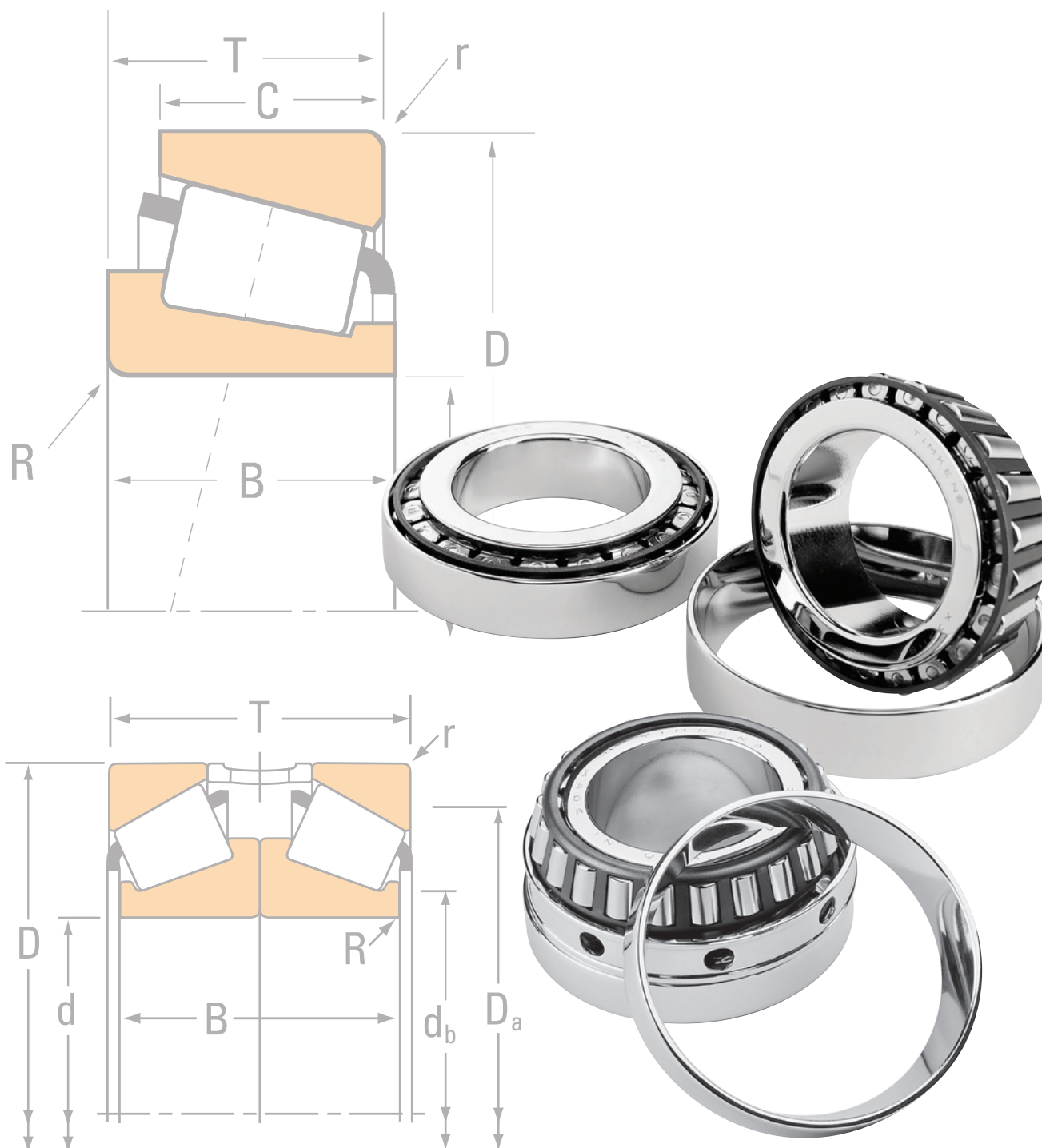


TIMKEN



**TIMKEN® METRIC TAPERED ROLLER BEARINGS
AND MATCHED BEARING ASSEMBLIES**

TIMKEN® METRIC TAPERED ROLLER BEARINGS

Metric part numbering system	2
Bearing Data	4

**TIMKEN® METRIC TAPERED ROLLER BEARINGS -
MATCHED BEARING ASSEMBLIES**

Introduction.....	19
Mounting arrangements	20
Internal clearance	21
Part numbering system	21

Matched bearing assemblies - Bearing Data

Direct mounting	22
Indirect mounting	28

TIMKEN® METRIC TAPERED ROLLER BEARINGS

Tapered roller bearings to help your equipment excel when it faces combined radial and thrust loads. They are uniquely designed to manage both types of loads on rotating shafts and in housings. Engineered for dependability and better operational efficiency, Timken® Tapered Roller Bearings increase performance, reduce downtime and extend maintenance intervals.



- **Optimised surfaces extend bearing life**

Advanced superfinishing technology creates smooth roller and race surfaces that improve lubrication, help reduce wear and friction, lower operating temperatures and reduce noise and vibration.

- **Steel Quality**

Cleaner steel enhances fatigue life. Optimised heat treatment increases wear resistance and helps protect against shock and acceleration.

- **Enhanced Raceway and Roller Profiles**

Uniform stress distribution along the full roller contact length minimizes wear, reduces sensitivity to misalignment and helps bearings last longer. Profiles can be optimised for heavy loads, significant misalignment or both.

- **Performance Density**

Continuous improvements in design, manufacturing and materials translate into either smaller, lighter bearings, heavier load carrying capacity or longer predicted useful bearing life.

- **True Rolling Motion**

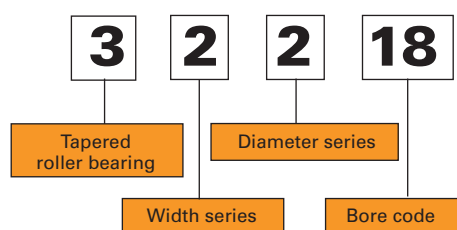
Designed according to geometrical law, the extensions of the raceways and the rollers meet at a common point on the bearing axis. True rolling motion allows for higher speeds with minimum roller skewing or skidding.

- **Positive Roller Alignment**

A seating force pushes the rollers' spherical ends against the race rib. This prevents rollers from skewing through positive roller alignment, thereby enhancing bearing life, stiffness and accuracy.

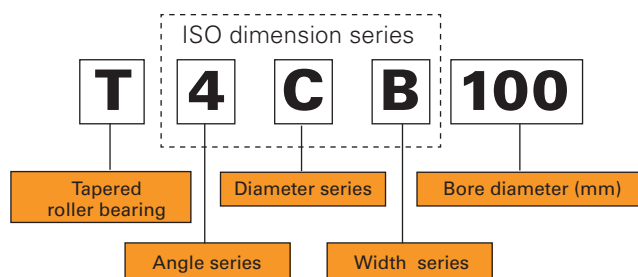
METRIC PART-NUMBERING SYSTEMS

30000 ISO PART NUMBERING



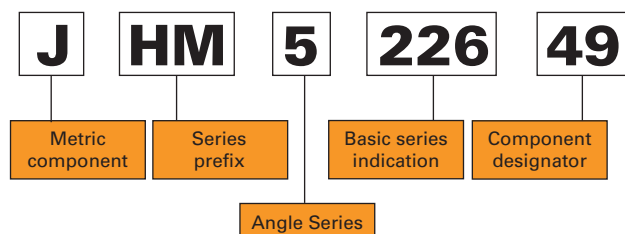
The original metric part-numbering system for tapered roller bearings was based on the ISO 15 dimensional plan for radial bearings.

ISO 355 PART NUMBERING



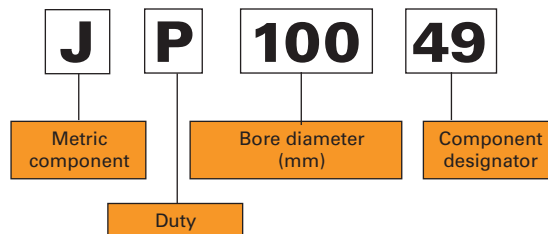
ISO introduced a new numbering system for tapered roller bearings in the ISO 355 plan. This numbering system uses three alphanumeric fields to define a dimension series. The bearing part number is defined by adding the inner ring bore diameter after the dimension series.

J-LINE PART NUMBERING



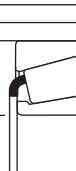
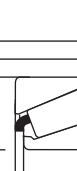
ABMA (inch) part numbers designed with metric envelope dimensions are identified with a J-prefix. Many of these part numbers have been assigned an ISO dimension series.

J-PREFIX PART NUMBERING



The latest ISO 355 plan includes an expanded range of metric bearings originally designed by The Timken Company. These bearings are identified with a J-prefix.

ISO SERIES DESIGNATIONS

Outer-ring raceway angle between		Comparison of metric bearing designs with a 55 mm bore.							
		 mm							
10° and 16°									
Part number	32911	JC5500	32011X	33011	JD5500	33111	30211	32211	
ISO series	(2BC)	(2CC)	(3CC)	(2CE)	(2CD)	(3CE)	(3DB)	(3DC)	
10° and 16°									
Part number	33211	JF5500	30311	32311					
ISO series	(3DE)	(2ED)	(2FB)	(2FD)					
16° and 30°									
Part number	JP5500	JS5500	JT5500	JW5500	JN5500	31311	32311B		
ISO series	(4CB)	(5DD)	(5ED)	(7FC)	(4FE)	(7FB)	(5FD)		

NOTE

Product performance is affected by many factors beyond the control of Timken. Therefore, the suitability and feasibility of all designs and product selection should be validated by you. This brochure is provided solely to give you, a customer of Timken or its parent or affiliates, analysis tools and data to assist you in your design. No warranty, expressed or implied, including any warranty of fitness for a particular purpose, is made by Timken. Timken products and services are sold subject to a Limited Warranty.

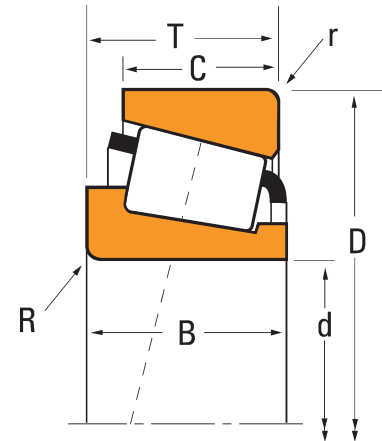
You can see your Timken engineer for more information.

TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

Bore	Part Number		Dimension Series (ISO 355)	Bearing Dimensions				
	Inner	Outer		Bore	O.D.	Width	Width	Width
				d	D	T	B	C
mm			mm	mm	mm	mm	mm	mm
15	30302		2FB	15.000	42.000	14.250	13.000	11.000
17	30203		2DB	17.000	40.000	13.250	12.000	11.000
	30303		2FB	17.000	47.000	15.250	14.000	12.000
20	32004X		3CC	20.000	42.000	15.000	15.000	12.000
	XAA32004X	YAA32004X	-	20.000	42.000	15.000	15.000	12.000
	30204		2DB	20.000	47.000	15.250	14.000	12.000
	32204		2DD	20.000	47.000	19.250	18.000	15.000
	30304		2FB	20.000	52.000	16.250	15.000	13.000
	32304		2FD	20.000	52.000	22.250	21.000	18.000
25	32005X		4CC	25.000	47.000	15.000	15.000	11.500
	XAA32005X	YAA32005X	-	25.000	47.000	15.000	15.000	11.500
	30205		3CC	25.000	52.000	16.250	15.000	13.000
	32205		2CD	25.000	52.000	19.250	18.000	16.000
	32205B		5CD	25.000	52.000	19.250	18.000	15.000
	33205		2DE	25.000	52.000	22.000	22.000	18.000
	30305		2FB	25.000	62.000	18.250	17.000	15.000
	32305		2FD	25.000	62.000	25.250	24.000	20.000
30	32006X		4CC	30.000	55.000	17.000	17.000	13.000
	30206		3DB	30.000	62.000	17.250	16.000	14.000
	32206		3DC	30.000	62.000	21.250	20.000	17.000
	32206B		5DC	30.000	62.000	21.250	20.000	17.000
	33206		2DE	30.000	62.000	25.000	25.000	19.500
	30306		2FB	30.000	72.000	20.750	19.000	16.000
	32306		2FD	30.000	72.000	28.750	27.000	23.000
	JHM88540	JHM88513	-	30.000	72.000	29.370	27.783	23.020
35	32007X		4CC	35.000	62.000	18.000	18.000	14.000
	30207		3DB	35.000	72.000	18.250	17.000	15.000
	32207		3DC	35.000	72.000	24.250	23.000	19.000
	33207		2DE	35.000	72.000	28.000	28.000	22.000
	31307		7FB	35.000	80.000	22.750	21.000	15.000
	30307		2FB	35.000	80.000	22.750	21.000	18.000
	32307		2FE	35.000	80.000	32.750	31.000	25.000
	32008X		3CD	40.000	68.000	19.000	19.000	14.500
40	XAA32008X	Y32008X	-	40.000	68.000	19.000	19.000	14.500
	33108		2CE	40.000	75.000	26.000	26.000	20.500
	XAA33108	Y33108	-	40.000	75.000	26.000	26.000	20.500
	30208		3DB	40.000	80.000	19.750	18.000	16.000
	32208		3DC	40.000	80.000	24.750	23.000	19.000
	33208		2DE	40.000	80.000	32.000	32.000	25.000
	JF4049	JF4010	2EE	40.000	85.000	33.000	32.500	28.000
	31308		7FB	40.000	90.000	25.250	23.000	17.000
	30308		2FB	40.000	90.000	25.250	23.000	20.000
	32308		2FD	40.000	90.000	35.250	33.000	27.000
	32308B		5FD	40.000	90.000	35.250	33.000	27.000

Mounting Dimensions		Load Ratings				Weight
Max Shaft Fillet Radius $R^{(1)}$	Max Housing Fillet Radius $r^{(1)}$	Dynamic ⁽²⁾ C_1	Factors ⁽³⁾		Static C_0	
mm	mm	N	e	Y	N	
1.00	1.00	26000	0.29	2.11	22200	0.11
1.00	1.00	21300	0.35	1.74	19900	0.08
1.00	1.00	32700	0.29	2.11	28400	0.14
0.60	0.60	27700	0.37	1.60	29400	0.10
2.00	1.00	27700	0.37	1.60	29400	0.10
1.00	1.00	33200	0.35	1.74	33000	0.13
1.00	1.00	41800	0.33	1.81	43000	0.16
1.50	1.50	38500	0.30	2.00	34500	0.17
1.50	1.50	55200	0.30	2.00	55000	0.24
3.30	1.00	30800	0.43	1.39	35400	0.11
3.30	1.00	30800	0.43	1.39	35400	0.11
1.00	1.00	36900	0.37	1.60	38300	0.15
1.00	1.00	42000	0.36	1.67	42100	0.18
1.00	2.00	39700	0.58	1.03	46300	0.19
1.00	1.00	55100	0.35	1.71	63600	0.23
1.50	1.50	53800	0.30	2.00	49600	0.26
1.50	1.50	72400	0.30	2.00	72400	0.37
1.00	1.00	39200	0.43	1.39	45300	0.18
1.00	1.00	49300	0.37	1.60	43800	0.23
1.00	1.00	64100	0.37	1.60	71900	0.29
1.00	1.00	55800	0.56	1.07	62300	0.30
1.00	1.00	73900	0.34	1.76	82200	0.35
1.50	1.50	67700	0.31	1.90	65300	0.39
1.50	1.50	87600	0.31	1.90	89800	0.56
1.30	3.30	87000	0.55	1.10	111000	0.61
1.00	1.00	47700	0.45	1.32	57600	0.22
1.50	1.50	60600	0.37	1.60	63600	0.34
1.50	1.50	74900	0.37	1.60	82300	0.44
1.50	1.50	99900	0.35	1.70	116000	0.52
2.00	1.50	72800	0.83	0.73	74800	0.55
2.00	1.50	87200	0.31	1.90	86100	0.53
2.00	1.50	116000	0.31	1.90	123000	0.76
1.00	1.00	55500	0.38	1.58	71600	0.27
3.50	1.00	55500	0.38	1.58	71600	0.27
1.50	1.50	88000	0.36	1.69	105000	0.50
3.50	1.50	88000	0.36	1.69	105000	0.50
1.50	1.50	70900	0.37	1.60	74700	0.43
1.50	1.50	88300	0.37	1.60	98000	0.53
1.50	1.50	121000	0.36	1.68	144000	0.73
2.50	2.00	137000	0.34	1.74	160000	0.90
2.00	1.50	85300	0.83	0.73	88100	0.73
2.00	1.50	98700	0.35	1.74	102000	0.73
2.00	1.50	133000	0.35	1.74	150000	1.03
2.00	1.50	132000	0.55	1.10	160000	1.10



⁽¹⁾ These maximum fillet radii will be cleared by the bearing corners.

⁽²⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method.

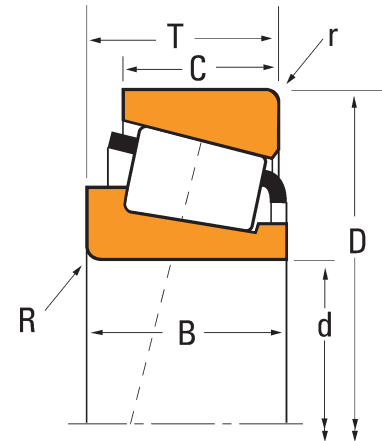
⁽³⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

Bore	Part Number		Dimension Series (ISO 355)	Bearing Dimensions				
	Inner	Outer		Bore	O.D.	Width	Width	Width
				d	D	T	B	C
mm			mm	mm	mm	mm	mm	mm
45	32009X		3CC	45.000	75.000	20.000	20.000	15.500
	XAA32009X	Y32009X	-	45.000	75.000	20.000	20.000	15.500
	33109		3CE	45.000	80.000	26.000	26.000	20.500
	30209		3DB	45.000	85.000	20.750	19.000	16.000
	32209		3DC	45.000	85.000	24.750	23.000	19.000
	33209		3DE	45.000	85.000	32.000	32.000	25.000
	JW4549	JW4510	7FC	45.000	95.000	29.000	26.500	20.000
	31309		7FB	45.000	100.000	27.250	25.000	18.000
	30309		2FB	45.000	100.000	27.250	25.000	22.000
	32309		2FD	45.000	100.000	38.250	36.000	30.000
	32309B		5FD	45.000	100.000	38.250	36.000	30.000
50	32010X		3CC	50.000	80.000	20.000	20.000	15.500
	XAA32010X	Y32010X	-	50.000	80.000	20.000	20.000	15.500
	XAB32010X	Y32010X	-	50.000	80.000	20.000	20.000	15.500
	33010		2CE	50.000	80.000	24.000	24.000	19.000
	JLM104948	JLM104910	2CC	50.000	82.000	21.500	21.500	17.000
	JLM704649	JLM704610	4CC	50.000	84.000	22.000	22.000	17.500
	33110		3CE	50.000	85.000	26.000	26.000	20.000
	30210		3DB	50.000	90.000	21.750	20.000	17.000
	32210		3DC	50.000	90.000	24.750	23.000	19.000
	JM205149	JM205110	2DD	50.000	90.000	28.000	28.000	23.000
	33210		3DE	50.000	90.000	32.000	32.000	24.500
	JW5049	JW5010	7FC	50.000	105.000	32.000	29.000	22.000
	JHM807045	JHM807012	4FD	50.000	105.000	37.000	36.000	29.000
	31310		7FB	50.000	110.000	29.250	27.000	19.000
	30310		2FB	50.000	110.000	29.250	27.000	23.000
	32310		2FD	50.000	110.000	42.250	40.000	33.000
	32310B		5FD	50.000	110.000	42.250	40.000	33.000
55	JLM506849	JLM506810	-	55.000	90.000	23.000	23.000	18.500
	32011X		3CC	55.000	90.000	23.000	23.000	17.500
	33011		2CE	55.000	90.000	27.000	27.000	21.000
	JM207049	JM207010	-	55.000	95.000	29.000	29.000	23.500
	33111		3CE	55.000	95.000	30.000	30.000	23.000
	30211		3DB	55.000	100.000	22.750	21.000	18.000
	32211		3DC	55.000	100.000	26.750	25.000	21.000
	33211		3DE	55.000	100.000	35.000	35.000	27.000
	JH307749	JH307710	-	55.000	110.000	39.000	39.000	32.000
	JW5549	JW5510	7FC	55.000	115.000	34.000	31.000	23.500
	30311		2FB	55.000	120.000	31.500	29.000	25.000
	31311		7FB	55.000	120.000	31.500	29.000	21.000
	32311		2FD	55.000	120.000	45.500	43.000	35.000
	32311B		5FD	55.000	120.000	45.500	43.000	35.000
60	32012X		4CC	60.000	95.000	23.000	23.000	17.500
	JLM508748	JLM508710	3CD	60.000	95.000	24.000	24.000	19.000

Mounting Dimensions		Load Ratings				Weight
Max Shaft Fillet Radius $R^{(1)}$	Max Housing Fillet Radius $r^{(1)}$	Dynamic ⁽²⁾ C_1	Factors ⁽³⁾		Static C_0	
mm	mm	N	e	Y	N	
1.00	1.00	66400	0.39	1.53	84300	0.34
3.00	1.00	66400	0.39	1.53	84300	0.34
1.50	1.50	95100	0.38	1.57	119000	0.54
1.50	1.50	80000	0.40	1.48	89000	0.49
1.50	1.50	87500	0.40	1.48	98700	0.58
1.50	1.50	125000	0.39	1.56	155000	0.79
2.50	2.50	99900	0.87	0.69	114000	0.90
2.00	1.50	106000	0.83	0.73	113000	0.94
2.00	1.50	129000	0.35	1.74	139000	1.01
2.00	1.50	154000	0.35	1.74	171000	1.36
2.00	1.50	159000	0.55	1.10	187000	1.42
1.00	1.00	69800	0.42	1.42	92700	0.36
2.30	1.00	69800	0.42	1.42	92700	0.36
3.00	1.00	69800	0.42	1.42	92700	0.36
1.00	1.00	80600	0.32	1.90	112000	0.45
3.00	0.50	81300	0.31	1.97	104000	0.42
3.50	1.50	81400	0.44	1.37	104000	0.46
1.50	1.50	96700	0.41	1.46	125000	0.58
1.50	1.50	79500	0.42	1.43	87400	0.54
1.50	1.50	99800	0.42	1.43	118000	0.62
3.00	2.50	124000	0.33	1.82	154000	0.74
1.50	1.50	130000	0.41	1.45	166000	1.03
3.00	3.00	119000	0.87	0.69	138000	1.23
3.00	2.50	172000	0.49	1.23	223000	1.50
2.50	2.00	124000	0.83	0.73	132000	1.21
2.50	2.00	149000	0.35	1.74	160000	1.25
2.50	2.00	187000	0.35	1.74	211000	1.83
2.50	2.00	193000	0.55	1.10	241000	1.94
1.50	0.50	91800	0.40	1.49	123000	0.54
1.50	1.50	94900	0.41	1.48	126000	0.56
1.50	1.50	99500	0.31	1.92	141000	0.66
1.50	2.50	131000	0.33	1.79	168000	0.83
1.50	1.50	133000	0.37	1.60	166000	0.83
2.00	1.50	107000	0.40	1.48	122000	0.72
2.00	1.50	121000	0.40	1.48	141000	0.84
2.00	1.50	162000	0.40	1.50	202000	1.16
3.00	2.50	210000	0.35	1.73	251000	1.68
3.00	3.00	145000	0.87	0.69	175000	1.57
2.50	2.00	174000	0.35	1.74	190000	1.63
2.50	2.00	145000	0.83	0.73	157000	1.57
2.50	2.00	228000	0.35	1.74	265000	2.32
2.50	2.00	223000	0.55	1.10	286000	2.45
1.50	1.50	96700	0.43	1.39	132000	0.60
5.00	2.50	97600	0.40	1.49	135000	0.59



⁽¹⁾ These maximum fillet radii will be cleared by the bearing corners.

⁽²⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method.

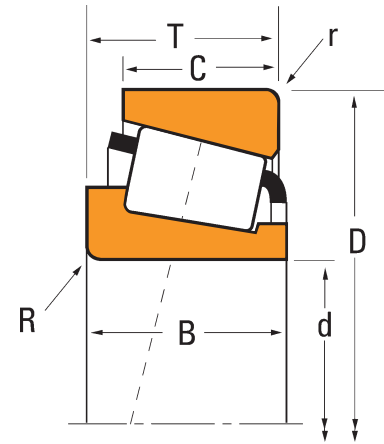
⁽³⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

Bore	Part Number		Dimension Series (ISO 355)	Bearing Dimensions				
	Inner	Outer		Bore d	O.D. D	Width T	Width B	Width C
mm			mm	mm	mm	mm	mm	mm
60	33012		2CE	60.000	95.000	27.000	27.000	21.000
	JP6049	JP6010	4CB	60.000	100.000	21.000	20.000	15.500
	33112		3CE	60.000	100.000	30.000	30.000	23.000
	30212		3EB	60.000	110.000	23.750	22.000	19.000
	32212		3EC	60.000	110.000	29.750	28.000	24.000
	33212		3EE	60.000	110.000	38.000	38.000	29.000
	XAB33212	Y33212	-	60.000	110.000	38.000	38.000	29.000
	JF6049	JF6010	2EE	60.000	115.000	40.000	39.000	33.000
	JW6049	JW6010	7FC	60.000	125.000	37.000	33.500	26.000
	30312		2FB	60.000	130.000	33.500	31.000	26.000
	31312		7FB	60.000	130.000	33.500	31.000	22.000
	32312		2FD	60.000	130.000	48.500	46.000	37.000
	32312B		5FD	60.000	130.000	48.500	46.000	37.000
65	32013X		4CC	65.000	100.000	23.000	23.000	17.500
	33013		2CE	65.000	100.000	27.000	27.000	21.000
	JLM710949C	JLM710910	-	65.000	105.000	24.000	23.000	18.500
	JM511946	JM511910	3DC	65.000	110.000	28.000	28.000	22.500
	JD6549	JD6510	2DD	65.000	110.000	31.000	31.000	25.000
	33113		3DE	65.000	110.000	34.000	34.000	26.500
	30213		3EB	65.000	120.000	24.750	23.000	20.000
	32213		3EC	65.000	120.000	32.750	31.000	27.000
	JH211749	JH211710	2ED	65.000	120.000	39.000	38.500	32.000
	33213		3EE	65.000	120.000	41.000	41.000	32.000
	JW6549	JW6510	7FC	65.000	130.000	37.000	33.500	26.000
	31313		7GB	65.000	140.000	36.000	33.000	23.000
	30313		2GB	65.000	140.000	36.000	33.000	28.000
	32313		2GD	65.000	140.000	51.000	48.000	39.000
70	JP7049	JP7010	4CB	70.000	110.000	21.000	20.000	15.500
	32014X		4CC	70.000	110.000	25.000	25.000	19.000
	JLM813049	JLM813010	-	70.000	110.000	26.000	25.000	20.500
	33014		2CE	70.000	110.000	31.000	31.000	25.500
	JM612949	JM612910	-	70.000	115.000	29.000	29.000	23.000
	33114		3DE	70.000	120.000	37.000	37.000	29.000
	30214		3EB	70.000	125.000	26.250	24.000	21.000
	32214		3EC	70.000	125.000	33.250	31.000	27.000
	33214		3EE	70.000	125.000	41.000	41.000	32.000
	JF7049	JF7010	2ED	70.000	130.000	43.000	42.000	35.000
	JF7049A	JF7010	-	70.000	130.000	43.000	42.000	35.000
	JW7049	JW7010	7FC	70.000	140.000	39.000	35.500	27.000
	31314		7GB	70.000	150.000	38.000	35.000	25.000
	30314		2GB	70.000	150.000	38.000	35.000	30.000
	JH913848	JH913811	-	70.000	150.000	41.275	39.688	25.400
	32314		2GD	70.000	150.000	54.000	51.000	42.000
75	32015X		4CC	75.000	115.000	25.000	25.000	19.000

Mounting Dimensions		Load Ratings				Weight
Max Shaft Fillet Radius R ⁽¹⁾	Max Housing Fillet Radius r ⁽¹⁾	Dynamic ⁽²⁾	Factors ⁽³⁾		Static	
		C _i	e	Y	C ₀	
mm	mm	N			N	
1.50	1.50	103000	0.33	1.83	150000	0.69
2.00	2.00	87300	0.47	1.27	101000	0.59
1.50	1.50	137000	0.40	1.51	180000	0.92
2.00	1.50	107000	0.40	1.48	117000	0.88
2.00	1.50	149000	0.40	1.48	178000	1.14
2.00	1.50	198000	0.40	1.48	253000	1.53
5.00	1.50	198000	0.40	1.48	253000	1.53
2.50	2.50	231000	0.33	1.80	279000	1.86
3.00	3.00	172000	0.82	0.73	210000	2.02
3.00	2.50	201000	0.35	1.74	221000	1.96
3.00	2.50	171000	0.83	0.73	188000	1.97
3.00	2.50	264000	0.35	1.74	310000	2.89
3.00	2.50	264000	0.55	1.10	343000	3.07
1.50	1.50	98000	0.46	1.31	137000	0.64
1.50	1.50	107000	0.35	1.72	162000	0.74
3.00	1.00	108000	0.45	1.32	139000	0.72
3.00	2.50	141000	0.40	1.49	195000	1.06
2.00	2.00	163000	0.33	1.81	212000	1.18
1.50	1.50	167000	0.39	1.55	225000	1.27
2.00	1.50	138000	0.40	1.48	158000	1.14
2.00	1.50	174000	0.40	1.48	209000	1.51
3.00	2.50	223000	0.34	1.78	283000	1.87
2.00	1.50	221000	0.39	1.54	280000	1.97
3.00	3.00	175000	0.87	0.69	220000	2.14
3.00	2.50	196000	0.83	0.73	217000	2.39
3.00	2.50	222000	0.35	1.74	242000	2.47
3.00	2.50	320000	0.35	1.74	388000	3.62
2.00	2.00	91600	0.46	1.30	112000	0.67
1.50	1.50	112000	0.43	1.38	163000	0.86
1.00	2.50	115000	0.49	1.23	168000	0.88
1.50	1.50	153000	0.28	2.11	236000	1.11
3.00	2.50	150000	0.43	1.39	198000	1.12
2.00	1.50	198000	0.38	1.58	270000	1.69
2.00	1.50	138000	0.42	1.43	157000	1.23
2.00	1.50	182000	0.42	1.43	224000	1.63
2.00	1.50	238000	0.41	1.47	314000	2.11
3.00	2.50	275000	0.33	1.80	360000	2.49
7.00	2.50	275000	0.33	1.80	360000	2.46
3.00	3.00	204000	0.87	0.69	257000	2.64
3.00	2.50	213000	0.83	0.73	235000	2.92
3.00	2.50	251000	0.35	1.74	276000	2.97
2.00	3.30	230000	0.78	0.77	256000	3.05
3.00	2.50	366000	0.35	1.74	448000	4.39
1.50	1.50	114000	0.46	1.31	170000	0.91



⁽¹⁾ These maximum fillet radii will be cleared by the bearing corners.

⁽²⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method.

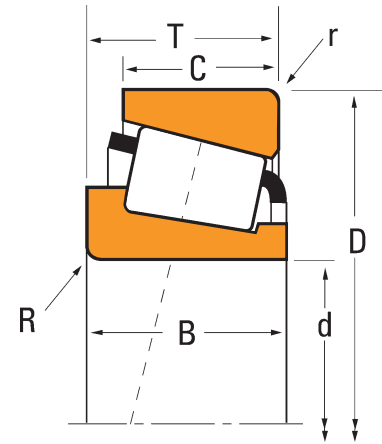
⁽³⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

Bore	Part Number		Dimension Series (ISO 355)	Bearing Dimensions				
	Inner	Outer		Bore	O.D.	Width	Width	Width
				d	D	T	B	C
mm			mm	mm	mm	mm	mm	mm
75	JLM714149	JLM714110	-	75.000	115.000	25.000	25.000	19.000
	33015		2CE	75.000	115.000	31.000	31.000	25.500
	JM714249	JM714210	4CD	75.000	120.000	31.000	29.500	25.000
	33115		3DE	75.000	125.000	37.000	37.000	29.000
	30215		4DB	75.000	130.000	27.250	25.000	22.000
	32215		4DC	75.000	130.000	33.250	31.000	27.000
	33215		3EE	75.000	130.000	41.000	41.000	31.000
	JH415647	JH415610	2FE	75.000	145.000	51.000	51.000	42.000
	JW7549	JW7510	7FC	75.000	150.000	42.000	38.000	29.000
	31315		7GB	75.000	160.000	40.000	37.000	26.000
	30315		2GB	75.000	160.000	40.000	37.000	31.000
	32315		2GD	75.000	160.000	58.000	55.000	45.000
	32016X		3CC	80.000	125.000	29.000	29.000	22.000
80	33016		2CE	80.000	125.000	36.000	36.000	29.500
	JM515649	JM515610	3DD	80.000	130.000	35.000	34.000	28.500
	33116		3DE	80.000	130.000	37.000	37.000	29.000
	XA33116	Y33116	-	80.000	130.000	37.000	37.000	29.000
	30216		3EB	80.000	140.000	28.250	26.000	22.000
	32216		3EC	80.000	140.000	35.250	33.000	28.000
	33216		3EE	80.000	140.000	46.000	46.000	35.000
	JW8049	JW8010	7FC	80.000	160.000	45.000	41.000	31.000
	31316		7GB	80.000	170.000	42.500	39.000	27.000
	30316		2GB	80.000	170.000	42.500	39.000	33.000
	32316		2GD	80.000	170.000	61.500	58.000	48.000
	32017X		4CC	85.000	130.000	29.000	29.000	22.000
	XAA32017X	Y32017X	-	85.000	130.000	29.000	29.000	22.000
	JM716649	JM716610	-	85.000	130.000	30.000	29.000	24.000
85	33017		2CE	85.000	130.000	36.000	36.000	29.500
	JHM516849	JHM516810	3DD	85.000	140.000	39.000	38.000	31.500
	33117		3DE	85.000	140.000	41.000	41.000	32.000
	30217		3EB	85.000	150.000	30.500	28.000	24.000
	32217		3EC	85.000	150.000	38.500	36.000	30.000
	JH217249	JH217210	-	85.000	150.000	46.000	46.000	38.000
	33217		3EE	85.000	150.000	49.000	49.000	37.000
	JW8549	JW8510	7FC	85.000	170.000	48.000	45.000	33.000
	31317		7GB	85.000	180.000	44.500	41.000	28.000
	30317		2GB	85.000	180.000	44.500	41.000	34.000
	32317		2GD	85.000	180.000	63.500	60.000	49.000
	32018X		3CC	90.000	140.000	32.000	32.000	24.000
	XAA32018X	Y32018X	-	90.000	140.000	32.000	32.000	24.000
90	33018		2CE	90.000	140.000	39.000	39.000	32.500
	JM718149	JM718110	4DC	90.000	145.000	35.000	34.000	27.000
	JT9049	JT9010	5ED	90.000	150.000	42.000	40.000	34.000
	33118		3DE	90.000	150.000	45.000	45.000	35.000

Mounting Dimensions		Load Ratings				Weight
Max Shaft Fillet Radius $R^{(1)}$	Max Housing Fillet Radius $r^{(1)}$	Dynamic ⁽²⁾ C_1	Factors ⁽³⁾		Static C_0	
mm	mm	N	e	Y	N	
3.00	2.50	118000	0.46	1.31	167000	0.88
1.50	1.50	158000	0.30	2.01	239000	1.15
3.00	2.50	159000	0.44	1.35	229000	1.27
2.00	1.50	205000	0.40	1.51	287000	1.76
2.00	1.50	158000	0.44	1.38	189000	1.35
2.00	1.50	184000	0.44	1.38	227000	1.69
2.00	1.50	236000	0.43	1.40	316000	2.17
3.00	2.50	347000	0.36	1.66	463000	3.81
3.00	3.00	231000	0.87	0.69	294000	3.22
3.00	2.50	248000	0.83	0.73	278000	3.46
3.00	2.50	299000	0.35	1.74	338000	3.65
3.00	2.50	357000	0.35	1.74	421000	5.06
1.50	1.50	166000	0.42	1.42	238000	1.27
1.50	1.50	210000	0.28	2.16	315000	1.62
3.00	2.50	199000	0.39	1.54	283000	1.71
2.00	1.50	209000	0.42	1.44	300000	1.86
2.00	1.50	209000	0.42	1.44	300000	1.85
2.50	2.00	164000	0.42	1.43	187000	1.63
2.50	2.00	206000	0.42	1.43	249000	2.07
2.50	2.00	297000	0.43	1.41	409000	2.95
3.00	3.00	264000	0.87	0.69	339000	4.04
3.00	2.50	271000	0.83	0.73	312000	4.06
3.00	2.50	334000	0.35	1.74	381000	4.31
3.00	2.50	448000	0.35	1.74	566000	6.34
1.50	1.50	163000	0.44	1.36	235000	1.33
6.50	1.50	163000	0.44	1.36	235000	1.31
3.00	2.50	161000	0.44	1.35	245000	1.34
1.50	1.50	220000	0.29	2.06	343000	1.72
3.00	2.50	238000	0.41	1.47	339000	2.27
2.50	2.00	254000	0.41	1.48	386000	2.45
2.50	2.00	199000	0.42	1.43	236000	2.07
2.50	2.00	245000	0.42	1.43	305000	2.62
3.00	2.50	332000	0.33	1.80	446000	3.34
2.50	2.00	351000	0.42	1.43	483000	3.60
4.00	4.00	319000	0.80	0.75	423000	4.80
4.00	3.00	284000	0.83	0.73	366000	4.97
4.00	3.00	313000	0.35	1.74	346000	4.78
4.00	3.00	481000	0.35	1.74	588000	7.24
2.00	1.50	183000	0.42	1.42	264000	1.70
6.00	1.50	183000	0.42	1.42	264000	1.70
2.00	1.50	247000	0.27	2.23	377000	2.20
3.00	2.50	222000	0.44	1.35	313000	2.14
5.10	3.00	252000	0.55	1.10	386000	2.90
2.50	2.00	306000	0.40	1.51	447000	3.15



⁽¹⁾ These maximum fillet radii will be cleared by the bearing corners.

⁽²⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method.

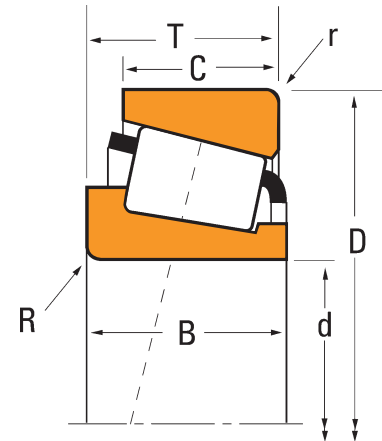
⁽³⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

Bore	Part Number		Dimension Series (ISO 355)	Bearing Dimensions				
	Inner	Outer		Bore d	O.D. D	Width T	Width B	Width C
mm			mm	mm	mm	mm	mm	mm
90	JHM318448	JHM318410	-	90.000	155.000	44.000	44.000	35.500
	30218		3FB	90.000	160.000	32.500	30.000	26.000
	32218		3FC	90.000	160.000	42.500	40.000	34.000
	31318		7GB	90.000	190.000	46.500	43.000	30.000
	30318		2GB	90.000	190.000	46.500	43.000	36.000
	JHH221436	JHH221413	2GC	90.000	190.000	57.150	57.531	46.038
	32318		2GD	90.000	190.000	67.500	64.000	53.000
95	JL819349	JL819310	-	95.000	135.000	20.000	20.000	14.000
	32019X		4CC	95.000	145.000	32.000	32.000	24.000
	33019		2CE	95.000	145.000	39.000	39.000	32.500
	XAA33019	Y33019	-	95.000	145.000	39.000	39.000	32.500
	JM719149	JM719113	4DC	95.000	150.000	35.000	34.000	27.000
	JF9549	JF9510	2ED	95.000	160.000	46.000	46.000	38.000
	30219		3FB	95.000	170.000	34.500	32.000	27.000
	32219		3FC	95.000	170.000	45.500	43.000	37.000
	30319		2GB	95.000	200.000	49.500	45.000	38.000
	31319		7GB	95.000	200.000	49.500	45.000	32.000
	32319		2GD	95.000	200.000	71.500	67.000	55.000
100	JP10049	JP10010	4CB	100.000	145.000	24.000	22.500	17.500
	JP10049A	JP10010A	-	100.000	145.000	24.000	22.500	17.500
	32020X		4CC	100.000	150.000	32.000	32.000	24.000
	JLM820048	JLM820012	-	100.000	150.000	32.000	30.000	26.000
	33020		2CE	100.000	150.000	39.000	39.000	32.500
	JM720249	JM720210	4DC	100.000	155.000	36.000	35.000	28.000
	JHM720249	JHM720210	4DD	100.000	160.000	41.000	40.000	32.000
	30220		3FB	100.000	180.000	37.000	34.000	29.000
	32220		3FC	100.000	180.000	49.000	46.000	39.000
	33220		3FE	100.000	180.000	63.000	63.000	48.000
	30320		2GB	100.000	215.000	51.500	47.000	39.000
	31320X		7GB	100.000	215.000	56.500	51.000	35.000
	JHH224333	JHH224315	2GC	100.000	215.000	66.675	66.675	53.975
	32320		2GD	100.000	215.000	77.500	73.000	60.000
105	32021X		4DC	105.000	160.000	35.000	35.000	26.000
	33021		2DE	105.000	160.000	43.000	43.000	34.000
	30221		3FB	105.000	190.000	39.000	36.000	30.000
	32221		3FC	105.000	190.000	53.000	50.000	43.000
	32321		2GD	105.000	225.000	81.500	77.000	63.000
110	JM822049	JM822010	-	110.000	165.000	35.000	35.000	26.500
	32022X		4DC	110.000	170.000	38.000	38.000	29.000
	33022		2DE	110.000	170.000	47.000	47.000	37.000
	JHM522649	JHM522610	-	110.000	180.000	47.000	46.000	38.000
	33122		3EE	110.000	180.000	56.000	56.000	43.000
	30222		3FB	110.000	200.000	41.000	38.000	32.000
	32222		3FC	110.000	200.000	56.000	53.000	46.000

Mounting Dimensions		Load Ratings				Weight
Max Shaft Fillet Radius $R^{(1)}$	Max Housing Fillet Radius $r^{(1)}$	Dynamic ⁽²⁾ C_1	Factors ⁽³⁾		Static C_0	
mm	mm	N	e	Y	N	
3.00	2.50	331000	0.34	1.76	447000	3.33
2.50	2.00	240000	0.42	1.43	295000	2.63
2.50	2.00	312000	0.42	1.43	406000	3.47
4.00	3.00	324000	0.83	0.73	421000	5.93
4.00	3.00	375000	0.35	1.74	429000	5.56
8.00	3.30	534000	0.33	1.79	692000	7.65
4.00	3.00	575000	0.35	1.74	683000	8.51
5.00	2.50	83000	0.58	1.03	133000	0.85
2.00	1.50	186000	0.44	1.36	274000	1.78
2.00	1.50	246000	0.28	2.16	378000	2.23
6.00	1.50	246000	0.28	2.16	378000	2.23
3.00	2.50	215000	0.44	1.36	316000	2.15
3.00	3.00	354000	0.34	1.77	506000	3.74
3.00	2.50	265000	0.42	1.43	327000	3.02
3.00	2.50	316000	0.42	1.43	401000	4.06
4.00	3.00	428000	0.35	1.74	492000	6.65
4.00	3.00	360000	0.83	0.73	438000	6.63
4.00	3.00	578000	0.35	1.74	714000	9.74
3.00	0.80	125000	0.47	1.27	172000	1.15
5.00	3.00	125000	0.47	1.27	172000	1.13
2.00	1.50	195000	0.46	1.31	295000	1.89
2.30	2.30	162000	0.50	1.20	242000	1.81
2.00	1.50	251000	0.29	2.09	393000	2.36
3.00	2.50	231000	0.47	1.27	355000	2.36
3.00	2.50	279000	0.47	1.28	416000	3.00
3.00	2.50	301000	0.42	1.43	375000	3.76
3.00	2.50	368000	0.42	1.43	478000	4.92
3.00	2.50	488000	0.40	1.48	679000	6.59
4.00	3.00	423000	0.35	1.74	579000	8.36
4.00	3.00	416000	0.83	0.73	526000	8.76
7.00	3.30	642000	0.33	1.84	906000	11.52
4.00	3.00	586000	0.35	1.74	883000	12.92
2.50	2.00	227000	0.44	1.35	339000	2.40
2.50	2.00	291000	0.28	2.12	449000	2.94
3.00	2.50	325000	0.42	1.43	407000	4.47
3.00	2.50	398000	0.42	1.43	516000	5.94
4.00	3.00	726000	0.35	1.74	989000	14.00
3.00	2.50	227000	0.50	1.21	356000	2.45
2.50	2.00	282000	0.43	1.39	433000	3.06
2.50	2.00	341000	0.29	2.09	563000	3.81
3.00	2.50	371000	0.41	1.48	554000	4.51
2.50	2.00	412000	0.42	1.43	635000	5.38
3.00	2.50	374000	0.42	1.43	475000	5.24
3.00	2.50	493000	0.42	1.43	668000	7.28



⁽¹⁾ These maximum fillet radii will be cleared by the bearing corners.

⁽²⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method.

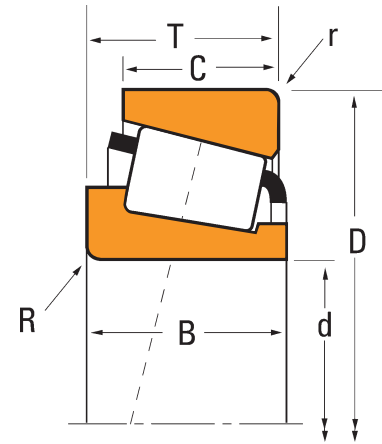
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TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

Bore	Part Number		Dimension Series (ISO 355)	Bearing Dimensions				
	Inner	Outer		Bore d	O.D. D	Width T	Width B	Width C
mm			mm	mm	mm	mm	mm	mm
110	30322		2GB	110.000	240.000	54.500	50.000	42.000
	31322X		7GB	110.000	240.000	63.000	57.000	38.000
	32322		2GD	110.000	240.000	84.500	80.000	65.000
115	JLM722948	JLM722912	4CC	115.000	165.000	28.000	27.000	21.000
120	32924		2CC	120.000	165.000	29.000	29.000	23.000
	JL724348	JL724314	-	120.000	170.000	25.400	25.400	19.050
	JP12049	JP12010	4CB	120.000	170.000	27.000	25.000	19.500
	JP12049A	JP12010	-	120.000	170.000	27.000	25.000	19.500
	JM624649	JM624610	-	120.000	180.000	36.000	36.000	26.000
	32024X		4DC	120.000	180.000	38.000	38.000	29.000
	XAA32024X	Y32024X	-	120.000	180.000	38.000	38.000	29.000
	33024		2DE	120.000	180.000	48.000	48.000	38.000
	30224		4FB	120.000	215.000	43.500	40.000	34.000
	32224		4FD	120.000	215.000	61.500	58.000	50.000
	30324		2GB	120.000	260.000	59.500	55.000	46.000
	31324X		7GB	120.000	260.000	68.000	62.000	42.000
	32324		2GD	120.000	260.000	90.500	86.000	69.000
	JL725346	JL725316	-	125.000	175.000	25.400	25.400	18.288
130	32926		2CC	130.000	180.000	32.000	32.000	25.000
	JP13049	JP13010	4CB	130.000	185.000	29.000	27.000	21.000
	JP13049A	JP13010	-	130.000	185.000	29.000	27.000	21.000
	32026X		4EC	130.000	200.000	45.000	45.000	34.000
	30226		4FB	130.000	230.000	43.750	40.000	34.000
	32226		4FD	130.000	230.000	67.750	64.000	54.000
	JH429148	JH429111	-	130.000	240.000	76.000	72.000	60.000
	30326		2GB	130.000	280.000	63.750	58.000	49.000
	31326X		7GB	130.000	280.000	72.000	66.000	44.000
	32326		-	130.000	280.000	98.750	93.000	78.000
140	32928		2CC	140.000	190.000	32.000	32.000	25.000
	JP14049	JP14010	4CB	140.000	195.000	29.000	27.000	21.000
	32028X		4DC	140.000	210.000	45.000	45.000	34.000
	XAA32028X	Y32028X	-	140.000	210.000	45.000	45.000	34.000
	30228		4FB	140.000	250.000	45.750	42.000	36.000
	32228		4FD	140.000	250.000	71.750	68.000	58.000
	31328X		7GB	140.000	300.000	77.000	70.000	47.000
150	JL730646	JL730612	-	150.000	205.000	28.575	28.575	21.438
	32930		2DC	150.000	210.000	38.000	38.000	30.000
	32030X		4EC	150.000	225.000	48.000	48.000	36.000
	33030		2EE	150.000	225.000	59.000	59.000	46.000
	30230		4GB	150.000	270.000	49.000	45.000	38.000
	32230		4GD	150.000	270.000	77.000	73.000	60.000
	31330X		7GB	150.000	320.000	82.000	75.000	50.000
160	JP16049	JP16010	4DB	160.000	220.000	32.000	30.000	23.000
	JM734445	JM734410	-	160.000	240.000	46.000	44.500	37.000

Mounting Dimensions		Load Ratings				Weight
Max Shaft Fillet Radius $R^{(1)}$	Max Housing Fillet Radius $r^{(1)}$	Dynamic ⁽²⁾ C_1	Factors ⁽³⁾		Static C_0	
mm	mm	N	e	Y	N	
4.00	3.00	502000	0.35	1.74	732000	11.50
4.00	3.00	523000	0.83	0.73	663000	12.13
4.00	3.00	760000	0.35	1.74	1020000	16.99
3.30	3.00	160000	0.46	1.31	245000	1.75
1.50	1.50	179000	0.35	1.72	308000	1.78
3.30	3.30	145000	0.46	1.31	231000	1.62
3.00	3.00	165000	0.47	1.27	238000	1.70
6.00	3.00	165000	0.47	1.27	238000	1.69
3.50	1.50	247000	0.41	1.45	377000	2.93
2.50	2.00	292000	0.46	1.31	466000	3.27
5.00	2.00	292000	0.46	1.31	466000	3.25
2.50	2.00	352000	0.31	1.97	603000	4.19
3.00	2.50	374000	0.44	1.38	508000	6.24
3.00	2.50	553000	0.44	1.38	831000	9.27
4.00	3.00	624000	0.35	1.74	807000	14.17
4.00	3.00	606000	0.83	0.73	777000	15.37
4.00	3.00	908000	0.35	1.74	1250000	21.53
3.30	3.30	150000	0.48	1.26	246000	1.69
2.00	1.50	210000	0.34	1.77	356000	2.36
3.00	3.00	196000	0.47	1.27	283000	2.16
3.00	3.00	196000	0.47	1.27	283000	2.15
2.50	2.00	386000	0.43	1.38	617000	4.98
4.00	3.00	407000	0.44	1.38	550000	7.06
4.00	3.00	644000	0.44	1.38	982000	11.39
4.00	4.30	618000	0.36	1.67	955000	14.25
5.10	4.00	752000	0.35	1.74	990000	17.43
5.10	4.00	691000	0.83	0.73	966000	19.13
5.00	5.00	1120000	0.35	1.74	1460000	26.98
2.00	1.50	227000	0.36	1.67	405000	2.50
3.00	3.00	203000	0.50	1.19	304000	2.29
6.50	2.00	371000	0.46	1.31	644000	5.23
6.50	2.00	371000	0.46	1.31	644000	5.23
4.00	3.00	474000	0.44	1.38	649000	8.92
4.00	3.00	707000	0.44	1.38	1070000	14.33
5.00	4.00	785000	0.83	0.73	1020000	22.85
3.30	3.30	183000	0.46	1.31	339000	2.61
2.50	2.00	306000	0.33	1.83	573000	3.99
3.00	2.50	418000	0.46	1.31	730000	6.38
3.00	2.50	530000	0.36	1.65	949000	8.00
4.00	3.00	533000	0.44	1.38	735000	11.03
4.00	3.00	804000	0.44	1.38	1230000	17.70
5.00	4.00	862000	0.83	0.73	1200000	28.17
3.00	3.00	229000	0.49	1.23	372000	3.17
3.00	2.50	401000	0.44	1.37	759000	7.14



⁽¹⁾ These maximum fillet radii will be cleared by the bearing corners.

⁽²⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method.

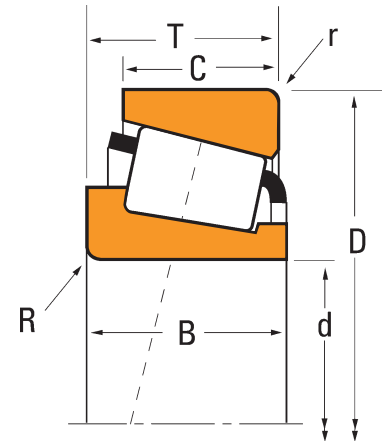
⁽³⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

TIMKEN® METRIC TAPERED ROLLER BEARINGS

BEARING DATA

Bore	Part Number		Dimension Series (ISO 355)	Bearing Dimensions				
	Inner	Outer		Bore d	O.D. D	Width T	Width B	Width C
mm			mm	mm	mm	mm	mm	mm
160	32032X		4EC	160.000	240.000	51.000	51.000	38.000
	JHM133449	JHM133417	-	160.000	255.000	63.500	69.850	52.388
	30232		4GB	160.000	290.000	52.000	48.000	40.000
	32232		4GD	160.000	290.000	84.000	80.000	67.000
170	JP17049 JP17010		4DB	170.000	230.000	32.000	30.000	23.000
	32934		3DC	170.000	230.000	38.000	38.000	30.000
	JHM534149	JHM534110	-	170.000	230.000	39.000	38.000	31.000
	JM734449	JM734410	4DD	170.000	240.000	46.000	44.500	37.000
	32034X		4EC	170.000	260.000	57.000	57.000	43.000
	30234		4GB	170.000	310.000	57.000	52.000	43.000
	32234		4GD	170.000	310.000	91.000	86.000	71.000
180	32936		4DC	180.000	250.000	45.000	45.000	34.000
	JP18049 JP18010		4DB	180.000	240.000	32.000	30.000	23.000
	JM736149	JM736110	4DD	180.000	250.000	47.000	45.000	37.000
	32036X		3FD	180.000	280.000	64.000	64.000	48.000
	30236		4GB	180.000	320.000	57.000	52.000	43.000
	32236		4GD	180.000	320.000	91.000	86.000	71.000
190	32938		4DC	190.000	260.000	45.000	45.000	34.000
	JM738249	JM738210	4DD	190.000	260.000	46.000	44.000	36.500
	32038X		4FD	190.000	290.000	64.000	64.000	48.000
	30238		4GB	190.000	340.000	60.000	55.000	46.000
	32238		4GD	190.000	340.000	97.000	92.000	75.000
200	32940		3EC	200.000	280.000	51.000	51.000	39.000
	JHM840449	JHM840410	-	200.000	300.000	65.000	62.000	51.000
	32040X		4FD	200.000	310.000	70.000	70.000	53.000
	30240		4GB	200.000	360.000	64.000	58.000	48.000
	32240		3GD	200.000	360.000	104.000	98.000	82.000
220	32944		3EC	220.000	300.000	51.000	51.000	39.000
	32044X		4FD	220.000	340.000	76.000	76.000	57.000
	30244		-	220.000	400.000	72.000	65.000	54.000
	32244		-	220.000	400.000	114.000	108.000	90.000
240	JP24049 JP24010		4EB	240.000	320.000	42.000	39.000	30.000
	32948		4EC	240.000	320.000	51.000	51.000	39.000
	32048X		4FD	240.000	360.000	76.000	76.000	57.000
	32248		4GD	240.000	440.000	127.000	120.000	100.000
260	32952		3EC	260.000	360.000	63.500	63.500	48.000
	32052X		4FC	260.000	400.000	87.000	87.000	65.000
	32252		-	260.000	480.000	137.000	130.000	106.000
280	32956		4EC	280.000	380.000	63.500	63.500	48.000
	32056X		4FC	280.000	420.000	87.000	87.000	65.000
300	32960		3FD	300.000	420.000	76.000	76.000	57.000
	32060X		4GD	300.000	460.000	100.000	100.000	74.000
	32260		4GD	300.000	540.000	149.000	140.000	115.000
320	32064X		4GD	320.000	480.000	100.000	100.000	74.000
340	32968		4FD	340.000	460.000	76.000	76.000	57.000
360	32972		4FD	360.000	480.000	76.000	76.000	57.000

Mounting Dimensions		Load Ratings				Weight
Max Shaft Fillet Radius $R^{(1)}$	Max Housing Fillet Radius $r^{(1)}$	Dynamic ⁽²⁾ C_1	Factors ⁽³⁾		Static C_0	
mm	mm	N	e	Y	N	
3.00	2.50	487000	0.46	1.31	867000	7.81
1.50	3.30	600000	0.26	2.27	1040000	12.45
4.00	3.00	573000	0.44	1.38	868000	13.77
4.00	3.00	1020000	0.44	1.38	1630000	23.41
3.00	3.00	252000	0.46	1.30	436000	3.39
2.50	2.00	329000	0.38	1.57	637000	4.40
3.00	2.50	316000	0.38	1.57	590000	4.30
3.00	2.50	401000	0.44	1.37	759000	6.25
3.00	2.50	576000	0.44	1.35	1020000	10.52
5.00	4.00	680000	0.44	1.38	1000000	17.10
5.00	4.00	1110000	0.44	1.38	1750000	28.37
2.50	2.00	403000	0.48	1.25	795000	6.47
3.00	3.00	239000	0.48	1.24	409000	3.54
3.00	2.50	409000	0.48	1.25	786000	6.67
3.00	2.50	707000	0.42	1.42	1240000	13.98
5.00	4.00	690000	0.45	1.33	1050000	17.95
5.00	4.00	1140000	0.45	1.33	1900000	30.25
2.50	2.00	398000	0.48	1.26	833000	6.90
3.00	2.50	407000	0.48	1.26	807000	6.85
3.00	2.50	719000	0.44	1.36	1290000	14.60
5.00	4.00	839000	0.44	1.38	1390000	22.48
5.00	4.00	1360000	0.44	1.38	2210000	36.36
3.00	2.50	530000	0.39	1.52	1050000	9.45
3.50	2.50	695000	0.52	1.15	1280000	15.57
3.00	2.50	847000	0.43	1.39	1520000	18.70
5.00	4.00	891000	0.44	1.38	1330000	25.67
5.00	4.00	1390000	0.41	1.48	2250000	42.56
3.00	2.50	561000	0.43	1.41	1090000	9.90
4.00	3.00	994000	0.43	1.39	1800000	23.97
5.10	4.00	1100000	0.42	1.43	1560000	35.25
5.00	4.00	1850000	0.44	1.38	3010000	59.41
3.00	3.00	440000	0.46	1.31	808000	8.24
3.00	2.50	571000	0.46	1.31	1150000	10.35
4.00	3.00	1030000	0.46	1.31	1940000	25.73
5.00	4.00	2230000	0.44	1.38	3680000	81.12
3.00	2.50	829000	0.41	1.48	1690000	18.60
5.00	4.00	1320000	0.43	1.38	2440000	37.84
6.00	5.00	2490000	0.43	1.39	4140000	103.96
3.00	2.50	850000	0.43	1.39	1780000	19.81
5.00	4.00	1380000	0.46	1.31	2620000	40.30
4.00	3.00	1180000	0.39	1.52	2430000	31.23
5.00	4.00	1730000	0.43	1.38	3170000	56.32
6.00	5.00	3090000	0.43	1.38	5310000	139.93
5.00	4.00	1800000	0.46	1.31	3420000	59.62
4.00	3.00	1220000	0.44	1.37	2640000	34.46
4.00	3.00	1250000	0.46	1.31	2780000	45.22



⁽¹⁾ These maximum fillet radii will be cleared by the bearing corners.

⁽²⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method.

⁽³⁾ Consult your Timken engineer for instructions on use or review the Timken Engineering Manual on timken.com/catalogs.

TIMKEN MATCHED BEARING ASSEMBLIES

Matched bearing assemblies are used in applications:

- That require higher load carrying capacity than can be achieved with a single-row tapered roller bearing; or
- Where the shaft must be located axially in both directions with a specific axial clearance or preload.

The standard range of assemblies included in the product tables are specified with a market standard axial clearance value that is referred to as Bench End Play (BEP). Application specific axial clearance values are available upon request.

Timken metric tapered roller bearing matched assemblies consist of two single-row bearings with individually matched spacers that are set at the factory to pre-determined dimensions and tolerances.

The standard outer ring spacer is designed with lubrication holes to allow for lubricant flow into both bearing rows.

Matched bearing assemblies are supplied ready-to-fit into customer applications, with a unique serial number marked on spacers and bearing components for easy identification.



BENEFITS:

- Pre-set clearance simplifies mounting
- Higher productivity and greater uptime through precise setting
- High axial and radial load carrying capacity
- Axial loads accommodated in both directions

COMMON APPLICATIONS:

Standard matched assemblies are used in gear drives & transmissions, cement pulverizers, coal conveyors, cranes, calendar rolls and many more industrial applications.

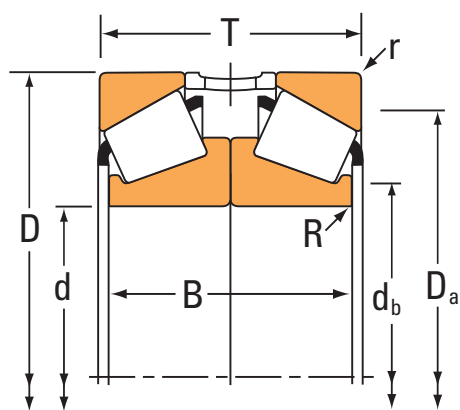
MOUNTING ARRANGEMENTS:

Timken can supply standard matched bearing assemblies in both the direct (DF) and indirect (DB) mounting arrangements to meet the application needs. Both types can accommodate axial loads in both directions.

Direct mounting "DF"
 (face-to-face)

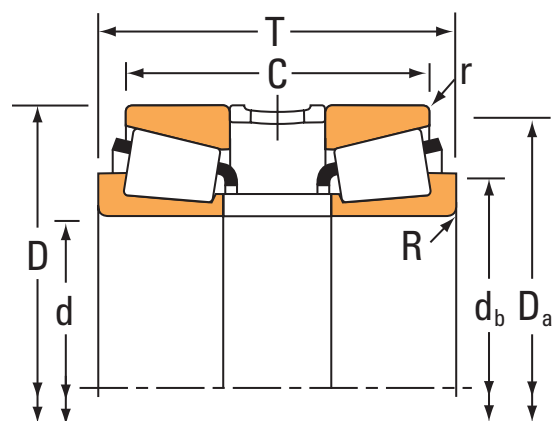
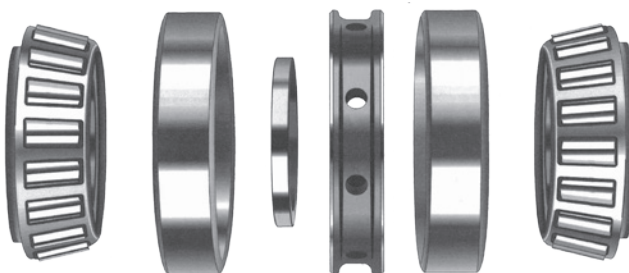
This arrangement consists of:

- Two single-row bearings, with abutting back-facing inner-rings
- An outer-ring spacer with lubricating holes


Indirect mounting "DB"
 (back-to-back)

This arrangement consists of:

- Two single-row bearings
- An outer-ring spacer with lubricating holes
- A solid inner-ring spacer



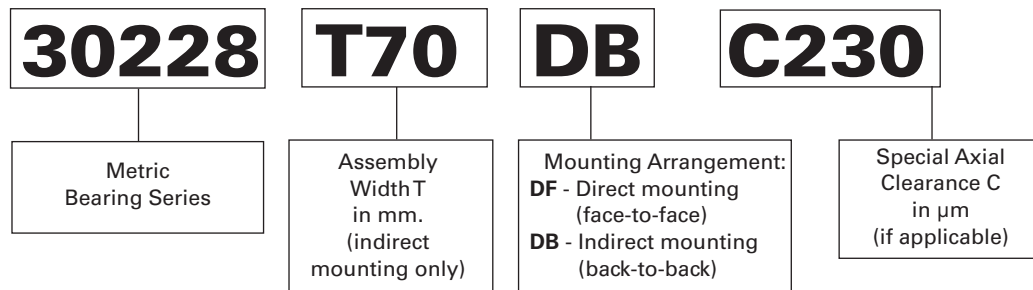
BEARING AXIAL CLEARANCE

The internal axial clearance is factory set for each assembly. The indicated axial clearance values are valid for general application conditions. The mean values (μm) are shown in the bearing table and are manufactured to a tolerance $\pm 25 \mu\text{m}$.

For example the matched bearing assembly 30228 DF will have a factory set axial clearance with a mean of $270 \mu\text{m}$. The actual clearance will therefore lie in the range of $245 \mu\text{m}$ to $295 \mu\text{m}$.

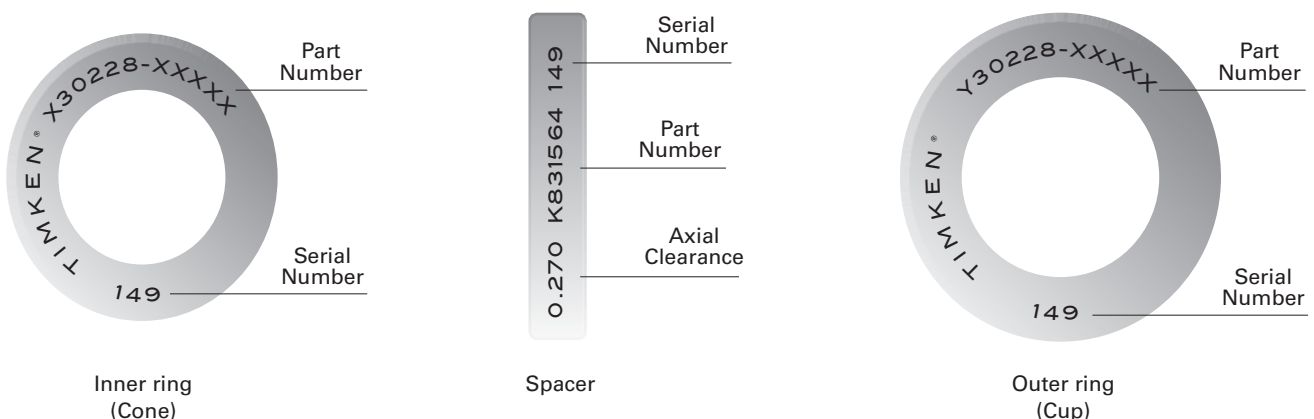
When a non-standard internal axial clearance is required, a "C" designation is used in the part number, along with the actual nominal clearance. For example the matched bearing assembly 30228 DF C230 will have a mean of $230 \mu\text{m}$, the actual axial clearance will lie in the range of $205 \mu\text{m}$ to $255 \mu\text{m}$.

MATCHED BEARING PART NUMBERING SYSTEM



SERIAL NUMBERING

Timken metric matched bearing assemblies are measured and serialized at the factory. The spacer is custom fitted to obtain the specified clearance.



DISCLAIMER

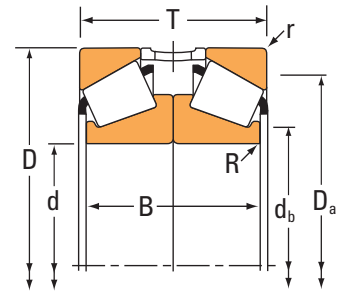
Do not mix components with different serial numbers. This may result in incorrect bearing setting.

TIMKEN® METRIC TAPERED ROLLER BEARINGS - MATCHED BEARING ASSEMBLIES

DIRECT MOUNTING - BEARING DATA

Bore	Part Number	BEP axial clearance	Bearing Dimensions				Load Ratings				
			Bore	O.D.	Width	Width	Factors				Dynamic Radial ⁽¹⁾
			d	D	T	B	e	Y ₁	Y ₂	K	C ₁₍₂₎
mm		mm	mm	mm	mm	mm					N
30	32206DF	0.120	30.000	62.000	42.500	40.000	0.37	1.80	2.69	1.56	112000
35	31307DF	0.090	35.000	80.000	45.500	42.000	0.83	0.82	1.22	0.71	127000
40	31308DF	0.090	40.000	90.000	50.500	46.000	0.83	0.82	1.22	0.71	149000
45	31309DF	0.100	45.000	100.000	54.500	50.000	0.83	0.82	1.22	0.71	184000
	31309DFC25	0.025	45.000	100.000	54.500	50.000	0.83	0.82	1.22	0.71	184000
50	30210DF	0.160	50.000	90.000	43.500	40.000	0.42	1.61	2.30	1.39	150000
	30210DFC120	0.120	50.000	90.000	43.500	40.000	0.42	1.61	2.30	1.39	150000
	31310DF	0.100	50.000	110.000	58.500	54.000	0.83	0.82	1.22	0.71	217000
55	31311DF	0.120	55.000	120.000	63.000	58.000	0.83	0.82	1.22	0.71	253000
	32011XDF	0.160	55.000	90.000	46.000	46.000	0.41	1.67	2.48	1.44	165000
	33011DFC170	0.170	55.000	90.000	54.000	54.000	0.31	2.16	3.30	1.87	173000
	33111DF	0.180	55.000	95.000	60.000	60.000	0.37	1.80	2.69	1.56	232000
60	30212DF	0.180	60.000	110.000	47.500	44.000	0.40	1.67	2.48	1.44	186000
	31312DF	0.120	60.000	130.000	67.000	62.000	0.83	0.82	1.22	0.71	298000
	32012XDFC250	0.250	60.000	95.000	46.000	46.000	0.43	1.57	2.34	1.36	168000
	32212DFC290	0.290	60.000	110.000	59.500	56.000	0.40	1.67	2.48	1.44	239000
65	30213DF	0.180	65.000	120.000	49.500	46.000	0.40	1.67	2.48	1.44	241000
	31313DF	0.120	65.000	140.000	72.000	66.000	0.83	0.82	1.22	0.71	341000
	31313DFC25	0.025	65.000	140.000	72.000	66.000	0.83	0.82	1.22	0.71	341000
	32013XDF	0.160	65.000	100.000	46.000	46.000	0.46	1.47	2.19	1.27	171000
70	31314DF	0.140	70.000	150.000	76.000	70.000	0.83	0.82	1.22	0.71	371000
	31314DF120	0.120	70.000	150.000	76.000	70.000	0.83	0.82	1.22	0.71	371000
	32014XDF	0.180	70.000	110.000	50.000	50.000	0.43	1.55	2.31	1.34	196000
	33014DF	0.270	70.000	110.000	62.000	62.000	0.28	2.37	3.60	2.05	267000
75	30215DF	0.200	75.000	130.000	54.500	50.000	0.44	1.55	2.31	1.34	275000
	31315DF	0.140	75.000	160.000	80.000	74.000	0.83	0.82	1.22	0.71	432000
	32215DF	0.200	75.000	130.000	66.500	62.000	0.44	1.55	2.31	1.34	320000
	33015DF	0.270	75.000	115.000	62.000	62.000	0.30	2.27	3.38	1.96	274000
	33015DFC155	0.155	75.000	115.000	62.000	62.000	0.30	2.27	3.38	1.96	274000
	33115DFC150	0.150	75.000	125.000	74.000	74.000	0.40	1.70	2.53	1.47	356000
80	31316DF	0.140	80.000	170.000	85.000	78.000	0.83	0.82	1.22	0.71	471000
	32016XDF	0.180	80.000	125.000	58.000	58.000	0.42	1.60	2.30	1.38	289000
	32216DF	0.200	80.000	140.000	70.500	66.000	0.42	1.61	2.30	1.39	358000
85	30217DF	0.240	85.000	150.000	61.000	56.000	0.42	1.61	2.30	1.39	347000
	30217DFC70	0.070	85.000	150.000	61.000	56.000	0.42	1.61	2.30	1.39	347000
	31317DF	0.140	85.000	180.000	89.000	82.000	0.83	0.82	1.22	0.71	495000
	32017XDF	0.210	85.000	130.000	58.000	58.000	0.44	1.53	2.27	1.32	283000
	32217DF	0.240	85.000	150.000	77.000	72.000	0.42	1.61	2.30	1.39	427000
	33017DFC240	0.240	85.000	130.000	72.000	72.000	0.29	2.31	3.44	2.00	383000
	33217DF	0.250	85.000	150.000	98.000	98.000	0.42	1.62	2.41	1.40	611000
90	30218DF	0.240	90.000	160.000	65.000	60.000	0.42	1.61	2.30	1.39	419000
	31318DF	0.140	90.000	190.000	93.000	86.000	0.83	0.82	1.22	0.71	564000
	31318DFC70	0.070	90.000	190.000	93.000	86.000	0.83	0.82	1.22	0.71	564000
	32018XDF	0.210	90.000	140.000	64.000	64.000	0.42	1.60	2.30	1.38	319000
	32218DF	0.240	90.000	160.000	85.000	80.000	0.42	1.61	2.30	1.39	544000
	33018DF	0.370	90.000	140.000	78.000	78.000	0.27	2.51	3.74	2.17	430000
	33018DFC150	0.150	90.000	140.000	78.000	78.000	0.27	2.51	3.74	2.17	430000

Shaft Dimensions		Housing Dimensions		Bearing Assembly Weight
Max. Shaft Fillet Radius	Backing Shoulder Dia.	Max. housing Fillet Radius	Max. Backing Shoulder Dia.	
$R^{(2)}$	d_b	$r^{(2)}$	D_a	
mm	mm	mm	mm	kg
0.3	37.0	1.0	54.0	0.61
0.3	45.0	1.5	68.0	1.14
0.4	52.0	1.5	76.0	1.48
0.5	56.0	1.5	85.0	1.95
0.5	56.0	1.5	85.0	1.95
0.7	58.0	1.5	81.0	1.15
0.7	58.0	1.5	81.0	1.15
0.3	63.0	2.0	93.0	2.56
0.3	68.0	2.0	103.0	3.27
0.3	61.0	1.5	82.0	1.14
0.3	61.0	1.5	82.0	1.36
0.3	61.0	1.5	85.0	1.73
0.5	68.0	1.5	99.0	1.84
1.0	74.0	2.5	111.0	3.95
0.4	66.0	1.5	86.0	1.23
0.3	67.0	1.5	98.0	2.35
0.5	74.0	1.5	110.0	2.28
0.5	80.0	2.5	120.0	5.04
0.5	80.0	2.5	120.0	5.04
0.3	71.0	1.5	91.0	1.31
1.0	85.0	2.5	128.0	5.85
1.0	85.0	2.5	128.0	5.85
0.3	76.0	1.5	100.0	1.79
0.6	77.0	1.5	101.0	2.16
0.5	85.0	1.5	120.0	2.85
1.0	91.0	2.5	138.0	7.28
0.3	84.0	1.5	117.0	3.47
0.3	83.0	1.5	104.0	2.34
0.3	83.0	1.5	104.0	2.34
0.3	88.0	1.5	112.0	3.61
0.5	97.0	2.5	146.0	8.62
0.3	87.0	1.5	114.0	5.48
0.5	91.0	2.0	128.0	4.26
0.5	93.0	2.0	137.0	4.33
0.5	93.0	2.0	137.0	4.33
0.5	110.0	3.0	154.0	10.5
0.3	92.0	1.5	119.0	2.74
0.5	97.0	2.0	135.0	5.22
0.3	93.0	1.5	120.0	3.50
0.3	94.0	2.0	134.0	7.40
0.6	102.0	2.0	146.0	5.47
1.0	117.0	3.0	164.0	12.5
1.0	117.0	3.0	164.0	12.5
0.3	99.0	1.5	128.0	3.50
0.6	101.0	2.0	145.0	7.15
0.3	98.0	1.5	131.0	4.50
0.3	98.0	1.5	131.0	4.50



⁽¹⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method. $C_{1(2)}$ is the double-row radial value.

⁽²⁾ These maximum fillet radii will be cleared by the bearing corners.

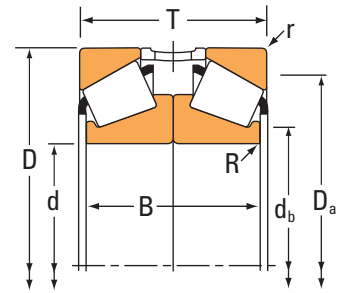
Additional series may exist. If you do not see the assembly you are looking for, consult your Timken engineer for more information.

TIMKEN® METRIC TAPERED ROLLER BEARINGS - MATCHED BEARING ASSEMBLIES

DIRECT MOUNTING - BEARING DATA

Bore	Part Number	BEP axial clearance	Bearing Dimensions				Load Ratings				
			Bore	O.D.	Width	Width	Factors				Dynamic Radial ⁽¹⁾
			d	D	T	B	e	Y ₁	Y ₂	K	C ₁₍₂₎
mm		mm	mm	mm	mm	mm					N
95	30219DFC110	0.110	95.000	170.000	69.000	64.000	0.42	1.60	2.30	1.39	460000
	32219DF	0.240	95.000	170.000	91.000	86.000	0.42	1.61	2.30	1.39	551000
	33019DF	0.370	95.000	140.000	78.000	78.000	0.28	2.43	3.62	2.10	429000
100	30220DF	0.240	100.000	180.000	74.000	68.000	0.42	1.60	2.30	1.39	524000
	30320DFC400	0.400	100.000	215.000	103.000	92.000	0.35	1.90	2.90	1.69	779520
	31320XDF	0.140	100.000	215.000	113.000	102.000	0.83	0.80	1.20	0.71	725000
	32020XDF	0.210	100.000	150.000	64.000	64.000	0.46	1.50	1.20	1.27	339000
	32220DF	0.240	100.000	180.000	98.000	92.000	0.42	1.60	2.30	1.39	685000
	32320DF	0.270	100.000	215.000	155.000	146.000	0.35	1.90	2.90	1.69	1020000
	33020DF	0.370	100.000	150.000	78.000	78.000	0.29	2.30	3.50	2.03	436000
105	32021XDF	0.250	105.000	160.000	70.000	70.000	0.44	1.50	2.50	1.31	395000
	32021XDFC150	0.150	105.000	160.000	70.000	70.000	0.44	1.50	2.50	1.31	395000
	32221DF	0.250	105.000	190.000	106.000	100.000	0.42	1.60	2.40	1.39	694000
	33021DF	0.380	105.000	160.000	86.000	86.000	0.28	2.40	3.50	2.07	506000
110	30222DF	0.250	110.000	200.000	82.000	76.000	0.42	1.60	2.30	1.39	651000
	31322DF	0.160	110.000	240.000	126.000	114.000	0.83	0.81	1.20	0.71	910000
	32022XDF	0.250	110.000	170.000	76.000	76.000	0.43	1.60	2.30	1.36	490680
	32022XDFC200	0.200	110.000	170.000	76.000	76.000	0.43	1.60	2.30	1.36	490680
	32222DF	0.250	110.000	200.000	112.000	106.000	0.42	1.60	2.30	1.39	858000
	32322DF	0.310	110.000	240.000	169.000	160.000	0.35	1.90	2.90	1.69	1320000
	33122DF	0.250	110.000	180.000	112.000	112.000	0.42	1.60	2.30	1.40	718000
	33122DFC120	0.120	110.000	180.000	112.000	112.000	0.42	1.60	2.30	1.40	718000
120	30224DF	0.250	120.000	215.000	87.000	80.000	0.44	1.60	2.30	1.34	652000
	30324DFC600	0.600	120.000	260.000	119.000	110.000	0.35	1.90	2.90	1.69	1090000
	31324XDF	0.160	120.000	260.000	136.000	124.000	0.83	0.81	1.20	0.71	1060000
	32024XDF	0.250	120.000	180.000	76.000	76.000	0.46	1.50	2.20	1.27	509000
	32224DF	0.250	120.000	215.000	123.000	116.000	0.44	1.60	2.30	1.34	963000
	32324DF	0.300	120.000	260.000	181.000	172.000	0.35	1.90	2.90	1.69	1580000
	33024DF	0.380	120.000	180.000	96.000	96.000	0.31	2.30	3.40	1.91	612480
	33024DFC250	0.250	120.000	180.000	96.000	96.000	0.31	2.30	3.40	1.91	612480
130	30226DF	0.270	130.000	230.000	87.500	80.000	0.44	1.60	2.30	1.34	708000
	31326DF	0.190	130.000	280.000	144.000	132.000	0.83	0.81	1.20	0.71	1200000
	32026XDF	0.270	130.000	200.000	90.000	90.000	0.43	1.60	2.30	1.34	673000
	32226DF	0.270	130.000	230.000	135.500	128.000	0.44	1.60	2.30	1.34	1120000
	32326DF	0.350	130.000	280.000	197.500	186.000	0.35	1.90	2.90	1.69	1950000
140	30228DF	0.270	140.000	250.000	91.500	84.000	0.44	1.60	2.30	1.34	825000
	30228DFC100	0.100	140.000	250.000	91.500	84.000	0.44	1.60	2.30	1.34	825000
	32028XDF	0.270	140.000	210.000	90.000	90.000	0.46	1.50	2.20	1.27	685000
	32228DF	0.270	140.000	250.000	143.500	136.000	0.44	1.60	2.30	1.34	1230000
	32928DF	0.340	140.000	190.000	64.000	64.000	0.36	1.80	2.80	1.62	390000
150	30230DF	0.300	150.000	270.000	98.000	90.000	0.44	1.60	2.30	1.34	928000
	30230DFC350	0.350	150.000	270.000	98.000	90.000	0.44	1.60	2.30	1.34	928000
	30230DFC475	0.475	150.000	270.000	98.000	90.000	0.44	1.60	2.30	1.34	928000
	31330DF	0.210	150.000	320.000	164.000	150.000	0.83	0.81	1.20	0.71	1500000
	32030XDF	0.300	150.000	225.000	96.000	96.000	0.46	1.50	2.20	1.27	728000
	32030XDFC145	0.145	150.000	225.000	96.000	96.000	0.46	1.50	2.20	1.27	728000
	32230DF	0.300	150.000	270.000	154.000	146.000	0.44	1.60	2.30	1.34	1480000
	32230DFC360	0.360	150.000	270.000	154.000	146.000	0.44	1.60	2.30	1.34	1480000

Shaft Dimensions		Housing Dimensions		Bearing Assembly Weight
Max. Shaft Fillet Radius	Backing Shoulder Dia.	Max. housing Fillet Radius	Max. Backing Shoulder Dia.	
$R^{(2)}$	d_b	$r^{(2)}$	D_a	
mm	mm	mm	mm	kg
0.5	104.0	2.5	155.0	6.50
0.5	106.0	2.5	152.0	8.30
0.3	102.0	1.5	133.0	4.60
1.0	115.0	2.5	163.0	7.80
1.3	118.0	3.0	197.0	17.6
0.8	123.0	3.0	184.0	18.0
0.3	108.0	1.5	137.0	3.90
1.0	114.0	2.5	168.0	10.0
1.3	124.0	3.0	193.0	26.9
0.3	107.0	1.5	139.0	4.85
0.3	113.0	2.0	146.0	5.00
0.3	113.0	2.0	146.0	5.00
0.5	120.0	2.5	171.0	12.2
0.3	113.0	2.0	147.0	6.00
1.0	126.0	2.5	181.0	10.9
1.8	135.0	3.0	206.0	26.0
0.5	119.0	2.0	156.0	6.30
0.5	119.0	2.0	156.0	6.30
1.0	125.0	2.5	179.0	15.0
0.8	136.0	3.0	215.0	35.4
0.5	121.0	2.0	162.0	11.0
0.5	121.0	2.0	162.0	11.0
1.0	136.0	2.5	195.0	13.0
1.8	142.0	3.0	238.0	29.8
0.8	147.0	3.0	223.0	38.0
0.3	130.0	2.0	165.0	6.70
1.0	135.0	2.5	191.0	19.0
1.8	149.0	3.0	233.0	43.0
0.5	130.0	2.0	166.0	8.70
0.5	130.0	2.0	166.0	8.70
1.0	146.0	3.0	210.0	14.5
0.8	163.0	4.0	238.0	41.0
0.6	142.0	2.0	184.0	10.0
1.0	145.0	3.0	206.0	23.4
0.8	156.0	5.0	251.0	56.0
1.0	157.0	3.0	227.0	18.0
1.0	157.0	3.0	227.0	18.0
0.6	151.0	2.0	193.0	10.9
1.0	159.0	3.0	223.0	29.5
0.6	148.0	1.5	179.0	5.20
1.0	168.0	3.0	245.0	23.1
1.0	168.0	3.0	245.0	23.1
1.0	168.0	3.0	245.0	23.1
2.0	187.0	4.0	276.0	60.2
0.6	163.0	2.5	206.0	13.2
0.6	163.0	2.5	206.0	13.2
1.5	170.0	3.0	244.0	36.7
1.5	170.0	3.0	244.0	36.7



⁽¹⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method. $C_{1(2)}$ is the double-row radial value.

⁽²⁾ These maximum fillet radii will be cleared by the bearing corners.

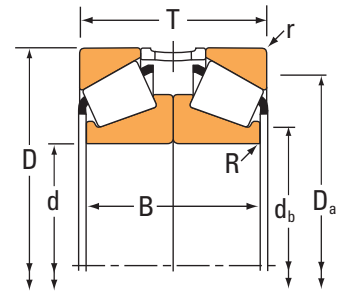
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TIMKEN® METRIC TAPERED ROLLER BEARINGS - MATCHED BEARING ASSEMBLIES

DIRECT MOUNTING - BEARING DATA

Bore	Part Number	BEP axial clearance	Bearing Dimensions				Load Ratings				
			Bore	O.D.	Width	Width	Factors				Dynamic Radial ⁽¹⁾
			d	D	T	B	e	Y ₁	Y ₂	K	C ₁₍₂₎
mm		mm	mm	mm	mm	mm					N
160	32032XDF	0.300	160.000	240.000	102.000	102.000	0.46	1.50	2.20	1.27	836000
	32232DF	0.300	160.000	290.000	168.000	160.000	0.44	1.60	2.30	1.34	1770000
170	32034XDF	0.340	170.000	260.000	114.000	114.000	0.44	1.50	2.30	1.31	1000000
	32034XDFC545	0.545	170.000	260.000	114.000	114.000	0.44	1.50	2.30	1.31	1000000
	32234DF	0.340	170.000	310.000	182.000	172.000	0.44	1.60	2.30	1.34	1940000
	32234DFC480	0.480	170.000	310.000	182.000	172.000	0.44	1.60	2.30	1.34	1940000
	32934DF	0.400	170.000	230.000	76.000	76.000	0.38	1.70	2.80	1.52	584000
	32934DFC225	0.225	170.000	230.000	76.000	76.000	0.38	1.70	2.80	1.52	584000
180	30236DF	0.340	180.000	320.000	114.000	104.000	0.45	1.50	2.30	1.30	1200000
	32036XDF	0.340	180.000	280.000	128.000	128.000	0.42	1.60	2.30	1.38	1230000
	32236DF	0.340	180.000	320.000	182.000	172.000	0.45	1.50	2.30	1.30	1980000
	32236DFC455	0.455	180.000	320.000	182.000	172.000	0.45	1.50	2.30	1.30	1980000
	32936DF	0.400	180.000	250.000	90.000	90.000	0.48	1.40	2.10	1.22	702000
190	30238DF	0.270	190.000	340.000	120.000	110.000	0.44	1.60	2.30	1.34	1460000
	32038XDF	0.370	190.000	290.000	128.000	128.000	0.44	1.50	2.30	1.32	1250000
	32238DF	0.380	190.000	340.000	194.000	184.000	0.44	1.60	2.30	1.34	2370000
	32938DF	0.400	190.000	260.000	90.000	90.000	0.48	1.40	2.10	1.22	693000
200	30240DF	0.380	200.000	360.000	128.000	116.000	0.44	1.60	2.30	1.34	1550000
	30240DFC570	0.570	200.000	360.000	128.000	116.000	0.44	1.60	2.30	1.34	1550000
	32040XDF	0.370	200.000	310.000	140.000	140.000	0.43	1.60	2.30	1.36	1480000
	32240DF	0.370	200.000	360.000	208.000	196.000	0.41	1.70	2.50	1.44	2420000
	32240DFC425	0.425	200.000	360.000	208.000	196.000	0.41	1.70	2.50	1.44	2420000
	32940DF	0.420	200.000	280.000	102.000	102.000	0.39	1.70	2.50	1.48	922000
220	30244DF	0.250	220.000	400.000	144.000	130.000	0.42	1.60	2.30	1.39	1910000
	32044XDF	0.420	220.000	340.000	152.000	152.000	0.43	1.60	2.30	1.36	1730000
	32044XDFC325	0.325	220.000	340.000	152.000	152.000	0.43	1.60	2.30	1.36	1730000
	32244DF	0.420	220.000	400.000	228.000	216.000	0.44	1.60	2.30	1.34	3220000
	32944DF	0.470	220.000	300.000	102.000	102.000	0.43	1.60	2.30	1.37	977000
	32944DFC300	0.300	220.000	300.000	102.000	102.000	0.43	1.60	2.30	1.37	977000
240	32048XDF	0.470	240.000	360.000	152.000	152.000	0.46	1.50	2.20	1.27	1790000
	32948DF	0.470	240.000	320.000	102.000	102.000	0.46	1.50	2.20	1.27	994000
260	32052XDF	0.520	260.000	400.000	174.000	174.000	0.43	1.60	2.30	1.34	2300000
	32252DF	0.510	260.000	480.000	274.000	260.000	0.43	1.60	2.30	1.36	4340000
280	32056XDF	0.520	280.000	420.000	174.000	174.000	0.46	1.50	2.20	1.27	2400000
	32056XDFC575	0.575	280.000	420.000	174.000	174.000	0.46	1.50	2.20	1.27	2400000
	32956DF	0.560	280.000	380.000	127.000	127.000	0.43	1.60	2.30	1.35	1480000
	32956DFC645	0.645	280.000	380.000	127.000	127.000	0.43	1.60	2.30	1.35	1480000
300	32960DF	0.670	300.000	420.000	152.000	152.000	0.39	1.70	2.50	1.48	2050000
	32960DFC575	0.575	300.000	420.000	152.000	152.000	0.39	1.70	2.50	1.48	2050000
	32960DFC585	0.585	300.000	420.000	152.000	152.000	0.39	1.70	2.50	1.48	2050000
320	32064XDF	0.620	320.000	480.000	200.000	200.000	0.46	1.50	2.20	1.27	3140000
	32064XDFC675	0.675	320.000	480.000	200.000	200.000	0.46	1.50	2.20	1.27	3140000
340	32968DF	0.610	340.000	460.000	152.000	152.000	0.44	1.60	2.30	1.34	2120000
	32968DFC225	0.225	340.000	460.000	152.000	152.000	0.44	1.60	2.30	1.34	2120000
	32968DFC270	0.270	340.000	460.000	152.000	152.000	0.44	1.60	2.30	1.34	2120000
	32968DFC575	0.575	340.000	460.000	152.000	152.000	0.44	1.60	2.30	1.34	2120000
360	32972DFC225	0.225	360.000	480.000	152.000	152.000	0.46	1.50	2.20	1.27	2170000
	32972DFC425	0.425	360.000	480.000	152.000	152.000	0.46	1.50	2.20	1.27	2170000

Shaft Dimensions		Housing Dimensions		Bearing Assembly Weight
Max. Shaft Fillet Radius	Backing Shoulder Dia.	Max. housing Fillet Radius	Max. Backing Shoulder Dia.	
$R^{(2)}$	d_b	$r^{(2)}$	D_a	
mm	mm	mm	mm	kg
1.0	174.0	2.5	221.0	16.3
1.8	185.0	3.0	261.0	47.0
1.0	187.0	2.5	238.0	21.8
1.0	187.0	2.5	238.0	21.8
0.8	198.0	4.0	279.0	58.6
0.8	198.0	4.0	279.0	58.6
0.6	179.0	2.0	215.0	9.10
0.6	179.0	2.0	215.0	9.10
0.8	200.0	4.0	294.0	38.0
1.0	197.0	2.5	256.0	29.0
0.8	210.0	4.0	288.0	62.5
0.8	210.0	4.0	288.0	62.5
0.6	192.0	2.0	231.0	13.4
1.5	215.0	4.0	310.0	47.0
1.0	207.0	2.5	267.0	30.2
1.5	219.0	4.0	305.0	75.0
1.0	202.0	2.0	242.0	14.3
3.3	227.0	4.0	331.0	53.8
3.3	227.0	4.0	331.0	53.8
1.5	220.0	2.5	284.0	38.7
1.5	229.0	4.0	326.0	87.8
1.5	229.0	4.0	326.0	87.8
1.0	213.0	2.5	262.0	19.5
1.5	245.0	4.0	364.0	74.4
1.5	241.0	3.0	312.0	49.6
1.5	241.0	3.0	312.0	49.6
0.8	251.0	4.0	362.0	122.6
1.0	232.0	2.5	281.0	20.5
1.0	232.0	2.5	281.0	20.5
2.0	259.0	3.0	331.0	53.3
1.0	251.0	2.5	300.0	21.3
1.5	284.0	4.0	367.0	78.7
1.5	306.0	5.0	432.0	215.0
1.5	302.0	4.0	388.0	83.8
1.5	302.0	4.0	388.0	83.8
1.0	296.0	2.5	356.0	41.0
1.0	296.0	2.5	356.0	41.0
0.8	318.0	3.0	393.0	64.5
0.8	318.0	3.0	393.0	64.5
0.8	318.0	3.0	393.0	64.5
1.5	343.0	4.0	442.0	124.0
1.5	343.0	4.0	442.0	124.0
1.5	359.0	3.0	432.0	71.2
1.5	359.0	3.0	432.0	71.2
1.5	359.0	3.0	432.0	71.2
1.5	359.0	3.0	432.0	71.2
1.5	378.0	3.0	451.0	92.8
1.5	378.0	3.0	451.0	92.8



⁽¹⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method. $C_{1(2)}$ is the double-row radial value.

⁽²⁾ These maximum fillet radii will be cleared by the bearing corners.

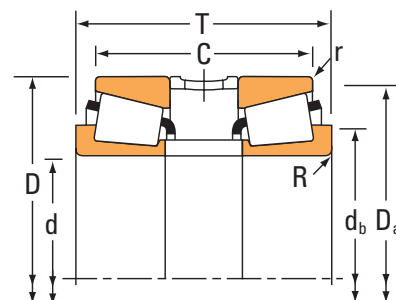
Additional series may exist. If you do not see the assembly you are looking for, consult your Timken engineer for more information.

TIMKEN® METRIC TAPERED ROLLER BEARINGS - MATCHED BEARING ASSEMBLIES

INDIRECT MOUNTING - BEARING DATA

Bore	Part Number	BEP	Bearing Dimensions				Load Ratings				
			Bore	O.D.	Width	Width	Factors				Dynamic Radial ⁽¹⁾
			d	D	T	C	e	Y ₁	Y ₂	K	C ₁₍₂₎
mm		mm	mm	mm	mm	mm					N
75	30215T70DBC270	0.270	75.000	130.000	70.000	59.500	0.44	1.55	2.31	1.34	275000
	32215T80DB	0.200	75.000	130.000	80.000	67.500	0.44	1.55	2.31	1.34	320000
80	32216T78DBC110	0.110	80.000	140.000	78.000	63.500	0.42	1.60	2.30	1.39	358000
85	30217T71DB	0.240	85.000	150.000	71.000	58.000	0.42	1.61	2.30	1.39	347000
95	32019XT73DBC100	0.100	95.000	145.000	73.000	57.000	0.44	1.53	2.27	1.32	324000
100	32220T108DB	0.240	100.000	180.000	108.000	88.000	0.42	1.60	2.30	1.39	640000
110	32022XT84DBC200	0.200	110.000	170.000	84.000	66.000	0.43	1.60	2.30	1.36	963000
120	32024XT84DBC200	0.200	120.000	180.000	84.000	66.000	0.46	1.50	2.20	1.27	509000
130	30226T97.5DB	0.270	130.000	230.000	97.500	78.000	0.44	1.60	2.30	1.34	708000
140	30228T106DB	0.280	140.000	250.000	106.000	86.500	0.44	1.60	2.30	1.34	825000
	32028XT130DB	0.270	140.000	210.000	130.000	108.000	0.46	1.50	2.20	1.27	685000
	32228T158DB	0.270	140.000	250.000	158.000	130.500	0.44	1.60	2.30	1.34	1230000
150	31330T179DB	0.200	150.000	320.000	179.000	115.000	0.83	0.81	1.20	0.71	1500000
	32230T168DB	0.360	150.000	270.000	168.000	134.000	0.44	1.60	2.30	1.34	140000
180	32036XT150DB	0.340	180.000	280.000	150.000	118.000	0.42	1.60	2.30	1.38	1230000
	32936T135DBC260	0.260	180.000	250.000	135.000	113.000	0.48	1.40	2.10	1.22	702000
190	32038XT146DBC220	0.220	190.000	290.000	146.000	114.000	0.44	1.50	2.30	1.32	1250000
220	32044XT165DBC340	0.340	220.000	340.000	165.000	127.000	0.43	1.60	2.30	1.36	1730000
	32044XT168DB	0.420	220.000	340.000	168.000	130.000	0.43	1.60	2.30	1.36	1730000
240	32048XT172DB	0.470	240.000	360.000	172.000	134.000	0.46	1.50	2.20	1.27	1790000
260	32052XT189DBC280	0.280	260.000	400.000	189.000	145.000	0.43	1.60	2.30	1.34	2300000
	32052XT194DB	0.520	260.000	400.000	194.000	150.000	0.43	1.60	2.30	1.34	2300000

Shaft Dimensions		Housing Dimensions		Bearing Assembly Weight
Max. Shaft Fillet Radius	Backing Shoulder Dia.	Max. housing Fillet Radius	Max. Backing Shoulder Dia.	
$R^{(2)}$	d_b	$r^{(2)}$	D_a	
mm	mm	mm	mm	kg
2.0	88.0	0.8	124.0	3.25
2.0	88.0	0.8	125.0	3.80
2.5	96.0	1.0	134.0	4.45
2.5	97.0	1.0	142.0	4.00
2.0	107.0	0.8	139.0	4.10
3.0	117.0	1.3	170.0	10.5
2.5	124.0	0.8	164.0	6.60
2.5	134.0	0.8	174.0	7.30
4.0	152.0	1.0	217.0	15.0
4.0	164.0	1.0	234.0	19.5
2.5	158.0	0.6	203.0	12.8
4.0	171.0	1.0	239.0	30.2
5.0	210.0	3.3	300.0	58.5
4.0	183	2.3	254.0	38.0
3.0	203.0	1.0	270.0	30.0
2.5	195.0	0.6	243.0	14.5
3.0	214.0	1.0	281.0	31.2
4.0	248.0	1.5	325.0	50.0
4.0	248.0	1.5	325.0	52.0
4.0	268.0	2.0	346.0	56.0
5.0	293.0	1.5	382.0	80.5
5.0	293.0	1.5	382.0	81.0



⁽¹⁾ Based on 1×10^6 revolutions L_{10} life, for the ISO life-calculation method. $C_{1(2)}$ is the double-row radial value.

⁽²⁾ These maximum fillet radii will be cleared by the bearing corners.

Additional series may exist. If you do not see the assembly you are looking for, consult your Timken engineer for more information.



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