

CATALOG 2009

TENGEN BEARING COMPANY



BEARING UNITS
Catalog No. UT1200

Table of Contents

FOREWORD	4
ABOUT THE COMPANY	5
BEARINGS TOLERANCES CLASSES	8
BEARING TOLERANCES	9
Symbols of Boundary Dimension and Running Accuracy.....	9
Tolerance Tables (Part 1)	10
Tolerance Tables (Part 2)	11
Tolerance Tables (Part 3)	12
BEARINGS SERIES SYMBOLS	13
BEARINGS SUPPLEMENTARY DESIGNATIONS.....	14
Frequently Used Suffixes of Bearing Numbers	14
COMPETITIVE PRODUCTS LIST.....	16
PRODUCTS GALLERY	17
BEARING TABLES	
BEARING UNITS	20
CONVERSION TABLE [N-kgf] [kg-lb]	38
CONVERSION TABLE [Inch-mm]	39
TOLERANCE TABLES	41

FOREWORD

We would like to thank you for your interest of our catalog 2009, after months of researches and preparations, we are proud to publish this catalog for all our valued customers. We promise we have contributed our best efforts ensuring the correctness, accuracy and completeness of information made available in this catalog. We sincerely hope this publish will help to fill your needs.

The main objective of this catalog is to act as a bearing handbook for bearings substitution from one brand to a product of China. We assure that bearings which are listed in this catalog are within the competitive edge of China market, which means that they are technically established, available in stocks or within the shortest possible delivery lead-time, and lowest requirement of minimum order. Bearing numbers that are not listed in this book might probably available too, please contact us for further information if your bearing numbers are not listed.

The reason why we design this catalog in a way of bearings interchangeability, having few main internationally renowned brands lined up for comparison, is intending to save our customers' hassles when they are looking for bearings substitutions in China. More brands of bearings' numbers will be added for comparison in future version of this catalog. We believe with information published in this book, in cooperation with our professional product consultation, we certainly are the Ease of Buying Solution for you to source from China.

Note:

Relevant information of bearings such as Basic Load Ratings, Speed Ratings, Factor, Bearings Weight and etc... published here are extracted from one manufacturers' catalog, these statistics may not be applicable for all brands of bearings, please use these information for reference purpose only.

ABOUT THE COMPANY

TENGEN Bearing Company is established by a group of people who possess vast experiences, professional knowledge of bearings, and bearings' industrial applications. Most of our managers and engineers have been in the bearings market for over 10 years and now closely tightened up with the Chinese market and being constantly updated about the local market information. This has consequently granted us the exclusive access to the rich market resources from around the China regions, and that enabling us the great advantages in aspect of both cost and quality of products.

Locally in China, we are not only dealing with Chinese bearings. We are also a reseller of most internationally renowned brands of bearings such as SKF, FAG, NSK, TIMKEN and etc... This provides us the capability and greater technical knowledge of bearings exchangeability in China market.

OUR MISSION

“We aim to be one of the most preferred Chinese bearings suppliers to all our customers and potential customers worldwide”

FREQUENTLY APPLIED TECHNICAL DATA OF BEARINGS

Bearings Tolerance Class
Bearings Tolerance Symbols
Tolerance Tables
Bearings Series Symbols
Bearings Supplementary Designations

BEARINGS TOLERANCES CLASSES

Types of Bearings		Tolerance Classes				
Deep Groove Ball Bearings		Normal	Class 6	Class 5	Class 4	Class 2
Angular Contact Ball Bearings		Normal	Class 6	Class 5	Class 4	Class 2
Self-aligning Ball Bearings		Normal	Class 6 equivalent	Class 5 equivalent	—	—
Cylindrical Roller Bearings		Normal	Class 6	Class 5	Class 4	Class 2
Solid Type Needle Roller Bearings		Normal	Class 6	Class 5	Class 4	—
Spherical Roller Bearings		Normal	Class 6 equivalent	Class 5 equivalent	—	—
Thrust Ball Bearings		Normal	Class 6	Class 5	Class 4	—
Spherical Thrust Roller Bearings		Normal	—	—	—	—
Metric-design Tapered Roller Bearings		Normal Class 6X	—	Class 5	Class 4	—
Inch-design Tapered Roller Bearings		ABMA CLASS 4	ABMA CLASS 2	ABMA CLASS 3	ABMA CLASS 0	ABMA CLASS 00
Equivalent standards						
GB/T 307.1 Chinese National Standard		Class 0	Class 6	Class 5	Class 4	Class 2
JIS B1514 Japanese Industrial Standard		Class 0	Class 6	Class 5	Class 4	Class 2
DIN 620 (Deutsches Institut für Normung) German Institute for Standardization		P0	P6	P5	P4	P2
ABMA American Bearing Manufacturers Association	Ball Bearings	ABEC 1	ABEC 3	ABEC 5 (CLASS 5P)	ABEC 7 (CLASS 7P)	ABEC 9 (CLASS 9P)
	Roller Bearings	RBEC 1	RBEC 3	RBEC 5	—	—
	Tapered Roller Bearings	CLASS 4	CLASS 2	CLASS 3	CLASS 0	CLASS 00

Note

1. The most common bearings produced in China are basically Normal Class, in accordance to JIS standard at class zero. (please refer to ISO 492/199/582/ABEC1/GB/T307.1 P0 for detailed requirements of bearings tolerance) You may also obtain detailed bearings tolerance statistics from manufacturers' catalog.
2. Bearings may be produced at Class 6 upon requested by customers for relatively rigid applications. Please contact our sales personnel for detailed information before placing an order.

BEARING TOLERANCES

Symbols of Boundary Dimension and Running Accuracy

d	<i>Nominal bearing bore diameter</i>
Δ_{ds}	<i>Deviation of single bore diameter</i>
Δ_{dmp}	<i>Deviation of mean bore diameter in a single plane</i>
V_{dp}	<i>Variation of mean bore diameter in a single plane</i>
V_{dmp}	<i>Variation of mean bore diameter</i>
B	<i>Nominal inner ring width</i>
Δ_{Bs}	<i>Deviation of single ring width</i>
V_{Bs}	<i>Variation of single ring width</i>
K_{ia}	<i>Radial runout of inner ring of assembled bearing</i>
S_d	<i>Runout of inner ring face to the bore</i>
S_{ia}	<i>Axial runout of end face to inner ring raceway of assembled bearing</i>
S_i / S_e	<i>Variation of washer thickness of (shaft / housing) locating washers</i>
T	<i>Nominal bearing height of a single direction axial bearing</i>
D	<i>Nominal bearing outer diameter</i>
Δ_{Ds}	<i>Deviation of single outer diameter</i>
Δ_{Dmp}	<i>Deviation of mean outer diameter in a single plane</i>
V_{Dp}	<i>Variation of single outer diameter in a single plane</i>
V_{Dmp}	<i>Variation of mean outer diameter</i>
C	<i>Nominal outer ring width</i>
Δ_{Cs}	<i>Deviation of single outer ring width</i>
V_{Cs}	<i>Variation of outer ring width</i>
K_{ea}	<i>Radial runout of outer ring of assembled bearing</i>
S_D	<i>Runout of outer ring outside surface generatrix to the face</i>
S_{ea}	<i>Axial runout of end face to outer ring raceway of assembled bearing</i>

Tolerance Tables (Part 1)

<i>d</i> (mm)		Δ_{dmp} Deviation of Mean Bore Diameter										<i>units</i> : μm	
		Normal		Class 6		Class 5		Class 4		Class 2			
Over	Incl.	High	Low	High	Low	High	Low	High	Low	High	Low		
0.6	2.5	0	-8	0	-7	0	-5	0	-4	0	-2.5		
2.5	10	0	-8	0	-7	0	-5	0	-4	0	-2.5		
10	18	0	-8	0	-7	0	-5	0	-4	0	-2.5		
18	30	0	-10	0	-8	0	-6	0	-5	0	-2.5		
30	50	0	-12	0	-10	0	-8	0	-6	0	-2.5		
50	80	0	-15	0	-12	0	-9	0	-7	0	-4		
80	120	0	-20	0	-15	0	-10	0	-8	0	-5		
120	150	0	-25	0	-18	0	-13	0	-10	0	-7		
150	180	0	-25	0	-18	0	-13	0	-10	0	-7		
180	250	0	-30	0	-22	0	-15	0	-12	0	-8		
250	315	0	-35	0	-25	0	-18	-	-	-	-		
315	400	0	-40	0	-30	0	-23	-	-	-	-		
400	500	0	-45	0	-35	-	-	-	-	-	-		
500	630	0	-50	0	-40	-	-	-	-	-	-		
630	800	0	-75	-	-	-	-	-	-	-	-		
800	1,000	0	-100	-	-	-	-	-	-	-	-		
1,000	1,250	0	-125	-	-	-	-	-	-	-	-		
1,250	1,600	0	-160	-	-	-	-	-	-	-	-		
1,600	2,000	0	-200	-	-	-	-	-	-	-	-		

<i>d</i> (mm)		V_{dmp} Variation of Mean Bore Diameter					Δ_{Bs} (or Δ_{Cs}) Deviation of Single (Outer) Ring Width												<i>units</i> : μm	
		Normal	Class 6	Class 5	Class 4	Class 2	Single Bearing						Combined Bearings							
							Normal Class 6		Class 5 Class 4		Class 2		Normal Class 6		Class 5 Class 4		Class 2			
Over	Incl.	Max	Max	Max	Max	Max	High	Low	High	Low	High	Low	High	Low	High	Low	High	Low		
0.6	2.5	6	5	3	2	1.5	0	-40	0	-40	0	-40	-	-	0	-250	0	-250	0	-250
2.5	10	6	5	3	2	1.5	0	-120	0	-40	0	-40	0	-250	0	-250	0	-250	0	-250
10	18	6	5	3	2	1.5	0	-120	0	-80	0	-80	0	-250	0	-250	0	-250	0	-250
18	30	8	6	3	2.5	1.5	0	-120	0	-120	0	-120	0	-250	0	-250	0	-250	0	-250
30	50	9	8	4	3	1.5	0	-120	0	-120	0	-120	0	-250	0	-250	0	-250	0	-250
50	80	11	9	5	3.5	2	0	-150	0	-150	0	-150	0	-380	0	-250	0	-250	0	-250
80	120	15	11	5	4	2.5	0	-200	0	-200	0	-380	0	-380	0	-380	0	-380	0	-380
120	150	19	14	7	5	3.5	0	-250	0	-250	0	-250	0	-500	0	-380	0	-380	0	-380
150	180	19	14	7	5	3.5	0	-250	0	-250	0	-250	0	-500	0	-380	0	-380	0	-380
180	250	23	17	8	6	4	0	-300	0	-300	0	-300	0	-500	0	-500	0	-500	0	-500
250	315	26	19	9	-	-	0	-350	0	-350	-	-	0	-500	0	-500	-	-	-	-
315	400	30	23	12	-	-	0	-400	0	-400	-	-	0	-630	0	-630	-	-	-	-
400	500	34	26	-	-	-	0	-450	-	-	-	-	-	-	-	-	-	-	-	-
500	630	38	30	-	-	-	0	-500	-	-	-	-	-	-	-	-	-	-	-	-
630	800	-	-	-	-	-	0	-750	-	-	-	-	-	-	-	-	-	-	-	-
800	1,000	-	-	-	-	-	0	-1,000	-	-	-	-	-	-	-	-	-	-	-	-
1,000	1,250	-	-	-	-	-	0	-1,250	-	-	-	-	-	-	-	-	-	-	-	-
1,250	1,600	-	-	-	-	-	0	-1,600	-	-	-	-	-	-	-	-	-	-	-	-
1,600	2,000	-	-	-	-	-	0	-2,000	-	-	-	-	-	-	-	-	-	-	-	-

Tolerance Tables (Part 2)

<i>units : μm</i>		K_{ia} Radial runout of inner ring of assembled bearing					S_d Runout of inner ring face to the bore			S_{ia} Axial runout of end face to inner ring raceway of assembled bearing		
		Class 0	Class 6	Class 5	Class 4	Class 2	Class 5	Class 4	Class 2	Class 5	Class 4	Class 2
Over	Incl	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max
0.6	2.5	10	5	4	2.5	1.5	7	3	1.5	7	3	1.5
2.5	10	10	6	4	2.5	1.5	7	3	1.5	7	3	1.5
10	18	10	7	4	2.5	1.5	7	3	1.5	7	3	1.5
18	30	13	8	4	3	2.5	8	4	1.5	8	4	2.5
30	50	15	10	5	4	2.5	8	4	1.5	8	4	2.5
50	80	20	10	5	4	2.5	8	5	1.5	8	5	2.5
80	120	25	13	6	5	2.5	9	5	2.5	9	5	2.5
120	150	30	18	8	6	2.5	10	6	2.5	10	7	2.5
150	180	30	18	8	6	5	10	6	4	10	7	5
180	250	40	20	10	8	5	11	7	5	13	8	5
250	315	50	25	13	-	-	13	-	-	15	-	-
315	400	60	30	15	-	-	15	-	-	20	-	-
400	500	65	35	-	-	-	-	-	-	-	-	-
500	630	70	40	-	-	-	-	-	-	-	-	-
630	800	80	-	-	-	-	-	-	-	-	-	-
800	1,000	90	-	-	-	-	-	-	-	-	-	-
1,000	1,250	100	-	-	-	-	-	-	-	-	-	-
1,250	1,600	120	-	-	-	-	-	-	-	-	-	-
1,600	2,000	140	-	-	-	-	-	-	-	-	-	-

<i>D (mm)</i>		Δ_{Dmp} Deviation of mean outer diameter in a single plane										<i>units : μm</i>	
		Normal		Class 6		Class 5		Class 4		Class 2			
		High	Low	High	Low	High	Low	High	Low	High	Low	High	Low
2.5	Incl. 6	0	-8	0	-7	0	-5	0	-4	0	-2.5	-2.5	
6	18	0	-8	0	-7	0	-5	0	-4	0	-2.5	-2.5	
18	30	0	-9	0	-8	0	-6	0	-5	0	-4	-4	
30	50	0	-11	0	-9	0	-7	0	-6	0	-4	-4	
50	80	0	-13	0	-11	0	-9	0	-7	0	-4	-4	
80	120	0	-15	0	-13	0	-10	0	-8	0	-5	-5	
120	150	0	-18	0	-15	0	-11	0	-9	0	-5	-5	
150	180	0	-25	0	-18	0	-13	0	-10	0	-7	-7	
180	250	0	-30	0	-20	0	-15	0	-11	0	-8	-8	
250	315	0	-35	0	-25	0	-18	0	-13	0	-8	-8	
315	400	0	-40	0	-28	0	-20	0	-15	0	-10	-10	
400	500	0	-45	0	-33	0	-23	-	-	-	-	-	
500	630	0	-50	0	-38	0	-28	-	-	-	-	-	
630	800	0	-75	0	-45	0	-35	-	-	-	-	-	
800	1,000	0	-100	0	-60	-	-	-	-	-	-	-	
1,000	1,250	0	-125	-	-	-	-	-	-	-	-	-	
1,250	1,600	0	-160	-	-	-	-	-	-	-	-	-	
1,600	2,000	0	-200	-	-	-	-	-	-	-	-	-	
2,000	2,500	0	-250	-	-	-	-	-	-	-	-	-	

Tolerance Tables (Part 3)

<i>units : μm</i>		Δ_{Dmp}					K_{ea}					S_D		
		Deviation of mean outer diameter in a single plane					Radial runout of outer ring of assembled bearing					Runout of outer ring outside surface generatrix to the face		
		D (mm)		Normal	Class 6	Class 5	Class 4	Class 2	Normal	Class 6	Class 5	Class 4	Class 2	Class 5
Over	Incl.	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max	Max
2.5	6	6	5	3	2	1.5	15	8	5	3	1.5	8	4	1.5
6	18	6	5	3	2	1.5	15	8	5	3	1.5	8	4	1.5
18	30	7	6	3	2.5	2	15	9	6	4	2.5	8	4	1.5
30	50	8	7	4	3	2	20	10	7	5	2.5	8	4	1.5
50	80	10	8	5	3.5	2	25	13	8	5	4	8	4	1.5
80	120	11	10	5	4	2.5	35	18	10	6	5	9	5	2.5
120	150	14	11	6	5	2.5	40	20	11	7	5	10	5	2.5
150	180	19	14	7	5	3.5	45	23	13	8	5	10	5	2.5
180	250	23	15	8	6	4	50	25	15	10	7	11	7	4
250	315	26	19	9	7	4	60	30	18	11	7	13	8	5
315	400	30	21	10	8	5	70	35	20	13	8	13	10	7
400	500	34	25	12	-	-	80	40	23	-	-	15	-	-
500	630	38	29	14	-	-	100	50	25	-	-	18	-	-
630	800	55	34	18	-	-	120	60	30	-	-	20	-	-
800	1,000	75	45	-	-	-	140	75	-	-	-	-	-	-
1,000	1,250	-	-	-	-	-	160	-	-	-	-	-	-	-
1,250	1,600	-	-	-	-	-	190	-	-	-	-	-	-	-
1,600	2,000	-	-	-	-	-	220	-	-	-	-	-	-	-
2,000	2,500	-	-	-	-	-	250	-	-	-	-	-	-	-

<i>units : μm</i>		S_{ea}			V_{Cs}		
		Axial runout of end face to outer ring raceway of assembled bearing			Variation of outer ring width		
		D (mm)		Class 5	Class 4	Class 2	Class 5
Over	Incl.	Max	Max	Max	Max	Max	Max
2.5	6	8	5	1.5	5	2.5	1.5
6	18	8	5	1.5	5	2.5	1.5
18	30	8	5	2.5	5	2.5	1.5
30	50	8	5	2.5	5	2.5	1.5
50	80	10	5	4	6	3	1.5
80	120	11	6	5	8	4	2.5
120	150	13	7	5	8	5	2.5
150	180	14	8	5	8	5	2.5
180	250	15	10	7	10	7	4
250	315	18	10	7	11	7	5
315	400	20	13	8	13	8	7
400	500	23	-	-	15	-	-
500	630	25	-	-	18	-	-
630	800	30	-	-	20	-	-
800	1,000	-	-	-	-	-	-
1,000	1,250	-	-	-	-	-	-
1,250	1,600	-	-	-	-	-	-
1,600	2,000	-	-	-	-	-	-
2,000	2,500	-	-	-	-	-	-

BEARINGS SERIES SYMBOLS

Types of Bearings	Bearing Series Symbols	Symbols Type	Dimension Symbols		Types of Bearings	Bearing Series Symbols	Symbols Type	Dimension Symbols		
			Width or Height Symbols	Symbols				Width or Height Symbols	Symbols	
Single-Row Deep Groove Ball Bearings	68	6	(1)	8	Single-Row Cylindrical Roller Bearings	NU10	NU	1	0	
	69	6	(1)	9		NU2	NU	(0)	2	
	60	6	(1)	0		NU22	NU	2	2	
	62	6	(0)	2		NU3	NU	(0)	3	
	63	6	(0)	3		NU23	NU	2	3	
Single Row Angular Contact Ball Bearings	79	7	(1)	9		NU4	NU	(0)	4	
	70	7	(1)	0		NJ2	NJ	(0)	2	
	72	7	(0)	2		NJ22	NJ	2	2	
	73	7	(0)	3		NJ3	NJ	(0)	3	
Self-Aligning Ball Bearings	12	1	(0)	2		NJ23	NJ	2	3	
	13	1	(0)	3		NJ4	NJ	(0)	4	
	22	(1)	2	2		NUP2	NUP	(0)	2	
	23	(1)	2	3		NUP22	NUP	2	2	
Spherical Roller Bearings	230	2	3	0		NUP3	NUP	(0)	3	
	231	2	3	1		NUP23	NUP	2	3	
	222	2	2	2		NUP4	NUP	(0)	4	
	232	2	3	2		N10	N	1	0	
	213(1)	2	0	3		N2	N	(0)	2	
	223	2	2	3		N3	N	(0)	3	
Thrust Ball Bearings	511	5	1	1		N4	N	(0)	4	
	512	5	1	2		NF2	NF	(0)	2	
	513	5	1	3		NF3	NF	(0)	3	
	514	5	1	4		NF4	NF	(0)	4	
	522	5	2	2		Double Row Cylindrical Roller Bearing	NNU49	NNU	4	9
	523	5	2	3			NN30	NNU	3	0
	524	5	2	4	Thrust Spherical Roller Bearings	292	2	9	2	
Taper Roller Bearings	329	3	2	9		293	2	9	3	
	320	3	2	0		294	2	9	4	
	330	3	3	0	Needle Roller Bearings	NA48	N/A	4	8	
	331	3	3	1		NA49	N/A	4	9	
	302	3	0	2		NA59	N/A	5	9	
	322	3	2	2		NA69	N/A	6	9	
	332	3	3	2	Note Numbers in "()" are normally omitted from the bearing numbers.					
	303	3	0	3						
	323	3	2	3						

BEARINGS SUPPLEMENTARY DESIGNATIONS

Frequently Used Suffixes of Bearing Numbers

Attribute	Supplementary Designation			
	Local	SKF	FAG	NSK
Contact Angle Symbol				
Standard contact angle of 30°	A			A
Standard contact angle of 25°	A5	ACD	E	A5
Standard contact angle of 40°	B	B	B	B
Standard contact angle of 15°	C	CD	C	C
Contact angle about 20° (only applied to Tapered Roller Bearings)	C			C
Contact angle about 28° (only applied to Tapered Roller Bearings)	D			D
Internal Design Symbol				
Internal design differs from standard	A	A	A	A
Smaller diameter of outer ring raceway, contact angle, and outer ring width of tapered roller bearings conform to ISO 355	J	X/Q	X	J
Material Symbol				
Case-hardened steel used in rings, rolling elements	G			G
Stainless steel used in rings, rolling elements	H		Z	H
Cage Symbol				
Machined brass cage	M	M	M	M
Synthetic resin cage	T	TN9	TV	T
Pressed steel cage	W	F	F	W
Without cage	V	V	V	V
External Features – Seals, Shields Symbol				
Shield on one side only	Z / ZS	Z	ZR	Z / ZS
Shield on both sides	ZZ / ZZS	2Z	2ZR	ZZ / ZZS
Contact rubber seal on one side only	D / DU	RS	RSR	D / DU
Contact rubber shield on both sides	DD / DDU	2RS	2RSR	DD / DDU
Non-contact rubber seal on one side only	V	RZ		V
Non-contact rubber seal on both sides	VV	2RZ		VV
Rings Design Symbol				
Tapered bore of inner ring (Taper 1:12)	K	K	K	K
Tapered bore of inner ring (Taper 1:30)	K30	K30	K30	K30
Notch or lubricating groove ring	E	E	E	E
Lubricating groove in outside surface and holes in outer ring	E4	E	S	E4
Snap ring groove in outer ring	N	N	N	N
Snap ring groove with snap ring in outer ring	NR	NR	NR	NR
Bearing Arrangement Symbol				
Back to back arrangement	DB	DB	UA	DB
Face to face arrangement	DF	DF	UO	DF
Tandem arrangement	DT	DT	UL	DT
Internal Clearance Symbol				
Clearance less than C2	C1	C1	C1	C1
Clearance less than CN	C2	C2	C2	C2
CN Clearance	CN	C0	C0	CN
Clearance greater than CN	C3	C3	C3	C3
Clearance greater than C3	C4	C4	C4	C4
Clearance greater than C4	C5	C5	C5	C5
Tolerance Class Symbol				
ISO normal (P0 is usually omitted from the bearing numbers)	P0	P0	P0	P0
ISO Class 6	P6	P6	P6	P6
ISO Class 5	P5	P5	P5	P5
ISO Class 4	P4	P4	P4	P4
ISO Class 2	P2			P2
Special Specification Symbol				
Working temperature lower than 150°C	X26	S0	S0	X26
Working temperature lower than 200°C	X28	S1	S1	X28
Working temperature lower than 250°C	X29	S2	S2	X29
Dimensional stabilizing treatment working temperature lower than 200°C	S11	S1	S1	S11

COMPETITIVE PRODUCTS & PRODUCTS GALLERY

COMPETITIVE PRODUCTS LIST

Below listed products are technically established, available in stock or within the shortest possible delivery lead-time, and lowest requirement of minimum order. Please contact us if you are looking for something out of the list.

Deep Groove Ball Bearings

- Single Row Deep Groove Ball Bearings
- Double Row Deep Groove Ball Bearings

Angular Contact Ball Bearings

- Single Row Angular Contact Ball Bearings
- Double Row Angular Contact Ball Bearings
- Four Point Contact Ball Bearings

Self-Aligning Ball Bearings

Spherical Roller Bearings

Thrust Ball Bearings

- Single Direction Thrust Ball Bearings
- Double Direction Thrust Ball Bearings

Thrust Spherical Roller Bearings

Cylindrical Roller Bearings

- Single Row Cylindrical Roller Bearings
- Double Row Cylindrical Roller Bearings
- Full Complement Type Cylindrical Roller Bearings
 - Full Complement Type Single Row Cylindrical Roller Bearings
 - Full Complement Type Double Row Cylindrical Roller Bearings

Tapered Roller Bearings

- Single Row Tapered Roller Bearings
- Double Row Tapered Roller Bearings

Needle Roller Bearings

- Needle Rollers & Cage Assemblies
- Drawn Cup Needle Roller Bearings
- Solid Needle Roller Bearings
- Cam Rollers
- Cam Followers

High Precision Bearings

- High Precision Angular Contact Ball Bearings
- Single Row High Precision Cylindrical Roller Bearings
- Double Row High Precision Cylindrical Roller Bearings

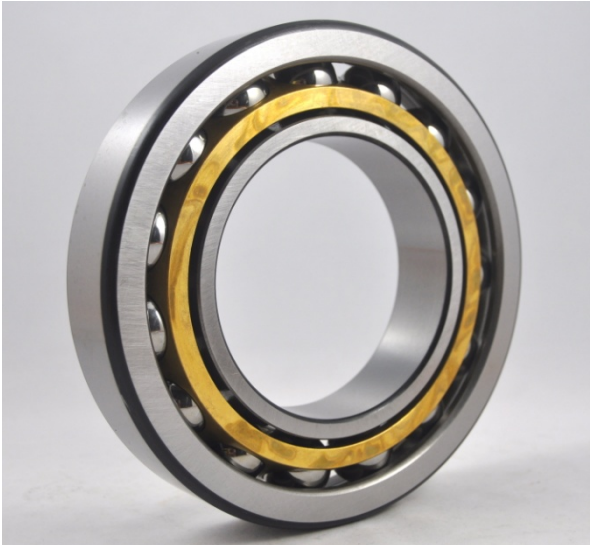
Bearing Units

- Pillow Type Units
 - UCP Series
 - UKT Series
- Square Four Bolt Flange Type Units
 - UCF Series
 - UKF Series
- Oval Flange Type Units
 - UCFL Series
 - UKFL Series
- Round Flange Cartridge Type Units
 - UCFC Series
 - UKFC Series
- Take Up Type Units
 - UCT Series
 - UKT Series
- Ball Bearing Inserts
 - UC, SB, SU Series
 - NA Series
 - ER, RB Series

PRODUCTS GALLERY



DEEP GROOVE BALL BEARINGS



ANGULAR CONTACT BALL BEARINGS



SELF-ALIGNING BALL BEARINGS



SPHERICAL ROLLER BEARINGS



THRUST BALL BEARINGS



THRUST SPHERICAL ROLLER BEARINGS



CYLINDRICAL ROLLER BEARINGS



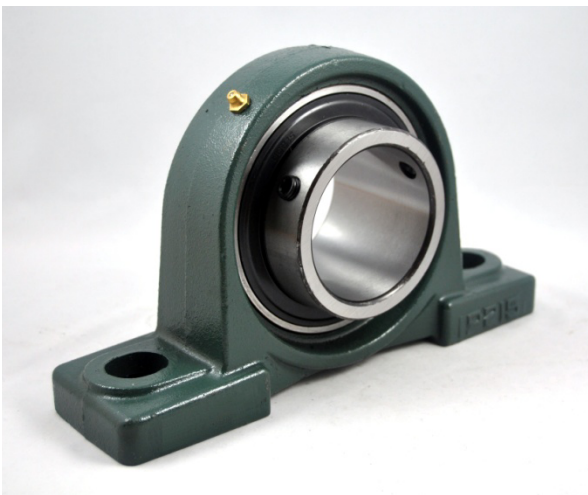
TAPERED ROLLER BEARINGS



NEEDLE ROLLER BEARINGS



HIGH PRECISION BEARINGS



BEARING UNITS

BEARING TABLES

BEARING UNITS

Bearing units are basically a combination of a ball bearing for radial loads, seal, and a cast steel housing that is made in various shapes. Bearing units are self-aligning and insensitive to shaft misalignment or deflection, the bearing outer surface and the housing inner surface are both spherical. An oil proof duplex seal which is made of synthetic rubber is provided at both side of the bearing.

Pillow Type Units

Pillow type unit is the most common type among all bearing units. Its' housing with the robust and solid base rib at the mounting section provides the capability enduring great loads from any direction. They are available as UCP and UKP type in this series, which its' housings are made of cast steel. Pillow type units are greatly suitable for application where sever loading and shock load conditions are expected during operation. They are widely used in general transmission equipment and machinery applications.



Square Four-Bolts Flange Type Units

Square four bolt flange type units provide another robust mounting method, where the mounting bolts are orientated axially to the shaft. Flange type units are suitable where condition the mounting surface has 90° mating to the shaft. The flange units are mounted with four bolts, which enabled it can be easily attached or detached from the mounting applications. UCF and UKF are available in the series.



Oval Flange Type Units

The flange unit of this bearing is made to oval shape, with two mounting bolt hole, which makes it for even easier installation. The main advantage of this unit is it needs less space for installation, and specifically suitable where mounting space is limited. Oval flange units are often used where a situation that there are two shafts installation and it is technically necessary to minimize the distance between the two shafts. Oval flange unit mounting hole is basically conforming to square flange unit mounting dimension at the diagonal position of holes



Round Flange Cartridge Type Units

The round cartridge type unit has a round shaped cartridge at the back side of the flange. The cartridge design provides the unit with capability of precise mounting. Round flange cartridge type units are suitable where precise mounting accuracy is necessity.



Take Up Type Units

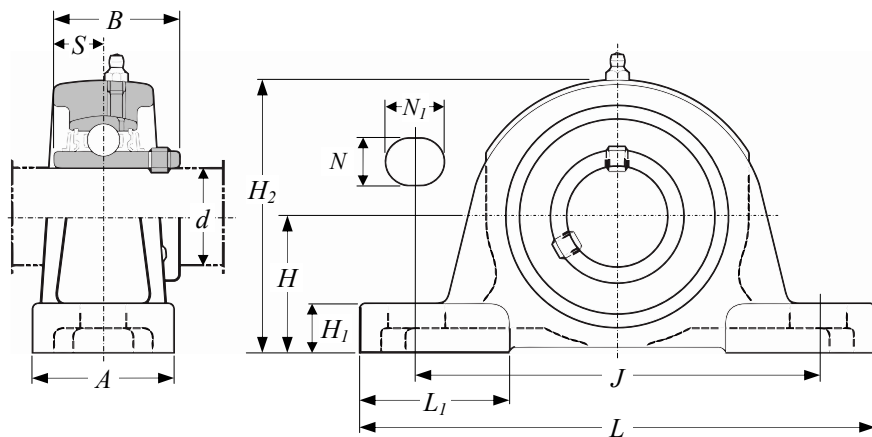
Take up type bearing units are greatly suitable for applications where the mounted shaft or rollers need an adjustable capability. The notch of take up units fit at the linear track of the take up frame and this has allowed a linear adjustment along the plane of the frame. Take up units has widely used for industrial automation equipment, such as conveyors.



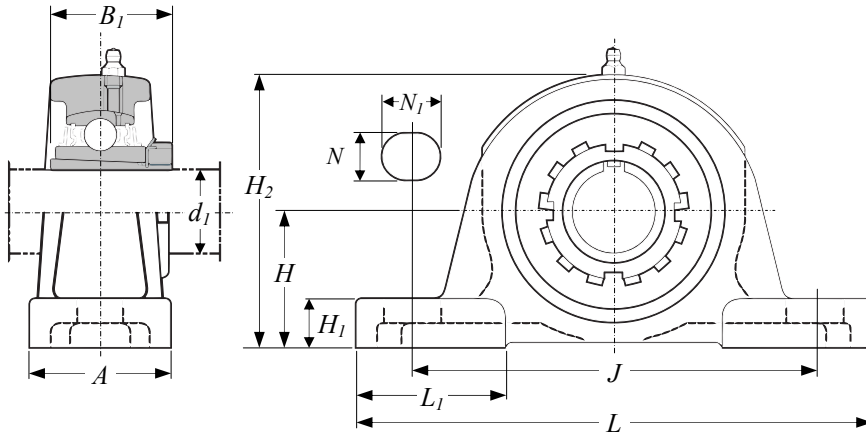
BEARING UNITS
Pillow Type Units, UCP

Table 142

Bore Diameter
12mm – 140mm



Principal Dimensions												Bolt Size	Basic Load Ratings		Fact	Mass	Designations		
d	H	L	A	J	N	N ₁	H ₁	H ₂	L ₁	B	S		C _r	C _{0r}			f ₀	kg	Housing No.
mm																			
12	30.2	127	38	95	13	18	12	60	38	31	12.7	M10	12.8	6.65	13.2	0.63	P203	UC201	UCP201
15	30.2	127	38	95	13	18	12	60	38	31	12.7	M10	12.8	6.65	13.2	0.61	P203	UC202	UCP202
17	30.2	127	38	95	13	18	12	60	38	31	12.7	M10	12.8	6.65	13.2	0.60	P203	UC203	UCP203
20	33.3	127	38	95	13	18	13	64	38	31	12.7	M10	12.8	6.65	13.2	0.66	P204	UC204	UCP204
25	36.5	140	38	105	13	18	13	71	43	34.1	14.3	M10	14.0	7.85	13.9	0.80	P205	UC205	UCP205
	44.4	159	51	119	17	25	16	86	47	38.1	15.9	M14	19.5	11.3	13.9	1.5	PX05	UCX05	UCPX05
	45	175	45	132	17	20	16	85	55	38	15	M14	21.2	10.9	12.6	1.7	P305	UC305	UCP305
30	42.9	165	48	121	17	21	15	84	53	38.1	15.9	M14	19.5	11.3	13.9	1.3	P206	UC206	UCP206
	47.6	175	57	127	17	25	17	93	55	42.9	17.5	M14	25.7	15.4	13.9	2.1	PX06	UCX06	UCPX06
	50	180	50	140	17	20	17	95	53	43	17	M14	26.7	15.0	13.3	2.2	P306	UC306	UCP306
35	47.6	167	48	127	17	21	16	93	51	42.9	17.5	M14	25.7	15.4	13.9	1.6	P207	UC207	UCP207
	54	203	57	144	17	30	19	105	64	49.2	19	M14	29.1	17.8	14.0	2.7	PX07	UCX07	UCPX07
	56	210	56	160	17	25	19	107	65	48	19	M14	33.4	19.3	13.2	3.0	P307	UC307	UCP307
40	49.2	184	54	137	17	21	17	98	57	49.2	19	M14	29.1	17.8	14.0	2.0	P208	UC208	UCP208
	58.7	222	67	156	20	32	21	114	71	49.2	19	M16	34.1	21.3	14.0	3.5	PX08	UCX08	UCPX08
	60	220	60	170	17	27	19	118	65	52	19	M14	40.7	24.0	13.2	3.8	P308	UC308	UCP308
45	54	190	54	146	17	21	17	106	60	49.2	19	M14	34.1	21.3	14.0	2.2	P209	UC209	UCP209
	58.7	222	67	156	20	33	21	116	71	51.6	19	M16	35.1	23.3	14.4	3.7	PX09	UCX09	UCPX09
	67	245	67	190	20	30	21	132	75	57	22	M16	48.9	29.5	13.3	4.9	P309	UC309	UCP309
50	57.2	206	60	159	20	22	19	113	63	51.6	19	M16	35.1	23.3	14.4	2.9	P210	UC210	UCP210
	63.5	241	73	171	20	36	22	126	76	55.6	22.2	M16	43.4	29.4	14.4	4.6	PX10	UCX10	UCPX10
	75	275	75	212	20	35	24	148	88	61	22	M16	62.0	38.3	13.2	6.6	P310	UC310	UCP310
55	63.5	219	60	171	20	22	19	125	70	55.6	22.2	M16	43.4	29.4	14.4	3.6	P211	UC211	UCP211
	69.8	260	79	184	25	36	28	139	83	65.1	25.4	M20	52.4	36.2	14.4	6.5	PX11	UCX11	UCPX11
	80	310	80	236	20	38	27	158	90	66	25	M16	71.6	45.0	13.2	7.9	P311	UC311	UCP311
60	69.8	241	70	184	20	25	22	138	76	65.1	25.4	M16	52.4	36.2	14.4	4.9	P212	UC212	UCP212
	76.2	286	83	203	25	40	28	152	88	65.1	25.4	M20	57.2	40.1	14.4	7.7	PX12	UCX12	UCPX12
60	85	330	85	250	25	38	29	167	103	71	26	M20	81.9	52.2	13.2	9.5	P312	UC312	UCP312
65	76.2	265	70	203	25	30	25	150	78	65.1	25.4	M20	57.2	40.1	14.4	5.9	P213	UC213	UCP213
	76.2	286	83	203	25	40	28	155	88	74.6	30.2	M20	62.2	44.1	14.5	8.1	PX13	UCX13	UCPX13
	90	340	90	260	25	38	32	176	110	75	30	M20	92.7	59.9	13.2	10.7	P313	UC313	UCP313
70	79.4	266	72	210	25	30	28	156	78	74.6	30.2	M20	62.2	44.1	14.5	6.8	P214	UC214	UCP214
	88.9	330	89	229	27	50	32	171	98	77.8	33.3	M22	67.4	48.3	14.5	10.2	PX14	UCX14	UCPX14
	95	360	90	280	27	40	35	186	110	78	33	M22	104	68.2	13.2	12.4	P314	UC314	UCP314
75	82.6	275	74	217	25	30	28	162	80	77.8	33.3	M20	67.4	48.3	14.5	7.4	P215	UC215	UCP215
	88.9	330	89	229	27	50	32	175	99	82.6	33.3	M22	72.7	53.0	14.6	10.8	PX15	UCX15	UCPX15
	100	380	100	290	27	40	35	198	107	82	32	M22	113	77.2	13.2	14.8	P315	UC315	UCP315
80	88.9	292	78	232	25	35	32	174	86	82.6	33.3	M20	72.7	53.0	14.6	9.0	P216	UC216	UCP216
	101.6	381	102	283	27	58	34	195	116	85.7	34.1	M22	84.0	61.9	14.5	15.3	PX16	UCX16	UCPX16
	106	400	110	300	27	40	35	209	120	86	34	M22	123	86.7	13.3	18.5	P316	UC316	UCP316
85	95.2	310	83	247	25	40	32	185	90	85.7	34.1	M20	84.0	61.9	14.5	10.8	P217	UC217	UCP217
	101.6	381	102	283	27	60	34	200	116	96	39.7	M22	96.1	71.5	14.5	16.1	PX17	UCX17	UCPX17
	112	420	110	320	33	45	40	220	120	96	40	M27	133	96.8	13.3	20.3	P317	UC317	UCP317
90	101.6	327	88	262	27	45	34	198	104	96	39.7	M22	96.1	71.5	14.5	13.9	P218	UC218	UCP218
	101.6	381	111	283	27	60	38	204	116	104	42.9	M22	109	81.9	14.4	19.1	PX18	UCX18	UCPX18
	118	430	110	330	33	45	40	234	120	96	40	M27	143	107	13.3	22.8	P318	UC318	UCP318
95	125	470	120	360	36	50	46	248	125	103	41	M30	153	119	13.3	29.0	P319	UC319	UCP319
100	127	432	121	337	33	65	45	245	126	117.5	49.2	M27	133	105	14.4	30.4	PX20	UCX20	UCPX20
	140	490	120	380	36	50	46	273	140	108	42	M30	173	141	13.2	35.1	P320	UC320	UCP320
105	140	490	120	380	36	50	46	278	140	112	44	M30	184	153	13.2	37.6	P321	UC321	UCP321
110	150	520	140	400	40	55	50	296	150	117	46	M33	205	180	13.2	44.0	P322	UC322	UCP322
120	160	570	140	450	40	55	50	316	160	126	51	M33	207	185	13.5	55.4	P324	UC324	UCP324
130	180	600	140	480	40	55	50	355	195	135	54	M33	229	214	13.6	72.1	P326	UC326	UCP326
140	200	620	140	500	40	55	60	393	185	145	59	M33	253	246	13.6	92.5	P328	UC328	UCP328



BEARING UNITS
Pillow Type Units, UKP

Table 143

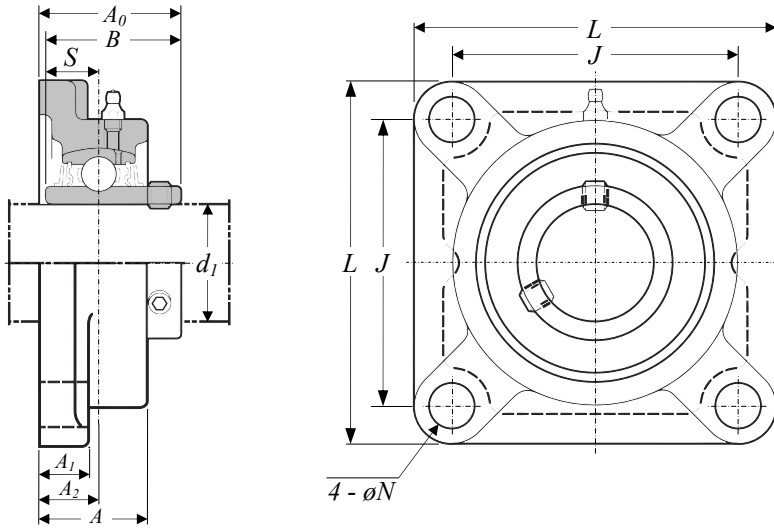
Bore Diameter
20mm – 125mm

Principal Dimensions											Bolt Size	Basic Load Ratings		Fact f_0	Mass	Designations		
d	H	L	A	J	N	N_1	H_1	H_2	L_1	B		C_r	C_{0r}			kg	Housing No.	Bearing No.
20	36.5	140	38	105	13	18	13	71	43	29	M10	14.0	7.85	13.9	0.84	P205	UK205	UKP205
	44.4	159	51	119	17	25	16	86	47	35	M14	19.5	11.3	13.9	1.5	PX05	UKX05	UKPX05
	45	175	45	132	17	20	16	85	55	35	M14	21.2	10.9	12.6	1.7	P305	UK305	UKP305
25	42.9	165	48	121	17	21	15	84	53	31	M14	19.5	11.3	13.9	1.4	P206	UK206	UKP206
	47.6	175	57	127	17	25	17	93	55	38	M14	25.7	15.4	13.9	2.1	PX06	UKX06	UKPX06
	50	180	50	140	17	20	17	95	53	38	M14	26.7	15.0	13.3	2.3	P306	UK306	UKP306
30	47.6	167	48	127	17	21	16	93	51	35	M14	25.7	15.4	13.9	1.7	P207	UK207	UKP207
	54	203	57	144	17	30	19	105	64	43	M14	29.1	17.8	14.0	2.7	PX07	UKX07	UKPX07
	56	210	56	160	17	25	19	107	65	43	M14	33.4	19.3	13.2	3.0	P307	UK307	UKP307
35	49.2	184	54	137	17	21	17	98	57	36	M14	29.1	17.8	14.0	2.0	P208	UK208	UKP208
	58.7	222	67	156	20	32	21	114	71	46	M16	34.1	21.3	14.0	3.5	PX08	UKX08	UKPX08
	60	220	60	170	17	27	19	118	65	46	M14	40.7	24.0	13.2	3.8	P308	UK308	UKP308
40	54	190	54	146	17	21	17	106	60	39	M14	34.1	21.3	14.0	2.3	P209	UK209	UKP209
	58.7	222	67	156	20	33	21	116	71	50	M16	35.1	23.3	14.4	3.7	PX09	UKX09	UKPX09
	67	245	67	190	20	30	21	132	75	50	M16	48.9	29.5	13.3	5.0	P309	UK309	UKP309
45	57.2	206	60	159	20	22	19	113	63	42	M16	35.1	23.3	14.4	3.0	P210	UK210	UKP210
	63.5	241	73	171	20	36	22	126	76	55	M16	43.4	29.4	14.4	4.6	PX10	UKX10	UKPX10
	75	275	75	212	20	35	24	148	88	55	M16	62.0	38.3	13.2	6.7	P310	UK310	UKP310
50	63.5	219	60	171	20	22	19	125	70	45	M16	43.4	29.4	14.4	3.7	P211	UK211	UKP211
	69.8	260	79	184	25	36	28	139	83	59	M20	52.4	36.2	14.4	6.2	PX11	UKX11	UKPX11
	80	310	80	236	20	38	27	158	90	59	M16	71.6	45.0	13.2	8.1	P311	UK311	UKP311
55	69.8	241	70	184	20	25	22	138	76	47	M16	52.4	36.2	14.4	4.8	P212	UK212	UKP212
	76.2	286	83	203	25	40	28	152	88	62	M20	57.2	40.1	14.4	7.5	PX12	UKX12	UKPX12
	85	330	85	250	25	38	29	167	103	62	M20	81.9	52.2	13.2	9.4	P312	UK312	UKP312
60	76.2	265	70	203	25	30	25	150	78	50	M20	57.2	40.1	14.4	5.8	P213	UK213	UKP213
	76.2	286	83	203	25	40	28	155	88	65	M20	62.2	44.1	14.5	7.8	PX13	UKX13	UKPX13
60	90	340	90	260	25	38	32	176	110	65	M20	92.7	59.9	13.2	10.8	P313	UK313	UKP313
65	82.6	275	74	217	25	30	28	162	80	55	M20	67.4	48.3	14.5	7.5	P215	UK215	UKP215
	88.9	330	89	229	27	50	32	175	99	73	M22	72.7	53.0	14.6	10.5	PX15	UKX15	UKPX15
	100	380	100	290	27	40	35	198	107	73	M22	113	77.2	13.2	14.9	P315	UK315	UKP315
70	88.9	292	78	232	25	35	32	174	86	59	M20	72.7	53.0	14.6	9.2	P216	UK216	UKP216
	101.6	381	102	283	27	58	34	195	116	78	M22	84.0	61.9	14.5	15.4	PX16	UKX16	UKPX16
	106	400	110	300	27	40	35	209	120	78	M22	123	86.7	13.3	18.6	P316	UK316	UKP316
75	95.2	310	83	247	25	40	32	185	90	63	M20	84.0	61.9	14.5	11.0	P217	UK217	UKP217
	101.6	381	102	283	27	60	34	200	116	82	M22	96.1	71.5	14.5	15.8	PX17	UKX17	UKPX17
	112	420	110	320	33	45	40	220	120	82	M27	133	96.8	13.3	20.2	P317	UK317	UKP317
80	101.6	327	88	262	27	45	34	198	104	65	M22	96.1	71.5	14.5	13.8	P218	UK218	UKP218
	101.6	381	111	283	27	60	38	204	116	86	M22	109	81.9	14.4	18.6	PX18	UKX18	UKPX18
	118	430	110	330	33	45	40	234	120	86	M27	143	107	13.3	22.8	P318	UK318	UKP318
85	125	470	120	360	36	50	46	248	125	90	M30	153	119	13.3	29.3	P319	UK319	UKP319
90	127	432	121	337	33	65	45	245	126	97	M27	133	105	14.4	29.3	PX20	UKX20	UKPX20
	140	490	120	380	36	50	46	273	140	97	M30	173	141	13.2	34.8	P320	UK320	UKP320
100	150	520	140	400	40	55	50	296	150	105	M33	205	180	13.2	43.9	P322	UK322	UKP322
110	160	570	140	450	40	55	50	316	160	112	M33	207	185	13.5	55.7	P324	UK324	UKP324
115	180	600	140	480	40	55	50	355	195	121	M33	229	214	13.6	71.9	P326	UK326	UKP326
125	200	620	140	500	40	55	60	393	185	131	M33	253	246	13.6	92.5	P328	UK328	UKP328

BEARING UNITS
Square Four-Bolt
Flange Type Unit, UCF

Table 144

Bore Diameter
12mm – 140mm

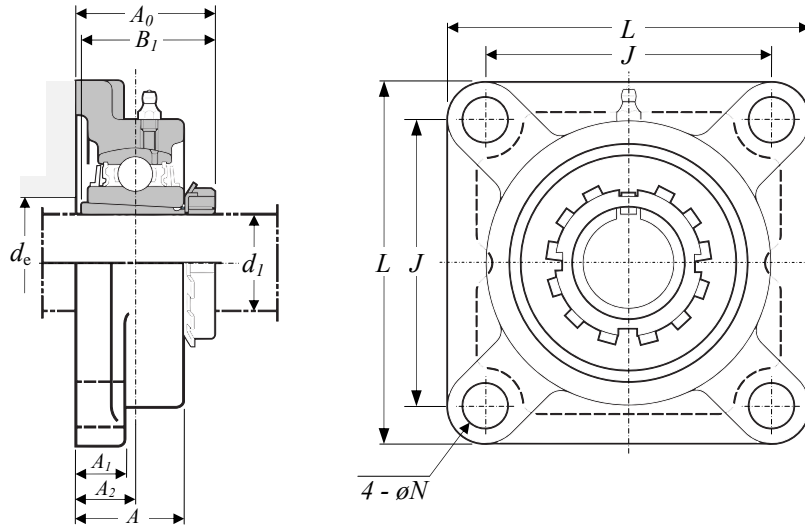


Principal Dimensions										Bolt Size	Basic Load Ratings		Fact f_0	Mass kg	Designations			
d	L	A	J	N	A ₁	A ₂	A ₀	B	S		C _r	C _{0r}			Housing No.	Bearing No.	Unit No.	
mm										mm	kN							
12	86	25.5	64	12	11	15	33.3	31	12.7	M10	12.8	6.65	13.2	0.64	F204	UC201	UCF201	
15	86	25.5	64	12	11	15	33.3	31	12.7	M10	12.8	6.65	13.2	0.62	F204	UC202	UCF202	
17	86	25.5	64	12	11	15	33.3	31	12.7	M10	12.8	6.65	13.2	0.61	F204	UC203	UCF203	
20	86	25.5	64	12	11	15	33.3	31	12.7	M10	12.8	6.65	13.2	0.59	F204	UC204	UCF204	
25	95	27	70	12	13	16	35.8	34.1	14.3	M10	14.0	7.85	13.9	0.83	F205	UC205	UCF205	
	108	30	83	12	13	18	40.2	38.1	15.9	M10	19.5	11.3	13.9	1.2	FX05	UCX05	UCFX05	
	110	29	80	16	13	16	39	38	15	M14	21.2	10.9	12.6	1.3	F305	UC305	UCF305	
30	108	31	83	12	13	18	40.2	38.1	15.9	M10	19.5	11.3	13.9	1.1	F206	UC206	UCF206	
	117	34	92	16	14	19	44.4	42.9	17.5	M14	25.7	15.4	13.9	1.6	FX06	UCX06	UCFX06	
	125	32	95	16	15	18	44	43	17	M14	26.7	15.0	13.3	1.9	F306	UC306	UCF306	
35	117	34	92	14	15	19	44.4	42.9	17.5	M12	25.7	15.4	13.9	1.5	F207	UC207	UCF207	
	130	38	102	16	14	21	51.2	49.2	19	M14	29.1	17.8	14.0	2.0	FX07	UCX07	UCFX07	
	135	36	100	19	16	20	49	48	19	M16	33.4	19.3	13.2	2.3	F307	UC307	UCF307	
40	130	36	102	16	15	21	51.2	49.2	19	M14	29.1	17.8	14.0	1.9	F208	UC208	UCF208	
	137	40	105	19	14	22	52.2	49.2	19	M16	34.1	21.3	14.0	2.4	FX08	UCX08	UCFX08	
	150	40	112	19	17	23	56	52	19	M16	40.7	24.0	13.2	3.1	F308	UC308	UCF308	
45	137	38	105	16	16	22	52.2	49.2	19	M14	34.1	21.3	14.0	2.2	F209	UC209	UCF209	
	143	40	111	19	14	23	55.6	51.6	19	M16	35.1	23.3	14.4	2.7	FX09	UCX09	UCFX09	
	160	44	125	19	18	25	60	57	22	M16	48.9	29.5	13.3	4.0	F309	UC309	UCF309	
50	143	40	111	16	16	22	54.6	51.6	19	M14	35.1	23.3	14.4	2.5	F210	UC210	UCF210	
	162	44	130	19	20	26	59.4	55.6	22.2	M16	43.4	29.4	14.4	3.7	FX10	UCX10	UCFX10	
	175	48	132	23	19	28	67	61	22	M20	62.0	38.3	13.2	5.1	F310	UC310	UCF310	
55	162	43	130	19	18	25	58.4	55.6	22.2	M16	43.4	29.4	14.4	3.4	F211	UC211	UCF211	
	175	49	143	19	20	29	68.7	65.1	25.4	M16	52.4	36.2	14.4	4.9	FX11	UCX11	UCFX11	
	185	52	140	23	20	30	71	66	25	M20	71.6	45.0	13.2	5.6	F311	UC311	UCF311	
60	175	48	143	19	18	29	68.7	65.1	25.4	M16	52.4	36.2	14.4	4.2	F212	UC212	UCF212	
	187	59	149	19	21	34	73.7	65.1	25.4	M16	57.2	40.1	14.4	5.7	FX12	UCX12	UCFX12	
	195	56	150	23	22	33	78	71	26	M20	81.9	52.2	13.2	6.9	F312	UC312	UCF312	
65	187	50	149	19	22	30	69.7	65.1	25.4	M16	57.2	40.1	14.4	5.2	F213	UC213	UCF213	
	187	59	149	19	21	34	78.4	74.6	30.2	M16	62.2	44.1	14.5	6.3	FX13	UCX13	UCFX13	
	208	58	166	23	22	33	78	75	30	M20	92.7	59.9	13.2	7.8	F313	UC313	UCF313	
70	193	54	152	19	22	31	75.4	74.6	30.2	M16	62.2	44.1	14.5	5.9	F214	UC214	UCF214	
	197	60	152	23	22	37	81.5	77.8	33.3	M20	67.4	48.3	14.5	7.0	FX14	UCX14	UCFX14	
	226	61	178	25	25	36	81	78	33	M22	104	68.2	13.2	10.1	F314	UC314	UCF314	
75	200	56	159	19	22	34	78.5	77.8	33.3	M16	67.4	48.3	14.5	6.4	F215	UC215	UCF215	
	197	68	152	23	24	40	89.3	82.6	33.3	M20	72.7	53.0	14.6	8.4	FX15	UCX15	UCFX15	
	236	66	184	25	25	39	89	82	32	M22	113	77.2	13.2	11.6	F315	UC315	UCF315	
80	208	58	165	23	22	34	83.3	82.6	33.3	M20	72.7	53.0	14.6	7.3	F216	UC216	UCF216	
	214	70	171	23	24	40	91.6	85.7	34.1	M20	84.0	61.9	14.5	9.4	FX16	UCX16	UCFX16	
	250	68	196	31	27	38	90	86	34	M27	123	86.7	13.3	12.8	F316	UC316	UCF316	
85	220	63	175	23	24	36	87.6	85.7	34.1	M20	84.0	61.9	14.5	8.9	F217	UC217	UCF217	
	214	70	171	23	24	40	96.3	96	39.7	M20	96.1	71.5	14.5	10.8	FX17	UCX17	UCFX17	
	260	74	204	31	27	44	100	96	40	M27	133	96.8	13.3	15.3	F317	UC317	UCF317	
90	235	68	187	23	25	40	96.3	96	39.7	M20	96.1	71.5	14.5	11.4	F218	UC218	UCF218	
	214	76	171	23	24	45	106.1	104	42.9	M20	109	81.9	14.4	11.9	FX18	UCX18	UCFX18	
	280	76	216	35	30	44	100	96	40	M30	143	107	13.3	18.9	F318	UC318	UCF318	
95	290	94	228	35	30	59	121	103	41	M30	153	119	13.3	21.6	F319	UC319	UCF319	
100	268	97	211	31	28	59	127.3	117.5	49.2	M27	133	105	14.4	19.4	FX20	UCX20	UCFX20	
	310	94	242	38	32	59	125	108	42	M33	173	141	13.2	25.8	F320	UC320	UCF320	
105	310	94	242	38	32	59	127	112	44	M33	184	153	13.2	30.2	F321	UC321	UCF321	
	110	340	96	266	41	35	60	131	117	46	M36	205	180	13.2	35.3	F322	UC322	UCF322
	120	370	110	290	41	40	65	140	126	51	M36	207	185	13.5	47.3	F324	UC324	UCF324
	130	410	115	320	41	45	65	146	135	54	M36	229	214	13.6	65.5	F326	UC326	UCF326
	140	450	125	350	41	55	75	161	145	59	M36	253	246	13.6	93.4	F328	UC328	UCF328

BEARING UNITS
Square Four-Bolt
Flange Type Unit, UKF

Table 145

Bore Diameter
20mm – 125mm

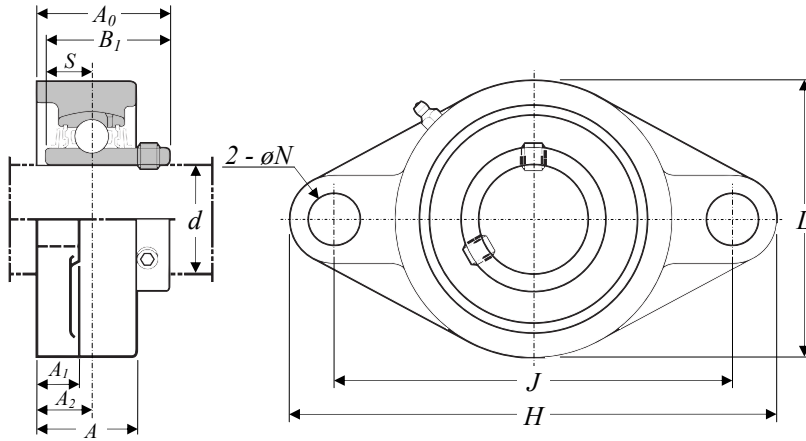


Principal Dimensions										Bolt Size	Basic Load Ratings		Fact f ₀	Mass	Designations			
d	L	A	J	N	A ₁	A ₂	A ₀	B ₁	d _e		C _r	C _{0r}			Housing No.	Bearing No.	Unit No.	Adapter No.
mm										mm	kN		kg					
20	95	27	70	12	13	16	34.5	29	30	M10	14.0	7.85	13.9	0.87	F205	UK205	UKF205	H305X
	108	30	83	12	13	18	37.5	35	30	M10	19.5	11.3	13.9	1.2	FX05	UKX05	UKFX05	H2305X
	110	29	80	16	13	16	37.5	35	-	M14	21.2	10.9	12.6	1.4	F305	UK305	UKF305	H2305X
25	108	31	83	12	13	18	37.5	31	36	M10	19.5	11.3	13.9	1.3	F206	UK206	UKF206	H306X
	117	34	92	16	14	19	40	38	36	M14	25.7	15.4	13.9	1.6	FX06	UKX06	UKFX06	H2306X
	125	32	95	16	15	18	41	38	-	M14	26.7	15.0	13.3	1.9	F306	UK306	UKF306	H2306X
30	117	34	92	14	15	19	41	35	41	M12	25.7	15.4	13.9	1.6	F207	UK207	UKF207	H307X
	130	38	102	16	14	21	43.5	43	41	M14	29.1	17.8	14.0	2.0	FX07	UKX07	UKFX07	H2307X
	135	36	100	19	16	20	45.5	43	-	M16	33.4	19.3	13.2	2.3	F307	UK307	UKF307	H2307X
35	130	36	102	16	15	21	44.5	36	46	M14	29.1	17.8	14.0	1.9	F208	UK208	UKF208	H308X
	137	40	105	19	14	22	46.5	46	46	M16	34.1	21.3	14.0	2.3	FX08	UKX08	UKFX08	H2308X
	150	40	112	19	17	23	50.5	46	-	M16	40.7	24.0	13.2	3.1	F308	UK308	UKF308	H2308X
40	137	38	105	16	16	22	47.5	39	52	M14	34.1	21.3	14.0	2.3	F209	UK209	UKF209	H309X
	143	40	111	19	14	23	48.5	50	52	M16	35.1	23.3	14.4	2.7	FX09	UKX09	UKFX09	H2309X
	160	44	125	19	18	25	55	50	-	M16	48.9	29.5	13.3	4.1	F309	UK309	UKF309	H2309X
45	143	40	111	16	16	22	48.5	42	58	M14	35.1	23.3	14.4	2.6	F210	UK210	UKF210	H310X
	162	44	130	19	20	26	53.5	55	58	M16	43.4	29.4	14.4	3.6	FX10	UKX10	UKFX10	H2310X
	175	48	132	23	19	28	60	55	-	M20	62.0	38.3	13.2	5.1	F310	UK310	UKF310	H2310X
50	162	43	130	19	18	25	52.5	45	64	M16	43.4	29.4	14.4	3.5	F211	UK211	UKF211	H311X
	175	49	143	19	20	29	57.5	59	64	M16	52.4	36.2	14.4	4.6	FX11	UKX11	UKFX11	H2311X
	185	52	140	23	20	30	63.5	59	-	M20	71.6	45.0	13.2	5.9	F311	UK311	UKF311	H2311X
55	175	48	143	19	18	29	58.5	47	69	M16	52.4	36.2	14.4	4.1	F212	UK212	UKF212	H312X
	187	59	149	19	21	34	65	62	69	M16	57.2	40.1	14.4	5.5	FX12	UKX12	UKFX12	H2312X
	195	56	150	23	22	33	69.5	62	-	M20	81.9	52.2	13.2	6.8	F312	UK312	UKF312	H2312X
60	187	50	149	19	22	30	62	50	74	M16	57.2	40.1	14.4	5.1	F213	UK213	UKF213	H313X
	187	59	149	19	21	34	68	65	74	M16	62.2	44.1	14.5	6.0	FX13	UKX13	UKFX13	H2313X
	208	58	166	23	22	33	71.5	65	-	M20	92.7	59.9	13.2	7.9	F313	UK313	UKF313	H2313X
65	200	56	159	19	22	34	69	55	85	M16	67.4	48.3	14.5	6.5	F215	UK215	UKF215	H315X
	197	68	152	23	24	40	76	73	85	M20	72.7	53.0	14.6	8.1	FX15	UKX15	UKFX15	H2315X
	236	66	184	25	25	39	81.5	73	-	M22	113	77.2	13.2	11.7	F315	UK315	UKF315	H2315X
70	208	58	165	23	22	34	72	59	90	M20	72.7	53.0	14.6	7.6	F216	UK216	UKF216	H316X
	214	70	171	23	24	40	79	78	90	M20	84.0	61.9	14.5	9.5	FX16	UKX16	UKFX16	H2316X
	250	68	196	31	27	38	82.5	78	-	M27	123	86.7	13.3	12.9	F316	UK316	UKF316	H2316X
75	220	63	175	23	24	36	76	63	96	M20	84.0	61.9	14.5	9.0	F217	UK217	UKF217	H317X
	214	70	171	23	24	40	82	82	96	M20	96.1	71.5	14.5	10.4	FX17	UKX17	UKFX17	H2317X
	260	74	204	31	27	44	92	82	-	M27	133	96.8	13.3	15.2	F317	UK317	UKF317	H2317X
80	235	68	187	23	25	40	82	65	102	M20	96.1	71.5	14.5	11.4	F218	UK218	UKF218	H318X
	214	76	171	23	24	45	88	86	102	M20	109	81.9	14.4	11.4	FX18	UKX18	UKFX18	H2318X
	280	76	216	35	30	44	92	86	-	M30	143	107	13.3	19.0	F318	UK318	UKF318	H2318X
85	290	94	228	35	30	59	111	90	-	M30	153	119	13.3	21.9	F319	UK319	UKF319	H2319X
90	268	97	211	31	28	59	106	97	112	M27	133	105	14.4	18.4	FX20	UKX20	UKFX20	H2320X
	310	94	242	38	32	59	113	97	-	M33	173	141	13.2	25.4	F320	UK320	UKF320	H2320X
100	340	96	266	41	35	60	120	105	-	M36	205	180	13.2	35.2	F322	UK322	UKF322	H2322X
110	370	110	290	41	40	65	130.5	112	-	M36	207	185	13.5	47.6	F324	UK324	UKF324	H2324
115	410	115	320	41	45	65	131.5	121	-	M36	229	214	13.6	65.3	F326	UK326	UKF326	H2326
125	450	125	350	41	55	75	147.5	131	-	M36	253	246	13.6	93.4	F328	UK328	UKF328	H2328

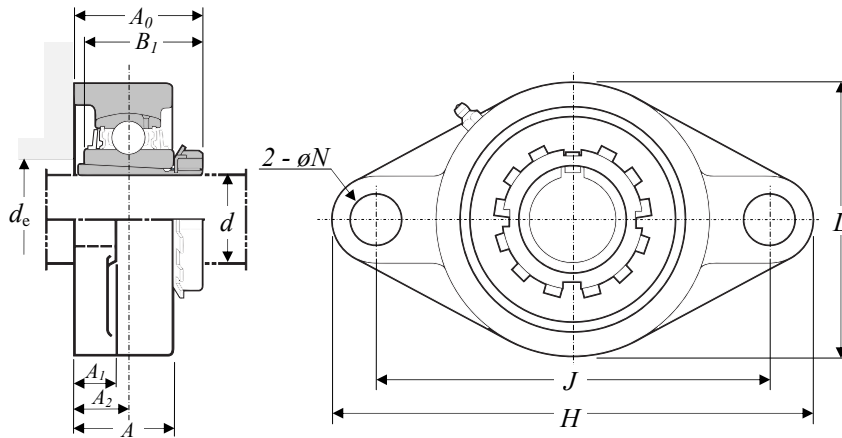
BEARING UNITS
Oval Flange Type unit
UCFL

Table 146

Bore Diameter
12mm – 140mm



Principal Dimensions											Bolt Size	Basic Load Ratings		Fact f_0	Mass	Designations		
d	H	L	A	J	N	A ₁	A ₂	A ₀	B	S		C _r	C _{0r}			Housing No.	Bearing No.	Unit No.
mm											mm	kN		kg				
12	113	60	25.5	90	12	11	15	33.3	31	12.7	M10	12.8	6.65	13.2	0.50	FL204	UC201	UCFL201
15	113	60	25.5	90	12	11	15	33.3	31	12.7	M10	12.8	6.65	13.2	0.48	FL204	UC202	UCFL202
17	113	60	25.5	90	12	11	15	33.3	31	12.7	M10	12.8	6.65	13.2	0.47	FL204	UC203	UCFL203
20	113	60	25.5	90	12	11	15	33.3	31	12.7	M10	12.8	6.65	13.2	0.45	FL204	UC204	UCFL204
25	130	68	27	99	16	13	16	35.8	34.1	14.3	M14	14.0	7.85	13.9	0.64	FL205	UC205	UCFL205
	141	83	30	117	12	13	18	40.2	38.1	15.9	M10	19.5	11.3	13.9	1.1	FLX05	UCX05	UCFLX05
	150	80	29	113	19	13	16	39	38	15	M16	21.2	10.9	12.6	1.1	FL305	UC305	UCFL305
30	148	80	31	117	16	13	18	40.2	38.1	15.9	M14	19.5	11.3	13.9	0.93	FL206	UC206	UCFL206
	156	95	34	130	16	14	19	44.4	42.9	17.5	M14	25.7	15.4	13.9	1.5	FLX06	UCX06	UCFLX06
	180	90	32	134	23	15	18	44	43	17	M20	26.7	15.0	13.3	1.5	FL306	UC306	UCFL306
35	161	90	34	130	16	14	19	44.4	42.9	17.5	M14	25.7	15.4	13.9	1.2	FL207	UC207	UCFL207
	171	105	38	144	16	14	21	51.2	49.2	19	M14	29.1	17.8	14.0	1.9	FLX07	UCX07	UCFLX07
	185	100	36	141	23	16	20	49	48	19	M20	33.4	19.3	13.2	1.8	FL307	UC307	UCFL307
40	175	100	36	144	16	14	21	51.2	49.2	19	M14	29.1	17.8	14.0	1.6	FL208	UC208	UCFL208
	179	111	40	148	16	14	22	52.2	49.2	19	M14	34.1	21.3	14.0	2.1	FLX08	UCX08	UCFLX08
	200	112	40	158	23	17	23	56	52	19	M20	40.7	24.0	13.2	2.5	FL308	UC308	UCFL308
45	188	108	38	148	19	15	22	52.2	49.2	19	M16	34.1	21.3	14.0	1.9	FL209	UC209	UCFL209
	189	116	40	157	16	14	23	55.6	51.6	19	M14	35.1	23.3	14.4	2.4	FLX09	UCX09	UCFLX09
	230	125	44	177	25	18	25	60	57	22	M22	48.9	29.5	13.3	3.5	FL309	UC309	UCFL309
50	197	115	40	157	19	15	22	54.6	51.6	19	M16	35.1	23.3	14.4	2.2	FL210	UC210	UCFL210
	216	133	44	184	19	20	26	59.4	55.6	22.2	M16	43.4	29.4	14.4	3.8	FLX10	UCX10	UCFLX10
	240	140	48	187	25	19	28	67	61	22	M22	62.0	38.3	13.2	4.4	FL310	UC310	UCFL310
55	224	130	43	184	19	18	25	58.4	55.6	22.2	M16	43.4	29.4	14.4	3.3	FL211	UC211	UCFL211
	250	150	52	198	25	20	30	71	66	25	M22	71.6	45.0	13.2	5.3	FL311	UC311	UCFL311
60	250	140	48	202	23	18	29	68.7	65.1	25.4	M20	52.4	36.2	14.4	4.2	FL212	UC212	UCFL212
	270	160	56	212	31	22	33	78	71	26	M27	81.9	52.2	13.2	6.5	FL312	UC312	UCFL312
65	258	155	50	210	23	20	30	69.7	65.1	25.4	M20	57.2	40.1	14.4	5.1	FL213	UC213	UCFL213
	295	175	58	240	31	25	33	78	75	30	M27	92.7	59.9	13.2	8.5	FL313	UC313	UCFL313
70	265	160	54	216	23	20	31	75.4	74.6	30.2	M20	62.2	44.1	14.5	5.7	FL214	UC214	UCFL214
	315	185	61	250	35	28	36	81	78	33	M30	104	68.2	13.2	9.7	FL314	UC314	UCFL314
75	275	165	56	225	23	20	34	78.5	77.8	33.3	M20	67.4	48.3	14.5	6.4	FL215	UC215	UCFL215
	320	195	66	260	35	30	39	89	82	32	M30	113	77.2	13.2	11.3	FL315	UC315	UCFL315
80	290	180	58	233	25	20	34	83.3	82.6	33.3	M22	72.7	53.0	14.6	7.8	FL216	UC216	UCFL216
	355	210	68	285	38	32	38	90	86	34	M33	123	86.7	13.3	14.4	FL316	UC316	UCFL316
85	305	190	63	248	25	22	36	87.6	85.7	34.1	M22	84.0	61.9	14.5	9.8	FL217	UC217	UCFL217
	370	220	74	300	38	32	44	100	96	40	M33	133	96.8	13.3	16.0	FL317	UC317	UCFL317
90	320	205	68	265	25	23	40	96.3	96	39.7	M22	96.1	71.5	14.5	12.3	FL218	UC218	UCFL218
	385	235	76	315	38	36	44	100	96	40	M33	143	107	13.3	19.0	FL318	UC318	UCFL318
95	405	250	94	330	41	40	59	121	103	41	M36	153	119	13.3	24.6	FL319	UC319	UCFL319
100	440	270	94	360	44	40	59	125	108	42	M39	173	141	13.2	29.4	FL320	UC320	UCFL320
105	440	270	94	360	44	40	59	127	112	44	M39	184	153	13.2	34.4	FL321	UC321	UCFL321
110	470	300	96	390	44	42	60	131	117	46	M39	205	180	13.2	36.2	FL322	UC322	UCFL322
120	520	330	110	430	47	48	65	140	126	51	M42	207	185	13.5	51.6	FL324	UC324	UCFL324
130	550	360	115	460	47	50	65	146	135	54	M42	229	214	13.6	61.6	FL326	UC326	UCFL326
140	600	400	125	500	51	60	75	161	145	59	M45	253	246	13.6	68.4	FL328	UC328	UCFL328



BEARING UNITS
Oval Flange Type unit
UKFL

Table 147

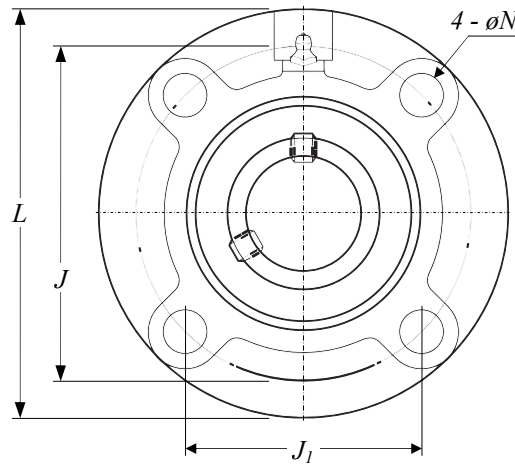
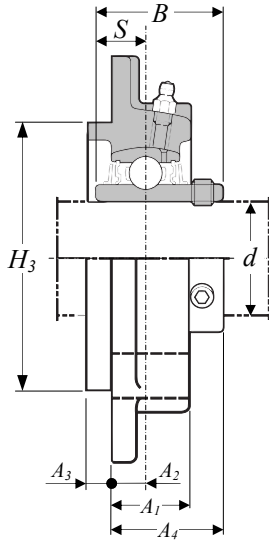
Bore Diameter
20mm – 125mm

Principal Dimensions												Bolt Size	Basic Load Ratings		Fact	Mass	Designations			
d	H	L	A	J	N	A ₁	A ₂	A ₀	B ₁	d _e	mm		C _r	C _{0r}			f ₀	kg	Housing No.	Bearing No.
20	130	68	27	99	16	13	16	34.5	29	30	M14	14.0	7.85	13.9	0.68	FL205	UK205	UKFL205	H305X	
	141	83	30	117	12	13	18	37.5	35	30	M10	19.5	11.3	13.9	1.0	FLX05	UKX05	UKFLX05	H2305X	
	150	80	29	113	19	13	16	37.5	35	-	M16	21.2	10.9	12.6	1.1	FL305	UK305	UKFL305	H2305X	
25	148	80	31	117	16	13	18	37.5	31	36	M14	19.5	11.3	13.9	0.97	FL206	UK206	UKFL206	H306X	
	156	95	34	130	16	14	19	40	38	36	M14	25.7	15.4	13.9	1.5	FLX06	UKX06	UKFLX06	H2306X	
	180	90	32	134	23	15	18	41	38	-	M20	26.7	15.0	13.3	1.5	FL306	UK306	UKFL306	H2306X	
30	161	90	34	130	16	14	19	41	35	41	M14	25.7	15.4	13.9	1.3	FL207	UK207	UKFL207	H307X	
	171	105	38	144	16	14	21	43.5	43	41	M14	29.1	17.8	14.0	1.8	FLX07	UKX07	UKFLX07	H2307X	
	185	100	36	141	23	16	20	45.5	43	-	M20	33.4	19.3	13.2	1.9	FL307	UK307	UKFL307	H2307X	
35	175	100	36	144	16	14	21	44.5	36	46	M14	29.1	17.8	14.0	1.6	FL208	1JK208	UKFL208	H308X	
	179	111	40	148	16	14	22	46.5	46	46	M14	34.1	21.3	14.0	2.1	FLX08	UKX08	UKFLX08	H2308X	
	200	112	40	158	23	17	23	50.5	46	-	M20	40.7	24.0	13.2	2.5	FL308	UK308	UKFL308	H2308X	
40	188	108	38	148	19	15	22	47.5	39	52	M16	34.1	21.3	14.0	2.0	FL209	UK209	UKFL209	H309X	
	189	116	40	157	16	14	23	48.5	50	52	M14	35.1	23.3	14.4	2.5	FLX09	UKX09	UKFLX09	H2309X	
	230	125	44	177	25	18	25	55	50	-	M22	48.9	29.5	13.3	3.6	FL309	1JK309	UKFL309	H2309X	
45	197	115	40	157	19	15	22	48.5	42	58	M16	35.1	23.3	14.4	2.3	FL210	UK210	UKFL210	H310X	
	216	133	44	184	19	20	26	53.5	55	58	M16	43.4	29.4	14.4	3.7	FLX10	UKX10	UKFLX10	H2310X	
	240	140	48	187	25	19	28	60	55	-	M22	62.0	38.3	13.2	4.4	FL310	UK310	UKFL310	H2310X	
50	224	130	43	184	19	18	25	52.5	45	64	M16	43.4	29.4	14.4	3.3	FL211	UK211	UKFL211	H311X	
	250	150	52	198	25	20	30	63.5	59	-	M22	71.6	45.0	13.2	5.6	FL311	UK311	UKFL311	H2311X	
55	250	140	48	202	23	18	29	58.5	47	69	M20	52.4	36.2	14.4	4.1	FL212	UK212	UKFL212	H312X	
	270	160	56	212	31	22	33	69.5	62	-	M27	81.9	52.2	13.2	6.9	FL312	UK312	UKFL312	H2312X	
60	258	155	50	210	23	20	30	62	50	74	M20	57.2	40.1	14.4	5.0	FL213	UK213	UKFL213	H313X	
	295	175	58	240	31	25	33	71.5	65	-	M27	92.7	59.9	13.2	8.6	FL313	UK313	UKFL313	H2313X	
65	275	165	56	225	23	20	34	69	55	85	M20	67.4	48.3	14.5	6.6	FL215	UK215	UKFL215	H315X	
	320	195	66	260	35	30	39	81.5	73	-	M30	113	77.2	13.2	11.4	FL315	UK315	UKFL315	H2315X	
70	290	180	58	233	25	20	34	72	59	90	M22	72.7	53.0	14.6	8.1	FL216	UK216	UKFL216	H316X	
	355	210	68	285	38	32	38	82.5	78	-	M33	123	86.7	13.3	13.9	FL316	UK316	UKFL316	H2316X	
75	305	190	63	248	25	22	36	76	63	96	M22	84.0	61.9	14.5	9.9	FL217	UK217	UKFL217	H317X	
	370	220	74	300	38	32	44	92	82	-	M33	133	96.8	13.3	15.8	FL317	UK317	UKFL317	H2317X	
80	320	205	68	265	25	23	40	82	65	102	M22	96.1	71.5	14.5	12.2	FL218	UK218	UKFL218	H318X	
	385	235	76	315	38	36	44	92	86	-	M33	143	107	13.3	19.1	FL318	UK318	UKFL318	H2318X	
85	405	250	94	330	41	40	59	111	90	-	M36	153	119	13.3	24.9	FL319	UK319	UKFL319	H2319X	
90	440	270	94	360	44	40	59	113	97	-	M39	173	141	13.2	29.0	FL320	UK320	UKFL320	H2320X	
100	470	300	96	390	44	42	60	120	105	-	M39	205	180	13.2	36.1	FL322	UK322	UKFL322	H2322X	
110	520	330	110	430	47	48	65	130.5	112	-	M42	207	185	13.5	51.9	FL324	UK324	UKFL324	H2324	
115	550	360	115	460	47	50	65	131.5	121	-	M42	229	214	13.6	61.4	FL326	UK326	UKFL326	H2326	
125	600	400	125	500	51	60	75	147.5	131	-	M45	253	246	13.6	68.4	FL328	UK328	UKFL328	H2328	

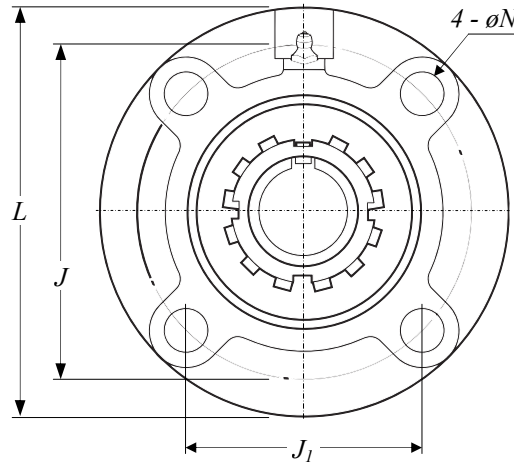
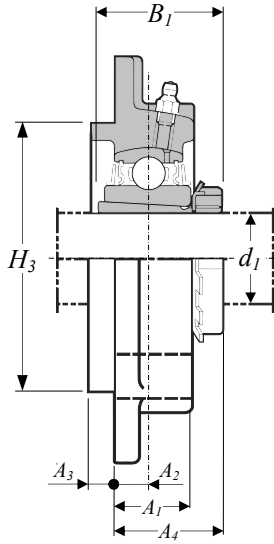
BEARING UNITS
Round Flange Catridge
Type Units, UCFC

Table 148

Bore Diameter
12mm – 100mm



Principal Dimensions												Bolt Size	Basic Load Ratings		Fact f_0	Mass	Designations		
d	L	H_3	J	J_1	N	A_1	A_2	A_3	A_4	B	S		C_r	C_{0r}			kg	Housing No.	Bearing No.
12	100	62	78	55.1	12	20.5	10	5	28.3	31	12.7	M10	12.8	6.65	13.2	0.78	FC204	UC201	UCFC201
15	100	62	78	55.1	12	20.5	10	5	28.3	31	12.7	M10	12.8	6.65	13.2	0.76	FC204	UC202	UCFC202
17	100	62	78	55.1	12	20.5	10	5	28.3	31	12.7	M10	12.8	6.65	13.2	0.75	FC204	UC203	UCFC203
20	100	62	78	55.1	12	20.5	10	5	28.3	31	12.7	M10	12.8	6.65	13.2	0.73	FC204	UC204	UCFC204
25	115	70	90	63.6	12	21	10	6	29.8	34.1	14.3	M10	14.0	7.85	13.9	0.95	FC205	UC205	UCFC205
	111	76	92	65	9.5	24	10	6	32.2	38.1	15.9	M8	19.5	11.3	13.9	1.2	FCX05	UCX05	UCFCX05
30	125	80	100	70.7	12	23	10	8	32.2	38.1	15.9	M10	19.5	11.3	13.9	1.3	FC206	UC206	UCFC206
	127	85	105	74.2	12	22.5	8	9.5	33.4	42.9	17.5	M10	25.7	15.4	13.9	1.5	FCX06	UCX06	UCFCX06
35	135	90	110	77.8	14	26	11	8	36.4	42.9	17.5	M12	25.7	15.4	13.9	1.7	FC207	UC207	UCFC207
	133	92	111	78.5	12	26	9	11	39.2	49.2	19	M10	29.1	17.8	14.0	1.9	FCX07	UCX07	UCFCX07
40	145	100	120	84.8	14	26	11	10	41.2	49.2	19	M12	29.1	17.8	14.0	2.0	FC208	UC208	UCFC208
	133	92	111	78.5	12	26	9	11	39.2	49.2	19	M10	34.1	21.3	14.0	2.0	FCX08	UCX08	UCFCX08
45	160	105	132	93.3	16	26	10	12	40.2	49.2	19	M14	34.1	21.3	14.0	2.6	FC209	UC209	UCFC209
	155	108	130	91.9	14	25	8	12	40.6	51.6	19	M12	35.1	23.3	14.4	2.6	FCX09	UCX09	UCFCX09
50	165	110	138	97.6	16	28	10	12	42.6	51.6	19	M14	35.1	23.3	14.4	2.9	FC210	UC210	UCFC210
	162	118	136	96.2	14	25	7	16	40.4	55.6	22.2	M12	43.4	29.4	14.4	3.2	FCX10	UCX10	UCFCX10
55	185	125	150	106.1	19	31	13	12	46.4	55.6	22.2	M16	43.4	29.4	14.4	4.2	FC211	UC211	UCFC211
	180	127	152	107.5	16	26	4	22	43.7	65.1	25.4	M14	52.4	36.2	14.4	4.3	FCX11	UCX11	UCFCX11
60	195	135	160	113.1	19	36	17	12	56.7	65.1	25.4	M16	52.4	36.2	14.4	5.0	FC212	UC212	UCFC212
	194	140	165	116.7	16	33	11	20	50.7	65.1	25.4	M14	57.2	40.1	14.4	5.3	FCX12	UCX12	UCFCX12
65	205	145	170	120.2	19	36	16	14	55.7	65.1	25.4	M16	57.2	40.1	14.4	5.6	FC213	UC213	UCFC213
	194	140	165	116.7	16	33	11	20	55.4	74.6	30.2	M14	62.2	44.1	14.5	5.7	FCX13	UCX13	UCFCX13
70	215	150	177	125.1	19	40	17	14	61.4	74.6	30.2	M16	62.2	44.1	14.5	6.8	FC214	UC214	UCFC214
	222	164	190	134.3	19	36	14	20	58.5	77.8	33.3	M16	67.4	48.3	14.5	7.3	FCX14	UCX14	UCFCX14
75	220	160	184	130.1	19	40	18	16	62.5	77.8	33.3	M16	67.4	48.3	14.5	7.2	FC215	UC215	UCFC215
	222	164	190	134.3	19	35	12	22	61.3	82.6	33.3	M16	72.7	53.0	14.6	8.0	FCX15	UCX15	UCFCX15
80	240	170	200	141.4	23	42	18	16	67.3	82.6	33.3	M20	72.7	53.0	14.6	8.7	FC216	UC216	UCFC216
	260	186	219	154.8	23	36	10	25	61.6	85.7	34.1	M20	84.0	61.9	14.5	11.3	FCX16	UCX16	UCFCX16
85	250	180	208	147.1	23	45	18	18	69.6	85.7	34.1	M20	84.0	61.9	14.5	10.3	FC217	UC217	UCFC217
	260	186	219	154.8	23	36	10	25	66.3	96	39.7	M20	96.1	71.5	14.5	12.9	FCX17	UCX17	UCFCX17
90	265	190	220	155.5	23	50	22	18	78.3	96	39.7	M20	96.1	71.5	14.5	13.3	FC218	UC218	UCFC218
	260	186	219	154.8	23	43	12	28	73.1	104	42.9	M20	109	81.9	14.4	13.5	FCX18	UCX18	UCFCX18
100	276	206	238	168.3	23	66	22	28	90.3	118	49.2	M20	133	105	14.4	18.2	FCX20	UCX20	UCFCX20



BEARING UNITS
Round Flange Catridge
Type Units, UKFC

Table 149

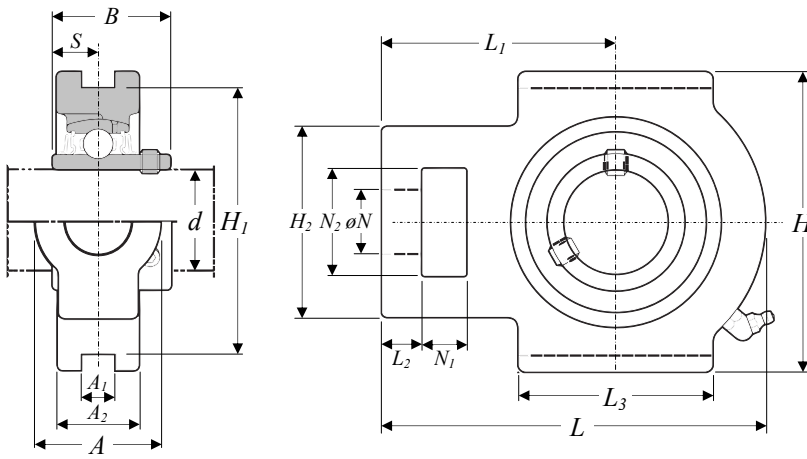
Bore Diameter
20mm – 75mm

Principal Dimensions											Bolt Size	Basic Load Ratings		Fact f_0	Mass kg	Designations		
d_1	L	H_3	J	J_1	N	A_1	A_2	A_3	A_4	B_1		C_r	C_{0r}			Housing No.	Bearing No.	Unit No.
20	115	70	90	63.6	12	21	10	6	28.5	29	M10	14.0	7.85	13.9	0.99	FC205	UK205	UKFC205
	111	76	92	65	9.5	24	10	6	29.5	35	M8	19.5	11.3	13.9	1.2	FCX05	UKX05	UKFCX05
25	125	80	100	70.7	12	23	10	8	29.5	31	M10	19.5	11.3	13.9	1.3	FC206	UK206	UKFC206
	127	85	105	74.2	12	22.5	8	9.5	29	38	M10	25.7	15.4	13.9	1.5	FCX06	UKX06	UKFCX06
30	135	90	110	77.8	14	26	11	8	33	35	M12	25.7	15.4	13.9	1.7	FC207	UK207	UKFC207
	133	92	111	78.5	12	26	9	11	31.5	43	M10	29.1	17.8	14.0	1.9	FCX07	UKX07	UKFCX07
35	145	100	120	84.8	14	26	11	10	34.5	36	M12	29.1	17.8	14.0	2.0	FC208	UK208	UKFC208
	133	92	111	78.5	12	26	9	11	33.5	46	M10	34.1	21.3	14.0	1.9	FCX08	UKX08	UKFCX08
40	160	105	132	93.3	16	26	10	12	35.5	39	M14	34.1	21.3	14.0	2.7	FC209	UK209	UKFC209
	155	108	130	91.9	14	25	8	12	33.5	50	M12	35.1	23.3	14.4	2.6	FCX09	UKX09	UKFCX09
45	165	110	138	97.6	16	28	10	12	36.5	42	M14	35.1	23.3	14.4	3.0	FC210	UK210	UKFC210
	162	118	136	96.2	14	25	7	16	34.5	55	M12	43.4	29.4	14.4	3.1	FCX10	UKX10	UKFCX10
50	185	125	150	106.1	19	31	13	12	40.5	45	M16	43.4	29.4	14.4	4.3	FC211	UK211	UKFC211
	180	127	152	107.5	16	26	4	22	32.5	59	M14	52.4	36.2	14.4	4.0	FCX11	UKX11	UKFCX11
55	195	135	160	113.1	19	36	17	12	46.5	47	M16	52.4	36.2	14.4	4.9	FC212	UK212	UKFC212
	194	140	165	116.7	16	33	11	20	42	62	M14	57.2	40.1	14.4	5.1	FCX12	UKX12	UKFCX12
60	205	145	170	120.2	19	36	16	14	48	50	M16	57.2	40.1	14.4	5.5	FC213	UK213	UKFC213
	194	140	165	116.7	16	33	11	20	45	65	M14	62.2	44.1	14.5	5.3	FCX13	UKX13	UKFCX13
65	220	160	184	130.1	19	40	18	16	53	55	M16	67.4	48.3	14.5	7.4	FC215	UK215	UKFC215
	222	164	190	134.3	19	35	12	22	48	73	M16	72.7	53.0	14.6	7.7	FCX15	UKX15	UKFCX15
70	240	170	200	141.4	23	42	18	16	56	59	M20	72.7	53.0	14.6	9.0	FC216	UK216	UKFC216
	260	186	219	154.8	23	36	10	25	49	78	M20	84.0	61.9	14.5	11.4	FCX16	UKX16	UKFCX16
75	250	180	208	147.1	23	45	18	18	58	63	M20	84.0	61.9	14.5	10.4	FC217	UK217	UKFC217
	260	186	219	154.8	23	36	10	25	52	82	M20	96.1	71.5	14.5	12.6	FCX17	UKX17	UKFCX17

BEARING UNITS
Take Up Type Units, UCT

Table 150

Bore Diameter
12mm – 140mm

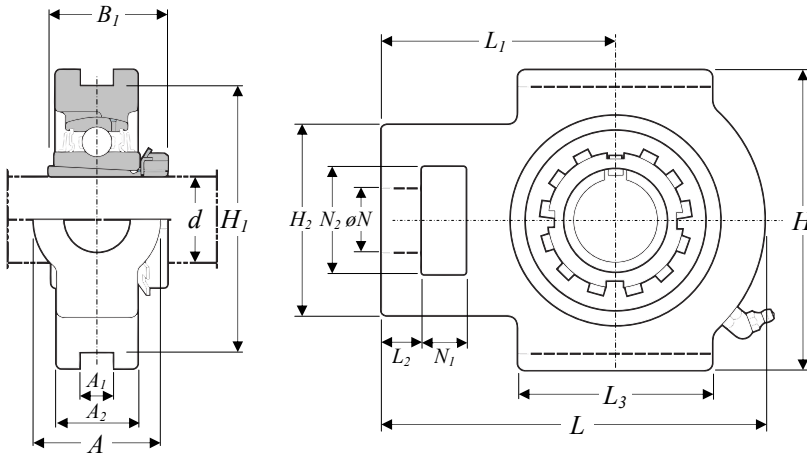


Principal Dimensions																	Basic Load Ratings		Mass	Designations		
d	A	A ₁	A ₂	H	H ₁	H ₂	L	L ₁	L ₂	L ₃	N	N ₁	N ₂	B	S	C _r	C _{0r}	kg		Housing No.	Bearing No.	Unit No.
mm																	kN					
12	32	12	21	89	76	51	94	61	10	51	19	16	32	31	12.7	12.8	6.65	0.81	T204	UC201	UCT201	
15	32	12	21	89	76	51	94	61	10	51	19	16	32	31	12.7	12.8	6.65	0.79	T204	UC202	UCT202	
17	32	12	21	89	76	51	94	61	10	51	19	16	32	31	12.7	12.8	6.65	0.78	T204	UC203	UCT203	
20	32	12	21	89	76	51	94	61	10	51	19	16	32	31	12.7	12.8	6.65	0.76	T204	UC204	UCT204	
25	32	12	24	89	76	51	97	62	10	51	19	16	32	34.1	14.3	14.0	7.85	0.84	T205	UC205	UCT205	
	37	12	28	102	89	56	113	70	10	57	22	16	37	38.1	15.9	19.5	11.3	1.4	TX05	UCX05	UCTX05	
	36	12	26	89	80	62	122	76	12	65	26	16	36	38	15	21.2	10.9	1.4	T305	UC305	UCT305	
30	37	12	28	102	89	56	113	70	10	57	22	16	37	38.1	15.9	19.5	11.3	1.3	T206	UC206	UCT206	
	37	12	30	102	89	64	129	78	13	64	22	16	37	42.9	17.5	25.7	15.4	1.7	TX06	UCX06	UCTX06	
	41	16	28	100	90	70	137	85	14	74	28	18	41	43	17	26.7	15.0	1.8	T306	UC306	UCT306	
35	37	12	30	102	89	64	129	78	13	64	22	16	37	42.9	17.5	25.7	15.4	1.6	T207	UC207	UCT207	
	49	16	36	114	102	83	144	88	15	83	29	19	49	49.2	19	29.1	17.8	2.7	TX07	UCX07	UCTX07	
	45	16	32	111	100	75	150	94	15	80	30	20	45	48	19	33.4	19.3	2.3	T307	UC307	UCT307	
40	49	16	33	114	102	83	144	88	16	83	29	19	49	49.2	19	29.1	17.8	2.5	T208	UC208	UCT208	
	49	16	36	117	102	83	144	87	15	83	29	19	49	49.2	19	34.1	21.3	2.6	TX08	UCX08	UCTX08	
	50	18	34	124	112	83	162	100	17	89	32	22	50	52	19	40.7	24.0	3.0	T308	UC308	UCT308	
45	49	16	35	117	102	83	144	87	16	83	29	19	49	49.2	19	34.1	21.3	2.4	T209	UC209	UCT209	
	49	16	38	117	102	83	149	90	16	86	29	19	49	51.6	19	35.1	23.3	2.9	TX09	UCX09	UCTX09	
	55	18	38	138	125	90	178	110	18	97	34	24	55	57	22	48.9	29.5	4.1	T309	UC309	UCT309	
50	49	16	37	117	102	83	149	90	16	86	29	19	49	51.6	19	35.1	23.3	2.6	T210	UC210	UCT210	
	64	22	42	146	130	102	171	106	19	95	35	25	64	55.6	22.2	43.4	29.4	4.4	TX10	UCX10	UCTX10	
	61	20	40	151	140	98	191	117	20	106	37	27	61	61	22	62.0	38.3	4.9	T310	UC310	UCT310	
55	64	22	38	146	130	102	171	106	19	95	35	25	64	55.6	22.2	43.4	29.4	4.0	T211	UC211	UCT211	
	64	22	44	146	130	102	194	119	19	102	35	32	64	65.1	25.4	52.4	36.2	5.3	TX11	UCX11	UCTX11	
	66	22	44	163	150	105	207	127	21	115	39	29	66	66	25	71.6	45.0	6.1	T311	UC311	UCT311	
60	64	22	42	146	130	102	194	119	19	102	35	32	64	65.1	25.4	52.4	36.2	4.9	T212	UC212	UCT212	
60	70	26	48	167	151	111	224	137	21	121	41	32	70	65.1	25.4	57.2	40.1	7.4	TX12	UCX12	UCTX12	
	71	22	46	178	160	113	220	135	23	123	41	31	71	71	26	81.9	52.2	7.6	T312	UC312	UCT312	
65	70	26	44	167	151	111	224	137	21	121	41	32	70	65.1	25.4	57.2	40.1	6.9	T213	UC213	UCT213	
	70	26	48	167	151	111	224	137	21	121	41	32	70	74.6	30.2	62.2	44.1	7.6	TX13	UCX13	UCTX13	
	80	26	50	190	170	116	238	146	25	134	43	32	70	75	30	92.7	59.9	9.3	T313	UC313	UCT313	
70	70	26	46	167	151	111	224	137	21	121	41	32	70	74.6	30.2	62.2	44.1	7.0	T214	UC214	UCT214	
	70	26	48	167	151	111	232	140	21	121	41	32	70	77.8	33.3	67.4	48.3	7.9	TX14	UCX14	UCTX14	
	90	26	52	202	180	130	252	155	25	140	46	36	85	78	33	104	68.2	11.1	T314	UC314	UCT314	
75	70	26	48	167	151	111	232	140	21	121	41	32	70	77.8	33.3	67.4	48.3	7.3	T215	UC215	UCT215	
	70	28	48	184	165	111	235	140	21	121	41	32	70	82.6	33.3	72.7	53.0	8.7	TX15	UCX15	UCTX15	
	90	26	55	216	192	132	262	160	25	150	46	36	85	82	32	113	77.2	13.0	T315	UC315	UCT315	
80	70	26	51	184	165	111	235	140	21	121	41	32	70	82.6	33.3	72.7	53.0	8.2	T216	UC216	UCT216	
	73	28	54	198	173	124	260	162	28	157	48	38	73	85.7	34.1	84.0	61.9	11.7	TX16	UCX16	UCTX16	
	102	30	60	230	204	150	282	174	28	160	53	42	98	86	34	123	86.7	16.2	T316	UC316	UCT316	
85	73	30	54	198	173	124	260	162	29	157	48	38	73	85.7	34.1	84.0	61.9	11.0	T217	UC217	UCT217	
	73	28	54	198	173	124	260	162	28	157	48	38	73	96	39.7	96.1	71.5	11.7	TX17	UCX17	UCTX17	
	102	32	64	240	214	152	298	183	30	170	53	42	98	96	40	133	96.8	19.0	T317	UC317	UCT317	
90	110	32	66	255	228	160	312	192	30	175	57	46	106	96	40	143	107	21.6	T318	UC318	UCT318	
95	110	35	72	270	240	165	322	197	31	180	57	46	106	103	41	153	119	24.9	T319	UC319	UCT319	
100	120	35	75	290	260	175	345	210	32	200	59	48	115	108	42	173	141	30.7	T320	UC320	UCT320	
105	120	35	75	290	260	175	345	210	32	200	59	48	115	112	44	184	153	36.7	T321	UC321	UCT321	
110	130	38	80	320	285	185	385	235	38	215	65	52	125	117	46	205	180	39.7	T322	UC322	UCT322	
120	140	45	90	355	320	210	432	267	42	230	70	60	140	126	51	207	185	54.4	T324	UC324	UCT324	
130	150	50	100	385	350	220	465	285	45	240	75	65	150	135	54	229	214	69.3	T326	UC326	UCT326	
140	155	50	100	415	380	230	515	315	50	255	80	70	160	145	59	253	246	85.1	T328	UC328	UCT328	

BEARING UNITS
Take Up Type Units, UKT

Table 151

Bore Diameter
20mm – 125mm

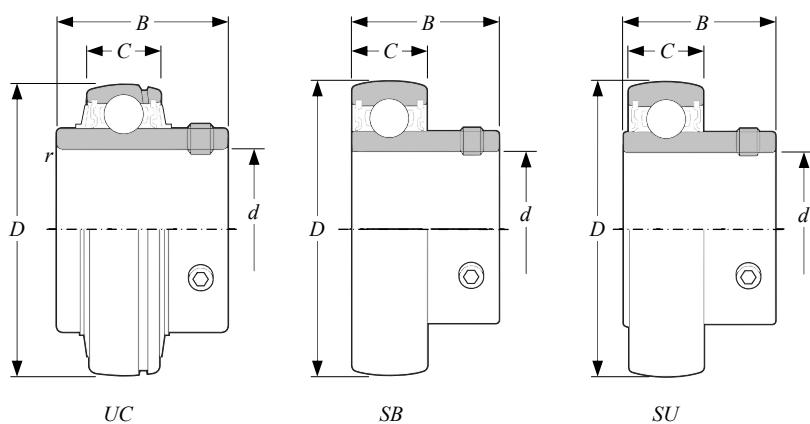


Principal Dimensions															Basic Load Ratings		Mass	Designations		
d	A	A ₁	A ₂	H	H ₁	H ₂	L	L ₁	L ₂	L ₃	N	N ₁	N ₂	B ₁	C _r	C _{0r}	kg	Housing No.	Bearing No.	Unit No.
20	32	12	24	89	76	51	97	62	10	51	19	16	32	29	14.0	7.85	0.88	T205	UK205	UKT205
	37	12	28	102	89	56	113	70	10	57	22	16	37	35	19.5	11.3	1.3	TX05	UKX05	UKTX05
	36	12	26	89	80	62	122	76	12	65	26	16	36	35	21.2	10.9	1.5	T305	UK305	UKT305
25	37	12	28	102	89	56	113	70	10	57	22	16	37	31	19.5	11.3	1.3	T206	UK206	UKT206
	37	12	30	102	89	64	129	78	13	64	22	16	37	38	25.7	15.4	1.7	TX06	UKX06	UKTX06
	41	16	28	100	90	70	137	85	14	74	28	18	41	38	26.7	15.0	1.9	T306	UK306	UKT306
30	37	12	30	102	89	64	129	78	13	64	22	16	37	35	25.7	15.4	1.7	T207	UK207	UKT207
	49	16	36	114	102	83	144	88	15	83	29	19	49	43	29.1	17.8	2.6	TX07	UKX07	UKTX07
	45	16	32	111	100	75	150	94	15	80	30	20	45	43	33.4	19.3	2.4	T307	UK307	UKT307
35	49	16	33	114	102	83	144	88	16	83	29	19	49	36	29.1	17.8	2.5	T208	1JK208	UKT208
	49	16	36	117	102	83	144	87	15	83	29	19	49	46	34.1	21.3	2.6	1X08	UKX08	UKT08
	50	18	34	124	112	83	162	100	17	89	32	22	50	46	40.7	24.0	3.0	T308	1JK308	UKT308
40	49	16	35	117	102	83	144	87	16	83	29	19	49	39	34.1	21.3	2.5	T209	1JK209	UKT209
	49	16	38	117	102	83	149	90	16	86	29	19	49	50	35.1	23.3	2.9	TX09	UKX09	UKTX09
	55	18	38	138	125	90	178	110	18	97	34	24	55	50	48.9	29.5	4.2	T309	1JK309	UKT309
45	49	16	37	117	102	83	149	90	16	86	29	19	49	42	35.1	23.3	2.7	T210	UK210	UKT210
	64	22	42	146	130	102	171	106	19	95	35	25	64	55	43.4	29.4	4.4	TX10	UKX10	UKTX10
	61	20	40	151	140	98	191	117	20	106	37	27	61	55	62.0	38.3	5.0	T310	UK310	UKT310
50	64	22	38	146	130	102	171	106	19	95	35	25	64	45	43.4	29.4	4.1	T211	UK211	UKT211
	64	22	44	146	130	102	194	119	19	102	35	32	64	59	52.4	36.2	5.1	TX11	UKX11	UKTX11
	66	22	44	163	150	105	207	127	21	115	39	29	66	59	71.6	45.0	6.4	T311	UK311	UKT311
55	64	22	42	146	130	102	194	119	19	102	35	32	64	47	52.4	36.2	4.8	T212	UK212	UKT212
	70	26	48	167	151	111	224	137	21	121	41	32	70	62	57.2	40.1	7.3	TX12	UKX12	UKTX12
	71	22	46	178	160	113	220	135	23	123	41	31	71	62	81.9	52.2	7.5	T312	UK312	UKT312
60	70	26	44	167	151	111	224	137	21	121	41	32	70	50	57.2	40.1	6.8	T213	UK213	UKT213
	70	26	48	167	151	111	224	137	21	121	41	32	70	65	62.2	44.1	7.2	TX13	UKX13	UKTX13
	80	26	50	190	170	116	238	146	25	134	43	32	70	65	92.7	59.9	9.4	T313	UK313	UKT313
65	70	26	48	167	151	111	232	140	21	121	41	32	70	55	67.4	48.3	7.4	T215	UK215	UKT215
	70	28	48	184	165	111	235	140	21	121	41	32	70	73	72.7	53.0	8.4	TX15	UKX15	UKTX15
	90	26	55	216	192	132	262	160	25	150	46	36	85	73	113	77.2	13.1	T315	UK315	UKT315
70	70	26	51	184	165	111	235	140	21	121	41	32	70	59	72.7	53.0	8.5	T216	UK216	UKT216
	73	28	54	198	173	124	260	162	28	157	48	38	73	78	84.0	61.9	11.8	TX16	UKX16	UKTX16
	102	30	60	230	204	150	282	174	28	160	53	42	98	78	123	86.7	16.3	T316	UK316	UKT316
75	73	30	54	198	173	124	260	162	29	157	48	38	73	63	84.0	61.9	11.2	T217	UK217	UKT217
	73	28	54	198	173	124	260	162	28	157	48	38	73	82	96.1	71.5	11.4	TX17	UKX17	UKTX17
	102	32	64	240	214	152	298	183	30	170	53	42	98	82	133	96.8	18.9	T317	UK317	UKT317
80	110	32	66	255	228	160	312	192	30	175	57	46	106	86	143	107	21.7	T318	UK318	UKT318
85	110	35	72	270	240	165	322	197	31	180	57	46	106	90	153	119	25.2	T319	UK319	UKT319
90	120	35	75	290	260	175	345	210	32	200	59	48	115	97	173	141	30.4	T320	UK320	UKT320
100	130	38	80	320	285	185	385	235	38	215	65	52	125	105	205	180	39.5	T322	UK322	UKT322
110	140	45	90	355	320	210	432	267	42	230	70	60	140	112	207	185	54.7	T324	UK324	UKT324
115	150	50	100	385	350	220	465	285	45	240	75	65	150	121	229	214	69.1	T326	UK326	UKT326
125	155	50	100	415	380	230	515	315	50	255	80	70	160	131	253	246	85.1	T328	UK328	UKT328

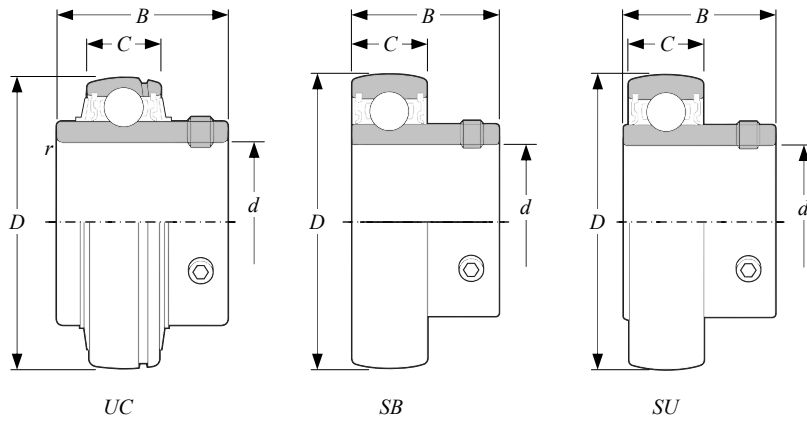
BALL BEARING INSERTS
UC, SB, SU Series

Table 152

Bore Diameter
8mm – 70mm



Principal Dimensions					Basic Load Ratings		Factor	Mass	Designation
d	D	B	C	r (min)	C _r	C _{0r}	f ₀		Bearing No.
mm					kN			Kg	
8	22	12	7	-	3.27	1.37	12.4	0.012	SU08
10	26	15	8	-	4.55	1.95	12.3	0.024	S0000
12	28	15	8	-	5.10	2.40	13.2	0.026	S0001
	40	22	12	-	9.55	4.80	13.2	0.10	SB201
	47	31	16	0.6	12.8	6.65	13.2	0.21	UC201
15	32	16.5	9	-	5.60	2.85	13.9	0.038	S000201
	40	22	12	-	9.55	4.80	13.2	0.10	SB202
	47	31	16	0.6	12.8	6.65	13.2	0.19	UC202
17	35	17.5	10	-	6.00	3.25	14.4	0.050	S0003
	40	22	12	-	9.55	4.80	13.2	0.10	SB203
	47	31	16	0.6	12.8	6.65	13.2	0.18	UC 203
20	42	21	12	-	9.40	5.05	13.9	0.080	S0004
	47	25	14	-	12.8	6.65	13.2	0.15	SB204
	47	31	16	1	12.8	6.65	13.2	0.16	UC 204
25	47	22	12	-	10.1	5.85	14.5	0.10	S0005
	52	27	15	-	14.0	7.85	13.9	0.18	SB205
	52	34.1	17	1	14.0	7.85	13.9	0.20	UC 205
	62	38	22	1.1	21.2	10.9	12.6	0.45	UC 305
	62	38.1	19	1	19.5	11.3	13.9	0.39	UCX05
30	55	24.5	13	-	13.2	8.25	14.7	0.15	S0006
	62	30	16	-	19.5	11.3	13.9	0.27	SB206
	62	38.1	19	1	19.5	11.3	13.9	0.32	UC206
	72	42.9	20	1	25.7	15.4	13.9	0.58	UCX06
	72	43	24	1.1	26.7	15.0	13.3	0.56	UC306
35	72	32	17	-	25.7	15.4	13.9	0.42	SB207
	72	42.9	20	1.1	25.7	15.4	13.9	0.48	UC 207
	80	48	26	1.5	33.4	19.3	13.2	0.71	UC 307
	80	49.2	21	1.1	29.1	17.8	14.0	0.75	UCX07
40	80	34	18	-	29.1	17.8	14.0	0.60	SB208
	80	49.2	21	1.1	29.1	17.8	14.0	0.64	UC 208
	85	49.2	22	1.1	34.1	21.3	14.0	0.83	UCX08
	90	52	28	1.5	40.7	24.0	13.2	1.00	UC 308
45	85	49.2	22	1.1	34.1	21.3	14.0	0.68	UC 209
	90	51.6	24	1.1	35.1	23.3	14.4	0.95	UCX09
	100	57	30	1.5	48.9	29.5	13.3	1.33	UC309
50	90	51.6	24	1.1	35.1	23.3	14.4	0.80	UC210
	100	55.6	25	1.1	43.4	29.4	14.4	1.29	UCX10
	110	61	32	2	62.0	38.3	13.2	1.69	UC310
55	100	55.6	25	1.5	43.4	29.4	14.4	1.11	UC211
	110	65.1	27	1.5	52.4	36.2	14.4	1.80	UCX11
	120	66	34	2	71.6	45.0	13.2	1.90	UC311
60	110	65.1	27	1.5	52.4	36.2	14.4	1.54	UC212
	120	65.1	28	1.5	57.2	40.1	14.4	2.05	UCX12
	130	71	36	2.1	81.9	52.2	13.2	2.60	UC312
65	120	65.1	28	1.5	57.2	40.1	14.4	1.86	UC213
	125	74.6	30	1.5	62.2	44.1	14.5	2.52	UCX13
	140	75	38	2.1	92.7	59.9	13.2	3.16	UC313
70	125	74.6	30	1.5	62.2	44.1	14.5	2.05	UC214
	130	77.8	32	1.5	67.4	48.3	14.5	2.74	UCX14
	150	78	40	2.1	104	68.2	13.2	3.90	UC314



BALL BEARING INSERTS
UC, SB, SU Series

Table 153

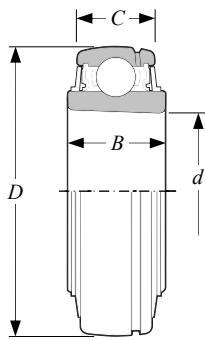
Bore Diameter
75mm – 140mm

Principal Dimensions					Basic Load Ratings		Factor	Mass	Designation
d	D	B	C	r (min)	C _r	C _{0r}	f ₀		Bearing No.
mm					kN			Kg	
75	130	77.8	32	1.5	67.4	48.3	14.5	2.21	UC215
	140	82.6	33	1.5	72.7	53.0	14.6	3.41	UCX15
	160	82	42	2.1	113	77.2	13.2	4.70	UC315
80	140	82.6	33	2	72.7	53.0	14.6	2.79	UC216
	150	85.7	35	2	84.0	61.9	14.5	3.87	UCX16
	170	86	44	2.1	123	86.7	13.3	5.60	UC316
85	150	85.7	35	2	84.0	61.9	14.5	3.45	UC217
	160	96	38	2	96.1	71.5	14.5	5.05	UCX17
	180	96	46	3	133	96.8	13.3	6.90	UC317
90	160	96	38	2	96.1	71.5	14.5	4.35	UC 218
	190	96	48	3	143	107	13.3	7.87	UC 318
	170	104	40	2	109	81.9	14.4	6.00	UCX18
95	200	103	50	3	153	119	13.3	8.91	UC 319
100	190	117.5	43	2.1	133	105	14.4	8.56	UCX20
	215	108	54	3	173	141	13.2	11.2	UC 320
105	225	112	56	3	184	153	13.2	12.7	UC 321
110	240	117	60	3	205	180	13.2	15.1	UC 322
120	260	126	64	3	207	185	13.5	19.0	UC 324
130	280	135	68	4	229	214	13.6	23.6	UC 326
140	300	145	72	4	253	246	13.6	29.4	UC 328

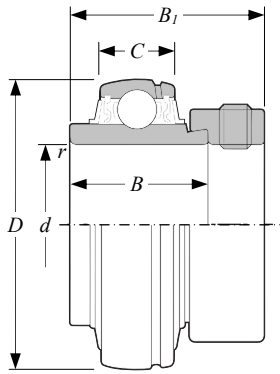
BALL BEARING INSERTS
UK Series

Table 154

Bore Diameter
25mm – 140mm



Principal Dimensions				Basic Load Ratings		Factor	Mass	Designation
d	D	B	C	C _r	C _{0r}	f ₀		Bearing No.
mm				kN			Kg	
25	52	21	17	14.0	7.85	13.9	0.16	UK205
25	62	23	19	19.5	11.3	13.9	0.27	UKX05
25	62	27	22	21.2	10.9	12.6	0.40	UK305
30	62	23	19	19.5	11.3	13.9	0.25	UK206
30	72	26	20	25.7	15.4	13.9	0.43	UKX06
30	72	30	24	26.7	15.0	13.3	0.47	UK306
35	72	26	20	25.7	15.4	13.9	0.37	UK207
35	80	27	21	29.1	17.8	14.0	0.53	UKX07
35	80	33	26	33.4	19.3	13.2	0.60	UK307
40	80	27	21	29.1	17.8	14.0	0.47	UK208
40	85	29	22	34.1	21.3	14.0	0.58	UKX08
40	90	35	28	40.7	24.0	13.2	0.80	UK308
45	85	29	22	34.1	21.3	14.0	0.52	UK209
45	90	29	24	35.1	23.3	14.4	0.67	UKX09
45	100	38	30	48.9	29.5	13.3	1.08	UK309
50	90	29	24	35.1	23.3	14.4	0.59	UK210
50	100	31	25	43.4	29.4	14.4	0.89	UKX10
50	110	40	32	62.0	38.3	13.2	1.38	UK310
55	100	31	25	43.4	29.4	14.4	0.80	UK211
55	110	33	27	52.4	36.2	14.4	1.15	UKX11
55	120	43	34	71.6	45.0	13.2	1.78	UK311
60	110	33	27	52.4	36.2	14.4	1.02	UK212
60	120	36	28	57.2	40.1	14.4	1.45	UKX12
60	130	47	36	81.9	52.2	13.2	2.06	UK312
65	120	36	28	57.2	40.1	14.4	1.34	UK213
65	125	40	30	62.2	44.1	14.5	1.62	UKX13
65	140	49	38	92.7	59.9	13.2	2.71	UK313
75	130	40	32	67.4	48.3	14.5	1.50	UK215
75	140	42	33	72.7	53.0	14.6	2.10	UKX15
75	160	55	42	113	77.2	13.2	3.80	UK315
80	140	42	33	72.7	53.0	14.6	1.96	UK216
80	150	44	35	84.0	61.9	14.5	2.64	UKX16
80	170	55	44	123	86.7	13.3	4.39	UK316
85	150	44	35	84.0	61.9	14.5	2.42	UK217
85	160	48	38	96.1	71.5	14.5	3.25	UKX17
85	180	60	46	133	96.8	13.3	5.30	UK317
90	160	48	38	96.1	71.5	14.5	2.90	UK218
90	170	50	40	109	81.9	14.4	3.80	UKX18
90	190	60	48	143	107	13.3	6.20	UK318
95	200	66	50	153	119	13.3	7.31	UK319
100	190	54	43	133	105	14.4	5.36	UKX20
100	215	68	54	173	141	13.2	8.70	UK320
110	240	78	60	205	180	13.2	12.2	UK322
120	260	87	64	207	185	13.5	16.1	UK324
130	280	87	68	229	214	13.6	18.8	UK326
140	300	97	72	253	246	13.6	23.9	UK328



BALL BEARING INSERTS
NA Series

Table 155

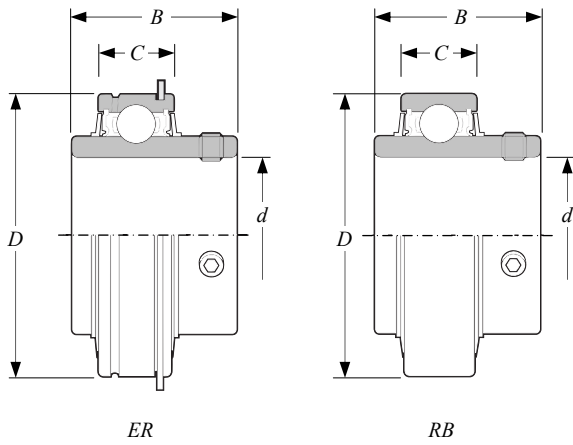
Bore Diameter
20mm – 60mm

Principal Dimensions						Basic Load Ratings		Factor	Mass	Designation
d	D	B	B ₁	C	r (min)	C _r	C _{0r}	f ₀		Bearing No.
mm						kN			Kg	
20	47	34.2	43.7	16	1	12.8	6.65	13.2	0.22	NA204
25	52	34.9	44.4	17	1	14.0	7.85	13.9	0.25	NA205
30	62	36.5	48.4	19	1	19.5	11.3	13.9	0.41	NA206
35	72	37.6	51.1	20	1.1	25.7	15.4	13.9	0.61	NA207
40	80	42.8	56.3	21	1.1	29.1	17.8	14.0	0.78	NA208
45	85	42.8	56.3	22	1.1	34.1	21.3	14.0	0.85	NA209
50	90	49.2	62.7	24	1.1	35.1	23.3	14.4	1.01	NA210
55	100	55.5	71.4	25	1.5	43.4	29.4	14.4	1.39	NA211
60	110	61.9	77.8	27	1.5	52.4	36.2	14.4	1.87	NA212

BALL BEARING INSERTS
ER, RB Series

Table 156

Bore Diameter
12mm – 60mm



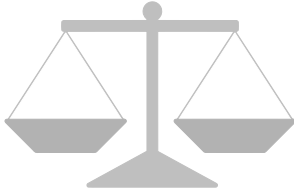
Principal Dimensions				Basic Load Ratings		Factor	Mass		Designation	
d	D	B	C	C _r	C _{0r}	f ₀	ER	RB	ER Series	RB Series
mm				kN			Kg			
12	47	31	16	12.8	6.65	13.2	0.22	0.22	ER2O1	RB2O1
15	47	31	16	12.8	6.65	13.2	0.22	0.22	ER2O2	RB2O2
17	47	31	16	12.8	6.65	13.2	0.22	0.22	ER2O3	RB2O3
20	47	31	16	12.8	6.65	13.2	0.22	0.22	ER2O4	RB2O4
25	52	34.1	19	14.0	7.85	13.9	0.27	0.26	ER2O5	RB2O5
30	62	38.1	22	19.5	11.3	13.9	0.39	0.38	ER2O6	RB2O6
35	72	42.9	24	25.7	15.4	13.9	0.63	0.62	ER2O7	RB2O7
40	80	49.2	28	29.1	17.8	14.0	0.81	0.78	ER2O8	RB2O8
45	85	49.2	28	34.1	21.3	14.0	0.90	-	ER2O9	-
50	90	51.6	28	35.1	23.3	14.4	0.98	-	ER21O	-
55	100	55.6	30	43.4	29.4	14.4	1.41	-	ER211	-
60	110	65.1	32	52.4	36.2	14.4	1.89	-	ER212	-

APPENDICES CONTENTS

Conversion Tables, [N - kgf] [kg - lb] [inch - mm]

Tolerance Tables for Shaft Diameters

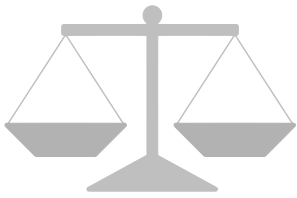
Tolerance Tables for Housing Bore Diameters



CONVERSION TABLE [N-kgf] [kg-lb]

<i>N</i>	-	<i>kgf</i>	<i>N</i>	-	<i>kgf</i>
9.8066	1	0.1020	500.14	51	5.2006
19.613	2	0.2039	509.95	52	5.3025
29.420	3	0.3059	519.75	53	5.4045
39.227	4	0.4079	529.56	54	5.5065
49.033	5	0.5099	539.37	55	5.6084
58.840	6	0.6118	549.17	56	5.7104
68.647	7	0.7138	558.98	57	5.8124
78.453	8	0.8158	568.79	58	5.9144
88.260	9	0.9177	578.59	59	6.0163
98.066	10	1.0197	588.40	60	6.1183
107.87	11	1.1217	598.21	61	6.2203
117.68	12	1.2237	608.01	62	6.3222
127.49	13	1.3256	617.82	63	6.4242
137.29	14	1.4276	627.63	64	6.5262
147.10	15	1.5296	637.43	65	6.6282
156.91	16	1.6315	647.24	66	6.7301
166.71	17	1.7335	657.05	67	6.8321
176.52	18	1.8355	666.85	68	6.9341
186.33	19	1.9375	676.66	69	7.0360
196.13	20	2.0394	686.47	70	7.1380
205.94	21	2.1414	696.27	71	7.2400
215.75	22	2.2434	706.08	72	7.3420
225.55	23	2.3453	715.89	73	7.4439
235.36	24	2.4473	725.69	74	7.5459
245.17	25	2.5493	735.50	75	7.6479
254.97	26	2.6513	745.31	76	7.7498
264.78	27	2.7532	755.11	77	7.8518
274.59	28	2.8552	764.92	78	7.9538
284.39	29	2.9572	774.73	79	8.0558
294.20	30	3.0591	784.53	80	8.1577
304.01	31	3.1611	794.34	81	8.2597
313.81	32	3.2631	804.15	82	8.3617
323.62	33	3.3651	813.95	83	8.4636
333.43	34	3.4670	823.76	84	8.5656
343.23	35	3.5690	833.57	85	8.6676
353.04	36	3.6710	843.37	86	8.7696
362.85	37	3.7729	853.18	87	8.8715
372.65	38	3.8749	862.99	88	8.9735
382.46	39	3.9769	872.79	89	9.0755
392.27	40	4.0789	882.60	90	9.1774
402.07	41	4.1808	892.41	91	9.2794
411.88	42	4.2828	902.21	92	9.3814
421.69	43	4.3848	912.02	93	9.4834
431.49	44	4.4868	921.83	94	9.5853
441.30	45	4.5887	931.63	95	9.6873
451.11	46	4.6907	941.44	96	9.7893
460.91	47	4.7927	951.25	97	9.8912
470.72	48	4.8946	961.05	98	9.9932
480.53	49	4.9966	970.86	99	10.095
490.33	50	5.0986	980.07	100	10.197

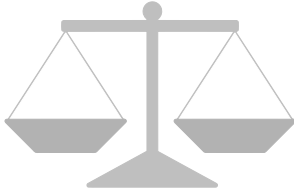
<i>kg</i>	-	<i>lb</i>	<i>kg</i>	-	<i>lb</i>
0.454	1	2.205	23.133	51	112.44
0.907	2	4.409	23.587	52	114.64
1.361	3	6.614	24.040	53	116.84
1.814	4	8.818	24.494	54	119.05
2.268	5	11.023	24.948	55	121.25
2.722	6	13.228	25.401	56	123.46
3.175	7	15.432	25.855	57	125.66
3.629	8	17.637	26.308	58	127.87
4.082	9	19.842	26.762	59	130.07
4.536	10	22.046	27.216	60	132.28
4.990	11	24.251	27.669	61	134.48
5.443	12	26.455	28.123	62	136.69
5.897	13	28.660	28.576	63	138.89
6.350	14	30.865	29.030	64	141.10
6.804	15	33.069	29.484	65	143.30
7.257	16	35.274	29.937	66	145.51
7.711	17	37.479	30.391	67	147.71
8.165	18	39.683	30.844	68	149.91
8.618	19	41.888	31.298	69	152.12
9.072	20	44.092	31.751	70	154.32
9.525	21	46.297	32.205	71	156.53
9.979	22	48.502	32.659	72	158.73
10.433	23	50.706	33.112	73	160.94
10.886	24	52.911	33.566	74	163.14
11.340	25	55.116	34.019	75	165.35
11.793	26	57.320	34.473	76	167.55
12.247	27	59.525	34.927	77	169.76
12.701	28	61.729	35.380	78	171.96
13.154	29	63.934	35.834	79	174.17
13.608	30	66.139	36.287	80	176.37
14.061	31	68.343	36.741	81	178.57
14.515	32	70.548	37.195	82	180.78
14.969	33	72.753	37.648	83	182.98
15.422	34	74.957	38.102	84	185.19
15.876	35	77.162	38.555	85	187.39
16.329	36	79.366	39.009	86	189.60
16.783	37	81.571	39.463	87	191.80
17.237	38	83.776	39.916	88	194.01
17.690	39	85.980	40.370	89	196.21
18.144	40	88.185	40.823	90	198.42
18.597	41	90.390	41.277	91	200.62
19.051	42	92.594	41.730	92	202.83
19.504	43	94.799	42.184	93	205.03
19.958	44	97.003	42.638	94	207.23
20.412	45	99.208	43.091	95	209.44
20.865	46	101.41	43.545	96	211.64
21.319	47	103.62	43.998	97	213.85
21.772	48	105.82	44.452	98	216.05
22.226	49	108.03	44.906	99	218.26
22.680	50	110.23	45.360	100	220.46



CONVERSION TABLE [Inch-mm]

Inch – mm
1” – 10”

Inch Fraction	Decimal	Inches										
		0	1	2	3	4	5	6	7	8	9	10
0	0	0	25.4000	50.8000	76.2000	101.6000	127.0000	152.4000	177.8000	203.2000	228.6000	254.0000
1/64	0.015625	0.3969	25.7969	51.1969	76.5969	101.9969	127.3969	152.7969	178.1969	203.5969	228.9969	254.3969
1/32	0.03125	0.7938	26.1938	51.5938	76.9938	102.3938	127.7938	153.1938	178.5938	203.9938	229.3938	254.7938
3/64	0.046875	1.1906	26.5906	51.9906	77.3906	102.7906	128.1906	153.5906	178.9906	204.3906	229.7906	255.1906
1/16	0.0625	1.5875	26.9875	52.3875	77.7875	103.1875	128.5875	153.9875	179.3875	204.7875	230.1875	255.5875
5/64	0.078125	1.9844	27.3844	52.7844	78.1844	103.5844	128.9844	154.3844	179.7844	205.1844	230.5844	255.9844
3/32	0.09375	2.3812	27.7812	53.1812	78.5812	103.9812	129.3812	154.7812	180.1812	205.5812	230.9812	256.3812
7/64	0.109375	2.7781	28.1781	53.5781	78.9781	104.3781	129.7781	155.1781	180.5781	205.9781	231.3781	256.7781
1/8	0.125	3.1750	28.5750	53.9750	79.3750	104.7750	130.1750	155.5750	180.9750	206.3750	231.7750	257.1750
9/64	0.140625	3.5719	28.9719	54.3719	79.7719	105.1719	130.5719	155.9719	181.3719	206.7719	232.1719	257.5719
5/32	0.15625	3.9688	29.3688	54.7688	80.1688	105.5688	130.9688	156.3688	181.7688	207.1688	232.5688	257.9688
11/64	0.171875	4.3656	29.7656	55.1656	80.5656	105.9656	131.3656	156.7656	182.1656	207.5656	232.9656	258.3656
3/16	0.1875	4.7625	30.1625	55.5625	80.9625	106.3625	131.7625	157.1625	182.5625	207.9625	233.3625	258.7625
13/64	0.203125	5.1594	30.5594	55.9594	81.3594	106.7594	132.1594	157.5594	182.9594	208.3594	233.7594	259.1594
7/32	0.21875	5.5562	30.9562	56.3562	81.7562	107.1562	132.5562	157.9562	183.3562	208.7562	234.1562	259.5562
15/64	0.234375	5.9531	31.3531	56.7531	82.1531	107.5531	132.9531	158.3531	183.7531	209.1531	234.5531	259.9531
1/4	0.25	6.3500	31.7500	57.1500	82.5500	107.9500	133.3500	158.7500	184.1500	209.5500	234.9500	260.3500
17/64	0.265625	6.7469	32.1469	57.5469	82.9469	108.3469	133.7469	159.1469	184.5469	209.9469	235.3469	260.7469
9/32	0.28125	7.1438	32.5438	57.9438	83.3438	108.7438	134.1438	159.5438	184.9438	210.3438	235.7438	261.1438
19/64	0.296875	7.5406	32.9406	58.3406	83.7406	109.1406	134.5406	159.9406	185.3406	210.7406	236.1406	261.5406
5/16	0.3125	7.9375	33.3375	58.7375	84.1375	109.5375	134.9375	160.3375	185.7375	211.1375	236.5375	261.9375
21/64	0.328125	8.3344	33.7344	59.1344	84.5344	109.9344	135.3344	160.7344	186.1344	211.5344	236.9344	262.3344
11/32	0.34375	8.7312	34.1312	59.5312	84.9312	110.3312	135.7312	161.1312	186.5312	211.9312	237.3312	262.7312
23/64	0.359375	9.1281	34.5281	59.9281	85.3281	110.7281	136.1281	161.5281	186.9281	212.3281	237.7281	263.1281
3/8	0.375	9.5250	34.9250	60.3250	85.7250	111.1250	136.5250	161.9250	187.3250	212.7250	238.1250	263.5250
25/64	0.390625	9.9219	35.3219	60.7219	86.1219	111.5219	136.9219	162.3219	187.7219	213.1219	238.5219	263.9219
13/32	0.40625	10.3188	35.7188	61.1188	86.5188	111.9188	137.3188	162.7188	188.1188	213.5188	238.9188	264.3188
27/64	0.421875	10.7156	36.1156	61.5156	86.9156	112.3156	137.7156	163.1156	188.5156	213.9156	239.3156	264.7156
7/16	0.4375	11.1125	36.5125	61.9125	87.3125	112.7125	138.1125	163.5125	188.9125	214.3125	239.7125	265.1125
29/64	0.453125	11.5094	36.9094	62.3094	87.7094	113.1094	138.5094	163.9094	189.3094	214.7094	240.1094	265.5094
15/32	0.46875	11.9062	37.3062	62.7062	88.1062	113.5062	138.9062	164.3062	189.7062	215.1062	240.5062	265.9062
31/64	0.484375	12.3031	37.7031	63.1031	88.5031	113.9031	139.3031	164.7031	190.1031	215.5031	240.9031	266.3031
1/2	0.5	12.7000	38.1000	63.5000	88.9000	114.3000	139.7000	165.1000	190.5000	215.9000	241.3000	266.7000
33/64	0.515625	13.0969	38.4969	63.8969	89.2969	114.6969	140.0969	165.4969	190.8969	216.2969	241.6969	267.0969
17/32	0.53125	13.4938	38.8938	64.2938	89.6938	115.0938	140.4938	165.8938	191.2938	216.6938	242.0938	267.4938
35/64	0.546875	13.8906	39.2906	64.6906	90.0906	115.4906	140.8906	166.2906	191.6906	217.0906	242.4906	267.8906
9/16	0.5625	14.2875	39.6875	65.0875	90.4875	115.8875	141.2875	166.6875	192.0875	217.4875	242.8875	268.2875
37/64	0.578125	14.6844	40.0844	65.4844	90.8844	116.2844	141.6844	167.0844	192.4844	217.8844	243.2844	268.6844
19/32	0.59375	15.0812	40.4812	65.8812	91.2812	116.6812	142.0812	167.4812	192.8812	218.2812	243.6812	269.0812
39/64	0.609375	15.4781	40.8781	66.2781	91.6781	117.0781	142.4781	167.8781	193.2781	218.6781	244.0781	269.4781
5/8	0.625	15.8750	41.2750	66.6750	92.0750	117.4750	142.8750	168.2750	193.6750	219.0750	244.4750	269.8750
41/64	0.640625	16.2719	41.6719	67.0719	92.4719	117.8719	143.2719	168.6719	194.0719	219.4719	244.8719	270.2719
21/32	0.65625	16.6688	42.0688	67.4688	92.8688	118.2688	143.6688	169.0688	194.4688	219.8688	245.2688	270.6688
43/64	0.671875	17.0656	42.4656	67.8656	93.2656	118.6656	144.0656	169.4656	194.8656	220.2656	245.6656	271.0656
11/16	0.6875	17.4625	42.8625	68.2625	93.6625	119.0625	144.4625	169.8625	195.2625	220.6625	246.0625	271.4625
45/64	0.703125	17.8594	43.2594	68.6594	94.0594	119.4594	144.8594	170.2594	195.6594	221.0594	246.4594	271.8594
23/32	0.71875	18.2562	43.6562	69.0562	94.4562	119.8562	145.2562	170.6562	196.0562	221.4562	246.8562	272.2562
47/64	0.734375	18.6531	44.0531	69.4531	94.8531	120.2531	145.6531	171.0531	196.4531	221.8531	247.2531	272.6531
3/4	0.75	19.0500	44.4500	69.8500	95.2500	120.6500	146.0500	171.4500	196.8500	222.2500	247.6500	273.0500
49/64	0.765625	19.4469	44.8469	70.2469	95.6469	121.0469	146.4469	171.8469	197.2469	222.6469	248.0469	273.4469
25/32	0.78125	19.8438	45.2438	70.6438	96.0438	121.4438	146.8438	172.2438	197.6438	223.0438	248.4438	273.8438
51/64	0.796875	20.2406	45.6406	71.0406	96.4406	121.8406	147.2406	172.6406	198.0406	223.4406	248.8406	274.2406
13/16	0.8125	20.6375	46.0375	71.4375	96.8375	122.2375	147.6375	173.0375	198.4375	223.8375	249.2375	274.6375
53/64	0.828125	21.0344	46.4344	71.8344	97.2344	122.6344	148.0344	173.4344	198.8344	224.2344	249.6344	275.0344
27/32	0.84375	21.4312	46.8312	72.2312	97.6312	123.0312	148.4312	173.8312	199.2312	224.6312	250.0312	275.4312
55/64	0.859375	21.8281	47.2281	72.6281	98.0281	123.4281	148.8281	174.2281	199.6281	225.0281	250.4281	275.8281
7/8	0.875	22.2250	47.6250	73.0250	98.4250	123.8250	149.2250	174.6250	200.0250	225.4250	250.8250	276.2250
57/64	0.890625	22.6219	48.0219	73.4219	98.8219	124.2219	149.6219	175.0219	200.4219	225.8219	251.2219	276.6219
29/32	0.90625	23.0188	48.4188	73.8188	99.2188	124.6188	150.0188	175.4188	200.8188	226.2188	251.6188	277.0188
59/64	0.921875	23.4156	48.8156	74.2156	99.6156	125.0156	150.4156	175.8156	201.2156	226.6156	252.0156	277.4156
15/16	0.9375	23.8125	49.2125	74.6125	100.0125	125.4125	150.8125	176.2125	201.6125	227.0125	252.4125	277.8125
61/64	0.953125	24.2094	49.6094	75.0094	100.4094	125.8094	151.2094	176.6094	202.0094	227.4094	252.8094	278.2094
31/32	0.9											



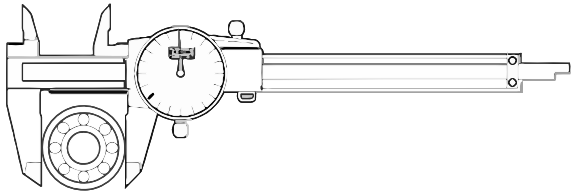
CONVERSION TABLE

Inch – mm
1” – 40”

		<i>Inches</i>									
<i>Inch</i>		<i>11</i>	<i>12</i>	<i>13</i>	<i>14</i>	<i>15</i>	<i>16</i>	<i>17</i>	<i>18</i>	<i>19</i>	<i>20</i>
<i>Fraction</i>	<i>Decimal</i>	<i>mm</i>									
0	0.0000	279.400	304.800	330.200	355.600	381.000	406.400	431.800	457.200	482.600	508.000
1 / 16	0.0625	280.988	306.388	331.788	357.188	382.588	407.988	433.388	458.788	484.188	509.588
1 / 8	0.1250	282.575	307.975	333.375	358.775	384.175	409.575	434.975	460.375	485.775	511.175
3 / 16	0.1875	284.162	309.562	334.962	360.362	385.762	411.162	436.562	461.962	487.362	512.762
1 / 4	0.2500	285.750	311.150	336.550	361.950	387.350	412.750	438.150	463.550	488.950	514.350
5 / 16	0.3125	287.338	312.738	338.138	363.538	388.938	414.338	439.738	465.138	490.538	515.938
3 / 8	0.3750	288.925	314.325	339.725	365.125	390.525	415.925	441.325	466.725	492.125	517.525
7 / 16	0.4375	290.512	315.912	341.312	366.712	392.112	417.512	442.912	468.312	493.712	519.112
1 / 2	0.5000	292.100	317.500	342.900	368.300	393.700	419.100	444.500	469.900	495.300	520.700
9 / 16	0.5625	293.688	319.088	344.488	369.888	395.288	420.688	446.088	471.488	496.888	522.288
5 / 8	0.6250	295.275	320.675	346.075	371.475	396.875	422.275	447.675	473.075	498.475	523.875
11 / 16	0.6875	296.862	322.262	347.662	373.062	398.462	423.862	449.262	474.662	500.062	525.462
3 / 4	0.7500	298.450	323.850	349.250	374.650	400.050	425.450	450.850	476.250	501.650	527.050
13 / 16	0.8125	300.038	325.438	350.838	376.238	401.638	427.038	452.438	477.838	503.238	528.638
7 / 8	0.8750	301.625	327.025	352.425	377.825	403.225	428.625	454.025	479.425	504.825	530.225
15 / 16	0.9375	303.212	328.612	354.012	379.412	404.812	430.212	455.612	481.012	506.412	531.812

		<i>Inches</i>									
<i>Inch</i>		<i>21</i>	<i>22</i>	<i>23</i>	<i>24</i>	<i>25</i>	<i>26</i>	<i>27</i>	<i>28</i>	<i>29</i>	<i>30</i>
<i>Fraction</i>	<i>Decimal</i>	<i>mm</i>									
0	0.0000	533.400	558.800	584.200	609.600	635.000	660.400	685.800	711.200	736.600	762.000
1 / 16	0.0625	534.988	560.388	585.788	611.188	636.588	661.988	687.388	712.788	738.188	763.588
1 / 8	0.1250	536.575	561.975	587.375	612.775	638.175	663.575	688.975	714.375	739.775	765.175
3 / 16	0.1875	538.162	563.562	588.962	614.362	639.762	665.162	690.562	715.962	741.362	766.762
1 / 4	0.2500	539.750	565.150	590.550	615.950	641.350	666.750	692.150	717.550	742.950	768.350
5 / 16	0.3125	541.338	566.738	592.138	617.538	642.938	668.338	693.738	719.138	744.538	769.938
3 / 8	0.3750	542.925	568.325	593.725	619.125	644.525	669.925	695.325	720.725	746.125	771.525
7 / 16	0.4375	544.512	569.912	595.312	620.712	646.112	671.512	696.912	722.312	747.712	773.112
1 / 2	0.5000	546.100	571.500	596.900	622.300	647.700	673.100	698.500	723.900	749.300	774.700
9 / 16	0.5625	547.688	573.088	598.488	623.888	649.288	674.688	700.088	725.488	750.888	776.288
5 / 8	0.6250	549.275	574.675	600.075	625.475	650.875	676.275	701.675	727.075	752.475	777.875
11 / 16	0.6875	550.862	576.262	601.662	627.062	652.462	677.862	703.262	728.662	754.062	779.462
3 / 4	0.7500	552.450	577.850	603.250	628.650	654.050	679.450	704.850	730.250	755.650	781.050
13 / 16	0.8125	554.038	579.438	604.838	630.238	655.638	681.038	706.438	731.838	757.238	782.638
7 / 8	0.8750	555.625	581.025	606.425	631.825	657.225	682.625	708.025	733.425	758.825	784.225
15 / 16	0.9375	557.212	582.612	608.012	633.412	658.812	684.212	709.612	735.012	760.412	785.812

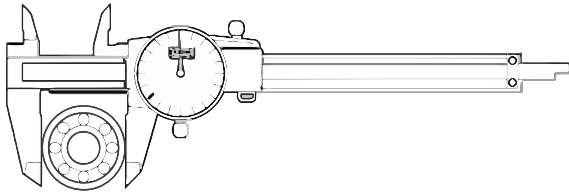
		<i>Inches</i>									
<i>Inch</i>		<i>31</i>	<i>32</i>	<i>33</i>	<i>34</i>	<i>35</i>	<i>36</i>	<i>37</i>	<i>38</i>	<i>39</i>	<i>40</i>
<i>Fraction</i>	<i>Decimal</i>	<i>mm</i>									
0	0.0000	787.400	812.800	838.200	863.600	889.000	914.400	939.800	965.200	990.600	1016.000
1 / 16	0.0625	788.988	814.388	839.788	865.188	890.588	915.988	941.388	966.788	992.188	1017.588
1 / 8	0.1250	790.575	815.975	841.375	866.775	892.175	917.575	942.975	968.375	993.775	1019.175
3 / 16	0.1875	792.162	817.562	842.962	868.362	893.762	919.162	944.562	969.962	995.362	1020.762
1 / 4	0.2500	793.750	819.150	844.550	869.950	895.350	920.750	946.150	971.550	996.950	1022.350
5 / 16	0.3125	795.338	820.738	846.138	871.538	896.938	922.338	947.738	973.138	998.538	1023.938
3 / 8	0.3750	796.925	822.325	847.725	873.125	898.525	923.925	949.325	974.725	1000.125	1025.525
7 / 16	0.4375	798.512	823.912	849.312	874.712	900.112	925.512	950.912	976.312	1001.712	1027.112
1 / 2	0.5000	800.100	825.500	850.900	876.300	901.700	927.100	952.500	977.900	1003.300	1028.700
9 / 16	0.5625	801.688	827.088	852.488	877.888	903.288	928.688	954.088	979.488	1004.888	1030.288
5 / 8	0.6250	803.275	828.675	854.075	879.475	904.875	930.275	955.675	981.075	1006.475	1031.875
11 / 16	0.6875	804.862	830.262	855.662	881.062	906.462	931.862	957.262	982.662	1008.062	1033.462
3 / 4	0.7500	806.450	831.850	857.250	882.650	908.050	933.450	958.850	984.250	1009.650	1035.050
13 / 16	0.8125	808.038	833.438	858.838	884.238	909.638	935.038	960.438	985.838	1011.238	1036.638
7 / 8	0.8750	809.625	835.025	860.425	885.825	911.225	936.625	962.025	987.425	1012.825	1038.225
15 / 16	0.9375	811.212	836.612	862.012	887.412	912.812	938.212	963.621	989.012	1014.412	1039.812



TOLERANCE TABLES
Tolerances for Shaft Diameters

units : μm

Diameter (mm)		Δ_{dmp}	d6	e6	f6	g5	g6	h5	h6	h7	h8	h9	h10	js5	js6	j5	j6	j7	k5	k6	k7	m5	m6	n6	p6
over	incl																								
3	6	0	-30	-20	-10	-4	-4	0	0	0	0	0	0	± 2.5	± 4.0	+3	+6	+8	+6	+9	+13	+9	+12	+16	+20
		-8	-38	-28	-18	-9	-12	-5	-8	-12	-18	-30	-48			-2	-2	-4	+1	+1	+1	+4	+4	+8	+12
6	10	0	-40	-25	-13	-5	-5	0	0	0	0	0	0	± 3.0	± 4.5	+4	+7	+10	+7	+10	+16	+12	+15	+19	+24
		-8	-49	-34	-22	-11	-14	-6	-9	-15	-22	-36	-58			-2	-2	-5	+1	+1	+1	+6	+6	+10	+15
10	18	0	-50	-32	-16	-6	-6	0	0	0	0	0	0	± 4.0	± 5.5	+5	+8	+12	+9	+12	+19	+15	+18	+23	+29
		-8	-61	-43	-27	-14	-17	-8	-11	-18	-27	-43	-70			-3	-3	-6	+1	+1	+1	+7	+7	+12	+18
18	30	0	-65	-40	-20	-7	-7	0	0	0	0	0	0	± 4.5	± 6.5	+5	+9	+13	+11	+15	+23	+17	+21	+28	+35
		-10	-78	-53	-33	-16	-20	-9	-13	-21	-33	-52	-84			-4	-4	-8	+2	+2	+2	+8	+8	+15	+22
30	50	0	-80	-50	-25	-9	-9	0	0	0	0	0	0	± 5.5	± 8.0	+6	+11	+15	+13	+18	+27	+20	+25	+33	+42
		-12	-96	-66	-41	-20	-25	-11	-16	-25	-39	-62	-100			-5	-5	-10	+2	+2	+2	+9	+9	+17	+26
50	80	0	-100	-60	-30	-10	-10	0	0	0	0	0	0	± 6.5	± 9.5	+6	+12	+18	+15	+21	+32	+24	+30	+39	+51
		-15	-119	-79	-49	-23	-29	-13	-19	-30	-46	-74	-120			-7	-7	-12	+2	+2	+2	+11	+11	+20	+32
80	120	0	-120	-72	-36	-12	-12	0	0	0	0	0	0	± 7.5	± 11.0	+6	+13	+20	+18	+25	+38	+28	+35	+45	+59
		-20	-142	-94	-58	-27	-34	-15	-22	-35	-54	-87	-140			-9	-9	-15	+3	+3	+3	+13	+13	+23	+37
120	180	0	-145	-85	-43	-14	-14	0	0	0	0	0	0	± 9.0	± 12.5	+7	+14	+22	+21	+28	+43	+33	+40	+52	+68
		-25	-170	-110	-68	-32	-39	-18	-25	-40	-63	-100	-160			-11	-11	-18	+3	+3	+3	+15	+15	+27	+43
180	250	0	-170	-100	-50	-15	-15	0	0	0	0	0	0	± 10.0	± 14.5	+7	+16	+25	+24	+33	+50	+37	+46	+60	+79
		-30	-199	-129	-79	-35	-44	-20	-29	-46	-72	-115	-185			-13	-13	-21	+4	+4	+4	+17	+17	+31	+50
250	315	0	-190	-110	-56	-17	-17	0	0	0	0	0	0	± 11.5	± 16.0	+7	± 16	± 26	+27	+36	+56	+43	+52	+66	+88
		-35	-222	-142	-88	-40	-49	-23	-32	-52	-81	-130	-210			-16			+4	+4	+4	+20	+20	+34	+56
315	400	0	-210	-125	-62	-18	-18	0	0	0	0	0	0	± 12.5	± 18.0	+7	± 18	+29	+29	+40	+61	+46	+57	+73	+98
		-40	-246	-161	-98	-43	-54	-25	-36	-57	-89	-140	-230			-18		-28	+4	+4	+4	+21	+21	+37	+62
400	500	0	-230	-135	-68	-20	-20	0	0	0	0	0	0	± 13.5	± 20.0	+7	± 20	+31	+32	+45	+68	+50	+63	+80	+108
		-45	-270	-175	-108	-47	-60	-27	-40	-63	-97	-155	-250			-20		-32	+5	+5	+5	+23	+23	+40	+68
500	630	0	-260	-145	-76	-	-22	-	0	0	0	0	0	-	± 22.0	-	-	-	-	+44	+70	-	+70	+88	+122
		-50	-304	-189	-120	-	-66	-	-44	-70	-110	-175	-280							0	0	-	+26	+44	+78
630	800	0	-290	-160	-80	-	-24	-	0	0	0	0	0	-	± 25.0	-	-	-	-	+50	+80	-	+80	+100	+138
		-75	-340	-210	-130	-	-74	-	-50	-80	-125	-200	-320							0	0	-	+30	+50	+88
800	1000	0	-320	-170	-86	-	-26	-	0	0	0	0	0	-	± 28.0	-	-	-	-	+56	+90	-	+90	+112	+156
		-100	-376	-226	-142	-	-82	-	-56	-90	-140	-230	-360							0	0	-	+34	+56	+100
1000	1250	0	-350	-195	-98	-	-28	-	0	0	0	0	0	-	± 33.0	-	-	-	-	+66	+105	-	+106	+132	+186
		-125	-416	-261	-164	-	-94	-	-66	-105	-165	-260	-420							0	0	-	+40	+66	+120
1250	1600	0	-390	-220	-110	-	-30	-	0	0	0	0	0	-	± 39.0	-	-	-	-	+78	+125	-	+126	+156	+218
		-160	-468	-298	-188	-	-108	-	-78	-125	-195	-310	-500							0	0	-	+48	+78	+140
1600	2000	0	-430	-240	-120	-	-32	-	0	0	0	0	0	-	± 46.0	-	-	-	-	+92	+150	-	+150	+184	+262
		-200	-522	-332	-212	-	-124	-	-92	-150	-230	-370	-600							0	0	-	+58	+92	+170



TOLERANCE TABLES
Tolerances for
Housing Bore Diameters

units : μm

Diameters (mm)		Δ_{Dmp}	E6	F6	F7	G6	G7	H6	H7	H8	J6	J7	JS6	JS7	K5	K6	K7	M5	M6	M7	N5	N6	N7	P6	P7
over	incl																								
10	18	0 -8	+43 +32	+27 +16	+34 +16	+17 +6	+24 +6	+11 0	+18 0	+27 0	+6 -5	+10 -8	± 5.5	± 9	+2 -6	+2 -9	+6 -12	-4 -12	-4 -15	0 -18	-9 -17	-9 -20	-5 -23	-15 -26	-11 -29
18	30	0 -9	+53 +40	+33 +20	+41 +20	+20 +7	+28 +7	+13 0	+21 0	+33 0	+8 -5	+12 -9	± 6.5	± 10.5	+1 -8	+2 -11	+6 -15	-5 -14	-4 -17	0 -21	-12 -21	-11 -24	-7 -28	-18 -31	-14 -35
30	50	0 -11	+66 +50	+41 +25	+50 +25	+25 +9	+34 +9	+16 0	+25 0	+39 0	+10 -6	+14 -11	± 8	± 12.5	+2 -9	+3 -13	+7 -18	-5 -16	-4 -20	0 -25	-13 -24	-12 -28	-8 -33	-21 -37	-17 -42
50	80	0 -13	+79 +60	+49 +30	+60 +30	+29 +10	+40 +10	+19 0	+30 0	+46 0	+13 -6	+18 -12	± 9.5	± 15	+3 -10	+4 -15	+9 -21	-6 -19	-5 -24	0 -30	-15 -28	-14 -33	-9 -39	-26 -45	-21 -51
80	120	0 -15	+94 +72	+58 +36	+71 +36	+34 +12	+47 +12	+22 0	+35 0	+54 0	+16 -6	+22 -13	± 11	± 17.5	+2 -13	+4 -18	+10 -25	-8 -23	-6 -28	0 -35	-18 -33	-16 -38	-10 -45	-30 -52	-24 -59
120	150	0 -18	+110 +85	+68 +43	+83 +43	+39 +14	+54 +14	+25 0	+40 0	+63 0	+18 -7	+26 -14	± 12.5	± 20	+3 -15	+4 -21	+12 -28	-9 -27	-8 -33	0 -40	-21 -39	-20 -45	-12 -52	-36 -61	-28 -68
150	180	0 -25	+110 +85	+68 +43	+83 +43	+39 +14	+54 +14	+25 0	+40 0	+63 0	+18 -7	+26 -14	± 12.5	± 20	+3 -15	+4 -21	+12 -28	-9 -27	-8 -33	0 -40	-21 -39	-20 -45	-12 -52	-36 -61	-28 -68
180	250	0 -30	+129 +100	+79 +50	+96 +50	+44 +15	+61 +15	+29 0	+46 0	+72 0	+22 -7	+30 -16	± 14.5	± 23	+2 -18	+5 -24	+13 -33	-11 -31	-8 -37	0 -46	-25 -45	-22 -51	-14 -60	-41 -70	-33 -79
250	315	0 -35	+142 +110	+88 +56	+108 +56	+49 +17	+69 +17	+32 0	+52 0	+81 0	+25 -7	+36 -16	± 16	± 26	+3 -20	+5 -27	+16 -36	-13 -36	-9 -41	0 -52	-27 -50	-25 -57	-14 -66	-47 -79	-36 -88
315	400	0 -40	+161 +125	+98 +62	+119 +62	+54 +18	+75 +18	+36 0	+57 0	+89 0	+29 -7	+39 -18	± 18	± 28.5	+3 -22	+7 -29	+17 -40	-14 -39	-10 -46	0 -57	-30 -62	-26 -73	-16 -87	-51 -97	-41 -98
400	500	0 -45	+175 +135	+108 +68	+131 +68	+60 +20	+83 +20	+40 0	+63 0	+97 0	+33 -7	+43 -20	± 20	± 31.5	+2 -25	+8 -32	+18 -45	-16 -43	-10 -50	0 -63	-33 -60	-27 -67	-17 -80	-55 -95	-45 -108
500	630	0 -50	+189 +145	+120 +76	+146 +76	+66 +22	+92 +22	+44 0	+70 0	+110 0	-	-	± 22	± 35	-	0 -44	0 -70	-	-26 -70	-26 -96	-	-44 -88	-44 -114	-78 -122	-78 -148
630	800	0 -75	+210 +160	+130 +80	+160 +80	+74 +24	+104 +24	+50 0	+80 0	+125 0	-	-	± 25	± 40	-	0 -50	0 -80	-	-30 -80	-30 -110	-	-50 -100	-50 -130	-88 -138	-88 -168
800	1000	0 -100	+226 +170	+142 +86	+176 +86	+82 +26	+116 +26	+56 0	+90 0	+140 0	-	-	± 28	± 45	-	0 -56	0 -90	-	-34 -90	-34 -124	-	-56 -112	-56 -146	-100 -156	-100 -190
1000	1250	0 -125	+261 +195	+164 +98	+203 +98	+94 +28	+133 +28	+66 0	+105 0	+165 0	-	-	± 33	± 52.5	-	0 -66	0 -105	-	-40 -106	-40 -145	-	-66 -132	-66 -171	-120 -186	-120 -225
1250	1600	0 -160	+298 +220	+188 +110	+235 +110	+108 +30	+155 +30	+78 0	+125 0	+195 0	-	-	± 39	± 62.5	-	0 -78	0 -125	-	-48 -126	-48 -173	-	-78 -156	-78 -203	-140 -218	-140 -265
1600	2000	0 -200	+332 +240	+212 +120	+270 +120	+124 +32	+182 +32	+92 0	+150 0	+230 0	-	-	± 46	± 75	-	0 -92	0 -150	-	-58 -150	-58 -208	-	-92 -184	-92 -242	-170 -262	-170 -320
2000	2500	0 -250	+370 +260	+240 +130	+305 +130	+144 +34	+209 +34	+110 0	+175 0	+280 0	-	-	± 55	± 87.5	-	0 -110	0 -175	-	-68 -178	-68 -243	-	-110 -220	-110 -285	-195 -305	-195 -370

Contact Us

Shanghai Tengen Bearing Co., Ltd.

Room 1702, LinDun Mansion
No.100 Heng Feng North Road
Shanghai, P.R. China
Postcode 200070

www.tengenbearing.com