Tapered Roller Bearings
Metric system

SRG BEARINGS

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About us 公司简介

SRG Bearings is an internationally renowned bearing brand belonging to SRG GROUP LIMITED. It is a bearing factory that integrates bearing production, research and development, and export. We mainly provide roller and ball bearings.

SRG Bearing Factory was established in 1997 and is located in Liaocheng City, Shandong Province. It is a long-standing bearing production enterprise. We have 120 CNC machine tools, 6 bearing processing production lines, and can independently complete bearing production, assembly, precision grinding, heat treatment, and other processes. The inner bore size range is from 3mm to 6.5m, and the weight range is from 10.5g to 2.6 tons.

Our main products include:

Miniature and medium-sized deep groove ball bearings
Double row self-aligning roller bearings
Four-row heavy-duty cylindrical roller bearings
Self-aligning roller bearings
Thrust ball bearings, thrust ball and roller bearings
Single and double row tapered roller bearings
Needle roller bearings
High-precision spindle bearings
Pillow block bearings, shaft sleeves, steel balls
Technical support
Maintenance and repair
Product training

SRG bearings are widely used in railways, mines, machinery, automobiles, ships, metallurgy, petroleum, electricity, agriculture, textile, and aviation industries.

SRG products have been sold to Europe, Asia, America, and Southeast Asia, which are our most important markets. We have spent a lot of time developing new products while also producing high-quality products. We are popular both domestically and internationally.

We welcome your inquiries and look forward to future cooperation.

Product display

1.Type, Structure and Characteristics

Tapered roller bearings are designed such that their conical rollers and raceways are arranged so that all elements of the roller and race way cones meet at a common apex on the bearing axis. (Refer to Fig.1) The rolling elements perform the real rotating movement on the raceway; the synthesized force from the inner and outer ring raceways guides the rollers, pressing them to the large rib on the inner ring. Metric and inch series are considered standard and both systems are widely used.

The inner ring, rollers and cage can be separated as a unit, or the CONE, from the outer ring, or the CUP. The cup and cone are called sub-units. Sub-unit dimensions for the nominal cup small inside diameter and bearing contact angle, as shown in Fig. 2, are standardized by ISO and ABMA and are compatible between sub-units. Double row and four row bearings are available in addition to single row bearings. Models and characteristics are shown in Tables 1 and 2.

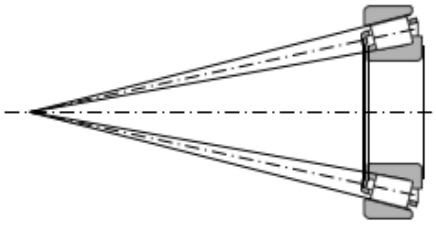


Fig.1

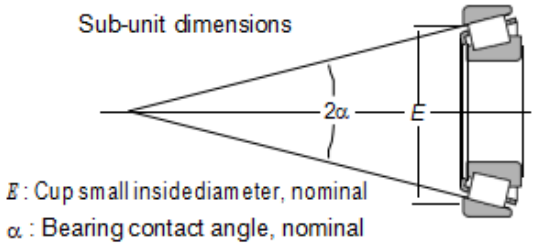


Fig.2

Table 1 Structure and characteristics of double row tapered roller bearings

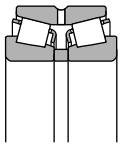
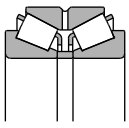
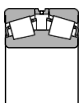
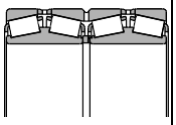
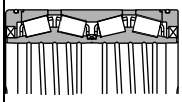
Model	Drawing	Nominal number	Characteristics
Double row with vertex of contact angles outside of the bearing		413XXX 423XXX 430XXX 432XXX CRI	These bearings are designed with one double row outer ring and two pairs of inner rings with rollers. Bearings are adjusted so that their internal clearance becomes the specified value, the parts which have the same serial numbers should be assembled according to the assembly codes. These bearings support radial and axial loads. Since the cone pressure apex is wide, bearings are suitable where moment loads are applied. These bearings have the same function as the back-to-back duplex arrangement of single row bearings.
Double row with vertex of contact steep angles outside of the bearing		CRI	This bearing model has a larger and steeper contact angle than the double row with vertex of contact angles outside the bearing. These bearings are used when the axial load is large. Since these bearings are adjusted so that the internal clearance is a specified value (like the double row with vertex of contact angles outside of bearing) the parts which have the same serial numbers should be assembled according to the assembly codes.
Double row with vertex of contact angles inside of the bearing		3230XX 3231XX CRD	These bearings are designed with one double row inner ring with rollers and two pairs of outer rings and an outer ring spacer. These bearings accept the radial and axial loads. Since the cone pressure apex is short, bearings are not suitable when the moment is applied. Since these bearings are adjusted so that the internal clearance is the specified value (like the double row with vertex of contact angles outside of bearing) the parts which have the same serial numbers should be assembled according to the assembly codes.
Double row with vertex of contact steep angles inside of the bearing	–	CRD	This bearing model has a larger and steeper contact angle than the double row with vertex of contact angles inside the bearing. These bearings are used when the axial load is large or only axials are applied. Models without an outer ring spacer and with a key groove or notch on the inner ring (refer to the drawing) are also available. Consult SRG Engineering about this bearing's fit. These bearings may be pressurized by using a spring between the housing shoulder and outer ring end.

Table 2 Structure and characteristics of the four row tapered roller bearings

Model	Drawing	Nominal numbers	Characteristics
Four row tapered roller bearing		6259XX 6230XX 6231XX CRO	These bearings are designed with two double row inner rings with rollers, one double row outer ring, two single outer ring and outer ring spacer/inner ring spacer. Bearings are adjusted so that their internal clearance becomes the specified value, the parts which have the same serial numbers should be assembled according to the assembly codes. The bearing is mainly used for the roll neck of rolling mill, and designed so as to become the maximum rating load for the allowable space in the roll neck part. The bearing uses the clearance-fit to make assemble and disassembley easier. For this purpose, bearings are designed with a helical groove on the inner ring bore to prevent wearing of the inner ring bore when creep occurs and uses the carbonized steel to prevent cracks on inner ring and improve the shock resistance. Please consult with SRG Engineering for fitting and bearing internal clearance.
Four row tapered roller bearing enclosed type		CRO…LL	Bearings are designed with oil seals on both side of the bearing which is the same as the four row tapered roller bearings. Please consult with SRG Engineering for fitting and bearing internal clearance.

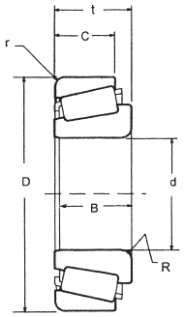
General Operating Cautions

Slippage between the balls and raceways may occur when bearings are operated under small loads, or when the ratio between axial and radial loads of the duplexed bearings exceeds the value “e,” and may cause smearing. This is most apparent when using large size tapered roller bearings due to the large cage mass. Please consult SRG Engineering for further details.

Tapered Roller Bearings

Series 30200

Metric



Bearing Number	Dimensions(mm)							Basic Load Ratings(N)		wlight kg
	d	D	t	B	C	r	R	Cr	Cor	
30203	17	40	13.25	12	11	1	1	19000	18600	0.08
30204	20	47	15.25	14	12	1	1	27500	28000	0.12
30205	25	52	16.25	15	13	1	1	30800	33500	0.15
30206	30	62	17.25	16	14	1	1	40200	44000	0.23
30207	35	72	18.25	17	15	1.5	1.5	51200	56000	0.32
30208	40	80	19.75	18	16	1.5	1.5	61600	68000	0.42
30209	45	85	20.75	19	16	1.5	1.5	66000	76500	0.48
30210	50	90	21.75	20	17	1.5	1.5	76500	91500	0.54
30211	55	100	22.75	21	18	1.5	2.0	89700	106000	0.70
30212	60	110	23.75	22	19	1.5	2.0	99000	114000	0.88
30213	65	120	24.75	23	20	1.5	2.0	114000	134000	1.15
30214	70	125	26.25	24	21	1.5	2.0	125000	156000	1.25
30215	75	130	27.25	25	22	1.5	2.0	140000	176000	1.40
30216	80	140	28.25	26	22	2.0	2.5	157000	183000	1.60
30217	85	150	30.50	28	24	2.5	2.0	184000	233000	2.12
30218	90	160	32.50	30	26	2.5	2.0	201000	256000	2.60
30219	95	170	34.50	32	27	3.0	2.5	223000	286000	3.13
30220	100	180	37.00	34	29	3.0	2.5	255000	330000	3.78
30221	105	190	39.00	36	30	3.0	2.5	280000	365000	4.51
30222	110	200	41.00	38	32	3.0	2.5	315000	420000	5.28
30224	120	215	43.50	40	34	3.0	2.5	335000	450000	6.28
30226	130	230	43.75	40	34	4.0	3.0	375000	505000	7.25
30228	140	250	45.75	42	36	4.0	3.0	390000	515000	8.74

Series 30300 or 30300D

Bearing Number	Dimensions(mm)							Basic Load Ratings(N)		wlight
	d	D	t	B	C	r	R	Cr	Cor	kg
30302	15	42	14.25	13	11	1.0	1.0	22400	20000	0.095
30303	17	47	15.25	14	12	1.0	1.0	28100	25000	0.13
30304	20	52	16.25	15	13	1.5	1.5	34100	32500	0.17
30305	25	62	18.25	17	15	1.5	1.5	44600	43000	0.26
30306	30	72	20.75	19	16	1.5	1.5	56100	56000	0.39
30307	35	80	22.75	21	18	1.5	2.0	72100	73500	0.52
30308	40	90	25.25	23	20	1.5	2.0	85800	95000	0.72
30309	45	100	27.25	25	22	1.5	2.0	108000	120000	0.97
30310	50	110	29.25	27	23	2.0	2.5	125000	140000	1.25
30311	55	120	31.50	29	25	2.0	2.5	142000	163000	1.55
30312	60	130	33.50	31	26	2.5	3.0	168000	196000	1.95
30313	65	140	36.00	33	28	2.5	3.0	203000	238000	2.55
30314	70	150	38.00	35	30	2.5	3.0	23000	272000	3.06
30315	75	160	40.00	37	31	2.5	3.0	255000	305000	3.57
30316	80	170	42.50	39	33	2.5	3.0	291000	35000	4.41
30317	85	180	44.50	41	34	3.0	4.0	305000	365000	5.20
30318	90	190	46.50	43	36	3.0	4.0	335000	405000	6.03
30319	95	200	49.50	45	38	3.0	4.0	445000	445000	6.98
30320	100	215	51.50	47	39	3.0	4.0	500000	500000	8.56

Bearing Number	Dimensions(mm)							Basic Load Ratings(N)		wlight
	d	D	t	B	C	r	R	Cr	Cor	kg
30303D	17	47	15.25	14	10.5	1.0	1.0	28100	25000	0.130
30304D	20	52	16.25	15	11.5	1.5	1.5	34100	325000	0.170
30305D	25	62	18.25	17	13	1.5	1.5	39800	425000	0.256
30306D	30	72	20.75	19	14	1.5	1.5	41500	29000	0.378
30307D	35	80	22.75	21	15	1.5	2.0	62000	68000	0.490
30308D	40	90	25.25	23	17	1.5	2.0	80000	90200	0.700
30309D	45	100	27.25	25	18	1.5	2.0	95000	10700	0.950
30310D	50	110	29.25	27	19	2.0	2.5	115000	133000	1.230
30311D	55	120	31.50	29	21	2.0	2.5	129000	148000	1.530
30312D	60	130	33.50	31	22	2.5	3.0	153000	179000	1.930
30313D	65	140	36.00	33	23	2.5	3.0	176000	209000	2.530
30314D	70	150	38.00	35	25	2.5	3.0	197000	235000	3.000
30315D	75	160	40.00	37	26	2.5	3.0	222000	266000	3.500
30316D	80	170	42.50	39	27	2.5	3.0	236000	282000	4.120
30317D	85	180	44.50	41	28	3.0	4.0	263000	317000	4.540
30318D	90	190	46.50	43	30	3.0	4.0	282000	336000	5.600
30319D	95	200	49.50	45	32	3.0	4.0	310000	375000	6.680

30320D	100	215	51.50	47	34	3.0	4.0	318000	391000	8.020

Series 32000

Bearing Number	Dimensions(mm)							Basic Load Ratings(N)		wlight kg
	d	D	t	B	C	r	R	Cr	Cor	
32005	25	47	15	15	11.5	0.8	0.8	27000	32500	0.110
32006	30	55	17	17	13	1.0	1.0	35800	44000	0.170
32007	35	62	18	18	14	1.0	1.0	42900	54000	0.220
32008	40	68	19	18	14.5	1.0	1.0	52800	7100	0.270
32009	45	75	20	20	15.5	1.0	1.0	58300	80000	0.340
32010	50	80	20	20	15.5	1.0	1.0	60500	68000	0.370
32011	55	90	23	23	17.5	1.5	1.5	80500	118000	0.583
32012	60	95	23	23	17.5	1.5	1.5	82000	123000	0.576
32013	65	100	23	23	17.5	1.5	1.5	83000	128000	0.630
32014	70	110	25	25	19	1.5	1.5	105000	160000	0.848
32015	75	115	25	25	19	1.5	1.5	108000	167000	0.909
32016	80	125	29	29	22	1.5	1.5	139000	218000	1.280
32017	85	130	29	29	22	1.5	1.5	142000	224000	1.350
32018	90	140	32	32	24	1.5	1.5	168000	270000	1.780
32019	95	145	32	32	24	1.5	2.0	171000	280000	1.830
32020	100	150	32	32	24	1.5	2.0	170000	281000	1.910
32021	105	160	35	35	26	1.5	2.0	201000	336000	2.420
32022	110	170	38	38	29	2.0	2.5	236000	390000	3.070
32024	120	180	38	38	29	2.0	2.5	245000	420000	3.250
32026	130	200	45	42	36	2.0	2.5	269000	445000	4.670
32028	140	210	45	42	36	2.0	2.5	278000	470000	4.950

Series 32200

Bearing Number	Dimensions(mm)							Basic Load Ratings(N)		wlight kg
	d	D	t	B	C	r	R	Cr	Cor	
32204	20	47	19.25	18	15.0	1.0	1.0	28200	29000	0.16
32205	25	52	19.25	18	15.0	1.0	1.0	35800	44000	0.19
32206	30	62	21.25	20	17.0	1.0	1.0	50100	57000	0.28
32207	35	72	24.25	23	19.0	1.5	1.5	66000	78000	0.43
32208	40	80	24.75	23	19.0	1.5	1.5	74800	86500	0.53
32209	45	85	24.75	23	19.0	1.5	1.5	80900	98000	0.58
32210	50	90	24.75	23	19.0	1.5	1.5	825000	100000	0.61
32211	55	100	25.75	25	21.0	1.5	2.0	106000	129000	0.83
32212	60	110	29.75	28	24.0	1.5	2.0	125000	160000	1.15
32213	65	120	32.75	31	27.0	1.5	2.0	151000	193000	1.50
32214	70	125	33.25	31	27.0	1.5	2.0	157000	208000	1.66
32215	75	130	33.25	31	27.0	1.5	2.0	161000	212000	1.70
32216	80	140	35.25	33	28	2.0	2.5	187000	245000	2.05
32217	85	150	38.50	36	30	2.0	2.5	224000	300000	2.75
32218	90	160	42.50	40	34	2.0	2.5	262000	360000	3.49
32219	95	170	45.50	43	37	3.0	2.5	299000	415000	4.30
32220	100	180	49.00	46	39	3.0	2.5	330000	465000	5.12
32221	105	190	53.00	50	43	3.0	2.5	360000	510000	6.25
32222	110	200	56.00	53	46	3.0	2.5	400000	565000	7.35
32224	120	215	61.50	58	50	3.0	2.5	440000	635000	9.00
32226	130	230	67.75	63	54	4.0	3.0	530000	790000	11.30
32228	140	250	71.75	68	58	4.0	3.0	610000	91500	14.30

Series 32300

Bearing Number	Dimensions(mm)							Basic Load Ratings(N)		wlight kg
	d	D	t	B	C	r	R	Cr	Cor	
32303	17	47	20.25	19	16.0	1.0	1.0	34700	33500	0.17
32304	20	52	22.25	21	18.0	1.5	1.5	44000	45500	0.23
32305	25	62	25.25	24	20.0	1.5	1.5	60500	63000	0.36
32306	30	72	28.75	27	23.0	1.5	1.5	76500	85000	0.55
32307	35	80	32.75	31	25.0	1.5	2.0	93500	114000	0.80
32308	40	90	35.25	33	27.0	1.5	2.0	108000	140000	1.10
32309	45	100	38.25	36	30.0	1.5	2.0	134000	176000	1.45
32310	50	110	42.25	40	33.0	2.0	2.5	161000	216000	1.85
32311	55	120	45.50	43	35.0	2.0	2.5	19000	260000	2.50
32312	60	130	48.50	46	37.0	2.5	3.0	220000	305000	2.80
32313	65	140	51.00	48	39.0	2.5	3.0	275000	356000	3.64
32314	70	150	54.00	51	42.0	2.5	3.0	310000	405000	4.46
32315	75	160	58.00	55	45	2.5	3.0	355000	470000	5.35
32316	80	170	61.50	58	48	2.5	3.0	395000	525000	6.41
32317	85	180	63.50	60	49	3.0	4.0	405000	525000	7.15
32318	90	190	67.50	64	53	3.0	4.0	450000	595000	8.57
32319	95	200	71.50	67	55	3.0	4.0	505000	670000	10.10
32320	100	215	77.5	73	60	3.0	4.0	570000	777000	12.70

Series 33000

Bearing Number	Dimensions(mm)							Basic Load Ratings(N)		wlight kg
	d	D	t	B	C	r	R	Cr	Cor	
33009	45	75	24	24	19.0	1.0	1.0	72000	104000	0.432
33010	50	80	24	24	19.0	1.0	1.0	75000	114000	0.470
33011	55	90	27	27	21.0	1.5	1.5	93000	143000	0.673
33012	60	95	27	27	21.0	1.5	1.5	96500	150000	0.73
33013	65	100	27	27	21.0	1.5	1.5	100000	163000	0.84
33014	70	110	31	31	25.5	1.5	1.5	137000	224000	1.14
33015	75	115	31	31	25.5	1.5	1.5	140000	232000	1.12
33016	80	125	36	36	29.5	1.5	1.5	176000	290000	1.67
33017	85	130	36	36	29.5	1.5	1.5	183000	315000	1.73
33018	90	140	39	39	32.5	2	1.5	216000	365000	2.48
33019	95	145	39	39	32.5	2	1.5	222000	380000	2.33
33020	100	150	39	39	32.5	2	1.5	224000	400000	2.42
33021	105	160	43	43	34	2.5	2	265000	450000	3.34
33022	110	170	47	47	37	2.5	2	300000	520000	4.16

33024	120	180	48	48	38	2.5	2	310000	560000	4.55

Series 33100&Series 33200

Bearing Number	Dimensions(mm)							Basic Load Ratings(N)		wlight kg
	d	D	t	B	C	r	R	Cr	Cor	
33108	40	75	26	26	20.5	1.5	1.5	79500	103000	0.494
33109	45	80	26	26	20.5	1.5	1.5	84500	115000	0.495
33110	50	85	26	26	20.0	1.5	1.5	86500	121000	0.580
33111	55	95	30	30	23.0	1.5	1.5	111000	155000	0.846
33112	60	100	30	30	23.0	1.5	1.5	113000	164000	0.912
33113	65	110	34	34	26.5	1.5	1.5	144000	211000	1.280
33114	70	120	37	37	29.0	1.5	2.0	176000	260000	1.730
33115	75	125	37	37	20\9	1.5	2.0	180000	275000	1.820
33116	80	130	37	37	29.0	1.5	2.0	19000	300000	1.930
33117	85	140	41	41	32.0	1.5	2.5	220000	355000	2.500
33118	90	150	45	45	35.0	1.5	2.5	265000	425000	3.220
33205	25	52	22	22	18.0	2.0	1.0	47500	57500	0.217
33206	30	62	25	25	19.5	2.0	1.0	65000	77000	0.344
33207	35	72	28	28	22.0	1.5	1.5	87500	109000	0.531
33208	40	80	32	32	25.0	1.5	1.5	103000	132000	0.728
33209	45	85	32	32	25.0	1.5	1.5	107000	141000	0.783
33210	50	90	32	32	24.5	1.5	1.5	115000	158000	0.852
33211	55	100	35	35	27.0	1.5	2.0	138000	188000	1.150
33212	60	110	38	38	29.0	1.5	2.0	167000	234000	1.550
33213	65	120	41	41	32.0	1.5	2.0	195000	265000	1.980
33214	70	125	41	41	32.0	1.5	2.0	201000	282000	2.100
33215	75	130	41	41	31.0	1.5	2.0	208000	298000	2.200
33216	80	140	46	46	35.0	2.0	2.5	250000	365000	2.920
33217	85	150	49	49	37	2.0	2.5	284000	42000	3.580