	93500	5.5	100 g
65.0	73.0	30.0	K 65X73X30	56500	122500	5.5	126 g
68.0	74.0	20.0	K 68X74X20	35000	83500	5.5	65 g
68.0	74.0	30.0	K 68X74X30	46000	117500	5.5	97 g
68.0	74.0	35.0	K 68X74X35	48000	124500	5.5	116 g
68.0	75.0	32.0	K 68X75X32	53500	127500	4.5	120 g
70.0	76.0	20.0	K 70X76X20	35500	85500	4.5	70 g
70.0	76.0	30.0	K 70X76X30	51500	138500	4.5	100 g
70.0	78.0	25.0	K 70X78X25	51500	111500	4.5	115 g
70.0	78.0	30.0	K 70X78X30	59500	134500	4.5	136 g
70.0	80.0	30.0	K 70X80X30	72500	147500	4.5	150 g
70.0	78.0	46.0	K 70X78X46	77500	18800	4.5	230 g
72.0	80.0	20.0	K 72X80X20	41000	84500	4.5	94 g
73.0	79.0	20.0	K 73X79X20	36500	99500	4.5	69 g

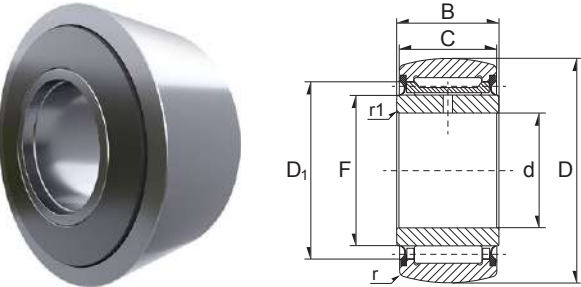
Nadelkränze der Type K / K Needle Roller Bearings



159

Dimension (mm)			Designation/Type	*Load Rating		*LimitingSpeed x1000rpm Oil	Mass (g) approx.
F	E	BK		C, dyn. N	C, stat. N		
75.0	81.0	20.0	K 75X81X20	37000	93500	4.5	72 g
75.0	81.0	30.0	K 75X81X30	51500	142000	4.5	106 g
75.0	83.0	23.0	K 75X83X23	49500	108000	4.0	113 g
75.0	83.0	30.0	K 75X83X30	61500	142000	4.0	174 g
75.0	83.0	35.0	K 75X83X35	62500	146500	4.0	165 g
75.0	83.0	40.0	K 75X83X40	72500	176500	4.0	190 g
80.0	86.0	20.0	K 80X86X20	38000	97500	4.0	76 g
80.0	86.0	30.0	K 80X86X30	55500	158500	4.0	114 g
80.0	88.0	30.0	K 80X88X30	71500	178500	4.0	141 g
80.0	88.0	40.0	K 80X88X40	75500	191500	4.0	204 g
80.0	88.0	46.0	K 80X88X46	87500	23000	4.0	235 g
85.0	92.0	20.0	K 85X92X20	44000	107500	3.5	96 g
90.0	87.0	20.0	K 90X97X20	44500	112500	3.0	103 g
90.0	98.0	27.0	K 90X98X27	60500	149500	3.0	150 g
90.0	98.0	30.0	K 90X98X30	67500	171500	3.0	172 g
95.0	102.0	20.0	K 95X102X20	45500	122500	2.9	110 g
95.0	103.0	30.0	K 95X103X30	68500	179500	2.9	177 g
95.0	103.0	40.0	K 95X103X40	82500	227500	2.9	250 g
100.0	107.0	21.0	K 100X107X21	47500	126500	2.7	120 g
100.0	108.0	27.0	K 100X108X27	56500	142500	2.7	176 g
100.0	108.0	30.0	K 100X108X30	70500	187500	2.7	190 g
105.0	112.0	21.0	K 105X112X21	47000	126500	2.5	123 g
105.0	113.0	30.0	K 105X113X30	71500	196500	2.5	198 g
110.0	117.0	24.0	K 110X117X24	55500	157500	2.3	146 g
110.0	118.0	30.0	K 110X118X30	77500	218500	2.3	217 g

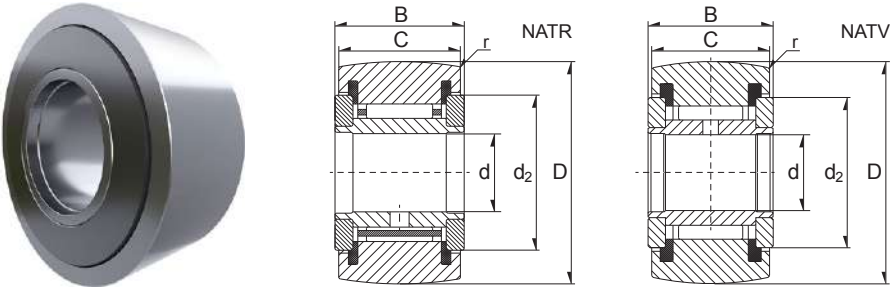
Stützrollen der Type / Yoke Type Track Rollers NA



160

Dimension (mm)								Designation/Type	*Load Rating		*Limiting Speed (rpm)	Mass (g) approx.
d	D	C	B	F	D ₁	r	r ₁		C, dyn. N	C, stat. N		
6.0	19.0	11.8	12.0	10.0	16.0	0.3	0.3	NA22/6-2RS	3900	3650	9000	22 g
8.0	24.0	11.8	12.0	12.0	18.0	0.3	0.3	NA22/8-2RS	4800	4800	7000	34 g
10.0	30.0	13.8	14.0	14.0	20.0	0.6	0.3	NA2200-2RS	7000	8000	5500	60 g
12.0	32.0	13.8	14.0	16.0	22.0	0.6	0.3	NA2201-2RS	7500	9000	4700	67 g
15.0	35.0	13.8	14.0	20.0	26.0	0.6	0.3	NA2202-2RS	7600	9500	3400	75 g
17.0	40.0	15.8	16.0	22.0	28.0	1.0	0.3	NA2203-2RS	9900	13700	3000	112 g
20.0	47.0	17.8	18.0	25.0	33.0	1.0	0.3	NA2204-2RS	1500	18300	2300	177 g
25.0	52.0	17.8	18.0	30.0	38.0	1.0	0.3	NA2205-2RS	15700	19900	1800	209 g
30.0	62.0	19.8	20.0	35.0	43.0	1.0	0.3	NA2206-2RS	18400	25500	1400	324 g
35.0	72.0	22.7	23.0	42.0	50.0	1.1	0.6	NA2207-2RS	23000	35500	1100	505 g
40.0	80.0	22.7	23.0	48.0	57.0	1.1	0.6	NA2208-2RS	27500	40500	850	628 g
50.0	90.0	22.7	23.0	58.0	68.0	1.1	0.6	NA2210-2RS	28000	42500	650	690 g

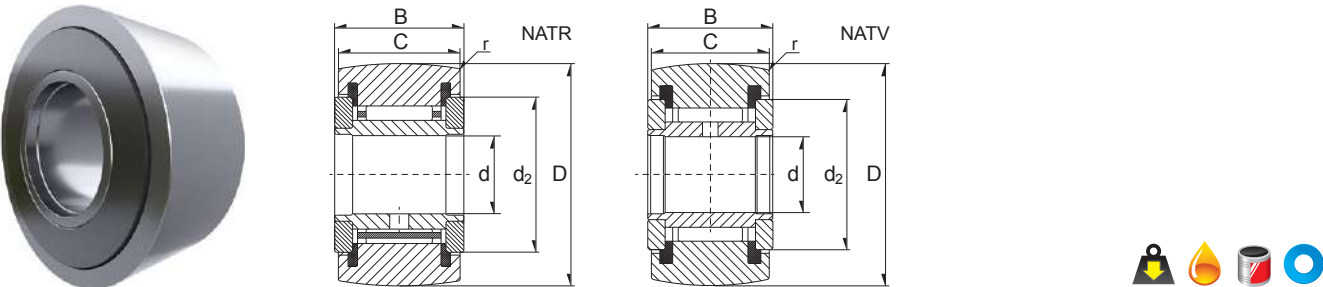
Stützrollen der Type / Yoke Type Track Rollers NATR & NATV



161

Dimension (mm)						Designation/Type	*Load Rating		Fatigue Limit Load C _{urw} N	*Limiting Speed (rpm)	Mass (g) approx.
d	D	B	C	d ₂	r		C, dyn. N	C, stat. N			
5.0	16.0	12.0	11.0	12.5	0.15	NATR 5	3150	3300	415	14000	14 g
5.0	16.0	12.0	11.0	12.5	0.15	NATV 5	4900	6500	860	3800	15 g
5.0	16.0	12.0	11.0	12.5	0.15	NATR 5-PP	3150	3300	415	14000	14 g
5.0	16.0	12.0	11.0	12.5	0.15	NATV 5-PP	4900	6500	860	3800	15 g
5.0	16.0	12.0	11.0	12.5	0.15	NATR 5-PPX	3150	3300	415	14000	14 g
5.0	16.0	12.0	11.0	12.5	0.15	NATV 5-PPX	4900	6500	860	3800	15 g
6.0	19.0	12.0	11.0	15.0	0.15	NATR 6	3500	3900	485	11000	20 g
6.0	19.0	12.0	11.0	15.0	0.15	NATV 6	5400	7900	1040	3100	21 g
6.0	19.0	12.0	11.0	15.0	0.15	NATR 6-PP	3500	3900	485	11000	19 g
6.0	19.0	12.0	11.0	15.0	0.15	NATV 6-PP	5400	7900	1040	3100	21 g
6.0	19.0	12.0	11.0	15.0	0.15	NATR 6-PPX	3500	3900	485	11000	19 g
6.0	19.0	12.0	11.0	15.0	0.15	NATV 6-PPX	5400	7900	1040	3100	21 g
8.0	24.0	15.0	14.0	19.0	0.3	NATR 8	5500	6400	810	7500	41 g
8.0	24.0	15.0	14.0	19.0	0.3	NATV 8	7800	11400	1430	2500	42 g
8.0	24.0	15.0	14.0	19.0	0.3	NATR 8-PP	5500	6400	810	7500	38 g
8.0	24.0	15.0	14.0	19.0	0.3	NATV 8-PP	7800	11400	1430	2500	41 g
8.0	24.0	15.0	14.0	19.0	0.3	NATR 8-PPX	5500	6400	810	7500	38 g
8.0	24.0	15.0	14.0	19.0	0.3	NATV 8-PPX	7800	11400	1430	2500	41 g
10.0	30.0	15.0	14.0	23.0	0.6	NATR 10	6800	8400	1070	5500	64 g
10.0	30.0	15.0	14.0	23.0	0.6	NATV 10	9500	14600	1840	2100	65 g
10.0	30.0	15.0	14.0	23.0	0.6	NATR 10-PP	6800	8400	1070	5500	61 g
10.0	30.0	15.0	14.0	23.0	0.6	NATV 10-PP	9500	14600	1840	2100	64 g
10.0	30.0	15.0	14.0	23.0	0.6	NATR 10-PPX	6800	8400	1070	5500	61 g
10.0	30.0	15.0	14.0	23.0	0.6	NATV 10-PPX	9500	14600	1840	2100	64 g
12.0	32.0	15.0	14.0	25.0	0.6	NATR 12	6900	8800	1720	4500	71 g
12.0	32.0	15.0	14.0	25.0	0.6	NATV 12	9700	15400	1950	1800	72 g
12.0	32.0	15.0	14.0	25.0	0.6	NATR 12-PP	6900	8800	1720	4500	66 g
12.0	32.0	15.0	14.0	25.0	0.6	NATV 12-PP	9700	15400	1950	1800	69 g
12.0	32.0	15.0	14.0	25.0	0.6	NATR 12-PPX	6900	8800	1720	4500	66 g
12.0	32.0	15.0	14.0	25.0	0.6	NATV 12-PPX	9700	15400	1950	1800	69 g

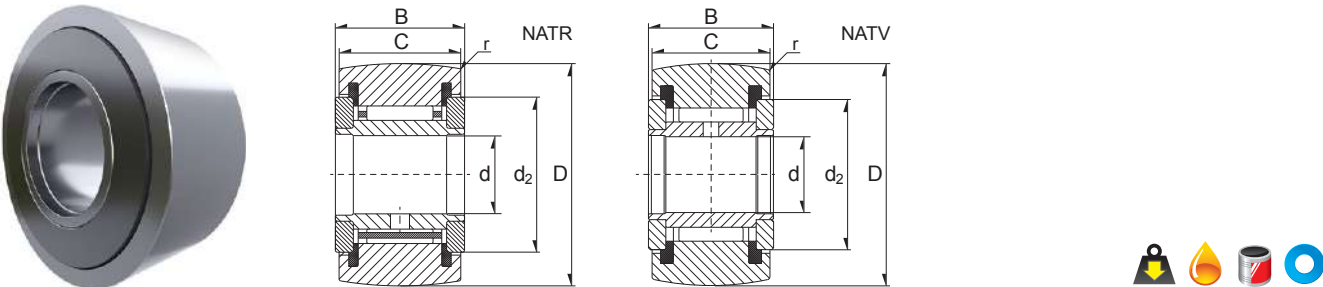
Stützrollen der Type / Yoke Type Track Rollers NATR & NATV



162

Dimension (mm)						Designation/Type	*Load Rating		Fatigue Limit Load C _{urw} N	*Limiting Speed (rpm)	Mass (g) approx.
d	D	B	C	d ₂	r		C, stat. N	C, dyn. N			
15.0	35.0	19.0	18.0	27.6	0.6	NATR 15	9800	14100	1700	3600	104 g
15.0	35.0	19.0	18.0	27.6	0.6	NATV 15	12800	23000	2900	1600	109 g
15.0	35.0	19.0	18.0	27.6	0.6	NATR 15-PP	9800	14100	1700	3600	95 g
15.0	35.0	19.0	18.0	27.6	0.6	NATV 15-PP	12800	23000	2900	1600	101 g
15.0	35.0	19.0	18.0	27.6	0.6	NATR 15-PPX	9800	14100	1700	3600	95 g
15.0	35.0	19.0	18.0	27.6	0.6	NATV 15-PPX	12800	23000	2900	1600	101 g
17.0	40.0	21.0	20.0	31.5	1.0	NATR 17	10900	15500	1850	2900	144 g
17.0	40.0	21.0	20.0	31.5	1.0	NATV 17	14800	26500	3050	1400	152 g
17.0	40.0	21.0	20.0	31.5	1.0	NATR 17-PP	10900	15500	1850	2900	139 g
17.0	40.0	21.0	20.0	31.5	1.0	NATV 17-PP	14800	26500	3050	1400	147 g
17.0	40.0	21.0	20.0	31.5	1.0	NATR 17-PPX	10900	15500	1850	2900	139 g
17.0	40.0	21.0	20.0	31.5	1.0	NATV 17-PPX	14800	26500	3050	1400	147 g
20.0	47.0	25.0	24.0	36.5	1.0	NATR 20	15500	25500	3000	2400	246 g
20.0	47.0	25.0	24.0	36.5	1.0	NATV 20	20600	42000	5200	1300	254 g
20.0	47.0	25.0	24.0	36.5	1.0	NATR 20-PP	15500	25500	3000	2400	236 g
20.0	47.0	25.0	24.0	36.5	1.0	NATV 20-PP	20600	42000	5200	1300	245 g
20.0	47.0	25.0	24.0	36.5	1.0	NATR 20-PPX	15500	25500	3000	2400	236 g
20.0	47.0	25.0	24.0	36.5	1.0	NATV 20-PPX	20600	42000	5200	1300	245 g
25.0	52.0	25.0	24.0	41.5	1.0	NATR 25	15400	26500	3010	1800	275 g
25.0	52.0	25.0	24.0	41.5	1.0	NATV 25	20500	44000	5400	1000	285 g
25.0	52.0	25.0	24.0	41.5	1.0	NATR 25-PP	15400	26500	3010	1800	271 g
25.0	52.0	25.0	24.0	41.5	1.0	NATV 25-PP	20500	44000	5400	1000	281 g
25.0	52.0	25.0	24.0	41.5	1.0	NATR 25-PPX	15400	26500	3010	1800	271 g
25.0	52.0	25.0	24.0	41.5	1.0	NATV 25-PPX	20500	44000	5400	1000	281 g
30.0	62.0	29.0	28.0	51.0	1.0	NATR 30	23400	38500	4650	1300	470 g
30.0	62.0	29.0	28.0	51.0	1.0	NATV 30	30500	62000	7800	850	481 g
30.0	62.0	29.0	28.0	51.0	1.0	NATR 30-PP	23400	38500	4650	1300	444 g
30.0	62.0	29.0	28.0	51.0	1.0	NATV 30-PP	30500	62000	7800	850	468 g
30.0	62.0	29.0	28.0	51.0	1.0	NATR 30-PPX	23400	38500	4650	1300	444 g
30.0	62.0	29.0	28.0	51.0	1.0	NATV 30-PPX	30500	62000	7800	850	468 g

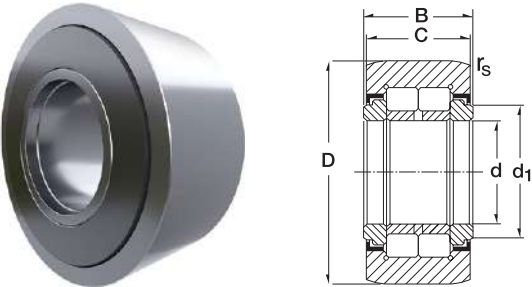
Stützrollen der Type / Yoke Type Track Rollers NATR & NATV



163

Dimension (mm)						Designation/Type	*Load Rating		Fatigue Limit Load C _{urw} N	*Limiting Speed (rpm)	Mass (g) approx.
d	D	B	C	d ₂	r		C, stat. N	C, dyn. N			
35.0	72.0	29.0	28.0	58.0	1.1	NATR 35-PP	25000	44000	5300	1000	547 g
35.0	72.0	29.0	28.0	58.0	1.1	NATV 35-PP	33000	71000	8900	750	630 g
35.0	72.0	29.0	28.0	58.0	1.1	NATR 35-PPX	25000	44000	5300	1000	547 g
35.0	72.0	29.0	28.0	58.0	1.1	NATV 35-PPX	33000	71000	8900	750	630 g
40.0	80.0	32.0	30.0	66.0	1.1	NATR 40-PP	32500	58000	7000	850	795 g
40.0	80.0	32.0	30.0	66.0	1.1	NATV 40-PP	41000	88000	11000	650	832 g
40.0	80.0	32.0	30.0	66.0	1.1	NATR 40-PPX	32500	58000	7000	850	795 g
40.0	80.0	32.0	30.0	66.0	1.1	NATV 40-PPX	41000	88000	11000	650	832 g
50.0	90.0	32.0	30.0	76.0	1.1	NATR 50-PP	31500	59000	7100	650	867 g
50.0	90.0	32.0	30.0	76.0	1.1	NATV 50-PP	40000	92000	11600	550	969 g
50.0	90.0	32.0	30.0	76.0	1.1	NATR 50-PPX	31500	59000	7100	650	867 g
50.0	90.0	32.0	30.0	76.0	1.1	NATV 50-PPX	40000	92000	11600	550	969 g

Stützrollen der Type / Yoke Type Track Rollers NUTR



164

Dimension (mm)						Designation/Type	*Load Rating		*Limiting Speed x1000rpm Grease	Mass (g) approx.
d	D	B	C	r _s	d ₁ min		C, dyn. N	C, stat. N		
15.0	35.0	19.0	18.0	0.6	20.0	NUTR 15	15000	16800	6.5	99 g
17.0	40.0	21.0	20.0	1.0	22.0	NUTR 17	18400	22600	5.5	147 g
15.0	42.0	19.0	18.0	0.6	20.0	NUTR 15 42	18100	21900	6.5	158 g
17.0	47.0	21.0	20.0	1.0	22.0	NUTR 17 47	21300	28000	5.5	220 g
20.0	47.0	25.0	24.0	1.0	27.0	NUTR 20	28000	35000	4.2	245 g
20.0	52.0	25.0	24.0	1.0	27.0	NUTR 20 52	31500	41000	4.2	321 g
25.0	52.0	25.0	24.0	1.0	31.0	NUTR 25	29000	37500	3.4	281 g
25.0	62.0	25.0	24.0	1.0	31.0	NUTR 25 62	35500	50000	3.4	450 g
30.0	62.0	29.0	28.0	1.0	38.0	NUTR 30	40000	50000	2.6	465 g
30.0	72.0	29.0	28.0	1.0	38.0	NUTR 30 72	47500	64000	2.6	697 g
35.0	72.0	29.0	28.0	1.1	44.0	NUTR 35	44500	60000	2.1	630 g
35.0	80.0	29.0	28.0	1.1	44.0	NUTR 35 80	51000	72000	2.1	836 g
40.0	80.0	32.0	30.0	1.1	51.0	NUTR 40	55000	75000	1.6	816 g
45.0	85.0	32.0	30.0	1.1	55.0	NUTR 45	56000	78000	1.4	883 g
40.0	90.0	32.0	30.0	1.1	51.0	NUTR 40 90	66000	95000	1.6	1129 g
50.0	90.0	32.0	30.0	1.1	60.0	NUTR 50	57000	81000	1.3	950 g
45.0	100.0	32.0	30.0	1.1	55.0	NUTR 45 100	71000	107000	1.4	1396 g
50.0	110.0	32.0	30.0	1.1	60.0	NUTR 50 110	76000	120000	1.3	1690 g

Alle Referenzen können mit zylindrischen Aussenring geliefert werden
All references can be supplied with cylindrical outer ring

Produktfokus / Product focus



ZON™

Laufrolle der LR Serie
LR Series (Track Rollers)



Series LR2, LR50, LR52, LR53 and LR6.

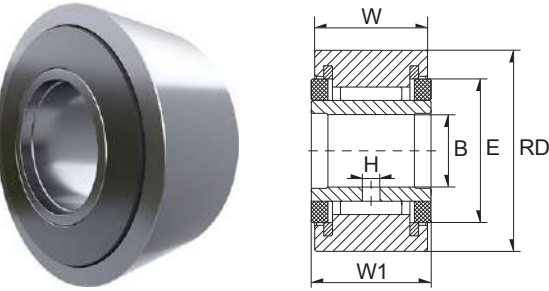
- ✓ Geeignet für hohe radiale und bidirektionale axiale Lasten
Suitable for high radial loads and bidirectional axial forces
- ✓ Besonders stabiler Außenring zur Aufnahme hoher Kräfte
Thick walled outer rings
- ✓ Zylindrischer oder sphärischer Außenring
Flat and Spherical outside surface
- ✓ Lebenszeitschmierung
Life time grease
- ✓ Doppel- oder einreihiges Design
Single or double row
- ✓ Erhältlich auch in Edelstahl und/oder FDA-befettung
Also available in Stainless Steel and FDA grease

ZEN-Laufrollen der Baureihe LR eignen sich besonders für Anwendungen mit hohen Tragzahlen, so. z. B. in Führungs-, Schienen- und Transportsystemen.

ZEN LR Track Rollers are suitable for applications such as cam controls, transportation systems and all types of sliding applications.

SIEHE SEITE 114 / SEE PAGE 114

Stützrollen der Type / Yoke Type Track Rollers CYR



166

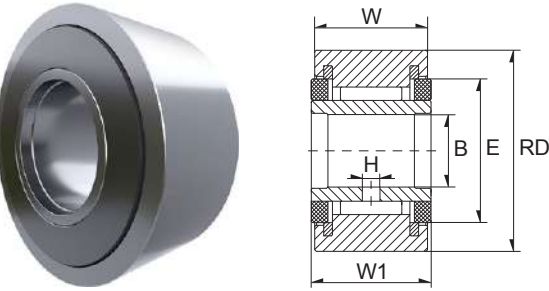
Dimension (inch)					
RD	W	B	W1	E	H
0,750	0,500	0,250	0,5625	39/64	3/32
0,750	0,500	0,250	0,5625	39/64	3/32
0,750	0,500	0,250	0,5625	39/64	3/32
0,875	0,500	0,250	0,5625	39/64	3/32
0,875	0,500	0,250	0,5625	39/64	3/32
0,875	0,500	0,250	0,5625	39/64	3/32
1,000	0,625	0,3125	0,6875	25/32	3/32
1,125	0,625	0,3125	0,6875	25/32	3/32
1,125	0,625	0,3125	0,6875	25/32	3/32
1,125	0,625	0,3125	0,6875	25/32	3/32
1,000	0,625	0,3125	0,6875	25/32	3/32
1,000	0,625	0,3125	0,6875	25/32	3/32
1,250	0,750	0,375	0,8125	63/64	3/32
1,250	0,750	0,375	0,8125	63/64	3/32
1,250	0,750	0,375	0,8125	63/64	3/32
1,375	0,750	0,375	0,8125	63/64	3/32
1,375	0,750	0,375	0,8125	63/64	3/32
1,375	0,750	0,375	0,8125	63/64	3/32
1,500	0,875	0,4375	0,9375	1 3/32	3/32
1,500	0,875	0,4375	0,9375	1 3/32	3/32
1,500	0,875	0,4375	0,9375	1 3/32	3/32
1,625	0,875	0,4375	0,9375	1 3/32	3/32
1,625	0,875	0,4375	0,9375	1 3/32	3/32
1,625	0,875	0,4375	0,9375	1 3/32	3/32
1,750	1,000	0,500	1,0625	1 1/4	3/32
1,750	1,000	0,500	1,0625	1 1/4	3/32
1,750	1,000	0,500	1,0625	1 1/4	3/32
1,875	1,000	0,500	1,0625	1 1/4	3/32
1,875	1,000	0,500	1,0625	1 1/4	3/32
1,875	1,000	0,500	1,0625	1 1/4	3/32



Designation/Type					*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH	INA	C, stat. (lbs)	C, dyn. (lbs)	
YCR-12	Y-24	CYR-3/4	YR-3/4	RF-12	4130	1660	0.03 kg
YCRS-12	Y-24-L	CYR-3/4-S	YR-3/4X	RF-12-PP	4130	1660	0.03 kg
YCRSC-12	CY-24-L	CCYR-3/4-S	YR-3/4XC	-	4130	1660	0.03 kg
YCR-14	Y-28	CYR-7/8	YR-7/8	RF-14	4130	1660	0.04 kg
YCRS-14	Y-28-L	CYR-7/8-S	YR-7/8X	RF-14-PP	4130	1660	0.04 kg
YCRSC-14	CY-28-L	CCYR-7/8-S	YR-7/8XC	-	4130	1660	0.04 kg
YCR-16	Y-32	CYR-1	YR-1	RF-16	6120	2225	0.07 kg
YCR-18	Y-36	CYR-1 1/8	YR-1 1/8	RF-18	6120	2225	0.08 kg
YCRS-18	Y-36-L	CYR-1 1/8-S	YR-1 1/8X	RF-18-PP	6120	2225	0.08 kg
YCRSC-18	CY-36-L	CCYR-1 1/8-S	YR-1 1/8XC	-	6120	2225	0.08 kg
YCRS-16	Y-32-L	CYR-1-S	YR-1X	RF-16-PP	6120	2225	0.07 kg
YCRSC-16	CY-32-L	CCYR-1-S	YR-1XC	-	6120	2225	0.07 kg
YCR-20	Y-40	CYR-1 1/4	YR-1 1/4	RF-20	8500	3930	0.11 kg
YCRS-20	Y-40-L	CYR-1 1/4-S	YR-1 1/4X	RF-20-PP	8500	3930	0.11 kg
YCRSC-20	CY-40-L	CCYR-1 1/4-S	YR-1 1/4XC	-	8500	3930	0.11 kg
YCR-22	Y-44	CYR-1 3/8	YR-1 3/8	RF-22	8500	3930	0.14 kg
YCRS-22	Y-44-L	CYR-1 3/8-S	YR-1 3/8X	RF-22-PP	8500	3930	0.14 kg
YCRSC-22	CY-44-L	CCYR-1 3/8-S	YR-1 3/8XC	-	8500	3930	0.14 kg
YCR-24	Y-48	CYR-1 1/2	YR-1 1/2	RF-24	11280	4840	0.19 kg
YCRS-24	Y-48-L	CYR-1 1/2-S	YR-1 1/2X	RF-24-PP	11280	4840	0.19 kg
YCRSC-24	CY-48-L	CCYR-1 1/2-S	YR-1 1/2XC	-	11280	4840	0.19 kg
YCR-26	Y-52	CYR-1 5/8	YR-1 5/8	RF-26	11280	4840	0.23 kg
YCRS-26	Y-52-L	CYR-1 5/8-S	YR-1 5/8X	RF-26-PP	11280	4840	0.23 kg
YCRSC-26	CY-52-L	CCYR-1 5/8-S	YR-1 5/8XC	-	11280	4840	0.23 kg
YCR-28	Y-56	CYR-1 3/4	YR-1 3/4	RF-28	15840	6385	0.29 kg
YCRS-28	Y-56-L	CYR-1 3/4-S	YR-1 3/4X	RF-28-PP	15840	6385	0.29 kg
YCRSC-28	CY-56-L	CCYR-1 3/4-S	YR-1 3/4XC	-	15840	6385	0.29 kg
YCR-30	Y-60	CYR-1 7/8	YR-1 7/8	RF-30	15840	6385	0.36 kg
YCRS-30	Y-60-L	CYR-1 7/8-S	YR-1 7/8X	RF-30-PP	15840	6385	0.36 kg
YCRSC-30	CY-60-L	CCYR-1 7/8-S	YR-1 7/8XC	-	15840	6385	0.36 kg

167

Stützrollen der Type / Yoke Type Track Rollers CYR



168

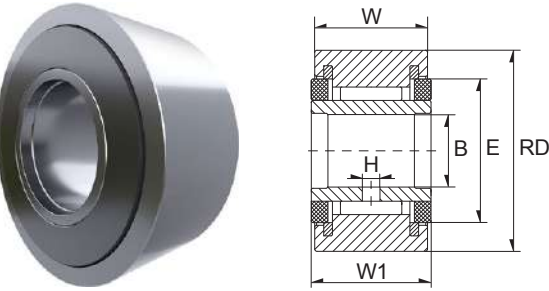
Dimension (inch)					
RD	W	B	W1	E	H
2,000	1,250	0,625	1,3125	1 13/32	3/32
2,250	1,250	0,625	1,3125	1 13/32	1/8
2,250	1,250	0,625	1,3125	1 13/32	1/8
2,250	1,250	0,625	1,3125	1 13/32	1/8
2,000	1,250	0,625	1,3125	1 13/32	3/32
2,000	1,250	0,625	1,3125	1 13/32	3/32
2,500	1,500	0,750	1,5625	1 11/16	1/8
2,500	1,500	0,750	1,5625	1 11/16	1/8
2,500	1,500	0,750	1,5625	1 11/16	1/8
2,750	1,500	0,750	1,5625	1 11/16	1/8
2,750	1,500	0,750	1,5625	1 11/16	1/8
2,750	1,500	0,750	1,5625	1 11/16	1/8
3,000	1,750	1,000	1,8125	2 1/8	1/8
3,250	1,750	1,000	1,8125	2 1/8	1/8
3,250	1,750	1,000	1,8125	2 1/8	1/8
3,250	1,750	1,000	1,8125	2 1/8	1/8
3,000	1,750	1,000	1,8125	2 1/8	1/8
3,000	1,750	1,000	1,8125	2 1/8	1/8
3,500	2,000	1,125	2,0625	2 7/16	1/8
3,500	2,000	1,125	2,0625	2 7/16	1/8
3,500	2,000	1,125	2,0625	2 7/16	1/8
4,000	2,250	1,250	2,3125	2 51/64	1/8
4,000	2,250	1,250	2,3125	2 51/64	1/8
4,000	2,250	1,250	2,3125	2 51/64	1/8
5,000	2,750	1,750	2,8750	3 9/16	3/16
5,000	2,750	1,750	2,8750	3 9/16	3/16
6,000	3,250	2,250	3,3750	4 15/32	3/16
6,000	3,250	2,250	3,3750	4 15/32	3/16
7,000	3,750	2,750	3,8750	5 3/16	3/16
7,000	3,750	2,750	3,8750	5 3/16	3/16



169

Designation/Type					*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH	INA	C, stat. (lbs)	C, dyn. (lbs)	
YCR-32	Y-64	CYR-2	YR-2	RF-32	21140	8090	0.48 kg
YCR-36	Y-72	CYR-2 1/4	YR-2 1/4	RF-36	21140	8090	0.60 kg
YCRS-36	Y-72-L	CYR-2 1/4-S	YR-2 1/4X	RF-36-PP	21140	8090	0.60 kg
YCRSC-36	CY-72-L	CCYR-2 1/4-S	YR-2 1/4XC	-	21140	8090	0.60 kg
YCRS-32	Y-64-L	CYR-2-S	YR-2X	RF-32-PP	21140	8090	0.48 kg
YCRSC-32	CY-64-L	CCYR-2-S	YR-2XC	-	21140	8090	0.48 kg
YCR-40	Y-80	CYR-2 1/2	YR-2 1/2	RF-40	32900	11720	0.82 kg
YCRS-40	Y-80-L	CYR-2 1/2-S	YR-2 1/2X	RF-40-PP	32900	11720	0.82 kg
YCRSC-40	CY-80-L	CCYR-2 1/2-S	YR-2 1/2XC	-	32900	11720	0.82 kg
YCR-44	Y-88	CYR-2 3/4	YR-2 3/4	RF-44	32900	11720	1.02 kg
YCRS-44	Y-88-L	CYR-2 3/4-S	YR-2 3/4X	RF-44-PP	32900	11720	1.02 kg
YCRSC-44	CY-88-L	CCYR-2 3/4-S	YR-2 3/4XC	-	32900	11720	1.02 kg
YCR-48	Y-96	CYR-3	YR-3	RF-48	49820	15720	1.41 kg
YCR-52	Y-104	CYR-3 1/4	YR-3 1/4	RF-52	49820	15720	1.64 kg
YCRS-52	Y-104-L	CYR-3 1/4-S	YR-3 1/4X	RF-52-PP	49820	15720	1.64 kg
YCRSC-52	CY-104-L	CCYR-3 1/4-S	YR-3 1/4XC	-	49820	15720	1.64 kg
YCRS-48	Y-96-L	CYR-3-S	YR-3X	RF-48-PP	49820	15720	1.41 kg
YCRSC-48	CY-96-L	CCYR-3-S	YR-3XC	-	49820	15720	1.41 kg
YCR-56	Y-112	CYR-3 1/2	YR-3 1/2	RF-56	63250	22800	2.25 kg
YCRS-56	Y-112-L	CYR-3 1/2-S	YR-3 1/2X	RF-56-PP	63250	22800	2.25 kg
YCRSC-56	CY-112-L	CCYR-3 1/2-S	YR-3 1/2XC	-	63250	22800	2.25 kg
YCR-64	Y-128	CYR-4	YR-4	RF-64	89540	29985	3.20 kg
YCRS-64	Y-128-L	CYR-4-S	YR-4X	RF-64-PP	89540	29985	3.20 kg
YCRSC-64	CY-128-L	CCYR-4-S	YR-4XC	-	89540	29985	0.48 kg
YCRS-80	Y-160-L	CYR-5-S	YR-5X	-	135900	46575	6.50 kg
YCRSC-80	CY-160-L	CCYR-5-S	YR-5XC	-	135900	46575	6.50 kg
YCRS-96	Y-192-L	CYR-6-S	YR-6X	-	160900	60000	9.14 kg
YCRSC-96	CY-192-L	CCYR-6-S	YR-6XC	-	160900	60000	9.14 kg
YCRS-112	Y-224-L	CYR-7-S	-	-	213860	75380	14.71 kg
YCRSC-112	CY-224-L	CCYR-7-S	-	-	213860	75380	14.71 kg

Stützrollen der Type / Yoke Type Track Rollers CYR



170

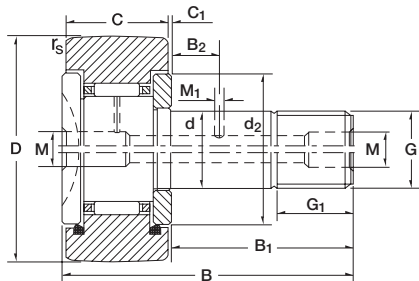
Dimension (inch)					
RD	W	B	W1	E	H
8,000	4,250	3,255	4,500	4 3/8	1/4
8,000	4,250	3,255	4,500	4 3/8	1/4
9,000	4,750	3,755	5,000	5 1/16	5/16
9,000	4,750	3,755	5,000	5 1/16	5/16
10,000	5,250	4,255	5,500	5 15/32	3/8
10,000	5,250	4,255	5,500	5 15/32	3/8



Designation/Type					*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH	INA	C, stat. (lbs)	C, dyn. (lbs)	
-	-	CYR-8-S	-	-	288200	92200	21.45 kg
-	-	CCYR-8-S	-	-	288200	92200	21.45 kg
-	-	CYR-9-S	-	-	366850	113260	29.80 kg
-	-	CCYR-9-S	-	-	366850	113260	29.80 kg
-	-	CYR-10-S	-	-	431130	131545	40.46 kg
-	-	CCYR-10-S	-	-	431130	131545	40.46 kg

171

Kurvenrollen der Type / Stud Type Track Rollers KR & NUKR



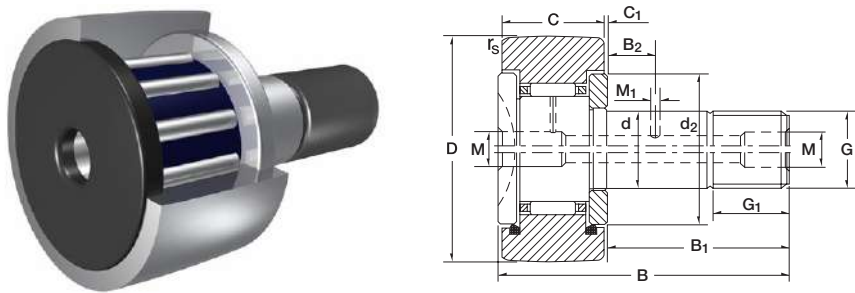
172

Dimensions (mm)				Outside Diameter (mm)	Designation /Type	Weight (g) approx.	With Eccentric Collar	Weight (g) approx.	Dimensions (mm)				
d	D	B	C						rs min	B1	B2	G	G1
6.0	16.0	28.0	11.0	16.0	KR 16	18 g	KRE 16	20 g	0.15	16.0	-	M6	8.0
6.0	16.0	28.0	11.0	16.0	KR 16PP	18 g	KRE 16PP	20 g	0.15	16.0	-	M6	8.0
6.0	16.0	28.0	11.0	16.0	KRV 16	20 g	KRV 16	22 g	0.15	16.0	-	M6	8.0
6.0	16.0	28.0	11.0	16.0	KRV 16PP	20 g	KRVE 16PP	22 g	0.15	16.0	-	M6	8.0
8.0	19.0	32.0	11.0	19.0	KR 19	28 g	KRE 19	31 g	0.15	20.0	-	M8	10.0
8.0	19.0	32.0	11.0	19.0	KR 19PP	28 g	KRE 19PP	31 g	0.15	20.0	-	M8	10.0
8.0	19.0	32.0	11.0	19.0	KRV 19	32 g	KRVE 19	35 g	0.15	20.0	-	M8	10.0
8.0	19.0	32.0	11.0	19.0	KRV 19PP	32 g	KRVE 19PP	35 g	0.15	20.0	-	M8	10.0
10.0	22.0	36.0	12.0	22.0	KR 22	44 g	KRE 22	48 g	0.3	23.0	-	M10X1	12.0
10.0	22.0	36.0	12.0	22.0	KR 22PP	44 g	KRE 22PP	48 g	0.3	23.0	-	M10X1	12.0
10.0	22.0	36.0	12.0	22.0	KRV 22	45 g	KRVE 22	49 g	0.3	23.0	-	M10X1	12.0
10.0	22.0	36.0	12.0	22.0	KRV 22PP	45 g	KRVE 22PP	49 g	0.3	23.0	-	M10X1	12.0
10.0	26.0	36.0	12.0	26.0	KR 26	58 g	KRE 26	62 g	0.3	23.0	-	M10X1	12.0
10.0	26.0	36.0	12.0	26.0	KR 26PP	58 g	KRE 26PP	62 g	0.3	23.0	-	M10X1	12.0
10.0	26.0	36.0	12.0	26.0	KRV 26	61 g	KRVE 26	65 g	0.3	23.0	-	M10X1	12.0
10.0	26.0	36.0	12.0	26.0	KRV 26PP	61 g	KRVE 26PP	65 g	0.3	23.0	-	M10X1	12.0
12.0	30.0	40.0	14.0	30.0	KR 30	87 g	KRE 30	93 g	0.6	25.0	6.0	M12X1.5	13.0
12.0	30.0	40.0	14.0	30.0	KR 30PP	87 g	KRE 30PP	93 g	0.6	25.0	6.0	M12X1.5	13.0
12.0	30.0	40.0	14.0	30.0	KRV 30	89 g	KRVE 30	95 g	0.6	25.0	6.0	M12X1.5	13.0
12.0	30.0	40.0	14.0	30.0	KRV 30PP	89 g	KRVE 30PP	95 g	0.6	25.0	6.0	M12X1.5	13.0
12.0	32.0	40.0	14.0	32.0	KR 32	98 g	KRE 32	104 g	0.6	25.0	6.0	M12X1.5	13.0
12.0	32.0	40.0	14.0	32.0	KR 32PP	98 g	KRE 32PP	104 g	0.6	25.0	6.0	M12X1.5	13.0
12.0	32.0	40.0	14.0	32.0	KRV 32	100 g	KRVE 32	106 g	0.6	25.0	6.0	M12X1.5	13.0
12.0	32.0	40.0	14.0	32.0	KRV 32PP	100 g	KRVE 32PP	106 g	0.6	25.0	6.0	M12X1.5	13.0
16.0	35.0	52.0	18.0	35.0	KR 35	169 g	KRE 35	182 g	0.6	32.5	8.0	M16X1.5	17.0
16.0	35.0	52.0	18.0	35.0	KR 35PP	169 g	KRE 35PP	182 g	0.6	32.5	8.0	M16X1.5	17.0
16.0	35.0	52.0	18.0	35.0	KRV 35	171 g	KRVE 35	184 g	0.6	32.5	8.0	M16X1.5	17.0
16.0	35.0	52.0	18.0	35.0	KRV 35PP	171 g	KRVE 35PP	184 g	0.6	32.5	8.0	M16X1.5	17.0
16.0	35.0	52.0	18.0	35.0	NUKR 35	164 g	NUKRE 35	177 g	0.6	32.5 ⁽⁴⁾	8.0	M16X1.5	17.0
18.0	40.0	58.0	20.0	40.0	KR 40	274 g	KRE 40	263 g	1	36.5	8.0	M18X1.5	19.0

173

Dimensions (mm)							Nut Tightening Torque Ma Nm	*Load Ratings						*Limiting Speed x1000 rpm
M	M1	C1	D	Eccentric Collar				Stud Type Track Roller						
				h9	B1	e		C N	Co N	Cw N	Cow N	Fr perm	For perm	
4 ⁽⁵⁾	-	0.6	12	9	7	0.5	3	3800	3750	3150	3300	-	-	22.0
4 ⁽⁵⁾	-	0.6	12	9	7	0.5	3	3800	3750	3150	3300	-	-	16.0
4 ⁽⁵⁾	-	0.6	12	9	7	0.5	3	6400	8500	4850	6500	-	-	8.5
4 ⁽⁵⁾	-	0.6	12	9	7	0.5	3	6400	8500	4850	6500	-	-	8.5
4 ⁽⁵⁾	-	0.6	14	11	9	0.5	8	4250	4600	3500	3900	-	-	20.0
4 ⁽⁵⁾	-	0.6	14	11	9	0.5	8	4250	4600	3500	3900	-	-	14.0
4 ⁽⁵⁾	-	0.6	14	11	9	0.5	8	7300	10800	5500	7900	-	-	7.0
4 ⁽⁵⁾	-	0.6	14	11	9	0.5	8	7300	10800	5500	7900	-	-	7.0
4	-	0.6	17	13	10	0.5	15	5700	6500	4450	5200	-	-	16.0
4	-	0.6	17	13	10	0.5	15	5700	6500	4450	5200	-	-	11.0
4	-	0.6	17	13	10	0.5	15	8600	12900	6300	9100	-	-	6.0
4	-	0.6	17	13	10	0.5	15	8600	12900	6300	9100	-	-	6.0
4	3	0.6	17	13	10	0.5	15	5700	6500	5100	6300	-	-	16.0
4	3	0.6	17	13	10	0.5	15	5700	6500	5100	6300	-	-	11.0
4	3	0.6	17	13	10	0.5	15	8600	12900	7300	11300	-	-	6.0
4	3	0.6	17	13	10	0.5	15	8600	12900	7300	11300	-	-	6.0
6	3	0.6	23	15	11	0.5	22	8100	9700	6800	8400	-	-	11.0
6	3	0.6	23	15	11	0.5	22	8100	9700	6800	8400	-	-	8.3
6	3	0.6	23	15	11	0.5	22	12200	19000	9500	14600	-	-	4.5
6	3	0.6	23	15	11	0.5	22	12200	19000	9500	14600	-	-	4.5
6	3	0.8	27	15	11	0.5	22	8100	9700	7100	9000	-	-	11.0
6	3	0.8	27	15	11	0.5	22	8100	9700	7100	9000	-	-	8.3
6	3	0.8	27	15	11	0.5	22	12200	19000	10000	15800	-	-	4.5
6	3	0.8	27	15	11	0.5	22	12200	19000	10000	15800	-	-	4.5
6	3	0.8	27	20	14	1	58	12900	19000	9700	14100	-	-	7.0
6	3	0.8	27	20	14	1	58	12900	19000	9700	14100	-	-	7.0
6	3	0.8	27	20	14	1	58	18300	35000	12800	23000	-	-	3.4
6	3	0.8	27	20	14	1	58	18300	35000	12800	23000	-	-	3.4
6	3	0.8 ⁽⁴⁾	21 ⁽⁴⁾	20	14	1	58	23000	27000	16000	18300	8300	16400	6.5
6	3	0.8	32	22	16	1	87	14200	20400	10900	15500	-	-	6.0

Kurvenrollen der Type / Stud Type Track Rollers KR & NUKR



174

Dimensions (mm)				Outside Diameter (mm)	Designation /Type	Weight (g) approx.	With Eccentric Collar	Weight (g) approx.	Dimensions (mm)				
d	D	B	C						rs min	B1	B2	G	G1
18.0	40.0	58.0	20.0	40.0	KR 40PP	247 g	KRE 40PP	263 g	1	36.5	8.0	M18X1.5	19
18.0	40.0	58.0	20.0	40.0	KRV 40	249 g	KRVE 40	265 g	1	36.5	8.0	M18X1.5	19
18.0	40.0	58.0	20.0	40.0	KRV 40PP	249 g	KRVE 40PP	265 g	1	36.5	8.0	M18X1.5	19
18.0	40.0	58.0	20.0	40.0	NUKR 40	242 g	NUKRE 40	258 g	1	36.5 ⁽⁴⁾	8.0	M18X1.5	19
20.0	47.0	66.0	24.0	47.0	NUKR 47	380 g	NUKRE 47	400 g	1	40.5	9.0	-	21
24.0	72.0	80.0	28.0	72.0	NUKR 72	1020 g	NUKRE 72	1050 g	1	49.5	11.0	-	25

The suffix 'X' indicates a cylindrical outside surface, e.g. KR16X.

The basic load ratings 'C' and 'Cow' apply if the bearing out ring (with cylindrical outside surface) is mounted in a housing bore. When used as a track roller, the load ratings Cw and Cow apply

For oil lubrication, the speed can be increased by approximately 30%, except for sealed executions

NUKRE 35 B=31.5; C=1.8; D=24
NUKRE 40 B=35.5; C=1.8; D=26"

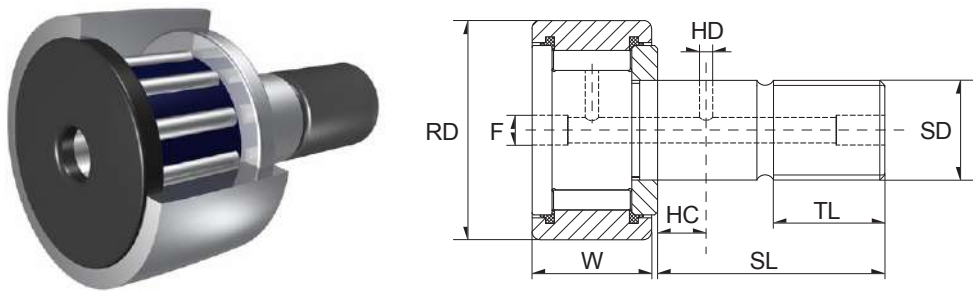
Lubrication hole is in the end face at the ribbed end of the stud only.



175

Dimensions (mm)							Nut Tightening Torque Ma Nm	*Load Ratings						*Limiting Speed x1000 rpm
M	M1	C1	D	Eccentric Collar				Stud Type Track Roller						
				h9	B1	e		C N	Co N	Cw N	Cow N	Fr perm	For perm	
6	3	0.8	32	22	16	1	87	14200	20400	10900	15500	-	-	6.0
6	3	0.8	32	22	16	1	87	21000	39500	14800	26500	-	-	2.9
6	3	0.8	32	22	16	1	87	21000	39500	14800	26500	-	-	2.9
6	3	0.8 ⁽⁴⁾	23 ⁽⁴⁾	22	16	1	87	24800	31000	18500	22800	13200	22800	5.5
6	4	0.8	27	24	18	1	120	28500	37500	19900	26000	16200	32500	4.2
8	4	1.3	44	28	22	1	220	45000	65000	31500	45500	31500	63000	2.6

Kurvenrollen der Type / Stud Type Track Rollers CF & CF...S



176

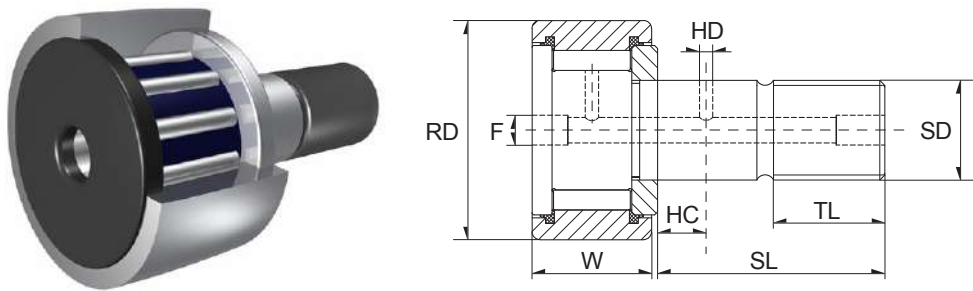
Dimension (inch)								
RD	W	SD	SL	TL	FINE THR'DS	HC	HD	F
0,500	0,375	0,190	5/8	1/4	10-32	-	-	1/8
0,500	0,344	0,190	1/2	1/4	10-32	-	-	1/8
0,500	0,344	0,190	1/2	1/4	10-32	-	-	1/8
0,500	0,375	0,190	5/8	1/4	10-32	-	-	1/8
0,5625	0,375	0,190	5/8	1/4	10-32	-	-	1/8
0,5625	0,375	0,190	5/8	1/4	10-32	-	-	1/8
0,625	0,4375	0,250	3/4	5/16	1/4-28	-	-	1/8
0,625	0,406	0,250	5/8	5/16	1/4-28	-	-	1/8
0,625	0,406	0,250	5/8	5/16	1/4-28	-	-	1/8
0,625	0,4375	0,250	3/4	5/16	1/4-28	-	-	1/8
0,6875	0,4375	0,250	3/4	5/16	1/4-28	-	-	1/8
0,6875	0,4375	0,250	3/4	5/16	1/4-28	-	-	1/8
0,750	0,500	0,375	7/8	3/8	3/8-24	1/4	3/32	3/16
0,750	0,500	0,375	7/8	3/8	3/8-24	1/4	3/32	3/16
0,875	0,500	0,375	7/8	3/8	3/8-24	1/4	3/32	3/16
0,875	0,500	0,375	7/8	3/8	3/8-24	1/4	3/32	3/16
1,000	0,625	0,4375	1	1/2	7/16-20	1/4	3/32	3/16
1,000	0,625	0,4375	1	1/2	7/16-20	1/4	3/32	3/16
1,125	0,625	0,4375	1	1/2	7/16-20	1/4	3/32	3/16
1,125	0,625	0,4375	1	1/2	7/16-20	1/4	3/32	3/16
1,250	0,750	0,500	1 1/4	5/8	1/2-20	5/16	3/32	3/16
1,250	0,750	0,500	1 1/4	5/8	1/2-20	5/16	3/32	3/16
1,375	0,750	0,500	1 1/4	5/8	1/2-20	5/16	3/32	3/16
1,375	0,750	0,500	1 1/4	5/8	1/2-20	5/16	3/32	3/16
1,500	0,875	0,625	1 1/2	3/4	5/8-18	3/8	3/32	3/16
1,500	0,875	0,625	1 1/2	3/4	5/8-18	3/8	3/32	3/16
1,625	0,875	0,625	1 1/2	3/4	5/8-18	3/8	3/32	3/16
1,625	0,875	0,625	1 1/2	3/4	5/8-18	3/8	3/32	3/16
1,750	1,000	0,750	1 3/4	7/8	3/4-16	7/16	3/32	3/16
1,750	1,000	0,750	1 3/4	7/8	3/4-16	7/16	3/32	3/16



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CR-8-1	S-16	CF-1/2	CR-1/2	15	790	680	0.02 kg
CR-8	-	CF-1/2-N	CR-1/2-A	15	720	620	0.02 kg
CRS-8	-	CF-1/2-N-S	CR-1/2-AX	15	720	620	0.02 kg
CRS-8-1	S-16-L	CF-1/2-S	CR-1/2X	15	790	680	0.02 kg
-	S-18	CF-9/16	CR-9/16	15	790	680	0.02 kg
-	S-18-L	CF-9/16-S	CR-9/16X	15	790	680	0.02 kg
CR-10-1	S-20	CF-5/8	CR-5/8	35	1215	955	0.02 kg
CR-10	-	CF-5/8-N	CR-5/8-A	35	1085	930	0.02 kg
CRS-10	-	CF-5/8-N-S	CR-5/8-AX	35	1085	930	0.02 kg
CRS-10-1	S-20-L	CF-5/8-S	CR-5/8X	35	1215	955	0.02 kg
-	S-22	CF-11/16	CR-11/16	35	1215	955	0.03 kg
-	S-22-L	CF-11/16-S	CR-11/16X	35	1215	955	0.03 kg
CR-12	S-24	CF-3/4	CR-3/4	95	2065	1660	0.03 kg
CRS-12	S-24-L	CF-3/4-S	CR-3/4X	95	2065	1660	0.03 kg
CR-14	S-28	CF-7/8	CR-7/8	95	2065	1660	0.04 kg
CRS-14	S-28-L	CF-7/8-S	CR-7/8X	95	2065	1660	0.04 kg
CR-16	S-32	CF-1	CR-1	250	3060	2225	0.08 kg
CRS-16	S-32-L	CF-1-S	CR-1X	250	3060	2225	0.08 kg
CR-18	S-36	CF-1 1/8	CR-1 1/8	250	3060	2225	0.09 kg
CRS-18	S-36-L	CF-1 1/8-S	CR-1 1/8X	250	3060	2225	0.09 kg
CR-20	S-40	CF-1 1/4	CR-1 1/4	350	4250	3930	0.14 kg
CRS-20	S-40-L	CF-1 1/4-S	CR-1 1/4X	350	4250	3930	0.14 kg
CR-22	S-44	CF-1 3/8	CR-1 3/8	350	4250	3930	0.16 kg
CRS-22	S-44-L	CF-1 3/8-S	CR-1 3/8X	350	4250	3930	0.16 kg
CR-24	S-48	CF-1 1/2	CR-1 1/2	650	5640	4840	0.24 kg
CRS-24	S-48-L	CF-1 1/2-S	CR-1 1/2X	650	5640	4840	0.24 kg
CR-26	S-52	CF-1 5/8	CR-1 5/8	650	5640	4840	0.27 kg
CRS-26	S-52-L	CF-1 5/8-S	CR-1 5/8X	650	5640	4840	0.27 kg
CR-28	S-56	CF-1 3/4	CR-1 3/4	1250	7920	6385	0.38 kg
CRS-28	S-56-L	CF-1 3/4-S	CR-1 3/4X	1250	7920	6385	0.38 kg

177

Kurvenrollen der Type / Stud Type Track Rollers CF & CF...S



178

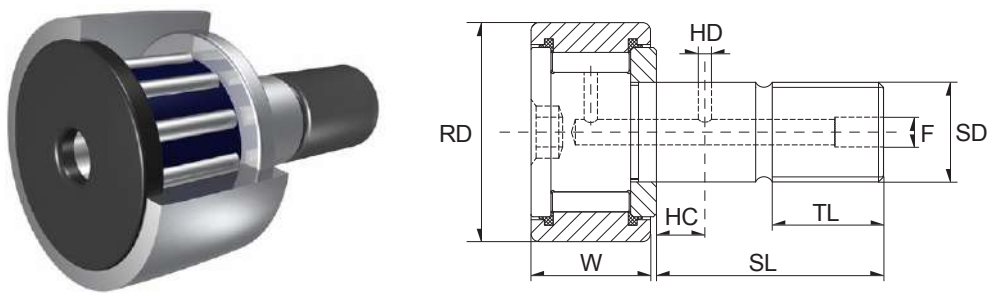
Dimension (inch)								
RD	W	SD	SL	TL	FINE THR'DS	HC	HD	F
1,875	1,000	0,750	1 3/4	7/8	3/4-16	7/16	3/32	3/16
1,875	1,000	0,750	1 3/4	7/8	3/4-16	7/16	3/32	3/16
2,000	1,250	0,875	2	1	7/8-14	1/2	1/8	3/16
2,000	1,250	0,875	2	1	7/8-14	1/2	1/8	3/16
2,250	1,250	0,875	2	1	7/8-14	1/2	1/8	3/16
2,250	1,250	0,875	2	1	7/8-14	1/2	1/8	3/16
2,500	1,500	1,000	2 1/4	1 1/8	1-14	9/16	1/8	3/16
2,500	1,500	1,000	2 1/4	1 1/8	1-14	9/16	1/8	3/16
2,750	1,500	1,000	2 1/4	1 1/8	1-14	9/16	1/8	3/16
2,750	1,500	1,000	2 1/4	1 1/8	1-14	9/16	1/8	3/16
3,000	1,750	1,250	2 1/2	1 1/4	1 1/4-12	5/8	1/8	1/4
3,000	1,750	1,250	2 1/2	1 1/4	1 1/4-12	5/8	1/8	1/4
3,250	1,750	1,250	2 1/2	1 1/4	1 1/4-12	5/8	1/8	1/4
3,250	1,750	1,250	2 1/2	1 1/4	1 1/4-12	5/8	1/8	1/4
3,500	2,000	1,75	2 3/4	1 3/8	1 3/8-12	11/16	1/8	1/4
3,500	2,000	1,75	2 3/4	1 3/8	1 3/8-12	11/16	1/8	1/4
4,000	2,250	1,500	3 1/2	1 1/2	1 1/2-12	3/4	1/8	1/4
4,000	2,250	1,500	3 1/2	1 1/2	1 1/2-12	3/4	1/8	1/4
5,000	2,750	2,000	5 1/16	2 9/16	2-12	7/8	3/16	1/4
6,000	3,250	2,500	6	3	2 1/2-12	1	3/16	1/4
7,000	3,750	3,000	7 11/16	4 1/8	3-12	1 1/4	3/16	1/4
8,000	4,250	3,250	8 1/2	4 1/4	3 1/4-4	-	-	1/4
9,000	4,750	3,750	9 1/2	4 3/4	3 1/2-4	-	-	1/4
10,000	5,250	4,250	10	4 3/4	3 1/2-4	-	-	1/4



179

Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CR-30	S-60	CF-1 7/8	CR-1 7/8	1250	7920	6385	0.43 kg
CRS-30	S-60-L	CF-1 7/8-S	CR-1 7/8X	1250	7920	6385	0.43 kg
CR-32	S-64	CF-2	CR-2	1500	10570	8090	0.62 kg
CRS-32	S-64-L	CF-2-S	CR-2X	1500	10570	8090	0.62 kg
CR-36	S-72	CF-2 1/4	CR-2 1/4	1500	10570	8090	0.75 kg
CRS-36	S-72-L	CF-2 1/4-S	CR-2 1/4X	1500	10570	8090	0.75 kg
CR-40	S-80	CF-2 1/2	CR-2 1/2	2250	16450	11720	1.13 kg
CRS-40	S-80-L	CF-2 1/2-S	CR-2 1/2X	2250	16450	11720	1.13 kg
CR-44	S-88	CF-2 3/4	CR-2 3/4	2250	16450	11720	1.33 kg
CRS-44	S-88-L	CF-2 3/4-S	CR-2 3/4X	2250	16450	11720	1.33 kg
CR-48	S-96	CF-3	CR-3	3450	24910	15720	1.91 kg
CRS-48	S-96-L	CF-3-S	CR-3X	3450	24910	15720	1.91 kg
CR-52	S-104	CF-3 1/4	CR-3 1/4	3450	24910	15720	2.18 kg
CRS-52	S-104-L	CF-3 1/4-S	CR-3 1/4X	3450	24910	15720	2.18 kg
CR-56	S-112	CF-3 1/2	CR-3 1/2	4200	31625	22800	2.91 kg
CRS-56	S-112-L	CF-3 1/2-S	CR-3 1/2X	4200	31625	22800	2.91 kg
CR-64	S-128	CF- 4	CR-4	5000	44770	29985	4.29 kg
CRS-64	S-128-L	CF- 4-S	CR-4X	5000	44770	29985	4.29 kg
-	-	CF-5-S	CR-5X	5000	67950	46575	8.85 kg
-	-	CF-6-S	CR-6X	5000	80450	60000	14.85 kg
-	-	CF-7-S	CR-7X	5000	106930	75380	24.83 kg
-	-	CF-8-S	CR8X	5000	144100	92200	36.20 kg
-	-	CF-9-S	CR-9X	5000	183430	113260	50.65 kg
-	-	CF-10-S	CR-10X	5000	215565	131545	67.22 kg

Kurvenrollen der Type / Stud Type Track Rollers CF...B & CF...SB



180

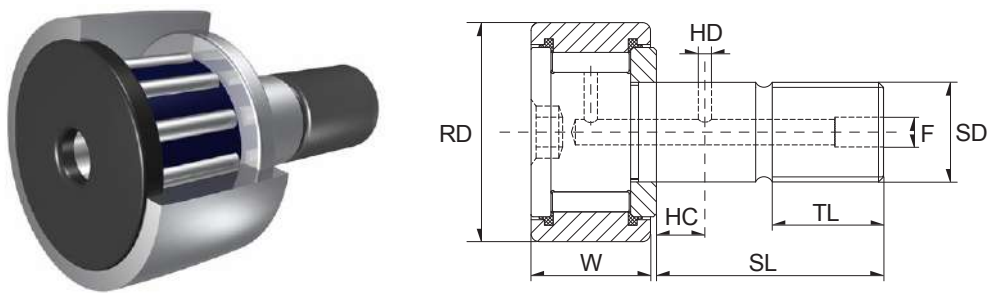
Dimension (inch)								
RD	W	SD	SL	TL	FINE THR'DS	HC	HD	F
0,500	0,344	0,190	1/2	1/4	10-32	-	-	-
0,500	0,375	0,190	5/8	1/4	10-32	-	-	-
0,500	0,344	0,190	1/2	1/4	10-32	-	-	-
0,500	0,375	0,190	5/8	1/4	10-32	-	-	-
0,5625	0,375	0,190	5/8	1/4	10-32	-	-	-
0,5625	0,375	0,190	5/8	1/4	10-32	-	-	-
0,625	0,406	0,250	5/8	5/16	1/4-28	-	-	-
0,625	0,4375	0,250	3/4	5/16	1/4-28	-	-	-
0,625	0,406	0,250	5/8	5/16	1/4-28	-	-	-
0,625	0,4375	0,250	3/4	5/16	1/4-28	-	-	-
0,6875	0,4375	0,250	3/4	5/16	1/4-28	-	-	-
0,6875	0,4375	0,250	3/4	5/16	1/4-28	-	-	-
0,750	0,500	0,375	7/8	3/8	3/8-24	1/4	3/32	3/16
0,750	0,500	0,375	7/8	3/8	3/8-24	1/4	3/32	3/16
0,875	0,500	0,375	7/8	3/8	3/8-24	1/4	3/32	3/16
0,875	0,500	0,375	7/8	3/8	3/8-24	1/4	3/32	3/16
1,000	0,625	0,4375	1	1/2	7/16-20	1/4	3/32	3/16
1,000	0,625	0,4375	1	1/2	7/16-20	1/4	3/32	3/16
1,125	0,625	0,4375	1	1/2	7/16-20	1/4	3/32	3/16
1,125	0,625	0,4375	1	1/2	7/16-20	1/4	3/32	3/16
1,250	0,750	0,500	1 1/4	5/8	1/2-20	5/16	3/32	3/16
1,250	0,750	0,500	1 1/4	5/8	1/2-20	5/16	3/32	3/16
1,375	0,750	0,500	1 1/4	5/8	1/2-20	5/16	3/32	3/16
1,375	0,750	0,500	1 1/4	5/8	1/2-20	5/16	3/32	3/16
1,500	0,875	0,625	1 1/2	3/4	5/8-18	3/8	3/32	3/16
1,500	0,875	0,625	1 1/2	3/4	5/8-18	3/8	3/32	3/16
1,625	0,875	0,625	1 1/2	3/4	5/8-18	3/8	3/32	3/16
1,625	0,875	0,625	1 1/2	3/4	5/8-18	3/8	3/32	3/16
1,750	1,000	0,750	1 3/4	7/8	3/4-16	7/16	3/32	3/16
1,750	1,000	0,750	1 3/4	7/8	3/4-16	7/16	3/32	3/16



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRB-8	-	CF-1/2-N-B	CR-1/2-A-B	15	720	620	0.02 kg
CRB-8-1	-	CF-1/2-B	CR-1/2-B	15	790	680	0.02 kg
CRSB-8	-	CF-1/2-N-SB	CR-1/2-A-XB	15	720	620	0.02 kg
CRSB-8-1	S-16-LW	CF-1/2-SB	CR-1/2-XB	15	790	680	0.02 kg
-	-	CF-9/16-B	CR-9/16-B	15	790	680	0.02 kg
-	S-18-LW	CF-9/16-SB	CR-9/16-XB	15	790	680	0.02 kg
CRB-10	-	CF-5/8-N-B	CR-5/8-A-B	35	1085	930	0.02 kg
CRB-10-1	-	CF-5/8-B	CR-5/8-B	35	1215	955	0.02 kg
CRSB-10	-	CF-5/8-N-SB	CR-5/8-A-XB	35	1085	930	0.02 kg
CRSB-10-1	S-20-LW	CF-5/8-SB	CR-5/8-XB	35	1215	955	0.02 kg
-	-	CF-11/16-B	CR-11/16-B	35	1215	955	0.03 kg
-	S-22-LW	CF-11/16-SB	CR-11/16-XB	35	1215	955	0.03 kg
CRB-12	-	CF-3/4-B	CR-3/4-B	95	2065	1660	0.03 kg
CRSB-12	S-24-LW	CF-3/4-SB	CR-3/4-XB	95	2065	1660	0.03 kg
CRB-14	-	CF-7/8-B	CR-7/8-B	95	2065	1660	0.04 kg
CRSB-14	S-28-LW	CF-7/8-SB	CR-7/8-XB	95	2065	1660	0.04 kg
CRB-16	-	CF-1-B	CR-1-B	250	3060	2225	0.08 kg
CRSB-16	S-32-LW	CF-1-SB	CR-1-XB	250	3060	2225	0.08 kg
CRB-18	-	CF-1 1/8-B	CR-1 1/8-B	250	3060	2225	0.09 kg
CRSB-18	S-36-LW	CF-1 1/8-SB	CR-1 1/8-XB	250	3060	2225	0.09 kg
CRB-20	-	CF-1 1/4-B	CR-1 1/4-B	350	4250	3930	0.14 kg
CRSB-20	S-40-LW	CF-1 1/4-SB	CR-1 1/4-XB	350	4250	3930	0.14 kg
CRB-22	-	CF-1 3/8-B	CR-1 3/8-B	350	4250	3930	0.16 kg
CRSB-22	S-44-LW	CF-1 3/8-SB	CR-1 3/8-XB	350	4250	3930	0.16 kg
CRB-24	-	CF-1 1/2-B	CR-1 1/2-B	650	5640	4840	0.24 kg
CRSB-24	S-48-LW	CF-1 1/2-SB	CR-1 1/2-XB	650	5640	4840	0.24 kg
CRB-26	-	CF-1 5/8-B	CR-1 5/8-B	650	5640	4840	0.27 kg
CRSB-26	S-52-LW	CF-1 5/8-SB	CR-1 5/8-XB	650	5640	4840	0.27 kg
CRB-28	-	CF-1 3/4-B	CR-1 3/4-B	1250	7920	6385	0.38 kg
CRSB-28	S-56-LW	CF-1 3/4-SB	CR-1 3/4-XB	1250	7920	6385	0.38 kg

181

Kurvenrollen der Type / Stud Type Track Rollers CF...B & CF...SB



182

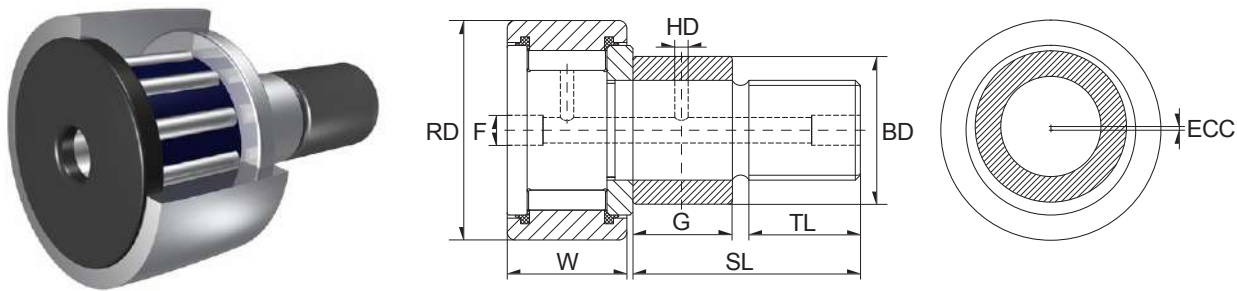
Dimension (inch)								
RD	W	SD	SL	TL	FINE THR'DS	HC	HD	F
1,875	1,000	0,750	1 3/4	7/8	3/4-16	7/16	3/32	3/16
1,875	1,000	0,750	1 3/4	7/8	3/4-16	7/16	3/32	3/16
2,000	1,250	0,875	2	1	7/8-14	1/2	1/8	3/16
2,000	1,250	0,875	2	1	7/8-14	1/2	1/8	3/16
2,500	1,500	1,000	2 1/4	1 1/8	1-14	9/16	1/8	3/16
2,500	1,500	1,000	2 1/4	1 1/8	1-14	9/16	1/8	3/16
2,750	1,500	1,000	2 1/4	1 1/8	1-14	9/16	1/8	3/16
2,750	1,500	1,000	2 1/4	1 1/8	1-14	9/16	1/8	3/16
3,000	1,750	1,250	2 1/2	1 1/4	1 1/4-12	5/8	1/8	1/4
3,000	1,750	1,250	2 1/2	1 1/4	1 1/4-12	5/8	1/8	1/4
3,250	1,250	0,875	2	1	7/8-14	1/2	1/8	3/16
3,250	1,750	1,250	2 1/2	1 1/4	1 1/4-12	5/8	1/8	1/4
3,250	1,250	0,875	2	1	7/8-14	1/2	1/8	3/16
3,250	1,750	1,250	2 1/2	1 1/4	1 1/4-12	5/8	1/8	1/4
3,500	2,000	1,375	2 3/4	1 3/8	1 3/8-12	11/16	1/8	1/4
3,500	2,000	1,375	2 3/4	1 3/8	1 3/8-12	11/16	1/8	1/4
4,000	2,250	1,500	3 1/2	1 1/2	1 1/2-12	3/4	1/8	1/4
4,000	2,250	1,500	3 1/2	1 1/2	1 1/2-12	3/4	1/8	1/4



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRB-30	-	CF-1 7/8-B	CR-1 7/8-B	1250	7920	6385	0.43 kg
CRSB-30	S-60-LW	CF-1 7/8-SB	CR-1 7/8-XB	1250	7920	6385	0.43 kg
CRB-32	-	CF-2-B	CR-2-B	1500	10570	8090	0.62 kg
CRSB-32	S-64-LW	CF-2-SB	CR-2-XB	1500	10570	8090	0.62 kg
CRB-40	-	CF-2 1/2-B	CR-2 1/2-B	2250	16450	11720	1.13 kg
CRSB-40	S-80-LW	CF-2 1/2-SB	CR-2 1/2-XB	2250	16450	11720	1.13 kg
CRB-44	-	CF-2 3/4-B	CR-2 3/4-B	2250	16450	11720	1.33 kg
CRSB-44	S-88-LW	CF-2 3/4-SB	CR-2 3/4-XB	2250	16450	11720	1.33 kg
CRB-48	-	CF-3-B	CR-3-B	3450	24910	15720	1.91 kg
CRSB-48	S-96-LW	CF-3-SB	CR-3-XB	3450	24910	15720	1.91 kg
CRB-36	-	CF-2 1/4-B	CR-2 1/4-B	1500	10570	8090	0.75 kg
CRB-52	-	CF-3 1/4-B	CR-3 1/4-B	3450	24910	15720	2.18 kg
CRSB-36	S-72-LW	CF-2 1/4-SB	CR-2 1/4-XB	1500	10570	8090	0.75 kg
CRSB-52	S-104-LW	CF-3 1/4-SB	CR-3 1/4-XB	3450	24910	15720	2.18 kg
CRB-56	-	CF-3 1/2-B	CR-3 1/2-B	4200	31625	22800	2.91 kg
CRSB-56	S-112-LW	CF-3 1/2-SB	CR-3 1/2-XB	4200	31625	22800	2.91 kg
CRB-64	-	CF-4-B	CR-4-B	5000	44770	29985	4.29 kg
CRSB-64	S-128-LW	CF-4-SB	CR-4-XB	5000	44770	29985	4.29 kg

183

Kurvenrollen der Type / Stud Type Track Rollers CFE & CFE...S



184

Dimension (inch)								
RD	W	G	BD	SL	TL	FINE THR'DS	ECC*	F
0,500	0,375	0,375	0,250	5/8	1/4	10-32	0,010	1/8
0,500	0,375	0,375	0,250	5/8	1/4	10-32	0,010	1/8
0,5625	0,375	0,375	0,250	5/8	1/4	10-32	0,010	1/8
0,5625	0,375	0,375	0,250	5/8	1/4	10-32	0,010	1/8
0,625	0,4375	0,437	0,375	3/4	5/16	1/4-28	0,015	1/8
0,625	0,4375	0,437	0,375	3/4	5/16	1/4-28	0,015	1/8
0,6875	0,4375	0,437	0,375	3/4	5/16	1/4-28	0,015	1/8
0,6875	0,4375	0,437	0,375	3/4	5/16	1/4-28	0,015	1/8
0,750	0,500	0,500	0,500	7/8	3/8	3/8-24	0,015	3/16
0,750	0,500	0,500	0,500	7/8	3/8	3/8-24	0,015	3/16
0,875	0,500	0,500	0,500	7/8	3/8	3/8-24	0,015	3/16
0,875	0,500	0,500	0,500	7/8	3/8	3/8-24	0,015	3/16
1,000	0,625	0,500	0,625	1	1/2	7/16-20	0,030	3/16
1,000	0,625	0,500	0,625	1	1/2	7/16-20	0,030	3/16
1,125	0,625	0,500	0,625	1	1/2	7/16-20	0,030	3/16
1,125	0,625	0,500	0,625	1	1/2	7/16-20	0,030	3/16
1,250	0,750	0,625	0,687	1 1/4	5/8	1/2-20	0,030	3/16
1,250	0,750	0,625	0,687	1 1/4	5/8	1/2-20	0,030	3/16
1,375	0,750	0,625	0,687	1 1/4	5/8	1/2-20	0,030	3/16
1,375	0,750	0,625	0,687	1 1/4	5/8	1/2-20	0,030	3/16
1,500	0,875	0,750	0,875	1 1/2	3/4	5/8-18	0,030	3/16
1,500	0,875	0,750	0,875	1 1/2	3/4	5/8-18	0,030	3/16
1,625	0,875	0,750	0,875	1 1/2	3/4	5/8-18	0,030	3/16
1,625	0,875	0,750	0,875	1 1/2	3/4	5/8-18	0,030	3/16
1,750	1,000	0,875	1,000	1 3/4	7/8	3/4-16	0,030	3/16
1,750	1,000	0,875	1,000	1 3/4	7/8	3/4-16	0,030	3/16
1,875	1,000	0,875	1,000	1 3/4	7/8	3/4-16	0,030	3/16
1,875	1,000	0,875	1,000	1 3/4	7/8	3/4-16	0,030	3/16
2,000	1,250	1,000	1,187	2	1	7/8-14	0,030	3/16
2,000	1,250	1,000	1,187	2	1	7/8-14	0,030	3/16

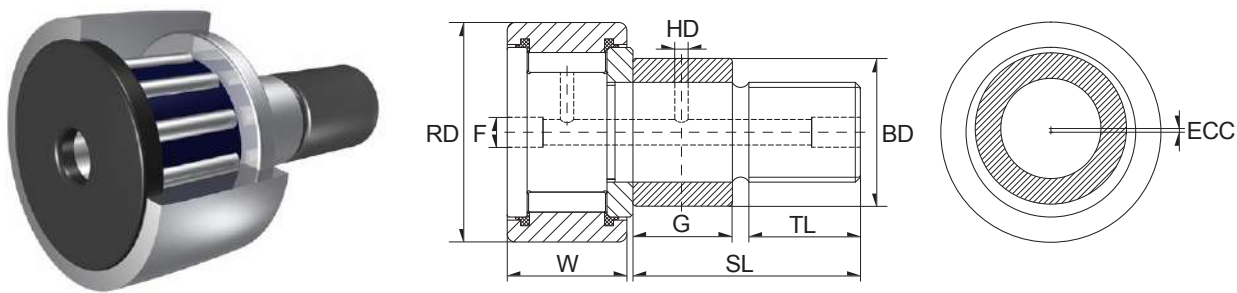
*Eccentricity - measuring the eccentricity of the shaft while the outer ring is fixed



185

Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRE-8-1	-	CFE-1/2	CR-1/2-E	15	790	680	0.02 kg
CRSE-8-1	-	CFE-1/2-S	CR-1/2-XE	15	790	680	0.02 kg
-	-	CFE-9/16	CR-9/16-E	15	790	680	0.02 kg
-	-	CFE-9/16-S	CR-9/16-XE	15	790	680	0.02 kg
CRE-10-1	-	CFE-5/8	CR-5/8-E	35	1215	955	0.02 kg
CRSE-10-1	-	CFE-5/8-S	CR-5/8-XE	35	1215	955	0.02 kg
-	-	CFE-11/16	CR-11/16-E	35	1215	955	0.03 kg
-	-	CFE-11/16-S	CR-11/16-XE	35	1215	955	0.03 kg
CRE-12	-	CFE-3/4	CR-3/4-E	95	2065	1660	0.03 kg
CRSE-12	-	CFE-3/4-S	CR-3/4-XE	95	2065	1660	0.03 kg
CRE-14	-	CFE-7/8	CR-7/8-E	95	2065	1660	0.04 kg
CRSE-14	-	CFE-7/8-S	CR-7/8-XE	95	2065	1660	0.04 kg
CRE-16	-	CFE-1	CR-1-E	250	3060	2225	0.08 kg
CRSE-16	-	CFE-1-S	CR-1-XE	250	3060	2225	0.08 kg
CRE-18	-	CFE-1 1/8	CR-1 1/8-E	250	3060	2225	0.09 kg
CRSE-18	-	CFE-1 1/8-S	CR-1 1/8-XE	250	3060	2225	0.09 kg
CRE-20	-	CFE-1 1/4	CR-1 1/4-E	350	4250	3930	0.14 kg
CRSE-20	-	CFE-1 1/4-S	CR-1 1/4-XE	350	4250	3930	0.14 kg
CRE-22	-	CFE-1 3/8	CR-1 3/8-E	350	4250	3930	0.16 kg
CRSE-22	-	CFE-1 3/8-S	CR-1 3/8-XE	350	4250	3930	0.16 kg
CRE-24	-	CFE-1 1/2	CR-1 1/2-E	650	5640	4840	0.24 kg
CRSE-24	-	CFE-1 1/2-S	CR-1 1/2-XE	650	5640	4840	0.24 kg
CRE-26	-	CFE-1 5/8	CR-1 5/8-E	650	5640	4840	0.27 kg
CRSE-26	-	CFE-1 5/8-S	CR-1 5/8-XE	650	5640	4840	0.27 kg
CRE-28	-	CFE-1 3/4	CR-1 3/4-E	1250	7920	6385	0.38 kg
CRSE-28	-	CFE-1 3/4-S	CR-1 3/4-XE	1250	7920	6385	0.38 kg
CRE-30	-	CFE-1 7/8	CR-1 7/8-E	1250	7920	6385	0.43 kg
CRSE-30	-	CFE-1 7/8-S	CR-1 7/8-XE	1250	7920	6385	0.43 kg
CRE-32	-	CFE-2	CR-2-E	1500	10570	8090	0.62 kg
CRSE-32	-	CFE-2-S	CR-2-XE	1500	10570	8090	0.62 kg

Kurvenrollen der Type / Stud Type Track Rollers CFE & CFE...S



186

Dimension (inch)								
RD	W	G	BD	SL	TL	FINE THR'DS	ECC*	F
2,250	1,250	1,000	1,187	2	1	7/8-14	0,030	3/16
2,250	1,250	1,000	1,187	2	1	7/8-14	0,030	3/16
2,500	1,500	1,125	1,375	2 1/4	1 1/8	1-14	0,030	3/16
2,500	1,500	1,125	1,375	2 1/4	1 1/8	1-14	0,030	3/16
2,750	1,500	1,125	1,375	2 1/4	1 1/8	1-14	0,030	3/16
2,750	1,500	1,125	1,375	2 1/4	1 1/8	1-14	0,030	3/16
3,000	1,750	1,250	1,750	2 1/2	1 1/4	1 1/4-12	0,060	1/4
3,000	1,750	1,250	1,750	2 1/2	1 1/4	1 1/4-12	0,060	1/4
3,250	1,750	1,250	1,750	2 1/2	1 1/4	1 1/4-12	0,060	1/4
3,250	1,750	1,250	1,750	2 1/2	1 1/4	1 1/4-12	0,060	1/4
3,500	2,000	1,375	1,812	2 3/4	1 3/8	1 3/8-12	0,060	1/4
3,500	2,000	1,375	1,812	2 3/4	1 3/8	1 3/8-12	0,060	1/4
4,000	2,250	2,000	2,000	3 1/2	1 1/2	1 1/2-12	0,060	1/4
4,000	2,250	2,000	2,000	3 1/2	1 1/2	1 1/2-12	0,060	1/4

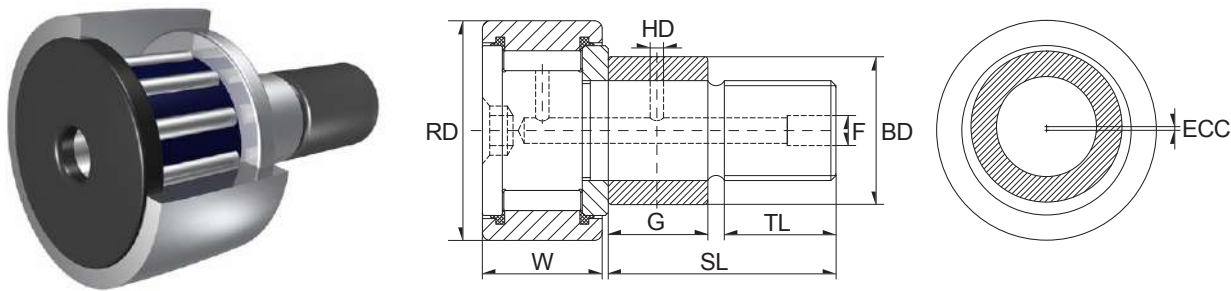
*Eccentricity - measuring the eccentricity of the shaft while the outer ring is fixed



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRE-36	-	CFE-2 1/4	CR-2 1/4-E	1500	10570	8090	0.75 kg
CRSE-36	-	CFE-2 1/4-S	CR-2 1/4-XE	1500	10570	8090	0.75 kg
CRE-40	-	CFE-2 1/2	CR-2 1/2-E	2250	16450	117200	1.13 kg
CRSE-40	-	CFE-2 1/2-S	CR-2 1/2-XE	2250	16450	117200	1.13 kg
CRE-44	-	CFE-2 3/4	CR-2 3/4-E	2250	16450	117200	1.33 kg
CRSE-44	-	CFE-2 3/4-S	CR-2 3/4-XE	2250	16450	117200	1.33 kg
CRE-48	-	CFE-3	CR-3-E	3450	24910	15720	1.91 kg
CRSE-48	-	CFE-3-S	CR-3-XE	3450	24910	15720	1.91 kg
CRE-52	-	CFE-3 1/4	CR-3 1/4-E	3450	14910	15720	2.18 kg
CRSE-52	-	CFE-3 1/4-S	CR-3 1/4-XE	3450	14910	15720	2.18 kg
CRE-56	-	CFE-3 1/2	CR-3 1/2-E	4200	31625	22800	2.91 kg
CRSE-56	-	CFE-3 1/2-S	CR-3 1/2-XE	4200	31625	22800	2.91 kg
CRE-64	-	CFE-4	CR-4-E	5000	44770	29985	4.29 kg
CRSE-64	-	CFE-4-S	CR-4-XE	5000	44770	29985	4.29 kg

187

Kurvenrollen der Type / Stud Type Track Rollers CFE...B & CFE...SB



188

Dimension (inch)								
RD	W	G	BD	SL	TL	FINE THR'DS	ECC*	F
0,500	0,344	0,250	0,250	1/2	1/4	10-32	0,010	-
0,500	0,375	0,375	0,250	5/8	1/4	10-32	0,010	-
0,500	0,344	0,250	0,250	1/2	1/4	10-32	0,010	-
0,500	0,375	0,375	0,250	5/8	1/4	10-32	0,010	-
0,5625	0,375	0,375	0,250	5/8	1/4	10-32	0,010	-
0,5625	0,375	0,375	0,250	5/8	1/4	10-32	0,010	-
0,625	0,4375	0,437	0,375	3/4	5/16	1/4-28	0,015	-
0,625	0,4375	0,437	0,375	3/4	5/16	1/4-28	0,015	-
0,6875	0,4375	0,437	0,375	3/4	5/16	1/4-28	0,015	-
0,6875	0,4375	0,437	0,375	3/4	5/16	1/4-28	0,015	-
0,750	0,500	0,500	0,500	7/8	3/8	3/8-24	0,015	3/16
0,750	0,500	0,500	0,500	7/8	3/8	3/8-24	0,015	3/16
0,875	0,500	0,500	0,500	7/8	3/8	3/8-24	0,015	3/16
0,875	0,500	0,500	0,500	7/8	3/8	3/8-24	0,015	3/16
1,000	0,625	0,500	0,625	1	1/2	7/16-20	0,030	3/16
1,000	0,625	0,500	0,625	1	1/2	7/16-20	0,030	3/16
1,125	0,625	0,500	0,625	1	1/2	7/16-20	0,030	3/16
1,125	0,625	0,500	0,625	1	1/2	7/16-20	0,030	3/16
1,250	0,750	0,625	0,687	1 1/4	5/8	1/2-20	0,030	3/16
1,250	0,750	0,625	0,687	1 1/4	5/8	1/2-20	0,030	3/16
1,375	0,750	0,625	0,687	1 1/4	5/8	1/2-20	0,030	3/16
1,375	0,750	0,625	0,687	1 1/4	5/8	1/2-20	0,030	3/16
1,500	0,875	0,750	0,875	1 1/2	3/4	5/8-18	0,030	3/16
1,500	0,875	0,750	0,875	1 1/2	3/4	5/8-18	0,030	3/16
1,625	0,875	0,750	0,875	1 1/2	3/4	5/8-18	0,030	3/16
1,625	0,875	0,750	0,875	1 1/2	3/4	5/8-18	0,030	3/16
1,750	1,000	0,875	1,000	1 3/4	7/8	3/4-16	0,030	3/16
1,750	1,000	0,875	1,000	1 3/4	7/8	3/4-16	0,030	3/16
1,875	1,000	0,875	1,000	1 3/4	7/8	3/4-16	0,030	3/16
1,875	1,000	0,875	1,000	1 3/4	7/8	3/4-16	0,030	3/16

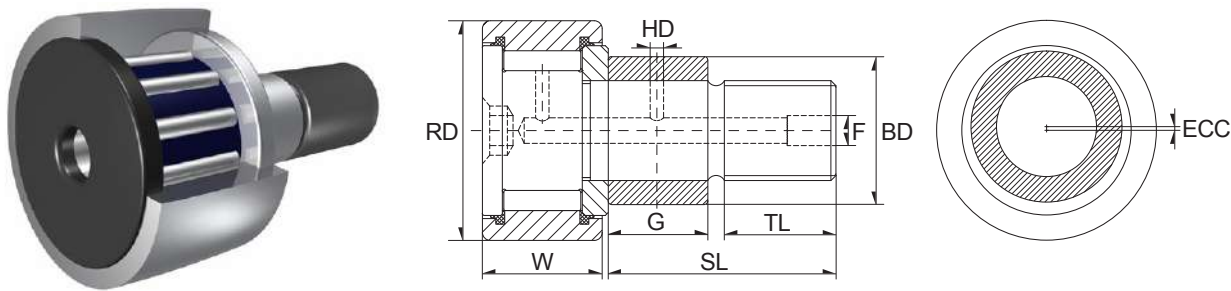
*Eccentricity - measuring the eccentricity of the shaft while the outer ring is fixed



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
-	-	CFE-1/2-N-B	CR-1/2-N-BE	15	720	620	0.02 kg
CRBE-8-1	-	CFE-1/2-B	CR-1/2-BE	15	790	680	0.02 kg
-	-	CFE-1/2-N-SB	CR-1/2-A-XBE	15	720	620	0.02 kg
CRSBE-8-1	S-16-LWX	CFE-1/2-SB	CR-1/2-XBE	15	790	680	0.02 kg
-	-	CFE-9/16-B	CR-9/16-BE	15	790	680	0.02 kg
-	S-18-LWX	CFE-9/16-SB	CR-9/16-XBE	15	790	680	0.02 kg
CRBE-10-1	-	CFE-5/8-B	CR-5/8-BE	35	1215	955	0.02 kg
CRSBE-10-1	S-20-LWX	CFE-5/8-SB	CR-5/8-XBE	35	1215	955	0.02 kg
-	-	CFE-11/16-B	CR-11/16-BE	35	1215	955	0.03 kg
-	S-22-LWX	CFE-11/16-SB	CR-11/16-XBE	35	1215	955	0.03 kg
CRBE-12	-	CFE-3/4-B	CR-3/4-BE	95	2065	1660	0.03 kg
CRSBE-12	S-24-LWX	CFE-3/4-SB	CR-3/4-XBE	95	2065	1660	0.03 kg
CRBE-14	-	CFE-7/8-B	CR-7/8-BE	95	2065	1660	0.04 kg
CRSBE-14	S-28-LWX	CFE-7/8-SB	CR-7/8-XBE	95	2065	1660	0.04 kg
CRBE-16	-	CFE-1-B	CR-1-BE	250	3060	2225	0.08 kg
CRSBE-16	S-32-LWX	CFE-1-SB	CR-1-XBE	250	3060	2225	0.08 kg
CRBE-18	-	CFE-1 1/8-B	CR-1 1/8-BE	250	3060	2225	0.09 kg
CRSBE-18	S-36-LWX	CFE-1 1/8-SB	CR-1 1/8-XBE	250	3060	2225	0.09 kg
CRBE-20	-	CFE-1 1/4-B	CR-1 1/4-BE	350	4250	3930	0.14 kg
CRSBE-20	S-40-LWX	CFE-1 1/4-SB	CR-1 1/4-XBE	350	4250	3930	0.14 kg
CRBE-22	-	CFE-1 3/8-B	CR-1 3/8-BE	350	4250	3930	0.16 kg
CRSBE-22	S-44-LWX	CFE-1 3/8-SB	CR-1 3/8-XBE	350	4250	3930	0.16 kg
CRBE-24	-	CFE-1 1/2-B	CR-1 1/2-BE	650	5640	4840	0.24 kg
CRSBE-24	S-48-LWX	CFE-1 1/2-SB	CR-1 1/2-XBE	650	5640	4840	0.24 kg
CRBE-26	-	CFE-1 5/8-B	CR-1 5/8-BE	650	5640	4840	0.27 kg
CRSBE-26	S-52-LWX	CFE-1 5/8-SB	CR-1 5/8-XBE	650	5640	4840	0.27 kg
CRBE-28	-	CFE-1 3/4-B	CR-1 3/4-BE	1250	7920	6385	0.38 kg
CRSBE-28	S-56-LWX	CFE-1 3/4-SB	CR-1 3/4-XBE	1250	7920	6385	0.38 kg
CRBE-30	-	CFE-1 7/8-B	CR-1 7/8-BE	1250	7920	6385	0.43 kg
CRSBE-30	S-60-LWX	CFE-1 7/8-SB	CR-1 7/8-XBE	1250	7920	6385	0.43 kg

189

Kurvenrollen der Type / Stud Type Track Rollers CFE...B & CFE...SB



190

Dimension (inch)								
RD	W	G	BD	SL	TL	FINE THR'DS	ECC [▲]	F
2,000	1,250	1,000	1,187	2	1	7/8-14	0,030	3/16
2,000	1,250	1,000	1,187	2	1	7/8-14	0,030	3/16
2,250	1,250	1,000	1,187	2	1	7/8-14	0,030	3/16
2,250	1,250	1,000	1,187	2	1	7/8-14	0,030	3/16
2,500	1,500	1,125	1,375	2 1/4	1 1/8	1-14	0,030	3/16
2,500	1,500	1,125	1,375	2 1/4	1 1/8	1-14	0,030	3/16
2,750	1,500	1,125	1,375	2 1/4	1 1/8	1-14	0,030	3/16
2,750	1,500	1,125	1,375	2 1/4	1 1/8	1-14	0,030	3/16
3,000	1,750	1,250	1,750	2 1/2	1 1/4	1 1/4-12	0,060	1/4
3,000	1,750	1,250	1,750	2 1/2	1 1/4	1 1/4-12	0,060	1/4
3,250	1,750	1,250	1,750	2 1/2	1 1/4	1 1/4-12	0,060	1/4
3,250	1,750	1,250	1,750	2 1/2	1 1/4	1 1/4-12	0,060	1/4
3,500	2,000	1,375	1,812	2 3/4	1 3/8	1 3/8-12	0,060	1/4
3,500	2,000	1,375	1,812	2 3/4	1 3/8	1 3/8-12	0,060	1/4
4,000	2,250	2,000	2,000	3 1/2	1 1/2	1 1/2-12	0,060	1/4
4,000	2,250	2,000	2,000	3 1/2	1 1/2	1 1/2-12	0,060	1/4

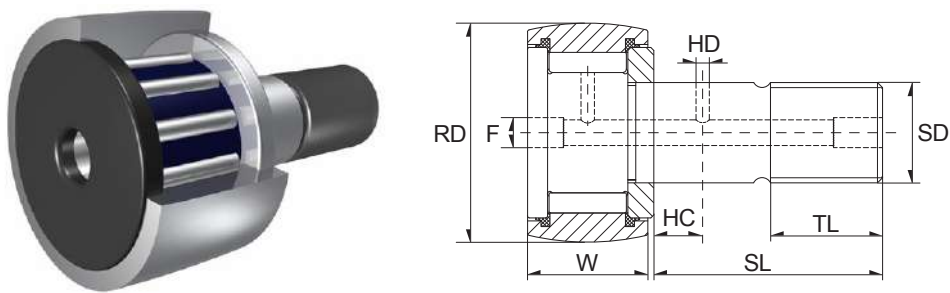
▲Eccentricity - measuring the eccentricity of the shaft while the outer ring is fixed



191

Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRBE-32	-	CFE-2-B	CR-2-BE	1500	10570	8090	0.62 kg
CRSBE-32	S-64-LWX	CFE-2-SB	CR-2-XBE	1500	10570	8090	0.62 kg
CRBE-36	-	CFE-2 1/4-B	CR-2 1/4-BE	1500	10570	8090	0.75 kg
CRSBE-36	S-72-LWX	CFE-2 1/4-SB	CR-2 1/4-XBE	1500	10570	8090	0.75 kg
CRBE-40	-	CFE-2 1/2-B	CR-2 1/2-BE	2250	16450	11720	1.13 kg
CRSBE-40	S-80-LWX	CFE-2 1/2-SB	CR-2 1/2-XBE	2250	16450	11720	1.13 kg
CRBE-44	-	CFE-2 3/4-B	CR-2 3/4-BE	2250	16450	11720	1.33 kg
CRSBE-44	S-88-LWX	CFE-2 3/4-SB	CR-2 3/4-XBE	2250	16450	11720	1.33 kg
CRBE-48	-	CFE-3-B	CR-3-BE	3450	24910	15720	1.91 kg
CRSBE-48	S-96-LWX	CFE-3-SB	CR-3-XBE	3450	24910	15720	1.91 kg
CRBE-52	-	CFE-3 1/4-B	CR-3 1/4-BE	3450	24910	15720	2.18 kg
CRSBE-52	S-104-LWX	CFE-3 1/4-SB	CR-3 1/4-XBE	3450	24910	15720	2.18 kg
CRBE-56	-	CFE-3 1/2-B	CR-3 1/2-BE	4200	31625	22800	2.91 kg
CRSBE-56	S-112-LWX	CFE-3 1/2-SB	CR-3 1/2-XBE	4200	31625	22800	2.91 kg
CRBE-64	-	CFE-4-B	CR-4-BE	5000	44770	29985	4.29 kg
CRSBE-64	S-128-LWX	CFE-4-SB	CR-4-XBE	5000	44770	29985	4.29 kg

Kurvenrollen der Type / Stud Type Track Rollers CCF...S



192

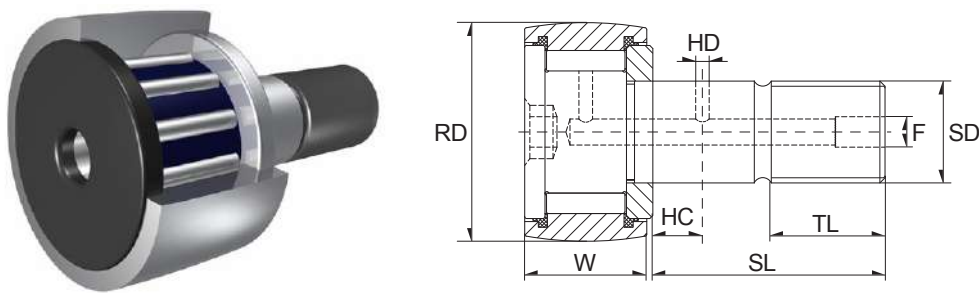
Dimension (inch)								
RD	W	SD	SL	TL	FINE THR'DS	HC	HD	F
0,500	0,344	0,190	1/2	1/4	10-32	-	-	1/8
0,500	0,375	0,190	5/8	1/4	10-32	-	-	1/8
0,5625	0,375	0,190	5/8	1/4	10-32	-	-	1/8
0,625	0,406	0,250	5/8	5/16	1/4-28	-	-	1/8
0,625	0,4375	0,250	3/4	5/16	1/4-28	-	-	1/8
0,6875	0,4375	0,250	3/4	5/16	1/4-28	-	-	1/8
0,750	0,500	0,375	7/8	3/8	3/8-24	1/4	3/32	3/16
0,875	0,500	0,375	7/8	3/8	3/8-24	1/4	3/32	3/16
1,000	0,625	0,4375	1	1/2	7/16-20	1/4	3/32	3/16
1,125	0,625	0,4375	1	1/2	7/16-20	1/4	3/32	3/16
1,250	0,750	0,500	1 1/4	5/8	1/2-20	5/16	3/32	3/16
1,375	0,750	0,500	1 1/4	5/8	1/2-20	5/16	3/32	3/16
1,500	0,875	0,625	1 1/2	3/4	5/8-18	3/8	3/32	3/16
1,625	0,875	0,625	1 1/2	3/4	5/8-18	3/8	3/32	3/16
1,750	1,000	0,750	1 3/4	7/8	3/4-16	7/16	3/32	3/16
1,875	1,000	0,750	1 3/4	7/8	3/4-16	7/16	3/32	3/16
2,000	1,250	0,875	2	1	7/8-14	1/2	1/8	3/16
2,250	1,250	0,875	2	1	7/8-14	1/2	1/8	3/16
2,500	1,500	1,000	2 1/4	1 1/8	1-14	9/16	1/8	3/16
2,750	1,500	1,000	2 1/4	1 1/8	1-14	9/16	1/8	3/16
3,000	1,750	1,250	2 1/2	1 1/4	1 1/4-12	5/8	1/8	1/4
3,250	1,750	1,250	2 1/2	1 1/4	1 1/4-12	5/8	1/8	1/4
3,500	2,000	1,375	2 3/4	1 3/8	1 3/8-12	11/16	1/8	1/4
4,000	2,250	1,500	3 1/2	1 1/2	1 1/2-12	3/4	1/8	1/4
5,000	2,750	2,000	5 1/16	2 9/16	2-12	7/8	3/16	1/4
6,000	3,250	2,500	6	3	2 1/2-12	1	3/16	1/4
7,000	3,750	3,000	7 11/16	4 1/8	3-12	1 1/4	3/16	1/4
8,000	4,250	3,250	8 1/2	4 1/4	3 1/4-4	-	-	1/4
9,000	4,750	3,750	9 1/2	4 3/4	3 1/2-4	-	-	1/4
10,000	2,250	4,250	10	4 3/4	3 1/2-4	-	-	1/4



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
-	-	CCF-1/2-N-S	CR-1/2-A-XC	15	720	620	0.02 kg
CRSC-8-1	-	CCF-1/2-S	CR-1/2-XC	15	790	680	0.02 kg
-	-	CCF-9/16-S	CR-9/16-XC	15	790	680	0.02 kg
-	-	CCF-5/8-N-S	CR-5/8-A-XC	35	1085	930	0.02 kg
CRSC-10-1	-	CCF-5/8-S	CR-5/8-XC	35	1215	955	0.02 kg
-	-	CCF-11/16-S	CR-11/16-XC	35	1215	955	0.03 kg
CRSC-12	CS-24-L	CCF-3/4-S	CR-3/4-XC	95	2065	1660	0.03 kg
CRSC-14	CS-28-L	CCF-7/8-S	CR-7/8-XC	95	2065	1660	0.04 kg
CRSC-16	CS-32-L	CCF-1-S	CR-1-XC	250	3060	2225	0.08 kg
CRSC-18	CS-36-L	CCF-1 1/8-S	CR-1 1/8-XC	250	3060	2225	0.09 kg
CRSC-20	CS-40-L	CCF-1 1/4-S	CR-1 1/4-XC	350	4250	3930	0.14 kg
CRSC-22	CS-44-L	CCF-1 3/8-S	CR-1 3/8-XC	350	4250	3930	0.16 kg
CRSC-24	CS-48-L	CCF-1 1/2-S	CR-1 1/2-XC	650	5640	4840	0.24 kg
CRSC-26	CS-52-L	CCF-1 5/8-S	CR-1 5/8-XC	650	5640	4840	0.27 kg
CRSC-28	CS-56-L	CCF-1 3/4-S	CR-1 3/4-XC	1250	7920	6385	0.38 kg
CRSC-30	CS-60-L	CCF-1 7/8-S	CR-1 7/8-XC	1250	7920	6385	0.43 kg
CRSC-32	CS-64-L	CCF-2-S	CR-2-XC	1500	10570	8090	0.62 kg
CRSC-36	CS-72-L	CCF-2 1/4-S	CR-2 1/4-XC	1500	10570	8090	0.75 kg
CRSC-40	CS-80-L	CCF-2 1/2-S	CR-2 1/2-XC	2250	16450	11720	1.13 kg
CRSC-44	CS-88-L	CCF-2 3/4-S	CR-2 3/4-XC	2250	16450	11720	1.33 kg
CRSC-48	CS-96-L	CCF-3-S	CR-3-XC	3450	24910	15720	1.91 kg
CRSC-52	CS-104-L	CCF-3 1/4-S	CR-3 1/4-XC	3450	24910	15720	2.18 kg
CRSC-56	CS-112-L	CCF-3 1/2-S	CR-3 1/2-XC	4200	31625	22800	2.91 kg
CRSC-64	CS-128-L	CCF-4-S	CR-4-XC	5000	44770	29985	4.29 kg
-	-	CCF-5-S	CR-5-XC	5000	67950	46575	8.89 kg
-	-	CCF-6-S	CR-6-XC	5000	80450	60000	14.85 kg
-	-	CCF-7-S	CR-7-XC	5000	106930	75380	24.83 kg
-	-	CCF-8-S	CR-8-XC	5000	144100	92200	36.20 kg
-	-	CCF-9-S	CR-9-XC	5000	183430	113260	50.62 kg
-	-	CCF-10-S	CR-10-XC	5000	215565	131545	67.22 kg

193

Kurvenrollen der Type / Stud Type Track Rollers CCF...S



194

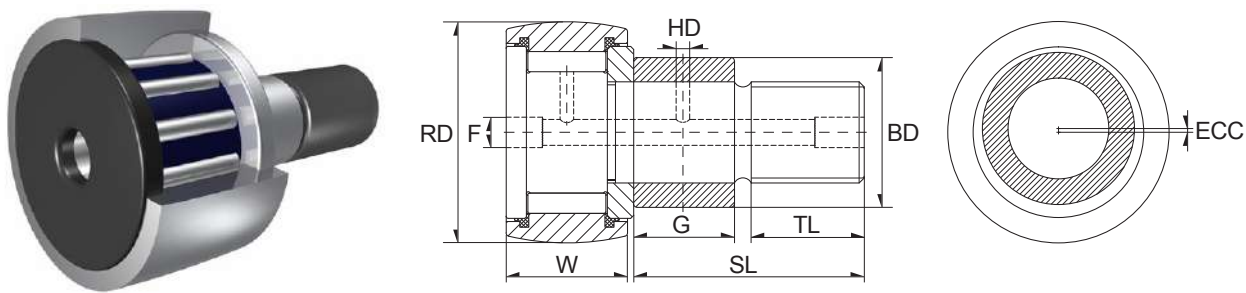
Dimension (inch)								
RD	W	SD	SL	TL	FINE THR'DS	HC	HD	F
0,500	0,344	0,190	1/2	1/4	10-32	-	-	-
0,500	0,375	0,190	5/8	1/4	10-32	-	-	-
0,5625	0,375	0,190	5/8	1/4	10-32	-	-	-
0,625	0,406	0,250	5/8	5/16	1/4-28	-	-	-
0,625	0,4375	0,250	3/4	5/16	1/4-28	-	-	-
0,6875	0,4375	0,250	3/4	5/16	1/4-28	-	-	-
0,750	0,500	0,375	7/8	3/8	3/8-24	1/4	3/32	3/16
0,875	0,500	0,375	7/8	3/8	3/8-24	1/4	3/32	3/16
1,000	0,625	0,4375	1	1/2	7/16-20	1/4	3/32	3/16
1,125	0,625	0,4375	1	1/2	7/16-20	1/4	3/32	3/16
1,250	0,750	0,500	1 1/4	5/8	1/2-20	5/16	3/32	3/16
1,500	0,875	0,625	1 1/2	3/4	5/8-18	3/8	3/32	3/16
1,625	0,875	0,625	1 1/2	3/4	5/8-18	3/8	3/32	3/16
1,750	0,750	0,500	1 1/4	5/8	1/2-20	5/16	3/32	3/16
1,750	1,000	0,750	1 3/4	7/8	3/4-16	7/16	3/32	3/16
1,875	1,000	0,750	1 3/4	7/8	3/4-16	7/16	3/32	3/16
2,000	1,250	0,875	2	1	7/8-14	1/2	1/8	3/16
2,250	1,250	0,875	2	1	7/8-14	1/2	1/8	3/16
2,500	1,500	1,000	2 1/4	1 1/8	1-14	9/16	1/8	3/16
2,750	1,500	1,000	2 1/4	1 1/8	1-14	9/16	1/8	3/16
3,000	1,750	1,250	2 1/2	1 1/4	1 1/4-12	5/8	1/8	1/4
3,250	1,750	1,250	2 1/2	1 1/4	1 1/4-12	5/8	1/8	1/4
3,500	2,000	1,375	2 3/4	1 3/8	1 3/8-12	11/16	1/8	1/4
4,000	2,250	1,500	3 1/2	1 1/2	1 1/2-12	3/4	1/8	1/4



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
-	-	CCF-1/2-N-SB	CR-1/2-A-XBC	15	720	620	0.02 kg
CRSBC-8-1	CS-16-LW	CCF-1/2-SB	CR-1/2-XBC	15	790	680	0.02 kg
-	CS-18-LW	CCF-9/16-SB	CR-9/16-XBC	15	790	680	0.02 kg
-	-	CCF-5/8-N-SB	CR-5/8-A-XBC	35	1085	930	0.02 kg
CRSBC-10-1	CS-20-LW	CCF-5/8-SB	CR-5/8-XBC	35	1215	955	0.02 kg
-	CS-22-LW	CCF-11/16-SB	CR-11/16-XBC	35	1215	955	0.03 kg
CRSBC-12	CS-24-LW	CCF-3/4-SB	CR-3/4-XBC	95	2065	1660	0.03 kg
CRSBC-14	CS-28-LW	CCF-7/8-SB	CR-7/8-XBC	95	2065	1660	0.04 kg
CRSBC-16	CS-32-LW	CCF-1-SB	CR-1-XBC	250	3060	2225	0.08 kg
CRSBC-18	CS-36-LW	CCF-1 1/8-SB	CR-1 1/8-XBC	250	3060	2225	0.09 kg
CRSBC-20	CS-40-LW	CCF-1 1/4-SB	CR-1 1/4-XBC	350	4250	3930	0.14 kg
CRSBC-24	CS-48-LW	CCF-1 1/2-SB	CR-1 1/2-XBC	650	5640	4840	0.24 kg
CRSBC-26	CS-52-LW	CCF-1 5/8-SB	CR-1 5/8-XBC	650	5640	4840	0.27 kg
CRSBC-22	CS-44-LW	CCF-1 3/8-SB	CR-1 3/8-XBC	350	4250	3930	0.16 kg
CRSBC-28	CS-56-LW	CCF-1 3/4-SB	CR-1 3/4-XBC	1250	7920	6385	0.38 kg
CRSBC-30	CS-60-LW	CCF-1 7/8-SB	CR-1 7/8-XBC	1250	7920	6385	0.43 kg
CRSBC-32	CS-64-LW	CCF-2-SB	CR-2-XBC	1500	10570	8090	0.62 kg
CRSBC-36	CS-72-LW	CCF-2 1/4-SB	CR-2 1/4-XBC	1500	10570	8090	0.75 kg
CRSBC-40	CS-80-LW	CCF-2 1/2-SB	CR-2 1/2-XBC	2250	16450	11720	1.13 kg
CRSBC-44	CS-88-LW	CCF-2 3/4-SB	CR-2 3/4-XBC	2250	16450	11720	1.33 kg
CRSBC-48	CS-96-LW	CCF-3-SB	CR-3-XBC	3450	24910	15720	1.91 kg
CRSBC-52	CS-104-LW	CCF-3 1/4-SB	CR-3 1/4-XBC	3450	24910	15720	2.18 kg
CRSBC-56	CS-112-LW	CCF-3 1/2-SB	CR-3 1/2-XBC	4200	31625	22800	2.91 kg
CRSBC-64	CS-128-LW	CCF-4-SB	CR-4-XBC	5000	44770	29985	4.29 kg

195

Kurvenrollen der Type / Stud Type Track Rollers CCFE...S



196

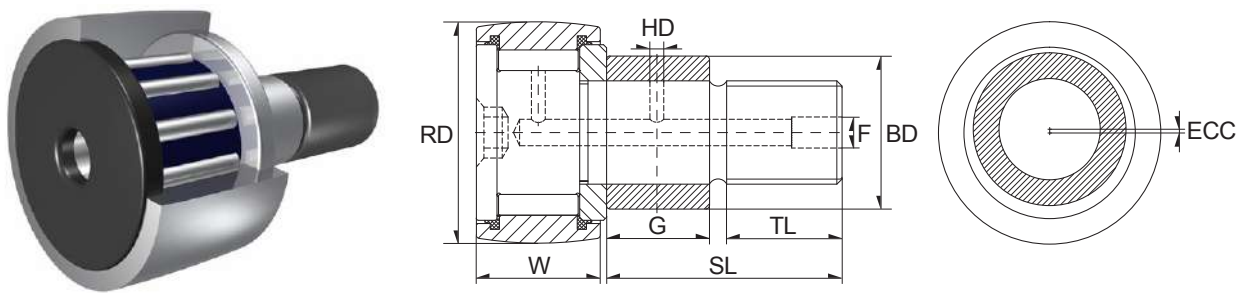
Dimension (inch)								
RD	W	G	BD	SL	TL	FINE THR'DS	EEC	F
0,375	0,750	0,625	0,687	1 1/4	5/8	1/2-20	0,030	3/16
0,500	0,344	0,250	0,250	1/2	1/4	10-32	0,010	1/8
0,500	0,375	0,375	0,250	5/8	1/4	10-32	0,010	1/8
0,562	0,375	0,375	0,250	5/8	1/4	10-32	0,010	1/8
0,625	0,4375	0,437	0,375	3/4	5/16	1/4-28	0,015	1/8
0,687	0,4375	0,437	0,375	3/4	5/16	1/4-28	0,015	1/8
0,750	0,500	0,500	0,500	7/8	3/8	3/8-24	0,015	3/16
0,875	0,500	0,500	0,500	7/8	3/8	3/8-24	0,015	3/16
1,000	0,625	0,500	0,625	1	1/2	7/16-20	0,030	3/16
1,125	0,625	0,500	0,625	1	1/2	7/16-20	0,030	3/16
1,250	0,750	0,625	0,687	1 1/4	5/8	1/2-20	0,030	3/16
1,500	0,875	0,750	0,875	1 1/2	3/4	5/8-18	0,030	3/16
1,625	0,875	0,750	0,875	1 1/2	3/4	5/8-18	0,030	3/16
1,750	1,000	0,875	1,000	1 3/4	7/8	3/4-16	0,030	3/16
1,875	1,000	0,875	1,000	1 3/4	7/8	3/4-16	0,030	3/16
2,000	1,250	1,000	1,187	2	1	7/8-14	0,030	3/16
2,250	1,250	1,000	1,187	2	1	7/8-14	0,030	3/16
2,500	1,500	1,125	1,375	2 1/4	1 1/8	1-14	0,030	3/16
2,750	1,500	1,125	1,375	2 1/4	1 1/8	1-14	0,030	3/16
3,000	1,750	1,250	1,750	2 1/2	1 1/4	1 1/4-12	0,060	1/4
3,250	1,750	1,250	1,750	2 1/2	1 1/4	1 1/4-12	0,060	1/4
3,500	2,000	1,375	1,812	2 3/4	1 3/8	1 3/8-12	0,060	1/4
4,000	2,250	2,000	2,000	3 1/2	1 1/2	1 1/2-12	0,060	1/4



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRSCE-22	-	CCFE-1 3/8-S	CR-1 3/8-XEC	350	4250	3930	0.16 kg
-	-	CCFE-1/2-N-S	CR-1/2-A-XEC	15	720	620	0.02 kg
CRSCE-8-1	-	CCFE-1/2-S	CR-1/2-XEC	15	790	680	0.02 kg
-	-	CCFE-9/16-S	CR-9/16-XEC	15	790	680	0.02 kg
CRSCE-10-1	-	CCFE-5/8-S	CR-5/8-XEC	35	1215	955	0.02 kg
-	-	CCFE-11/16-S	CR-11/16-XEC	35	1215	955	0.03 kg
CRSCE-12	-	CCFE-3/4-S	CR-3/4-XEC	95	2065	1660	0.03 kg
CRSCE-14	-	CCFE-7/8-S	CR-7/8-XEC	95	2065	1660	0.04 kg
CRSCE-16	-	CCFE-1-S	CR-1-XEC	250	3060	2225	0.08 kg
CRSCE-18	-	CCFE-1 1/8-S	CR-1 1/8-XEC	250	3060	2225	0.09 kg
CRSCE-20	-	CCFE-1 1/4-S	CR-1 1/4-XEC	350	4250	3930	0.14 kg
CRSCE-24	-	CCFE-1 1/2-S	CR-1 1/2-XEC	650	5640	4840	0.24 kg
CRSCE-26	-	CCFE-1 5/8-S	CR-1 5/8-XEC	650	5640	4840	0.27 kg
CRSCE-28	-	CCFE-1 3/4-S	CR-1 3/4-XEC	1250	7920	6385	0.38 kg
CRSCE-30	-	CCFE-1 7/8-S	CR-1 7/8-XEC	1250	7920	6385	0.43 kg
CRSCE-32	-	CCFE-2-S	CR-2-XEC	1500	10570	8090	0.62 kg
CRSCE-36	-	CCFE-2 1/4-S	CR-2 1/4-XEC	1500	10570	8090	0.75 kg
CRSCE-40	-	CCFE-2 1/2-S	CR-2 1/2-XEC	2250	16450	11720	1.13 kg
CRSCE-44	-	CCFE-2 3/4-S	CR-2 3/4-XEC	2250	16450	11720	1.33 kg
CRSCE-48	-	CCFE-3-S	CR-3-XEC	3450	24910	15720	1.91 kg
CRSCE-52	-	CCFE-3 1/4-S	CR-3 1/4-XEC	3450	24910	15720	2.18 kg
CRSCE-56	-	CCFE-3 1/2-S	CR-3 1/2-XEC	4200	31625	22800	2.91 kg
CRSCE-64	-	CCFE-4-S	CR-4-XEC	5000	44770	29985	4.29 kg

197

Kurvenrollen der Type / Stud Type Track Rollers CCFE...SB



198

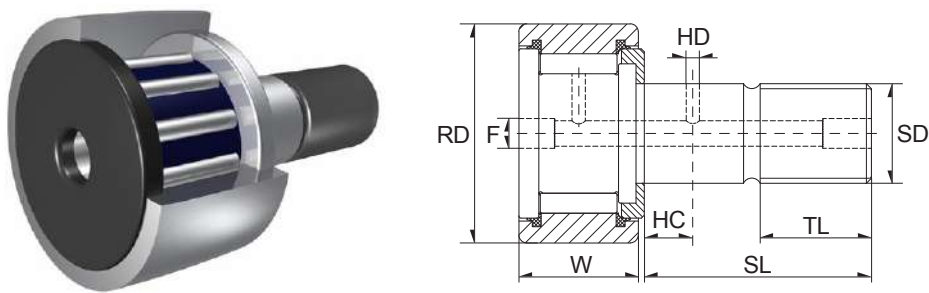
Dimension (inch)								
RD	W	G	BD	SL	TL	FINE THR'DS	EEC	F
0,375	0,750	0,625	0,687	1 1/4	5/8	1/2-20	0,030	3/16
0,500	0,344	0,250	0,250	1/2	1/4	10-32	0,010	-
0,500	0,375	0,375	0,250	5/8	1/4	10-32	0,010	-
0,562	0,375	0,375	0,250	5/8	1/4	10-32	0,010	-
0,625	0,4375	0,437	0,375	3/4	5/16	1/4-28	0,015	-
0,687	0,4375	0,437	0,375	3/4	5/16	1/4-28	0,015	-
0,750	0,500	0,500	0,500	7/8	3/8	3/8-24	0,015	3/16
0,875	0,500	0,500	0,500	7/8	3/8	3/8-24	0,015	3/16
1,000	0,625	0,500	0,625	1	1/2	7/16-20	0,030	3/16
1,125	0,625	0,500	0,625	1	1/2	7/16-20	0,030	3/16
1,250	0,750	0,625	0,687	1 1/4	5/8	1/2-20	0,030	3/16
1,500	0,875	0,750	0,875	1 1/2	3/4	5/8-18	0,030	3/16
1,625	0,875	0,750	0,875	1 1/2	3/4	5/8-18	0,030	3/16
1,750	1,000	0,875	1,000	1 3/4	7/8	3/4-16	0,030	3/16
1,875	1,000	0,875	1,000	1 3/4	7/8	3/4-16	0,030	3/16
2,000	1,250	1,000	1,187	2	1	7/8-14	0,030	3/16
2,250	1,250	1,000	1,187	2	1	7/8-14	0,030	3/16
2,500	1,500	1,125	1,375	2 1/4	1 1/8	1-14	0,030	3/16
2,750	1,500	1,125	1,375	2 1/4	1 1/8	1-14	0,030	3/16
3,000	1,750	1,250	1,750	2 1/2	1 1/4	1 1/4-12	0,060	1/4
3,250	1,750	1,250	1,750	2 1/2	1 1/4	1 1/4-12	0,060	1/4
3,500	2,000	1,375	1,812	2 3/4	1 3/8	1 3/8-12	0,060	1/4
4,000	2,250	2,000	2,000	3 1/2	1 1/2	1 1/2-12	0,060	1/4



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRSBCE-22	CS-44-LWX	CCFE-1 3/8-SB	CR-1 3/8-XBEC	350	4250	3930	0.16 kg
-	-	CCFE-1/2-N-SB	CR-1/2-A-XBEC	15	720	620	0.02 kg
CRSBCE-8-1	CS-16-LWX	CCFE-1/2-SB	CR-1/2-XBEC	15	790	680	0.02 kg
-	CS-18-LWX	CCFE-9/16-SB	CR-9/16-XBEC	15	790	680	0.02 kg
CRSBCE-10-1	CS-20-LWX	CCFE-5/8-SB	CR-5/8-XBEC	35	1215	955	0.02 kg
-	CS-22-LWX	CCFE-11/16-SB	CR-11/16-XBEC	35	1215	955	0.03 kg
CRSBCE-12	CS-24-LWX	CCFE-3/4-SB	CR-3/4-XBEC	95	2065	1660	0.03 kg
CRSBCE-14	CS-28-LWX	CCFE-7/8-SB	CR-7/8-XBEC	95	2065	1660	0.04 kg
CRSBCE-16	CS-32-LWX	CCFE-1-SB	CR-1-XBEC	250	3060	2225	0.08 kg
CRSBCE-18	CS-36-LWX	CCFE-1 1/8-SB	CR-1 1/8-XBEC	250	3060	2225	0.09 kg
CRSBCE-20	CS-40-LWX	CCFE-1 1/4-SB	CR-1 1/4-XBEC	350	4250	3930	0.14 kg
CRSBCE-24	CS-48-LWX	CCFE-1 1/2-SB	CR-1 1/2-XBEC	650	5640	4840	0.24 kg
CRSBCE-26	CS-52-LWX	CCFE-1 5/8-SB	CR-1 5/8-XBEC	650	5640	4840	0.27 kg
CRSBCE-28	CS-56-LWX	CCFE-1 3/4-SB	CR-1 3/4-XBEC	1250	7920	6385	0.38 kg
CRSBCE-30	CS-60-LWX	CCFE-1 7/8-SB	CR-1 7/8-XBEC	1250	7920	6385	0.43 kg
CRSBCE-32	CS-64-LWX	CCFE-2-SB	CR-2-XBEC	1500	10570	8090	0.62 kg
CRSBCE-36	CS-72-LWX	CCFE-2 1/4-SB	CR-2 1/4-XBEC	1500	10570	8090	0.75 kg
CRSBCE-40	CS-80-LWX	CCFE-2 1/2-SB	CR-2 1/2-XBEC	2250	16450	11720	1.13 kg
CRSBCE-44	CS-88-LWX	CCFE-2 3/4-SB	CR-2 3/4-XBEC	2250	16450	11720	1.33 kg
CRSBCE-48	CS-96-LWX	CCFE-3-SB	CR-3-XBEC	3450	24910	15720	1.91 kg
CRSBCE-52	CS-104-LWX	CCFE-3 1/4-SB	CR-3 1/4-XBEC	3450	24910	15720	2.20 kg
CRSBCE-56	CS-112-LWX	CCFE-3 1/2-SB	CR-3 1/2-XBEC	4200	31625	22800	2.91 kg
CRSBCE-64	CS-128-LWX	CCFE-4-SB	CR-4-XBEC	5000	44770	29985	4.29 kg

199

Kurvenrollen der Type / Stud Type Track Rollers CFH & CFH...S



200

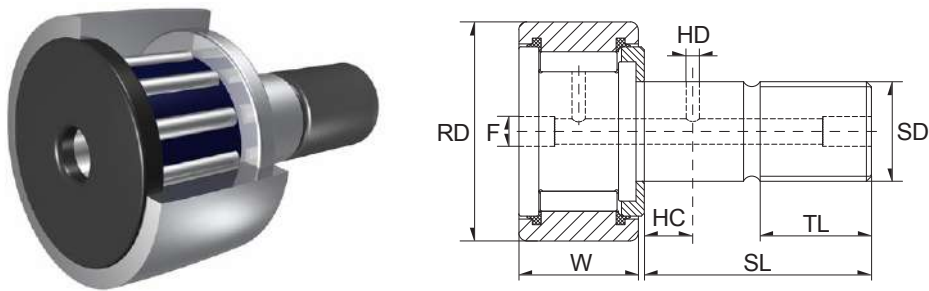
Dimension (inch)								
RD	W	SD	SL	TL	FINE THR'DS	HC	HD	F
0,500	0,375	0,250	5/8	1/4	1/4-28	-	-	1/8
0,500	0,375	0,250	5/8	1/4	1/4-28	-	-	1/8
0,562	0,375	0,250	5/8	1/4	1/4-28	-	-	1/8
0,562	0,375	0,250	5/8	1/4	1/4-28	-	-	1/8
0,625	0,4375	0,3125	3/4	5/16	5/16-24	-	-	1/8
0,625	0,4375	0,3125	3/4	5/16	5/16-24	-	-	1/8
0,687	0,4375	0,3125	3/4	5/16	5/16-24	-	-	1/8
0,687	0,4375	0,3125	3/4	5/16	5/16-24	-	-	1/8
0,750	0,500	0,4375	7/8	3/8	7/16-20	1/4	3/32	3/16
0,750	0,500	0,4375	7/8	3/8	7/16-20	1/4	3/32	3/16
0,875	0,500	0,4375	7/8	3/8	7/16-20	1/4	3/32	3/16
0,875	0,500	0,4375	7/8	3/8	7/16-20	1/4	3/32	3/16
1,000	0,625	0,625	1	1/2	5/8-18	1/4	3/32	3/16
1,000	0,625	0,625	1	1/2	5/8-18	1/4	3/32	3/16
1,125	0,625	0,625	1	1/2	5/8-18	1/4	3/32	3/16
1,125	0,625	0,625	1	1/2	5/8-18	1/4	3/32	3/16
1,250	0,750	0,750	1 1/4	5/8	3/4-16	5/16	3/32	3/16
1,250	0,750	0,750	1 1/4	5/8	3/4-16	5/16	3/32	3/16
1,375	0,750	0,750	1 1/4	5/8	3/4-16	5/16	3/32	3/16
1,375	0,750	0,750	1 1/4	5/8	3/4-16	5/16	3/32	3/16
1,500	0,875	0,875	1 1/2	3/4	7/8-14	3/8	3/32	3/16
1,500	0,875	0,875	1 1/2	3/4	7/8-14	3/8	3/32	3/16
1,625	0,875	0,875	1 1/2	3/4	7/8-14	3/8	3/32	3/16
1,625	0,875	0,875	1 1/2	3/4	7/8-14	3/8	3/32	3/16
1,750	1,000	1,000	1 3/4	7/8	1-14	7/16	3/32	3/16
1,750	1,000	1,000	1 3/4	7/8	1-14	7/16	3/32	3/16
1,875	1,000	1,000	1 3/4	7/8	1-14	7/16	3/32	3/16
1,875	1,000	1,000	1 3/4	7/8	1-14	7/16	3/32	3/16
2,000	1,250	1,125	2	1	1 1/8-12	1/2	1/8	3/16
2,000	1,250	1,125	2	1	1 1/8-12	1/2	1/8	3/16



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRH-8-1	-	CFH-1/2	HR-1/2	35	1580	680	0.18 kg
CRHS-8-1	-	CFH-1/2-S	HR-1/2-X	35	1580	680	0.02 kg
-	-	CFH-9/16	HR-9/16	35	1580	680	0.02 kg
-	-	CFH-9/16-S	HR-9/16-X	35	1580	680	0.02 kg
CRH-10-1	-	CFH-5/8	HR-5/8	90	2480	955	0.02 kg
CRHS-10-1	-	CFH-5/8-S	HR-5/8-X	90	2480	955	0.02 kg
-	-	CFH-11/16	HR-11/16	90	2480	955	0.03 kg
-	-	CFH-11/16-S	HR-11/16-X	90	2480	955	0.03 kg
CRH-12	H-24	CFH-3/4	HR-3/4	250	4130	1660	0.04 kg
CRHS-12	H-24-L	CFH-3/4-S	HR-3/4-X	250	4130	1660	0.04 kg
CRH-14	H-28	CFH-7/8	HR-7/8	250	4130	1660	0.05 kg
CRHS-14	H-28-L	CFH-7/8-S	HR-7/8-X	250	4130	1660	0.05 kg
CRH-16	H-32	CFH-1	HR-1	650	6120	2225	0.09 kg
CRHS-16	H-32-L	CFH-1-S	HR-1-X	650	6120	2225	0.09 kg
CRH-18	H-36	CFH-1 1/8	HR-1 1/8	650	6120	2225	0.09 kg
CRHS-18	H-36-L	CFH-1 1/8-S	HR-1 1/8-X	650	6120	2225	0.09 kg
CRH-20	H-40	CFH-1 1/4	HR-1 1/4	1250	8500	3930	0.17 kg
CRHS-20	H-40-L	CFH-1 1/4-S	HR-1 1/4-X	1250	8500	3930	0.17 kg
CRH-22	H-44	CFH-1 3/8	HR-1 3/8	1250	8500	3930	0.20 kg
CRHS-22	H-44-L	CFH-1 3/8-S	HR-1 3/8-X	1250	8500	3930	0.20 kg
CRH-24	H-48	CFH-1 1/2	HR-1 1/2	1500	11280	4840	0.31 kg
CRHS-24	H-48-L	CFH-1 1/2-S	HR-1 1/2-X	1500	11280	4840	0.31 kg
CRH-26	H-52	CFH-1 5/8	HR-1 5/8	1500	11280	4840	0.34 kg
CRHS-26	H-52-L	CFH-1 5/8-S	HR-1 5/8-X	1500	11280	4840	0.34 kg
CRH-28	H-56	CFH-1 3/4	HR-1 3/4	2250	15840	6385	0.45 kg
CRHS-28	H-56-L	CFH-1 3/4-S	HR-1 3/4-X	2250	15840	6385	0.45 kg
CRH-30	H-60	CFH-1 7/8	HR-1 7/8	2250	15840	6385	0.52 kg
CRHS-30	H-60-L	CFH-1 7/8-S	HR-1 7/8-X	2250	15840	6385	0.52 kg
CRH-32	H-64	CFH-2	HR-2	2800	21140	8090	1.71 kg
CRHS-32	H-64-L	CFH-2-S	HR-2-X	2800	21140	8090	1.71 kg

201

Kurvenrollen der Type / Stud Type Track Rollers CFH & CFH...S



202

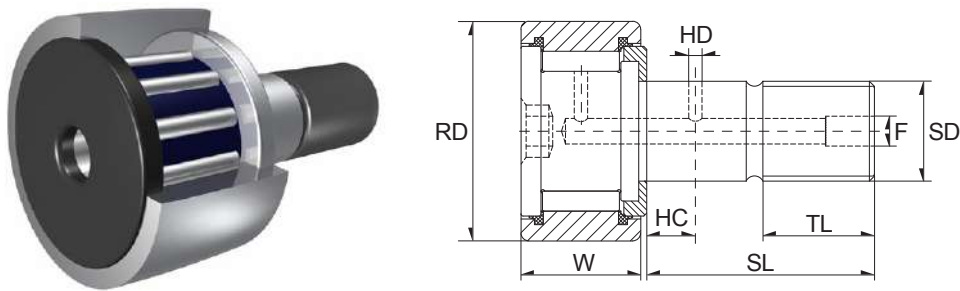
Dimension (inch)								
RD	W	SD	SL	TL	FINE THR'DS	HC	HD	F
2,250	1,250	1,125	2	1	1 1/8-12	1/2	1/8	3/16
2,250	1,250	1,125	2	1	1 1/8-12	1/2	1/8	3/16
2,500	1,500	1,250	2 1/4	1 1/8	1 1/4-12	9/16	1/8	3/16
2,500	1,500	1,250	2 1/4	1 1/8	1 1/4-12	9/16	1/8	3/16
2,750	1,500	1,250	2 1/4	1 1/8	1 1/4-12	9/16	1/8	3/16
2,750	1,500	1,250	2 1/4	1 1/8	1 1/4-12	9/16	1/8	3/16
3,000	1,750	1,500	2 1/2	1 1/4	1 1/2-12	5/8	1/8	1/4
3,000	1,750	1,500	2 1/2	1 1/4	1 1/2-12	5/8	1/8	1/4
3,250	1,750	1,500	2 1/2	1 1/4	1 1/2-12	5/8	1/8	1/4
3,250	1,750	1,500	2 1/2	1 1/4	1 1/2-12	5/8	1/8	1/4
3,500	2,000	1,750	2 3/4	1 3/8	1 3/4-12	11/16	1/8	1/4
3,500	2,000	1,750	2 3/4	1 3/8	1 3/4-12	11/16	1/8	1/4
4,000	2,250	2,000	3 1/2	1 1/2	2-12	3/4	1/8	1/4
4,000	2,250	2,000	3 1/2	1 1/2	2-12	3/4	1/8	1/4
5,000	2,750	2,500	5 1/16	2 9/16	2 1/2-12	7/8	3/16	1/4
6,000	3,250	3,000	6	3	3-12	1	3/16	1/4
7,000	3,500	3,500	7 11/16	4 1/8	3 1/2-4	1 1/4	3/16	1/4



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRH-36	H-72	CFH-2 1/4	HR-2 1/4	2800	21140	8090	0.85 kg
CRHS-36	H-72-L	CFH-2 1/4-S	HR-2 1/4-X	2800	21140	8090	0.85 kg
CRH-40	H-80	CFH-2 1/2	HR-2 1/2	3450	32900	11720	1.25 kg
CRHS-40	H-80-L	CFH-2 1/2-S	HR-2 1/2-X	3450	32900	11720	1.25 kg
CRH-44	H-88	CFH-2 3/4	HR-2 3/4	3450	32900	11720	1.45 kg
CRHS-44	H-88-L	CFH-2 3/4-S	HR-2 3/4-X	3450	32900	11720	1.45 kg
CRH-48	H-96	CFH-3	HR-3	5000	49820	15720	2.07 kg
CRHS-48	H-96-L	CFH-3-S	HR-3-X	5000	49820	15720	2.07 kg
CRH-52	H-104	CFH-3 1/4	HR-3 1/4	5000	49820	15720	2.35 kg
CRHS-52	H-104-L	CFH-3 1/4-S	HR-3 1/4-X	5000	49820	15720	2.35 kg
CRH-56	H-112	CFH-3 1/2	HR-3 1/2	5000	663250	22800	3.18 kg
CRHS-56	H-112-L	CFH-3 1/2-S	HR-3 1/2-X	5000	663250	22800	3.18 kg
CRH-64	H-128	CFH-4	HR-4	5000	89540	29985	4.91 kg
CRHS-64	H-128-L	CFH-4-S	HR-4-X	5000	89540	29985	4.91 kg
-	-	CFH-5-S	HR-5-X	5000	135900	46575	10.02 kg
-	-	CFH-6-S	HR-6-X	5000	160900	60000	16.52 kg
-	-	CFH-7-S	HR-7-X	5000	213860	75380	30.86 kg

203

Kurvenrollen der Type / Stud Type Track Rollers CFH...B & CFH...SB



204

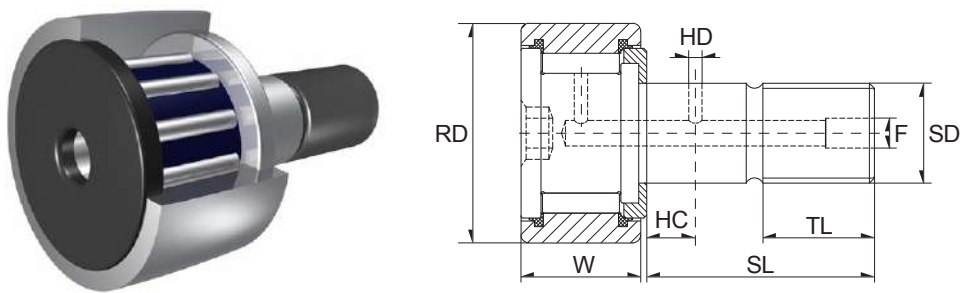
Dimension (inch)								
RD	W	SD	SL	TL	FINE THR'DS	HC	HD	F
0,500	0,375	0,250	5/8	1/4	1/4-28	-	-	-
0,500	0,375	0,250	5/8	1/4	1/4-28	-	-	-
0,562	0,375	0,250	5/8	1/4	1/4-28	-	-	-
0,562	0,375	0,250	5/8	1/4	1/4-28	-	-	-
0,625	0,4375	0,3125	3/4	5/16	5/16-24	-	-	-
0,625	0,4375	0,3125	3/4	5/16	5/16-24	-	-	-
0,687	0,4375	0,3125	3/4	5/16	5/16-24	-	-	-
0,687	0,4375	0,3125	3/4	5/16	5/16-24	-	-	-
0,750	0,500	0,4375	7/8	3/8	7/16-20	1/4	3/32	3/16
0,750	0,500	0,4375	7/8	3/8	7/16-20	1/4	3/32	3/16
0,875	0,500	0,4375	7/8	3/8	7/16-20	1/4	3/32	3/16
0,875	0,500	0,4375	7/8	3/8	7/16-20	1/4	3/32	3/16
1,000	0,625	0,625	1	1/2	5/8-18	1/4	3/32	3/16
1,000	0,625	0,625	1	1/2	5/8-18	1/4	3/32	3/16
1,125	0,625	0,625	1	1/2	5/8-18	1/4	3/32	3/16
1,125	0,625	0,625	1	1/2	5/8-18	1/4	3/32	3/16
1,250	0,750	0,750	1 1/4	5/8	3/4-16	5/16	3/32	3/16
1,250	0,750	0,750	1 1/4	5/8	3/4-16	5/16	3/32	3/16
1,375	0,750	0,750	1 1/4	5/8	3/4-16	5/16	3/32	3/16
1,375	0,750	0,750	1 1/4	5/8	3/4-16	5/16	3/32	3/16
1,500	0,875	0,875	1 1/2	3/4	7/8-14	3/8	3/32	3/16
1,500	0,875	0,875	1 1/2	3/4	7/8-14	3/8	3/32	3/16
1,625	0,875	0,875	1 1/2	3/4	7/8-14	3/8	3/32	3/16
1,625	0,875	0,875	1 1/2	3/4	7/8-14	3/8	3/32	3/16
1,750	1,000	1,000	1 3/4	7/8	1-14	7/16	3/32	3/16
1,750	1,000	1,000	1 3/4	7/8	1-14	7/16	3/32	3/16
1,875	1,000	1,000	1 3/4	7/8	1-14	7/16	3/32	3/16
1,875	1,000	1,000	1 3/4	7/8	1-14	7/16	3/32	3/16
2,000	1,250	1,125	2	1	1 1/8-12	1/2	1/8	3/16
2,000	1,250	1,125	2	1	1 1/8-12	1/2	1/8	3/16



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRHB-8-1	-	CFH-1/2-B	HR-1/2-B	35	1580	680	0.02 kg
CRHSB-8-1	H-16-LW	CFH-1/2-SB	HR-1/2-XB	35	1580	680	0.02 kg
-	-	CFH-9/16-B	HR-9/16-B	35	1580	680	0.02 kg
-	H-18-LW	CFH-9/16-SB	HR-9/16-XB	35	1580	680	0.02 kg
CRHB-10-1	-	CFH-5/8-B	HR-5/8-B	90	2480	955	0.02 kg
CRHSB-10-1	H-20-LW	CFH-5/8-SB	HR-5/8-XB	90	2480	955	0.02 kg
-	-	CFH-11/16-B	HR-11/16-B	90	2480	955	0.03 kg
-	H-22-LW	CFH-11/16-SB	HR-11/16-XB	90	2480	955	0.03 kg
CRHB-12	-	CFH-3/4-B	HR-3/4-B	250	4130	1660	0.04 kg
CRHSB-12	H-24-LW	CFH-3/4-SB	HR-3/4-XB	250	4130	1660	0.04 kg
CRHB-14	-	CFH-7/8-B	HR-7/8-B	250	4130	1660	0.05 kg
CRHSB-14	H-28-LW	CFH-7/8-SB	HR-7/8-XB	250	4130	1660	0.05 kg
CRHB-16	-	CFH-1-B	HR-1-B	650	6120	2225	0.09 kg
CRHSB-16	H-32-LW	CFH-1-SB	HR-1-XB	650	6120	2225	0.09 kg
CRHB-18	-	CFH-1 1/8-B	HR-1 1/8-B	650	6120	2225	0.09 kg
CRHSB-18	H-36-LW	CFH-1 1/8-SB	HR-1 1/8-XB	650	6120	2225	0.09 kg
CRHB-20	-	CFH-1 1/4-B	HR-1 1/4-B	1250	8500	3930	0.17 kg
CRHSB-20	H-40-LW	CFH-1 1/4-SB	HR-1 1/4-XB	1250	8500	3930	0.17 kg
CRHB-22	-	CFH-1 3/8-B	HR-1 3/8-B	1250	8500	3930	0.20 kg
CRHSB-22	H-44-LW	CFH-1 3/8-SB	HR-1 3/8-XB	1250	8500	3930	0.20 kg
CRHB-24	-	CFH-1 1/2-B	HR-1 1/2-B	1500	11280	4840	0.31 kg
CRHSB-24	H-48-LW	CFH-1 1/2-SB	HR-1 1/2-XB	1500	11280	4840	0.31 kg
CRHB-26	-	CFH-1 5/8-B	HR-1 5/8-B	1500	11280	4840	0.34 kg
CRHSB-26	H-52-LW	CFH-1 5/8-SB	HR-1 5/8-XB	1500	11280	4840	0.34 kg
CRHB-28	-	CFH-1 3/4-B	HR-1 3/4-B	2250	15840	6385	0.45 kg
CRHSB-28	H-56-LW	CFH-1 3/4-SB	HR-1 3/4-XB	2250	15840	6385	0.45 kg
CRHB-30	-	CFH-1 7/8-B	HR-1 7/8-B	2250	15840	6385	0.52 kg
CRHSB-30	H-60-LW	CFH-1 7/8-SB	HR-1 7/8-XB	2250	15840	6385	0.52 kg
CRHB-32	-	CFH-2-B	HR-2-B	2800	21140	8090	0.71 kg
CRHSB-32	H-64-LW	CFH-2-SB	HR-2-XB	2800	21140	8090	0.71 kg

205

Kurvenrollen der Type / Stud Type Track Rollers CFH...B & CFH...SB



206

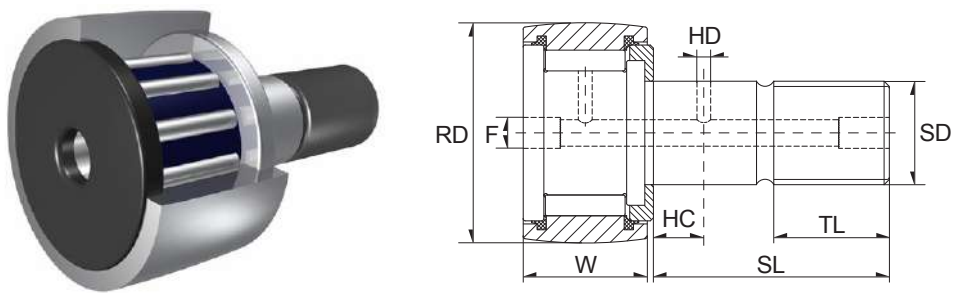
Dimension (inch)								
RD	W	SD	SL	TL	FINE THR'DS	HC	HD	F
2,250	1,250	1,125	2	1	1 1/8-12	1/2	1/8	3/16
2,250	1,250	1,125	2	1	1 1/8-12	1/2	1/8	3/16
2,500	1,500	1,250	2 1/4	1 1/8	1 1/4-12	9/16	1/8	3/16
2,500	1,500	1,250	2 1/4	1 1/8	1 1/4-12	9/16	1/8	3/16
2,750	1,500	1,250	2 1/4	1 1/8	1 1/4-12	9/16	1/8	3/16
2,750	1,500	1,250	2 1/4	1 1/8	1 1/4-12	9/16	1/8	3/16
3,000	1,750	1,500	2 1/2	1 1/4	1 1/2-12	5/8	1/8	1/4
3,000	1,750	1,500	2 1/2	1 1/4	1 1/2-12	5/8	1/8	1/4
3,250	1,750	1,500	2 1/2	1 1/4	1 1/2-12	5/8	1/8	1/4
3,250	1,750	1,500	2 1/2	1 1/4	1 1/2-12	5/8	1/8	1/4
3,500	2,000	1,750	2 3/4	1 3/8	1 3/4-12	11/16	1/8	1/4
3,500	2,000	1,750	2 3/4	1 3/8	1 3/4-12	11/16	1/8	1/4
4,000	2,250	2,000	3 1/2	1 1/2	2-12	3/4	1/8	1/4
4,000	2,250	2,000	3 1/2	1 1/2	2-12	3/4	1/8	1/4



Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRHB-36	-	CFH-2 1/4-B	HR-2 1/4-B	2800	21140	8090	0.85 kg
CRHSB-36	H-72-LW	CFH-2 1/4-SB	HR-2 1/4-XB	2800	21140	8090	0.85 kg
CRHB-40	-	CFH-2 1/2-B	HR-2 1/2-B	3450	32900	11720	1.25 kg
CRHSB-40	H-80-LW	CFH-2 1/2-SB	HR-2 1/2-XB	3450	32900	11720	1.25 kg
CRHB-44	-	CFH-2 3/4-B	HR-2 3/4-B	3450	32900	11720	1.45 kg
CRHSB-44	H-88-LW	CFH-2 3/4-SB	HR-2 3/4-XB	3450	32900	11720	1.45 kg
CRHB-48	-	CFH-3-B	HR-3-B	5000	49820	15720	2.07 kg
CRHSB-48	H-96-LW	CFH-3-SB	HR-3-XB	5000	49820	15720	2.07 kg
CRHB-52	-	CFH-3 1/4-B	HR-3 1/4-B	5000	49820	15720	2.35 kg
CRHSB-52	H-104-LW	CFH-3 1/4-SB	HR-3 1/4-XB	5000	49820	15720	2.35 kg
CRHB-56	-	CFH-3 1/2-B	HR-3 1/2-B	5000	63250	22800	3.18 kg
CRHSB-56	H-112-LW	CFH-3 1/2-SB	HR-3 1/2-XB	5000	63250	22800	3.18 kg
CRHB-64	-	CFH-4-B	HR-4-B	5000	89540	29985	4.91 kg
CRHSB-64	H-128-LW	CFH-4-SB	HR-4-XB	5000	89540	29985	4.91 kg

207

Kurvenrollen der Type / Stud Type Track Rollers CCFH...S



208

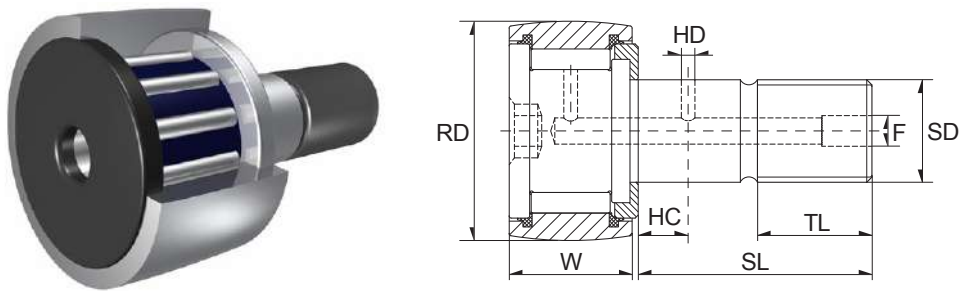
Dimension (inch)								
RD	W	SD	SL	TL	FINE THR'DS	HC	HD	F
0,500	0,375	0,250	5/8	1/4	1/4-28	-	-	1/8
0,562	0,375	0,250	5/8	1/4	1/4-28	-	-	1/8
0,625	0,4375	0,3125	3/4	5/16	5/16-24	-	-	1/8
0,687	0,4375	0,3125	3/4	5/16	5/16-24	-	-	1/8
0,750	0,500	0,4375	7/8	3/8	7/16-20	1/4	3/32	3/16
0,875	0,500	0,4375	7/8	3/8	7/16-20	1/4	3/32	3/16
1,000	0,625	0,625	1	1/2	5/8-18	1/4	3/32	3/16
1,125	0,625	0,625	1	1/2	5/8-18	1/4	3/32	3/16
1,250	0,750	0,750	1 1/4	5/8	3/4-16	5/16	3/32	3/16
1,375	0,750	0,750	1 1/4	5/8	3/4-16	5/16	3/32	3/16
1,500	0,875	0,875	1 1/2	3/4	7/8-14	3/8	3/32	3/16
1,625	0,875	0,875	1 1/2	3/4	7/8-14	3/8	3/32	3/16
1,750	1,000	1,000	1 3/4	7/8	1-14	7/16	3/32	3/16
1,875	1,000	1,000	1 3/4	7/8	1-14	7/16	3/32	3/16
2,000	1,250	1,125	2	1	1 1/8-12	1/2	1/8	3/16
2,250	1,250	1,125	2	1	1 1/8-12	1/2	1/8	3/16
2,500	1,500	1,250	2 1/4	1 1/8	1 1/4-12	9/16	1/8	3/16
2,750	1,500	1,250	2 1/4	1 1/8	1 1/4-12	9/16	1/8	3/16
3,000	1,750	1,500	2 1/2	1 1/4	1 1/2-12	5/8	1/8	1/4
3,250	1,750	1,500	2 1/2	1 1/4	1 1/2-12	5/8	1/8	1/4
3,500	2,000	1,750	2 3/4	1 3/8	1 3/4-12	11/16	1/8	1/4
4,000	2,250	2,000	3 1/2	1 1/2	2-12	3/4	1/8	1/4
5,000	2,750	2,500	5 11/16	2 9/16	2 1/2-12	7/8	3/16	1/4
6,000	3,250	3,000	6	3	3-12	1	3/16	1/4
7,000	3,750	3,500	7 11/16	4 1/8	3 1/2-4	1 1/4	3/16	1/4



209

Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRHSC-8-1	-	CCFH-1/2-S	HR-1/2-XC	35	1580	680	0.02 kg
-	-	CCFH-9/16-S	HR-9/16-XC	35	1580	680	0.02 kg
CRHSC-10-1	-	CCFH-5/8-S	HR-5/8-XC	90	2480	955	0.02 kg
-	-	CCFH-11/16-S	HR-11/16-XC	90	2480	955	0.03 kg
CRHSC-12	CH-24-L	CCFH-3/4-S	HR-3/4-XC	250	4130	1660	0.04 kg
CRHSC-14	CH-28-L	CCFH-7/8-S	HR-7/8-XC	250	4130	1660	0.05 kg
CRHSC-16	CH-32-L	CCFH-1-S	HR-1-XC	650	6120	2225	0.09 kg
CRHSC-18	CH-36-L	CCFH-1 1/8-S	HR-1 1/8-XC	650	6120	2225	0.09 kg
CRHSC-20	CH-40-L	CCFH-1 1/4-S	HR-1 1/4-XC	1250	8500	3930	0.17 kg
CRHSC-22	CH-44-L	CCFH-1 3/8-S	HR-1 3/8-XC	1250	8500	3930	0.20 kg
CRHSC-24	CH-48-L	CCFH-1 1/2-S	HR-1 1/2-XC	1500	11280	4840	0.31 kg
CRHSC-26	CH-52-L	CCFH-1 5/8-S	HR-1 5/8-XC	1500	11280	4840	0.34 kg
CRHSC-28	CH-56-L	CCFH-1 3/4-S	HR-1 3/4-XC	2250	15840	6385	0.45 kg
CRHSC-30	CH-60-L	CCFH-1 7/8-S	HR-1 7/8-XC	2250	15840	6385	0.52 kg
CRHSC-32	CH-64-L	CCFH-2-S	HR-2-XC	2800	21140	8090	0.71 kg
CRHSC-36	CH-72-L	CCFH-2 1/4-S	HR-2 1/4-XC	2800	21140	8090	0.85 kg
CRHSC-40	CH-80-L	CCFH-2 1/2-S	HR-2 1/2-XC	3450	32900	11720	1.25 kg
CRHSC-44	CH-88-L	CCFH-2 3/4-S	HR-2 3/4-XC	3450	32900	11720	1.45 kg
CRHSC-48	CH-96-L	CCFH-3-S	HR-3-XC	5000	49820	15720	2.07 kg
CRHSC-52	CH-104-L	CCFH-3 1/4-S	HR-3 1/4-XC	5000	49820	15720	2.35 kg
CRHSC-56	CH-112-L	CCFH-3 1/2-S	HR-3 1/2-XC	5000	63250	22800	3.18 kg
CRHSC-64	CH-128-L	CCFH-4-S	HR-4-XC	5000	89540	29985	4.91 kg
-	-	CCFH-5-S	HR-5-XC	5000	135900	46575	10.02 kg
-	-	CCFH-6-S	HR-6-XC	5000	160900	60000	16.52 kg
-	-	CCFH-7-S	HR-7-XC	5000	213860	75380	30.86 kg

Kurvenrollen der Type / Stud Type Track Rollers CCFH...SB



210

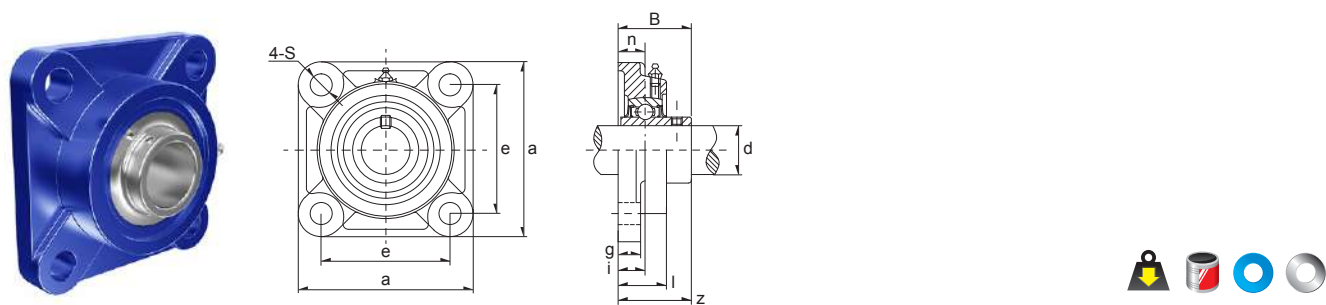
Dimension (inch)								
RD	W	SD	SL	TL	FINE THR'DS	HC	HD	F
0,500	0,375	0,250	5/8	1/4	1/4-28	-	-	-
0,562	0,375	0,250	5/8	1/4	1/4-28	-	-	-
0,625	0,4375	0,3125	3/4	5/16	5/16-24	-	-	-
0,687	0,4375	0,3125	3/4	5/16	5/16-24	-	-	-
0,750	0,500	0,4375	7/8	3/8	7/16-20	1/4	3/32	3/16
0,875	0,500	0,4375	7/8	3/8	7/16-20	1/4	3/32	3/16
1,000	0,625	0,625	1	1/2	5/8-18	1/4	3/32	3/16
1,125	0,625	0,625	1	1/2	5/8-18	1/4	3/32	3/16
1,250	0,750	0,750	1 1/4	5/8	3/4-16	5/16	3/32	3/16
1,375	0,750	0,750	1 1/4	5/8	3/4-16	5/16	3/32	3/16
1,500	0,875	0,875	1 1/2	3/4	7/8-14	3/8	3/32	3/16
1,625	0,875	0,875	1 1/2	3/4	7/8-14	3/8	3/32	3/16
1,750	1,000	1,000	1 3/4	7/8	1-14	7/16	3/32	3/16
1,875	1,000	1,000	1 3/4	7/8	1-14	7/16	3/32	3/16
2,000	1,250	1,125	2	1	1 1/8-12	1/2	1/8	3/16
2,250	1,250	1,125	2	1	1 1/8-12	1/2	1/8	3/16
2,500	1,500	1,250	2 1/4	1 1/8	1 1/4-12	9/16	1/8	3/16
2,750	1,500	1,250	2 1/4	1 1/8	1 1/4-12	9/16	1/8	3/16
3,000	1,750	1,500	2 1/2	1 1/4	1 1/2-12	5/8	1/8	1/4
3,250	1,750	1,500	2 1/2	1 1/4	1 1/2-12	5/8	1/8	1/4
3,500	2,000	1,750	2 3/4	1 3/8	1 3/4-12	11/16	1/8	1/4
4,000	2,250	2,000	3 1/2	1 1/2	2-12	3/4	1/8	1/4



211

Designation/Type				Recom. clamping torque (lbs-inch)	*Load Rating		Weight (kg) approx.
TORRINGTON	RBC	ZEN	SMITH		C, stat. (lbs)	C, dyn. (lbs)	
CRHSBC-8-1	CH-16-LW	CCFH-1/2-SB	HR-1/2-XBC	35	1580	680	0.02 kg
-	CH-18-LW	CCFH-9/16-SB	HR-9/16-XBC	35	1580	680	0.02 kg
CRHSBC-10-1	CH-20-LW	CCFH-5/8-SB	HR-5/8-XBC	90	2480	955	0.02 kg
-	CH-22-LW	CCFH-11/16-SB	HR-11/16-XBC	90	2480	955	0.03 kg
CRHSBC-12	CH-24-LW	CCFH-3/4-SB	HR-3/4-XBC	250	4130	1660	0.04 kg
CRHSBC-14	CH-28-LW	CCFH-7/8-SB	HR-7/8-XBC	250	4130	1660	0.05 kg
CRHSBC-16	CH-32-LW	CCFH-1-SB	HR-1-XBC	650	6120	2225	0.09 kg
CRHSBC-18	CH-36-LW	CCFH-1 1/8-SB	HR-1 1/8-XBC	650	6120	2225	0.09 kg
CRHSBC-20	CH-40-LW	CCFH-1 1/4-SB	HR-1 1/4-XBC	1250	8500	3930	0.17 kg
CRHSBC-22	CH-44-LW	CCFH-1 3/8-SB	HR-1 3/8-XBC	1250	8500	3930	0.20 kg
CRHSBC-24	CH-48-LW	CCFH-1 1/2-SB	HR-1 1/2-XBC	1500	11280	4840	0.31 kg
CRHSBC-26	CH-52-LW	CCFH-1 5/8-SB	HR-1 5/8-XBC	1500	11280	4840	0.34 kg
CRHSBC-28	CH-56-LW	CCFH-1 3/4-SB	HR-1 3/4-XBC	2250	15840	6385	0.45 kg
CRHSBC-30	CH-60-LW	CCFH-1 7/8-SB	HR-1 7/8-XBC	2250	15840	6385	0.52 kg
CRHSBC-32	CH-64-LW	CCFH-2-SB	HR-2-XBC	2800	21140	8090	0.71 kg
CRHSBC-36	CH-72-LW	CCFH-2 1/4-SB	HR-2 1/4-XBC	2800	21140	8090	0.85 kg
CRHSBC-40	CH-80-LW	CCFH-2 1/2-SB	HR-2 1/2-XBC	3450	32900	11720	1.25 kg
CRHSBC-44	CH-88-LW	CCFH-2 3/4-SB	HR-2 3/4-XBC	3450	32900	11720	1.45 kg
CRHSBC-48	CH-96-LW	CCFH-3-SB	HR-3-XBC	5000	49820	15720	2.07 kg
CRHSBC-52	CH-104-LW	CCFH-3 1/4-SB	HR-3 1/4-XBC	5000	49820	15720	2.35 kg
CRHSBC-56	CH-112-LW	CCFH-3 1/2-SB	HR-3 1/2-XBC	5000	63250	22800	3.18 kg
CRHSBC-64	CH-128-LW	CCFH-4-SB	HR-4-XBC	5000	89540	29985	4.91 kg

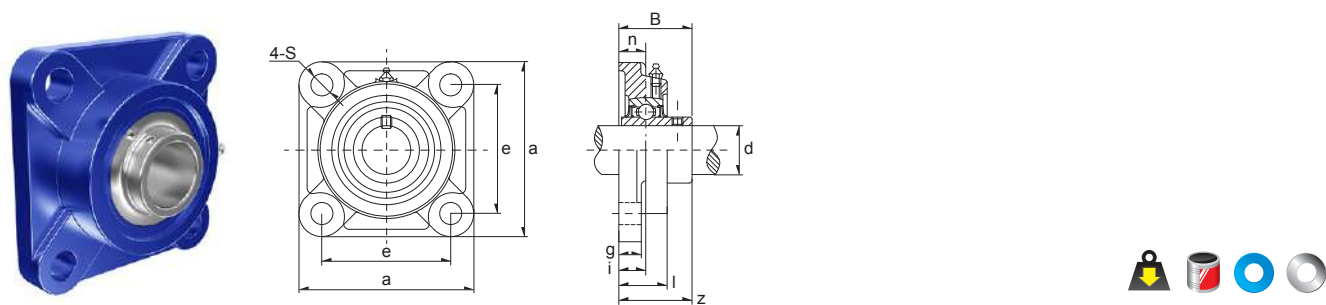
Gehäuselager UCF200 / Cast Iron Housings UCF200



212

Ref Type	Dimension (mm / inch)						Bearing No.	Housing No.	Weight Kg	Weight lbs
	d inch	d mm	a	e	Bolt mm	Bolt inch				
UCF201-8	1/2		3 3/8	2 33/64		3/8	UC201-8	F204		1.30 lbs
UCF202-9	9/16		3 3/8	2 33/64		3/8	UC202-9	F204		1.30 lbs
UCF202-10	5/8		3 3/8	2 33/64		3/8	UC202-10	F204		1.30 lbs
UCF203-11	11/16		3 3/8	2 33/64		3/8	UC203-11	F204		1.30 lbs
UCF204-12	3/4		3 3/8	2 33/64		3/8	UC204-12	F204		1.30 lbs
UCF201		12.0	86.0	64.0	M10		UC201	F204	0.61 kg	
UCF202		15.0	86.0	64.0	M10		UC202	F204	0.61 kg	
UCF203		17.0	86.0	64.0	M10		UC203	F204	0.61 kg	
UCF204		20.0	86.0	64.0	M10		UC204	F204	0.61 kg	
UCF205-13	13/16		3 3/4	2 3/4		3/8	UC205-13	F205		1.80 lbs
UCF205-14	7/8		3 3/4	2 3/4		3/8	UC205-14	F205		1.80 lbs
UCF205-15	15/16		3 3/4	2 3/4		3/8	UC205-15	F205		1.80 lbs
UCF205-16	1		3 3/4	2 3/4		3/8	UC205-16	F205		1.80 lbs
UCF205		25.0	95.0	70.0	M10		UC205	F205	0.82 kg	
UCF206-17	1-1/6		4 1/4	3 17/64		3/8	UC206-17	F206		2.50 lbs
UCF206-18	1-1/8		4 1/4	3 17/64		3/8	UC206-18	F206		2.50 lbs
UCF206-19	1-3/16		4 1/4	3 17/64		3/8	UC206-19	F206		2.50 lbs
UCF206-20	1-1/4		4 1/4	3 17/64		3/8	UC206-20	F206		2.50 lbs
UCF206		30.0	108.0	83.0	M10		UC206	F206	1.13 kg	
UCF207-20	1-1/4		4 39/64	3 5/8		7/16	UC207-20	F207		3.10 lbs
UCF207-21	1-5/16		4 39/64	3 5/8		7/16	UC207-21	F207		3.10 lbs
UCF207-22	1-3/8		4 39/64	3 5/8		7/16	UC207-22	F207		3.10 lbs
UCF207-23	1-7/16		4 39/64	3 5/8		7/16	UC207-23	F207		3.10 lbs
UCF207		35.0	117.0	92.0	M12		UC207	F207	1.42 kg	
UCF208-24	1-1/2		5 1/8	4 1/64		1/2	UC208-24	F208		4.10 lbs
UCF208-25	1-9/16		5 1/8	4 1/64		1/2	UC208-25	F208		4.10 lbs
UCF208		40.0	130.0	102.0	M14		UC208	F208	1.87 kg	
UCF209-26	1-5/8		5 13/32	4 9/64		1/2	UC209-26	F209		4.70 lbs
UCF209-27	1-11/16		5 13/32	4 9/64		1/2	UC209-27	F209		4.70 lbs
UCF209-28	1-3/4		5 13/32	4 9/64		1/2	UC209-28	F209		4.70 lbs
UCF209		45.0	137.0	105.0	M14		UC209	F209	2.15 kg	
UCF210-29	1-13/16		5 5/8	4 3/8		1/2	UC210-29	F210		5.40 lbs
UCF210-30	1-7/8		5 5/8	4 3/8		1/2	UC210-30	F210		5.40 lbs

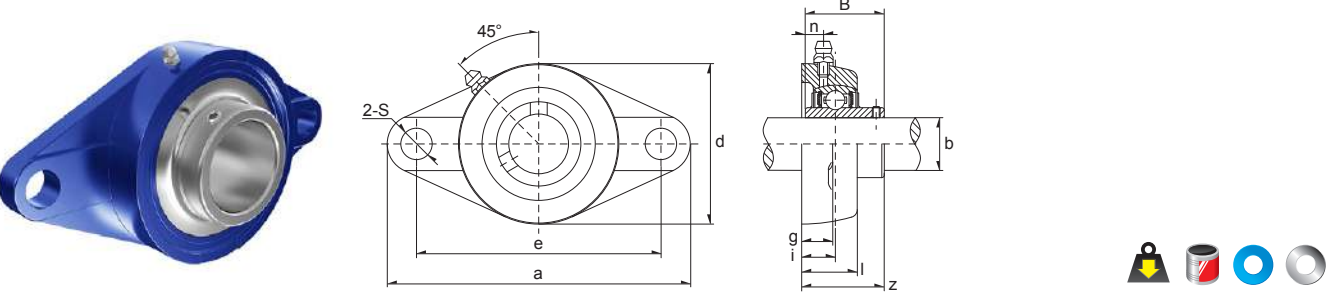
Gehäuselager UCF200 / Cast Iron Housings UCF200



213

Ref Type	Dimension (mm / inch)						Bearing No.	Housing No.	Weight Kg	Weight lbs
	d inch	d mm	a	e	Bolt mm	Bolt inch				
UCF210-31	1-15/16		5 5/8	4 3/8		1/2	UC210-31	F210		5.40 lbs
UCF210-32	2		5 5/8	4 3/8		1/2	UC210-32	F210		5.40 lbs
UCF210		50.0	143	111	M14		UC210	F210	2.45 kg	
UCF211-32	2		6 3/8	5 1/8		5/8	UC211-32	F211		7.50 lbs
UCF211-33	2-1/16		6 3/8	5 1/8		5/8	UC211-33	F211		7.50 lbs
UCF211-34	2-1/8		6 3/8	5 1/8		5/8	UC211-34	F211		7.50 lbs
UCF211-35	2-3/16		6 3/8	5 1/8		5/8	UC211-35	F211		7.50 lbs
UCF211		55.0	162	130	M16		UC211	F211	3.4 kg	
UCF212-36	2-1/4		6 57/64	5 5/8		5/8	UC212-36	F212		9.20 lbs
UCF212-37	2-5/16		6 57/64	5 5/8		5/8	UC212-37	F212		9.20 lbs
UCF212-38	2-3/8		6 57/64	5 5/8		5/8	UC212-38	F212		9.20 lbs
UCF212-39	2-7/16		6 57/64	5 5/8		5/8	UC212-39	F212		9.20 lbs
UCF212		60.0	175	143	M16		UC212	F212	4.17 kg	
UCF213-40	2-1/2		7 23/54	5 55/64		5/8	UC213-40	F213		11.70 lbs
UCF213-41	2-9/16		7 23/54	5 55/64		5/8	UC213-41	F213		11.70 lbs
UCF213		65.0	187	149	M16		UC213	F213	5.32 kg	
UCF214-42	2-5/8		7 19/32	5 63/64		5/8	UC214-42	F214		13 lbs
UCF214-43	2-11/16		7 19/32	5 63/64		5/8	UC214-43	F214		13 lbs
UCF214-44	2-3/4		7 19/32	5 63/64		5/8	UC214-44	F214		13 lbs
UCF214		70.0	193	152	M16		UC214	F214	5.92 kg	
UCF215-45	2-13/16		7 7/8	6 17/64		5/8	UC215-45	F215		14.60 lbs
UCF215-46	2-7/8		7 7/8	6 17/64		5/8	UC215-46	F215		14.60 lbs
UCF215-47	2-15/16		7 7/8	6 17/64		5/8	UC215-47	F215		14.60 lbs
UCF215-48	3		7 7/8	6 17/64		5/8	UC215-48	F215		14.60 lbs
UCF215		75.0	200	159	M16		UC215	F215	6.65 kg	
UCF216-50	3-1/8		8 3/16	6 1/2		3/4	UC216-50	F216		17.4 lbs
UCF216		80.0	208	165	M20		UC216	F216	7.89 kg	
UCF217-52	3-1/4		8 21/32	6 57/64		3/4	UC217-52	F217		20.20 lbs
UCF217		85.0	220	175	M20		UC217	F217	9.18 kg	
UCF218-56	3-1/2		9 1/4	7 23/64		3/4	UC218-56	F218		24.7 lbs
UCF218		90.0	235	187	M20		UC218	F218	11.2 kg	
UCF220-64	4		10,4331	8,2677		7/8	UC220-64	F220		26.4 lbs
UCF220		100.0	265	210	M22		UC220	F220	12.0 kg	

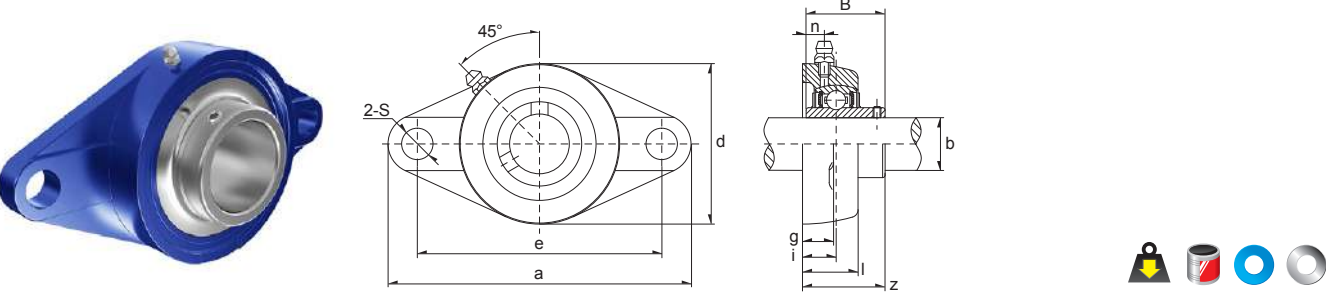
Gehäuselager UCFL200 / Cast Iron Housings UCFL200



214

Ref Type	Dimension (mm / inch)							Bearing No.	Housing No.	Weight Kg	Weight lbs
	b inch	b mm	a	e	d	Bolt mm	Bolt inch				
UCFL201-8	1/2		4 7/16	3 35/64	2 3/8		3/8	UC201-8	FL204		0.9 lbs
UCFL202-9	9/16		4 7/16	3 35/64	2 3/8		3/8	UC202-9	FL204		0.9 lbs
UCFL202-10	5/8		4 7/16	3 35/64	2 3/8		3/8	UC202-10	FL204		0.9 lbs
UCFL203-11	11/16		4 7/16	3 35/64	2 3/8		3/8	UC203-11	FL204		0.9 lbs
UCFL204-12	3/4		4 7/16	3 35/64	2 3/8		3/8	UC204-12	FL204		0.9 lbs
UCFL201		12.0	113.0	90.0	60.0	M10		UC201	FL204	0.4 kg	
UCFL202		15.0	113.0	90.0	60.0	M10		UC202	FL204	0.4 kg	
UCFL203		17.0	113.0	90.0	60.0	M10		UC203	FL204	0.4 kg	
UCFL204		20.0	113.0	90.0	60.0	M10		UC204	FL204	0.4 kg	
UCFL205-13	13/16		5 1/8	3 57/64	2 11/16		1/2	UC205-13	FL205		1.3 lbs
UCFL205-14	7/8		5 1/8	3 57/64	2 11/16		1/2	UC205-14	FL205		1.3 lbs
UCFL205-15	15/16		5 1/8	3 57/64	2 11/16		1/2	UC205-15	FL205		1.3 lbs
UCFL205-16	1		5 1/8	3 57/64	2 11/16		1/2	UC205-16	FL205		1.3 lbs
UCFL205		25.0	130.0	99.0	68.0	M14		UC205	FL205	0.6 kg	
UCFL206-17	1-1/16		5 13/16	4 39/64	3 5/32		1/2	UC206-17	FL206		2 lbs
UCFL206-18	1-1/8		5 13/16	4 39/64	3 5/32		1/2	UC206-18	FL206		2 lbs
UCFL206-19	1-3/16		5 13/16	4 39/64	3 5/32		1/2	UC206-19	FL206		2 lbs
UCFL206-20	1-1/4		5 13/16	4 39/64	3 5/32		1/2	UC206-20	FL206		2 lbs
UCFL206		30.0	148.0	117.0	80.0	M14		UC206	FL206	0.9 kg	
UCFL207-20	1-1/4		6 11/32	5 1/8	3 17/32		1/2	UC207-20	FL207		2.6 lbs
UCFL207-21	1-5/16		6 11/32	5 1/8	3 17/32		1/2	UC207-21	FL207		2.6 lbs
UCFL207-22	1-3/8		6 11/32	5 1/8	3 17/32		1/2	UC207-22	FL207		2.6 lbs
UCFL207-23	1-7/16		6 11/32	5 1/8	3 17/32		1/2	UC207-23	FL207		2.6 lbs
UCFL207		35.0	161.0	130.0	90.0	M14		UC207	FL207	1.20 kg	
UCFL208-24	1-1/2		6 7/8	5 43/64	3 15/16		1/2	UC208-24	FL208		3.3 lbs
UCFL208-25	1-9/16		6 7/8	5 43/64	3 15/16		1/2	UC208-25	FL208		3.3 lbs
UCFL208		40.0	175.0	144.0	100.0	M14		UC208	FL208	1.50 kg	
UCFL209-26	1-5/8		7 13/32	5 53/64	4 1/4		5/8	UC209-26	FL209		4.2 lbs
UCFL209-27	1-11/16		7 13/32	5 53/64	4 1/4		5/8	UC209-27	FL209		4.2 lbs
UCFL209-28	1-3/4		7 13/32	5 53/64	4 1/4		5/8	UC209-28	FL209		4.2 lbs
UCFL209		45.0	188.0	148.0	108.0	M16		UC209	FL209	1.90 kg	
UCFL210-29	1-13/16		7 3/4	6 3/16	4 17/32		5/8	UC210-29	FL210		4.4 lbs
UCFL210-30	1-7/8		7 3/4	6 3/16	4 17/32		5/8	UC210-30	FL210		4.4 lbs

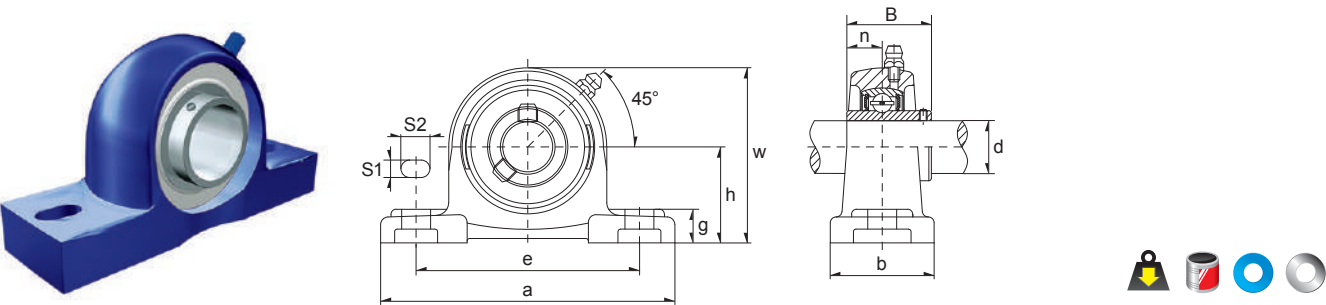
Gehäuselager UCFL200 / Cast Iron Housings UCFL200



215

Ref Type	Dimension (mm / inch)							Bearing No.	Housing No.	Weight Kg	Weight lbs
	b inch	b mm	a	e	d	Bolt mm	Bolt inch				
UCFL210-31	1-15/16		7 3/4	6 3/16	4 17/32		5/8	UC210-31	FL210		4.4 lbs
UCFL210-32	2		7 3/4	6 3/16	4 17/32		5/8	UC210-32	FL210		4.4 lbs
UCFL210		50.0	197.0	157.0	115.0	M16		UC210	FL210	2.0 kg	
UCFL211-32	2		8 13/16	7 1/4	5 1/8		5/8	UC211-32	FL211		6.4 lbs
UCFL211-33	2-1/16		8 13/16	7 1/4	5 1/8		5/8	UC211-33	FL211		6.4 lbs
UCFL211-34	2-1/8		8 13/16	7 1/4	5 1/8		5/8	UC211-34	FL211		6.4 lbs
UCFL211-35	2-3/16		8 13/16	7 1/4	5 1/8		5/8	UC211-35	FL211		6.4 lbs
UCFL211		55.0	224.0	184.0	130.0	M16		UC211	FL211	2.9 kg	
UCFL212-36	2-1/4		9 27/32	7 61/64	5 1/2		3/4	UC212-36	FL212		8.4 lbs
UCFL212-37	2-5/16		9 27/32	7 61/64	5 1/2		3/4	UC212-37	FL212		8.4 lbs
UCFL212-38	2-3/8		9 27/32	7 61/64	5 1/2		3/4	UC212-38	FL212		8.4 lbs
UCFL212-39	2-7/16		9 27/32	7 61/64	5 1/2		3/4	UC212-39	FL212		8.4 lbs
UCFL212		60.0	250.0	202.0	140.0	M20		UC212	FL212	3.8 kg	
UCFL213-40	2-1/2		10 5/32	8 17/64	6 3/32		3/4	UC213-40	FL213		11 lbs
UCFL213-41	2-9/16		10 5/32	8 17/64	6 3/32		3/4	UC213-41	FL213		11 lbs
UCFL213		65.0	258.0	210.0	155.0	M20		UC213	FL213	4.8 kg	
UCFL214-42	2-5/8		10 7/16	8 1/2	6 5/16		3/4	UC214-42	FL214		12 lbs
UCFL214-43	2-11/16		10 7/16	8 1/2	6 5/16		3/4	UC214-43	FL214		12 lbs
UCFL214-44	2-3/4		10 7/16	8 1/2	6 5/16		3/4	UC214-44	FL214		12 lbs
UCFL214		70.0	265.0	216.0	160.0	M20		UC214	FL214	5.4 kg	
UCFL215-45	2-13/16		10 13/16	8 55/64	6 1/2		3/4	UC215-45	FL215		13 lbs
UCFL215-46	2-7/8		10 13/16	8 55/64	6 1/2		3/4	UC215-46	FL215		13 lbs
UCFL215-47	2-15/16		10 13/16	8 55/64	6 1/2		3/4	UC215-47	FL215		13 lbs
UCFL215-48	3		10 13/16	8 55/64	6 1/2		3/4	UC215-48	FL215		13 lbs
UCFL215		75.0	275.0	225.0	165.0	M20		UC215	FL215	6.0 kg	
UCFL216-50	3-1/8		11 13/32	9 11/64	7 3/32		7/8	UC216-50	FL216		16 lbs
UCFL216		80.0	290.0	233.0	180.0	M22		UC216	FL216	7.4 kg	
UCFL217-52	3-1/4		12.0	9 49/64	7 15/32		7/8	UC217-52	FL217		19 lbs
UCFL217		85.0	305.0	248.0	190.0	M22		UC217	FL217	8.8 kg	
UCFL218-56	3-1/2		12 19/32	10 7/16	8 1/6		7/8	UC218-56	FL218		24 lbs
UCFL218		90.0	320.0	265.0	205.0	M22		UC218	FL218	11.0 kg	

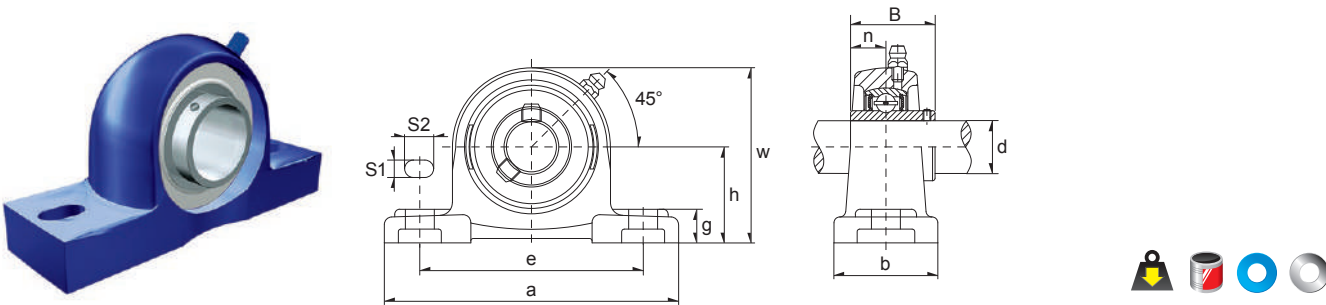
Gehäuselager UCP200 / Cast Iron Housings UCP200



216

Ref Type	Dimension (mm / inch)							Bearing No.	Housing No.	Weight Kg	Weight lbs
	b inch	b mm	a	e	w	Bolt mm	Bolt inch				
UCP201-8	1/2		5.0	3 3/4	2 17/32		3/8	UC201-8	P203		1.52 lbs
UCP201		12.0	127.0	95.0	65.0	M10		UC201	P203	0.70 kg	
UCP202-9	9/16		5.0	3 3/4	2 17/32		3/8	UC202-9	P203		1.52 lbs
UCP202-10	5/8		5.0	3 3/4	2 17/32		3/8	UC202-10	P203		1.52 lbs
UCP202		15.0	127.0	95.0	65.0	M10		UC202	P203	0.69 kg	
UCP203-11	11/16		5.0	3 3/4	2 17/32		3/8	UC203-11	P203		1.5 lbs
UCP203		17.0	127.0	95.0	65.0	M10		UC203	P203	0.68 kg	
UCP204-12	3/4		5.0	3 3/4	2 17/32		3/8	UC204-12	P204		1.45 lbs
UCP204		20.0	127.0	95.0	65.0	M10		UC204	P204	0.66 kg	
UCP205-13	13/16		5 1/2	4 1/8	2 25/32		3/8	UC205-13	P205		1.80 lbs
UCP205-14	7/8		5 1/2	4 1/8	2 25/32		3/8	U205-14	P205		1.80 lbs
UCP205-15	15/16		5 1/2	4 1/8	2 25/32		3/8	UC205-15	P205		1.80 lbs
UCP205-16	1		5 1/2	4 1/8	2 25/32		3/8	UC205-16	P205		1.80 lbs
UCP205		25.0	140.0	105.0	71.0	M10		UC205	P205	0.82 kg	
UCP206-17	1-1/16		6 1/2	4 3/4	3 5/16		1/2	UC206-17	P206		2.82 lbs
UCP206-18	1-1/8		6 1/2	4 3/4	3 5/16		1/2	UC206-18	P206		2.82 lbs
UCP206-19	1-3/16		6 1/2	4 3/4	3 5/16		1/2	UC206-19	P206		2.82 lbs
UCP206-20	1-1/4		6 1/2	4 3/4	3 5/16		1/2	UC206-20	P206		2.82 lbs
UCP206		30.0	165.0	121.0	84.0	M14		UC206	P206	1.27 kg	
UCP207-20	1-1/4		6 9/16	5.0	3 21/32		1/2	UC207-20	P207		3.64 lbs
UCP207-21	1-5/16		6 9/16	5.0	3 21/32		1/2	UC207-21	P207		3.64 lbs
UCP207-22	1-3/8		6 9/16	5.0	3 21/32		1/2	UC207-22	P207		3.64 lbs
UCP207-23	1-7/16		6 9/16	5.0	3 21/32		1/2	UC207-23	P207		3.64 lbs
UCP207		35.0	167.0	127.0	93.0	M14		UC207	P207	1.64 kg	
UCP208-24	1-1/2		7 1/4	5 13/32	3 27/32		1/2	UC208-24	P208		4.29 lbs
UCP208-25	1-9/16		7 1/4	5 13/32	3 27/32		1/2	UC208-25	P208		4.29 lbs
UCP208		40.0	184.0	137.0	98.0	M14		UC208	P208	1.93 kg	
UCP209-26	1-5/8		7 15/32	5 3/4	4 3/16		1/2	UC209-26	P209		4.98 lbs
UCP209-27	1-11/16		7 15/32	5 3/4	4 3/16		1/2	UC209-27	P209		4.98 lbs
UCP209-28	1-3/4		7 15/32	5 3/4	4 3/16		1/2	UC209-28	P209		4.98 lbs
UCP209		45.0	190.0	146.0	106.0	M14		UC209	P209	2.24 kg	
UCP210-29	1-13/16		8 1/8	6 1/4	4 7/16		5/8	UC210-29	P210		6.18 lbs
UCP210-30	1-7/8		8 1/8	6 1/4	4 7/16		5/8	UC210-30	P210		6.18 lbs

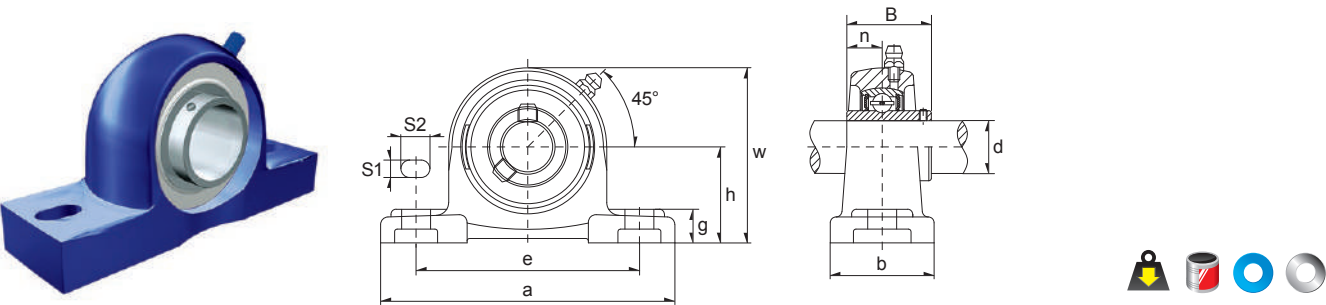
Gehäuselager UCP200 / Cast Iron Housings UCP200



217

Ref Type	Dimension (mm / inch)							Bearing No.	Housing No.	Weight Kg	Weight lbs
	b inch	b mm	a	e	w	Bolt mm	Bolt inch				
UCP210-31	1-15/16		8 1/8	6 1/4	4 7/16		5/8	UC210-31	P210		6.18 lbs
UCP210-32	2		8 1/8	6 1/4	4 7/16		5/8	UC210-32	P210		6.18 lbs
UCP210		50.0	206.0	159.0	113.0	M16		UC210	P210	2.78 kg	
UCP211-32	2		8 5/8	6 23/32	4 29/32		5/8	UC211-32	P211		7.69 lbs
UCP211-33	2-1/16		8 5/8	6 23/32	4 29/32		5/8	UC211-33	P211		7.69 lbs
UCP211-34	2-1/8		8 5/8	6 23/32	4 29/32		5/8	UC211-34	P211		7.69 lbs
UCP211-35	2-3/16		8 5/8	6 23/32	4 29/32		5/8	UC211-35	P211		7.69 lbs
UCP211		55.0	219.0	171.0	125.0	M16		UC211	P211	3.46 kg	
UCP212-36	2-1/4		9 1/2	7 1/4	5 7/16		5/8	UC212-36	P212		11 lbs
UCP212-37	2-5/16		9 1/2	7 1/4	5 7/16		5/8	UC212-37	P212		11 lbs
UCP212-38	2-3/8		9 1/2	7 1/4	5 7/16		5/8	UC212-38	P212		11 lbs
UCP212-39	2-7/16		9 1/2	7 1/4	5 7/16		5/8	UC212-39	P212		11 lbs
UCP212		60.0	241.0	184.0	138.0	M16		UC212	P212	4.95 kg	
UCP213-40	2-1/2		10 7/16	8.0	5 29/32		3/4	UC213-40	P213		11.64 lbs
UCP213-41	2-9/16		10 7/16	8.0	5 29/32		3/4	UC213-41	P213		11.64 lbs
UCP213		65.0	265.0	203.0	150.0	M20		UC213	P213	5.24 kg	
UCP214-42	2-5/8		10 15/32	8 9/32	6 5/32		3/4	UC214-42	P214		14.24 lbs
UCP214-43	2-11/16		10 15/32	8 9/32	6 5/32		3/4	UC214-43	P214		14.24 lbs
UCP214-44	2-3/4		10 15/32	8 9/32	6 5/32		3/4	UC214-44	P214		14.24 lbs
UCP214		70.0	266.0	210.0	156.0	M20		UC214	P214	6.41 kg	
UCP215-45	2-13/16		10 13/16	8 17/32	6 3/8		3/4	UC215-45	P215		16.47 lbs
UCP215-46	2-7/8		10 13/16	8 17/32	6 3/8		3/4	UC215-46	P215		16.47 lbs
UCP215-47	2-15/16		10 13/16	8 17/32	6 3/8		3/4	UC215-47	P215		16.47 lbs
UCP215-48	3		10 13/16	8 17/32	6 3/8		3/4	UC215-48	P215		16.47 lbs
UCP215		75.0	264.3	217.0	162.0	M20		UC215	P215	7.41 kg	
UCP216-49	3-1/16		11 1/2	9 1/8	6 27/32		3/4	UC216-49	P216		18.40 lbs
UCP216-50	3-1/8		11 1/2	9 1/8	6 27/32		3/4	UC216-50	P216		18.40 lbs
UCP216-51	3-3/16		11 1/2	9 1/8	6 27/32		3/4	UC216-51	P216		18.40 lbs
UCP216		80.0	292.0	232.0	174.0	M20		UC216	P216	8.28 kg	
UCP217-52	3-1/4		12 7/32	9 23/32	7 9/32		3/4	UC217-52	P217		21.98 lbs
UCP217-53	3-5/16		12 7/32	9 23/32	7 9/32		3/4	UC217-53	P217		21.98 lbs
UCP217-55	3-7/16		12 7/32	9 23/32	7 9/32		3/4	UC217-55	P217		21.98 lbs
UCP217		85.0	310.0	247.0	185.0	M20		UC217	P217	9.89 kg	

Gehäuselager UCP200 / Cast Iron Housings UCP200



218

Ref Type	Dimension (mm / inch)							Bearing No.	Housing No.	Weight Kg	Weight lbs
	b inch	b mm	a	e	w	Bolt mm	Bolt inch				
UCP218-56	3-1/2		12 7/8	10 5/16	7 25/32		7/8	UC218-56	P218		26.82 lbs
UCP218		90.0	327.0	262.0	198.0	M22		UC218	P218	12.07 kg	
UCP220-64	4		14.9606	12.0079	8.8583		15/16	UC220-64	P220		36.55 lbs
UCP220		100.0	380.0	305.0	225.0	M24		UC220	P220	16.0 kg	



Produktfokus / Product focus



Rostfreie
ZEN-Gehäuseeinheiten
Stainless Steel &
Thermoplastic Housings



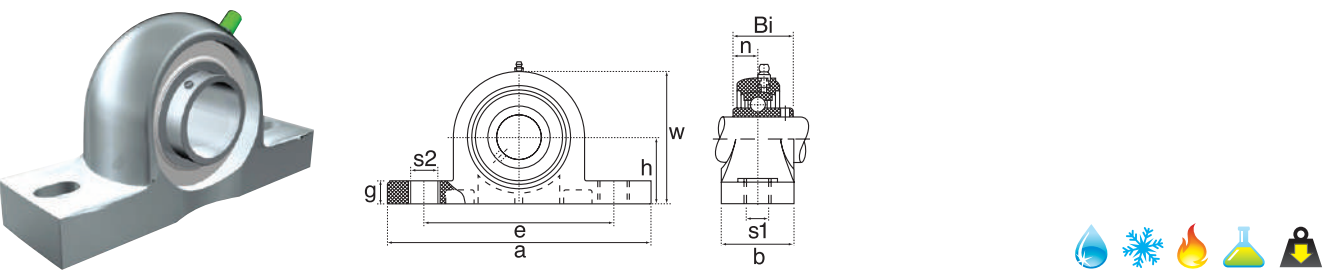
- ✓ Pharmazeutische und chemische Industrie
Pharmaceutical & Chemical Processing
- ✓ Medizintechnik
Medical Machinery
- ✓ Getränke- und Nahrungsmittelindustrie
Food and Beverage Processing

Rostfreie und thermoplastische Gehäuse mit ihren rostfreien Einsätzen sind die ideale Lösung für Anwendungen mit hygienischen Ansprüchen.

ZEN Stainless Steel and Thermoplastic Housings with Stainless Steel Inserts offer the perfect solution for requirements that need hygienic and clean-room applications.

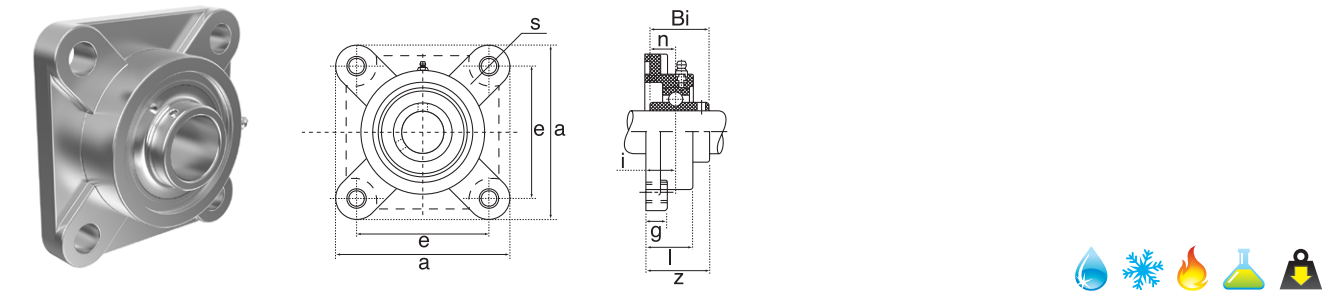
SIEHE SEITE 220 / SEE PAGE 220

Rostfreie Gehäuse / Stainless Steel Pillow Blocks



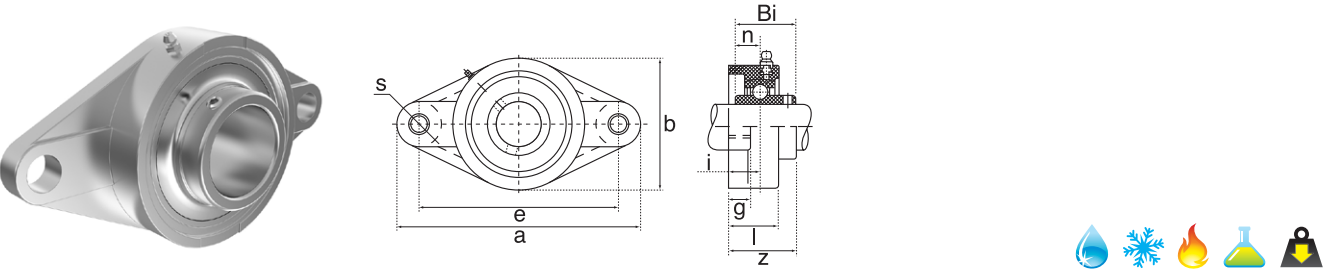
220

Ref. Type	d	h	a	e	b	S1	S2	g	w	Weight (kg)	Bearing No.
SP201	20.0	33.3	125.0	95.0	37.0	13.0	19.0	14.0	63.5	0.69 kg	SUC201
SP202	20.0	33.3	125.0	95.0	37.0	13.0	19.0	14.0	63.5	0.69 kg	SUC202
SP203	20.0	33.3	125.0	95.0	37.0	13.0	19.0	14.0	63.5	0.69 kg	SUC203
SP204	20.0	33.3	125.0	95.0	37.0	13.0	19.0	14.0	63.5	0.69 kg	SUC204
SP205	25.0	36.5	140.0	105.0	37.0	13.0	19.0	15.0	71.0	0.74 kg	SUC205
SP206	30.0	42.9	163.0	121.0	48.0	17.0	20.0	17.0	82.0	1.29 kg	SUC206
SP207	35.0	47.6	167.0	127.0	48.0	17.0	20.0	18.0	93.0	1.42 kg	SUC207
SP208	40.0	49.2	184.0	137.0	54.0	17.0	20.0	18.0	100.0	1.82 kg	SUC208
SP209	45.0	54	190.0	146.0	54.0	17.0	20.0	20.0	106.0	2.09 kg	SUC209
SP210	50.0	57.2	206.0	159.0	60.0	20.0	23.0	21.0	113.0	2.38 kg	SUC210
SP211	55.0	63.5	219.0	171.0	60.0	20.0	23.0	23.0	125.0	2.55 kg	SUC211
SP212	60.0	69.8	241.0	184.0	70.0	20.0	23.0	25.0	138.0	3.40 kg	SUC212



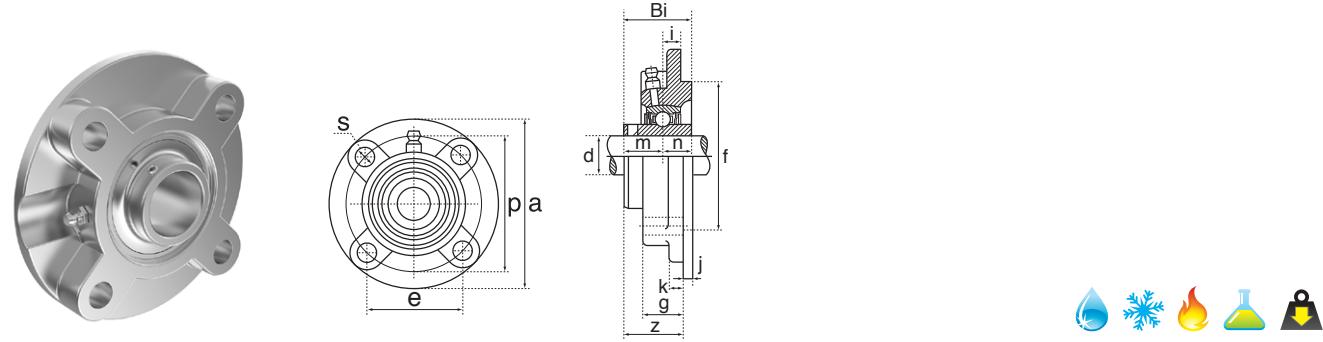
Ref Type	d	a	e	i	l	g	s	z	Weight Kg	Bearing No.
SF201	20.0	86.0	63.5	15.1	25.4	12.0	12.0	33.3	0.47 kg	SUC201
SF202	20.0	86.0	63.5	15.1	25.4	12.0	12.0	33.3	0.47 kg	SUC202
SF203	20.0	86.0	63.5	15.1	25.4	12.0	12.0	33.3	0.47 kg	SUC203
SF204	20.0	86.0	63.5	15.1	25.4	12.0	12.0	33.3	0.47 kg	SUC204
SF205	25.0	95.0	70.0	15.9	27.0	14.0	12.0	35.8	0.65 kg	SUC205
SF206	30.0	108.0	82.5	17.9	30.0	14.0	12.0	40.2	0.85 kg	SUC206
SF207	35.0	117.0	92.0	19.1	33.0	16.0	14.0	44.4	1.03 kg	SUC207
SF208	40.0	130.0	101.6	21.0	36.0	16.0	16.0	51.2	1.38 kg	SUC208
SF209	45.0	137.0	104.8	21.8	37.0	16.0	16.0	52.2	1.50 kg	SUC209
SF210	50.0	143.0	111.0	21.8	38.0	18.0	16.0	54.6	1.63 kg	SUC210
SF211	55.0	162.0	130.0	25.0	43.0	20.0	19.0	58.4	3.25 kg	SUC211
SF212	60.0	175.0	143.0	29.0	48.0	20.0	19.0	68.7	4.20 kg	SUC212

Rostfreie Gehäuse / Stainless Steel Pillow Blocks



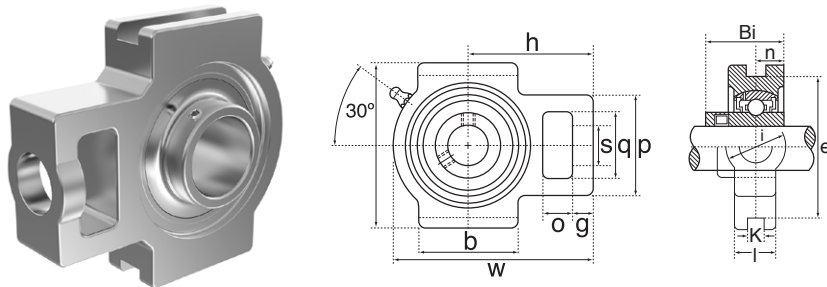
221

Ref Type	a	e	i	b	l	g	s	Weight Kg	Bearing No.
SFL201	113.0	90.0	15.0	60.0	25.5	11.0	12.0	0.32 kg	SUC201
SFL202	113.0	90.0	15.0	60.0	25.5	11.0	12.0	0.32 kg	SUC202
SFL203	113.0	90.0	15.0	60.0	25.5	11.0	12.0	0.32 kg	SUC203
SFL204	113.0	90.0	15.0	60.0	25.5	11.0	12.0	0.32 kg	SUC204
SFL205	130.0	99.0	16.0	68.0	27.0	13.0	16.0	0.44 kg	SUC205
SFL206	148.0	117.0	18.0	80.0	31.0	13.0	16.0	0.58 kg	SUC206
SFL207	161.0	130.0	19.0	90.0	34.0	14.0	16.0	0.74 kg	SUC207
SFL208	175.0	144.0	21.0	100.0	36.0	14.0	16.0	0.99 kg	SUC208
SFL209	188.0	148.0	22.0	108.0	38.0	15.0	19.0	1.16 kg	SUC209
SFL210	197.0	157.0	22.0	114.6	40.0	15.0	19.0	1.36 kg	SUC210
SFL211	224.0	184.0	25.0	130.0	43.0	18.0	19.0	2.20 kg	SUC211
SFL212	250.0	202.0	29.0	138.5	48.0	18.0	23.0	2.65 kg	SUC212



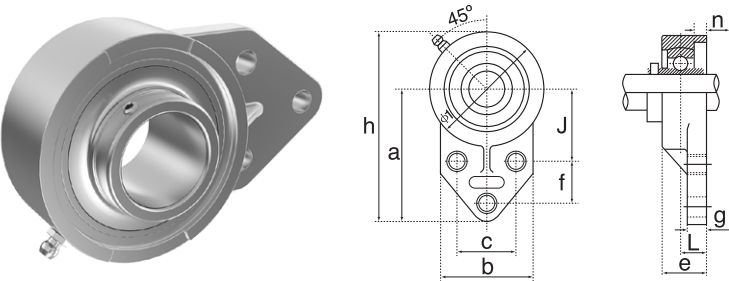
Ref Type	d	a	p	e	i	s	j	k	g	f	z	Bi	n	Weight Kg	Bearing No.
SFC201	12.0	100.0	78.0	55.1	10.0	12.0	5.0	7.0	20.5	62.0	28.3	31.0	12.7	0.72 kg	SUC201
SFC202	15.0	100.0	78.0	55.1	10.0	12.0	5.0	7.0	20.5	62.0	28.3	31.0	12.7	0.72 kg	SUC202
SFC203	17.0	100.0	78.0	55.1	10.0	12.0	5.0	7.0	20.5	62.0	28.3	31.0	12.7	0.72 kg	SUC203
SFC204	20.0	100.0	78.0	55.1	10.0	12.0	5.0	7.0	20.5	62.0	28.3	31.0	12.7	0.72 kg	SUC204
SFC205	25.0	115.0	90.0	63.6	10.0	12.0	6.0	7.0	21.0	70.0	29.8	34.1	14.3	0.98 kg	SUC205
SFC206	30.0	125.0	100.0	70.7	10.0	12.0	8.0	8.0	23.0	80.0	32.2	38.1	15.9	1.3 kg	SUC206
SFC207	35.0	135.0	110.0	77.8	11.0	14.0	8.0	9.0	26.0	90.0	36.4	42.9	17.5	1.8 kg	SUC207
SFC208	40.0	145.0	120.0	84.8	11.0	14.0	10.0	9.0	26.0	100.0	41.2	42.9	19	2.0 kg	SUC208
SFC209	45.0	158.7	132.0	93.3	10.0	16.0	12.0	14.0	26.0	105.0	40.2	49.2	19	2.9 kg	SUC209
SFC210	50.0	163.0	138.0	97.6	10.0	16.0	12.0	14.0	28.0	110.0	42.6	51.6	19	2.9 kg	SUC210
SFC211	55.0	185.0	150.0	106.1	13.0	19.0	12.0	15.0	31.0	125.0	46.4	55.6	22.2	4.5 kg	SUC211
SFC212	60.0	193.5	160.0	113.1	17.0	19.0	12.0	15.0	36.0	135.0	56.7	65.1	25.4	5.1 kg	SUC212

Rostfreie Gehäuse / Stainless Steel Pillow Blocks



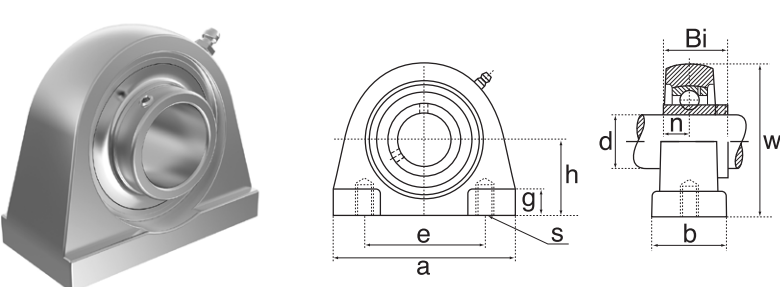
222

Ref Type	o	g	p	q	s	b	k	e	a	w	j	l	h	Bi	n	Weight Kg	Bearing No.
ST201	16.0	10.0	51.0	32.0	19.0	51.0	12.0	76.0	89.0	94.0	32.0	21.0	61.0	31.0	12.7	0.73 kg	SUC201
ST202	16.0	10.0	51.0	32.0	19.0	51.0	12.0	76.0	89.0	97.0	32.0	24.0	62.0	34.1	14.3	0.73 kg	SUC202
ST203	16.0	10.0	56.0	37.0	22.0	57.0	12.0	89.0	102.0	113.0	37.0	28.0	70.0	38.1	15.9	0.73 kg	SUC203
ST204	16.0	13.0	64.0	37.0	22.0	64.0	12.0	89.0	102.0	129.0	37.0	30.0	78.0	42.9	17.5	0.73 kg	SUC204
ST205	19.0	16.0	83.0	49.0	29.0	83.0	16.0	102.0	114.0	144.0	49.0	33.0	88.0	49.2	19.0	0.8 kg	SUC205
ST206	19.0	16.0	83.0	49.0	29.0	83.0	16.0	102.0	117.0	144.0	49.0	35.0	87.0	49.2	19.0	1.15 kg	SUC206
ST207	19.0	16.0	83.0	49.0	29.0	86.0	16.0	102.0	117.0	149.0	49.0	37.0	90.0	51.6	19.0	1.35 kg	SUC207
ST208	25.0	19.0	102.0	64.0	35.0	95.0	22.0	130.0	146.0	171.0	64.0	38.0	106.0	55.6	22.2	2.05 kg	SUC208
ST209	32.0	19.0	102.0	64.0	35.0	102.0	22.0	130.0	146.0	194.0	64.0	42.0	119.0	65.1	25.4	2.1 kg	SUC209
ST210	19.0	16.0	83.0	49.0	29.0	86.0	16.0	102.0	117.0	149.0	49.0	37.0	90.0	51.6	19.0	2.1 kg	SUC210
ST211	25.0	19.0	102.0	64.0	35.0	95.0	22.0	130.0	146.0	171.0	64.0	38.0	106.0	55.6	22.2	3.1 kg	SUC211
ST212	32.0	19.0	102.0	64.0	35.0	102.0	22.0	130.0	146.0	194.0	64.0	42.0	119.0	65.1	25.4	3.6 kg	SUC212



Ref Type	J	h	c	f	L	g	e	a	s	b	Weight Kg	Bearing No.
SFB204	42.9	108.0	38.1	22.0	15.9	8.0	25.4	52.0	10.0	60.3	0.39 kg	SUC204
SFB205	46.0	121.0	41.3	28.5	16.7	9.5	28.5	52.0	10.0	63.5	0.54 kg	SUC205
SFB206	52.4	137.0	47.6	31.7	18.6	9.5	32.0	55.0	10.0	70.0	0.77 kg	SUC206
SFB207	60.3	156.0	50.8	31.7	21.0	12.7	36.5	62.0	13.0	83.0	1.16 kg	SUC207
SFB208	60.0	164.0	50.0	41.3	21.0	15.9	35.7	72.0	11.0	78.0	1.65 kg	SUC208
SFB209	65.0	174.0	54.0	42.9	21.8	18.3	38.0	76.0	11.0	80.0	1.91 kg	SUC209
SFB210	74.6	190.0	69.9	41.3	21.8	12.7	38.0	82.0	13.0	102.0	2.34 kg	SUC210

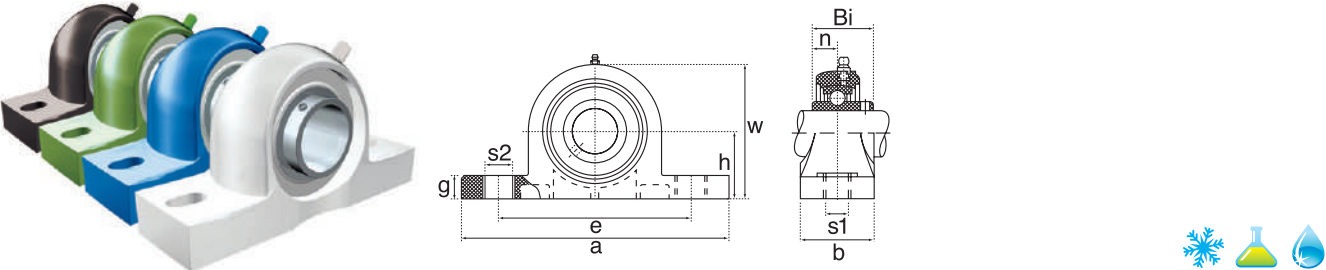
Rostfreie Gehäuse / Stainless Steel Pillow Blocks



223

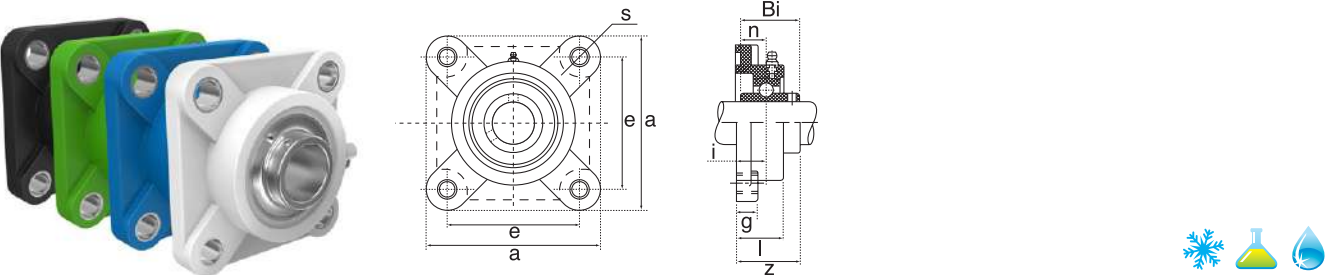
Housing No.	d	h	a	e	b	g	s	w	Bi	n	Weight Kg	Bearing No.
SPA201	12.0	30.2	72.6	52.0	38.0	15.0	M10	64.0	31.0	12.7	0.57 kg	SUC201
SPA202	15.0	30.2	72.6	52.0	38.0	15.0	M10	64.0	31.0	12.7	0.57 kg	SUC202
SPA203	17.0	30.2	72.6	52.0	38.0	15.0	M10	64.0	31.0	12.7	0.57 kg	SUC203
SPA204	20.0	30.2	72.6	52.0	38.0	15.0	M10	64.0	31.0	12.7	0.57 kg	SUC204
SPA205	25.0	36.5	84.0	56.0	38.0	15.0	M10	72.0	34.1	14.3	0.67 kg	SUC205
SPA206	30.0	42.9	94.0	66.0	48.0	18.0	M14	84.0	38.1	15.9	0.80 kg	SUC206
SPA207	35.0	47.9	110.0	80.0	48.0	20.0	M14	95.0	42.9	17.5	1.38 kg	SUC207
SPA208	40.0	49.2	116.0	84.0	54.0	20.0	M14	100.0	49.2	19.0	1.75 kg	SUC208
SPA209	45.0	54.2	120.0	90.0	54.0	25.0	M14	108.0	49.2	19.0	1.80 kg	SUC209
SPA210	50.0	57.2	130.0	94.0	60.0	25.0	M16	116.0	51.6	19.0	2.40 kg	SUC210
SPA211	55.0	63.5	140.0	104.0	66.0	25.0	M16	125.0	55.6	22.2	2.80 kg	SUC211
SPA212	60.0	69.9	150.0	114.0	68.0	25.0	M16	138.0	65.1	25.4	3.70 kg	SUC212

Thermoplastische Gehäuse / Thermoplastic Pillow Blocks



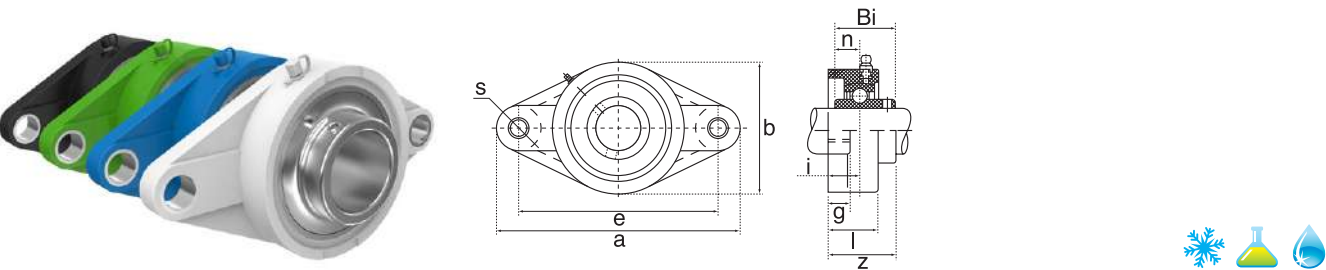
224

Ref Type	h	a	e	b	s1	s2	g	w	Bi	n	Weight Kg	Bearing No.
TP201	33.3	127.0	95.0	38.0	11.0	14.0	14.2	65.6	31.0	12.7	0.12 kg	SUC201
TP202	33.3	127.0	95.0	38.0	11.0	14.0	14.2	65.6	31.0	12.7	0.12 kg	SUC202
TP203	33.3	127.0	95.0	38.0	11.0	14.0	14.2	65.6	31.0	12.7	0.12 kg	SUC203
TP204	33.3	127.0	95.0	38.0	11.0	14.0	14.2	65.6	31.0	12.7	0.12 kg	SUC204
TP205	36.5	140.6	105.0	38.0	11.0	14.0	14.5	71.0	34.0	14.3	0.14 kg	SUC205
TP206	42.9	163.0	118.0	46.0	14.0	18.0	17.8	84.0	38.1	15.9	0.20 kg	SUC206
TP207	47.6	168.0	127.0	48.0	14.0	18.0	18.0	94.5	42.9	17.5	0.25 kg	SUC207
TP208	49.2	184.0	137.0	54.0	14.0	18.0	19.5	101.0	49.2	19.0	0.35 kg	SUC208
TP209	54.0	192.0	146.0	54.0	17.0	20.0	23.0	106.0	49.2	19.0	0.45 kg	SUC209
TP210	57.2	206.0	159.0	60.0	17.0	20.0	23.0	114.0	51.6	19.0	0.55 kg	SUC210
TP211	63.5	219.0	171.0	60.0	20.0	23.0	23.0	127.0	55.6	22.2	1.38 kg	SUC211
TP212	69.5	241.0	184.0	70.0	20.0	23.0	25.0	138.0	65.1	25.4	1.52 kg	SUC212



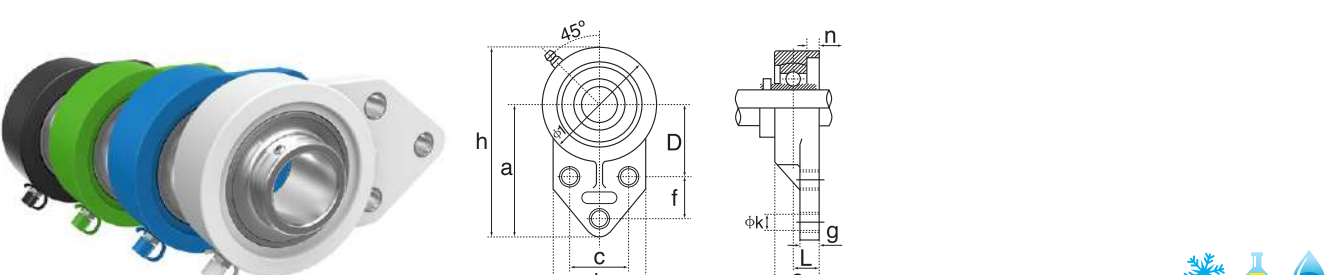
Ref Type	a	e	g	l	s	z	i	Bi	n	Weight Kg	Bearing No.
TF201	86.0	63.5	13.4	27.8	11.0	34.6	18.0	31.0	12.7	0.12 kg	SUC201
TF202	86.0	63.5	13.4	27.8	11.0	34.6	18.0	31.0	12.7	0.12 kg	SUC202
TF203	86.0	63.5	13.4	27.8	11.0	34.6	18.0	31.0	12.7	0.12 kg	SUC203
TF204	86.0	63.5	13.4	27.8	11.0	34.6	18.0	31.0	12.7	0.12 kg	SUC204
TF205	95.0	70.0	14.0	28.0	11.0	36.7	17.0	34.0	14.3	0.15 kg	SUC205
TF206	107.0	83.0	14.3	31.5	11.0	41.2	19.2	38.1	15.9	0.18 kg	SUC206
TF207	118.0	92.0	15.5	34.8	13.0	46.9	21.5	42.9	17.5	0.26 kg	SUC207
TF208	130.0	102.0	17.0	37.5	14.0	53.2	23.0	49.2	19.0	0.33 kg	SUC208
TF209	137.0	105.0	19.0	41.0	17.0	54.2	24.0	49.2	19.0	0.42 kg	SUC209
TF210	143.0	111.0	21.0	43.0	17.0	57.6	25.0	51.6	19.0	0.51 kg	SUC210
TF211	162.0	130.0	20.0	43.0	19.0	58.4	25.0	55.6	22.2	1.40 kg	SUC211
TF212	175.0	143.0	20.0	48.0	19.0	68.7	29.0	65.1	25.4	1.60 kg	SUC212

Thermoplastische Gehäuse / Thermoplastic Pillow Blocks



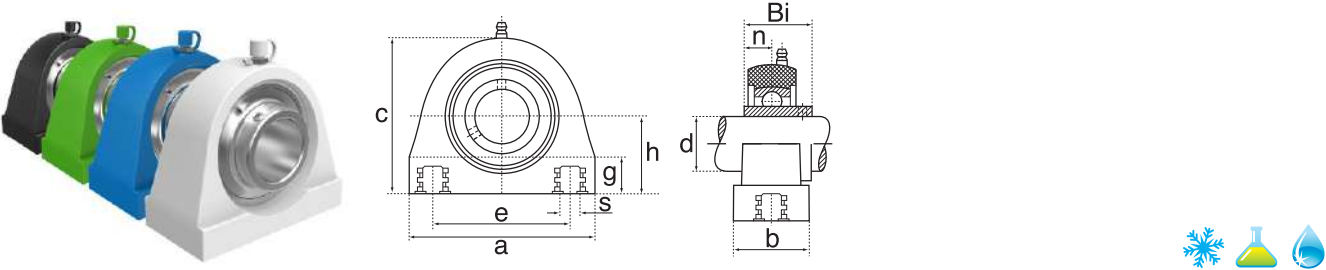
225

Ref Type	a	e	b	g	l	s	z	i	Bi	n	Weight Kg	Bearing No.
TFL201	113.0	90.0	65.0	13.4	26.5	33.3	33.7	15.4	31.0	12.7	0.08 kg	SUC201
TFL202	113.0	90.0	65.0	13.4	26.5	33.3	33.7	15.4	31.0	12.7	0.08 kg	SUC202
TFL203	113.0	90.0	65.0	13.4	26.5	33.3	33.7	15.4	31.0	12.7	0.08 kg	SUC203
TFL204	113.0	90.0	65.0	13.4	26.5	33.3	33.7	15.4	31.0	12.7	0.08 kg	SUC204
TFL205	134.0	99.0	70.0	14.3	28.0	36.2	36.7	17.0	34.0	14.3	0.10 kg	SUC205
TFL206	148.0	117.0	80.0	14.3	30.5	40.2	41.2	19.0	38.1	15.9	0.13 kg	SUC206
TFL207	164.0	130.0	90.0	15.5	32.0	44.4	43.4	19.0	42.9	17.5	0.16 kg	SUC207
TFL208	176.0	144.0	100.0	17.2	35.0	14.0	51.7	21.5	49.2	19.0	0.24 kg	SUC208
TFL209	188.0	149.0	108.0	21.0	41.0	17.0	54.2	24.0	49.2	19.0	0.32 kg	SUC209
TFL210	197.0	157.0	115.0	21.0	43.0	17.0	57.6	25.0	51.6	19.0	0.42 kg	SUC210
TFL211	226.0	185.0	129.0	20.0	43.0	19.0	58.4	25.0	55.6	22.2	1.40 kg	SUC211
TFL212	250.0	202.0	140.0	20.0	48.0	19.0	68.7	29.0	65.1	25.4	1.60 kg	SUC212



Ref Type	a	b	c	D	e	f	g	h	k	n	Bolt dia	Weight Kg	Bearing No.
FBL201	76.2	62.0	38.1	42.9	33.7	22.2	11.4	108.0	10.7	12.7	M10	0.08 kg	SUC201
FBL202	76.2	62.0	38.1	42.9	33.7	22.2	11.4	108.0	10.7	12.7	M10	0.08 kg	SUC202
FBL203	76.2	62.0	38.1	42.9	33.7	22.2	11.4	108.0	10.7	12.7	M10	0.08 kg	SUC203
FBL204	76.2	62.0	38.1	42.9	33.7	22.2	11.4	108.0	10.7	12.7	M10	0.08 kg	SUC204
FBL205	85.7	63.5	41.3	46.0	41.2	28.6	11.4	120.6	10.7	14.3	M10	0.11 kg	SUC205
FBL206	96.5	76.0	47.6	52.4	41.5	31.8	13.3	138.5	10.7	15.9	M10	0.16 kg	SUC206
FBL207	109.5	98.0	50.8	60.3	47.1	31.8	16.1	157.0	13.1	17.5	M12	0.23 kg	SUC207

Thermoplastische Gehäuse / Thermoplastic Pillow Blocks



226

Ref Type	d	a	e	h	b	s	c	Bi	n	g	Weight Kg	Bearing No.
TPA204	20.0	76.0	52.0	33.3	38.0	M8	64.0	31.0	12.7	13.0	0.09 kg	SUC204
TPA205	25.0	84.0	56.0	36.5	38.0	M10	72.0	34.1	14.3	13.0	0.12 kg	SUC205
TPA206	30.0	94.0	66.0	42.9	48.0	M10	84.0	38.1	15.9	16.0	0.18 kg	SUC206
TPA207	35.0	110.0	80.0	47.6	48.0	M10	95.0	49.2	17.5	18.0	0.26 kg	SUC207
TPA208	40.0	116.0	84.0	49.2	54.0	M12	100.0	49.2	19.0	20.0	0.3 kg	SUC208
TPA209	45.0	120.0	90.0	54.2	54.0	M12	108.0	49.2	19.0	20.0	0.35 kg	SUC209
TPA210	50.0	130.0	94.0	57.2	60.0	M16	116.0	51.6	19.0	22.0	0.45 kg	SUC210

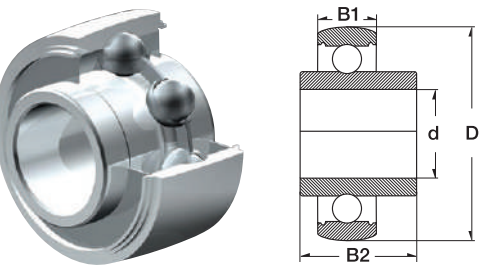
Rostfreie Gehäuselager-Einsätze / Stainless Steel Inserts



227

Dimension (inch)	Dimension (mm)				Designation/Type	*Load Rating	
	d	D	B1	B2		C, dyn. N	C, stat. N
	12.0	47.0	17.0	31.0	SUC 201	7500	4500
1/2	12.7	47.0	17.0	31.0	SUC 201-8	7500	4500
	15.0	47.0	17.0	31.0	SUC 202	7500	4500
5/8	15.8	47.0	17.0	31.0	SUC 202-10	7500	4500
	17.0	47.0	17.0	31.0	SUC 203	7500	4500
11/16	17.4	47.0	17.0	31.0	SUC 203-11	7500	4500
	20.0	47.0	17.0	31.0	SUC 204	10000	6300
3/4	19.0	47.0	17.0	31.0	SUC 204-12	10000	6300
	25.0	52.0	17.0	34.1	SUC 205	11000	7100
1	25.4	52.0	17.0	34.1	SUC 205-16	11000	7100
	30.0	62.0	19.0	38.1	SUC 206	15200	10200
1 1/4	31.7	62.0	19.0	38.1	SUC 206-20	15200	10200
	35.0	72.0	20.0	42.9	SUC 207	20100	18100
1 1/4	31.7	72.0	20.0	42.9	SUC 207-20	20100	18100
	40.0	80.0	21.0	49.2	SUC 208	23000	18100
1 1/2	38.1	80.0	21.0	49.2	SUC 208-24	23000	18100
	45.0	85.0	22.0	49.2	SUC 209	25600	18100
1 5/8	41.2	85.0	22.0	49.2	SUC 209-26	25600	18100
1 3/4	44.4	85.0	22.0	49.2	SUC 209-28	25600	18100
	50.0	90.0	23.0	51.6	SUC 210	27500	20200
2	50.8	90.0	23.0	51.6	SUC 210-32	27500	20200
	55.0	100.0	25.0	55.6	SUC 211	33500	29200
2	50.8	100.0	25.0	55.6	SUC 211-32	33500	29200
	60.0	110.0	27.0	65.1	SUC 212	36800	32800
	65.0	120.0	28.0	65.1	SUC213	57500	40000

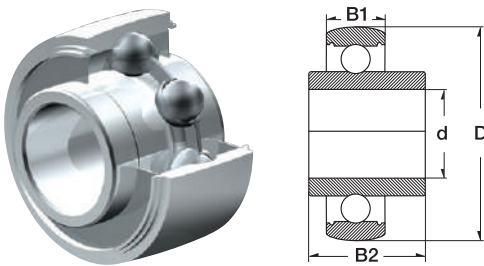
Rostfreie Gehäuselager-Einsätze / **Stainless Steel Inserts**



228

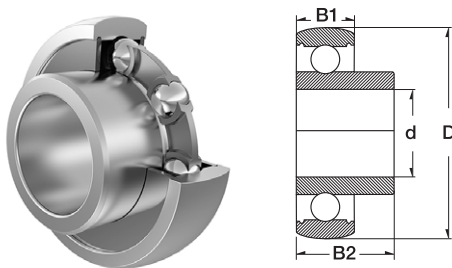
Dimension (inch)	Dimension (mm)				Designation/Type	* Load Rating	
	d	D	B1	B2		C, dyn. N	C, stat. N
	70.0	125.0	29.0	74.6	SUC214	60800	45000
	75.0	130.0	32.0	77.8	SUC215	50890	41000
	80.0	140.0	33.0	82.6	SUC216	55890	44620
	90.0	160.0	37.0	96.0	SUC218	74000	60500
	65.0	120.0	28.0	65.1	SUC213	57500	40000
	70.0	125.0	29.0	74.6	SUC214	60800	45000
	75.0	130.0	32.0	77.8	SUC215	50890	41000
	80.0	140.0	33.0	82.6	SUC216	55890	44620
	90.0	160.0	37.0	96.0	SUC218	74000	60500

Rostfreie Gehäuselager-Einsätze für hohe Tragzahlen / **High Load Stainless Steel Inserts**

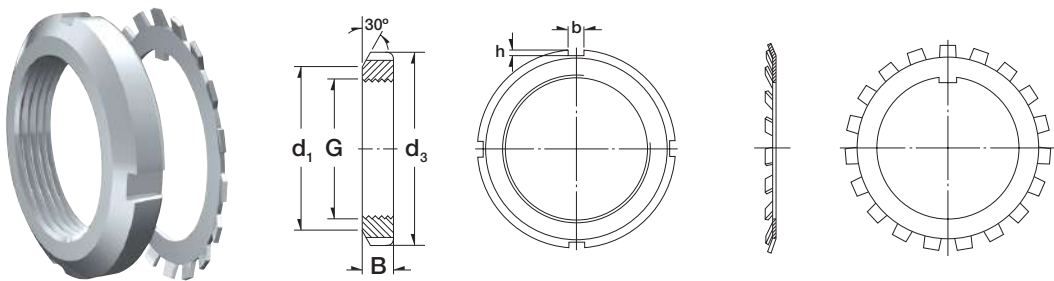


229

Dimension (mm)				Designation/Type	*Load Rating	
d	D	B1	B2		C, dyn. N	C, stat. N
20.0	52.0	17.0	34.1	SUCX04	13900	7800
25.0	62.0	19.0	38.1	SUCX05	15400	10200
30.0	72.0	20.0	42.9	SUCX06	20300	14000
35.0	80.0	21.0	49.2	SUCX07	23000	16000
40.0	85.0	22.0	49.2	SUCX08	25600	18100
45.0	90.0	24.0	51.6	SUCX09	27500	20200
50.0	100.0	25.0	55.6	SUCX10	34000	25500



Dimension (mm)				Designation/Type	*Load Rating	
d	D	B1	B2		C, dyn. N	C, stat. N
15.0	40.0	12.0	22.0	SSB 202	7820	3580
17.0	40.0	12.0	22.0	SSB 203	7820	3580
20.0	47.0	14.0	25.0	SSB 204	10370	5040
25.0	52.0	15.0	27.0	SSB 205	11310	5970
30.0	62.0	16.0	30.0	SSB 206	15730	8640
35.0	72.0	17.0	32.0	SSB 207	20830	11680
40.0	80.0	18.0	34.0	SSB 208	23550	13600
45.0	85.0	19.0	41.2	SSB 209	26440	19560
50.0	90.0	20.0	43.5	SSB 210	30010	22530



Designation/Type		Dimension (mm)					
Lock nut	Appropriate locking washer	G	d ₁	d ₃	B	b	h
SKM 0	SMB 0	M 10 x 0,75	13.5	18.0	4.0	3.0	2.0
SKM 1	SMB 1	M 12 x 1	17.0	22.0	4.0	3.0	2.0
SKM 2	SMB 2	M 15 x 1	21.0	25.0	5.0	4.0	2.0
SKM 3	SMB 3	M 17 x 1	24.0	28.0	5.0	4.0	2.0
SKM 4	SMB 4	M 20 x 1	26.0	32.0	6.0	4.0	2.0
SKM 5	SMB 5	M 25 x 1.5	32.0	38.0	7.0	5.0	2.0
SKM 6	SMB 6	M 30 x 1.5	38.0	45.0	7.0	5.0	2.0
SKM 7	SMB 7	M 35 x 1.5	44.0	52.0	8.0	5.0	2.0
SKM 8	SMB 8	M 40 x 1.5	50.0	58.0	9.0	6.0	2.5
SKM 9	SMB 9	M 45 x 1.5	56.0	65.0	10.0	6.0	2.5
SKM 10	SMB 10	M 50 x 1.5	61.0	70.0	11.0	6.0	2.5
SKM 11	SMB 11	M 55 x 2	67.0	75.0	11.0	7.0	3.0
SKM 12	SMB 12	M 60 x 2	73.0	80.0	11.0	7.0	3.0
SKM 13	SMB 13	M 65 x 2	79.0	85.0	12.0	7.0	3.0
SKM 14	SMB 14	M 70 x 2	85.0	92.0	12.0	8.0	3.5
SKM 15	SMB 15	M 75 x 2	90.0	98.0	13.0	8.0	3.5
SKM 16	SMB 16	M 80 x 2	95.0	105.0	15.0	8.0	3.5
SKM 17	SMB 17	M 85 x 2	102.0	110.0	16.0	8.0	3.5
SKM 18	SMB 18	M 90 x 2	108.0	120.0	16.0	10.0	4.0
SKM 19	SMB 19	M 95 x 2	113.0	125.0	17.0	10.0	4.0
SKM 20	SMB 20	M 100 x 2	120.0	130.0	18.0	10.0	4.0



Company focus

Unser QC-Zentrum
Taichang
ZEN Inspection &
Logistic Centre



Unser gesamtes Produktions- und Testequipment im QC-Zentrum Taichang ist nach der neuesten ISO 9001 durch den TÜV Rheinland zertifiziert.

ZEN Quality Control Centre is certified ISO 9001, the highest standard for Quality Management System awarded by TÜV Rheinland.

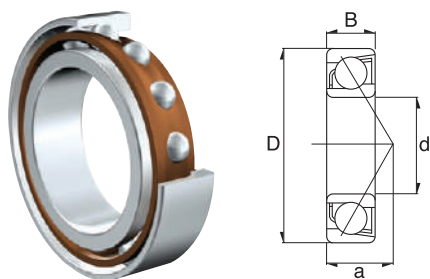
- ✓ Metallurgische Prüfung
Metal Composition Testing
- ✓ Visuelle Überprüfung
Visual Inspection
- ✓ Prüfung auf Masshaltigkeit
Dimension Testing
- ✓ Vibrations- und Schwingungsprüfung
Vibration Testing
- ✓ Prüfung des Radial- und Axialspiels
Radial Clearance Testing
- ✓ Härteprüfung nach Rockwell
Hardness Testing
- ✓ Geräuschprüfung
Noise Testing
- ✓ Salzsprühtest
Salt Spray Testing



Für zusätzliche Informationen über unsere Produkte besuchen Sie bitte unsere website www.zen.biz

For more information about our Quality Control procedure visit www.zen.biz

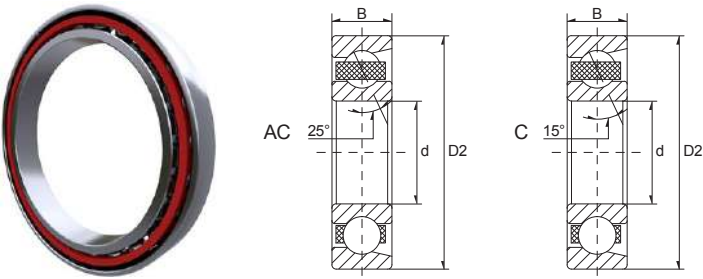
Miniatur-Schräggugellager / Miniature Angular Contact Bearings



232

Dimension (mm)			Designation/Type	*Limiting Speed rpm (approx.)	Mass (g) approx.
d	D	B			
3.0	10.0	4.0	723 AC	-	1 g
4.0	13.0	7.0	724 AC	-	3 g
5.0	13.0	5.0	795 AC	-	3 g
6.0	17.0	6.0	706 AC	104000	6 g
7.0	22.0	7.0	727 AC	56000	13 g
7.0	17.0	5.0	797 AC	-	5 g
8.0	22.0	7.0	708 AC	76000	12 g
8.0	22.0	7.0	708 AC 2RS	76000	12 g
10.0	26.0	8.0	7000 AC	28800	18 g
10.0	22.0	6.0	7900 AC	19200	10 g
12.0	28.0	8.0	7001 AC	25600	22 g
15.0	32.0	9.0	7002 AC	53600	31 g

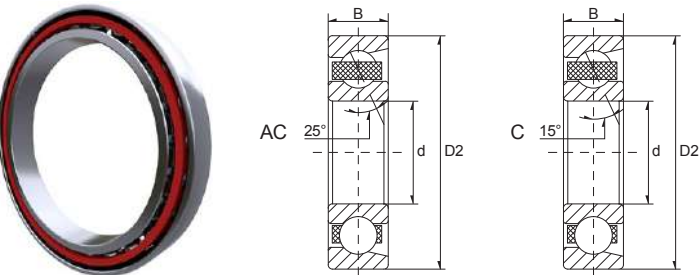
Axial-Schräggugellager / Angular Contact Bearings



233

Dimension (mm)			Designation/Type	*Load Rating		*Limiting Speed rpm Grease	*Limiting Speed rpm Oil	Weight (kg) approx.
d	D2	B		C, dyn. N	C, stat. N			
10.0	19.0	5.0	71800 AC	1800	1100	75000	120000	0.005 kg
10.0	19.0	5.0	71800 C	1800	1100	75000	120000	0.005 kg
10.0	22.0	6.0	71900 AC	2900	1800	70000	110000	0.010 kg
10.0	22.0	6.0	71900 C	2900	1800	70000	110000	0.010 kg
12.0	21.0	5.0	71801 AC	2000	1400	70000	110000	0.006 kg
12.0	21.0	5.0	71801 C	2000	1400	70000	110000	0.006 kg
12.0	24.0	6.0	71901 AC	3200	2200	63000	95000	0.010 kg
12.0	24.0	6.0	71901 C	3200	2200	63000	95000	0.010 kg
15.0	24.0	5.0	71802 AC	2200	1800	60000	90000	0.007 kg
15.0	24.0	5.0	71802 C	2200	1800	60000	90000	0.007 kg
15.0	28.0	7.0	71902 AC	4800	3400	53000	80000	0.020 kg
15.0	28.0	7.0	71902 C	4800	3400	53000	80000	0.020 kg
17.0	26.0	5.0	71803 AC	2300	1900	53000	80000	0.008 kg
17.0	26.0	5.0	71803 C	2300	1900	53000	80000	0.008 kg
17.0	30.0	7.0	71903 AC	5100	3800	50000	75000	0.020 kg
17.0	30.0	7.0	71903 C	5100	3800	50000	75000	0.020 kg
20.0	32.0	7.0	71804 AC	3900	3400	45000	67000	0.018 kg
20.0	32.0	7.0	71804 C	3900	3400	45000	67000	0.018 kg
20.0	37.0	9.0	71904 AC	7400	5800	40000	60000	0.040 kg
20.0	37.0	9.0	71904 C	7400	5800	40000	60000	0.040 kg
25.0	37.0	7.0	71805 AC	4200	4100	38000	56000	0.022 kg
25.0	37.0	7.0	71805 C	4200	4100	38000	56000	0.022 kg
25.0	42.0	9.0	71905 AC	7600	6500	34000	50000	0.040 kg
25.0	42.0	9.0	71905 C	7600	6500	34000	50000	0.040 kg
30.0	42.0	7.0	71806 AC	4400	4800	32000	48000	0.025 kg
30.0	42.0	7.0	71806 C	4400	4800	32000	48000	0.025 kg
30.0	47.0	9.0	71906 AC	8000	7600	30000	45000	0.050 kg
30.0	47.0	9.0	71906 C	8000	7600	30000	45000	0.050 kg

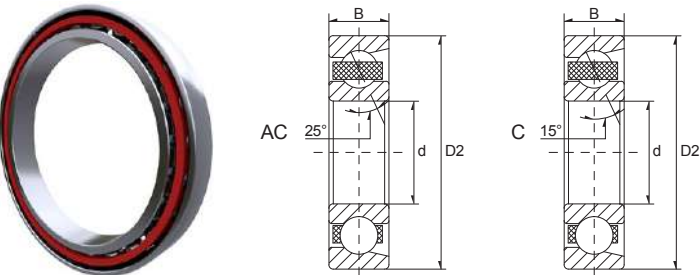
Axial-Schräggugellager / Angular Contact Bearings



234

Dimension (mm)			Designation/Type	*Load Rating		*Limiting Speed rpm Grease	*Limiting Speed rpm Oil	Weight (kg) approx.
d	D2	B		C, dyn. N	C, stat. N			
35.0	47.0	7.0	71807 AC	4600	5500	26000	40000	0.029 kg
35.0	47.0	7.0	71807 C	4600	5500	26000	40000	0.029 kg
35.0	55.0	10.0	71907 AC	11000	10900	26000	40000	0.070 kg
35.0	55.0	10.0	71907 C	11000	10900	26000	40000	0.070 kg
40.0	52.0	7.0	71808 AC	4800	6200	24000	38000	0.032 kg
40.0	52.0	7.0	71808 C	4800	6200	24000	38000	0.032 kg
40.0	62.0	12.0	71908 AC	14000	14200	20000	34000	0.110 kg
40.0	62.0	12.0	71908 C	14000	14200	20000	34000	0.110 kg
45.0	58.0	7.0	71809 AC	4900	6700	20000	34000	0.040 kg
45.0	58.0	7.0	71809 C	4900	6700	20000	34000	0.040 kg
45.0	68.0	12.0	71909 AC	14700	16100	18000	30000	0.130 kg
45.0	68.0	12.0	71909 C	14700	16100	18000	30000	0.130 kg
50.0	65.0	7.0	71810 AC	7400	10000	18000	30000	0.052 kg
50.0	65.0	7.0	71810 C	7400	10000	18000	30000	0.052 kg
50.0	72.0	12.0	71910 AC	19000	21200	17000	28000	0.130 kg
50.0	72.0	12.0	71910 C	19000	21200	17000	28000	0.130 kg
55.0	72.0	9.0	71811 AC	10200	13800	16000	26000	0.081 kg
55.0	72.0	9.0	71811 C	10200	13800	16000	26000	0.081 kg
55.0	80.0	13.0	71911 AC	23700	27400	15000	24000	0.180 kg
55.0	80.0	13.0	71911 C	23700	27400	15000	24000	0.180 kg
60.0	78.0	10.0	71812 AC	13400	18000	15000	24000	0.100 kg
60.0	78.0	10.0	71812 C	13400	18000	15000	24000	0.100 kg
60.0	85.0	13.0	71912 AC	24800	30300	14000	22000	0.190 kg
60.0	85.0	13.0	71912 C	24800	30300	14000	22000	0.190 kg
65.0	85.0	10.0	71813 AC	13400	18800	14000	22000	0.125 kg
65.0	85.0	10.0	71813 C	13400	18800	14000	22000	0.125 kg
65.0	90.0	13.0	71913 AC	25100	31900	13000	20000	0.200 kg
65.0	90.0	13.0	71913 C	25100	31900	13000	20000	0.200 kg

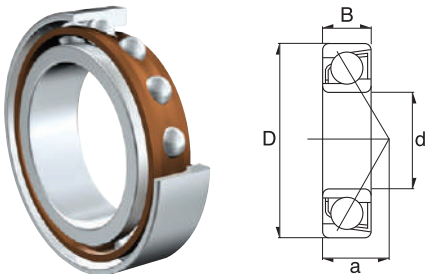
Axial-Schräggugellager / Angular Contact Bearings



235

Dimension (mm)			Designation/Type	*Load Rating		*Limiting Speed rpm Grease	*Limiting Speed rpm Oil	Weight (kg) approx.
d	D2	B		C, dyn. N	C, stat. N			
70.0	90.0	10.0	71814 AC	13800	20300	13000	20000	0.133 kg
70.0	90.0	10.0	71814 C	13800	20300	13000	20000	0.133 kg
70.0	100.0	16.0	71914 AC	34500	43400	12000	19000	0.330 kg
70.0	100.0	16.0	71914 C	34500	43400	12000	19000	0.330 kg
75.0	95.0	10.0	71815 AC	14200	21700	12000	19000	0.142 kg
75.0	95.0	10.0	71815 C	14200	21700	12000	19000	0.142 kg
75.0	105.0	16.0	71915 AC	25000	45600	11000	18000	0.350 kg
75.0	105.0	16.0	71915 C	25000	45600	11000	18000	0.350 kg
80.0	100.0	10.0	71816 AC	14500	23100	10000	18000	0.150 kg
80.0	100.0	10.0	71816 C	14500	23100	10000	18000	0.150 kg
80.0	110.0	16.0	71916 AC	35500	47800	10000	17000	0.370 kg
80.0	110.0	16.0	71916 C	35500	47800	10000	17000	0.370 kg
85.0	110.0	13.0	71817 AC	21500	32200	10000	17000	0.262 kg
85.0	110.0	13.0	71817 C	21500	32200	10000	17000	0.262 kg
85.0	120.0	18.0	71917 AC	46500	61900	9500	16000	0.530 kg
85.0	120.0	18.0	71917 C	46500	61900	9500	16000	0.530 kg
90.0	115.0	13.0	71818 AC	21700	33500	9500	16000	0.274 kg
90.0	115.0	13.0	71818 C	21700	33500	9500	16000	0.274 kg
90.0	125.0	18.0	71918 AC	47200	64800	9000	15000	0.560 kg
90.0	125.0	18.0	71918 C	47200	64800	9000	15000	0.560 kg
95.0	120.0	13.0	71819 AC	21900	34700	9000	15000	0.287 kg
95.0	120.0	13.0	71819 C	21900	34700	9000	15000	0.287 kg
95.0	130.0	18.0	71919 AC	47900	67800	9000	15000	0.580 kg
95.0	130.0	18.0	71919 C	47900	67800	9000	15000	0.580 kg
100.0	125.0	13.0	71820 AC	22500	37000	8500	14000	0.301 kg
100.0	125.0	13.0	71820 C	22500	37000	8500	14000	0.301 kg
100.0	140.0	20.0	71920 AC	60400	84400	8500	14000	0.790 kg
100.0	140.0	20.0	71920 C	60400	84400	8500	14000	0.790 kg

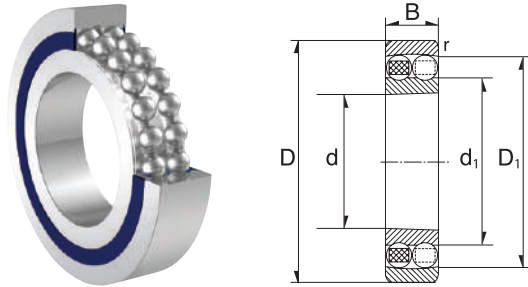
Einreihige Schrägkugellager / Single Row Angular Contact Bearings



236

Dimension (mm)			Designation/Type				*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open)		Weight (g) approx.
d	D	B	Open		2RS						
			Chrome Steel	Stainless	Chrome Steel	Stainless	C, dyn. N	C, stat. N	Grease	Oil	
10.0	30.0	9.0	7200B	S7200B	7200B-2RS	avail. / lieferb.	6350	2720	11.9	23.5	30 g
12.0	32.0	10.0	7201B	S7201B	7201B-2RS	avail. / lieferb.	8050	3740	17.5	23.5	30 g
15.0	35.0	11.0	7202B	S7202B	7202B-2RS	avail. / lieferb.	8700	4360	16.0	21.5	40 g
17.0	40.0	12.0	7203B	S7203B	7203B-2RS	avail. / lieferb.	10700	5550	14.2	19.0	60 g
20.0	47.0	14.0	7204B	S7204B	7204B-2RS	avail. / lieferb.	15400	8200	12.4	17.0	100 g
25.0	52.0	15.0	7205B	S7205B	7205B-2RS	avail. / lieferb.	16400	9350	11.0	14.9	120 g
30.0	62.0	16.0	7206B	S7206B	7206B-2RS	avail. / lieferb.	23400	14300	9.4	12.7	190 g
35.0	72.0	17.0	7207B	S7207B	7207B-2RS	avail. / lieferb.	30300	19100	8.2	11.0	260 g
40.0	80.0	18.0	7208B	S7208B	7208B-2RS	avail. / lieferb.	35500	23000	7.3	9.9	350 g
45.0	85.0	19.0	7209B	S7209B	7209B-2RS	avail. / lieferb.	37200	25400	6.8	9.1	400 g
50.0	90.0	20.0	7210B	S7210B	7210B-2RS	avail. / lieferb.	38800	27800	6.3	8.5	440 g
10.0	35.0	11.0	7300B	S7300B	7300B-2RS	avail. / lieferb.	9150	3840	10.8	21.5	60 g
12.0	37.0	12.0	7301B	S7301B	7301B-2RS	avail. / lieferb.	10900	4960	16.0	22.0	60 g
15.0	42.0	13.0	7302B	S7302B	7302B-2RS	avail. / lieferb.	13100	6100	14.2	19.0	80 g
17.0	47.0	14.0	7303B	S7303B	7303B-2RS	avail. / lieferb.	16600	8300	12.9	17.5	110 g
20.0	52.0	15.0	7304B	S7304B	7304B-2RS	avail. / lieferb.	19300	9900	11.7	16.0	150 g
25.0	62.0	17.0	7305B	S7305B	7305B-2RS	avail. / lieferb.	25000	13400	9.9	13.3	220 g
30.0	72.0	19.0	7306B	S7306B	7306B-2RS	avail. / lieferb.	33700	19400	8.5	11.5	330 g
35.0	80.0	21.0	7307B	S7307B	7307B-2RS	avail. / lieferb.	37400	22200	7.6	10.3	430 g
40.0	90.0	23.0	7308B	S7308B	7308B-2RS	avail. / lieferb.	49300	29900	6.8	9.1	600 g
45.0	100.0	25.0	7309B	S7309B	7309B-2RS	avail. / lieferb.	60500	38800	6.1	8.2	810 g
50.0	110.0	27.0	7310B	S7310B	7310B-2RS	avail. / lieferb.	72000	47100	5.5	7.4	1050 g

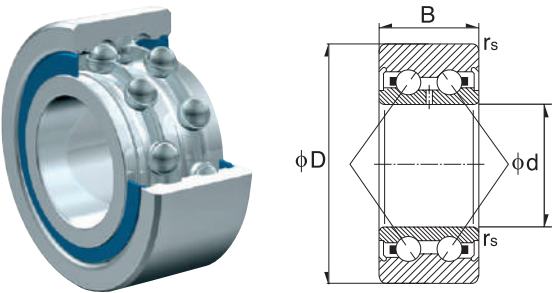
Doppelreihige Pendelkugellager / Double Row Self Aligning Bearings



237

Dimension (mm)			Designation/Type				*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open)		Weight (g) approx.
d	D	B	Open		2RS						
			Chrome Steel	Stainless	Chrome Steel	Stainless	C, dyn. N	C, stat. N	Grease	Oil	
10.0	30.0	9.0	1200	S1200	1200-2RS	S1200-2RS	4050	1290	22.0	-	34 g
12.0	32.0	10.0	1201	S1201	1201-2RS	S1201-2RS	4600	1400	21.0	-	40 g
15.0	35.0	11.0	1202	S1202	1202-2RS	S1202-2RS	5600	1960	18.5	-	49 g
17.0	40.0	12.0	1203	S1203	1203-2RS	S1203-2RS	5900	2300	17.5	-	73 g
20.0	47.0	14.0	1204	S1204	1204-2RS	S1204-2RS	7500	2950	14.5	-	120 g
25.0	52.0	15.0	1205	S1205	1205-2RS	S1205-2RS	9150	3900	12.0	-	140 g
30.0	62.0	16.0	1206	S1206	1206-2RS	S1206-2RS	11000	5500	10.0	-	220 g
10.0	30.0	14.0	2200	S2200	2200-2RS	S2200-2RS	5300	1530	22.0	28.0	47 g
12.0	32.0	14.0	2201	S2201	2201-2RS	S2201-2RS	6000	1960	20.0	25.0	53 g
15.0	35.0	14.0	2202	S2202	2202-2RS	S2202-2RS	6000	2190	18.0	22.0	60 g
17.0	40.0	16.0	2203	S2203	2203-2RS	S2203-2RS	7900	2800	16.0	19.0	88 g
20.0	47.0	18.0	2204	S2204	2204-2RS	S2204-2RS	9800	3950	13.0	16.0	140 g
25.0	52.0	18.0	2205	S2205	2205-2RS	S2205-2RS	9800	4350	12.0	14.0	165 g
30.0	62.0	20.0	2206	S2206	2206-2RS	S2206-2RS	12200	6800	10.0	12.0	260 g
35.0	72.0	23.0	2207	S2207	2207-2RS	S2207-2RS	17100	8400	8.5	10.0	405 g
40.0	80.0	23.0	2208	S2208	2208-2RS	S2208-2RS	17700	9650	7.5	9.0	505 g
45.0	85.0	23.0	2209	S2209	2209-2RS	S2209-2RS	18400	10900	7.1	8.5	545 g
50.0	90.0	23.0	2210	S2210	2210-2RS	S2210-2RS	18400	11500	6.3	8.0	590 g

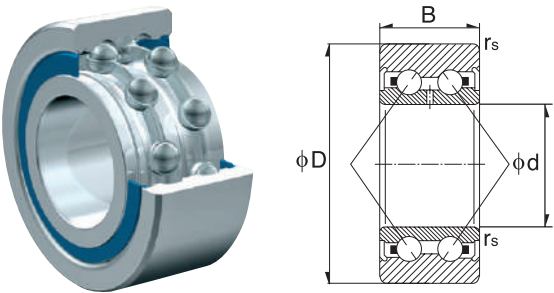
Doppelreihige Schrägkugellager / Double Row Angular Contact Ball Bearings



238

Dimension (mm)			Designation/Type				*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open)		Weight (g) approx.
d	D	B	Open		2RS						
			Chrome Steel	Stainless	Chrome Steel	Stainless	C, dyn. N	C, stat. N	Grease	Oil	
10.0	30.0	14.0	3200	S3200	3200-2RS	S3200-2RS	7600	5850	16.0	20.0	50 g
12.0	32.0	15.9	3201	S3201	3201-2RS	S3201-2RS	8750	6500	15.0	19.0	60 g
15.0	35.0	15.9	3202	S3202	3202-2RS	S3202-2RS	11100	9100	13.0	17.0	70 g
17.0	40.0	17.5	3203	S3203	3203-2RS	S3203-2RS	14400	8650	10.0	15.0	103 g
20.0	47.0	20.6	3204	S3204	3204-2RS	S3204-2RS	19300	12000	9.0	13.0	168 g
25.0	52.0	20.6	3205	S3205	3205-2RS	S3205-2RS	20900	14100	8.0	11.0	194 g
30.0	62.0	23.8	3206	S3206	3206-2RS	S3206-2RS	29100	20100	7.1	9.0	316 g
35.0	72.0	27.0	3207	S3207	3207-2RS	S3207-2RS	38400	27400	5.6	7.1	484 g
40.0	80.0	30.2	3208	S3208	3208-2RS	S3208-2RS	47400	34600	5.0	6.3	654 g
45.0	85.0	30.2	3209	S3209	3209-2RS	S3209-2RS	47500	35400	4.5	5.4	709 g
50.0	90.0	30.2	3210	S3210	3210-2RS	S3210-2RS	50700	40200	4.0	4.6	764 g
17.0	47.0	22.2	3303	S3303	3303-2RS	S3303-2RS	20900	11900	9.5	14.0	190 g
20.0	52.0	22.2	3304	S3304	3304-2RS	S3304-2RS	23100	14500	8.5	12.0	230 g
25.0	62.0	25.4	3305	S3305	3305-2RS	S3305-2RS	29500	19100	7.5	10.0	369 g
30.0	72.0	30.2	3306	S3306	3306-2RS	S3306-2RS	41000	27400	6.2	7.9	585 g
35.0	80.0	34.9	3307	S3307	3307-2RS	S3307-2RS	51200	33200	5.1	6.5	816 g
40.0	90.0	36.5	3308	S3308	3308-2RS	S3308-2RS	61900	43400	4.7	5.8	1070 g
45.0	100.0	38.7	3309	S3309	3309-2RS	S3309-2RS	89000	79300	4.5	6.0	1420 g
50.0	110.0	44.4	3310	S3310	3310-2RS	S3310-2RS	107000	96300	4.0	5.3	1930 g
17.0	40.0	17.5	5203	S5203	5203-2RS	S5203-2RS	14600	9050	11.0	16.0	96 g
20.0	47.0	20.0	5204	S5204	5204-2RS	S5204-2RS	19600	12400	10.0	15.0	160 g
25.0	52.0	20.6	5205	S5205	5205-2RS	S5205-2RS	21300	14700	8.5	11.0	180 g
30.0	62.0	23.8	5206	S5206	5206-2RS	S5206-2RS	25600	21100	7.1	9.5	290 g

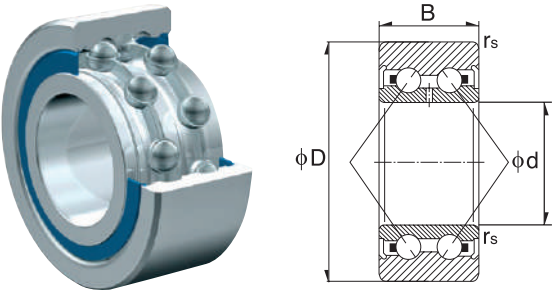
Doppelreihige Schrägkugellager / Double Row Angular Contact Ball Bearings



239

Dimension (mm)			Designation/Type				*Load Rating (only 100 Cr6)		*Limiting Speed x1000rpm (open)		Weight (g) approx.
d	D	B	Open		2RS						
			Chrome Steel	Stainless	Chrome Steel	Stainless	C, dyn. N	C, stat. N	Grease	Oil	
35.0	72.0	27.0	5207	S5207	5207-2RS	S5207-2RS	39000	28700	6.3	8.0	440 g
40.0	80.0	30.2	5208	S5208	5208-2RS	S5208-2RS	44000	33500	5.6	7.5	580 g
45.0	85.0	30.2	5209	S5209	5209-2RS	S5209-2RS	49500	38000	5.0	6.7	630 g
50.0	90.0	30.2	5210	S5210	5210-2RS	S5210-2RS	53000	43500	4.8	6.3	660 g
17.0	47.0	22.2	5303	S5303	5303-2RS	S5303-2RS	21000	12600	10.0	14.0	180 g
20.0	52.0	22.2	5304	S5304	5304-2RS	S5304-2RS	24600	16000	9.0	12.0	220 g
25.0	62.0	25.4	5305	S5305	5305-2RS	S5305-2RS	32500	20700	7.5	10.0	350 g
30.0	72.0	30.2	5306	S5306	5306-2RS	S5306-2RS	40500	28100	6.3	8.5	530 g
35.0	80.0	34.9	5307	S5307	5307-2RS	S5307-2RS	51000	36000	5.6	7.5	730 g
40.0	90.0	36.5	5308	S5308	5308-2RS	S5308-2RS	56500	41000	5.3	6.7	950 g
45.0	100.0	38.7	5309	S5309	5309-2RS	S5309-2RS	68500	51000	4.5	6.0	1400 g
50.0	110.0	44.4	5310	S5310	5310-2RS	S5310-2RS	81800	62200	3.6	5.3	1950 g

Doppelreihige Kugellager / Double Row Angular Contact Bearings



240

Dimension (mm)			Designation/Type			*Load Rating		*Limiting Speed x1000rpm	Weight (g) approx.
d	D	B	Open	2Z	2RS	C, dyn. N	C, stat. N		
10.0	19.0	7.0	3800	3800-2Z	3800-2RS	2120	1400	18.0	8 g
12.0	21.0	7.0	3801	3801-2Z	3801-2RS	2190	1550	16.0	8 g
15.0	24.0	7.0	3802	3802-2Z	3802-2RS	2430	1960	16.0	9 g
17.0	26.0	7.0	3803	3803-2Z	3803-2RS	2480	2080	14.0	15 g
20.0	32.0	10.0	3804	3804-2Z	3804-2RS	5800	4850	10.0	20 g
25.0	37.0	10.0	3805	3805-2Z	3805-2RS	6000	5600	8.5	25 g
30.0	42.0	10.0	3806	3806-2Z	3806-2RS	6300	6100	7.0	30 g
35.0	47.0	10.0	3807	3807-2Z	3807-2RS	6700	7000	6.0	37 g
40.0	52.0	10.0	3808	3808-2Z	3808-2RS	7000	7800	5.3	40 g

Company focus

Technische Zeichnungen in AutoCAD
Autocad Technical Drawings

ZEN bietet für alle seine Produkte AutoCAD-Zeichnungen an. Diese beinhalten u. a.:

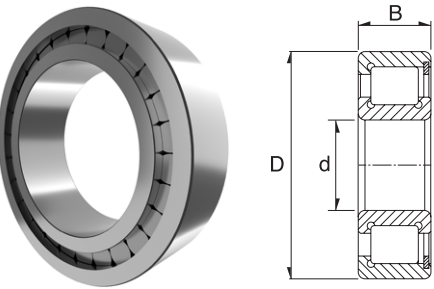
ZEN have an AUTOCAD department that can supply AUTOCAD drawings for all our products. Each technical drawing includes:

- ✓ Allgemeine Informationen
Working Information
- ✓ Radialspiel
Radial Play
- ✓ Tragzahlen
Load Ratings
- ✓ Drehzahlgrenzen
Limiting Speeds
- ✓ Abmessungen
Dimensions
- ✓ Gewicht
Weight
- ✓ Verwendete Materialien
Parts Material

Alle unsere technischen Zeichnungen sind unter www.zen.biz einseh- und downloadbar.

All our technical drawings are available online at www.zen.biz.

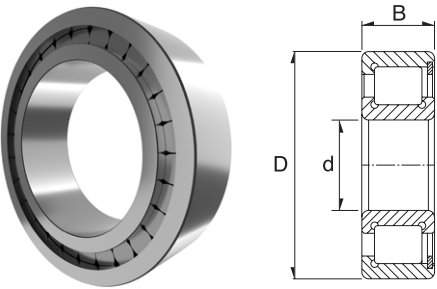
NCF Zylinderrollenlager / NCF Cylindrical Roller Bearings



242

Dimension (mm)			Designation/ Type	Alternative Designation/Type	*Load Rating		*Limiting Speed (rpm)	Weight (kg)
d	D	B			C, dyn. kN	C, stat. kN		
20.0	47.0	18.0	NCF 2204	SL18 2204	41	37.5	9500	0.16 kg
20.0	47.0	18.0	NCF 2204 C3	SL18 2204 C3	41	37.5	9500	0.16 kg
20.0	42.0	16.0	NCF 3004	SL18 3004	27.5	26.5	10000	0.11 kg
20.0	42.0	16.0	NCF 3004 C3	SL18 3004 C3	27.5	26.5	10000	0.11 kg
25.0	52.0	18.0	NCF 2205	SL18 2205	46	45	8500	0.18 kg
25.0	52.0	18.0	NCF 2205 C3	SL18 2205 C3	46	45	8500	0.18 kg
25.0	47.0	16.0	NCF 3005	SL18 3005	31.5	32.5	9000	0.12 kg
25.0	47.0	16.0	NCF 3005 C3	SL18 3005 C3	31.5	32.5	9000	0.12 kg
30.0	62.0	20.0	NCF 2206	SL18 2206	63	65	7000	0.30 kg
30.0	62.0	20.0	NCF 2206 C3	SL18 2206 C3	63	65	7000	0.30 kg
30.0	55.0	19.0	NCF 3006	SL18 3006	40.5	43	7500	0.20 kg
30.0	55.0	19.0	NCF 3006 C3	SL18 3006 C3	40.5	43	7500	0.20 kg
35.0	72.0	23.0	NCF 2207	SL18 2207	79	79	6000	0.44 kg
35.0	72.0	23.0	NCF 2207 C3	SL18 2207 C3	79	79	6000	0.44 kg
35.0	62.0	20.0	NCF 3007	SL18 3007	49.5	55	6500	0.26 kg
35.0	62.0	20.0	NCF 3007 C3	SL18 3007 C3	49.5	55	6500	0.26 kg
40.0	80.0	23.0	NCF 2208	SL18 2208	87	83	5500	0.55 kg
40.0	80.0	23.0	NCF 2208 C3	SL18 2208 C3	87	83	5500	0.55 kg
40.0	68.0	21.0	NCF 3008	SL18 3008	59	68	6000	0.31 kg
40.0	68.0	21.0	NCF 3008 C3	SL18 3008 C3	59	68	6000	0.31 kg
45.0	85.0	23.0	NCF 2209	SL18 2209	90	99	5000	0.59 kg
45.0	75.0	23.0	NCF 3009	SL18 3009	63	76	5500	0.40 kg
45.0	75.0	23.0	NCF 3009 C3	SL18 3009 C3	63	76	5500	0.40 kg
50.0	90.0	23.0	NCF 2210	SL18 2210	97	113	4600	0.64 kg
50.0	90.0	23.0	NCF 2210 C3	SL18 2210 C3	97	113	4600	0.64 kg
50.0	90.0	23.0	NCF 2211 C3	SL18 2211 C3	97	113	4600	0.87 kg
50.0	80.0	23.0	NCF 3010	SL18 3010	79	96	5000	0.43 kg
50.0	80.0	23.0	NCF 3010 C3	SL18 3010 C3	79	96	5000	0.43 kg
55.0	100.0	25.0	NCF 2211	SL18 2211	125	150	4200	0.87 kg
55.0	90.0	26.0	NCF 3011	SL18 3011	107	138	4500	0.64 kg

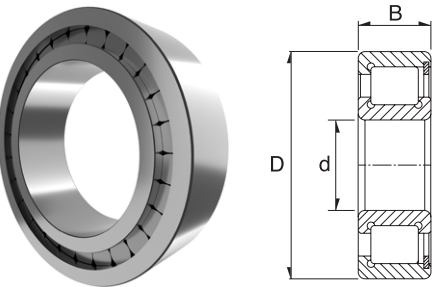
NCF Zylinderrollenlager / NCF Cylindrical Roller Bearings



243

Dimension (mm)			Designation/ Type	Alternative Designation/Type	*Load Rating		*Limiting Speed (rpm)	Weight (kg)
d	D	B			C, dyn. kN	C, stat. kN		
55.0	90.0	26.0	NCF 3011 C3	SL18 3011 C3	107	138	4500	0.64 kg
60.0	110.0	28.0	NCF 2212	SL18 2212	152	180	3800	1.18 kg
60.0	110.0	28.0	NCF 2212 C3	SL18 2212 C3	152	180	3800	1.18 kg
60.0	85.0	16.0	NCF 2912	SL18 2912	57	78	4500	0.29 kg
60.0	85.0	16.0	NCF 2912 C3	SL18 2912 C3	57	78	4500	0.29 kg
60.0	95.0	26.0	NCF 3012	SL18 3012	110	145	4200	0.69 kg
60.0	95.0	26.0	NCF 3012 C3	SL18 3012 C3	110	145	4200	0.69 kg
65.0	120.0	31.0	NCF 2213	SL18 2213	178	214	3500	1.57 kg
65.0	120.0	31.0	NCF 2213 C3	SL18 2213 C3	178	214	3500	1.57 kg
65.0	90.0	16.0	NCF 2913	SL18 2913	60	86	4200	0.31 kg
65.0	90.0	16.0	NCF 2913 C3	SL18 2913 C3	60	86	4200	0.31 kg
65.0	100.0	26.0	NCF 3013	SL18 3013	116	159	3900	0.73 kg
65.0	100.0	26.0	NCF 3013 C3	SL18 3013 C3	116	159	3900	0.73 kg
70.0	125.0	31.0	NCF 2214	SL18 2214	184	227	3300	1.66 kg
70.0	125.0	31.0	NCF 2215	SL18 2215	184	227	3300	1.75 kg
70.0	100.0	19.0	NCF 2914	SL18 2914	79	114	3800	0.49 kg
70.0	100.0	19.0	NCF 2914 C3	SL18 2914 C3	79	114	3800	0.49 kg
70.0	110.0	30.0	NCF 3014	SL18 3014	137	176	3600	1.02 kg
70.0	110.0	30.0	NCF 3014 C3	SL18 3014 C3	137	176	3600	1.02 kg
75.0	130.0	31.0	NCF 2215 C3	SL18 2215 C3	190	241	3200	1.75 kg
75.0	130.0	31.0	NCF 2216	SL18 2216	190	241	3200	2.15 kg
75.0	105.0	19.0	NCF 2915	SL18 2915	81	121	3600	0.52 kg
75.0	115.0	30.0	NCF 3015	SL18 3015	145	194	3400	1.06 kg
75.0	115.0	30.0	NCF 3015 C3	SL18 3015 C3	145	194	3400	1.06 kg
80.0	140.0	33.0	NCF 2216 C3	SL18 2216 C3	226	285	2900	2.15 kg
80.0	110.0	19.0	NCF 2916	SL18 2916	84	129	3400	0.55 kg
80.0	110.0	19.0	NCF 2916 C3	SL18 2916 C3	84	129	3400	0.55 kg
80.0	125.0	34.0	NCF 3016	SL18 3016	173	225	3200	1.43 kg
80.0	125.0	34.0	NCF 3016 C3	SL18 3016 C3	173	225	3200	1.43 kg
85.0	150.0	36.0	NCF 2217	SL18 2217	255	325	2800	2.74 kg

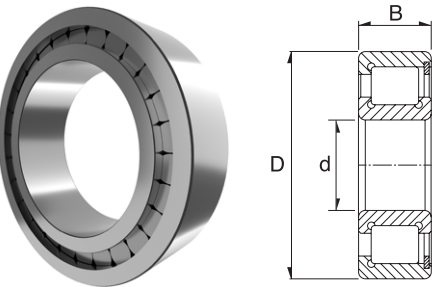
NCF Zylinderrollenlager / NCF Cylindrical Roller Bearings



244

Dimension (mm)			Designation/ Type	Alternative Designation/Type	*Load Rating		*Limiting Speed (rpm)	Weight (kg)
d	D	B			C, dyn. kN	C, stat. kN		
85.0	150.0	36.0	NCF 2217 C3	SL18 2217 C3	255	325	2800	2.74 kg
85.0	120.0	22.0	NCF 2917	SL18 2917	105	162	3200	0.81 kg
85.0	130.0	34.0	NCF 3017	SL18 3017	178	237	3000	1.51 kg
85.0	130.0	34.0	NCF 3017 C3	SL18 3017 C3	178	237	3000	1.51 kg
90.0	160.0	40.0	NCF 2218	SL18 2218	290	370	2600	3.48 kg
90.0	160.0	40.0	NCF 2218 C3	SL18 2218 C3	290	370	2600	3.48 kg
90.0	125.0	22.0	NCF 2918	SL18 2918	109	172	3000	0.84 kg
90.0	125.0	22.0	NCF 2918 C3	SL18 2918 C3	109	172	3000	0.84 kg
90.0	140.0	37.0	NCF 3018	SL18 3018	208	280	2800	1.97 kg
90.0	140.0	37.0	NCF 3018 C3	SL18 3018 C3	208	280	2800	1.97 kg
95.0	130.0	22.0	NCF 2919	SL18 2919	118	179	2900	0.84 kg
100.0	180.0	46.0	NCF 2220	SL18 2220	395	520	2300	5.13 kg
100.0	180.0	46.0	NCF 2220 C3	SL18 2220 C3	395	520	2300	5.13 kg
100.0	140.0	24.0	NCF 2920	SL18 2920	136	206	2700	1.14 kg
100.0	140.0	24.0	NCF 2920 C3	SL18 2920 C3	136	206	2700	1.14 kg
100.0	150.0	37.0	NCF 3020	SL18 3020	219	310	2600	2.15 kg
100.0	150.0	37.0	NCF 3020 C3	SL18 3020 C3	219	310	2600	2.15 kg
110.0	200.0	53.0	NCF 2222	SL18 2222	455	590	2100	7.24 kg
110.0	200.0	53.0	NCF 2222 C3	SL18 2222 C3	455	590	2100	7.24 kg
110.0	150.0	24.0	NCF 2922	SL18 2922	140	220	2500	1.23 kg
110.0	150.0	24.0	NCF 2922 C3	SL18 2922 C3	140	220	2500	1.23 kg
110.0	170.0	45.0	NCF 3022	SL18 3022	285	395	2300	3.50 kg
110.0	170.0	45.0	NCF 3022 C3	SL18 3022 C3	285	395	2300	3.50 kg
120.0	215.0	58.0	NCF 2224	SL18 2224	540	730	1900	9.08 kg
120.0	215.0	58.0	NCF 2224 C3	SL18 2224 C3	540	730	1900	9.08 kg
120.0	165.0	27.0	NCF 2924	SL18 2924	180	295	2300	1.73 kg
120.0	165.0	27.0	NCF 2924 C3	SL18 2924 C3	180	295	2300	1.73 kg
120.0	180.0	46.0	NCF 3024	SL18 3024	300	435	2200	3.80 kg
130.0	230.0	64.0	NCF 2226 C3	SL18 2226 C3	630	860	1800	12.00 kg
130.0	180.0	30.0	NCF 2926	SL18 2926	214	355	2100	2.33 kg

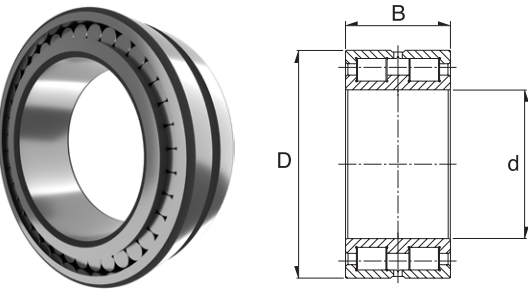
NCF Zylinderrollenlager / NCF Cylindrical Roller Bearings



245

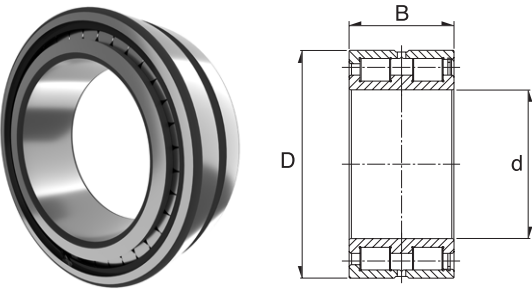
Dimension (mm)			Designation/ Type	Alternative Designation/Type	*Load Rating		*Limiting Speed (rpm)	Weight (kg)
d	D	B			C, dyn. kN	C, stat. kN		
130.0	180.0	30.0	NCF 2926 C3	SL18 2926 C3	214	355	2100	2.33 kg
130.0	200.0	52.0	NCF 3026	SL18 3026	435	620	2000	5.65 kg
140.0	250.0	68.0	NCF 2228	SL18 2228	720	1020	1700	14.50 kg
140.0	190.0	30.0	NCF 2928	SL18 2928	232	385	2000	2.42 kg
140.0	190.0	30.0	NCF 2928 C3	SL18 2928 C3	232	385	2000	2.42 kg
140.0	210.0	53.0	NCF 3028	SL18 3028	455	680	1900	6.04 kg
140.0	210.0	53.0	NCF 3028 C3	SL18 3028 C3	455	680	1900	6.04 kg
150.0	270.0	73.0	NCF 2230	SL18 2230	830	1180	1500	18.40 kg
150.0	210.0	36.0	NCF 2930	SL18 2930	305	490	1800	3.77 kg
150.0	210.0	36.0	NCF 2930 C3	SL18 2930 C3	305	490	1800	3.77 kg
150.0	225.0	56.0	NCF 3030	SL18 3030	480	710	1700	7.33 kg
150.0	225.0	56.0	NCF 3030 C3	SL18 3030 C3	480	710	1700	7.33 kg
160.0	220.0	36.0	NCF 2932	SL18 2932	320	520	1700	4.00 kg
160.0	220.0	36.0	NCF 2932 C3	SL18 2932 C3	320	520	1700	4.00 kg
160.0	240.0	60.0	NCF 3032	SL18 3032	550	820	1600	8.80 kg
160.0	240.0	60.0	NCF 3032 C3	SL18 3032 C3	550	820	1600	8.80 kg
170.0	230.0	36.0	NCF 2934	SL18 2934	330	560	1600	4.30 kg
170.0	230.0	36.0	NCF 2934 C3	SL18 2934 C3	330	560	1600	4.30 kg
180.0	250.0	42.0	NCF 2936	SL18 2936	410	690	1500	6.20 kg
180.0	250.0	42.0	NCF 2936 C3	SL18 2936 C3	410	690	1500	6.20 kg
190.0	260.0	42.0	NCF 2938	SL18 2938	455	790	1400	6.50 kg
190.0	260.0	42.0	NCF 2938 C3	SL18 2938 C3	455	790	1400	6.50 kg
240.0	300.0	28.0	NCF 1848	SL18 1848	224	435	1200	4.40 kg

NNC Zylinderrollenlager / NNC Cylindrical Roller Bearings



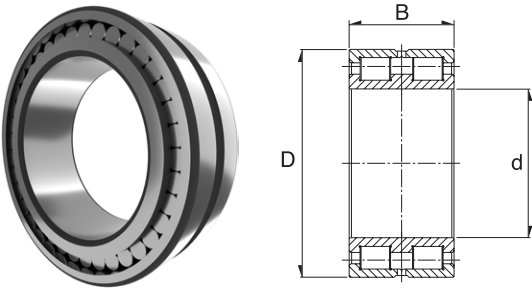
Dimension (mm)			Designation/ Type	Alternative Designation/Type	*Load Rating		*Limiting Speed (rpm)	Weight (kg)
d	D	B			C, dyn. kN	C, stat. kN		
90.0	125.0	35.0	NNC 4918	SL01 4918	161	300	3000	1.35 kg
100.0	140.0	40.0	NNC 4920	SL01 4920	209	400	2600	1.95 kg
110.0	150.0	40.0	NNC 4922	SL01 4922	220	430	2400	2.15 kg
120.0	165.0	45.0	NNC 4924	SL01 4924	242	480	2200	2.95 kg
130.0	180.0	50.0	NNC 4926	SL01 4926	297	530	2000	3.95 kg
140.0	190.0	50.0	NNC 4928	SL01 4928	308	570	1900	4.20 kg
150.0	190.0	40.0	NNC 4830	SL01 4830	255	585	1800	2.90 kg
150.0	210.0	60.0	NNC 4930	SL01 4930	429	830	1700	6.65 kg
160.0	200.0	40.0	NNC 4832	SL01 4832	260	610	1700	3.10 kg
170.0	230.0	60.0	NNC 4934	SL01 4934	457	950	1500	7.35 kg
180.0	250.0	69.0	NNC 4936	SL01 4936	594	1220	1400	10.80 kg
200.0	250.0	50.0	NNC 4840	SL01 4840	369	800	1400	5.90 kg

NNCF Zylinderrollenlager / NNCF Cylindrical Roller Bearings



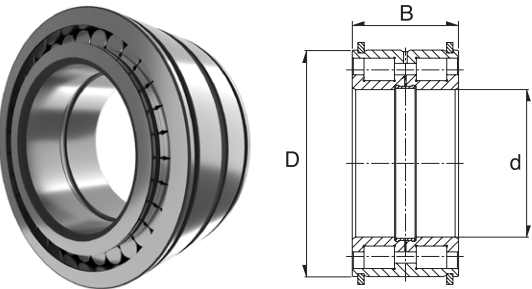
Dimension (mm)			Designation/ Type	Alternative Designation/Type	*Load Rating		*Limiting Speed (rpm)	Weight (kg)
d	D	B			C, dyn. kN	C, stat. kN		
90.0	140.0	67.0	NNCF 5018	SL18 5018	355	560	2800	3.62 kg
90.0	140.0	67.0	NNCF 5018 C3	SL18 5018 C3	355	560	2800	3.62 kg
100.0	150.0	67.0	NNCF 5020	SL18 5020	375	620	2600	3.94 kg
100.0	150.0	67.0	NNCF 5020 C3	SL18 5020 C3	375	620	2600	3.94 kg
120.0	180.0	60.0	NNCF 5024	SL18 5024	520	870	2200	6.77 kg
120.0	180.0	60.0	NNCF 5024 C3	SL18 5024 C3	520	870	2200	6.77 kg
140.0	210.0	95.0	NNCF 5028	SL18 5028	809	1370	1800	11.1 kg
140.0	210.0	95.0	NNCF 5028 C3	SL18 5028 C3	809	1370	1800	11.1 kg
160.0	240.0	109.0	NNCF 5032 C3	SL18 5032 C3	952	1600	1500	16.2 kg
170.0	260.0	122.0	NNCF 5034 C3	SL18 5034 C3	1230	2120	1400	23.0 kg

NNCL Zylinderrollenlager / NNCL Cylindrical Roller Bearings



Dimension (mm)			Designation/ Type	Alternative Designation/Type	*Load Rating		*Limiting Speed (rpm)	Weight (kg)
d	D	B			C, dyn. kN	C, stat. kN		
100.0	140.0	40.0	NNCL 4920	SL02 4920	196	380	2700	1.9 kg
110.0	150.0	40.0	NNCL 4922	SL02 4922	204	410	2500	2.1 kg
120.0	165.0	45.0	NNCL 4924	SL02 4924	228	455	2300	2.85 kg
130.0	180.0	50.0	NNCL 4926	SL02 4926	297	530	2000	3.8 kg
140.0	190.0	50.0	NNCL 4928	SL02 4928	308	570	1900	4.1 kg
150.0	210.0	60.0	NNCL 4930	SL02 4930	429	830	1700	6.45 kg

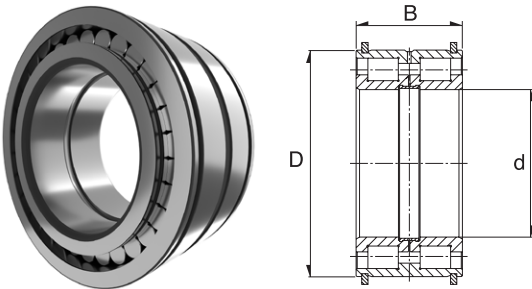
NNF Zylinderrollenlager / NNF Cylindrical Roller Bearings



248

Dimension (mm)			Designation/ Type	Alternative Designation/Type	*Load Rating		*Limiting Speed (rpm)	Weight (kg)
d	D	B			C, dyn. kN	C, Stat. kN		
20.0	42.0	30.0	NNF 5004	SL04 5004	40.5	49.0	4000	0.20 kg
20.0	42.0	30.0	NNF 5004 PP	SL04 5004 PP	40.5	49.0	4000	0.20 kg
20.0	42.0	30.0	NNF 5004 PP C3	SL04 5004 PP C3 2NR	40.5	49.0	4000	0.20 kg
20.0	42.0	30.0	NNF 5004 PP 2NR	SL04 5004 PP 2NR	40.5	49.0	4000	0.20 kg
25.0	47.0	30.0	NNF 5005	SL04 5005	44.5	58.0	3600	0.24 kg
25.0	47.0	30.0	NNF 5005 PP	SL04 5005 PP	44.5	58.0	3600	0.24 kg
25.0	47.0	30.0	NNF 5005 PP 2NR	SL04 5005 PP 2NR	44.5	58.0	3600	0.24 kg
30.0	55.0	34.0	NNF 5006	SL04 5006	50.0	67.0	3000	0.37 kg
30.0	55.0	34.0	NNF 5006 PP	SL04 5006 PP	50.0	67.0	3000	0.37 kg
30.0	55.0	34.0	NNF 5006 PP C3	SL04 5006 PP C3	50.0	67.0	3000	0.37 kg
30.0	55.0	34.0	NNF 5006 PP 2NR	SL04 5006 PP 2NR	50.0	67.0	3000	0.37 kg
35.0	62.0	36.0	NNF 5007	SL04 5007	63.0	88.0	2600	0.48 kg
35.0	62.0	36.0	NNF 5007 PP	SL04 5007 PP	63.0	88.0	2600	0.48 kg
35.0	62.0	36.0	NNF 5007 PP 2NR	SL04 5007 PP 2NR	63.0	88.0	2600	0.48 kg
40.0	68.0	38.0	NNF 5008	SL04 5008	79.5	116.0	2500	0.56 kg
40.0	68.0	38.0	NNF 5008 PP	SL04 5008 PP	79.5	116.0	2500	0.56 kg
40.0	68.0	38.0	NNF 5008 PP C3	SL04 5008 PP C3 2NR	79.5	116.0	2500	0.56 kg
40.0	68.0	38.0	NNF 5008 PP 2NR	SL04 5008 PP 2NR	79.5	116.0	2500	0.56 kg
45.0	75.0	40.0	NNF 5009 PP	SL04 5009 PP	95.5	144.0	2200	0.76 kg
50.0	80.0	40.0	NNF 5010	SL04 5010	100.0	158.0	2000	0.76 kg
50.0	80.0	40.0	NNF 5010 PP	SL04 5010 PP	100.0	158.0	2000	0.76 kg
50.0	80.0	40.0	NNF 5010 PP C3	SL04 5010 PP C3 2NR	100.0	158.0	2000	0.76 kg
50.0	80.0	40.0	NNF 5010 PP 2NR	SL04 5010 PP 2NR	100.0	158.0	2000	0.76 kg
55.0	90.0	46.0	NNF 5011 PP	SL04 5011 PP	118.0	193.0	1800	1.18 kg
55.0	90.0	46.0	NNF 5011 PP 2NR	SL04 5011 PP 2NR	118.0	193.0	1800	1.18 kg
60.0	95.0	46.0	NNF 5012 PP	SL04 5012 PP	123.0	208.0	1700	1.26 kg
60.0	95.0	46.0	NNF 5012 PP 2NR	SL04 5012 PP 2NR	123.0	208.0	1700	1.26 kg
65.0	100.0	46.0	NNF 5013 PP	SL04 5013 PP	128.0	224.0	1500	1.33 kg
65.0	100.0	46.0	NNF 5013 PP C3	SL04 5013 PP C3 2NR	128.0	224.0	1500	1.33 kg
65.0	100.0	46.0	NNF 5013 PP 2NR	SL04 5013 PP2 NR	128.0	224.0	1500	1.33 kg

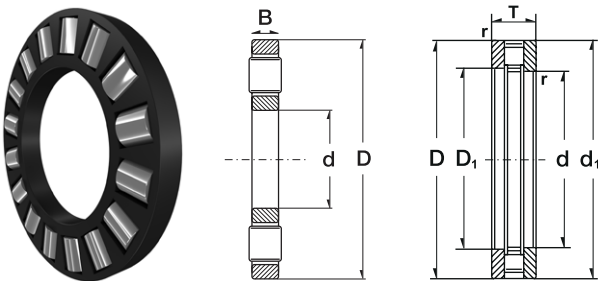
NNF Zylinderrollenlager / NNF Cylindrical Roller Bearings



249

Dimension (mm)			Designation/ Type	Alternative Designation/Type	*Load Rating		*Limiting Speed (rpm)	Weight (kg)
d	D	B			C, dyn. kN	C, stat. kN		
70.0	110.0	54.0	NNF 5014 PP	SL04 5014 PP	171	285	1400	1.87 kg
70.0	110.0	54.0	NNF 5014 PP 2NR	SL04 5014 PP 2NR	171	285	1400	1.87 kg
75.0	115.0	54.0	NNF 5015 PP	SL04 5015 PP	197	325	1300	1.96 kg
75.0	115.0	54.0	NNF 5015 PP 2NR	SL04 5015 PP 2NR	197	325	1300	1.96 kg
80.0	125.0	60.0	NNF 5016 PP	SL04 5016 PP	205	350	1300	2.71 kg
80.0	125.0	60.0	NNF 5016 PP 2NR	SL04 5016 PP 2NR	205	350	1300	2.71 kg
85.0	130.0	60.0	NNF 5017 PP	SL04 5017 PP	214	380	1200	2.83 kg
85.0	130.0	60.0	NNF 5017 PP 2NR	SL04 5017 PP 2NR	214	380	1200	2.83 kg
90.0	140.0	67.0	NNF 5018 PP	SL04 5018 PP	305	540	1100	3.71 kg
90.0	140.0	67.0	NNF 5018 PP C3	SL04 5018 PP C3 2NR	305	540	1100	3.71 kg
90.0	140.0	67.0	NNF 5018 PP 2NR	SL04 5018 PP 2NR	305	540	1100	3.71 kg
95.0	145.0	67.0	NNF 5019 PP	SL04 5019 PP	310	560	1100	3.80 kg
95.0	145.0	67.0	NNF 5020 PP	SL04 5020 PP	310	560	1100	3.88 kg
100.0	150.0	67.0	NNF 5020 PP 2NR	SL04 5020 PP 2NR	330	580	1000	3.88 kg
100.0	150.0	67.0	NNF 5020 PP 2NR C3	SL04 5020 PP C3 2NR	330	580	1000	3.88 kg
110.0	170.0	80.0	NNF 5022 PP	SL04 5022 PP 2NR	385	695	910	3.95 kg
110.0	170.0	80.0	NNF 5022 PP 2NR	SL04 5022 PP	385	695	910	3.95 kg
120.0	180.0	80.0	NNF 5024 PP	SL04 5024 PP	400	750	830	7.04 kg
120.0	180.0	80.0	NNF 5024 PP 2NR	SL04 5024 PP 2NR	400	750	830	7.04 kg
130.0	200.0	95.0	NNF 5026 PP	SL04 5026 PP	535	1000	770	10.40 kg
130.0	200.0	95.0	NNF 5026 PP 2NR	SL04 5026 PP 2NR	535	1000	770	10.50 kg
140.0	210.0	95.0	NNF 5028 PP	SL04 5028 PP	600	1120	710	11.00 kg
155.0	225.0	100.0	NNF 5030 PP	SL04 5030 PP	690	1290	670	13.50 kg
160.0	240.0	109.0	NNF 5032 PP	SL04 5032 PP	720	1390	630	16.60 kg
160.0	240.0	109.0	NNF 5032 PP 2NR	SL04 5032 PP 2NR	720	1390	630	16.60 kg
170.0	260.0	122.0	NNF 5034 PP	SL04 5034 PP	925	1790	590	22.50 kg
180.0	280.0	136.0	NNF 5036 PP	SL04 5036 PP	1090	2140	560	30.10 kg
180.0	280.0	136.0	NNF 5036 PP 2NR	SL04 5036 PP 2NR	1090	2140	560	30.10 kg
190.0	290.0	136.0	NNF 5038 PP 2NR	SL04 5038 PP 2NR	1120	2230	530	31.50 kg
200.0	310.0	150.0	NNF 5040 PP 2NR	SL04 5040 PP 2NR	1310	2650	500	42.00 kg

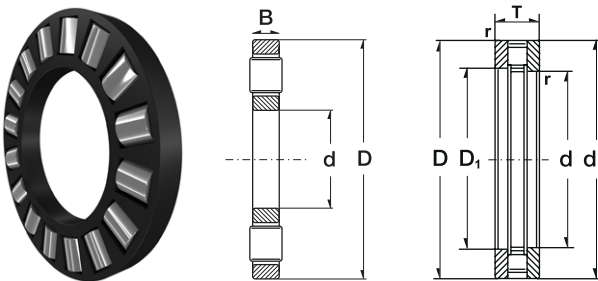
Axial-Zylinderrollenlager / Axial Cylindrical Roller Bearings



250

Designation /Type	Weight (kg) approx.	Complete Bearing Designation	Weight (kg) approx.	Housing location washer	Shaft locating washer	Bearing Washer	Dimension (mm)			*Load Rating		*Limiting Speed (rpm)
							d	D	B	C, dyn. N	C, stat. N	
K81102-TV	0.006	81102-TV	0.024	GS81102	WS81102	LS1528	15.0	28.0	3.5	14400	28500	13400
K81103-TV	0.009	81103-TV	0.027	GS81103	WS81103	LS1730	17.0	30.0	3.5	15900	33500	12300
K81104-TV	0.013	81104-TV	0.037	GS81104	WS81104	LS2035	20.0	35.0	4.5	24900	53000	10500
K81105-TV	0.015	81105-TV	0.053	GS81105	WS81105	LS2542	25.0	42.0	5.0	33500	76000	8600
K81106-TV	0.017	81106-TV	0.057	GS81106	WS81106	LS3047	30.0	47.0	5.0	35500	86000	7500
K81206-TV	0.033	81206-TV	0.123	GS81206	WS81206	-	30.0	52.0	7.5	64000	141000	7000
K89306-TV	0.04	89306-TV	0.24	GS89306	WS89306	-	30.0	60.0	5.5	69000	197000	6400
K81107-TV	0.019	81107-TV	0.073	GS81107	WS81107	LS3552	35.0	52.0	5.0	39000	101000	6600
K81207-TV	0.043	81207-TV	0.195	GS81207	WS81207	-	35.0	62.0	7.5	80000	199000	5900
K89307-TV	0.053	89307-TV	0.34	GS89307	WS89307	-	35.0	68.0	6.0	80000	237000	5600
K81108-TV	0.031	81108-TV	0.105	GS81108	WS81108	LS4060	40.0	60.0	6.0	56000	148000	5800
K81208-TV	0.081	81208-TV	0.249	GS81208	WS81208	-	40.0	68.0	9.0	107000	265000	5300
K89308-TV	0.098	89308-TV	0.484	GS89308	WS89308	-	40.0	78.0	7.0	122000	385000	4900
K81109-TV	0.035	81109-TV	0.13	GS81109	WS81109	LS4565	45.0	65.0	6.0	59000	163000	5200
K81209-TV	0.085	81209-TV	0.287	GS81209	WS81209	-	45.0	73.0	9.0	105000	265000	4900
K89309-TV	0.121	89309-TV	0.615	GS89309	WS89309	-	45.0	85.0	7.5	139000	445000	4450
K81110-TV	0.038	81110-TV	0.14	GS81110	WS81110	LS5070	50.0	70.0	6.0	61000	177000	4800
K81210-TV	0.098	81210-TV	0.356	GS81210	WS81210	-	50.0	78.0	9.0	117000	315000	4500
K89310-TV	0.175	89310-TV	0.887	GS89310	WS89310	-	50.0	95.0	8.0	167000	560000	3950
K81111-TV	0.045	81111-TV	0.218	GS81111	WS81111	LS5578	55.0	78.0	6.0	90000	300000	4350
K81211-TV	0.166	81211-TV	0.568	GS81211	WS81211	-	55.0	90.0	11.0	154000	405000	3950
K89311-TV	0.195	89311-TV	1.18	GS89311	WS89311	-	55.0	105.0	9.0	184000	600000	3600
K81112-TV	0.082	81112-TV	0.266	GS81112	WS81112	LS6085	60.0	85.0	7.5	103000	315000	3950
K81212-TV	0.176	81212-TV	0.642	GS81212	WS81212	-	60.0	95.0	11.0	172000	480000	3700
K89312-TV	0.210	89312-TV	1.26	GS89312	WS89312	-	60.0	110.0	9.0	196000	670000	3400

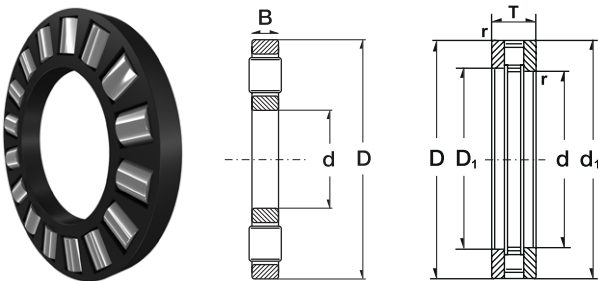
Axial-Zylinderrollenlager / Axial Cylindrical Roller Bearings



251

Designation /Type	Weight (kg) approx.	Designation /Type	Weight (kg) approx.	Housing location washer	Shaft locating washer	Bearing Washer	Dimension (mm)			*Load Rating		*Limiting Speed (rpm)
							d	D	B	C, dyn. N	C, stat. N	
K89412-TV	0.538	89412-TV	2.818	GS89412	WS89412	-	60.0	130.0	14.0	390000	1220000	3050
K81113-TV	0.09	81113-TV	0.31	GS81113	WS81113	LS6590	65.0	90.0	7.5	107000	340000	3700
K81213-TV	0.185	81213-TV	0.721	GS81213	WS81213	-	65.0	100.0	11.0	177000	500000	3500
K89313-TV	0.21	89313-TV	1.33	GS89313	WS89313	-	65.0	115.0	9.0	194000	670000	3200
K89413-TV	0.72	89413-TV	3.52	GS89413	WS89413	-	65.0	140.0	15.0	445000	1410000	2800
K81114-TV	0.092	81114-TV	0.332	GS81114	WS81114	LS7095	70.0	95.0	7.5	111000	365000	3500
K81214-TV	0.212	81214-TV	0.768	GS81214	WS81214	-	70.0	105.0	11.0	187000	550000	3300
K89314-TV	0.29	89314-TV	1.82	GS89314	WS89314	-	70.0	125.0	10.0	239000	830000	2950
K89414-TV	0.76	89414-TV	4.18	GS89414	WS89414	-	70.0	150.0	16.0	475000	1500000	2600
K81115-TV	0.096	81115-TV	0.393	GS81115	WS81115	LS75100	75.0	100.0	7.5	107000	350000	3300
K81215-TV	0.195	81215-TV	0.8	GS81215	WS81215	-	75.0	110.0	11.0	172000	500000	3100
K89315-TV	0.375	89315-TV	2.23	GS89315	WS89315	-	75.0	135.0	11.0	285000	1010000	2750
K89415-M	1.78	89415-M	5.96	GS89415	WS89415	-	75.0	160.0	17.0	500000	1580000	2450
K81116-TV	0.095	81116-TV	0.4	GS81116	WS81116	LS80105	80.0	105.0	7.5	106000	350000	3100
K81216-TV	0.234	81216-TV	0.9	GS81216	WS81216	-	80.0	115.0	11.0	201000	630000	2950
K89316-TV	0.42	89316-TV	2.37	GS89316	WS89316	-	80.0	140.0	11.0	305000	1110000	2600
K89416-M	2.04	89416-M	7.04	GS89416	WS89416	-	80.0	170.0	18.0	560000	1770000	2300
K81117-TV	0.118	81117-TV	0.42	GS81117	WS81117	LS85110	85.0	110.0	7.5	112000	385000	2950
K81217-TV	0.28	81217-TV	1.26	GS81217	WS81217	-	85.0	125.0	12.0	217000	660000	2750
K89317-M	0.93	89317-M	3.39	GS89317	WS89317	-	85.0	150.0	12.0	325000	1140000	2450
K89417-M	2.71	89417-M	8.65	GS89417	WS89417	-	85.0	180.0	19.0	620000	1980000	2170
K81118-TV	0.15	81118-TV	0.62	GS81118	WS81118	LS90120	90.0	120.0	9.0	141000	465000	2750
K81218-TV	0.54	81218-TV	1.77	GS81218	WS81218	-	90.0	135.0	14.0	290000	890000	2550
K89318-M	0.97	89318-M	3.63	GS89318	WS89318	-	90.0	155.0	12.0	335000	1200000	2350
K89418-M	3.04	89418-M	9.94	GS89418	WS89418	-	90.0	190.0	20.0	680000	2200000	2060

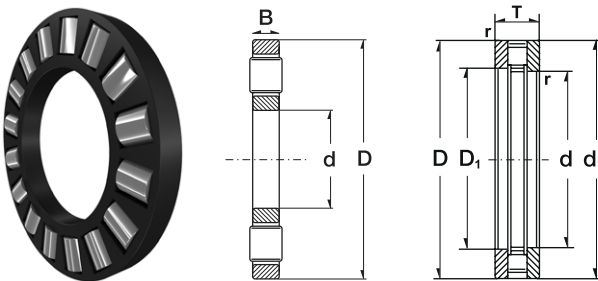
Axial-Zylinderrollenlager / Axial Cylindrical Roller Bearings



252

Designation /Type	Weight (kg) approx.	Designation /Type	Weight (kg) approx.	Housing location washer	Shaft locating washer	Bearing Washer	Dimension (mm)			*Load Rating		*Limiting Speed (rpm)
							d	D	B	C, dyn. N	C, stat. N	
K81120-TV	0.25	81120-TV	0.95	GS81120	WS81120	LS100135	100.0	135.0	11.0	199000	650000	2450
K81220-M	0.6	81220-TV	2.2	GS81220	WS81220	-	100.0	150.0	15.0	340000	1080000	2300
K89320-M	1.18	89320-M	4.56	GS89320	WS89320	-	100.0	170.0	13.0	380000	1400000	2130
K89420-M	3.92	89420-M	13.4	GS89420	WS89420	-	100.0	210.0	22.0	850000	2850000	1860
K81122-TV	0.27	81122-TV	1.04	GS81122	WS81122	LS110145	110.0	145.0	11.0	207000	700000	2260
K81222-TV	0.53	81222-TV	2.29	GS81222	WS81222	-	110.0	160.0	15.0	325000	1030000	2130
K89322-M	1.83	89322-M	6.7	GS89322	WS89322	-	110.0	190.0	15.0	500000	1870000	1920
K89422-M	5.11	89422-M	17.4	GS89422	WS89422	-	110.0	230.0	24.0	1000000	3400000	1690
K81124-TV	0.29	81124-TV	1.12	GS81124	WS81124	LS120155	120.0	155.0	11.0	214000	760000	2090
K81224-TV	0.58	81224-TV	2.54	GS81224	WS81224	-	120.0	170.0	15.0	340000	1120000	1990
K89324-M	2.64	89324-M	9.44	GS89324	WS89324	-	120.0	210.0	17.0	640000	2420000	1750
K89424-M	6.37	89424-M	21.9	GS89424	WS89424	-	120.0	250.0	26.0	1160000	4000000	1560
K81126-TV	0.38	81126-TV	1.67	GS81126	WS81126	LS130170	130.0	170.0	12.0	250000	900000	1920
K81226-TV	0.92	81226-TV	3.98	GS81226	WS81226	-	130.0	190.0	19.0	480000	1520000	1800
K89326-M	2.09	89326-M	11.2	GS89326	WS89326	-	130.0	225.0	18.0	710000	2700000	1620
K89426-M	7.96	89426-M	27.1	GS89426	WS89426	-	130.0	270.0	28.0	1330000	4600000	1440
K81128-TV	0.4	81128-TV	1.9	GS81128	WS81128	LS140180	140.0	180.0	12.0	260000	960000	1800
K81228-M	1.8	81228-M	5.07	GS81228	WS81228	-	140.0	200.0	19.0	455000	1450000	1690
K89328-M	2.57	89328-M	13.2	GS89328	WS89328	-	140.0	240.0	19.0	820000	3200000	1520
K89428-M	8.53	89428-M	29.8	GS89428	WS89428	-	140.0	280.0	28.0	1380000	4950000	1370
K81130-TV	0.43	81130-TV	2.2	GS81130	WS81130	LS150190	150.0	190.0	12.0	270000	1020000	1690
K81230-M	2.81	81230-M	7.17	GS81230	WS81230	-	150.0	215.0	21.0	590000	1940000	1580
K89330-M	3.75	89330-M	13.9	GS89330	WS89330	-	150.0	250.0	19.0	840000	3350000	1440
K89430-M	10.4	89430-M	35.4	GS89430	WS89430	-	150.0	300.0	30.0	1570000	5700000	1280
K81132-TV	0.44	81132-TV	2.12	GS81132	WS81132	LS160200	160.0	200.0	12.0	260000	990000	1600

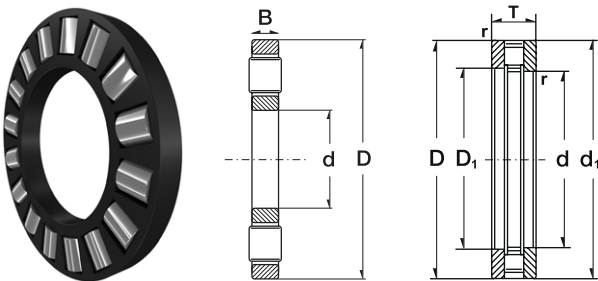
Axial-Zylinderrollenlager / Axial Cylindrical Roller Bearings



253

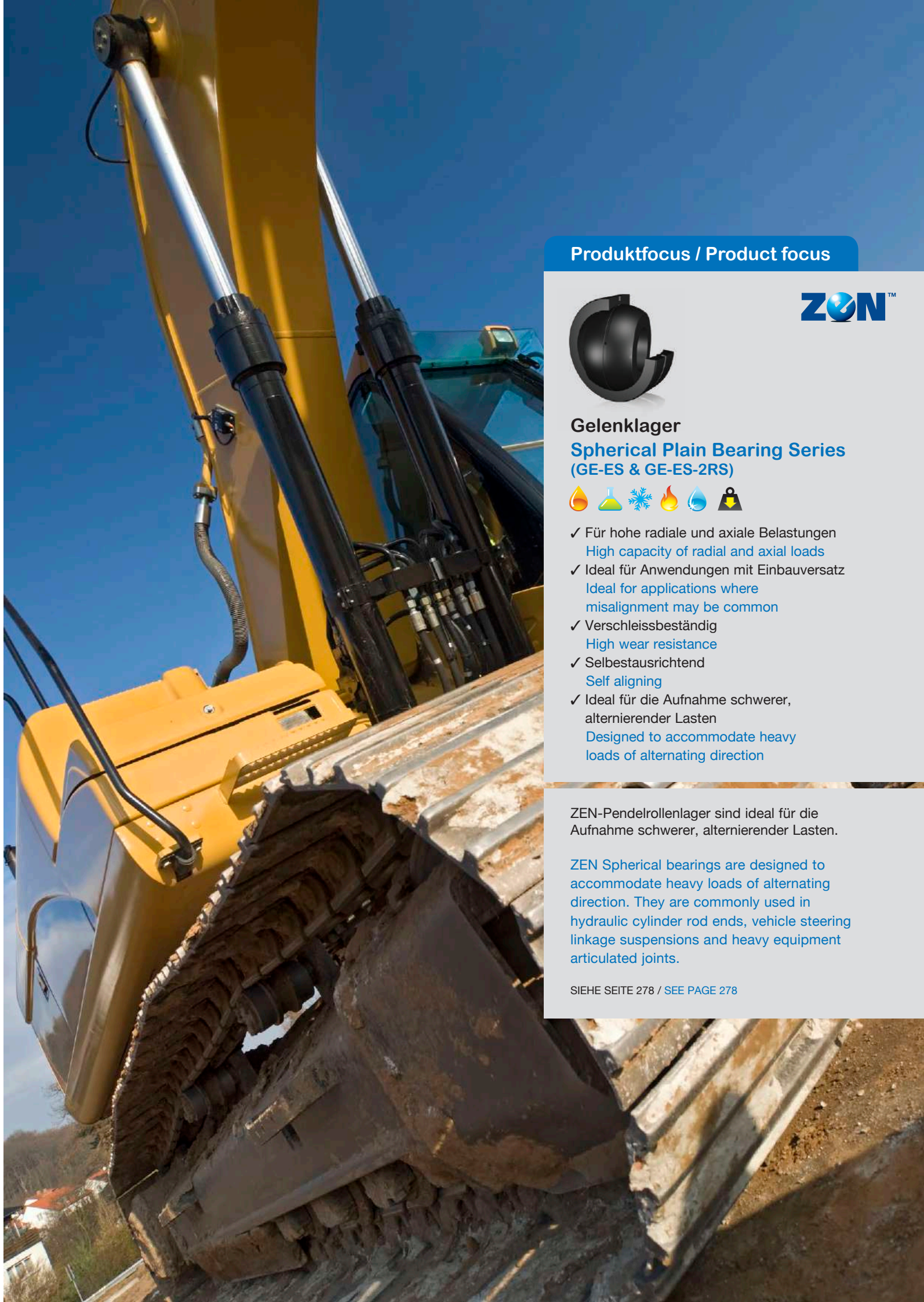
Designation /Type	Weight (kg) approx.	Designation /Type	Weight (kg) approx.	Housing location washer	Shaft locating washer	Bearing Washer	Dimension (mm)			*Load Rating		*Limiting Speed (rpm)
							d	D	B	C, dyn. N	C, stat. N	
K81232-M	3.01	81232-M	7.6	GS81232	WS81232	-	160.0	225.0	21.0	600000	2030000	1500
K89432-M	12.4	89432-M	42	GS89432	WS89432	-	160.0	320.0	32.0	1780000	6500000	1200
K81134-TV	0.66	81134-TV	2.41	GS81134	WS81134	-	170.0	215.0	14.0	360000	1380000	1500
K81234-M	3.5	81234-M	9.3	GS81234	WS81234	-	170.0	240.0	22.0	680000	2340000	1400
K89434-M	14.9	89434-M	51.9	GS89434	WS89434	-	170.0	340.0	34.0	1990000	7400000	1130
K81136-M	1.46	81136-M	3.3	GS81136	WS81136		180.0	225.0	14.0	340000	1300000	1420
K81236-M	3.67	81236-M	9.9	GS81236	WS81236		180.0	250.0	22.0	690000	2440000	1340
K89436-M	17.6	89436-M	60	GS89436	WS89436		180.0	360.0	36.0	2210000	8200000	1070
K81138-M	1.84	81138-M	1.74	GS81138	WS81138		190.0	240.0	15.0	385000	1500000	1340
K81238-M	5.17	81238-M	12.8	GS81238	WS81238		190.0	270.0	26.0	880000	3000000	1250
K89438-M	20.9	89438-M	72.1	GS89438	WS89438		190.0	380.0	38.0	2450000	9200000	1100
K81140-M	1.93	81140-M	4.95	GS81140	WS81140		200.0	250.0	15.0	390000	1550000	1280
K81240-M	5.4	81240-M	14.2	GS81240	WS81240		200.0	280.0	26.0	900000	3150000	1200
K89440-M	24	89440-M	82.6	GS89440	WS89440		200.0	400.0	40.0	2700000	10200000	960
K81144-M	2.04	81144-M	5.22	GS81144	WS81144		220.0	270.0	15.0	420000	1730000	1180
K81244-M	5.8	81244-M	15.3	GS81244	WS81244		220.0	300.0	26.0	940000	3450000	1110
K89444-M	25.7	89444-M	90.1	GS89444	WS89444		220.0	420.0	40.0	2900000	11500000	900
K81148-M	3.32	81148-M	8.45	GS81148	WS81148		240.0	300.0	18.0	600000	2500000	1070
K81248-M	9.94	81248-M	26.2	GS81248	WS81248		240.0	340.0	32.0	1370000	5000000	990
K89448-M	27.3	89448-M	95.9	GS89448	WS89448		240.0	440.0	40.0	3000000	12200000	850
K81152-M	3.55	81152-M	9.08	GS81152	WS81152		260.0	320.0	18.0	620000	2650000	990
K81252-M	10.8	81252-M	28.6	GS81252	WS81252		260.0	360.0	32.0	1441000	5400000	930
K89452-M	36.8	89452-M	125	GS89452	WS89452		260.0	480.0	44.0	3600000	14700000	780
K81156-M	5.31	81156-M	12.6	GS81156	WS81156		280.0	350.0	22.0	860000	3650000	910
K81256-M	11.5	81256-M	31	GS81256	WS81256		280.0	380.0	32.0	1460000	5600000	870

Axial-Zylinderrollenlager / Axial Cylindrical Roller Bearings

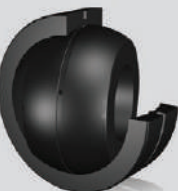


254

Designation /Type	Weight (kg) approx.	Designation /Type	Weight (kg) approx.	Housing location washer	Shaft locating washer	Bearing Washer	Dimension (mm)			*Load Rating		*Limiting Speed (rpm)
							d	D	B	C, dyn. N	C, stat. N	
K89456-M	47.5	89456-M	159	GS89456	WS89456		280.0	520.0	48.0	4200000	17600000	720
K81160-M	7.6	81160-M	19.4	GS81160	WS81160		300.0	380.0	25.0	1060000	4500000	850
K81260-M	17.8	81260-M	48.25	GS81260	WS81260		300.0	420.0	38.0	1930000	7300000	800
K89460-M	49.8	89460-M	170	GS89460	WS89460		300.0	540.0	48.0	4350000	18500000	690
K81164-M	8.04	81164-M	20.7	GS81164	WS81164		320.0	400.0	25.0	1100000	4750000	800
K89464-M	80.3	89464-M	203	GS89464	WS89464		320.0	580.0	68.0	5500000	19900000	640



Produktfokus / Product focus



Gelenklager
Spherical Plain Bearing Series
(GE-ES & GE-ES-2RS)



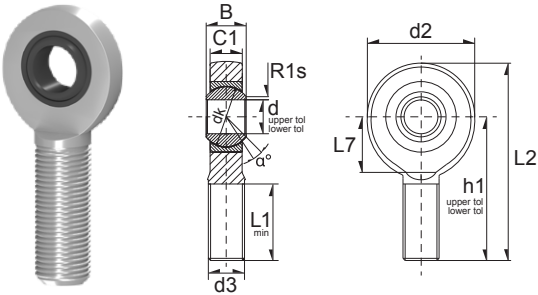
- ✓ Für hohe radiale und axiale Belastungen
High capacity of radial and axial loads
- ✓ Ideal für Anwendungen mit Einbauversatz
Ideal for applications where misalignment may be common
- ✓ Verschleissbeständig
High wear resistance
- ✓ Selbstausrichtend
Self aligning
- ✓ Ideal für die Aufnahme schwerer, alternierender Lasten
Designed to accommodate heavy loads of alternating direction

ZEN-Pendelrollenlager sind ideal für die Aufnahme schwerer, alternierender Lasten.

ZEN Spherical bearings are designed to accommodate heavy loads of alternating direction. They are commonly used in hydraulic cylinder rod ends, vehicle steering linkage suspensions and heavy equipment articulated joints.

SIEHE SEITE 278 / SEE PAGE 278

Wartungsfreie Gelenkköpfe / Rod Ends (MF)



(MF) = Maintenance Free
(RM) = Requiring Maintenance

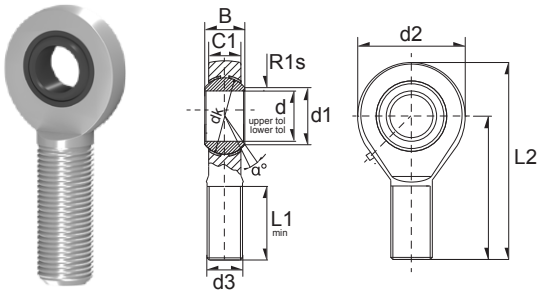


256

Ref	Dimension (mm)												α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	dk	h	L1	L7		C, dyn. N	C, stat. N	
GAKR5-PW	5	18	42	8	6	19	7.7	M5x0,8	11.110	33	19	-	13	5130	5400	13 g
GAKR6-PW	6	20	46	9	6.75	16	9.	M6	12.700	36	21	-	13	6975	6237	22 g
GAKR8-PW	8	24	54	12	9	19	10.4	M8	15.875	42	25	-	14	11610	11610	42 g
GAKR10-PW	10	28	62	14	10.5	22	12.9	M10	19.050	48	28	-	13	16290	16650	69 g
GAKR12-PW	12	32	70	16	12	26	15.4	M12	22.225	54	32	-	13	21600	18720	110 g
GAKR14-PW	14	36	78	19	13.5	28	16.9	M14	25.400	60	36	18	16	27900	28800	160 g
GAKR16-PW	16	42	87	21	15	32	19.4	M16	28.575	66	37	23	15	34740	40770	230 g
GAKR18-PW	18	46	95	23	16.5	35	21.8	M18X1.5	31.750	72	41	25	15	42570	42300	280 g
GAKR20-PW	20	50	103	25	18	40	24.4	M20x1,5	34.925	78	45	26	14	50940	41040	390 g
GAKR22-PW	22	54	111	28	20	42	25.8	M22x1,5	38.100	84	48	27	15	61740	54990	480 g
GAKR25-PW	25	60	124	31	22	47	29.6	M24x2	42.850	94	55	32	15	76320	65610	670 g
GAKR30-PW	30	70	145	37	25	55	34.8	M30x2	50.800	110	66	37	17	102600	86310	1100 g

Ref	Dimension (mm)												α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	dk	h	L1	L7		C, dyn. N	C, stat. N	
GAKL5-PW	5	18	42	8	6	19	7.7	M5x0,8	11.110	33	19	-	13	5130	5400	13 g
GAKL6-PW	6	20	46	9	6.75	16	8.9	M6x1,0	12.700	36	21	-	13	6975	6237	22 g
GAKL8-PW	8	24	54	12	9	19	10.3	M8x1,25	15.875	42	25	-	14	11610	11610	42 g
GAKL10-PW	10	28	62	14	10.5	22	12.9	M10x1,5	19.050	48	28	-	13	16290	16650	69 g
GAKL12-PW	12	32	70	16	12	26	15.4	M12x1,75	22.225	54	32	-	13	21600	18720	110 g
GAKL14-PW	14	36	78	19	13.5	28	16.8	M14x2,0	25.400	60	36	18	16	27900	28800	160 g
GAKL16-PW	16	42	87	21	15	32	19.3	M16x2,0	28.575	66	37	21	15	34740	40770	230 g
GAKL18-PW	18	44	94	23	16.5	35	21.8	M18x1,5	31.750	72	41	22	15	42570	42300	280 g
GAKL20-PW	20	50	103	25	18	40	24.3	M20x1,5	34.925	78	45	25	14	50940	41040	390 g
GAKL22-PW	22	54	111	28	20	42	25.8	M22x1,5	38.100	84	48	27	15	61740	54990	480 g
GAKL25-PW	25	60	124	31	22	47	29.5	M24x2,0	42.860	94	55	30	15	76320	65610	670 g
GAKL30-PW	30	70	145	37	25	55	34.8	M30x2,0	50.800	110	66	35	17	102600	86310	1100 g

Wartungspflichtige Gelenkköpfe / Rod Ends (RM)



(MF) = Maintenance Free
(RM) = Requiring Maintenance

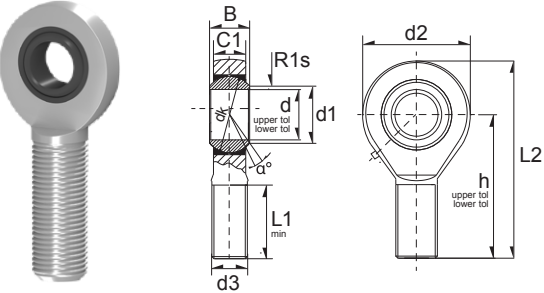


257

Ref	Dimension (mm)														α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	dk	h	L1	L7	R1	C, dyn. N		C, stat. N		
GAKR5-PB	5	18	42	8	6	16	7.7	M5x0,8	11.11	33	19	-	0.3	13	5130	5400	13 g	
GAKR6-PB	6	20	46	9	6.75	16	8.9	M6	12.7	36	21	-	0.3	13	3888	6237	20 g	
GAKR8-PB	8	24	54	12	9	19	10.3	M8	15.875	42	25	-	0.3	14	6426	11610	38 g	
GAKR10-PB	10	28	62	14	10.5	22	12.9	M10	19.05	48	28	-	0.3	13	9000	16650	55 g	
GAKR12-PB	12	32	70	16	12	26	15.4	M12	22.225	54	32		0.3	13	11970	18720	85 g	
GAKR14-PB	14	36	78	19	3.5	28	16.8	M14	25.4	60	36	18	0.3	16	15390	28800	140 g	
GAKR16-PB	16	42	87	21	15	32	19.3	M16	28.575	66	37	23	0.3	15	19260	40770	210 g	
GAKR18-PB	18	46	95	23	16.5	35	21.8	M18X1.5	31.75	72	41	25	0.3	15	23580	42300	280 g	

Ref	Dimension (mm)													α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	dk	h	L1	L7	R1		C, dyn. N	C, stat. N	
GAKL5-PB	5	18	42	8	6	16	7.7	M5x0,8	11.11	33	19	-	0.3	13	5130	5400	13 g
GAKL6-PB	6	20	46	9	6.75	16	8.9	M6	12.7	36	21	-	0.3	13	3888	6237	20 g
GAKL8-PB	8	24	54	12	9	19	10.3	M8	15,875	42	25	-	0.3	14	6426	11610	38 g
GAKL10-PB	10	28	62	14	10.5	22	12.9	M10	19.05	48	28	-	0.3	13	9000	16650	55 g
GAKL12-PB	12	32	70	16	12	26	15.4	M12	22,225	54	32	-	0.3	13	11970	18720	85 g
GAKL14-PB	14	36	78	19	13.5	28	16.8	M14	25.4	60	36	18	0.3	16	15390	28800	140 g
GAKL16-PB	16	42	87	21	15	32	19.3	M16	28,575	66	37	21	0.3	15	19260	40770	210 g
GAKL18-PB	18	44	94	23	16.5	35	21.8	M18X1.5	31.75	72	41	22	0.3	15	23580	42300	280 g

Wartungspflichtige Gelenkköpfe / Rod Ends (RM)



(MF) = Maintenance Free
(RM) = Requiring Maintenance

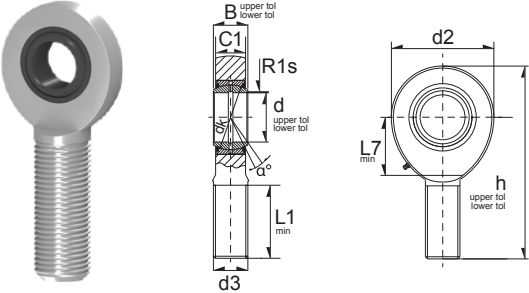


258

Ref	Dimension (mm)														α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	Dk	h	L1	L7	R1	C, dyn. N		C, stat. N		
GAKR20-PB	20	50	103	25	18	40	24.3	M20X1.5	34.925	78	45	26	0.3	14	28260	41040	380 g	
GAKR22-PB	22	54	111	28	20	42	25.8	M22X1.5	38.1	84	48	29	0.3	15	34290	54990	480 g	
GAKR25-PB	25	60	124	31	22	47	29.5	M24X2	42.85	94	55	32	0.3	15	42390	65610	640 g	
GAKR30-PB	30	70	145	37	25	55	34.8	M30X2	50.8	110	66	37	0.3	28	57150	86310	1100 g	

Ref	Dimension (mm)													α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	Dk	h	L1	L7	R1		C, dyn. N	C, stat. N	
GAKL20-PB	20	50	103	25	18	40	24.3	M20X1.5	34.925	78	45	26	0.3	14	28260	41040	380 g
GAKL22-PB	22	54	111	28	20	42	25.8	M22X1.5	38.1	84	48	29	0.3	15	34290	54990	480 g
GAKL25-PB	25	60	124	31	22	47	29.5	M24X2	42.85	94	55	32	0.3	15	42390	65610	640 g
GAKL30-PB	30	70	145	37	25	55	34.8	M30X2	50.8	110	66	37	0.3	28	57150	86310	1100 g

Wartungspflichtige Gelenkköpfe / Rod Ends (RM)



(MF) = Maintenance Free
(RM) = Requiring Maintenance

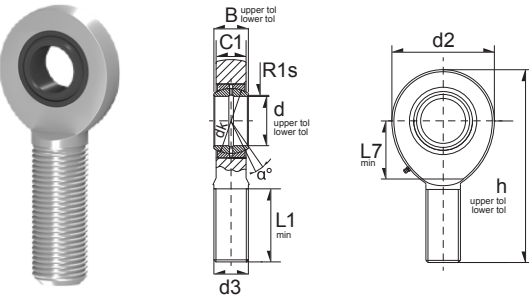


259

Ref	Dimension (mm)												α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	Dk	h	L1	L7		C, dyn. N	C, stat. N	
GAR17-DO-2RS	17	46	92	14	11	30	20.7	M16	25	69	36	23	10	19170	50850	210 g
GAR20-DO-2RS	20	53	104.5	16	13	35	24.2	M2X1,5	29	78	43	27	9	26640	68040	330 g
GAR25-DO-2RS	25	64	126	20	17	42	29.3	M24X2	35.5	94	53	32	7	43470	79470	600 g
GAR30-DO-2RS	30	73	146.5	22	19	47	34.2	M30X2	40.7	110	65	37	6	56070	107100	950 g
GAR35-DO-2RS	35	82	181	25	21	55	39.8	M36X3	47	140	82	42	6	71910	143100	1530 g
GAR40-DO-2RS	40	92	196	28	23	62	45	M39X3	53	150	86	48	7	89190	174600	1970 g
GAR45-DO-2RS	45	102	214	32	27	68	50.8	M42X3	60	163	94	52	7	115200	233100	2660 g
GAR50-DO-2RS	50	112	241	35	30	75	56	M45X3	66	185	107	60	6	141300	282600	3530 g
GAR60-DO-2RS	60	135	277.5	44	38	90	66.8	M52X3	80	210	115	75	6	220500	436500	5920 g
GAR70-DO-2RS	70	160	315	49	42	105	77.9	M56X4	92	235	125	87	6	281700	507600	8510 g
GAR80-DO-2RS	80	180	360	55	47	120	89.4	M64X4	105	270	140	100	6	361800	621000	12500 g

Ref	Dimension (mm)												α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	Dk	h	L1	L7		C, dyn. N	C, stat. N	
GAL17-DO-2RS	17	46	92	14	11	30	20.7	M16	25	69	36	23	10	19170	50850	210 g
GAL20-DO-2RS	20	53	104.5	16	13	35	24.2	M2X1,5	29	78	43	27	9	26640	68040	330 g
GAL25-DO-2RS	25	64	126	20	17	42	29.3	M24X2	35.5	94	53	32	7	43470	79470	600 g
GAL30-DO-2RS	30	73	146.5	22	19	47	34.2	M30X2	40.7	110	65	37	6	56070	107100	950 g
GAL35-DO-2RS	35	82	181	25	21	55	39.8	M36X3	47	140	82	42	6	71910	143100	1530 g
GAL40-DO-2RS	40	92	196	28	23	62	45	M39X3	53	150	86	48	7	89190	174600	1970 g
GAL45-DO-2RS	45	102	214	32	27	68	50.8	M42X3	60	163	94	52	7	115200	233100	2660 g
GAL50-DO-2RS	50	112	241	35	30	75	56	M45X3	66	185	107	60	6	141300	282600	3530 g
GAL60-DO-2RS	60	135	277.5	44	38	90	66.8	M52X3	80	210	115	75	6	220500	436500	5920 g
GAL70-DO-2RS	70	160	315	49	42	105	77.9	M56X4	92	235	125	87	6	281700	507600	8510 g
GAL80-DO-2RS	80	180	360	55	47	120	89.4	M64X4	105	270	140	100	6	361800	621000	12500 g

Wartungspflichtige Gelenkköpfe / Rod Ends (RM)



(MF) = Maintenance Free
(RM) = Requiring Maintenance

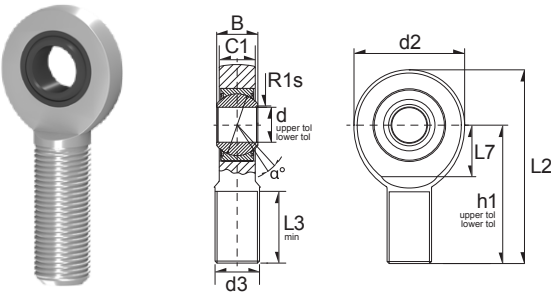


260

Ref	Dimension (mm)												α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	Dk	h	L1	L7		C, dyn. N	C, stat. N	
GAR6-DO	6	21	46.5	6	4.4	14	8	M6	10	36	18	12	13	3060	6237	18 g
GAR8-DO	8	24	54	8	6	16	10.2	M8	13	42	22	14	15	5031	11610	33 g
GAR10-DO	10	29	62.5	9	7	19	13.2	M10	16	48	26	15	12	7344	18540	56 g
GAR12-DO	12	34	71	10	8	22	14.9	M12	18	54	28	18	11	9720	27180	86 g
GAR15-DO	15	40	83	12	10	26	18.4	M14	22	63	34	20	8	15210	37440	150 g
GAR17-DO	17	46	92	14	11	30	20.7	M16	25	69	36	23	10	19170	50850	210 g
GAR20-DO	20	53	104.5	16	13	35	24.2	M20X1,5	29	78	43	27	9	26640	68040	330 g
GAR25-DO	25	64	126	20	17	42	29.3	M24X2	35.5	94	53	32	7	43470	79470	600 g
GAR30-DO	30	73	146.5	22	19	47	34.2	M30X2	40.7	110	65	37	6	56070	107100	950 g

Ref	Dimension (mm)												α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	Dk	h	L1	L7		C, dyn. N	C, stat. N	
GAL6-DO	6	21	46.5	6	4.4	14	8	M6	10	36	18	12	13	3060	6237	18 g
GAL8-DO	8	24	54	8	6	16	10.2	M8	13	42	22	14	15	5031	11610	33 g
GAL10-DO	10	29	62.5	9	7	19	13.2	M10	16	48	26	15	12	7344	18540	56 g
GAL12-DO	12	34	71	10	8	22	14.9	M12	18	54	28	18	11	9720	27180	86 g
GAL15-DO	15	40	83	12	10	26	18.4	M14	22	63	34	20	8	15210	37440	150 g
GAL17-DO	17	46	92	14	11	30	20.7	M16	25	69	36	23	10	19170	50850	210 g
GAL20-DO	20	53	104.5	16	13	35	24.2	M20X1,5	29	78	43	27	9	26640	68040	330 g
GAL25-DO	25	64	126	20	17	42	29.3	M24X2	35.5	94	53	32	7	43470	79470	600 g
GAL30-DO	30	73	146.5	22	19	47	34.2	M30X2	40.7	110	65	37	6	56070	107100	950 g

Wartungsfreie Gelenkköpfe / Rod Ends (MF)



(MF) = Maintenance Free
(RM) = Requiring Maintenance

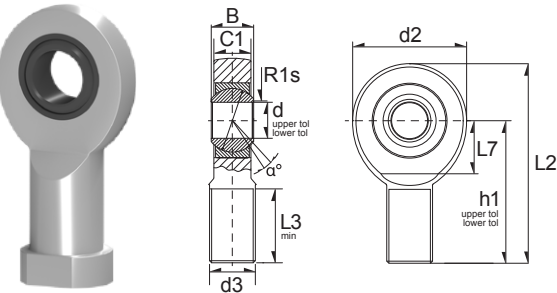


261

Ref	Dimension (mm)												α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	Dk	h	L1	L7		C, dyn. N	C, stat. N	
GAR17-UK-2RS	17	46	92	14	11	30	20.7	M16	25	69	36	23	10	20250	50850	200 g
GAR20-UK-2RS	20	53	104.5	16	13	35	24.2	M20X1,5	29	78	43	27	9	28170	68040	330 g
GAR25-UK-2RS	25	64	126	20	17	42	29.3	M24X2	35.5	94	53	32	7	45990	94500	590 g
GAR30-UK-2RS	30	73	146.5	22	19	47	34.2	M30X2	40.7	110	65	37	6	59310	125100	930 g
GAR35-UK-2RS	35	82	181	25	21	55	39.8	M36X3	47	140	82	42	6	189000	143100	1530 g
GAR40-UK-2RS	40	92	196	28	23	62	45	M39X3	53	150	86	48	7	249300	174600	1970 g
GAR45-UK-2RS	45	102	214	32	27	68	50.8	M42X3	60	163	94	52	7	324000	233100	2650 g
GAR50-UK-2RS	50	112	241	35	30	75	56	M45X3	66	185	107	60	6	397800	281700	3530 g
GAR60-UK-2RS	60	135	277.5	44	38	90	66.8	M52X3	80	210	115	75	6	621000	436500	5910 g
GAR70-UK-2RS	70	160	315	49	42	105	77.9	M56X4	92	235	125	87	6	796500	507600	8510 g
GAR80-UK-2RS	80	180	360	55	47	120	89.4	M64X4	105	270	140	100	6	1012500	620100	12500 g

Ref	Dimension (mm)												α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	Dk	h	L1	L7		C, dyn. N	C, stat. N	
GAL17-UK-2RS	17	46	92	14	11	30	20.7	M16	25	69	36	23	10	20250	50850	200 g
GAL20-UK-2RS	20	53	104.5	16	13	35	24.2	M20X1,5	29	78	43	27	9	28170	68040	330 g
GAL25-UK-2RS	25	64	126	20	17	42	29.3	M24X2	35.5	94	53	32	7	45990	94500	590 g
GAL30-UK-2RS	30	73	146.5	22	19	47	34.2	M30X2	40.7	110	65	37	6	59310	125100	930 g
GAL35-UK-2RS	35	82	181	25	21	55	39.8	M36X3	47	140	82	42	6	189000	143100	1530 g
GAL40-UK-2RS	40	92	196	28	23	62	45	M39X3	53	150	86	48	7	249300	174600	1970 g
GAL45-UK-2RS	45	102	214	32	27	68	50.8	M42X3	60	163	94	52	7	324000	233100	2650 g
GAL50-UK-2RS	50	112	241	35	30	75	56	M45X3	66	185	107	60	6	397800	281700	3530 g
GAL60-UK-2RS	60	135	277.5	44	38	90	66.8	M52X3	80	210	115	75	6	621000	436500	5910 g
GAL70-UK-2RS	70	160	315	49	42	105	77.9	M56X4	92	235	125	87	6	796500	507600	8510 g
GAL80-UK-2RS	80	180	360	55	47	120	89.4	M64X4	105	270	140	100	6	1012500	620100	12500 g

Wartungsfreie Gelenkköpfe / Rod Ends (MF)



(MF) = Maintenance Free
(RM) = Requiring Maintenance

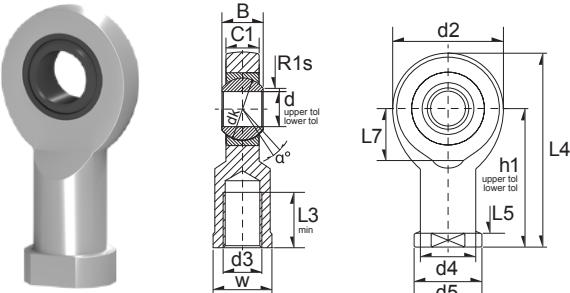


262

Ref	Dimension (mm)												α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	Dk	h	L1	L7		C, dyn. N	C, stat. N	
GAR6-UK	6	21	46.5	6	4.4	14	8	M6	10	36	18	12	13	3240	6237	18 g
GAR8-UK	8	24	54	8	6	16	10.2	M8	13	42	22	14	15	5265	11610	33 g
GAR10-UK	10	29	62.5	9	7	19	13.2	M10	16	48	26	15	12	7776	18540	56 g
GAR12-UK	12	34	71	10	8	22	14.9	M12	18	54	28	18	11	10170	27180	86 g
GAR15-UK	15	40	83	12	10	26	18.4	M14	22	63	34	20	8	16020	37440	150 g
GAR17-UK	17	46	92	14	11	30	20.7	M16	25	69	36	23	10	20250	50850	210 g
GAR20-UK	20	53	104.5	16	13	35	24.2	M20X1,5	29	78	43	27	9	28170	68040	330 g
GAR25-UK	25	64	126	20	17	42	29.3	M24X2	35.5	94	53	32	7	45990	94500	600 g
GAR30-UK	30	73	146.5	22	19	47	34.2	M30X2	40.7	110	65	37	6	59310	125100	950 g

Ref	Dimension (mm)												α°	*Load Rating		Weight (g) approx.
	d	d2	L2	B	C1	D	d1	d3	Dk	h	L1	L7		C, dyn. N	C, stat. N	
GAL6-UK	6	21	46.5	6	4.4	14	8	M6	10	36	18	12	13	3240	6237	18 g
GAL8-UK	8	24	54	8	6	16	10.2	M8	13	42	22	14	15	5265	11610	33 g
GAL10-UK	10	29	62.5	9	7	19	13.2	M10	16	48	26	15	12	7776	18540	56 g
GAL12-UK	12	34	71	10	8	22	14.9	M12	18	54	28	18	11	10170	27180	86 g
GAL15-UK	15	40	83	12	10	26	18.4	M14	22	63	34	20	8	16020	37440	150 g
GAL17-UK	17	46	92	14	11	30	20.7	M16	25	69	36	23	10	20250	50850	210 g
GAL20-UK	20	53	104.5	16	13	35	24.2	M20X1,5	29	78	43	27	9	28170	68040	330 g
GAL25-UK	25	64	126	20	17	42	29.3	M24X2	35.5	94	53	32	7	45990	94500	600 g
GAL30-UK	30	73	146.5	22	19	47	34.2	M30X2	40.7	110	65	37	6	59310	125100	950 g

Wartungsfreie Gelenkköpfe / Rod Ends (MF)



(MF) = Maintenance Free
(RM) = Requiring Maintenance



263

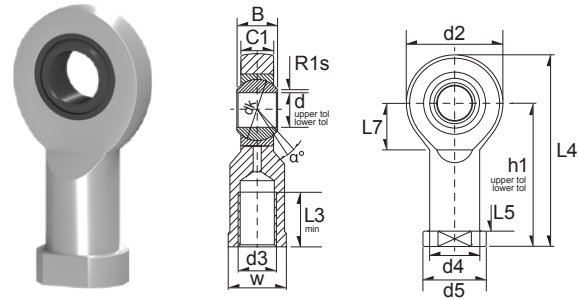
Ref	Dimension (mm)																	α°	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	D	d1	d3	d4	d5	dK	h1	L3	L5	L7	W	C, dyn. N		C, stat. N		
GIKPR10-PW	10	28	57	14	10.5	22	12.9	M10X1,25	15	19	19.05	43	20	6.5	15	17	13	16290	16650	77 g	
GIKPR12-PW	12	32	66	16	12	26	15.4	M12X1,25	17.5	22	22.225	50	22	6.5	17	19	13	21600	18720	100 g	
GIKPR16-PW	16	42	85	21	15	32	19.3	M16X1,5	22	28	28.575	64	28	8	23	22	15	34740	40770	220 g	
GIKPR30-PW	30	70	145	37	25	55	34.8	M27X2	40	50	50.8	110	51	15	37	41	17	102600	86310	1100 g	



Ref	Dimension (mm)																	α°	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	D	d1	d3	d4	d5	dK	h1	L3	L5	L7	W	C, dyn. N		C, stat. N		
GIKL5-PB	5	18	36	8	6	13	7.7	M5X0,8	8.5	11	11.11	27	10	4	10	9	13	2925	8262	16 g	
GIKL6-PB	6	20	40	9	6.75	16	9	M6	10	13	12.7	30	12	5	11	11	13	3888	7191	29 g	
GIKL8-PB	8	24	48	12	9	19	10.4	M8	12.5	16	15.875	36	16	5	13	14	14	6426	11790	50 g	
GIKL10-PB	10	28	57	14	10.5	22	12.9	M10	15	19	19.05	43	20	6.6	15	17	13	9000	16650	81 g	
GIKL12-PB	12	32	66	16	12	26	15.4	M12	17.5	22	22.225	50	22	6.5	17	19	13	11970	18720	130 g	
GIKL14-PB	14	36	75	19	13.5	28	16.9	M14	21	26	25.4	57	25	8	18	22	16	15390	28800	190 g	
GIKL16-PB	16	42	85	21	15	32	19.4	M16	22	28	28.575	64	28	8	23	22	15	19260	40770	250 g	
GIKL18-PB	18	46	94	23	16.5	35	21.8	M18X1,5	25	31	31.75	71	32	10	25	27	15	23580	42300	320 g	
GIKL20-PB	20	50	102	25	18	40	24.4	M20X1,5	27.5	35	34.925	77	33	10	26	30	14	28260	41040	430 g	
GIKL22-PB	22	54	111	28	20	42	25.8	M22X1,5	30	38	38.1	84	37	12	29	32	15	34290	54990	540 g	
GIKL25-PB	25	60	124	31	22	47	29.6	M24X2	33.5	42	42.85	94	42	12	32	36	15	42390	65610	760 g	
GIKL30-PB	30	70	145	37	25	55	34.8	M30X2	40	50	50.8	110	51	15	37	41	17	57150	86310	1180 g	

Ref	Dimension (mm)																	α°	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	D	d1	d3	d4	d5	dK	h1	L3	L5	L7	W	C, dyn. N		C, stat. N		
GIKL5-PW	5	18	36	8	6	13	7.7	M5	8.5	11	11.112	27	10	4	10	9	13	5400	8262	16 g	
GIKL6-PW	6	20	40	9	6.75	16	9	M6	10	13	12.7	30	12	5	11	11	13	6975	7191	28 g	
GIKL8-PW	8	24	48	12	9	19	10.4	M8	12.5	16	15.875	36	16	5	13	14	14	11610	11790	50 g	
GIKL10-PW	10	28	57	14	10.5	22	12.9	M10	15	19	19.05	43	20	6.5	15	17	13	16290	16650	80 g	
GIKL12-PW	12	32	66	16	12	26	15.4	M12	17.5	22	22.225	50	22	6.5	17	19	13	21600	18720	120 g	
GIKL14-PW	14	36	75	19	13.5	28	16.9	M14	21	26	25.4	57	25	8	18	22	16	27900	28800	180 g	
GIKL16-PW	16	42	85	21	15	32	19.4	M16	22	28	28.575	64	28	8	23	22	15	34740	40770	240 g	
GIKL18-PW	18	46	94	23	16.5	35	21.8	M18X1,5	25	31	31.75	71	32	10	25	27	15	42570	42300	320 g	
GIKL20-PW	20	50	102	25	18	40	24.4	M20X1,5	27.5	35	34.925	77	33	10	26	30	14	50940	41040	430 g	
GIKL22-PW	22	54	111	28	20	42	25.8	M22X1,5	30	38	38.1	84	37	12	29	32	15	61740	54990	540 g	
GIKL25-PW	25	60	124	31	22	47	29.6	M24X2	33.5	42	42.85	94	42	12	32	36	15	76320	65610	730 g	
GIKL30-PW	30	70	145	37	25	55	34.8	M30X2	40	50	50.8	110	51	15	37	41	17	102600	86310	1170 g	

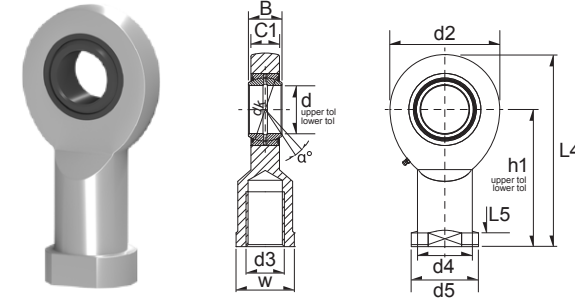
Wartungsfreie Gelenkköpfe / Rod Ends (MF)



(MF) = Maintenance Free
(RM) = Requiring Maintenance

Ref	Dimension (mm)																	α°	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	D	d1	d3	d4	d5	dK	h1	L3	L5	L7	W	C, dyn. N		C, stat. N		
GIKSR5-PS	5	19	36.5	8	6	13	7.7	M5	9	11	11.1	27	8	4	9	9	13	5400	3420	17 g	
GIKSR6-PS	6	21	40.5	9	6.75	16	8.9	M6	10	13	12.7	30	9	5	10	11	13	6885	3060	25 g	
GIKSR8-PS	8	25	48.5	12	9	19	10.3	M8	12.5	16	15.8	36	12	5	12	14	13	11610	5130	43 g	
GIKSR10-PS	10	29	57.5	14	10.5	22	12.9	M10	15	19	19	43	15	6.5	14	17	13	16200	7200	72 g	
GIKSR12-PS	12	33	66.5	16	12	26	15.4	M12	17.5	22	22.2	50	18	6.5	16	19	13	21600	8190	107 g	
GIKSR14-PS	14	37	75.5	19	13.5	28	16.8	M14	20	25	25.4	57	21	8	18	22	15	27900	12330	160 g	
GIKSR16-PS	16	43	85.5	21	15	32	19.3	M16	22	27	28.5	64	24	8	21	22	15	35100	17100	210 g	
GIKSR18-PS	18	47	94.5	23	16.5	35	21.8	M18X1,5	25	31	31.7	71	27	10	23	27	15	42750	20700	295 g	
GIKSR20-PS	20	51	102.5	25	18	40	24.3	M20X1,5	27.5	34	34.9	77	30	10	25	30	15	51300	20520	380 g	
GIKSR22-PS	22	55	111.5	28	20	42	25.8	M22X1,5	30	37	38.1	84	33	12	27	32	15	61200	27360	490 g	
GIKSR25-PS	25	61	124.5	31	22	47	29.5	M24X2	33.5	42	42.8	94	36	12	30	36	15	76500	32580	650 g	
GIKSR30-PS	30	71	145.5	37	25	55	34.8	M30X2	40	50	50.8	110	45	15	35	41	15	102600	42750	1150 g	

Wartungspflichtige Gelenkköpfe / Rod Ends (RM)

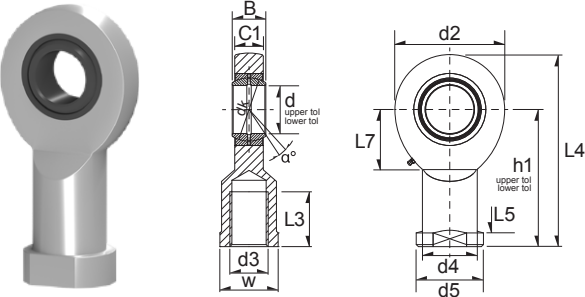


(MF) = Maintenance Free   
(RM) = Requiring Maintenance

Ref	Dimension (mm)																α°	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	D	d1	d3	d4	d5	dK	h1	L3	L5	L7	W		C, dyn. N	C, stat. N	
GIR17-DO-2RS	17	46	90	14	11	30	20.7	M16	24	30	25	67	34	10	23	27	10	19170	50850	250 g
GIR20-DO-2RS	20	53	103.5	16	13	35	24.2	M20X1,5	27.5	35	29	77	40	10	27	32	9	26640	68040	360 g
GIR25-DO-2RS	25	64	126	20	17	42	29.3	M24X2	33.5	42	35.5	94	48	12	32	36	7	43470	79470	660 g
GIR30-DO-2RS	30	73	146.5	22	19	47	34.2	M30X2	40	50	40.7	110	56	15	37	41	6	56070	107100	980 g
GIR35-DO-2RS	35	82	166	25	21	55	39.8	M36X3	47	58	47	125	60	15	42	50	6	71910	143100	1430 g
GIR40-DO-2RS	40	92	188	28	23	62	45	M39X3	52	65	53	142	65	18	48	55	7	89190	174600	2100 g
GIR45-DO-2RS	45	102	196	32	27	68	50.8	M42X3	58	70	60	145	65	20	52	60	7	115200	233100	2700 g
GIR50-DO-2RS	50	112	216	35	30	75	56	M45X3	62	75	66	160	68	20	60	65	6	141300	282600	3540 g
GIR60-DO-2RS	60	135	242.5	44	38	90	66.8	M52X3	70	88	80	175	70	20	75	75	6	220500	436500	5600 g
GIR70-DO-2RS	70	160	280	49	42	105	77.9	M56X4	80	98	92	200	80	20	87	85	6	281700	507600	8620 g
GIR80-DO-2RS	80	180	320	55	47	120	89.4	M64X4	95	110	105	230	85	25	100	100	6	361800	621000	13200 g

Ref	Dimension (mm)																α°	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	D	d1	d3	d4	d5	dK	h1	L3	L5	L7	W		C, dyn. N	C, stat. N	
GIL17-DO-2RS	17	46	90	14	11	30	20.7	M16	24	30	25	67	34	10	23	27	10	19170	50850	250 g
GIL20-DO-2RS	20	53	103.5	16	13	35	24.2	M20X1,5	27.5	35	29	77	40	10	27	32	9	26640	68040	360 g
GIL25-DO-2RS	25	64	126	20	17	42	29.3	M24X2	33.5	42	35.5	94	48	12	32	36	7	43470	79470	660 g
GIL30-DO-2RS	30	73	146.5	22	19	47	34.2	M30X2	40	50	40.7	110	56	15	37	41	6	56070	107100	980 g
GIL35-DO-2RS	35	82	166	25	21	55	39.8	M36X3	47	58	47	125	60	15	42	50	6	71910	143100	1430 g
GIL40-DO-2RS	40	92	188	28	23	62	45	M39X3	52	65	53	142	65	18	48	55	7	89190	174600	2100 g
GIL45-DO-2RS	45	102	196	32	27	68	50.8	M42X3	58	70	60	145	65	20	52	60	7	115200	233100	2700 g
GIL50-DO-2RS	50	112	216	35	30	75	56	M45X3	62	75	66	160	68	20	60	65	6	141300	282600	3540 g
GIL60-DO-2RS	60	135	242.5	44	38	90	66.8	M52X3	70	88	80	175	70	20	75	75	6	220500	436500	5600 g
GIL70-DO-2RS	70	160	280	49	42	105	77.9	M56X4	80	98	92	200	80	20	87	85	6	281700	507600	8620 g
GIL80-DO-2RS	80	180	320	55	47	120	89.4	M64X4	95	110	105	230	85	25	100	100	6	361800	621000	13200 g

Wartungspflichtige Gelenkköpfe / Rod Ends (RM)



(MF) = Maintenance Free
(RM) = Requiring Maintenance

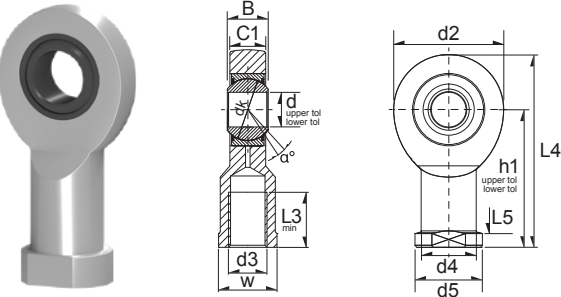


268

Ref	Dimension (mm)																	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	D	d1	d3	d4	d5	dK	h1	L3	L5	L7	W	α°	C, dyn. N	C, stat. N	
GIR6-DO	6	21	40.5	6	4.4	14	8	M6	10	13	10	30	11	5	12	11	13	3060	9270	23 g
GIR8-DO	8	24	48	8	6	16	10.2	M8	12.5	16	13	36	15	5	14	14	15	5031	14400	39 g
GIR10-DO	10	29	57.5	9	7	19	13.2	M10	15	19	16	43	20	6.5	15	17	12	7344	19800	66 g
GIR12-DO	12	34	67	10	8	22	14.9	M12	17.5	22	18	50	23	6.5	18	19	11	9720	27360	100 g
GIR15-DO	15	40	81	12	10	26	18.4	M14	21	26	22	61	30	8	20	22	8	15210	40320	180 g
GIR17-DO	17	46	90	14	11	30	20.7	M16	24	30	25	67	34	10	23	27	10	19170	50850	250 g
GIR20-DO	20	53	103.5	16	13	35	24.2	M20X1,5	27.5	35	29	77	40	10	27	32	9	26640	68040	360 g
GIR25-DO	25	64	126	20	17	42	29.3	M24X2	33.5	42	35.5	94	48	12	32	36	7	43470	79470	660 g
GIR30-DO	30	73	146.5	22	19	47	34.2	M30X2	40	50	40.7	110	56	15	37	41	6	56070	107100	980 g

Ref	Dimension (mm)																	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	D	d1	d3	d4	d5	dK	h1	L3	L5	L7	W	α°	C, dyn. N	C, stat. N	
GIL6-DO	6	21	40.5	6	4.4	14	8	M6	10	13	10	30	11	5	12	11	13	3060	9270	23 g
GIL8-DO	8	24	48	8	6	16	10.2	M8	12.5	16	13	36	15	5	14	14	15	5031	14400	39 g
GIL10-DO	10	29	57.5	9	7	19	13.2	M10	15	19	16	43	20	6.5	15	17	12	7344	19800	66 g
GIL12-DO	12	34	67	10	8	22	14.9	M12	17.5	22	18	50	23	6.5	18	19	11	9720	27360	100 g
GIL15-DO	15	40	81	12	10	26	18.4	M14	21	26	22	61	30	8	20	22	8	15210	40320	180 g
GIL17-DO	17	46	90	14	11	30	20.7	M16	24	30	25	67	34	10	23	27	10	19170	50850	250 g
GIL20-DO	20	53	103.5	16	13	35	24.2	M20X1,5	27.5	35	29	77	40	10	27	32	9	26640	68040	360 g
GIL25-DO	25	64	126	20	17	42	29.3	M24X2	33.5	42	35.5	94	48	12	32	36	7	43470	79470	660 g
GIL30-DO	30	73	146.5	22	19	47	34.2	M30X2	40	50	40.7	110	56	15	37	41	6	56070	107100	980 g

Wartungsfreie Gelenkköpfe / Rod Ends (MF)



(MF) = Maintenance Free
(RM) = Requiring Maintenance



269

Ref	Dimension (mm)														α°	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	d3	d4	d5	dk	h1	L3	L5	W	C, dyn. N		C, stat. N		
GIR17-UK-2RS	17	46	90	14	11	M16x2	24	30	25	67	34	10	27	10	20250	50850	220 g	
GIR20-UK-2RS	20	53	103.5	16	13	M20x1.5	27.5	35	29	77	40	10	32	9	28170	68040	350 g	
GIR25-UK-2RS	25	64	126	20	17	M24x2	33.5	42	35.5	94	48	12	36	7	45990	94500	640 g	
GIR30-UK-2RS	30	73	146.5	22	19	M30x2	40	50	40.7	110	56	15	41	6	59310	125100	930 g	
GIR35-UK-2RS	35	82	166	25	21	M36x3	47	58	47	125	60	15	50	6	189000	143100	1300 g	
GIR40-UK-2RS	40	92	188	28	23	M39x3	52	65	53	142	65	18	55	7	252000	174600	2000 g	
GIR45-UK-2RS	45	102	196	32	27	M42x3	58	70	60	145	65	20	60	7	324000	233100	2500 g	
GIR50-UK-2RS	50	112	216	35	30	M45x3	62	75	66	160	68	20	65	6	397800	281700	3500 g	
GIR60-UK-2RS	60	135	242.5	44	38	M52x3	70	88	80	175	70	20	75	6	621000	436500	5500 g	
GIR70-UK-2RS	70	160	280	49	42	M56x4	80	98	92	200	80	20	85	6	796500	507600	8600 g	
GIR80-UK-2RS	80	180	320	55	47	M64x4	95	110	105	230	85	25	100	6	1017000	621000	12000 g	

Ref	Dimension (mm)														α°	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	d3	d4	d5	dk	h1	L3	L5	W	C, dyn. N		C, stat. N		
GIL17-UK-2RS	17	46	90	14	11	M16x2	24	30	25	67	34	10	27	10	20250	50850	220 g	
GIL20-UK-2RS	20	53	103.5	16	13	M20x1.5	27.5	35	29	77	40	10	32	9	28170	68040	350 g	
GIL25-UK-2RS	25	64	126	20	17	M24x2	33.5	42	35.5	94	48	12	36	7	45990	94500	640 g	
GIL30-UK-2RS	30	73	146.5	22	19	M30x2	40	50	40.7	110	56	15	41	6	59310	125100	930 g	
GIL35-UK-2RS	35	82	166	25	21	M36x3	47	58	47	125	60	15	50	6	189000	143100	1300 g	
GIL40-UK-2RS	40	92	188	28	23	M39x3	52	65	53	142	65	18	55	7	252000	174600	2000 g	
GIL45-UK-2RS	45	102	196	32	27	M42x3	58	70	60	145	65	20	60	7	324000	233100	2500 g	
GIL50-UK-2RS	50	112	216	35	30	M45x3	62	75	66	160	68	20	65	6	397800	281700	3500 g	
GIL60-UK-2RS	60	135	242.5	44	38	M52x3	70	88	80	175	70	20	75	6	621000	436500	5500 g	
GIL70-UK-2RS	70	160	280	49	42	M56x4	80	98	92	200	80	20	85	6	796500	507600	8600 g	
GIL80-UK-2RS	80	180	320	55	47	M64x4	95	110	105	230	85	25	100	6	1017000	621000	12000 g	



Ref	Dimension (mm)													α°	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	d3	d4	d5	dk	h1	L3	L5	W		C, dyn. N	C, stat. N	
GIL6-UK	6	21	40.5	6	4.4	M6	10	13	10	30	11	5	11	13	3240	9270	21 g
GIL8-UK	8	24	48	8	6	M8	12.5	16	13	36	15	5	14	15	5265	14400	39 g
GIL10-UK	10	29	57.5	9	7	M10	15	19	16	43	20	6.5	17	12	7776	19800	61 g
GIL12-UK	12	34	67	10	8	M12	17.5	22	18	50	23	6.5	19	11	10170	27360	96 g
GIL15-UK	15	40	81	12	10	M14	21	26	22	61	30	8	22	8	16020	40320	180 g
GIL17-UK	17	46	90	14	11	M16	24	30	25	67	34	10	27	10	20250	50850	220 g
GIL20-UK	20	53	103.5	16	13	M20x1.5	27.5	35	29	77	40	10	32	9	28170	68040	350 g
GIL25-UK	25	64	126	20	17	M24x2	33.5	42	35.5	94	48	12	36	7	45900	94500	640 g
GIL30-UK	30	73	146.5	22	19	M30x2	40	50	40.7	110	56	15	41	6	59310	125100	930 g

Technical drawing of a 3D-printed part, showing a perspective view and two cross-sectional views (A-A and B-B) with dimensions.

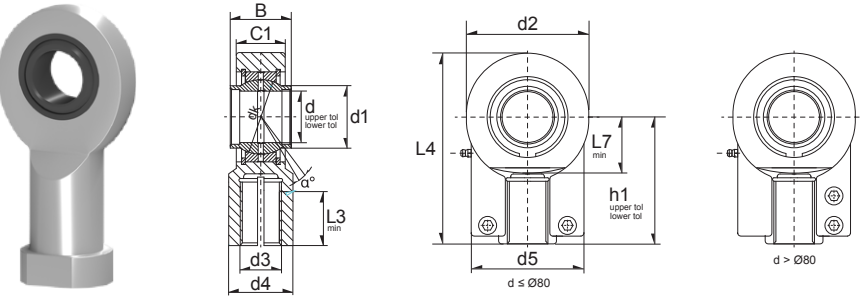
Dimensions:

- Top View:**
 - Outer diameter: $d2$
 - Inner diameter: $d1$
 - Mounting hole diameter: $L8$
 - Mounting hole depth: $h2$ (upper tool, lower tool)
 - Mounting hole angle: 45°
- Section A-A:**
 - Outer diameter: $d1$
 - Inner diameter: d (upper tool, lower tool)
 - Section angle: α°
 - Section angle: 45°
- Section B-B:**
 - Outer diameter: $C1$
 - Inner diameter: B



Ref	Dimension (mm)										α°	*Load Rating		Weight (g) approx.
	d	d2	L6	B	C1	C1max	D	d1	dK	h2		C, dyn. N	C, stat. N	
GF20-DO	20	50	63	16	19	20	35	24.2	29	38	9	26640	59040	350 g
GF25-DO	25	55	72.5	20	23	24	42	29.3	35.5	45	7	43470	61920	530 g
GF30-DO	30	65	83.5	22	28	29	47	34.2	40.7	51	6	56070	104400	870 g
GF35-DO	35	83	102.5	25	30	31	55	39.8	47	61	6	71910	173700	1500 g
GF40-DO	40	100	119	28	35	36.5	62	45	53	69	7	89190	275400	2400 g
GF45-DO	45	110	132	32	40	41.5	68	50.8	60	77	7	115200	347400	3400 g
GF50-DO	50	123	149.5	35	40	41.5	75	56	66	88	6	141300	397800	4400 g
GF60-DO	60	140	170	44	50	52.5	90	66.8	80	100	6	220500	502200	7100 g
GF70-DO	70	164	197	49	55	58	105	77.9	92	115	6	281700	652500	10500 g
GF80-DO	80	180	231	55	60	63	120	89.4	105	141	6	361800	723600	15000 g

Wartungspflichtige Hydraulik-Gelenkköpfe / Hydraulic Rod Ends (RM)



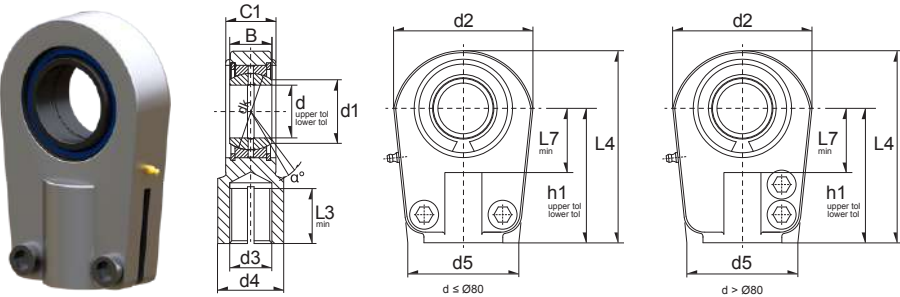
(MF) = Maintenance Free
(RM) = Requiring Maintenance



272

Ref	Dimension (mm)																	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	C2	D	d1	d3	d4	d5	d6	dK	h1	l3	l7	α°	C, dyn. N	C, stat. N	
GIHNRK12-LO	12	32	54	12	10.6	10.6	22	15.5	M12X1,25	16.5	32	M5X12	18	38	17	14	4	9720	21600	110 g
GIHNRK16-LO	16	40	64	16	13	13	28	20	M14X1,5	21	40	M6X16	23	44	19	18	4	15930	31860	200 g
GIHNRK20-LO	20	47	75.5	20	17	17	35	25	M16X1,5	25	47	M8X20	29	52	23	22	4	26640	37350	360 g
GIHNRK25-LO	25	58	94	25	21.5	17	42	30	M20X1,5	30	54	M8X20	35.5	65	29	27	4	43470	62910	590 g
GIHNRK32-LO	32	70	115	32	27	22	52	38	M27X2	38	66	M10X25	44	80	37	32	4	60570	88920	1060 g
GIHNRK40-LO	40	89	141.5	40	32	26	62	46	M33X2	47	80	M10X25	53	97	46	41	4	89190	158400	1930 g
GIHNRK50-LO	50	108	174	50	40	32	75	57	M42X2	58	96	M12X30	66	120	57	50	4	141300	241200	3490 g
GIHNRK63-LO	63	132	211	63	52	38	95	71.5	M48X2	70	114	M12X35	83	140	64	62	4	228600	288900	6290 g
GIHNRK70-LO	70	155	245	70	57	42	105	79	M56X2	80	135	M16X40	92	160	76	70	4	281700	427500	9750 g
GIHNRK80-LO	80	168	270	80	66	48	120	91	M64X3	90	148	M16X45	105	180	86	78	4	361800	475200	13000 g
GIHNRK90-LO	90	185	296	90	72	52	130	99	M72X3	100	160	M16X50	115	195	91	85	4	440100	594000	17000 g
GIHNRK100-LO	100	210	322	100	84	62	150	113	M80X3	110	178	M20X60	130	210	96	98	4	547200	756000	23800 g

Wartungspflichtige Hydraulik-Gelenkköpfe / Hydraulic Rod Ends (RM)



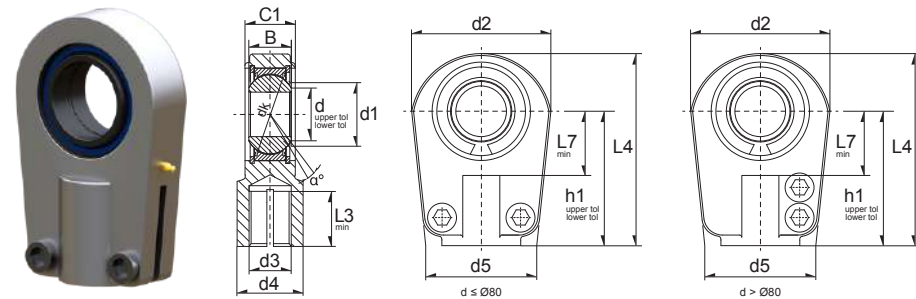
(MF) = Maintenance Free
(RM) = Requiring Maintenance



273

Ref	Dimension (mm)																	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	d1	d3	d4	d5	dk	h1	L3	L7	α°	C, dyn. N	C, stat. N				
GIHRK20-DO	20	56	80	16	19	24.2	M16x1.5	25	46	29	50	17	25	9	26640	72990				430 g
GIHRK25-DO	25	56	80	20	23	29.3	M16x1.5	25	46	35.5	50	17	28	7	43470	58950				480 g
GIHRK30-DO	30	64	94	22	28	34.2	M22x1.5	32	50	40.7	60	23	30	6	56070	87120				740 g
GIHRK35-DO	35	78	112	25	30	39.8	M28x1.5	40	66	47	70	29	38	6	71910	126000				1200 g
GIHRK40-DO	40	94	135	28	35	45.0	M35x1.5	49	76	53	85	36	45	7	89190	205200				2000 g
GIHRK50-DO	50	116	168	35	40	55.9	M45x1.5	61	90	66	105	46	55	6	141300	299700				3800 g
GIHRK60-DO	60	130	200	44	50	66.8	M58x1.5	75	120	80	130	59	65	6	220500	294300				5400 g
GIHRK70-DO	70	154	232	49	55	77.9	M65x1.5	86	130	92	150	66	75	6	281700	396900				8500 g
GIHRK80-DO	80	176	265	55	60	89.4	M80x2	105	160	105	170	81	80	6	361800	495900				12000 g
GIHRK90-DO	90	206	323	60	65	98.1	M100x2	124	180	115	210	101	90	5	440100	729900				21500 g
GIHRK100-DO	100	231	360	70	70	109.5	M110x2	138	200	130	235	111	105	7	547200	828000				27500 g

Wartungsfreie Hydraulik-Gelenkköpfe / Hydraulic Rod Ends (MF)

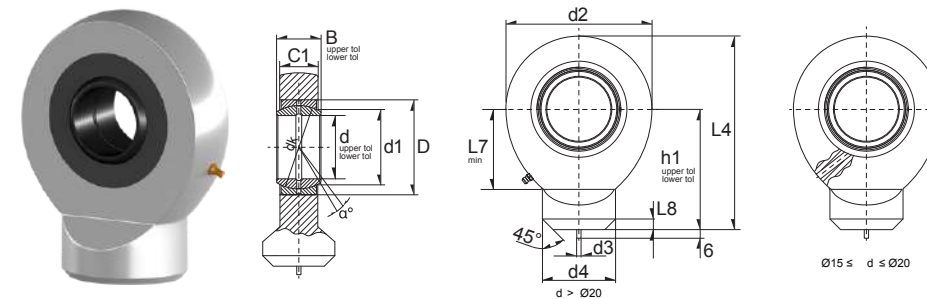


(MF) = Maintenance Free  

(RM) = Requiring Maintenance

Ref	Dimension (mm)													α°	*Load Rating		Weight (g) approx.
	d	d2	L4	B	C1	d1	d3	d4	d5	dk	h1	L3	L7		C, dyn. N	C, stat. N	
GIHRK20-UK-2RS	20	56	80	16	19	24.2	M16x1.5	25	46	29	50	17	25	9	30000	72000	430 g
GIHRK25-UK-2RS	25	56	80	20	23	29.3	M16x1.5	25	46	35.5	50	17	28	7	48000	72000	480 g
GIHRK30-UK-2RS	30	64	94	22	28	34.2	M22x1.5	32	50	40.7	60	23	30	6	62000	106000	740 g
GIHRK35-UK-2RS	35	78	112	25	30	39.8	M28x1.5	40	66	47	70	29	38	6	80000	153000	1200 g
GIHRK40-UK-2RS	40	94	135	28	35	45.0	M35x1.5	49	76	53	85	36	45	7	100000	250000	2000 g
GIHRK50-UK-2RS	50	116	168	35	40	55.9	M45x1.5	61	90	66	105	46	55	6	156000	365000	3800 g
GIHRK60-UK-2RS	60	130	200	44	50	66.8	M58x1.5	75	120	80	130	59	65	6	245000	400000	5400 g
GIHRK70-UK-2RS	70	154	232	49	55	77.9	M65x1.5	86	130	92	150	66	75	6	315000	540000	8500 g
GIHRK80-UK-2RS	80	176	265	55	60	89.4	M80x2.0	105	160	105	170	81	80	6	400000	670000	12000 g
GIHRK90-UK-2RS	90	206	323	60	65	98.1	M100x2.0	124	180	115	210	101	90	5	490000	980000	21500 g
GIHRK100-UK-2RS	100	231	360	70	70	109.5	M110x2.0	138	200	130	235	111	105	7	610000	1120000	27500 g

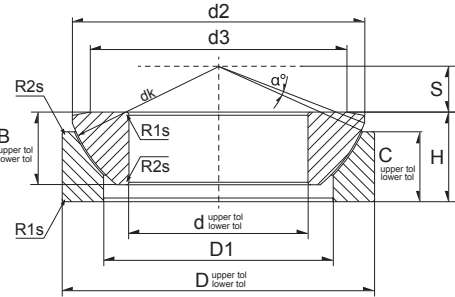
Wartungspflichtige Hydraulik-Gelenkköpfe / Hydraulic Rod Ends (RM)



(MF) = Maintenance Free
(RM) = Requiring Maintenance

Ref	Dimension (mm)													α°	*Load Rating		Weight (g) approx.
	d	d2	B	C1	D	d1	d3	d4	dk	h1	L4	L7	L8		C, dyn. N	C, stat. N	
GK10-DO	10	29	9	7	19	13.2	3	15	16	24	38.5	15	1.5	12	7335	14040	41 g
GK12-DO	12	34	10	8	22	15	3	17.5	18	27	44	18	1.5	11	9720	19440	66 g
GK15-DO	15	40	12	10	26	18.4	4	21	22	31	51	20	2	8	15210	28620	120 g
GK17-DO	17	46	14	11	30	20.7	4	24	25	35	58	23	2	10	19170	36090	190 g
GK20-DO	20	53	16	13	35	24.2	4	27.5	29	38	64.5	27.5	2	9	26640	48330	230 g
GK25-DO	25	64	20	17	42	29.3	4	33.5	35.5	45	77	33	3	7	43470	63720	430 g
GK30-DO	30	73	22	19	47	34.2	4	40	40.7	51	87.5	37.5	3	6	56070	86130	640 g
GK35-DO	35	82	25	21	55	39.8	4	47	47	61	102	43	3	6	71910	115200	960 g
GK40-DO	40	92	28	23	62	45	4	52	53	69	115	48	4	7	89190	140400	1300 g
GK45-DO	45	102	32	27	68	50.8	6	58	60	77	128	52	4	7	115200	187200	1800 g
GK50-DO	50	112	35	30	75	55.9	6	62	66	88	144	59	4	6	141300	226800	2500 g
GK60-DO	60	135	44	38	90	66.8	6	70	80	100	167.5	72.5	4	6	220500	350100	3900 g
GK70-DO	70	160	49	42	105	77.9	6	80	92	115	195	86	5	6	281700	459900	6600 g
GK80-DO	80	180	55	47	120	89.4	6	95	105	141	231	98	5	6	361800	561600	8700 g

Wartungsfreie Axial-Gelenklager / Axial Spherical Plain Bearings (MF)



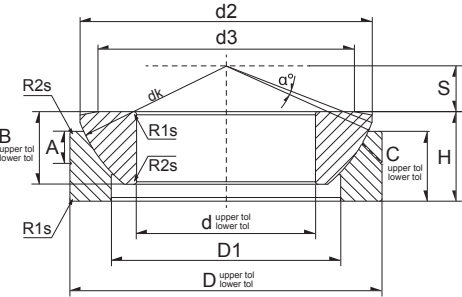
(MF) = Maintenance Free
(RM) = Requiring Maintenance



276

Ref	Dimension (mm)												α°	*Load Rating		Weight (g) approx.
	d	D	B	C	d1	d2	d3	dk	H	S	R1s	R2s		C, dyn. N	C, stat. N	
GE10-AW	10.0	30.0	7.9	6.0	16.5	27.5	21.0	32.0	9.5	7.0	0.6	0.2	10.0	36000	72000	40 g
GE12-AW	12.0	35.0	9.3	9.0	19.5	32.0	24.0	37.0	13.0	8.0	0.6	0.2	9.0	49000	98000	70 g
GE15-AW	15.0	42.0	10.7	11.0	24.0	38.9	29.0	45.0	15.0	10.0	0.6	0.2	7.0	78000	156000	120 g
GE17-AW	17.0	47.0	11.5	11.5	28.0	43.4	34.0	50.0	16.0	11.0	0.6	0.2	6.0	88000	176000	160 g
GE20-AW	20.0	55.0	14.3	13.0	33.5	50.0	40.0	60.0	20.0	12.5	1.0	0.3	6.0	112000	224000	250 g
GE25-AW	25.0	62.0	16.0	17.0	34.5	57.5	45.0	66.0	22.5	14.0	1.0	0.3	7.0	193000	390000	380 g
GE30-AW	30.0	75.0	18.0	19.5	44.0	69.0	56.0	80.0	26.0	17.5	1.0	0.3	6.0	255000	510000	650 g
GE35-AW	35.0	90.0	22.0	20.0	52.0	84.0	66.0	98.0	28.0	22.0	1.0	0.3	6.0	390000	780000	1000 g
GE40-AW	40.0	105.0	27.0	22.0	59.0	98.0	78.0	114.0	32.0	24.5	1.0	0.3	6.0	560000	1120000	1600 g
GE45-AW	45.0	120.0	31.0	25.0	68.0	112.0	89.0	130.0	36.5	27.5	1.0	0.3	6.0	735000	1460000	2400 g
GE50-AW	50.0	130.0	33.5	32.0	69.0	122.5	98.0	140.0	42.5	30.0	1.0	0.3	5.0	980000	1960000	3300 g
GE60-AW	60.0	150.0	37.0	33.0	86.0	140.0	108.0	160.0	45.0	35.0	1.0	0.3	7.0	1100000	2200000	4500 g
GE70-AW	70.0	160.0	40.0	36.0	95.0	149.5	121.0	170.0	50.0	35.0	1.0	0.3	6.0	1200000	2400000	5500 g
GE80-AW	80.0	180.0	42.0	36.0	108.0	168.0	130.0	194.0	50.0	42.5	1.0	0.3	6.0	1560000	3100000	7000 g
GE100-AW	100.0	210.0	50.0	42.0	133.0	195.5	155.0	220.0	59.0	45.0	1.0	0.3	7.0	1800000	3600000	10500 g
GE120-AW	120.0	230.0	52.0	45.0	154.0	214.0	170.0	245.0	64.0	52.5	1.0	0.3	8.0	1860000	3750000	13000 g

Wartungspflichtige Axial-Gelenklager / Axial Spherical Plain Bearings (RM)



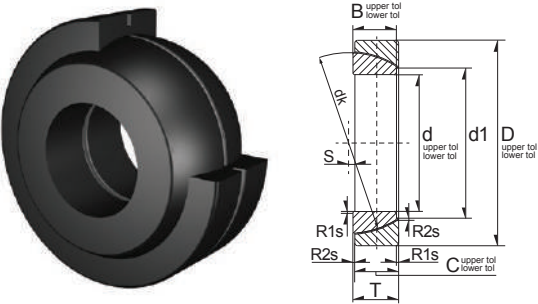
(MF) = Maintenance Free
(RM) = Requiring Maintenance



277

Ref	Dimension (mm)														α°	*Load Rating		Weight (g) approx.
	d	D	H	dk	d1	d2	d3	B	C	S	A	R1s	R2s	C, dyn. N		C, stat. N		
GE10-AX	10.0	30.0	9.5	32.0	16.5	27.5	21	7.9	6.0	7.0	3.0	0.6	0.2	10.0	21960	109800	40 g	
GE12-AX	12.0	35.0	13.0	37.0	19.5	32.0	24	9.3	9.0	8.0	4.0	0.6	0.2	9.0	29160	145800	70 g	
GE15-AX	15.0	42.0	15.0	45.0	24.0	38.9	29	10.7	11.0	10.0	5.0	0.6	0.2	7.0	46980	234900	120 g	
GE17-AX	17.0	47.0	16.0	50.0	28.0	43.4	34	11.5	11.5	11.0	5.0	0.6	0.15	6.0	53280	266400	160 g	
GE20-AX	20.0	55.0	20.0	60.0	33.5	50.0	40	14.3	13.0	12.5	6.0	1.0	0.3	6.0	67590	337500	250 g	
GE25-AX	25.0	62.0	22.5	66.0	34.5	57.5	45	16.0	17.0	14.0	6.0	1.0	0.3	7.0	116100	580500	380 g	
GE30-AX	30.0	75.0	26.0	80.0	44.0	69.0	56	18.0	19.5	17.5	8.0	1.0	0.3	6.0	152100	763200	650 g	
GE35-AX	35.0	90.0	28.0	98.0	52.0	84.0	66	22.0	20.0	22.0	8.0	1.0	0.3	6.0	233100	1161000	1000 g	
GE40-AX	40.0	105.0	32.0	114.0	59.0	98.0	78	27.0	22.0	24.5	9.0	1.0	0.3	6.0	335700	1674000	1600 g	
GE45-AX	45.0	120.0	36.5	130.0	68.0	112.0	89	31.0	25.0	27.5	11.0	1.0	0.3	6.0	437400	2187000	2400 g	
GE50-AX	50.0	130.0	42.5	140.0	69.0	122.5	98	33.5	32.0	30.0	10.0	1.0	0.3	5.0	585000	2925000	3300 g	

Wartungsfreie Schräg-Gelenklager / Angular Contact Spherical Plain Bearings (MF)



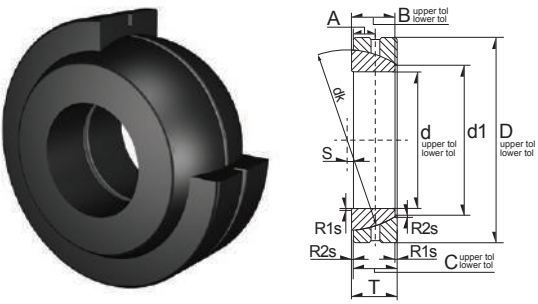
(MF) = Maintenance Free
(RM) = Requiring Maintenance



278

Ref	Dimension (mm)								*Load Rating		Weight (g) approx.
	d	D	T	B	C	d1	dk	S	C, dyn. N	C, stat. N	
GE25-SW	25.0	47.0	15.0	14.0	14.0	31.4	42.5	1.0	71000	140000	140 g
GE28-SW	28.0	52.0	16.0	15.0	15.0	35.7	47.0	1.0	90000	180000	180 g
GE30-SW	30.0	55.0	17.0	16.0	16.0	36.1	50.0	2.0	95000	190000	220 g
GE32-SW	32.0	58.0	17.0	17.0	16.0	37.5	52.0	2.0	102000	204000	240 g
GE35-SW	35.0	62.0	18.0	17.0	17.0	42.4	56.0	2.0	116000	232000	280 g
GE40-SW	40.0	68.0	19.0	18.0	18.0	46.8	60.0	1.5	134000	270000	340 g
GE45-SW	45.0	75.0	20.0	19.0	19.0	52.9	66.0	1.5	160000	320000	430 g
GE50-SW	50.0	80.0	20.0	19.0	19.0	59.1	74.0	4.0	176000	355000	470 g
GE55-SW	55.0	90.0	23.0	22.0	22.0	62.0	80.0	4.0	220000	440000	700 g
GE60-SW	60.0	95.0	23.0	22.0	22.0	68.1	86.0	5.0	240000	480000	750 g
GE65-SW	65.0	100.0	23.0	22.0	22.0	75.6	92.0	5.0	260000	520000	800 g
GE70-SW	70.0	110.0	25.0	24.0	24.0	82.2	102.0	7.0	315000	630000	1000 g
GE75-SW	75.0	115.0	25.0	25.0	25.0	84.4	107.0	7.9	345000	670000	1100 g
GE80-SW	80.0	125.0	29.0	27.0	27.0	90.5	115.0	10.0	375000	750000	1600 g
GE85-SW	85.0	130.0	29.0	29.0	26.5	94.8	122.0	9.4	425000	810000	1700 g
GE90-SW	90.0	140.0	32.0	30.0	30.0	103.3	130.0	11.0	480000	965000	2200 g
GE95-SW	95.0	145.0	32.0	32.0	29.5	104.4	135.0	10.8	500000	1000000	2300 g
GE100-SW	100.0	150.0	32.0	30.0	30.0	114.3	140.0	12.0	520000	1040000	2400 g
GE105-SW	105.0	160.0	35.0	35.0	32.5	113.8	148.0	12.3	565000	1250000	2900 g
GE110-SW	110.0	170.0	38.0	36.0	36.0	125.8	160.0	15.0	710000	1430000	3700 g
GE120-SW	120.0	180.0	38.0	36.0	36.0	135.4	170.0	17.0	765000	1530000	4000 g

Wartungspflichtige Schräg-Gelenklager / Angular Contact Spherical Plain Bearings (RM)



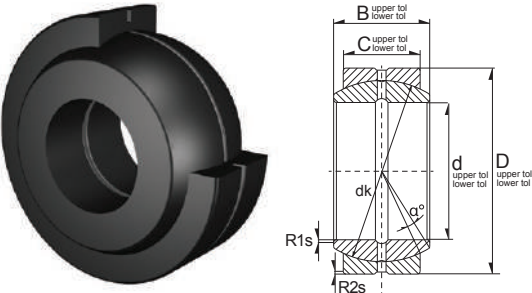
(MF) = Maintenance Free
(RM) = Requiring Maintenance



279

Ref	Dimension (mm)									α°	*Load Rating		Weight (g) approx.
	d	D	T	A	B	C	d1	dk	S		C, dyn. N	C, stat. N	
GE25-SX	25.0	47.0	15.0	7.5	14.0	14.0	31.4	42.5	1.0	7.5	43020	215100	130 g
GE28-SX	28.0	52.0	16.0	8.0	15.0	15.0	35.7	47.0	1.0	8.0	51930	259200	170 g
GE30-SX	30.0	55.0	17.0	8.5	16.0	16.0	36.1	50.0	2.0	8.5	58140	290700	210 g
GE32-SX	32.0	58.0	17.0	8.5	17.0	16.0	37.5	52.0	2.0	8.5	63900	318600	240 g
GE35-SX	35.0	62.0	18.0	9.0	17.0	17.0	42.4	56.0	2.0	9.0	70740	353700	270 g
GE40-SX	40.0	68.0	19.0	9.5	18.0	18.0	46.8	60.0	1.5	9.5	81720	408600	320 g
GE45-SX	45.0	75.0	20.0	10.0	19.0	19.0	52.9	66.0	1.5	10.0	95400	478800	410 g
GE50-SX	50.0	80.0	20.0	10.0	19.0	19.0	59.1	74.0	4.0	10.0	106200	532800	450 g
GE55-SX	55.0	90.0	23.0	11.5	22.0	22.0	62.0	80.0	4.0	11.5	134100	671400	1670 g
GE60-SX	60.0	95.0	23.0	11.5	22.0	22.0	68.1	86.0	5.0	11.5	144900	724500	720 g
GE65-SX	65.0	100.0	23.0	11.5	22.0	22.0	75.6	92.0	5.0	11.5	155700	780300	760 g
GE70-SX	70.0	110.0	25.0	12.5	24.0	24.0	82.2	102.0	7.0	12.5	188100	936000	1000 g
GE75-SX	75.0	115.0	25.0	12.5	25.0	24.0	84.4	107.0	7.9	12.5	198000	1016100	1100 g
GE80-SX	80.0	125.0	29.0	14.5	27.0	27.0	90.5	115.0	10.0	14.5	220500	1098000	1500 g
GE85-SX	85.0	130.0	29.0	14.5	29.0	26.5	94.8	122.0	9.4	14.5	255600	1279800	1600 g
GE90-SX	90.0	140.0	32.0	16.0	30.0	30.0	103.3	130.0	11.0	16.0	282600	1413000	2100 g
GE95-SX	95.0	145.0	32.0	16.0	32.0	29.5	104.4	135.0	10.8	16.0	301500	1575000	2200 g
GE100-SX	100.0	150.0	32.0	16.0	30.0	30.0	114.3	140.0	12.0	16.0	305100	1530000	2300 g
GE105-SX	105.0	160.0	35.0	17.5	35.0	32.5	113.8	148.0	12.3	17.5	380700	1904400	2900 g
GE110-SX	110.0	170.0	38.0	19.0	36.0	36.0	125.8	160.0	15.0	19.0	422100	2106000	3600 g
GE120-SX	120.0	180.0	38.0	19.0	36.0	36.0	135.4	170.0	17.0	19.0	449100	2241000	3900 g

Wartungspflichtige Radial-Gelenklager / Radial Spherical Plain Bearings (RM)



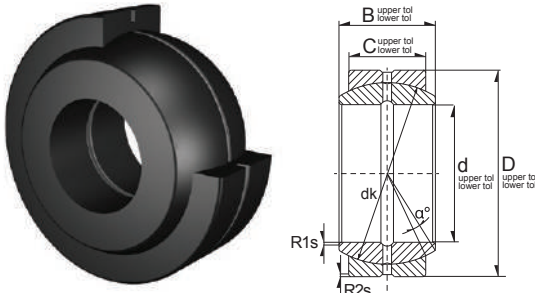
(MF) = Maintenance Free
(RM) = Requiring Maintenance



280

Ref	Dimension (mm)						α°	Mounting Dimensions da	*Load Rating		Weight (g) approx.
	d	D	B	C	Da	dk			C, dyn. N	C, stat. N	
GE17-DO-2RS	17.0	30.0	14.0	10.0	24.0	25.0	10.0	20.7	19170	95400	41 g
GE20-DO-2RS	20.0	35.0	16.0	12.0	27.5	29.0	9.0	24.2	26640	133200	65 g
GE25-DO-2RS	25.0	42.0	20.0	16.0	33.0	35.5	7.0	29.3	43470	216900	120 g
GE30-DO-2RS	30.0	47.0	22.0	18.0	38.0	40.7	6.0	34.2	56070	279900	150 g
GE35-DO-2RS	35.0	55.0	25.0	20.0	44.5	47.0	6.0	39.8	71910	360000	230 g
GE40-DO-2RS	40.0	62.0	28.0	22.0	51.0	53.0	7.0	45.0	89190	446400	320 g
GE45-DO-2RS	45.0	68.0	32.0	25.0	57.0	60.0	7.0	50.8	115200	575100	420 g
GE50-DO-2RS	50.0	75.0	35.0	28.0	63.0	66.0	6.0	56.0	141300	706500	560 g
GE60-DO-2RS	60.0	90.0	44.0	36.0	75.0	80.0	6.0	66.8	220500	1098000	1030 g
GE70-DO-2RS	70.0	105.0	49.0	40.0	87.0	92.0	6.0	77.9	281700	1404000	1560 g
GE80-DO-2RS	80.0	120.0	55.0	45.0	99.0	105.0	6.0	89.4	361800	1809000	2290 g
GE90-DO-2RS	90.0	130.0	60.0	50.0	108.0	115.0	5.0	98.1	440100	2196000	2760 g
GE100-DO-2RS	100.0	150.0	70.0	55.0	123.0	130.0	7.0	109.5	547200	2736000	4420 g
GE110-DO-2RS	110.0	160.0	70.0	55.0	134.0	140.0	6.0	121.2	589500	2952000	4800 g
GE120-DO-2RS	120.0	180.0	85.0	70.0	150.0	160.0	6.0	135.6	856800	4284000	8060 g
GE140-DO-2RS	140.0	210.0	90.0	70.0	173.0	180.0	7.0	155.9	963000	4824000	11200 g
GE160-DO-2RS	160.0	230.0	105.0	80.0	191.0	200.0	8.0	170.2	1224000	6120000	14200 g
GE180-DO-2RS	180.0	260.0	105.0	80.0	219.0	225.0	6.0	199.0	1377000	6885000	18600 g
GE200-DO-2RS	200.0	290.0	130.0	100.0	239.0	250.0	7.0	213.5	1917000	9540000	28500 g

Wartungspflichtige Radial-Gelenklager / Radial Spherical Plain Bearings (RM)



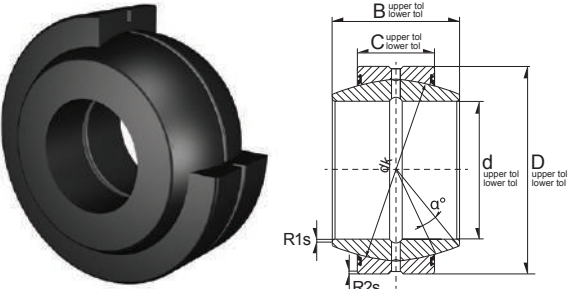
(MF) = Maintenance Free
(RM) = Requiring Maintenance



281

Ref	Dimension (mm)						α°	Mounting Dimensions da	*Load Rating		Weight (g) approx.
	d	D	B	C	Da	dk			C, dyn. N	C, stat. N	
GE6-DO	6.0	14.0	6.0	4.0	9.6	10.0	13.0	8.0	3060	15300	5 g
GE8-DO	8.0	16.0	8.0	5.0	12.5	13.0	15.0	10.2	5031	25200	7 g
GE10-DO	10.0	19.0	9.0	6.0	15.5	16.0	12.0	13.2	7344	36720	12 g
GE12-DO	12.0	22.0	10.0	7.0	17.5	18.0	11.0	14.9	9720	48600	17 g
GE15-DO	15.0	26.0	12.0	9.0	21.0	22.0	8.0	18.4	15210	76230	27 g
GE16-DO	16.0	30.0	14.0	10.0	24.0	25.0	10.0	20.7	19170	95400	34 g
GE17-DO	17.0	30.0	14.0	10.0	24.0	25.0	10.0	20.7	19170	95400	44 g
GE20-DO	20.0	35.0	16.0	12.0	27.5	29.0	9.0	24.2	26640	133200	65 g
GE25-DO	25.0	42.0	20.0	16.0	33.0	35.5	7.0	29.3	43470	216900	120 g
GE30-DO	30.0	47.0	22.0	18.0	38.0	40.7	6.0	34.2	56070	279900	150 g
GE35-DO	35.0	55.0	25.0	20.0	44.5	47.0	6.0	39.8	71910	360000	230 g
GE40-DO	40.0	62.0	28.0	22.0	51.0	53.0	7.0	45.0	89190	446400	320 g
GE45-DO	45.0	68.0	32.0	25.0	57.0	60.0	7.0	50.8	115200	575100	420 g
GE50-DO	50.0	75.0	35.0	28.0	63.0	66.0	6.0	56.0	141300	706500	560 g
GE60-DO	60.0	90.0	44.0	36.0	75.0	80.0	6.0	66.8	220500	1098000	1030 g
GE70-DO	70.0	105.0	49.0	40.0	87.0	92.0	6.0	77.9	281700	1404000	1560 g
GE80-DO	80.0	120.0	55.0	45.0	99.0	105.0	6.0	89.4	361800	1809000	2290 g
GE90-DO	90.0	130.0	60.0	50.0	108.0	115.0	5.0	98.1	440100	2196000	2760 g
GE100-DO	100.0	150.0	70.0	55.0	123.0	130.0	7.0	109.5	547200	2736000	4420 g
GE110-DO	110.0	160.0	70.0	55.0	134.0	140.0	6.0	121.2	589500	2952000	4800 g
GE120-DO	120.0	180.0	85.0	70.0	150.0	160.0	6.0	135.6	856800	4284000	8060 g
GE140-DO	140.0	210.0	90.0	70.0	173.0	180.0	7.0	155.9	963000	4824000	11200 g
GE160-DO	160.0	230.0	105.0	80.0	191.0	200.0	8.0	170.2	1224000	6120000	14200 g
GE180-DO	180.0	260.0	105.0	80.0	219.0	225.0	6.0	199.0	1377000	6885000	18600 g
GE200-DO	200.0	290.0	130.0	100.0	239.0	250.0	7.0	213.5	1917000	9540000	28500 g

Wartungspflichtige Radial-Gelenklager / Radial Spherical Plain Bearings (RM)



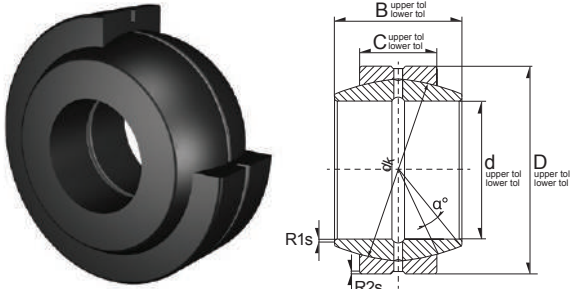
(MF) = Maintenance Free
(RM) = Requiring Maintenance



282

Ref	Dimension (mm)							Mounting Dimensions da	*Load Rating		Weight (g) approx.
	d	D	B	C	Da	dk	α°		C, dyn. N	C, stat. N	
GE15-FO-2RS	15.0	30.0	16.0	10.0	24.0	25.0	16.0	19.2	19170	95400	47 g
GE17-FO-2RS	17.0	35.0	20.0	12.0	27.5	29.0	19.0	21.0	26640	133200	79 g
GE20-FO-2RS	20.0	42.0	25.0	16.0	33.0	35.5	17.0	25.2	43470	216900	150 g
GE25-FO-2RS	25.0	47.0	28.0	18.0	38.0	40.7	17.0	29.5	56070	279900	200 g
GE30-FO-2RS	30.0	55.0	32.0	20.0	44.5	47.0	17.0	34.4	71910	360000	300 g
GE35-FO-2RS	35.0	62.0	35.0	22.0	51.0	53.0	16.0	39.8	89190	446400	400 g
GE40-FO-2RS	40.0	68.0	40.0	25.0	57.0	60.0	17.0	44.7	115200	575100	530 g
GE45-FO-2RS	45.0	75.0	43.0	28.0	63.0	66.0	15.0	50.1	141300	706500	690 g
GE50-FO-2RS	50.0	90.0	56.0	36.0	75.0	80.0	17.0	57.1	220500	1098000	1410 g
GE60-FO-2RS	60.0	105.0	63.0	40.0	87.0	92.0	17.0	67.0	281700	1404000	2100 g
GE70-FO-2RS	70.0	120.0	70.0	40.0	99.0	105.0	16.0	78.3	361800	1809000	3000 g
GE80-FO-2RS	80.0	130.0	75.0	50.0	108.0	115.0	14.0	87.2	440100	2196000	3600 g
GE90-FO-2RS	90.0	150.0	85.0	55.0	123.0	130.0	15.0	98.4	547200	2736000	5500 g
GE100-FO-2RS	100.0	160.0	85.0	55.0	134.0	140.0	14.0	111.2	589500	2952000	6000 g
GE110-FO-2RS	110.0	180.0	100.0	70.0	150.0	160.0	12.0	124.9	856800	4284000	9700 g
GE120-FO-2RS	120.0	210.0	115.0	70.0	173.0	180.0	16.0	138.5	963000	4824000	15100 g

Wartungspflichtige Radial-Gelenklager / Radial Spherical Plain Bearings (RM)



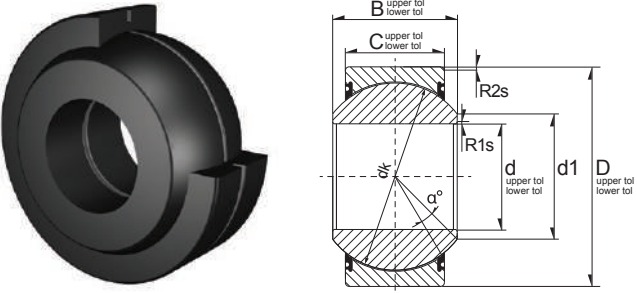
(MF) = Maintenance Free
(RM) = Requiring Maintenance



283

Ref	Dimension (mm)							Mounting Dimensions da	*Load Rating		Weight (g) approx.
	d	D	B	C	Da	dk	α°		C, dyn. N	C, stat. N	
GE6-FO	6.0	16.0	9.0	5.0	12.5	13.0	21.0	9.4	4950	24750	9 g
GE8-FO	8.0	19.0	11.0	6.0	15.5	16.0	21.0	11.6	7344	36720	15 g
GE10-FO	10.0	22.0	12.0	7.0	17.5	18.0	18.0	13.4	9720	48600	21 g
GE12-FO	12.0	26.0	15.0	9.0	21.0	22.0	18.0	16.1	15210	76230	37 g
GE15-FO	15.0	30.0	16.0	10.0	24.0	25.0	16.0	19.2	19170	95400	47 g
GE17-FO	17.0	35.0	20.0	12.0	27.5	29.0	19.0	21.0	26640	133200	79 g
GE20-FO	20.0	42.0	25.0	16.0	33.0	35.5	17.0	25.2	43470	216900	150 g
GE25-FO	25.0	47.0	28.0	18.0	38.0	40.7	17.0	29.5	56070	279900	200 g
GE30-FO	30.0	55.0	32.0	20.0	44.5	47.0	17.0	34.4	71910	360000	300 g
GE35-FO	35.0	62.0	35.0	22.0	51.0	53.0	16.0	39.8	89190	446400	400 g
GE40-FO	40.0	68.0	40.0	25.0	57.0	60.0	17.0	44.7	115200	575100	530 g
GE45-FO	45.0	75.0	43.0	28.0	63.0	66.0	15.0	50.1	141300	706500	690 g
GE50-FO	50.0	90.0	56.0	36.0	75.0	80.0	17.0	57.1	220500	1098000	1410 g
GE60-FO	60.0	105.0	63.0	40.0	87.0	92.0	17.0	67.0	281700	1404000	2100 g
GE70-FO	70.0	120.0	70.0	45.0	99.0	105.0	16.0	78.3	361800	1809000	3000 g
GE80-FO	80.0	130.0	75.0	50.0	108.0	115.0	14.0	87.2	440100	2196000	3600 g
GE90-FO	90.0	150.0	85.0	55.0	123.0	130.0	15.0	98.4	547200	2736000	5500 g
GE100-FO	100.0	160.0	85.0	55.0	134.0	140.0	14.0	111.2	589500	2952000	6000 g
GE110-FO	110.0	180.0	100.0	70.0	150.0	160.0	12.0	124.9	856800	4284000	9700 g
GE120-FO	120.0	210.0	115.0	70.0	173.0	180.0	16.0	138.5	963000	4824000	15100 g

Wartungsfreie Radial-Gelenklager / Radial Spherical Plain Bearings (MF)



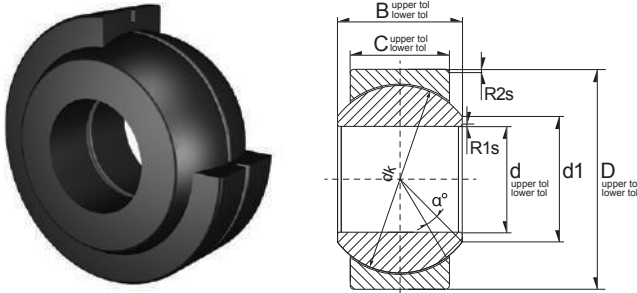
(MF) = Maintenance Free
(RM) = Requiring Maintenance



284

Ref	Dimension (mm)								*Load Rating		Weight (g) approx.
	d	D	B	C	dk	R1s	R2s	α°	C, dyn. N	C, stat. N	
GE15-FW-2RS	15.0	30.0	16.0	10.0	25.0	0.3	0.3	16.0	20250	50670	46 g
GE17-FW-2RS	17.0	35.0	20.0	12.0	29.0	0.3	0.3	19.0	28170	70470	78 g
GE20-FW-2RS	20.0	42.0	25.0	16.0	35.5	0.6	0.6	17.0	45990	115200	150 g
GE25-FW-2RS	25.0	47.0	28.0	18.0	40.7	0.6	0.6	17.0	59310	148500	190 g
GE30-FW-2RS	30.0	55.0	32.0	20.0	47.0	0.6	1.0	17.0	190800	317700	290 g
GE35-FW-2RS	35.0	62.0	35.0	22.0	53.0	0.6	1.0	16.0	252000	419400	390 g
GE40-FW-2RS	40.0	68.0	40.0	25.0	60.0	0.6	1.0	17.0	324000	540000	520 g
GE45-FW-2RS	45.0	75.0	43.0	28.0	66.0	0.6	1.0	15.0	399600	665100	680 g
GE50-FW-2RS	50.0	90.0	56.0	36.0	80.0	0.6	1.0	17.0	621900	1035000	1400 g
GE60-FW-2RS	60.0	105.0	63.0	40.0	92.0	1.0	1.0	17.0	794700	1323000	2000 g
GE70-FW-2RS	70.0	120.0	70.0	45.0	105.0	1.0	1.0	16.0	1017000	1701000	2900 g
GE80-FW-2RS	80.0	130.0	75.0	50.0	115.0	1.0	1.0	14.0	1242000	2070000	3500 g
GE90-FW-2RS	90.0	150.0	85.0	55.0	130.0	1.0	1.0	15.0	1548000	2574000	5400 g
GE100-FW-2RS	100.0	160.0	85.0	55.0	140.0	1.0	1.0	14.0	1665000	2772000	6000 g
GE110-FW-2RS	110.0	180.0	100.0	70.0	160.0	1.0	1.0	12.0	2421000	4032000	9700 g
GE120-FW-2RS	120.0	210.0	115.0	70.0	180.0	1.0	1.0	16.0	2718000	4536000	14000 g
GE140-FW-2RS	140.0	230.0	130.0	80.0	200.0	1.0	1.0	16.0	3456000	5760000	19000 g
GE160-FW-2RS	160.0	260.0	135.0	80.0	225.0	1.1	1.1	16.0	3888000	6480000	24700 g
GE180-FW-2RS	180.0	290.0	155.0	100.0	250.0	1.1	1.1	14.0	5400000	9000000	35900 g
GE200-FW-2RS	200.0	320.0	165.0	100.0	275.0	1.1	1.1	15.0	5940000	9900000	45300 g
GE220-FW-2RS	220.0	340.0	175.0	100.0	300.0	1.1	1.1	16.0	6480000	10800000	51100 g
GE240-FW-2RS	240.0	370.0	190.0	110.0	325.0	1.1	1.1	15.0	7722000	12870000	65100 g
GE260-FW-2RS	260.0	400.0	205.0	120.0	350.0	1.1	1.1	15.0	9090000	15120000	82400 g
GE280-FW-2RS	280.0	430.0	210.0	120.0	375.0	1.1	1.1	15.0	9720000	16200000	97200 g

Wartungsfreie Radial-Gelenklager / Radial Spherical Plain Bearings (MF)



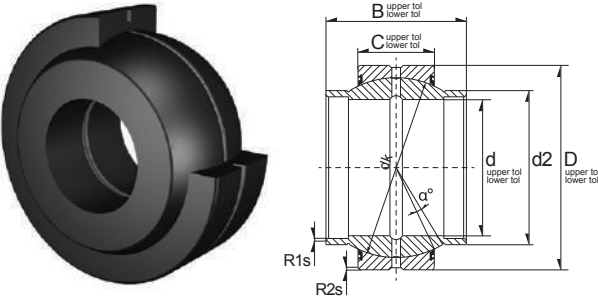
(MF) = Maintenance Free
(RM) = Requiring Maintenance



285

Ref	Dimension (mm)									*Load Rating		Weight (g) approx.
	d	D	B	C	d1	dk	R1s	R2s	α°	C, dyn. N	C, stat. N	
GE6-FW	6.0	16.0	9.0	5.0	9.0	13.0	0.3	0.3	21.0	5265	13140	8 g
GE8-FW	8.0	19.0	11.0	6.0	11.0	16.0	0.3	0.3	21.0	7776	19440	14 g
GE10-FW	10.0	22.0	12.0	7.0	13.0	18.0	0.3	0.3	18.0	10170	25560	21 g
GE12-FW	12.0	26.0	15.0	9.0	16.0	22.0	0.3	0.3	18.0	16020	40140	33 g
GE15-FW	15.0	30.0	16.0	10.0	19.0	25.0	0.3	0.3	16.0	20250	50670	49 g
GE17-FW	17.0	35.0	20.0	12.0	21.0	29.0	0.3	0.3	19.0	28170	70470	83 g
GE20-FW	20.0	42.0	25.0	16.0	24.0	35.5	0.3	0.3	17.0	45990	115200	153 g
GE25-FW	25.0	47.0	28.0	18.0	29.0	40.7	0.6	0.6	17.0	59310	148500	203 g

Wartungspflichtige Radial-Gelenklager / Radial Spherical Plain Bearings (RM)



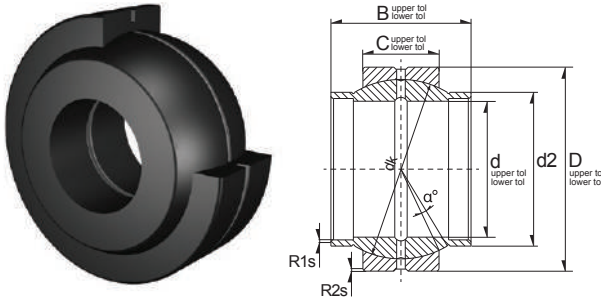
(MF) = Maintenance Free
(RM) = Requiring Maintenance



286

Ref	Dimension (mm)								Mounting Dimensions da	*Load Rating		Weight (g) approx.
	d	D	B	C	da	d2	dk	α°		C, dyn. N	C, stat. N	
GE20-HO-2RS	20.0	35.0	24.0	12.0	24.0	24.0	29.0	3.0	27.5	26640	133200	70 g
GE25-HO-2RS	25.0	42.0	29.0	16.0	29.0	29.0	35.5	3.0	33.0	43470	216900	130 g
GE30-HO-2RS	30.0	47.0	30.0	18.0	34.2	34.2	40.7	3.0	38.0	56070	279900	160 g
GE35-HO-2RS	35.0	55.0	35.0	20.0	40.0	40.0	47.0	3.0	44.5	71910	360000	250 g
GE40-HO-2RS	40.0	62.0	38.0	22.0	45.0	45.0	53.0	3.0	51.0	89190	446400	330 g
GE45-HO-2RS	45.0	68.0	40.0	25.0	51.5	51.5	60.0	3.0	57.0	115200	575100	440 g
GE50-HO-2RS	50.0	75.0	43.0	28.0	56.5	56.5	66.0	3.0	63.0	141300	706500	580 g
GE60-HO-2RS	60.0	90.0	54.0	36.0	67.7	67.7	80.0	3.0	75.0	220500	1098000	1060 g
GE70-HO-2RS	70.0	105.0	65.0	40.0	78.0	78.0	92.0	3.0	87.0	281700	1404000	1640 g
GE80-HO-2RS	80.0	120.0	74.0	45.0	90.0	90.0	105.0	3.0	99.0	361800	1809000	2440 g
GE90-HO-2RS	90.0	130.0	80.0	50.0	99.0	99.0	115.0	3.0	108.0	440100	2196000	2900 g
GE100-HO-2RS	100.0	150.0	90.0	55.0	113.0	113.0	130.0	3.0	123.0	547200	2736000	4600 g
GE110-HO-2RS	110.0	160.0	90.0	55.0	124.0	124.0	140.0	3.0	134.0	589500	2952000	5180 g
GE120-HO-2RS	120.0	180.0	108.0	70.0	138.0	138.0	160.0	3.0	150.0	856800	4284000	8700 g

Wartungspflichtige Radial-Gelenklager / Radial Spherical Plain Bearings (RM)



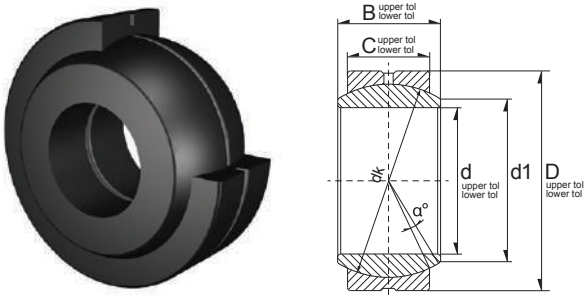
(MF) = Maintenance Free
(RM) = Requiring Maintenance



287

Ref	Dimension (mm)									*Load Rating		Weight (g) approx.
	d	D	B	C	d2	dk	R1s	R2s	α°	C, dyn. N	C, stat. N	
GE12-LO	12.0	22.0	12.0	7.0	15.5	18.0	0.3	0.3	4.0	9720	48600	22 g
GE16-LO	16.0	28.0	16.0	9.0	20.0	23.0	0.3	0.3	4.0	15930	79740	35 g
GE20-LO	20.0	35.0	20.0	12.0	25.0	29.0	0.3	0.3	4.0	26640	133200	70 g
GE25-LO	25.0	42.0	25.0	16.0	30.5	35.5	0.6	0.6	4.0	43470	21690	120 g
GE30-LO	30.0	47.0	30.0	18.0	34.0	40.7	0.6	0.6	4.0	55800	279000	168 g
GE32-LO	32.0	52.0	32.0	18.0	37.0	44.0	0.6	1.0	4.0	60570	303300	200 g
GE35-LO	35.0	55.0	35.0	20.0	40.0	47.0	0.6	1.0	4.0	71100	359100	253 g
GE40-LO	40.0	62.0	40.0	22.0	46.0	53.0	0.6	1.0	4.0	89190	446400	340 g
GE45-LO	45.0	68.0	45.0	25.0	52.0	60.0	0.6	1.0	4.0	114300	573300	481 g
GE50-LO	50.0	75.0	50.0	28.0	57.0	66.0	0.6	1.0	4.0	141300	706500	560 g
GE60-LO	60.0	90.0	60.0	36.0	68.0	80.0	1.0	1.0	4.0	220500	1098000	1150 g
GE63-LO	63.0	95.0	63.0	36.0	71.5	83.0	1.0	1.0	4.0	228600	1143000	1200 g
GE70-LO	70.0	105.0	70.0	40.0	78.0	92.0	1.0	1.0	4.0	281700	1404000	1700 g
GE80-LO	80.0	120.0	80.0	45.0	91.0	105.0	1.0	1.0	4.0	361800	1809000	2400 g
GE90-LO	90.0	130.0	90.0	50.0	99.0	115.0	1.0	1.0	4.0	440100	2196000	3200 g
GE100-LO	100.0	150.0	100.0	55.0	113.0	130.0	1.0	1.0	4.0	547200	2736000	4800 g
GE110-LO	110.0	160.0	110.0	55.0	124.0	140.0	1.0	1.0	4.0	589500	2952000	5780 g
GE125-LO	125.0	180.0	125.0	70.0	138.0	160.0	1.0	1.0	4.0	856800	4284000	8490 g

Wartungspflichtige Radial-Gelenklager / Radial Spherical Plain Bearings (RM)



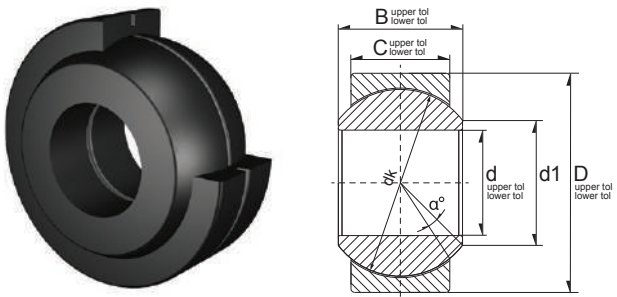
(MF) = Maintenance Free
(RM) = Requiring Maintenance



288

Ref	Dimension (mm)								*Load Rating		Weight (g) approx.
	d	D	B	C	Da	da	dK	α°	C, dyn. N	C, stat. N	
GE6-PB	6.0	16.0	9.0	6.75	11.5	9.0	12.7	13.0	3888	9720	11 g
GE8-PB	8.0	19.0	12.0	9.0	14.0	10.4	15.875	14.0	6426	16110	19 g
GE10-PB	10.0	22.0	14.0	10.5	17.0	12.9	19.05	13.0	9000	22500	28 g
GE12-PB	12.0	26.0	16.0	12.0	19.5	15.4	22.225	13.0	11970	29970	45 g
GE14-PB	14.0	28.0	19.0	13.5	22.5	16.9	25.4	16.0	15390	38610	55 g
GE16-PB	16.0	32.0	21.0	15.0	25.5	19.4	28.575	15.0	19260	48240	82 g
GE18-PB	18.0	35.0	23.0	16.5	28.5	21.9	31.75	15.0	23580	58950	110 g
GE20-PB	20.0	40.0	25.0	18.0	31.5	24.4	34.925	14.0	28260	70740	150 g
GE22-PB	22.0	42.0	28.0	20.0	34.0	25.8	38.1	15.0	34290	85770	180 g
GE25-PB	25.0	47.0	31.0	22.0	38.5	29.6	42.85	15.0	42390	106200	240 g
GE30-PB	30.0	55.0	37.0	25.0	46.0	34.8	50.8	17.0	57150	143100	390 g

Wartungsfreie Radial-Gelenklager / Radial Spherical Plain Bearings (MF)



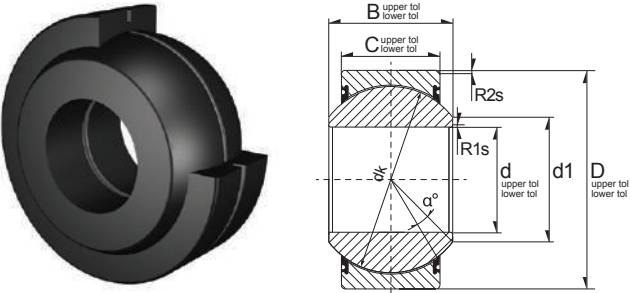
(MF) = Maintenance Free
(RM) = Requiring Maintenance



289

Ref	Dimension (mm)								*Load Rating		Weight (g) approx.
	d	D	B	C	Da	da	dK	α°	C, dyn. N	C, stat. N	
GE6-PW	6.0	16.0	9.0	6.75	11.5	8.9	12.7	13.0	6975	17460	11 g
GE8-PW	8.0	19.0	12.0	9.0	14.0	10.3	15.875	14.0	11610	28890	17 g
GE10-PW	10.0	22.0	14.0	10.5	17.0	12.9	19.05	13.0	16290	40680	27 g
GE12-PW	12.0	26.0	16.0	12.0	19.5	15.4	22.225	13.0	21600	54000	43 g
GE14-PW	14.0	28.0	19.0	13.5	22.5	16.9	25.4	16.0	27900	69750	54 g
GE16-PW	16.0	32.0	21.0	15.0	25.5	19.4	28.575	15.0	34740	86760	79 g
GE18-PW	18.0	35.0	23.0	16.5	28.5	21.9	31.75	15.0	42570	106200	100 g
GE20-PW	20.0	40.0	25.0	18.0	31.5	24.4	34.925	14.0	50940	126900	150 g
GE22-PW	22.0	42.0	28.0	20.0	34.0	25.8	38.1	15.0	61740	153900	180 g
GE25-PW	25.0	47.0	31.0	22.0	38.5	29.6	42.85	15.0	76320	190800	240 g
GE30-PW	30.0	55.0	37.0	25.0	46.0	34.8	50.8	17.0	102600	257400	380 g

Wartungsfreie Radial-Gelenklager / Radial Spherical Plain Bearings (MF)



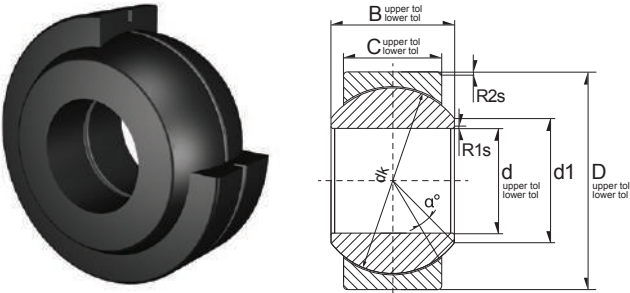
(MF) = Maintenance Free
(RM) = Requiring Maintenance



290

Ref	Dimension (mm)							*Load Rating		Weight (g) approx.
	d	D	B	C	d1	dk	α°	C, dyn. N	C, stat. N	
GE15-UK-2RS	15.0	26.0	12.0	9.0	18.0	22.0	9.0	16020	40140	35 g
GE17-UK-2RS	17.0	30.0	14.0	10.0	20.0	25.0	10.0	43920	73170	41 g
GE20-UK-2RS	20.0	35.0	16.0	12.0	24.0	29.0	9.0	61110	101700	66 g
GE25-UK-2RS	25.0	42.0	20.0	16.0	29.0	35.5	7.0	115200	191700	119 g
GE30-UK-2RS	30.0	47.0	22.0	18.0	34.0	40.7	6.0	148500	247500	153 g
GE35-UK-2RS	35.0	55.0	25.0	20.0	39.0	47.0	6.0	190800	317700	233 g
GE40-UK-2RS	40.0	62.0	28.0	22.0	45.0	53.0	7.0	252000	419400	306 g
GE45-UK-2RS	45.0	68.0	32.0	25.0	50.0	60.0	7.0	324000	540000	427 g
GE50-UK-2RS	50.0	75.0	35.0	28.0	55.0	66.0	6.0	399600	665100	546 g
GE60-UK-2RS	60.0	90.0	44.0	36.0	66.0	80.0	6.0	621900	1035000	1040 g
GE70-UK-2RS	70.0	105.0	49.0	40.0	77.0	92.0	6.0	794700	1323000	1550 g
GE80-UK-2RS	80.0	120.0	55.0	45.0	88.0	105.0	6.0	1017000	1701000	231 g
GE90-UK-2RS	90.0	130.0	60.0	50.0	98.0	115.0	5.0	1242000	2070000	2750 g
GE100-UK-2RS	100.0	150.0	70.0	55.0	109.0	130.0	7.0	1548000	2574000	4450 g
GE110-UK-2RS	110.0	160.0	70.0	55.0	121.0	140.0	6.0	1665000	2772000	4820 g
GE120-UK-2RS	120.0	180.0	85.0	70.0	135.0	160.0	6.0	2421000	4032000	8050 g
GE140-UK-2RS	140.0	210.0	90.0	70.0	155.0	180.0	7.0	2718000	4536000	11020 g
GE160-UK-2RS	160.0	230.0	105.0	80.0	170.0	200.0	8.0	3456000	5760000	14010 g
GE180-UK-2RS	180.0	260.0	105.0	80.0	199.0	225.0	6.0	3888000	6480000	18650 g
GE200-UK-2RS	200.0	290.0	130.0	100.0	213.0	250.0	7.0	5400000	9000000	28030 g

Wartungsfreie Radial-Gelenklager / Radial Spherical Plain Bearings (MF)



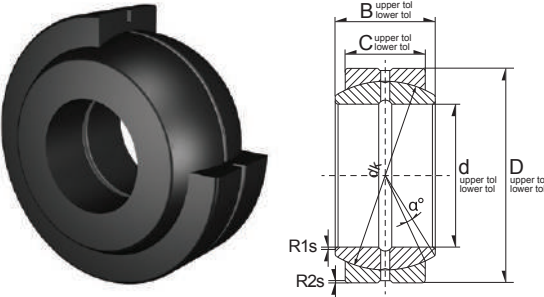
(MF) = Maintenance Free
(RM) = Requiring Maintenance



291

Ref	Dimension (mm)							*Load Rating		Weight (g) approx.
	d	D	B	C	d1	dk	α°	C, dyn. N	C, stat. N	
GE6-UK	6.0	14.0	6.0	4.0	8.0	10.0	13.0	3240	8100	4 g
GE8-UK	8.0	16.0	8.0	5.0	10.0	13.0	15.0	5265	13140	8 g
GE10-UK	10.0	19.0	9.0	6.0	13.0	16.0	12.0	7776	19440	11 g
GE12-UK	12.0	22.0	10.0	7.0	15.0	18.0	10.0	10170	25560	15 g
GE15-UK	15.0	26.0	12.0	9.0	18.0	22.0	8.0	16020	40140	27 g
GE17-UK	17.0	30.0	14.0	10.0	20.0	25.0	10.0	20250	50670	41 g
GE20-UK	20.0	35.0	16.0	12.0	24.0	29.0	9.0	28170	70470	66 g
GE25-UK	25.0	42.0	20.0	16.0	29.0	35.5	7.0	45990	115200	119 g
GE30-UK	30.0	47.0	22.0	18.0	34.0	40.7	6.0	59310	148500	163 g

Wartungspflichtige Radial-Gelenklager / Radial Spherical Plain Bearings (RM)



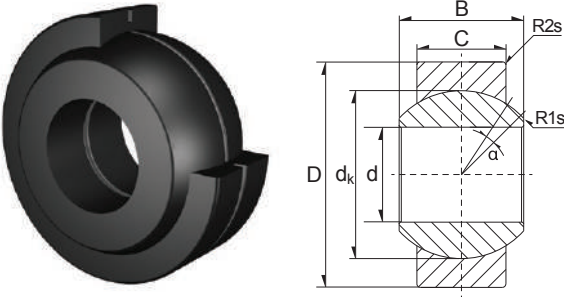
(MF) = Maintenance Free
(RM) = Requiring Maintenance



292

Ref	Dimension (mm)							Mounting Dimensions da	*Load Rating		Weight (g) approx.
	d	D	B	C	Da	dk	α°		C, dyn. N	C, stat. N	
GE19-ZO	19.05	31.75	16.662	14.275	24.5	27.5	6	21.9	28260	84780	52 g
GE22-ZO	22.225	36.513	19.431	16.662	28.5	32.0	6	25.4	38340	115200	85 g
GE25-ZO	25.4	41.275	22.225	19.05	31.5	35.5	6	27.7	48600	145800	130 g
GE31-ZO	31.75	50.8	27.762	23.8	40.5	45.5	6	36.0	77850	233100	230 g
GE34-ZO	34.925	55.563	30.15	26.187	43.5	49.0	6	38.6	91800	276300	300 g
GE38-ZO	38.1	61.913	33.325	28.575	46.5	53.0	6	41.2	108900	327600	410 g
GE44-ZO	44.45	71.438	38.887	33.325	57.0	63.9	6	50.9	153900	460800	640 g
GE50-ZO	50.8	80.963	44.45	38.1	65.0	73.0	6	57.9	200700	601200	940 g
GE57-ZO	57.15	90.488	50.013	42.85	73.0	82.0	6	65.0	252900	759600	1600 g
GE63-ZO	63.5	100.013	55.55	47.625	82.0	92.0	6	73.3	315900	945000	1780 g
GE69-ZO	69.85	111.125	61.112	52.375	89.0	100.0	6	79.2	377100	1134000	2410 g
GE76-ZO	76.2	120.65	66.675	57.15	98.0	109.5	6	86.9	450000	1350000	3100 g

Wartungsfreie Radial-Gelenklager / Radial Spherical Plain Bearings (RM)



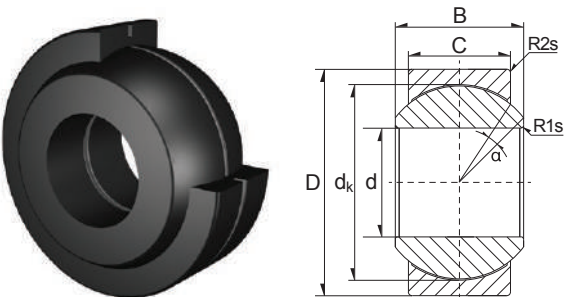
(MF) = Maintenance Free
(RM) = Requiring Maintenance



293

Ref	Dimension (mm)								*Load Rating		Weight (g) approx.
	d	D	B	C	dk	R1s	R2s	α°	C, dyn. N	C, stat. N	
GE6-E	6.0	14.0	6.0	4.0	10.0	0.3	0.3	13.0	3060	15300	4 g
GE8-E	8.0	16.0	8.0	5.0	13.0	0.3	0.3	15.0	4950	24750	7 g
GE10-E	10.0	19.0	9.0	6.0	16.0	0.3	0.3	12.0	7335	36450	11 g
GE12-E	12.0	22.0	10.0	7.0	18.0	0.3	0.3	11.0	9720	48600	16 g

Wartungsfreie Radial-Gelenklager / Radial Spherical Plain Bearings (MF)

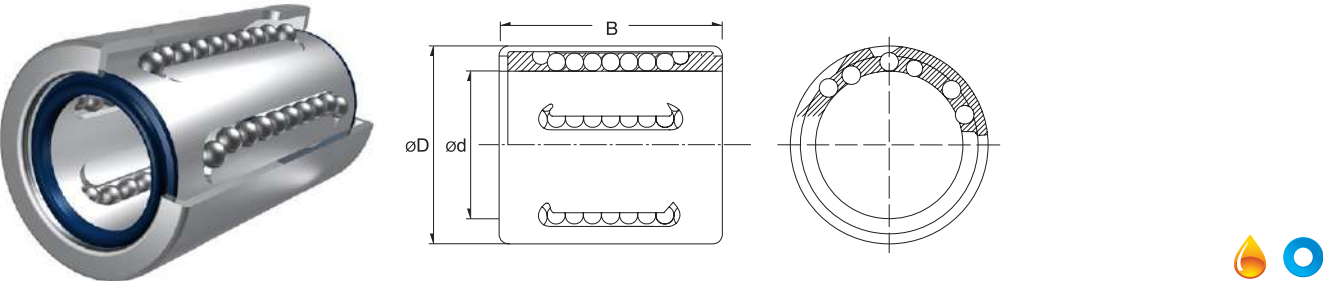


(MF) = Maintenance Free
(RM) = Requiring Maintenance



Ref	Dimension (mm)						*Load Rating		Weight (g) approx.
	d	D	B	C	dk	α°	C, dyn. N	C, stat. N	
GE6-C	6.0	14.0	6.0	4.0	10.0	13.0	3240	8100	4 g
GE8-C	8.0	16.0	8.0	5.0	13.0	15.0	5265	13140	8 g
GE10-C	10.0	19.0	9.0	6.0	16.0	12.0	7785	19440	12 g
GE12-C	12.0	22.0	10.0	7.0	18.0	10.0	10260	25650	17 g
GE15-C	15.0	26.0	12.0	9.0	22.0	8.0	16200	40500	32 g
GE17-C	17.0	30.0	14.0	10.0	25.0	10.0	20160	50400	50 g
GE20-C	20.0	35.0	16.0	12.0	29.0	9.0	28350	70200	65 g

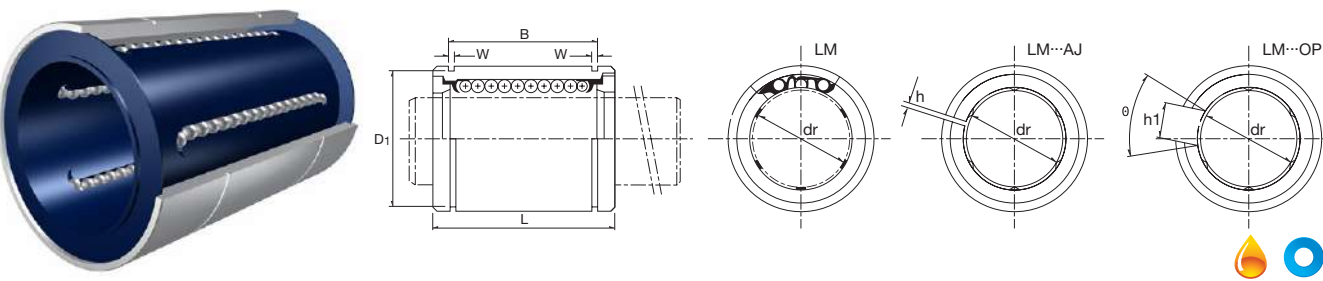
Linearkugellager der Type / Linear Bearing KH



294

Designation/Type	Dimension (mm)			*Load Rating		Mass (g) approx.
	ød	øD	B	C. dyn. N	C. stat. N	
KH-0622 PP	6.0	12.0	22.0	400	239	7 g
KH-0824 PP	8.0	15.0	24.0	435	280	12 g
KH-1026 PP	10.0	17.0	26.0	500	370	14.5 g
KH-1228 PP	12.0	19.0	28.0	620	510	18.5 g
KH-1428 PP	14.0	21.0	28.0	620	520	20.5 g
KH-1630 PP	16.0	24.0	30.0	800	620	27.5 g
KH-2030 PP	20.0	28.0	30.0	950	790	32.5 g
KH-2540 PP	25.0	35.0	40.0	1990	1670	66 g
KH-3050 PP	30.0	40.0	50.0	2800	2700	95 g
KH-4060 PP	40.0	52.0	60.0	4400	4450	182 g
KH-5070 PP	50.0	62.0	70.0	5500	6300	252 g

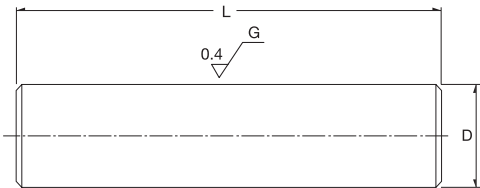
Linearkugellager der Type / Linear Bearing LM



295

Nominal Part No						Nominal Shaft Diameter (mm)	Major Dimensions and Tolerance (mm)							
Standard Type	Seal Type	Ball Circuit	Mass(g) approx.	Adjustable Type	Open Type	dr	D	L	B	W	D1	h	h1	θ
LM 4	LM 4 UU	4	1.4 g	-	-	4.0	8.0	12.0	-	-	-	-	-	-
LM 5	LM 5 UU	4	4.0 g	-	-	5.0	10.0	15.0	10.2	1.1	9.6	-	-	-
LM 6	LM 6 UU	4	8.0 g	LM 6-AJ	-	6.0	12.0	19.0	13.5	1.1	11.5	1.0	-	-
LM 8S	LM 8S UU	4	11.0 g	LM 8S-AJ	-	8.0	15.0	17.0	11.5	1.1	14.3	1.0	-	-
LM 8	LM 8 UU	4	16.0 g	LM 8-AJ	-	8.0	15.0	24.0	17.5	1.1	14.3	1.0	-	-
LM 10	LM10 UU	4	30.0 g	LM 10-AJ	-	10.0	19.0	29.0	22.0	1.3	18.0	1.0		
LM 12	LM 12 UU	4	31.5 g	LM 12-AJ	LM 12-OP	12.0	21.0	30.0	23.0	1.3	20.0	1.5	8.0	80°
LM 13	LM 13 UU	4	43.0 g	LM 13-AJ	LM 13-OP	13.0	23.0	32.0	23.0	1.3	22.0	1.5	9.0	80°
LM 16	LM 16 UU	5	69.0 g	LM 16-AJ	LM 16-OP	16.0	28.0	37.0	26.5	1.6	27.0	1.5	11.0	80°
LM 20	LM 20 UU	5	87.0 g	LM 20-AJ	LM 20-OP	20.0	32.0	42.0	30.5	1.6	30.5	1.5	11.0	60°
LM 25	LM 25 UU	6	220.0 g	LM 25-AJ	LM 25-OP	25.0	40.0	59.0	41.0	1.85	38.0	2.0	12.0	50°
LM 30	LM 30 UU	6	250.0 g	LM 30-AJ	LM 30-OP	30.0	45.0	64.0	44.5	1.85	43.0	2.5	15.0	50°
LM 35	LM 35 UU	6	390.0 g	LM 35-AJ	LM 35-OP	35.0	52.0	70.0	49.5	2.1	49.0	2.5	17.0	50°
LM 40	LM 40 UU	6	585.0 g	LM 40-AJ	LM 40-OP	40.0	60.0	80.0	60.5	2.1	57.0	3.0	20.0	50°
LM 50	LM 50 UU	6	1580.0 g	LM 50-AJ	LM 50-OP	50.0	80.0	100.0	74.0	2.6	76.5	3.0	25.0	50°
LM 60	LM 60 UU	6	2000.0 g	LM 60-AJ	LM 60-OP	60.0	90.0	110.0	85.0	3.15	86.5	3.0	30.0	50°

Linearwelle der Type SF / Linear Shafts SF Series



296

Material

SF	SUJ2	(solid)
SFH	SUJ2	(hollow)
SFC	SUJ2	(solid chrome plating)
SFHC	SUJ2	(hollow chrome plating)
SSF	SUS440	(solid)
SSFH	SUS440	(hollow)
SFS	S45	(solid)
SFSC	S45	(solid chrome plating)

SF

25

X

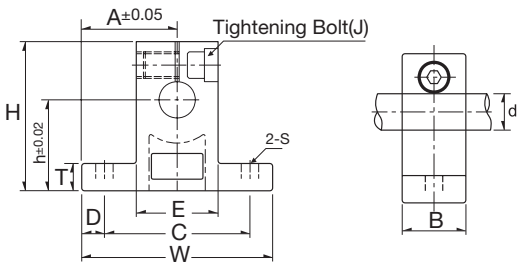
576

Total length (L)

Outer diameter (D)

Designation /Type	Outer Diameter		Length L (mm)														Mass (g) approx.
	D (mm)	Tolerance g6 μm															
			100	200	300	400	500	600	800	1000	1200	1500	1800	2000			
SF 6	6	-4/-12	100					600									230 g
SF 8	8	-5							800								400 g
SF10	10	-14		200						1000							620 g
SF12	12	-6										1500					890 g
SF13	13																1040 g
SF16	16	-17			300									2000			1580 g
SF20	20	-7															2470 g
SF25	25						400										3850 g
SF30	30	-20															5550 g
SF35	35	-9						500									7550 g
SF40	40																9870 g
SF50	50	-25							600								15400 g

Wellenhalterung der Type SK / Linear Shaft Support SK Series



Designation /Type	Shaft diameter	Dimension (mm)											Mass (g) approx.
		h	A	W	H	T	E	D	C	B	S	J	
SK8	Ø8	20.0	21.0	42.0	32.8	6.0	18.0	5.0	32.0	14.0	Ø5.5	M4	24 g
SK10	Ø10	20.0	21.0	42.0	32.8	6.0	18.0	5.0	32.0	14.0	Ø5.5	M4	24 g
SK12	Ø12	23.0	21.0	42.0	38.0	6.0	20.0	5.0	32.0	14.0	Ø5.5	M4	30 g
SK13	Ø13	23.0	21.0	42.0	38.0	6.0	20.0	5.0	32.0	14.0	Ø5.5	M4	30 g
SK16	Ø16	27.0	24.0	48.0	44.0	8.0	25.0	5.0	38.0	16.0	Ø5.5	M4	40 g
SK20	Ø20	31.0	30.0	60.0	51.0	10.0	30.0	7.5	45.0	20.0	Ø6.6	M5	70 g
SK25	Ø25	35.0	35.0	70.0	60.0	12.0	38.0	7.0	56.0	24.0	Ø6.6	M6	130 g
SK30	Ø30	42.0	42.0	84.0	70.0	12.0	44.0	10.0	64.0	28.0	Ø9	M6	180 g
SK35	Ø35	50.0	49.0	98.0	85.0	15.0	50.0	12.0	74.0	32.0	Ø11	M8	270 g
SK40	Ø40	60.0	57.0	114.0	96.0	15.0	60.0	12.0	90.0	36.0	Ø11	M8	420 g

297

Umschlüssellung anderer Hersteller / Conversion Tables

Offene Ausführung (metrisch) / Open Type (metric series)

mm	inch	ZEN	ADR	FAG	GRW	RMB	BARDEN	MPB	NMB	NTN	SKF
1	0.0394	681 MR31	AX1		681	UL103			L-310 L-310W51		681
		691			691				R-410		691
1.2	0.0472	MR41X							R-412	BC1,2-4	
1.5	0.0591	681X 691X	AX1.5 619/1.5	MR69/1.5	68/1.5 69/1.5	UL154 R1550	19M1-5Y1	EL1.5C R-615	R-415 60/1.5	68/1.5 69/1.5	
		601X									
2	0.0787	682 MR52	BX2	MR682	682	UL205		UL20C	L-520 L-520W02		682
		692	AX2	MR619/2	692	R2060	19M2Y1	EL2C	R-620	BC2.5	692
		MR62 MR72							R-620W52 R-720Y52	BC2-6 BC2-7	
		602							R-720		602
2.5	0.0984	682X 692X	AX2.5 X2.5		68/2.5 69/2.5	UL256	18M2-5 19M2-5Y1		L-625 R-725	68/2.5 69/2.5	
		MR82X							R-825Y52	BC2.5-8	
		602X	60/2.5	MR60/2.5	60/2.5	R2580			R-825Y52	60/2.5	
3	0.1181	MR63	617/3						L-630		673
		683	AX3	MR618/3	683	UL307		UL30C	L-730		683
		MR83	X3		693/003				R-830Y52	BC3-8	
		693	619/3		693				R-830Y52		693
		MR93							R-930Y52	BC3-9	
		603							R-930		603
		623	623	MR623	623	R3100	2M3Y1	EL-3R	R-1030		623
		633									633
4	0.1575	MR74	617/4						L-740		674
		MR84							L-840	BC4-8	
		684	AX4	MR618/4	684	UL409		UL40C	L-940		684
		MR104	X4						L-1040	BC4-10	
		694	AY4		694				R-1140		694
		604	604		604				R-1240		604
		624	624	MR624	624	R4130	2M4	EL4R	R-1340		624
		634	634	MR634	634	R4160	34		R-1640		634
5	0.1969	MR85	617/5						L-850		675
		MR95							L-950	BC5-9	
		MR105							L-1050	BC5-10	
		685	X5	MR618/5	685	UL511	UL50C	UL50C	L-1150		685
		695	AY5		695				R-1350		695
		605			605				R-1450		605
		625	625	MR625	625	R5160	34-5	EL5R	R-1650		625
		635	635	MR635	635	R5190	35		R-1950		635
6	0.2362	MR106	617/6						L-1060		676
		MR126	X6						L-1280	BC6-12	
		686	AX6	MR618/6	686	UL613		UL60C	L-1380		686
		696	AY6		696				R-1580		696
		606							R-1760		606
		626	626	MR628	626	R6190	38	EL6R	R1960		626
7	0.2756	MR117	617/7						L-1170		677
		MR137							L-1370	BC7-13	
		687	AX7	618/7	687	UL714		UL70C	L-1470		687
		697	AY7		697						697
		607	607	MR607	607			EL7R	R-1970		607
		627	627	MR627	627	R7220	37		R-2270		627
8	0.315	MR128	617/8						L-1280		678
		MR148							L-1480	BCB-14	
		688	X8	MR618/8	688	UL816			L-1680		688
		698	AY8		698		19M8		R-1980		698
		608	608	MR608	608	R8220	38	EL8R	R-2280		608
		628									628
9	0.3543	689	X9		689	UL917			L-1790		689
		699	AY9		699		19M9		L-2090		699
		609	609	609	609	609					609
		629	629	MR629	629		39				629
Niro Stainless Steel		S	S	W	S	X	S	S	DD	W	S

Geschlossene Ausführung (metrisch) / Shielded Type (metric series)

mm	inch	ZEN	ADR	FAG	GRW	RMB	BARDEN	MPB	NMB	NTN
1.5	0.0591	681XZZ 691XZZ	AX1.5ZZ X1.5ZZ		68/1.52Z 69/1.52Z	ULZ154		UL15CHH	L-4152Z R515ZZ	W68/1.5ZZA W69/1.5ZZA
		601XZZS							R-615ZZ	W60/1.5ZZA
2	0.0787	682ZZZS	BX2ZZ		682-2Z	ULZ205	38M2SS	UL20CHH	L-520ZZ L-520ZZW52	W682ZZA WBC2-5ZZA
		MR52ZZ							R-620ZZ	W692ZZA
		692ZZ	AX2ZZ						R-620ZZY52	
		MR62ZZ MR72ZZ							R-720ZZY03	WBC2-7ZZA
		602ZZS							R-720ZZ	W602ZZA
2.5	0.0984	682XZZS	AX2.5ZZ		68/2.5ZZ 69/2.5ZZ	ULZ256	38M2-5SS		L-625ZZ R-725ZZ	W68/2.5ZZA W69/2.5ZZA
		692XZZ							R-825ZZ	W60/2.5ZZA
		602XZZS								
3	0.1181	MR63ZZ							L-630ZZ	WA673ZZA
		683ZZ	AX3ZZ		683-2Z	UL7307	38M3SS	UL30CHH	L-730ZZ	W683ZZA
		693ZZ			693-2Z				R-830ZZ	W693ZZA
		MR93ZZ							R-930ZZY04	WBC3-9ZZA
		623ZZ	623ZZ	623ZZ	623-ZZ	RF310	2M3SSY1	EL3RHH	R-1030ZZ	623ZZ
		633ZZ								633ZZ
4	0.1575	MR74ZZ							L-740X2ZZ	WA674ZZA
		MR84ZZ							L-840ZZ	WBC4-8ZZA
		684ZZ	638/4ZZ		684-2Z	ULZ409	38M455	UL40CHH	L-940ZZ	W684ZZA
		MR104ZZ	X4ZZ						L-1040ZZ	WBC4-10ZZA
		694ZZ	AY4ZZ		694-2Z				R-1140ZZ	694ZZ
		604ZZ	604ZZ		604-2Z				R-1240ZZ	604ZZ
		624ZZ	624ZZ	624ZZ	624-2Z	RF413	2M4SS	EL4RHH	R-1340ZZ	624ZZ
		634ZZ	634ZZ	MR634ZZ	634-2Z	RV416	34SS	34RHH	R-1640ZZ	634ZZ
5	0.1969	MR85ZZ							L-850ZZ	WA675ZZA
		MR95ZZA							L-950X2ZZ	WBC5-9ZZA
		MR105ZZ							L-1050ZZ	WBC5-10ZZA
		685ZZ	638/5ZZ		685-2Z	ULZ511		UL50CHH	L-1150ZZ	W685ZZ
		695ZZ	AY5ZZ		695-2Z				R-1350ZZ	895ZZ
		605ZZ			605-2Z				R-1450ZZ	605ZZ
		625ZZ	625ZZ	625ZZ	625-2Z	RV516	34.5SS	EL5RHH	R-1650ZZ	625ZZ
		635ZZ	635ZZ	MR635ZZ	635-2Z	RV519	35SS		R-1950ZZ	635ZZ
6	0.2362	MR106ZZS							L-1060ZZ	WA676ZZA
		MR126ZZ	X6ZZ						L-1260ZZ	WBC6-12ZZA
		686ZZ	628/6ZZ		686-2Z	ULZ613		UL60CHH	L-1360ZZ	W686ZZ
		696ZZ	ZY6ZZ		696-2Z				R-1560ZZ	696ZZ
		606ZZ							R-1760ZZ	606ZZ
		626ZZ	626ZZ	MR626ZZ	626-2Z	RV619	36SS	EL6RHH	R-1960ZZ	626ZZ
7	0.2756	MR117ZZS							L-1170ZZ	WA677ZZA
		MR137ZZS							L-1370ZZ	WBC7-13ZZA
		687ZZ	AX7ZZ		687-2Z	ULZ714		UL70CH	L-1470ZZ	W687ZZ
		697ZZ	AY7ZZ		697-2Z					697ZZ
		607ZZ	607ZZ	607ZZ	607-2Z			EL7RHH	R-1970ZZ	607ZZ
		627ZZ	627ZZ	MR627ZZ	627-2Z	RV722	37SS		R-2270ZZ	627ZZ
8	0.315	MR128ZZS	637/8ZZ						L-1280ZZ	W678ZZA
		MR148ZZA							L-1480ZZ	WBC8-14ZZA
		688ZZ	X8ZZ			ULZ816			L-1680ZZ	W688ZZ
		698ZZ	AY8ZZ		698-2Z		19M8SS		R-1980ZZ	698ZZ
		608ZZ	608ZZ	MR608ZZ	608-2Z	RV822	38SS	EL8RHH	R-2280ZZ	608ZZ
		628ZZ								628ZZ
9	0.3543	689ZZ	X9ZZ			ULZ917			L-1790ZZ	W689ZZ
		699ZZ	AY9ZZ		699-2Z		19M9SS		L-2090ZZ	699ZZ
		609ZZ	609ZZ	609ZZ						609ZZ
		629ZZ	629ZZ	MR629ZZ	629-2Z		39SS			629ZZ
Niro Stainless Steel		S	S	W	S	X	S	S	DD	W

Offene Ausführung (zöllig) / Open Type (inch type)

mm	inch	ZEN	ADR	FAG	GRW	RMB	BARDEN	MPB	NMB	NTN
1.016	0.04	R09	RO9	RO308	1016	UL1304		2C	R1-2	R01
1.191	0.0469	RO	X3/64	R0310	1191	UL1505	RO	21/2C	R1-21/2	RO
1.397	0.055	R1	R1	R0412	1397	R1706	R1	3C	R1-3	R1
1.984	0.0781	R1-4	X5/64	R0516	BR5/64	R2508	R1-4	4C	R1-4	R1-4
2.38	0.0937	R133	AX3/32	RO612	2380	UL3008	R133	3332C	R1-3332	R133
		R1-5	X3/32	R620	BR3/32	R3010	R1-5	5C	R1-5	R1-5
3.175	0.125	R144	AX1/8	R0816	3175	UL4008	R144	418C	R1-418	R144
		R2-5	X1/8	R820	BR1/8A	R4010	R2-5	518C	R1-518	R2-5
		R2-6		R824	BR1/8A/6		R2-6	618C	R1-618	R2-6
		R2	R2	R2	BR1/6B	R4012	R2	R2C	R-2	R2
		R2A	R2A	R2A	BR1/8B/083		R2A	R2AC		RA2
3.967	0.1562	R155	X5/32	R1020	3967	UL5010	R155	5532C	RI-5532	R155
4.762	0.1875	R156	AX3/16	R1220	4763A	UL6010	R156	5632C	RI-5632	R156
		R166	X3/16	R1224	4763B	UL6012	R166	6316C	RI-6632	R166
		R3	Y3/16	R3	BR3/16	R6016	R3	R3C	R-3	R3
6.35	0.25	R168	X1/4	R1624	6350A	UL8012	R168	614C	RI-614	R168
		R188	R188	R1632	6350B	UL8016	R188	814C	RI-814	R188
		R4	Y1/4	R4	BR1/4A	R8020	R4	R4C	R-4	R4
		R4A	R4A	R4A	BR1/4A		R4A	R4AR	RI-1214	
7.938	0.3125	R1810		R2032	7938		R1810	8516C	RI-8516	
9.525	0.375	R6	Y3/8	R620	BR3/8		R6	R6R	RI-1438	
Niro										
Stainless Steel										
		S	S	W	S	X	S	S	DD	W

Geschlossene Ausführung (zöllig) / Shielded Type (inch type)

mm	inch	ZEN	ADR	FAG	GRW	RMB	BARDEN	MPB	NMB	NTN
1.191	0.0469	ROZZS	X3/64ZZ	R0310.2Z	1191-2Z	ULZ1505	21/2CHH	RI-21/2ZZ	RAOZZA	
1.397	0.055	R1ZZ	R1ZZ	RO412.2Z	1397-2Z	RF1706	R1S	3CHH	RI-3ZZ	RA1ZZ1
1.984	0.0781	R1-4ZZS	X5-64ZZ	R0516.2Z	BR5/64-2Z	RF2508	R1-4SS	4CHH	R1-4ZZ	RA1-4ZZ1
2.38	0.0937	R133ZZS	AX3/32ZZ	RO612.2Z	2380-2Z	ULZ3006	R133SS	3332CHH	R1-3332ZZ	RA133ZZA
3.175	0.125	R144ZZ	AX1/8ZZ	RO816.2Z	3175-2Z	ULZ4008	R144SS	418CHH	R1-418ZZ	RA144ZZA
		R2-5ZZ	X1/8ZZ	R820.2Z	BR1/8A-2Z	RF4010	R2-5SS	518CHH	R1-518ZZ	RA2-5ZZA
		R2-6ZZS		R824.2Z	BR1/8A/6-2Z		R2-6SS	618CHH	R1-618ZZ	RA2-6ZZA
		R2ZZ	R2ZZ	R2.2Z	BR1/8B-2Z	RF4012	R2SS	R2CHH	R-2ZZ	R2ZZA
		R2AZZ	R2AZZ	R2A.2Z	BR1/8B/083-2Z		R2ASS	R2ACHH	RA2ZZA	
3.967	0.1562	R155ZZS	X5/32ZZ	R1020.2Z	3967-2Z	ULZ5010	R155SS	5532CHH	R1-5532ZZ	RA155ZZA
4.762	0.1875	R156ZZS	AX3/16ZZ	R1220.2Z	4763A-2Z	ULZ6010	R156SS	5632CHH	R1-5632ZZ	RA156ZZA
		R166ZZ	X3/16ZZ	R1224.2Z	4763B-2Z	ULZ6012	R166SS	6316CHH	R1-6632ZZ	R166ZZA
		R3ZZ	Y3/16ZZ	R3.2Z	BR3/16-2Z	RF6016	R3SS	R3CHH	R-3ZZ	RA3ZZ
6.35	0.25	R168ZZS	X1/4ZZ	R1624.2Z	6350A-2Z	ULZ8012	R168SS	614CHH	R1-614ZZ	R168ZZA
		R188ZZ	R188ZZ	R1632.2Z	6350B-2Z	ULZ8016	R188SS	814CHH	R1-814ZZ	RA188ZZA
		R4ZZ	Y1/4ZZ	R4.2Z	BR1/4A-2Z	RF8020	R4SS	R4CHH	R-4ZZ	R4ZZ
		R4AZZ	R4AZZ	R4A.2Z	BR1/4..2Z		R4ASS	R4ARHH	R1-1214ZZ	R4AZZ
7.938	0.3125	R1810ZZS		R2032.2Z	7938-2Z		R1810SS	8516CHH	R1-8516ZZ	
9.525	0.375	R6ZZ	Y3/8ZZ	R6.2Z	BR3/6-2Z		R6SS	R6RHH	R1-1438ZZ	R6ZZ
Niro										
Stainless Steel										
		S	S	W	S	X	S	S	DD	W

Geschlossene Flanschlager (zöllig) / Flanged Shielded Type (inch series)

inch	ZEN	ADR	FAG	GRW	RMB	BARDEN	MPB	NMB	NTN
0.0469	FR0ZZS	FX3/64ZZ	RF0310.2Z	F1191-2Z	ULKZ1505	FR0SS	21/2FCHH	RIF-21/2ZZ	FLRAOZZA
0.055	FR1ZZ	FR1ZZ	RF0412.2Z	F1397-2Z	RKF-1706	FR1SS	3FCHH	RIF-3ZZ	FLRA1ZZA
0.0781	FR1-4ZZS	FX5/64ZZ	RF0516.2Z	R6/64-2Z	RKF2508	FR1-4SS	4FCHH	RIF-4ZZ	FLRA1-4ZZA
0.0937	FR133ZZS	FAX3/32ZZ	RF0612.2Z	F2380-2Z	ULKZ3006	FR133SS	3332FCHH	RIF-3332ZZ	FLRA133ZZA
	FR1-5ZZS	FX3/32ZZ	RF620.2Z	F3/32-2Z	RKF3010	FR1-5SS	5FCHH	RIF-5ZZ	FLRA1-5ZZA
0.125	FR144ZZ	FAX1/8ZZ	RF0816.2Z	F3175-2Z	ULKZ4008	FR144SS	418FCHH	RIF-418ZZ	FLRA144ZZA
	FR2-5ZZ	FX1/8ZZ	RF820.2Z	F1/8A-2Z	RKF4010	FR2-5SS	518FCHH	RIF-518ZZ	FLRA2-5ZZA
	FR2-6ZZS		RF824.2Z	F1/8A/6-2Z		FR2-6SS	618FCHH	RIF-618ZZ	FLRA2-6ZZA
	FR2ZZ	FR2ZZ	RF2.2Z	F1/8B-2Z	RKF4012	FR2SS	R2FCHH	RF-2ZZ	FLR2ZZA
0.1562	RF155ZZS	FX5/32ZZ	RF1020.2Z	F3967-2Z	ULKZ5010	FR155SS	5532FCHH	RIF-5532ZZ	FLRA155ZZA
0.1875	FR156ZZS	FAX3/16ZZ	RF1220.2Z	F4763A-2Z	ULKZ6010	FR156SS	5632FCHH	RIF-5632ZZ	FLRA156ZZA
	FR166ZZ	FX3/16ZZ	RF1224.2Z	F4763B-2Z	ULKZ6012	FR166SS	6316FCHH	RIF-6632Z	FLRA166ZZA
	FR3ZZ	FY3/16ZZ	RF3.2Z	F3/16-2Z	RKF6016	FR3SS	R3FCHH	RF-3ZZ	FLRA3ZZ
0.25	FR168ZZS	FX1/4ZZ	RF1624.2Z	F6350A-2Z	ULKZ8012	FR168SS	614CHH	RIF-614ZZ	FLRA166ZZA
	FR188ZZ	FR188ZZ	RF1632.2Z	F6350B-2Z	ULKZ8016	FR188SS	814FCHH	RIF-814ZZ	FLRA188ZZA
	FR4ZZ	FY1/4ZZ	RF4.2Z	F1/4A-2Z	RKF8020	FR4SS	R4FCHH	RF-4ZZ	FLR4ZZ
0.3125	FR1810ZZS		RF2032.2Z	F7938-2Z		FR1810SS	8516FCHH	RIF-8516ZZ	
0.375	FR6ZZ	FY3/8ZZ	RF6.2Z			FR6SS	R6FRHH	RIF-1438ZZ	FLR6ZZ

Geschlossene Flanschlager (metrisch) / Flanged Shielded Type (metric series)

mm	inch	ZEN	ADR	GRW	RMB	BARDEN	MPB	NMB	NTN
1.5	0.591	F691XZZ	FX1.5ZZ	F69/1.5-2Z				RF-515ZZ	FLW69/1.5ZZA
		F601XZZS						RF-615ZZ	FLW60/1.5ZZA
2	0.0787	F682ZZ	FBX2ZZ	F682-2Z	ULKZ205	F682SS	UL20FCHH	LF-520ZZ	FLW682ZZA
		F692ZZ	FAX2ZZ			F692SS		RF-620ZZ	FLW692ZZA
		MF72ZZ						RF-720ZZY03	FLW8C2-7ZZA
		F602ZZS						RF-720ZZ	FLW602ZZA
2.5	0.0984	F682XZZS	FAX2.5ZZ	F68/2.5-2Z	ULKZ256	F68/2.5SS		LF-625ZZ	FLW68/2.5ZZA
		F692XZZ	FX2.5ZZ	F69/2.5-2Z		F69/2.5SS		RF-725ZZ	FLW69/2.5ZZA
		F602XZZS						RF-825ZZ	FLW60/2.5ZZA
3	0.1181	MF63ZZS						FL630ZZ	FLWA67ZZA
		F683ZZ	FAX3ZZ	F683-2Z	ULKZ307	F683SS	UL30FCHH	LF-730ZZ	FLW683ZZA
		F693ZZ	FX3ZZ	F693-2Z	RKF308			RF-830ZZ	FLW693ZZA
		MF93ZZ						RF-930ZZY04	FLWBC3-9ZZA
		F623ZZ	F623ZZ	F623-2Z	RKF310	F623SS		RF-1030ZZ	FL623ZZA
4	0.1575	MF74ZZ						LF-740ZZ	FLWA674ZZA
		MF84ZZ						LF-840ZZ	FLWBC4-8ZZA
		F684ZZ	F683/4ZZ	F684-2Z	ULKZ409	F684SS	UL40FCHH	LF-940ZZ	FLW684ZZA
		MF 104ZZ						LF-1040ZZ	FLAWBC4-10ZZA
		F694ZZ		F694-2Z		F694SS		RF-1140ZZ	FL694ZZA
		F604ZZ						RF-1240ZZ	FL604ZZ
		F624ZZ	F624ZZ	F624-2Z		F624SS		RF-1340ZZF	L624ZZ
		F634ZZ		F634-2Z		F634SS		RF-1640ZZ	FL634ZZ
5	0.1969	MF85ZZ						LF-850ZZ	FLWA675ZZA
		MF95ZZ						LF-950ZZ	FLWBC5-9ZZA
		MF105ZZ						LF-1050ZZ	FLAWBC5-10ZZA
		F685ZZ	F638/5ZZ	F685-2Z	ULKZ511	F685SS	UL50FCHH	LF-1150ZZ	FLW685ZZA
		F695ZZ		F695-2Z		F695SS		RF-1350ZZ	FL695ZZ
		F605ZZ		F605-2Z				RF-1450ZZ	FL605ZZ
		F625ZZ		F625-2Z		F625SS		RF-1850ZZ	FL625ZZ
		F635ZZ		F635-2Z		F635SS		RF1950ZZ	FL635ZZ
6	0.2362	MF106ZZ						RF-1650ZZ	FLWA676ZZA
		MF126ZZ						UF-1260ZZ	FLAWBC6-12ZZA
		F686ZZ	F628/6ZZ	F686-2Z	ULKZ613	F686SS	UL60FCHH	LF-1360ZZ	FLW686ZZA
		F696ZZ		F696-2Z		F696SS		RF-1560ZZ	FL696ZZ
		F606ZZ						RF-1760ZZ	FL606ZZ
		F626ZZ		F626-2Z		F626SS			FL626ZZ
7	0.2756	MF117ZZS						LF-1170ZZ	FLWA677ZZA
		MF137ZZS						LF-1370ZZ	FLAWBC7-13ZZA
		F687ZZ	FAX7ZZ	F687-2Z	ULKZ714	F687SS	UL70FCHH	LF-1470ZZ	FLW687ZZA
		F697ZZ		F697-2Z		F697SS			FL697ZZ
		F607ZZ	F607ZZ	F607-2Z		F607SS			FL607ZZ
		F627ZZ		F627-2Z		F627SS			FL627ZZ
8	0.315	MF128ZZ						RF-2270ZZ	
		MF148ZZ						LF-1280ZZ	FLAW678ZZA
		F688ZZ				F688SS		UF-1480ZZ	FLWBC8-14ZZA
		F698ZZ		F698-2Z		F698SS		UF-1680ZZ	FLW688ZZ
		F608-ZZ	F608ZZ	F608-2Z		F608SS			FL698ZZ
		F689ZZ				F689SS		RF-2280ZZ	FL608ZZ
9		F699ZZ						FL-1790ZZ	FLW689ZZ
									FL699ZZ
Niro									
Stainless Steel									
		S	S	S	X	S	S	DD	W

Zoll-mm Umrechnungstabelle / Inch to mm Conversion

Fraction	Inch	mm	Fraction	Inch	mm	Fraction	Inch	mm
1/64	0.0156	0.3969		0.2883	7.3228	11/16	0.6875	17.4625
	0.0250	0.6350	19/64	0.2969	7.5406	45/64	0.7031	17.8594
1/32	0.0312	0.7937	5/16	0.3125	7.9375		0.7087	18.0000
	0.0394	1.0000		0.3150	8.0000	23/32	0.7187	18.2562
	0.0400	1.0160	21/64	0.3281	8.3344	47/64	0.7344	18.6532
3/64	0.0469	1.1906	11/32	0.3437	8.7312		0.7435	18.8849
	0.0472	1.2000		0.3543	9.0000		0.7480	19.0000
	0.0550	1.3970	23/64	0.3594	9.1281	3/4	0.7500	19.0500
	0.0591	1.5000	3/8	0.3750	9.5250	49/64	0.7656	19.4469
1/16	0.0625	1.5875	25/64	0.3906	9.2919		0.7717	19.6012
	0.0709	1.8000		0.3937	10.0000	25/32	0.7812	19.8433
5/64	0.0781	1.9844	13/32	0.4062	10.3187		0.7874	20.0000
	0.0787	2.0000		0.4100	10.4140	51/64	0.7969	20.2402
	0.0906	2.3012	27/64	0.4219	10.7156	13/16	0.8125	20.6375
3/32	0.0937	2.3812		0.4250	10.7950		0.8268	21.0000
	0.0984	2.5000		0.4331	11.0000	53/64	0.8281	21.0344
	0.1000	2.5400	7/16	0.4375	11.1125	27/32	0.8437	21.4312
	0.1024	2.6000	29/64	0.4531	11.5094	55/64	0.8594	21.8281
7/64	0.1094	2.7781		0.4600	11.6840		0.8661	22.0000
	0.1100	2.7940	15/32	0.4687	11.9062	7/8	0.8750	22.2250
	0.1102	2.8000		0.4724	12.0000	57/64	0.8906	22.6219
	0.1181	3.0000	31/64	0.4844	12.3031		0.9055	23.0000
1/8	0.1250	3.1750	1/2	0.5000	12.7000	29/32	0.9062	23.0187
	0.1256	3.1902		0.5118	13.0000	59/64	0.9219	23.4156
	0.1378	3.5000	33/64	0.5156	13.0968	15/16	0.9375	23.8125
9/64	0.1406	3.5719	17/32	0.5312	13.4937		0.9449	24.0000
5/32	0.1562	3.9687	35/64	0.5469	13.8906	61/64	0.9531	24.2094
	0.1575	4.0000		0.5512	14.0000	31/32	0.9687	24.6062
11/64	0.1719	4.3656	9/16	0.5625	14.2875		0.9843	25.0000
3/16	0.1875	4.7625	37/64	0.5781	14.6844	63/64	0.9844	25.0031
	0.1892	4.8057		0.5906	15.0000		1.0000	25.4000
	0.1969	5.0000	19/32	0.5937	15.0812		1.0236	26.0000
13/64	0.2031	5.1594	39/64	0.6094	15.4781		1.0415	26.4541
	0.2165	5.4991	5/8	0.6250	15.8750		1.0480	26.6192
7/32	0.2187	5.5562		0.6299	16.0000	1-1/16	1.0625	26.9875
15/64	0.2344	5.9531	41/64	0.6406	16.2719		1.0630	27.0000
	0.2362	6.0000		0.6500	16.5100		1.1025	28.0000
1/4	0.2500	6.3500	21/32	0.6562	16.6687	1-1/8	1.1250	28.5750
17/64	0.2656	6.7469		0.6620	16.8148		1.1417	29.0000
	0.2756	7.0000		0.6693	17.0000		1.1812	30.0000
9/32	0.2812	7.1437	43/64	0.6719	17.0656	1-3/16	1.1875	30.1625
						1-1/4	1.2500	31.7500
						1-1/2	1.5000	38.1000