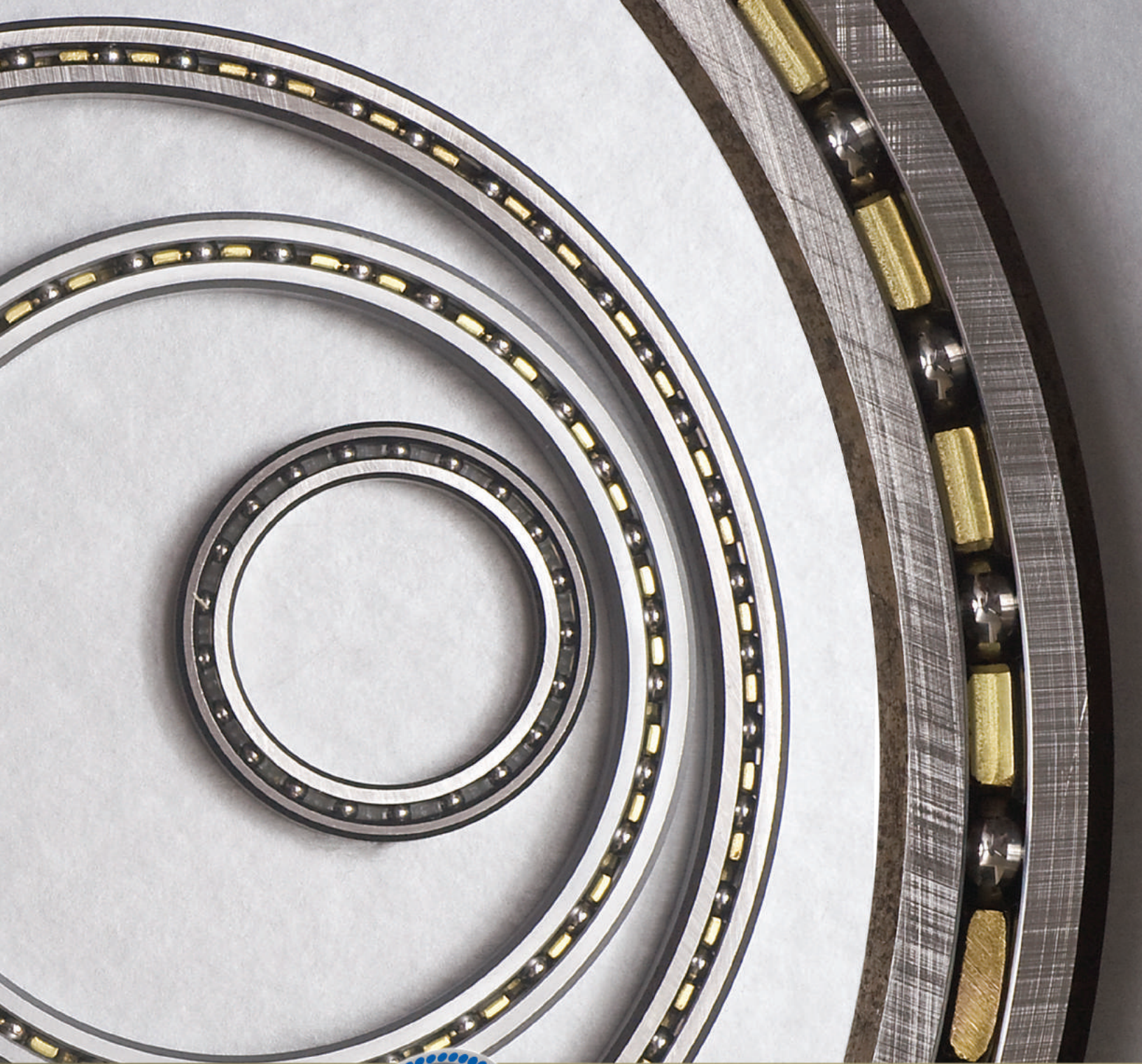




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Table of Contents

	Page
Industry Applications	inside cover
Selection Guide	2
Part Number Designations	3
Product Tables	
Radial (Conrad) Contact.....C-Type	4-9
Angular Contact.....A-Type	10-15
4-Point Contact.....X-Type	16-21
Sealed Radial (Conrad) Contact.....C-Type	22-23
Sealed 4-Point Contact.....X-Type	24-25
Tolerance Tables	26-28
Custom Features	29-30
Separator Selection Guide	31



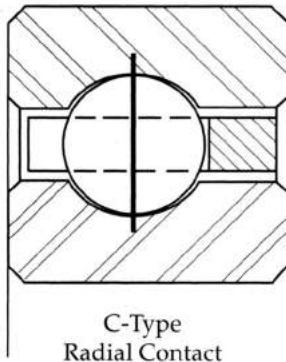
Slim Section Ball Bearing Selection

There are three basic types of Slim Section Ball Bearings, each of which is designated to provide maximum performance under different load conditions. The following chart can be used as a general guide for the selection of a basic bearing type:

Load Condition

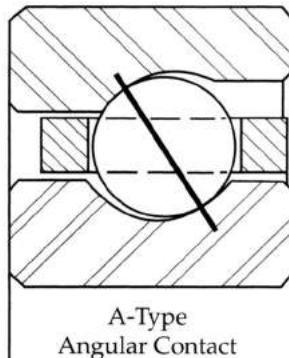
Bearing Type	Contact	Radial	Axial	Moment	Reversing Axial	Combined Radial-Thrust
C	Radial	Excellent	Good	Good	Good	Good
A	Angular	Good	Excellent	Do Not Use	Do Not Use	Good
X	4-Point	Fair	Good	Excellent	Excellent	Fair

Radial Contact Bearings



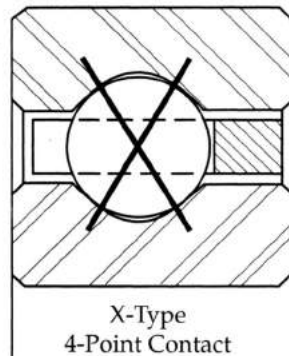
The C-Type, radial contact ball bearing is designed with deep ball grooves to withstand high loads. Although this bearing is used primarily in applications with radial loads, it can withstand moderate axial loads, reversing axial loads, and moment loads.

Angular Contact Bearings



In applications with high axial loads the A-Type, angular contact ball bearing should be used. The bearing also works well in radial or combined radial-thrust applications. The A-Type bearing should never be used alone to support moment loads or reversing axial loading. Two A-Type bearings are often used as a duplex pair.

4-Point Contact Bearings



The X-Type, or 4-Point contact ball bearings is ideal for moment loading. X-Type bearings are designed with gothic arch raceways which creates 4 contact points between the balls and the raceways. This design is excellent for moment loading and reversing axial loading. The X-Type bearing can be used for other light loading conditions, but is not recommended in place of the C - or A-Type bearing for pure radial loads.

Slim Section Ball Bearings

Part Number Designation

EXAMPLE	R	A	1	2	0	X	P	0	M
NOMENCLATURE	Material	Series	Size			Type	Separator	Precision	Radial Play
POSITION	1	2	3	4	5	6	7	8	9**

Position 1 - Material		
	Rings, Balls	Seals, Shields, Coating
R	52100 Bearing Steel	No seals or shields
RJU	52100 Bearing Steel	Two seals
RM	M-50 Tool Steel	No seals or shields
RN	52100 Bearing Steel	Thin Dense Chrome Plating
RS	440 C Stainless Steel	No seals or shields
RW	440 C Stainless Steel	Two seals
RL	52100 Bearing Steel	Thin Dense Chrome Plating Two seals

Positions 3, 4, 5 - Size
Bore size (inches) Multiplied by 10

Position 8 - Precision Class	
Class	Description
0	ABEC 1F
3	ABEC 3F
4	ABEC 5F
6	ABEC 7F
Reference: ANSI/ABMA Std 26.2	

Position 2 - Series			
Series	Radial Thickness	Width	
AA	0.187	x	0.187
A	0.250	x	0.250
B	0.312	x	0.312
C	0.375	x	0.375
D	0.500	x	0.500
F	0.750	x	0.750
G	1.000	x	1.000
U	0.375	x	0.500

Position 6 - Type	
Type	Description
A	Angular contact single bearing
B	Back-to-back angular contact duplex pair
C	Radial contact
F	Face-to-face angular contact duplex pair
T	Tandem angular contact duplex pair
X	Four-point contact

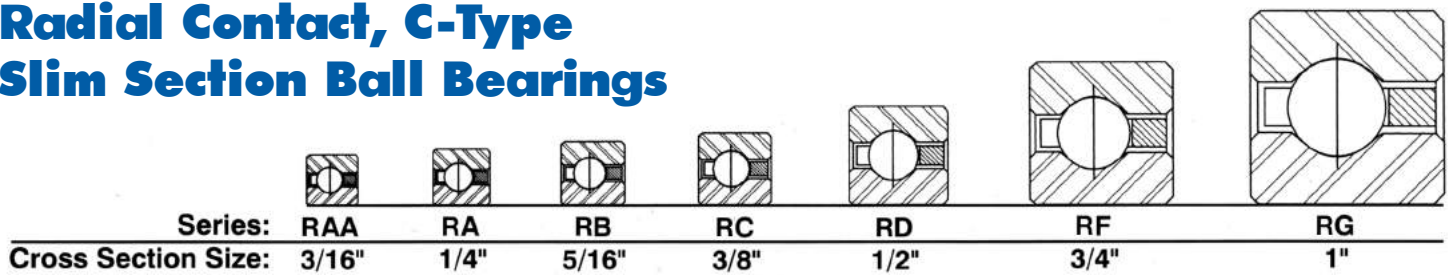
Position 7 Separator		
Type	Design	Material
D	Snap-over cage	Phenolic Laminate
F	None (full complement)	N/A
G	Circular pocket	Nylon
H	Circular pocket	Phenolic Laminate
L	Snap-over cage	Nylon
P	Snap-over cage	Brass
R	Circular pocket	Brass
T	Snap-over cage	Stainless Steel
U	Circular pocket	Stainless Steel
Z	Other (toroids, spacer balls, etc.)	as specified

Position 9 - Radial Play		
Code		
A	.0000 to .0005	C
B	.0000 to .0010	C
C	.0005 to .0010	C
D	.0005 to .0015	C
E	.0010 to .0020	C
F	.0015 to .0025	C
G	.0020 to .0030	C
H	.0030 to .0040	C
I	.0040 to .0050	C
J	.0050 to .0060	C
K	.0000 to .0005	P
L	.0000 to .0010	P
M	.0005 to .0010	P
N	.0005 to .0015	P
P	.0010 to .0020	P
R	.0015 to .0025	P
S	.0020 to .0030	P
T	.0030 to .0040	P
U	.0040 to .0050	P
Z	Other	

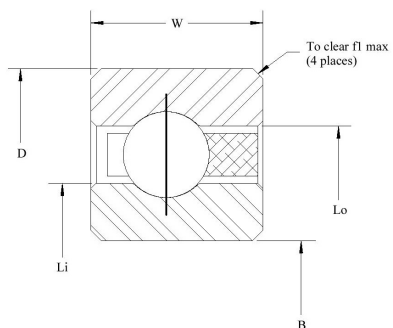
**Position 9 only required when designating special radial play.

Note: Radial preloaded bearings meet bore and O.D. tolerances prior to preload.

Radial Contact, C-Type Slim Section Ball Bearings

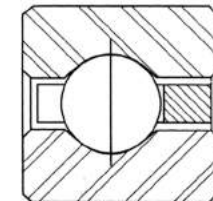


Part Number	B Bore	D Outside Diameter	W Width	Land Diameter		f1 Housing Fillet	Ball Diameter
				Li - Inner Ring	Lo - Outer Ring		
RAA10CLO	1.0000	1.3750	0.1875	1.141	1.234	0.015	3/32
RAA15CLO	1.5000	1.8750	0.1875	1.641	1.734	0.015	3/32
RAA17CLO	1.7500	2.1250	0.1875	1.891	1.984	0.015	3/32
RA020CP0	2.0000	2.5000	0.2500	2.188	2.313	0.250	1/8
RB020CP0	2.0000	2.6250	0.3125	2.234	2.391	0.400	5/32
RA025CP0	2.5000	3.0000	0.2500	2.688	2.813	0.025	1/8
RB025CP0	2.5000	3.1250	0.3125	2.734	2.891	0.040	5/32
RA030CP0	3.0000	3.5000	0.2500	3.188	3.313	0.025	1/8
RB030CP0	3.0000	3.6250	0.3125	3.234	3.391	0.040	5/32
RA035CP0	3.5000	4.0000	0.2500	3.688	3.813	0.025	1/8
RB035CP0	3.5000	4.1250	0.3125	3.734	3.891	0.040	5/32
RA040CP0	4.0000	4.5000	0.2500	4.188	4.313	0.025	1/8
RB040CP0	4.0000	4.6250	0.3125	4.234	4.391	0.040	5/32
RC040CP0	4.0000	4.7500	0.3750	4.281	4.469	0.040	3/16
RD040CP0	4.0000	5.0000	0.5000	4.375	4.625	0.060	1/4
RF040CP0	4.0000	6.5000	0.7500	4.563	4.938	0.080	3/8
RG040CP0	4.0000	6.0000	1.0000	4.750	5.250	0.080	1/2
RA042CP0	4.2500	4.7500	0.2500	4.438	4.563	0.025	1/8
RB042CP0	4.2500	4.8750	0.3125	4.484	4.641	0.040	5/32
RC042CP0	4.2500	5.0000	0.3750	4.531	4.719	0.040	3/16
RD042CP0	4.2500	5.2500	0.5000	4.625	4.875	0.060	1/4
RF042CP0	4.2500	5.7500	0.7500	4.813	5.188	0.080	3/8
RG042CP0	4.2500	6.2500	1.0000	5.000	5.500	0.080	1/2
RA045CP0	4.5000	5.0000	0.2500	4.688	4.813	0.025	1/8
RB045CP0	4.5000	5.1250	0.3125	4.734	4.891	0.040	5/32
RC045CP0	4.5000	5.2500	0.3750	4.781	4.969	0.040	3/16
RD045CP0	4.5000	5.5000	0.5000	4.875	5.125	0.060	1/4
RF045CP0	4.5000	6.0000	0.7500	5.063	5.438	0.080	3/8
RG045CP0	4.5000	6.5000	1.0000	5.250	5.750	0.080	1/2
RA047CP0	4.7500	5.2500	0.2500	4.938	5.063	0.025	1/8
RB047CP0	4.7500	5.3750	0.3125	4.984	5.141	0.040	5/32
RC047CP0	4.7500	5.5000	0.3750	5.031	5.219	0.040	3/16
RD047CP0	4.7500	5.7500	0.5000	5.125	5.375	0.060	1/4
RF047CP0	4.7500	6.2500	0.7500	5.313	5.688	0.080	3/8
RG047CP0	4.7500	6.7500	1.0000	5.500	6.000	0.080	1/2
RA050CP0	5.0000	5.5000	0.2500	5.188	5.313	0.025	1/8
RB050CP0	5.0000	5.6250	0.3125	5.234	5.391	0.040	5/32
RC050CP0	5.0000	5.7500	0.3750	5.281	5.469	0.040	3/16
RD050CP0	5.0000	6.0000	0.5000	5.375	5.625	0.060	1/4
RF050CP0	5.0000	6.5000	0.7500	5.563	5.938	0.080	3/8
RG050CP0	5.0000	7.0000	1.0000	5.750	6.250	0.080	1/2
RA055CP0	5.5000	6.0000	0.2500	5.688	5.813	0.025	1/8
RB055CP0	5.5000	6.1250	0.3125	5.734	5.891	0.040	5/32
RC055CP0	5.5000	6.2500	0.3750	5.781	5.969	0.040	3/16
RD055CP0	5.5000	6.5000	0.5000	5.875	6.125	0.060	1/4
RF055CP0	5.5000	7.0000	0.7500	6.063	6.438	0.080	3/8
RG055CP0	5.5000	7.5000	1.0000	6.250	6.750	0.080	1/2



Ball Quantity	Approx. Weight(lbs)	Radial (lbs.)		Thrust (lbs.)		Moment (lbs. - in)		Limiting Speed (RPM)
		Static	Dynamic	Static	Dynamic	Static	Dynamic	
21	0.03	290	188	N/A	N/A	N/A	N/A	21,000
29	0.04	400	225	N/A	N/A	N/A	N/A	14,000
33	0.05	460	242	N/A	N/A	N/A	N/A	12,000
27	0.10	680	393	N/A	N/A	N/A	N/A	10,500
23	0.16	930	577	N/A	N/A	N/A	N/A	10,500
33	0.13	830	442	N/A	N/A	N/A	N/A	8,400
28	0.19	1,140	644	N/A	N/A	N/A	N/A	8,400
39	0.15	990	487	N/A	N/A	N/A	N/A	6,000
33	0.24	1,340	707	N/A	N/A	N/A	N/A	7,000
45	0.18	1,140	530	N/A	N/A	N/A	N/A	5,142
38	0.27	1,540	767	N/A	N/A	N/A	N/A	5,145
51	0.20	1,290	571	N/A	N/A	N/A	N/A	4,500
43	0.30	1,750	825	N/A	N/A	N/A	N/A	4,500
35	0.45	2,100	1,073	N/A	N/A	N/A	N/A	5,275
27	0.78	3,080	1,755	N/A	N/A	N/A	N/A	5,250
19	1.90	5,360	3,559	N/A	N/A	N/A	N/A	5,250
15	3.60	8,210	6,115	N/A	N/A	N/A	N/A	5,250
54	0.20	1,370	591	N/A	N/A	N/A	N/A	4,235
45	0.31	1,830	846	N/A	N/A	N/A	N/A	4,250
37	0.47	2,220	1,108	N/A	N/A	N/A	N/A	4,250
28	0.83	3,190	1,787	N/A	N/A	N/A	N/A	4,940
20	2.00	5,640	3,655	N/A	N/A	N/A	N/A	4,900
15	3.80	8,210	6,061	N/A	N/A	N/A	N/A	4,900
57	0.22	1,440	610	N/A	N/A	N/A	N/A	4,000
48	0.33	1,950	880	N/A	N/A	N/A	N/A	4,000
39	0.48	2,340	1,143	N/A	N/A	N/A	N/A	4,000
30	0.88	3,420	1,861	N/A	N/A	N/A	N/A	4,620
21	2.10	5,930	3,750	N/A	N/A	N/A	N/A	4,650
16	4.00	8,760	6,277	N/A	N/A	N/A	N/A	4,500
60	0.23	1,520	629	N/A	N/A	N/A	N/A	3,790
50	0.34	2,030	901	N/A	N/A	N/A	N/A	3,800
41	0.50	2,460	1,176	N/A	N/A	N/A	N/A	3,795
31	0.94	3,530	1,892	N/A	N/A	N/A	N/A	4,400
22	2.20	6,210	3,843	N/A	N/A	N/A	N/A	4,400
17	4.10	9,300	6,487	N/A	N/A	N/A	N/A	4,850
63	0.24	1,590	648	N/A	N/A	N/A	N/A	3,600
53	0.38	2,150	933	N/A	N/A	N/A	N/A	3,600
43	0.58	2,590	1,209	N/A	N/A	N/A	N/A	3,620
33	1.00	3,760	1,964	N/A	N/A	N/A	N/A	4,200
23	2.30	6,490	3,936	N/A	N/A	N/A	N/A	4,175
18	4.30	9,850	6,691	N/A	N/A	N/A	N/A	4,200
69	0.25	1,750	685	N/A	N/A	N/A	N/A	3,275
58	0.41	2,360	984	N/A	N/A	N/A	N/A	3,275
47	0.59	2,830	1,274	N/A	N/A	N/A	N/A	3,300
36	1.06	4,100	2,063	N/A	N/A	N/A	N/A	3,250
25	2.50	7,050	4,116	N/A	N/A	N/A	N/A	3,775
19	4.70	10,400	6,850	N/A	N/A	N/A	N/A	3,800

Radial Contact, C-Type Slim Section Ball Bearings



Series:

RAA

RA

RB

RC

RD

RF

RG

Cross Section Size:

3/16"

1/4"

5/16"

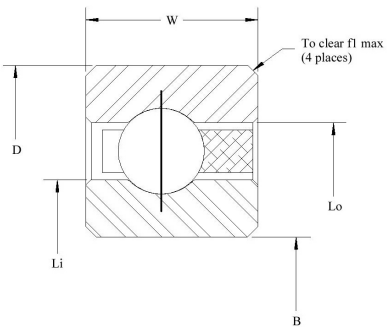
3/8"

1/2"

3/4"

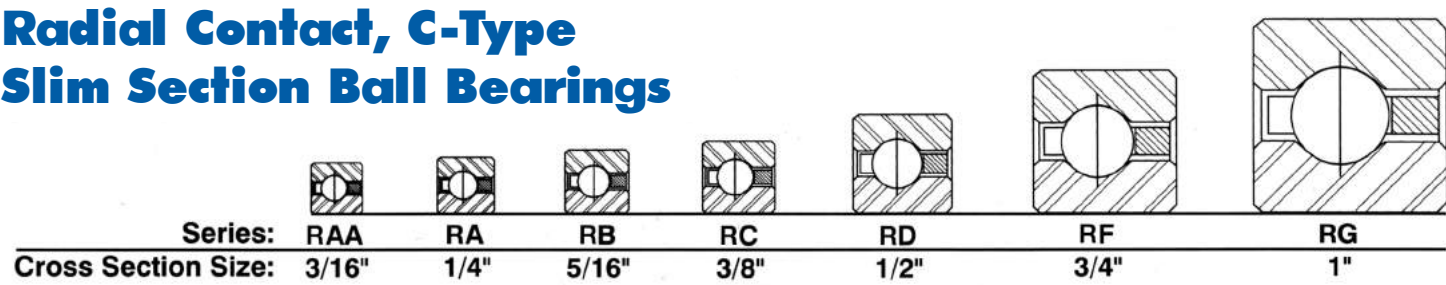
1"

Part Number	B Bore	D Outside Diameter	W Width	Land Diameter		f1 Housing Fillet	Ball Diameter
				Li - Inner Ring	Lo - Outer Ring		
RA060CP0	6.0000	6.5000	0.2500	6.188	6.313	0.025	1/8
RB060CP0	6.0000	6.6250	0.3125	6.234	6.391	0.040	5/32
RC060CP0	6.0000	6.7500	0.3750	6.281	6.469	0.040	3/16
RD060CP0	6.0000	7.0000	0.5000	6.375	6.625	0.060	1/4
RF060CP0	6.0000	7.5000	0.7500	6.563	6.938	0.080	3/8
RG060CP0	6.0000	8.0000	1.0000	6.750	7.250	0.080	1/2
RA065CP0	6.5000	7.0000	0.2500	6.688	6.813	0.025	1/8
RB065CP0	6.5000	7.1250	0.3125	6.734	6.891	0.040	5/32
RC065CP0	6.5000	7.2500	0.3750	6.781	6.969	0.040	3/16
RD065CP0	6.5000	7.5000	0.5000	6.875	7.125	0.060	1/4
RF065CP0	6.5000	8.0000	0.7500	7.630	7.438	0.080	3/8
RG065CP0	6.5000	8.5000	1.0000	7.250	7.750	0.080	1/2
RA070CP0	7.0000	7.5000	0.2500	7.188	7.313	0.025	1/8
RB070CP0	7.0000	7.6250	0.3125	7.234	7.391	0.040	5/32
RC070CP0	7.0000	7.7500	0.3750	7.281	7.469	0.040	3/16
RD070CP0	7.0000	8.0000	0.5000	7.375	7.625	0.060	1/4
RF070CP0	7.0000	8.5000	0.7500	7.563	7.938	0.080	3/8
RG070CP0	7.0000	9.0000	1.0000	7.750	8.250	0.080	1/2
RA075CP0	7.5000	8.0000	0.2500	7.688	7.813	0.025	1/8
RB075CP0	7.5000	8.1250	0.3125	7.734	7.891	0.040	5/32
RC075CP0	7.5000	8.2500	0.3750	7.781	7.969	0.040	3/16
RD075CP0	7.5000	8.5000	0.5000	7.875	8.125	0.060	1/4
RF075CP0	7.5000	9.0000	0.7500	8.063	8.438	0.080	3/8
RG075CP0	7.5000	9.5000	1.0000	8.250	8.750	0.080	1/2
RA080CP0	8.0000	8.5000	0.2500	8.188	8.313	0.025	1/8
RB080CP0	8.0000	8.6250	0.3125	8.234	8.391	0.040	5/32
RC080CP0	8.0000	8.7500	0.3750	8.281	8.469	0.040	3/16
RD080CP0	8.0000	9.0000	0.5000	8.375	8.625	0.060	1/4
RF080CP0	8.0000	9.5000	0.7500	8.563	8.938	0.080	3/8
RG080CP0	8.0000	10.0000	1.0000	8.705	9.250	0.080	1/2
RA090CP0	9.0000	8.5000	0.2500	9.188	9.319	0.025	1/8
RB090CP0	9.0000	9.6250	0.3125	9.234	9.391	0.040	5/32
RC090CP0	9.0000	9.7500	0.3750	9.281	9.469	0.040	3/16
RD090CP0	9.0000	10.0000	0.5000	9.375	9.625	0.060	1/4
RF090CP0	9.0000	10.5000	0.7500	9.563	9.938	0.080	3/8
RG090CP0	9.0000	11.0000	1.0000	9.750	10.250	0.080	1/2
RA100CP0	10.0000	10.5000	0.2500	10.188	10.313	0.025	1/8
RB100CP0	10.0000	10.6250	0.3125	10.234	10.391	0.040	5/32
RC100CP0	10.0000	10.7500	0.3750	10.281	10.469	0.040	3/16
RD100CP0	10.0000	11.0000	0.5000	10.375	10.625	0.060	1/4
RF100CP0	10.0000	11.5000	0.7500	10.563	10.938	0.080	3/8
RG100CP0	10.0000	12.0000	1.0000	10.750	11.250	0.080	1/2

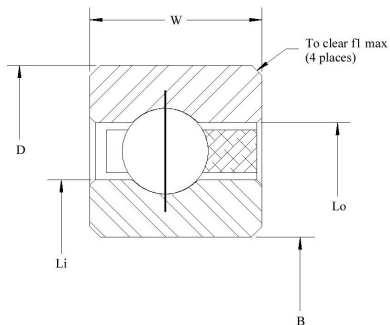


Ball Quantity	Approx. Weight(lbs)	Radial (lbs.)		Thrust (lbs.)		Moment (lbs. - in)		Limiting Speed (RPM)
		Static	Dynamic	Static	Dynamic	Static	Dynamic	
75	0.28	1,900	720	N/A	N/A	N/A	N/A	2,950
63	0.44	2,560	1,034	N/A	N/A	N/A	N/A	3,000
51	0.63	3,070	1,337	N/A	N/A	N/A	N/A	3,000
39	1.16	4,450	2,160	N/A	N/A	N/A	N/A	3,000
27	2.70	7,620	4,291	N/A	N/A	N/A	N/A	3,475
21	5.10	11,490	7,241	N/A	N/A	N/A	N/A	3,500
81	0.30	2,050	754	N/A	N/A	N/A	N/A	2,625
68	0.47	2,760	1,082	N/A	N/A	N/A	N/A	2,775
55	0.68	3,310	1,397	N/A	N/A	N/A	N/A	2,795
42	1.22	4,790	2,254	N/A	N/A	N/A	N/A	2,750
29	2.90	8,180	4,461	N/A	N/A	N/A	N/A	3,200
22	5.40	12,040	7,393	N/A	N/A	N/A	N/A	3,200
87	0.31	2,200	787	N/A	N/A	N/A	N/A	2,300
73	0.50	2,970	1,129	N/A	N/A	N/A	N/A	2,600
59	0.73	3,550	1,457	N/A	N/A	N/A	N/A	2,580
45	1.31	5,130	2,345	N/A	N/A	N/A	N/A	2,550
13	3.20	8,750	4,628	N/A	N/A	N/A	N/A	3,000
24	5.80	13,130	7,764	N/A	N/A	N/A	N/A	3,000
93	0.34	2,350	820	N/A	N/A	N/A	N/A	2,000
78	0.53	3,170	1,175	N/A	N/A	N/A	N/A	2,000
63	0.78	3,790	1,514	N/A	N/A	N/A	N/A	2,400
48	1.41	5,470	2,434	N/A	N/A	N/A	N/A	2,400
33	3.40	9,310	4,791	N/A	N/A	N/A	N/A	2,800
25	6.10	13,680	7,911	N/A	N/A	N/A	N/A	2,800
99	0.38	2,500	851	N/A	N/A	N/A	N/A	1,875
83	0.57	3,370	1,219	N/A	N/A	N/A	N/A	1,875
67	0.84	4,030	1,570	N/A	N/A	N/A	N/A	2,260
51	1.53	5,810	2,520	N/A	N/A	N/A	N/A	2,250
35	3.50	9,880	4,949	N/A	N/A	N/A	N/A	2,200
27	6.50	14,770	8,265	N/A	N/A	N/A	N/A	2,600
111	0.44	2,810	912	N/A	N/A	N/A	N/A	1,325
93	0.66	3,780	1,304	N/A	N/A	N/A	N/A	1,725
75	0.94	4,510	1,678	N/A	N/A	N/A	N/A	1,675
57	1.72	6,500	2,688	N/A	N/A	N/A	N/A	2,000
39	3.90	11,000	5,256	N/A	N/A	N/A	N/A	2,000
30	7.20	16,420	8,743	N/A	N/A	N/A	N/A	2,300
123	0.50	3,110	969	N/A	N/A	N/A	N/A	1,200
103	0.73	4,190	1,386	N/A	N/A	N/A	N/A	1,500
83	1.06	4,990	1,781	N/A	N/A	N/A	N/A	1,500
63	1.88	7,180	2,847	N/A	N/A	N/A	N/A	1,800
43	4.30	12,130	5,550	N/A	N/A	N/A	N/A	1,800
33	7.90	18,060	9,204	N/A	N/A	N/A	N/A	1,800

Radial Contact, C-Type Slim Section Ball Bearings

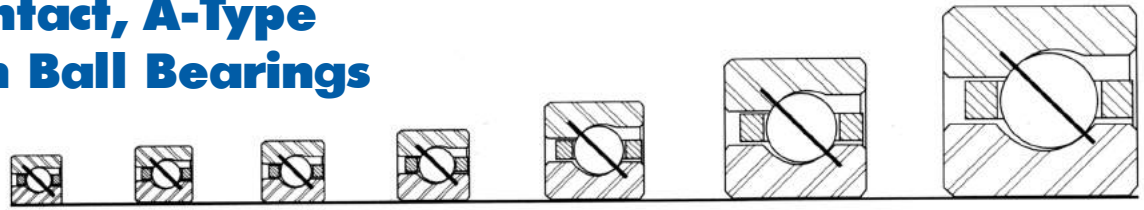


Part Number	B Bore	D Outside Diameter	W Width	Land Diameter		f1 Housing Fillet	Ball Diameter
				Li - Inner Ring	Lo - Outer Ring		
RA110CP0	11.0000	11.5000	0.2500	11.188	11.313	0.025	1/8
RB110CP0	11.0000	11.6250	0.3125	11.234	11.391	0.040	5/32
RC110CP0	11.0000	11.7500	0.3750	11.281	11.469	0.040	3/16
RD110CP0	11.0000	12.0000	0.5000	11.375	11.625	0.060	1/4
RF110CP0	11.0000	12.5000	0.7500	11.563	11.938	0.080	3/8
RG110CP0	11.0000	13.0000	1.0000	11.750	12.250	0.080	1/2
RA120CP0	12.0000	12.5000	0.2500	12.188	12.313	0.025	1/8
RB120CP0	12.0000	12.6250	0.3125	12.234	12.391	0.040	5/32
RC120CP0	12.0000	12.7500	0.3750	12.281	12.469	0.040	3/16
RD120CP0	12.0000	13.0000	0.5000	12.375	12.625	0.060	1/4
RF120CP0	12.0000	13.5000	0.7500	12.563	12.938	0.080	3/8
RG120CP0	12.0000	14.0000	1.0000	12.750	13.250	0.080	1/2
RD140CP0	14.0000	15.0000	0.5000	14.375	14.625	0.060	1/4
RF140CP0	14.0000	15.5000	0.7500	14.563	14.938	0.080	3/8
RG140CP0	14.0000	16.0000	1.0000	14.750	15.250	0.080	1/2
RD160CP0	16.0000	17.0000	0.5000	16.375	16.625	0.060	1/4
RF160CP0	16.0000	17.5000	0.7500	16.563	16.938	0.080	3/8
RG160CP0	16.0000	18.0000	1.0000	16.750	17.250	0.080	1/2
RG180CP0	18.0000	20.0000	1.0000	18.750	19.250	0.080	1/2
RG200CP0	20.0000	22.0000	1.0000	20.750	21.250	0.080	1/2



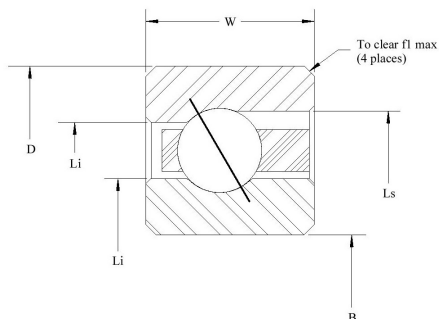
Ball Quantity	Approx. Weight(lbs)	Radial (lbs.)		Thrust (lbs.)		Moment (lbs. - in)		Limiting Speed (RPM)
		Static	Dynamic	Static	Dynamic	Static	Dynamic	
135	0.52	3,410	1,025	N/A	N/A	N/A	N/A	1,100
113	0.75	4,590	1,464	N/A	N/A	N/A	N/A	1,150
91	1.16	5,470	1,879	N/A	N/A	N/A	N/A	1,370
69	2.06	7,870	3,000	N/A	N/A	N/A	N/A	1,360
47	4.80	13,260	5,833	N/A	N/A	N/A	N/A	1,600
36	8.60	19,700	9,648	N/A	N/A	N/A	N/A	1,600
147	0.56	3,720	1,078	N/A	N/A	N/A	N/A	1,000
123	0.83	5,000	1,539	N/A	N/A	N/A	N/A	1,000
99	1.25	5,950	1,974	N/A	N/A	N/A	N/A	1,700
75	2.25	8,550	3,148	N/A	N/A	N/A	N/A	1,250
51	5.20	14,390	6,105	N/A	N/A	N/A	N/A	1,500
39	9.30	21,340	10,074	N/A	N/A	N/A	N/A	1,500
87	2.73	9,920	3,427	N/A	N/A	N/A	N/A	1,070
59	6.00	16,650	6,620	N/A	N/A	N/A	N/A	1,285
45	10.80	24,620	10,886	N/A	N/A	N/A	N/A	1,200
99	3.10	11,290	3,688	N/A	N/A	N/A	N/A	750
67	7.10	18,900	7,104	N/A	N/A	N/A	N/A	937
51	12.30	27,910	11,648	N/A	N/A	N/A	N/A	1,100
57	13.70	31,190	12,367	N/A	N/A	N/A	N/A	1,000
63	15.80	34,470	13,044	N/A	N/A	N/A	N/A	600

Angular Contact, A-Type Slim Section Ball Bearings



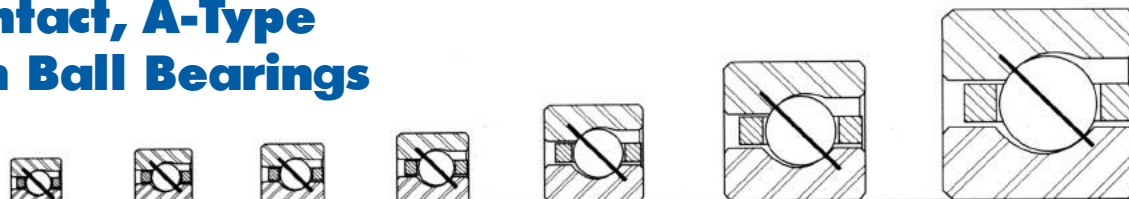
Series:	RAA	RA	RB	RC	RD	RF	RG
Cross Section Size:	3/16"	1/4"	5/16"	3/8"	1/2"	3/4"	1"

Part Number	B Bore	D Outside Diameter	W Width	Land Diameter			f1 Housing Fillet	Ball Diameter
				Li - Inner Ring	Lo - Outer Ring	LS - Counter Bore		
RAA10AG0	1.0000	1.3750	0.1875	1.141	1.234	1.2350	0.015	3/32
RAA15AG0	1.5000	1.8750	0.1875	1.641	1.734	1.7350	0.015	3/32
RAA17AG0	1.7500	2.1250	0.1875	1.890	1.985	2.0240	0.015	3/32
RA020AR0	2.0000	2.5000	0.2500	2.188	2.313	2.3750	0.250	1/8
RB020AR0	2.0000	2.6250	0.3125	2.234	2.391	2.4690	0.400	5/32
RA025AR0	2.5000	3.0000	0.2500	2.688	2.813	2.8750	0.025	1/8
RB025AR0	2.5000	3.1250	0.3125	2.734	2.891	2.9690	0.040	5/32
RA030AR0	3.0000	3.5000	0.2500	3.188	3.313	3.3750	0.025	1/8
RB030AR0	3.0000	3.6250	0.3125	3.234	3.391	3.4690	0.040	5/32
RA035AR0	3.5000	4.0000	0.2500	3.688	3.813	3.8750	0.025	1/8
RB035AR0	3.5000	4.1250	0.3125	3.734	3.891	3.9690	0.040	5/32
RA040AR0	4.0000	4.5000	0.2500	4.188	4.313	4.3750	0.025	1/8
RB040AR0	4.0000	4.6250	0.3125	4.234	4.391	4.4690	0.040	5/32
RC040AR0	4.0000	4.7500	0.3750	4.281	4.469	4.5630	0.040	3/16
RD040AR0	4.0000	5.0000	0.5000	4.375	4.625	4.7500	0.060	1/4
RF040AR0	4.0000	6.5000	0.7500	4.563	4.938	5.1250	0.080	3/8
RG040AR0	4.0000	6.0000	1.0000	4.750	5.250	5.5000	0.080	1/2
RA042AR0	4.2500	4.7500	0.2500	4.438	4.563	4.6250	0.025	1/8
RB042AR0	4.2500	4.8750	0.3125	4.484	4.641	4.7190	0.040	5/32
RC042AR0	4.2500	5.0000	0.3750	4.531	4.719	4.8130	0.040	3/16
RD042AR0	4.2500	5.2500	0.5000	4.625	4.875	5.0000	0.060	1/4
RF042AR0	4.2500	5.7500	0.7500	4.813	5.188	5.3750	0.080	3/8
RG042AR0	4.2500	6.2500	1.0000	5.000	5.500	5.7500	0.080	1/2
RA045AR0	4.5000	5.0000	0.2500	4.688	4.813	4.8750	0.025	1/8
RB045AR0	4.5000	5.1250	0.3125	4.734	4.891	4.9690	0.040	5/32
RC045AR0	4.5000	5.2500	0.3750	4.781	4.969	5.0630	0.040	3/16
RD045AR0	4.5000	5.5000	0.5000	4.875	5.125	5.2500	0.060	1/4
RF045AR0	4.5000	6.0000	0.7500	5.063	5.438	5.6250	0.080	3/8
RG045AR0	4.5000	6.5000	1.0000	5.250	5.750	6.0000	0.080	1/2
RA047AR0	4.7500	5.2500	0.2500	4.938	5.063	5.1250	0.025	1/8
RB047AR0	4.7500	5.3750	0.3125	4.984	5.141	5.2190	0.040	5/32
RC047AR0	4.7500	5.5000	0.3750	5.031	5.219	5.3130	0.040	3/16
RD047AR0	4.7500	5.7500	0.5000	5.125	5.375	5.5000	0.060	1/4
RF047AR0	4.7500	6.2500	0.7500	5.313	5.688	5.8750	0.080	3/8
RG047AR0	4.7500	6.7500	1.0000	5.500	6.000	6.2500	0.080	1/2
RA050AR0	5.0000	5.5000	0.2500	5.188	5.313	5.3750	0.025	1/8
RB050AR0	5.0000	5.6250	0.3125	5.234	5.391	5.4690	0.040	5/32
RC050AR0	5.0000	5.7500	0.3750	5.281	5.469	5.5630	0.040	3/16
RD050AR0	5.0000	6.0000	0.5000	5.375	5.625	5.7500	0.060	1/4
RF050AR0	5.0000	6.5000	0.7500	5.563	5.938	6.1250	0.080	3/8
RG050AR0	5.0000	7.0000	1.0000	5.750	6.250	6.5000	0.080	1/2
RA055AR0	5.5000	6.0000	0.2500	5.688	5.813	5.8750	0.025	1/8
RB055AR0	5.5000	6.1250	0.3125	5.734	5.891	5.9690	0.040	5/32
RC055AR0	5.5000	6.2500	0.3750	5.781	5.969	6.0630	0.040	3/16
RD055AR0	5.5000	6.5000	0.5000	5.875	6.125	6.2500	0.060	1/4
RF055AR0	5.5000	7.0000	0.7500	6.063	6.438	6.6250	0.080	3/8
RG055AR0	5.5000	7.5000	1.0000	6.250	6.750	7.0000	0.080	1/2



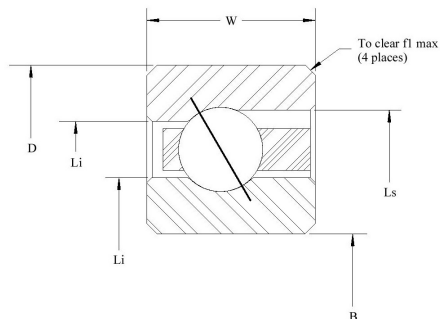
Ball Quantity	Approx. Weight(lbs)	Radial (lbs.)		Thrust (lbs.)		Moment (lbs.-in)		Limiting Speed (RPM)
		Static	Dynamic	Static	Dynamic	Static	Dynamic	
28	0.03	340	194	970	450	N/A	N/A	21,000
40	0.04	480	238	1,380	560	N/A	N/A	14,000
46	0.05	530	251	1,520	600	N/A	N/A	12,000
36	0.10	790	405	2,280	960	N/A	N/A	10,500
31	0.15	1,090	601	3,150	1,380	N/A	N/A	10,500
44	0.12	960	459	2,780	1,100	N/A	N/A	8,400
38	0.19	1,340	675	3,860	1,590	N/A	N/A	8,400
52	0.14	1,140	507	3,290	1,230	N/A	N/A	6,000
44	0.22	1,550	734	4,470	1,750	N/A	N/A	7,000
60	0.17	1,310	552	3,790	1,350	N/A	N/A	5,142
51	0.27	1,790	801	5,180	1,930	N/A	N/A	5,145
68	0.19	1,490	595	4,300	1,470	N/A	N/A	4,500
58	0.30	2,040	865	5,890	2,100	N/A	N/A	4,500
49	0.44	2,550	1,153	7,360	2,770	N/A	N/A	5,275
36	0.80	3,550	1,819	10,260	4,260	N/A	N/A	5,250
26	1.92	6,350	3,736	18,340	8,420	N/A	N/A	5,250
20	3.61	9,480	6,281	27,360	13,630	N/A	N/A	5,250
72	0.20	1,580	616	4,550	1,530	N/A	N/A	4,235
61	0.31	2,150	891	6,200	2,170	N/A	N/A	4,250
52	0.46	2,710	1,194	7,820	2,880	N/A	N/A	4,240
38	0.84	3,750	1,876	10,830	4,420	N/A	N/A	4,940
27	2.04	6,600	3,805	19,050	8,630	N/A	N/A	4,900
21	3.83	9,950	6,438	28,730	14,090	N/A	N/A	4,900
76	0.21	1,660	637	4,810	1,580	N/A	N/A	4,000
64	0.34	2,250	917	6,500	2,240	N/A	N/A	4,000
55	0.49	2,860	1,234	8,270	2,990	N/A	N/A	4,000
40	0.88	3,950	1,931	11,400	4,570	N/A	N/A	4,620
29	2.14	7,090	3,966	20,460	9,050	N/A	N/A	4,650
22	3.95	10,430	6,562	30,100	14,530	N/A	N/A	4,500
80	0.22	1,750	657	5,060	1,640	N/A	N/A	3,790
68	0.35	2,390	951	6,910	2,340	N/A	N/A	3,800
58	0.51	3,020	1,274	8,720	3,100	N/A	N/A	3,795
42	0.93	4,150	1,986	11,970	4,720	N/A	N/A	4,400
30	2.26	7,330	4,034	21,160	9,260	N/A	N/A	4,400
23	4.17	10,900	6,745	31,460	14,970	N/A	N/A	4,400
84	0.23	1,840	676	5,310	1,690	N/A	N/A	3,600
71	0.37	2,500	976	7,210	2,410	N/A	N/A	3,600
61	0.54	3,180	1,313	9,170	3,200	N/A	N/A	3,620
44	0.98	4,340	2,040	12,540	4,870	N/A	N/A	4,200
31	2.37	7,570	4,101	21,870	9,460	N/A	N/A	4,175
24	4.42	11,370	6,897	32,830	15,400	N/A	N/A	4,200
92	0.25	2,020	715	5,820	1,800	N/A	N/A	3,275
78	0.40	2,740	1,033	7,920	2,560	N/A	N/A	3,275
66	0.58	3,440	1,374	9,920	3,370	N/A	N/A	3,300
48	1.06	4,740	2,145	13,680	5,160	N/A	N/A	3,250
34	2.59	8,310	4,319	23,980	10,060	N/A	N/A	3,775
26	4.73	12,320	7,192	35,570	16,240	N/A	N/A	3,800

Angular Contact, A-Type Slim Section Ball Bearings



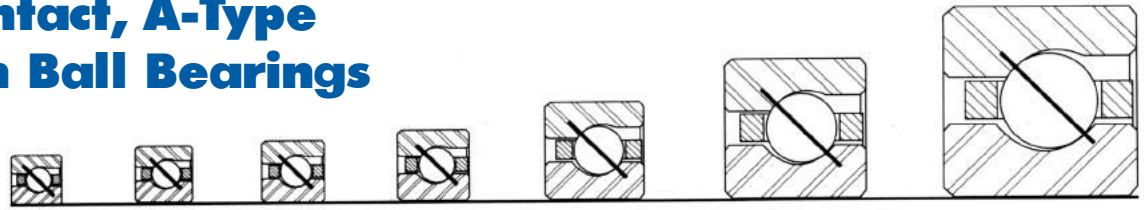
Series:	RAA	RA	RB	RC	RD	RF	RG
Cross Section Size:	3/16"	1/4"	5/16"	3/8"	1/2"	3/4"	1"

Part Number	B Bore	D Outside Diameter	W Width	Land Diameter			f1 Housing Fillet	Ball Diameter
				Li - Inner Ring	Lo - Outer Ring	Ls - Counter Bore		
RA060ARO	6.0000	6.5000	0.2500	6.188	6.313	6.375	0.025	1/8
RB060ARO	6.0000	6.6250	0.3125	6.234	6.391	6.469	0.040	5/32
RC060ARO	6.0000	6.7500	0.3750	6.281	6.469	6.563	0.040	3/16
RD060ARO	6.0000	7.0000	0.5000	6.375	6.625	6.750	0.060	1/4
RF060ARO	6.0000	7.5000	0.7500	6.563	6.938	7.125	0.080	3/8
RG060ARO	6.0000	8.0000	1.0000	6.750	7.250	7.500	0.080	1/2
RA065ARO	6.5000	7.0000	0.2500	6.688	6.813	6.875	0.025	1/8
RB065ARO	6.5000	7.1250	0.3125	6.734	6.891	6.969	0.040	5/32
RC065ARO	6.5000	7.2500	0.3750	6.781	6.969	7.063	0.040	3/16
RD065ARO	6.5000	7.5000	0.5000	6.875	7.125	7.250	0.060	1/4
RF065ARO	6.5000	8.0000	0.7500	7.630	7.438	7.625	0.080	3/8
RG065ARO	6.5000	8.5000	1.0000	7.250	7.750	8.000	0.080	1/2
RA070ARO	7.0000	7.5000	0.2500	7.188	7.313	7.375	0.025	1/8
RB070ARO	7.0000	7.6250	0.3125	7.234	7.391	7.469	0.040	5/32
RC070ARO	7.0000	7.7500	0.3750	7.281	7.469	7.563	0.040	3/16
RD070ARO	7.0000	8.0000	0.5000	7.375	7.625	7.750	0.060	1/4
RF070ARO	7.0000	8.5000	0.7500	7.563	7.938	8.125	0.080	3/8
RG070ARO	7.0000	9.0000	1.0000	7.750	8.250	8.500	0.080	1/2
RA075ARO	7.5000	8.0000	0.2500	7.688	7.813	7.875	0.025	1/8
RB075ARO	7.5000	8.1250	0.3125	7.734	7.891	7.969	0.040	5/32
RC075ARO	7.5000	8.2500	0.3750	7.781	7.969	8.063	0.040	3/16
RD075ARO	7.5000	8.5000	0.5000	7.875	8.125	8.250	0.060	1/4
RF075ARO	7.5000	9.0000	0.7500	8.063	8.438	8.625	0.080	3/8
RG075ARO	7.5000	9.5000	1.0000	8.250	8.750	9.000	0.080	1/2
RA080ARO	8.0000	8.5000	0.2500	8.188	8.313	8.375	0.025	1/8
RB080ARO	8.0000	8.6250	0.3125	8.234	8.391	8.469	0.040	5/32
RC080ARO	8.0000	8.7500	0.3750	8.281	8.469	8.563	0.040	3/16
RD080ARO	8.0000	9.0000	0.5000	8.375	8.625	8.750	0.060	1/4
RF080ARO	8.0000	9.5000	0.7500	8.563	8.938	9.125	0.080	3/8
RG080ARO	8.0000	10.0000	1.0000	8.705	9.250	9.500	0.080	1/2
RA090ARO	9.0000	8.5000	0.2500	9.188	9.319	9.375	0.025	1/8
RB090ARO	9.0000	9.6250	0.3125	9.234	9.391	9.469	0.040	5/32
RC090ARO	9.0000	9.7500	0.3750	9.281	9.469	9.563	0.040	3/16
RD090ARO	9.0000	10.0000	0.5000	9.375	9.625	9.750	0.060	1/4
RF090ARO	9.0000	10.5000	0.7500	9.563	9.938	10.125	0.080	3/8
RG090ARO	9.0000	11.0000	1.0000	9.750	10.250	10.500	0.080	1/2
RA100ARO	10.0000	10.5000	0.2500	10.188	10.313	10.375	0.025	1/8
RB100ARO	10.0000	10.6250	0.3125	10.234	10.391	10.469	0.040	5/32
RC100ARO	10.0000	10.7500	0.3750	10.281	10.469	10.563	0.040	3/16
RD100ARO	10.0000	11.0000	0.5000	10.375	10.625	10.750	0.060	1/4
RF100ARO	10.0000	11.5000	0.7500	10.563	10.938	11.125	0.080	3/8
RG100ARO	10.0000	12.0000	1.0000	10.750	11.250	11.500	0.080	1/2



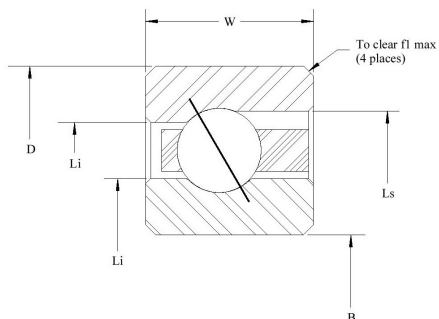
Ball Quantity	Approx. Weight(lbs)	Radial (lbs.)		Thrust (lbs.)		Moment (lbs.- in)		Limiting Speed (RPM)
		Static	Dynamic	Static	Dynamic	Static	Dynamic	
100	0.28	2,190	752	6,320	1,900	N/A	N/A	2,950
85	0.44	2,990	1,088	8,630	2,710	N/A	N/A	3,000
72	0.64	3,750	1,448	10,820	3,580	N/A	N/A	3,000
52	1.15	5,130	2,247	14,820	5,440	N/A	N/A	3,000
37	2.72	9,040	4,530	26,100	10,650	N/A	N/A	3,475
28	5.07	13,270	7,480	38,300	17,060	N/A	N/A	3,500
108	0.30	2,370	788	6,830	2,000	N/A	N/A	2,625
91	0.47	3,200	1,132	9,240	2,840	N/A	N/A	2,775
78	0.68	4,060	1,519	11,720	3,770	N/A	N/A	2,795
56	1.24	5,530	2,346	15,960	5,720	N/A	N/A	2,750
40	2.94	9,770	4,734	28,220	11,220	N/A	N/A	3,200
30	5.41	14,220	7,761	41,040	17,870	N/A	N/A	3,200
116	0.32	2,540	823	7,340	2,100	N/A	N/A	2,300
98	0.50	3,450	1,184	9,960	2,980	N/A	N/A	2,600
83	0.74	4,320	1,575	12,470	3,930	N/A	N/A	2,580
60	1.33	5,920	2,442	17,100	5,990	N/A	N/A	2,550
43	3.16	10,510	4,932	30,330	11,770	N/A	N/A	3,000
32	5.87	15,160	8,035	43,780	18,650	N/A	N/A	3,000
124	0.34	2,720	857	7,840	2,190	N/A	N/A	2,000
105	0.54	3,700	1,235	10,670	3,120	N/A	N/A	2,000
89	0.78	4,630	1,642	13,380	4,120	N/A	N/A	2,400
64	1.42	6,320	2,536	18,240	6,250	N/A	N/A	2,400
45	3.39	11,000	5,052	31,740	12,130	N/A	N/A	2,800
34	6.20	16,110	8,303	46,510	19,420	N/A	N/A	2,800
132	0.36	2,890	890	8,350	2,280	N/A	N/A	1,875
112	0.57	3,940	1,284	11,380	3,260	N/A	N/A	1,875
95	0.84	4,950	1,708	14,280	4,300	N/A	N/A	2,260
68	1.52	6,710	2,627	19,380	6,510	N/A	N/A	2,250
48	3.61	11,730	5,242	33,860	12,670	N/A	N/A	2,200
36	6.54	17,060	8,566	49,250	20,180	N/A	N/A	2,600
148	0.41	3,240	954	9,360	2,470	N/A	N/A	1,325
152	0.64	4,400	1,370	12,700	3,510	N/A	N/A	1,725
106	0.98	5,520	1,822	15,930	4,630	N/A	N/A	1,675
76	1.69	7,500	2,803	21,660	7,010	N/A	N/A	2,000
54	3.95	13,190	5,608	38,090	13,700	N/A	N/A	2,000
40	7.22	18,960	9,073	54,720	21,640	N/A	N/A	2,300
164	0.45	3,590	1,014	10,370	2,640	N/A	N/A	1,200
139	0.71	4,890	1,461	14,120	3,760	N/A	N/A	1,500
118	1.04	6,140	1,942	17,730	4,970	N/A	N/A	1,500
84	1.87	8,290	2,972	23,940	7,500	N/A	N/A	1,800
59	4.40	14,420	5,890	41,620	14,530	N/A	N/A	1,800
44	8.00	20,850	9,561	60,190	23,060	N/A	N/A	1,800

Angular Contact, A-Type Slim Section Ball Bearings



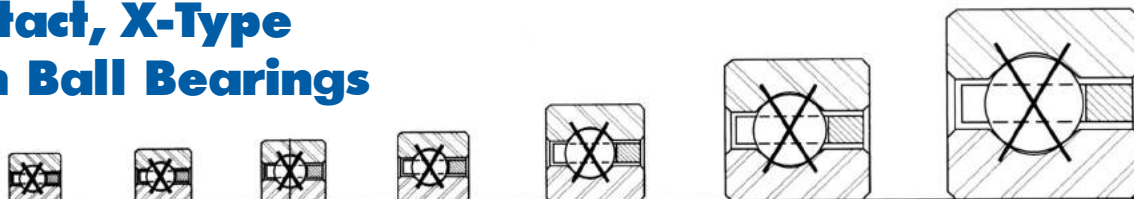
Series:	RAA	RA	RB	RC	RD	RF	RG
Cross Section Size:	3/16"	1/4"	5/16"	3/8"	1/2"	3/4"	1"

Part Number	B Bore	D Outside Diameter	W Width	Land Diameter			f1 Housing Fillet	Ball Diameter
				Li - Inner Ring	Lo - Outer Ring	LS - Counter Bore		
RA110AR0	11.0000	11.5000	0.2500	11.188	11.313	11.375	0.025	1/8
RB110AR0	11.0000	11.6250	0.3125	11.234	11.391	11.469	0.040	5/32
RC110AR0	11.0000	11.7500	0.3750	11.281	11.469	11.563	0.040	3/16
RD110AR0	11.0000	12.0000	0.5000	11.375	11.625	11.750	0.060	1/4
RF110AR0	11.0000	12.5000	0.7500	11.563	11.938	12.125	0.080	3/8
RG110AR0	11.0000	13.0000	1.0000	11.750	12.250	12.500	0.080	1/2
RA120AR0	12.0000	12.5000	0.2500	12.188	12.313	12.375	0.025	1/8
RB120AR0	12.0000	12.6250	0.3125	12.234	12.391	12.469	0.040	5/32
RC120AR0	12.0000	12.7500	0.3750	12.281	12.469	12.563	0.040	3/16
RD120AR0	12.0000	13.0000	0.5000	12.375	12.625	12.750	0.060	1/4
RF120AR0	12.0000	13.5000	0.7500	12.563	12.938	13.125	0.080	3/8
RG120AR0	12.0000	14.0000	1.0000	12.750	13.250	13.500	0.080	1/2
RC140AR0	14.0000	14.7500	0.3750	14.281	14.469	14.563	0.040	3/16
RD140AR0	14.0000	15.0000	0.5000	14.375	14.625	14.750	0.060	1/4
RF140AR0	14.0000	15.5000	0.7500	14.563	14.938	15.125	0.080	3/8
RG140AR0	14.0000	16.0000	1.0000	14.750	15.250	15.500	0.080	1/2
RD160AR0	16.0000	17.0000	0.5000	16.375	16.625	16.750	0.060	1/4
RF160AR0	16.0000	17.5000	0.7500	16.563	16.938	17.125	0.080	3/8
RG160AR0	16.0000	18.0000	1.0000	16.750	17.250	17.500	0.080	1/2
RD180AR0	18.0000	19.0000	0.5000	18.375	18.625	18.750	0.060	1/4
RF180AR0	18.0000	19.5000	0.7500	18.563	18.938	19.125	0.080	3/8
RG180AR0	18.0000	20.0000	1.0000	18.750	19.250	19.500	0.080	1/2
RG200AR0	20.0000	22.0000	1.0000	20.750	21.250	21.500	0.080	1/2



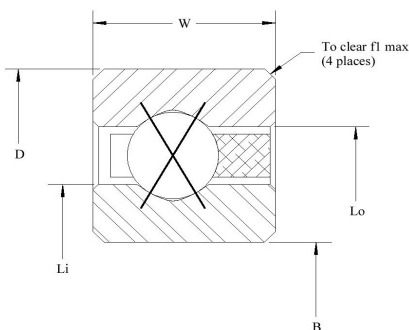
Ball Quantity	Approx. Weight(lbs)	Radial (lbs.)		Thrust (lbs.)		Moment (lbs.- in)		Limiting Speed (RPM)
		Static	Dynamic	Static	Dynamic	Static	Dynamic	
180	0.50	3,940	1,072	11,380	2,810	N/A	N/A	1,100
152	0.78	5,350	1,540	15,440	4,000	N/A	N/A	1,150
129	1.14	6,720	2,047	19,390	5,280	N/A	N/A	1,370
92	2.05	9,080	3,133	26,220	7,960	N/A	N/A	1,360
65	4.75	15,880	6,227	45,850	15,500	N/A	N/A	1,600
48	8.68	22,750	10,027	65,660	24,400	N/A	N/A	1,600
196	0.54	4,290	1,128	12,390	2,970	N/A	N/A	1,000
166	0.85	5,840	1,623	16,860	4,240	N/A	N/A	1,000
140	1.23	7,290	2,147	21,040	5,570	N/A	N/A	1,250
100	2.23	9,870	3,288	28,500	8,420	N/A	N/A	1,250
70	5.20	17,100	6,487	49,380	16,290	N/A	N/A	1,500
52	9.47	24,640	10,481	71,140	25,780	N/A	N/A	1,500
163	1.43	8,490	2,347	24,500	6,170	N/A	N/A	857
116	2.57	11,450	3,582	33,060	9,290	N/A	N/A	1,070
81	5.76	19,790	7,043	57,140	17,950	N/A	N/A	1,285
60	10.90	28,430	11,338	82,080	28,360	N/A	N/A	1,200
132	2.93	13,030	3,856	37,620	10,130	N/A	N/A	750
92	6.78	22,480	7,563	64,890	19,540	N/A	N/A	937
68	12.40	32,220	12,142	93,020	30,830	N/A	N/A	1,100
148	3.29	14,610	4,113	42,180	10,930	N/A	N/A	650
104	7.67	25,410	8,103	73,360	21,210	N/A	N/A	833
76	13.80	36,020	12,898	104,000	33,200	N/A	N/A	1,000
84	15.20	39,810	13,612	114,900	35,490	N/A	N/A	750

4 Point Contact, X-Type Slim Section Ball Bearings



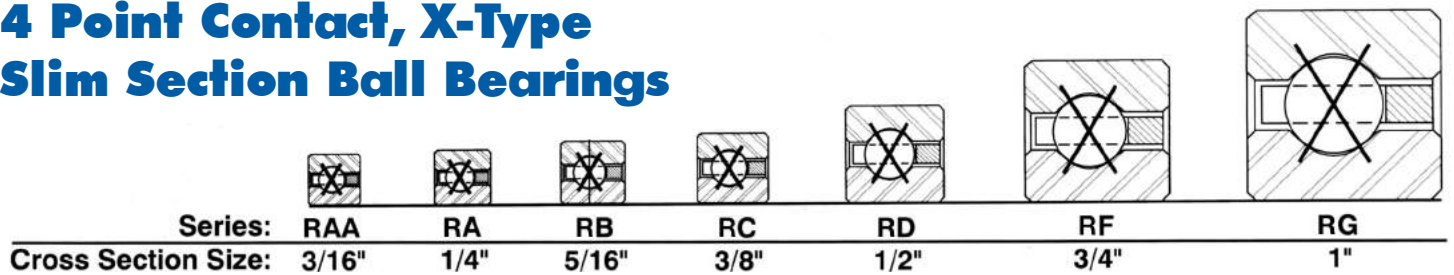
Series:	RAA	RA	RB	RC	RD	RF	RG
Cross Section Size:	3/16"	1/4"	5/16"	3/8"	1/2"	3/4"	1"

Part Number	B Bore	D Outside Diameter	W Width	Land Diameter		f1 Housing Fillet	Ball Diameter
				Li - Inner Ring	Lo - Outer Ring		
RAA10XL0	1.0000	1.3750	0.1875	1.141	1.234	0.015	3/32
RAA15XL0	1.5000	1.8750	0.1875	1.641	1.734	0.015	3/32
RAA17XL0	1.7500	2.1250	0.1875	1.891	1.984	0.015	3/32
RA020XP0	2.0000	2.5000	0.2500	2.188	2.313	0.250	1/8
RB020XP0	2.0000	2.6250	0.3125	2.234	2.391	0.400	5/32
RA025XP0	2.5000	3.0000	0.2500	2.688	2.813	0.025	1/8
RB025XP0	2.5000	3.1250	0.3125	2.734	2.891	0.040	5/32
RA030XP0	3.0000	3.5000	0.2500	3.188	3.313	0.025	1/8
RB030XP0	3.0000	3.6250	0.3125	3.234	3.391	0.040	5/32
RA035XP0	3.5000	4.0000	0.2500	3.688	3.813	0.025	1/8
RB035XP0	3.5000	4.1250	0.3125	3.734	3.891	0.040	5/32
RA040XP0	4.0000	4.5000	0.2500	4.188	4.313	0.025	1/8
RB040XP0	4.0000	4.6250	0.3125	4.234	4.391	0.040	5/32
RC040XP0	4.0000	4.7500	0.3750	4.281	4.469	0.040	3/16
RD040XP0	4.0000	5.0000	0.5000	4.375	4.625	0.060	1/4
RF040XP0	4.0000	6.5000	0.7500	4.563	4.938	0.080	3/8
RG040XP0	4.0000	6.0000	1.0000	4.750	5.250	0.080	1/2
RA042XP0	4.2500	4.7500	0.2500	4.438	4.563	0.025	1/8
RB042XP0	4.2500	4.8750	0.3125	4.484	4.641	0.040	5/32
RC042XP0	4.2500	5.0000	0.3750	4.531	4.719	0.040	3/16
RD042XP0	4.2500	5.2500	0.5000	4.625	4.875	0.060	1/4
RF042XP0	4.2500	5.7500	0.7500	4.813	5.188	0.080	3/8
RG042XP0	4.2500	6.2500	1.0000	5.000	5.500	0.080	1/2
RA045XP0	4.5000	5.0000	0.2500	4.688	4.813	0.025	1/8
RB045XP0	4.5000	5.1250	0.3125	4.734	4.891	0.040	5/32
RC045XP0	4.5000	5.2500	0.3750	4.781	4.969	0.040	3/16
RD045XP0	4.5000	5.5000	0.5000	4.875	5.125	0.060	1/4
RF045XP0	4.5000	6.0000	0.7500	5.063	5.438	0.080	3/8
RG045XP0	4.5000	6.5000	1.0000	5.250	5.750	0.080	1/2
RA047XP0	4.7500	5.2500	0.2500	4.938	5.063	0.025	1/8
RB047XP0	4.7500	5.3750	0.3125	4.984	5.141	0.040	5/32
RC047XP0	4.7500	5.5000	0.3750	5.031	5.219	0.040	3/16
RD047XP0	4.7500	5.7500	0.5000	5.125	5.375	0.060	1/4
RF047XP0	4.7500	6.2500	0.7500	5.313	5.688	0.080	3/8
RG047XP0	4.7500	6.7500	1.0000	5.500	6.000	0.080	1/2
RA050XP0	5.0000	5.5000	0.2500	5.188	5.313	0.025	1/8
RB050XP0	5.0000	5.6250	0.3125	5.234	5.391	0.040	5/32
RC050XP0	5.0000	5.7500	0.3750	5.281	5.469	0.040	3/16
RD050XP0	5.0000	6.0000	0.5000	5.375	5.625	0.060	1/4
RF050XP0	5.0000	6.5000	0.7500	5.563	5.938	0.080	3/8
RG050XP0	5.0000	7.0000	1.0000	5.750	6.250	0.080	1/2
RA055XP0	5.5000	6.0000	0.2500	5.688	5.813	0.025	1/8
RB055XP0	5.5000	6.1250	0.3125	5.734	5.891	0.040	5/32
RC055XP0	5.5000	6.2500	0.3750	5.781	5.969	0.040	3/16
RD055XP0	5.5000	6.5000	0.5000	5.875	6.125	0.060	1/4
RF055XP0	5.5000	7.0000	0.7500	6.063	6.438	0.080	3/8
RG055XP0	5.5000	7.5000	1.0000	6.250	6.750	0.080	1/2

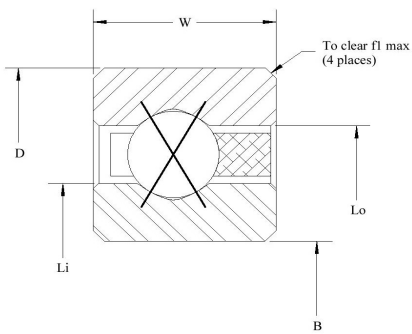


Ball Quantity	Approx. Weight(lbs)	Radial (lbs.)		Thrust (lbs.)		Moment (lbs.- in)		Limiting Radial	Speed(RPM) Axial
		Static	Dynamic	Static	Dynamic	Static	Dynamic		
21	0.03	290	247	730	370	170	110	4,000	11,000
29	0.04	400	296	1,000	460	340	187	2,666	7,333
33	0.05	460	319	1,140	500	440	232	2,285	6,285
27	0.10	680	514	1,710	790	770	434	2,000	5,500
23	0.16	930	758	2,340	1,130	1,080	658	2,000	5,000
33	0.13	830	583	2,090	910	1,150	601	1,600	4,400
28	0.19	1,140	848	2,840	1,290	1,600	895	1,600	4,400
39	0.15	990	643	2,470	1,010	1,600	785	1,166	3,300
33	0.24	1,340	933	3,350	1,440	2,220	1,159	1,350	3,700
45	0.18	1,140	701	2,850	1,110	2,130	986	1,000	2,857
38	0.27	1,540	1,014	3,860	1,590	2,940	1,450	1,000	2,900
51	0.19	1,290	756	3,220	1,210	2,740	1,205	890	2,500
43	0.30	1,750	1,091	4,370	1,720	3,770	1,764	875	2,600
35	0.45	2,100	1,417	5,260	2,210	4,600	2,326	1,000	2,750
27	0.78	3,080	2,311	7,700	3,520	6,930	3,901	1,000	2,750
19	1.90	5,360	4,665	13,400	6,830	12,730	8,312	1,000	2,650
15	3.60	8,210	7,979	20,520	11,260	20,520	14,966	1,000	2,700
54	0.20	1,370	783	3,410	1,260	3,070	1,321	830	2,360
45	0.31	1,830	1,120	4,570	1,780	4,170	1,917	850	2,400
37	0.47	2,220	1,464	5,560	2,290	5,140	2,541	825	2,350
28	0.83	3,190	2,355	7,980	3,600	7,580	4,196	950	2,525
20	2.00	5,640	4,795	14,110	7,070	14,110	8,993	925	2,550
15	3.80	8,210	8,092	20,520	11,260	21,550	15,592	925	2,500
57	0.22	1,440	809	3,600	1,310	3,420	1,441	780	2,230
48	0.33	1,950	1,135	4,880	1,850	4,690	2,103	800	2,300
39	0.48	2,340	1,510	5,860	2,380	5,710	2,762	780	2,230
30	0.88	3,420	2,454	8,550	3,770	8,550	4,602	890	2,420
21	2.10	5,930	4,923	14,810	7,300	15,550	9,695	875	2,400
16	4.00	8,760	8,205	21,890	11,750	24,080	16,930	850	2,400
60	0.23	1,520	834	3,790	1,350	3,790	1,565	740	2,110
50	0.34	2,030	1,193	5,080	1,900	5,140	2,265	750	2,150
41	0.50	2,460	1,556	6,160	2,460	6,320	2,991	740	2,110
31	0.94	3,530	2,496	8,840	3,860	9,280	4,916	850	2,300
22	2.20	6,210	5,048	15,520	7,530	17,070	10,416	840	2,300
17	4.10	9,300	8,487	23,260	12,230	26,740	18,306	800	2,200
63	0.24	1,590	859	3,980	1,400	4,180	1,693	700	2,000
53	0.38	2,150	1,236	5,380	1,980	5,720	2,463	700	2,000
43	0.58	2,590	1,600	6,460	2,540	6,950	3,226	700	2,000
33	1.00	3,760	2,592	9,410	4,020	10,350	5,348	800	2,200
23	2.30	6,490	5,172	16,220	7,760	18,660	11,157	800	2,200
18	4.30	9,850	8,762	24,620	12,710	29,550	19,721	775	2,100
69	0.25	1,750	908	4,360	1,480	5,020	1,959	640	1,820
58	0.41	2,360	1,304	5,890	2,100	6,850	2,844	650	1,825
47	0.59	2,830	1,687	7,060	2,690	8,300	3,717	640	1,820
36	1.06	4,100	2,725	10,260	4,260	12,310	6,134	640	1,800
25	2.50	7,050	5,415	17,630	8,200	22,040	12,696	700	2,000
19	4.70	10,400	8,979	25,990	13,180	33,790	21,896	725	1,900

4 Point Contact, X-Type Slim Section Ball Bearings

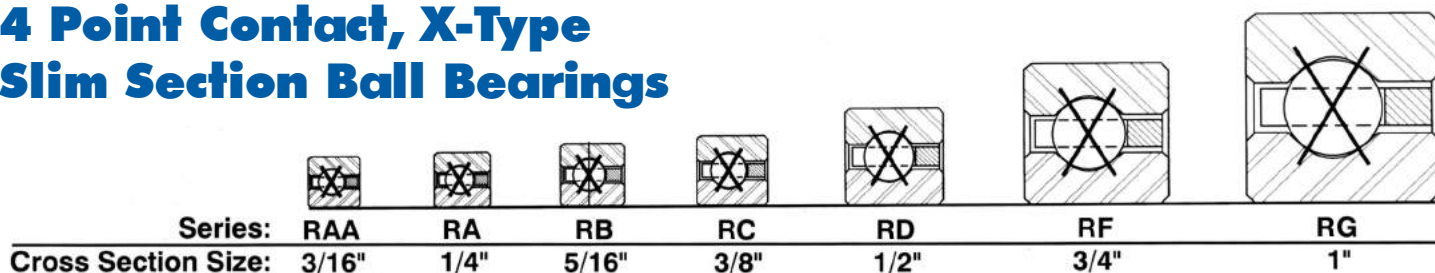


Part Number	B Bore	D Outside Diameter	W Width	Land Diameter		f1 Housing Fillet	Ball Diameter
				Li - Inner Ring	Lo - Outer Ring		
RA060XP0	6.0000	6.5000	0.2500	6.188	6.313	0.025	1/8
RB060XP0	6.0000	6.6250	0.3125	6.234	6.391	0.040	5/32
RC060XP0	6.0000	6.7500	0.3750	6.281	6.469	0.040	3/16
RD060XP0	6.0000	7.0000	0.5000	6.375	6.625	0.060	1/4
RF060XP0	6.0000	7.5000	0.7500	6.563	6.938	0.080	3/8
RG060XP0	6.0000	8.0000	1.0000	6.750	7.250	0.080	1/2
RA065XP0	6.5000	7.0000	0.2500	6.688	6.813	0.025	1/8
RB065XP0	6.5000	7.1250	0.3125	6.734	6.891	0.040	5/32
RC065XP0	6.5000	7.2500	0.3750	6.781	6.969	0.040	3/16
RD065XP0	6.5000	7.5000	0.5000	6.875	7.125	0.060	1/4
RF065XP0	6.5000	8.0000	0.7500	7.630	7.438	0.080	3/8
RG065XP0	6.5000	8.5000	1.0000	7.250	7.750	0.080	1/2
RA070XP0	7.0000	7.5000	0.2500	7.188	7.313	0.025	1/8
RB070XP0	7.0000	7.6250	0.3125	7.234	7.391	0.040	5/32
RC070XP0	7.0000	7.7500	0.3750	7.281	7.469	0.040	3/16
RD070XP0	7.0000	8.0000	0.5000	7.375	7.625	0.060	1/4
RF070XP0	7.0000	8.5000	0.7500	7.563	7.938	0.080	3/8
RG070XP0	7.0000	9.0000	1.0000	7.750	8.250	0.080	1/2
RA075XP0	7.5000	8.0000	0.2500	7.688	7.813	0.025	1/8
RB075XP0	7.5000	8.1250	0.3125	7.734	7.891	0.040	5/32
RC075XP0	7.5000	8.2500	0.3750	7.781	7.969	0.040	3/16
RD075XP0	7.5000	8.5000	0.5000	7.875	8.125	0.060	1/4
RF075XP0	7.5000	9.0000	0.7500	8.063	8.438	0.080	3/8
RG075XP0	7.5000	9.5000	1.0000	8.250	8.750	0.080	1/2
RA080XP0	8.0000	8.5000	0.2500	8.188	8.313	0.025	1/8
RB080XP0	8.0000	8.6250	0.3125	8.234	8.391	0.040	5/32
RC080XP0	8.0000	8.7500	0.3750	8.281	8.469	0.040	3/16
RD080XP0	8.0000	9.0000	0.5000	8.375	8.625	0.060	1/4
RF080XP0	8.0000	9.5000	0.7500	8.563	8.938	0.080	3/8
RG080XP0	8.0000	10.0000	1.0000	8.705	9.250	0.080	1/2
RA090XP0	9.0000	8.5000	0.2500	9.188	9.319	0.025	1/8
RB090XP0	9.0000	9.6250	0.3125	9.234	9.391	0.040	5/32
RC090XP0	9.0000	9.7500	0.3750	9.281	9.469	0.040	3/16
RD090XP0	9.0000	10.0000	0.5000	9.375	9.625	0.060	1/4
RF090XP0	9.0000	10.5000	0.7500	9.563	9.938	0.080	3/8
RG090XP0	9.0000	11.0000	1.0000	9.750	10.250	0.080	1/2
RA100XP0	10.0000	10.5000	0.2500	10.188	10.313	0.025	1/8
RB100XP0	10.0000	10.6250	0.3125	10.234	10.391	0.040	5/32
RC100XP0	10.0000	10.7500	0.3750	10.281	10.469	0.040	3/16
RD100XP0	10.0000	11.0000	0.5000	10.375	10.625	0.060	1/4
RF100XP0	10.0000	11.5000	0.7500	10.563	10.938	0.080	3/8
RG100XP0	10.0000	12.0000	1.0000	10.750	11.250	0.080	1/2

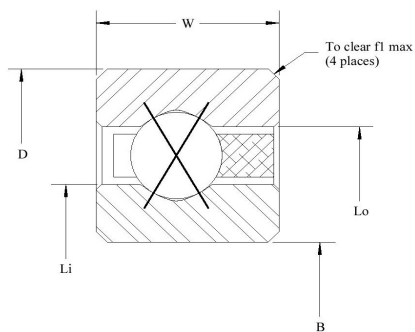


Ball Quantity	Approx. Weight(lbs)	Radial (lbs.)		Thrust (lbs.)		Moment (lbs.- in)		Limiting Radial	Speed (RPM) Axial
		Static	Dynamic	Static	Dynamic	Static	Dynamic		
75	0.28	1,900	955	4,740	1,570	5,930	2,240	500	1,500
63	0.44	2,560	1,371	6,400	2,220	8,080	3,247	590	1,700
51	0.63	3,070	1,770	7,660	2,840	9,770	4,234	590	1,670
39	1.16	4,450	2,855	11,120	4,490	14,450	6,961	590	1,625
27	2.70	7,620	5,651	19,050	8,630	25,710	14,311	650	1,800
21	5.10	11,490	9,503	28,730	14,090	40,220	24,956	625	1,775
81	0.30	2,050	1,001	5,120	1,650	6,910	2,535	460	1,390
68	0.47	2,760	1,435	6,910	2,340	9,410	3,668	550	1,600
55	0.68	3,310	1,851	8,270	2,990	11,370	4,775	540	1,540
42	1.22	4,790	2,980	11,970	4,720	16,760	7,826	540	1,525
29	2.90	8,180	5,880	20,460	9,050	29,660	15,993	600	1,650
22	5.40	12,040	9,713	30,100	14,530	45,140	27,327	600	1,700
87	0.31	2,200	1,046	5,500	1,730	7,980	2,844	425	1,285
73	0.50	2,970	1,498	7,420	2,450	10,850	4,109	500	1,475
59	0.73	3,550	1,931	8,870	3,130	13,080	5,341	500	1,430
45	1.31	5,130	3,103	12,830	4,940	19,240	8,730	500	1,400
31	3.20	8,750	6,103	21,870	9,460	33,890	17,744	550	1,550
24	5.80	13,130	10,208	32,830	15,400	52,530	30,636	550	1,625
93	0.34	2,350	1,089	5,880	1,810	9,120	3,165	390	1,175
78	0.53	3,170	1,559	7,920	2,560	12,380	4,568	420	1,225
63	0.78	3,790	2,007	9,470	3,270	14,910	5,930	470	1,335
48	1.41	5,470	3,222	13,680	5,160	21,890	9,669	470	1,300
33	3.40	9,310	6,323	23,280	9,870	38,410	19,568	525	1,425
25	6.10	13,680	10,410	34,200	15,820	58,140	33,196	525	1,425
99	0.38	2,500	1,131	6,260	1,890	10,330	3,499	330	1,000
83	0.57	3,370	1,618	8,430	2,670	14,020	5,045	400	1,175
67	0.84	4,030	2,082	10,070	3,410	16,870	6,542	440	1,250
51	1.53	5,810	3,338	14,540	5,370	24,710	10,643	440	1,225
35	3.50	9,880	6,535	24,690	10,260	43,200	21,453	425	1,200
27	6.50	14,770	10,882	36,940	16,650	66,480	36,743	500	1,325
111	0.44	2,810	1,212	7,020	2,040	12,990	4,204	310	940
93	0.66	3,780	1,732	9,450	2,880	17,600	6,050	340	1,000
75	0.94	4,510	2,226	11,270	3,670	21,130	7,830	335	1,000
57	1.72	6,500	3,561	16,250	5,790	30,870	12,693	390	1,100
39	3.90	11,000	6,947	27,510	11,030	53,640	25,410	375	1,050
30	7.20	16,420	11,526	41,040	17,870	82,080	43,240	425	1,200
123	0.50	3,110	1,289	7,780	2,180	15,940	4,956	265	830
103	0.73	4,190	1,841	10,460	3,080	21,580	7,121	300	900
83	1.06	4,990	2,364	12,470	3,930	25,880	9,201	300	900
63	1.88	7,180	3,776	17,960	6,190	37,710	14,872	360	1,000
43	4.30	12,130	7,342	30,330	11,770	65,210	29,608	325	1,000
33	7.90	18,060	12,147	45,140	19,040	99,320	50,124	350	1,000

4 Point Contact, X-Type Slim Section Ball Bearings

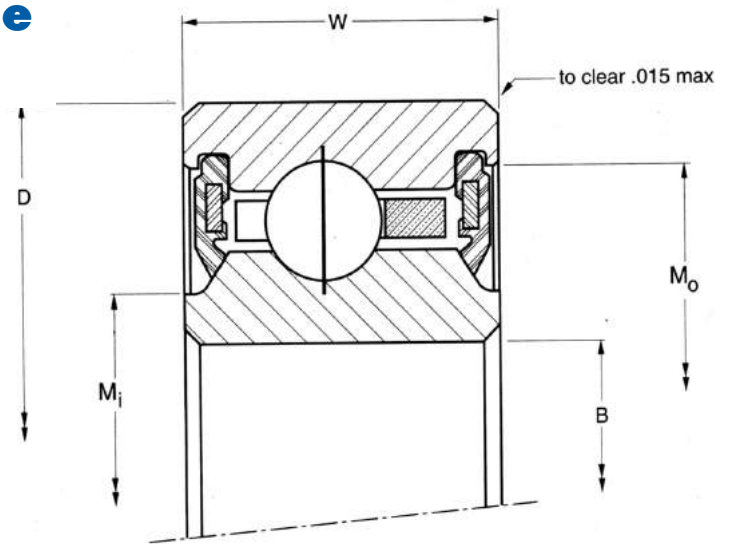


Part Number	B Bore	D Outside Diameter	W Width	Land Diameter		f1 Housing Fillet	Ball Diameter
				Li - Inner Ring	Lo - Outer Ring		
RA110XP0	11.0000	11.5000	0.2500	11.188	11.313	0.025	1/8
RB110XP0	11.0000	11.6250	0.3125	11.234	11.391	0.040	5/32
RC110XP0	11.0000	11.7500	0.3750	11.281	11.469	0.040	3/16
RD110XP0	11.0000	12.0000	0.5000	11.375	11.625	0.060	1/4
RF110XP0	11.0000	12.5000	0.7500	11.563	11.938	0.080	3/8
RG110XP0	11.0000	13.0000	1.0000	11.750	12.250	0.080	1/2
RA120XP0	12.0000	12.5000	0.2500	12.188	12.313	0.025	1/8
RB120XP0	12.0000	12.6250	0.3125	12.234	12.391	0.040	5/32
RC120XP0	12.0000	12.7500	0.3750	12.281	12.469	0.040	3/16
RD120XP0	12.0000	13.0000	0.5000	12.375	12.625	0.060	1/4
RF120XP0	12.0000	13.5000	0.7500	12.563	12.938	0.080	3/8
RG120XP0	12.0000	14.0000	1.0000	12.750	13.250	0.080	1/2
RC140XP0	14.0000	14.7500	0.3750	14.281	14.469	0.040	3/16
RD140XP0	14.0000	15.0000	0.5000	14.375	14.625	0.060	1/4
RF140XP0	14.0000	15.5000	0.7500	14.563	14.938	0.080	3/8
RG140XP0	14.0000	16.0000	1.0000	14.750	15.250	0.080	1/2
RD160XP0	16.0000	17.0000	0.5000	16.375	16.625	0.060	1/4
RF160XP0	16.0000	17.5000	0.7500	16.563	16.938	0.080	3/8
RG160XP0	16.0000	18.0000	1.0000	16.750	17.250	0.080	1/2
RD180XP0	18.0000	19.0000	0.5000	18.375	18.625	0.060	1/4
RF180XP0	18.0000	19.5000	0.7500	18.563	18.938	0.080	3/8
RG180XP0	18.0000	20.0000	1.0000	18.750	19.250	0.080	1/2
RG200XP0	20.0000	22.0000	1.0000	20.750	21.250	0.080	1/2



Ball Quantity	Approx. Weight(lbs)	Radial (lbs.)		Thrust (lbs.)		Moment (lbs.- in)		Limiting Radial	Speed (RPM) Axial
		Static	Dynamic	Static	Dynamic	Static	Dynamic		
135	0.52	3,410	1,362	8,540	2,320	19,210	5,750	220	710
113	0.75	4,590	1,945	11,480	3,280	25,970	8,254	190	750
91	1.16	5,470	2,496	13,680	4,180	31,110	10,651	272	820
69	2.06	7,870	3,981	19,670	6,570	45,230	17,173	280	800
47	4.80	13,260	7,721	33,150	12,490	77,910	34,032	300	900
36	8.60	19,700	12,739	49,250	20,180	118,200	57,347	300	900
147	0.56	3,720	1,433	9,300	2,450	22,770	6,587	190	650
123	0.83	5,000	2,045	12,500	3,470	30,770	9,446	175	675
99	1.25	5,950	2,622	14,880	4,420	36,830	12,174	250	750
75	2.25	8,550	4,178	21,380	6,950	53,440	19,590	260	750
51	5.20	14,390	8,084	35,970	13,190	91,730	38,666	275	810
39	9.30	21,340	13,315	53,350	21,280	138,700	64,935	275	800
115	1.52	6,910	2,862	17,280	4,890	49,690	15,434	142	571
87	2.73	9,920	4,551	24,800	7,670	71,910	24,755	215	625
59	6.00	16,650	8,775	41,620	14,530	122,800	48,556	250	714
45	10.80	24,620	14,404	61,560	23,410	184,700	81,056	250	700
99	3.10	11,290	4,899	28,220	8,360	93,110	30,325	130	500
67	7.10	18,900	9,421	47,260	15,820	158,300	59,200	187	562
51	12.30	27,910	15,425	69,770	25,450	237,200	98,373	200	610
111	3.48	12,650	5,226	31,640	9,030	117,000	36,268	120	425
75	7.90	21,160	10,028	52,900	17,060	198,400	70,537	166	500
57	13.70	31,190	16,386	77,980	27,410	296,300	116,793	190	550
63	15.80	34,470	17,293	86,180	29,300	362,000	136,238	150	450

Sealed Radial Contact, C-Type Slim Section Ball Bearings

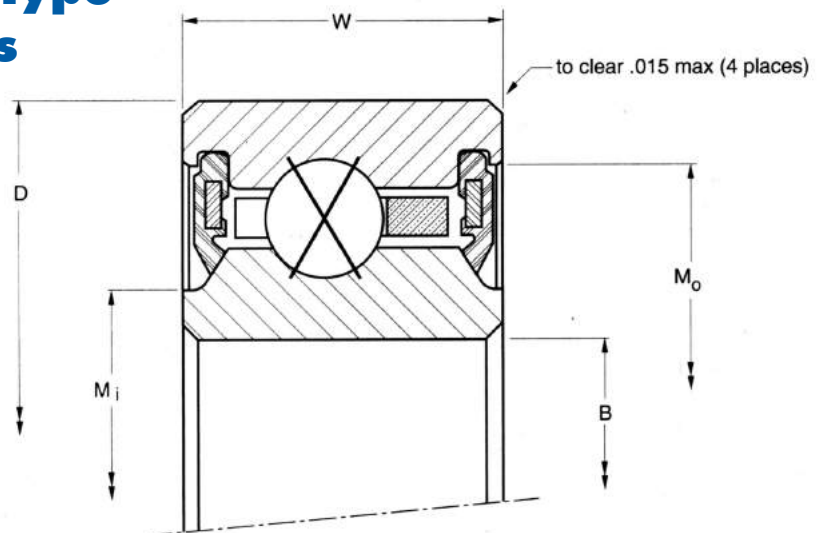


Part Number	B Bore	D Outside Diameter	W Width	Mj	Mo	Ball Diameter	Ball Quantity
RJU040CP0	4.0000	4.7500	0.500	4.155	4.550	3/16	35
RJU042CP0	4.2500	5.0000	0.500	4.405	4.800	3/16	37
RJU045CP0	4.5000	5.2500	0.500	4.655	5.050	3/16	39
RJU047CP0	4.7500	5.5000	0.500	4.905	5.300	3/16	41
RJU050CP0	5.0000	5.7500	0.500	5.155	5.500	3/16	43
RJU055CP0	5.5000	6.2500	0.500	5.655	6.050	3/16	47
RJU060CP0	6.0000	6.7500	0.500	6.155	6.550	3/16	51
RJU065CP0	6.5000	7.2500	0.500	6.655	7.050	3/16	55
RJU070CP0	7.0000	7.7500	0.500	7.155	7.550	3/16	59
RJU075CP0	7.5000	8.2500	0.500	7.655	8.050	3/16	63
RJU080CP0	8.0000	8.7500	0.500	8.155	8.550	3/16	67
RJU090CP0	9.0000	9.7500	0.500	9.155	9.550	3/16	75
RJU100CP0	10.0000	10.7500	0.500	10.155	10.550	3/16	83
RJU110CP0	11.0000	11.7500	0.500	11.155	11.550	3/16	91
RJU120CP0	12.0000	12.7500	0.500	12.155	12.550	3/16	99



Approx. Weight(lbs)	Radial (lbs.)		Thrust (lbs.)		Moment (lbs.- in)		Limiting Speed(RPM)
	Static	Dynamic	Static	Dynamic	Static	Dynamic	
0.55	2,100	1,073	N/A	N/A	N/A	N/A	1,600
0.58	2,220	1,108	N/A	N/A	N/A	N/A	1,500
0.61	2,340	1,143	N/A	N/A	N/A	N/A	1,400
0.65	2,460	1,176	N/A	N/A	N/A	N/A	1,325
0.68	2,590	1,209	N/A	N/A	N/A	N/A	1,300
0.74	2,830	1,274	N/A	N/A	N/A	N/A	1,125
0.81	3,070	1,337	N/A	N/A	N/A	N/A	1,025
0.87	3,315	1,397	N/A	N/A	N/A	N/A	1,000
0.93	3,550	1,457	N/A	N/A	N/A	N/A	900
0.99	3,790	1,514	N/A	N/A	N/A	N/A	850
1.06	4,030	1,570	N/A	N/A	N/A	N/A	800
1.18	4,510	1,678	N/A	N/A	N/A	N/A	722
1.31	4,990	1,781	N/A	N/A	N/A	N/A	625
1.43	5,470	1,879	N/A	N/A	N/A	N/A	575
1.56	5,950	1,974	N/A	N/A	N/A	N/A	525

Sealed Radial Contact, X-Type Slim Section Ball Bearings



Part Number	B Bore	D Outside Diameter	W Width	M _j	M _o	Ball Diameter	Ball Quantity
RJU040XP0	4.0000	4.7500	0.500	4.155	4.550	3/16	35
RJU042XP0	4.2500	5.0000	0.500	4.405	4.800	3/16	37
RJU045XP0	4.5000	5.2500	0.500	4.655	5.050	3/16	39
RJU047XP0	4.7500	5.5000	0.500	4.905	5.300	3/16	41
RJU050XP0	5.0000	5.7500	0.500	5.155	5.500	3/16	43
RJU055XP0	5.5000	6.2500	0.500	5.655	6.050	3/16	47
RJU060XP0	6.0000	6.7500	0.500	6.155	6.550	3/16	51
RJU065XP0	6.5000	7.2500	0.500	6.655	7.050	3/16	55
RJU070XP0	7.0000	7.7500	0.500	7.155	7.550	3/16	59
RJU075XP0	7.5000	8.2500	0.500	7.655	8.050	3/16	63
RJU080XP0	8.0000	8.7500	0.500	8.155	8.550	3/16	67
RJU090XP0	9.0000	9.7500	0.500	9.155	9.550	3/16	75
RJU100XP0	10.0000	10.7500	0.500	10.155	10.550	3/16	83
RJU110XP0	11.0000	11.7500	0.500	11.155	11.550	3/16	91
RJU120XP0	12.0000	12.7500	0.500	12.155	12.550	3/16	99



Approx. Weight(lbs)	Radial (lbs.)		Thrust (lbs.)		Moment (lbs.- in)		Limiting Radial	Speed(RPM) Axial
	Static	Dynamic	Static	Dynamic	Static	Dynamic		
0.55	2,100	1,417	5,260	2,210	4,600	2,326	625	625
0.58	2,220	1,464	5,560	2,290	5,140	2,541	575	575
0.61	2,340	1,510	5,860	2,380	5,710	2,762	550	550
0.65	2,460	1,556	6,160	2,460	6,320	2,991	525	525
0.68	2,590	1,600	6,460	2,540	6,950	3,226	500	500
0.74	2,830	1,687	7,060	2,690	8,300	3,717	450	450
0.81	3,070	1,770	7,660	2,840	9,770	4,234	400	400
0.87	3,310	1,851	8,270	2,990	11,370	4,775	375	375
0.93	3,550	1,931	8,870	3,130	13,080	5,341	350	350
0.99	3,790	2,007	9,470	3,270	14,910	5,930	325	325
1.06	4,030	2,082	10,070	3,410	16,870	6,542	300	300
1.18	4,510	2,226	11,270	3,670	21,130	7,830	200	200
1.31	4,990	2,364	12,470	3,930	25,880	9,201	190	190
1.43	5,470	2,496	13,680	4,180	31,110	10,651	175	175
1.56	5,950	2,622	14,880	4,420	36,830	12,174	150	150

Slim Section Ball Bearings Tolerance Tables & Recommended Fits

Precision Tolerances - Slim Section Bearings shown in this catalog are manufactured to ABEC 1F precision tolerances. Where required Slim Section Bearings can be manufactured to ABEC 3F and ABEC 5F precision tolerances.

PRECISION CLASS 0

Bearing Bore Size Inches	ABEC 1F C-TYPE													
	Diameters		Race Runout Radial & Axial		Width Nominal	Radial Play Before Installation		Rotating Shaft		Stationary Shaft				
	Bore Nominal	O.D. Nominal	Inner Max	Outer Max		Min	Max	Shaft OD Nominal	Housing ID Nominal	Shaft OD		Housing ID		
										Max	Min	Max	Min	
1.00	-4	-5	5	8	-50	10	16	+4	+5	-4	-8	-5	-10	
1.50	-5	-5	6	8	-50	12	18	+5	+5	-5	-10	-5	-10	
2.00	-6	-5	8	10	-50	12	24	+6	+5	-6	-12	-5	-10	
2.50	-6	-5	8	10	-50	12	24	+6	+5	-6	-12	-5	-10	
3.00	-6	-6	8	10	-50	12	24	+6	+6	-6	-12	-6	-12	
3.50	-8	-6	10	12	-50	16	28	+8	+6	-8	-16	-6	-12	
4.00	-8	-6	10	12	-50	16	28	+8	+6	-8	-16	-6	-12	
4.25	-8	-8	10	14	-50	16	28	+8	+8	-8	-16	-8	-16	
4.50	-8	-8	10	14	-50	16	28	+8	+8	-8	-16	-8	-16	
4.75	-10	-8	12	14	-50	20	34	+10	+8	-10	-20	-8	-16	
5.00	-10	-8	12	14	-50	20	34	+10	+8	-10	-20	-8	-16	
5.50	-10	-10	12	16	-50	20	34	+10	+10	-10	-20	-10	-20	
6.00	-10	-10	12	16	-50	20	34	+10	+10	-10	-20	-10	-20	
6.50	-10	-10	12	16	-50	20	34	+10	+10	-10	-20	-10	-20	
7.00	-10	-10	12	16	-50	20	34	+10	+10	-10	-20	-10	-20	
7.50	-12	-12	16	18	-50	24	42	+12	+12	-12	-24	-12	-24	
8.00	-12	-12	16	18	-50	24	42	+12	+12	-12	-24	-12	-24	
9.00	-12	-12	16	18	-50	24	42	+12	+12	-12	-24	-12	-24	
10.00	-14	-14	18	20	-50	28	48	+14	+14	-14	-28	-14	-28	
11.00	-14	-14	18	20	-50	28	48	+14	+14	-14	-28	-14	-28	
12.00	-14	-14	18	20	-50	28	48	+14	+14	-14	-28	-14	-28	
14.00	-16	-16	18	20	-100	32	52	+16	+16	-16	-32	-16	-32	
16.00	-18	-18	18	20	-100	36	56	+18	+18	-18	-36	-18	-36	
18.00	-18	-18	20	20	-100	36	56	+18	+18	-18	-36	-18	-36	
20.00	-20	-20	20	20	-100	40	60	+20	+20	-20	-40	-20	-40	
25.00	-30	-30	20	20	-100	60	80	+30	+30	-30	-60	-30	-60	
30.00	-30	-30	20	20	-100	60	80	+30	+30	-30	-60	-30	-60	
35.00	-40	-40	20	20	-100	80	100	+40	+40	-40	-80	-40	-80	
40.00	-40	-40	20	20	-100	80	100	+40	+40	-40	-80	-40	-80	

Does not apply to bearings with preload.
Values in 0.0001 inches

DUPLEX PAIR WIDTH TOLERANCES

Bearing Bore Size (Inches)		Width	
Over	Including	Max	Min
	2.00	0	-200
2.00	5.00	0	-300
5.00	14.00	0	-400
14.00	40.00	0	-500

Values in
0.0001 inches



Slim Section Ball Bearings Tolerance Tables & Recommended Fits

PRECISION CLASS 0

Bearing Bore Size Inches	ABEC 1F A-TYPE & X-TYPE												
	Diameters		Race Runout Radial & Axial		Width Nominal	Radial Play Before Installation (X-TYPE ONLY)		Rotating Shaft		Stationary Shaft			
	Bore Nominal	O.D. Nominal	Inner Max	Outer Max		Min	Max	Shaft OD Nominal	Housing ID Nominal	Shaft OD		Housing ID	
										Max	Min	Max	Min
	1.00	-4	-5	3	4	-50	10	15	+4	+5	-4	-8	-5
1.50	-5	-5	4	4	-50	12	17	+5	+5	-5	-10	-5	-10
2.00	-6	-5	5	5	-50	12	22	+6	+5	-6	-12	-5	-10
2.50	-6	-5	5	5	-50	12	22	+6	+5	-6	-12	-5	-10
3.00	-6	-6	6	6	-50	12	22	+6	+6	-6	-12	-6	-12
3.50	-8	-6	6	6	-50	16	26	+8	+6	-8	-16	-6	-12
4.00	-8	-6	6	6	-50	16	26	+8	+6	-8	-16	-6	-12
4.25	-8	-8	6	8	-50	16	26	+8	+8	-8	-16	-8	-16
4.50	-8	-8	6	8	-50	16	26	+8	+8	-8	-16	-8	-16
4.75	-10	-8	8	8	-50	20	30	+10	+8	-10	-20	-8	-16
5.00	-10	-8	8	8	-50	20	30	+10	+8	-10	-20	-8	-16
5.50	-10	-10	10	10	-50	20	30	+10	+10	-10	-20	-10	-20
6.00	-10	-10	10	10	-50	20	30	+10	+10	-10	-20	-10	-20
6.50	-10	-10	10	10	-50	20	30	+10	+10	-10	-20	-10	-20
7.00	-10	-10	10	10	-50	20	30	+10	+10	-10	-20	-10	-20
7.50	-12	-12	12	12	-50	24	34	+12	+12	-12	-24	-12	-24
8.00	-12	-12	12	12	-50	24	34	+12	+12	-12	-24	-12	-24
9.00	-12	-12	12	12	-50	24	34	+12	+12	-12	-24	-12	-24
10.00	-14	-14	14	14	-50	28	38	+14	+14	-14	-28	-14	-28
11.00	-14	-14	14	14	-50	28	38	+14	+14	-14	-28	-14	-28
12.00	-14	-14	14	14	-50	28	38	+14	+14	-14	-28	-14	-28
14.00	-14	-14	14	14	-100	28	38	+14	+14	-14	-28	-14	-28
16.00	-16	-16	16	16	-100	32	42	+16	+16	-16	-32	-16	-32
18.00	-16	-16	16	16	-100	32	42	+16	+16	-16	-32	-16	-32
20.00	-18	-18	18	18	-100	36	46	+18	+18	-18	-36	-18	-36
25.00	-18	-18	18	18	-100	36	46	+18	+18	-18	-36	-18	-36
30.00	-18	-18	18	18	-100	36	46	+18	+18	-18	-36	-18	-36
35.00	-20	-20	20	20	-100	40	50	+20	+20	-20	-40	-20	-40
40.00	-20	-20	20	20	-100	40	50	+20	+20	-20	-40	-20	-40

Does not apply to bearings with preload. Values in 0.0001 inches.

PRECISION CLASS 3

Bearing Bore Size Inches	ABEC 3F ALL TYPES												
	Diameters		Race Runout Radial & Axial		Width Nominal	Radial Play Before Installation (X-TYPE ONLY)		Rotating Shaft		Stationary Shaft			
	Bore Nominal	O.D. Nominal	Inner Max	Outer Max		Min	Max	Shaft OD Nominal	Housing ID Nominal	Shaft OD Max	Min	Housing ID Max	Min
1.00	-2	-3	3	4	-50	7	11	+2	+3	-2	-4	-3	-6
1.50	-3	-3	4	4	-50	8	12	+3	+3	-3	-6	-3	-6
2.00	-4	-4	4	5	-50	8	18	+4	+4	-4	-8	-4	-8
2.50	-4	-4	4	5	-50	8	18	+4	+4	-4	-8	-4	-8
3.00	-4	-4	4	6	-50	8	18	+4	+4	-4	-8	-4	-8
3.50	-5	-4	5	6	-50	10	20	+4	+4	-5	-10	-4	-8
4.00	-5	-4	5	6	-50	10	20	+4	+4	-5	-10	-4	-8
4.25	-5	-5	5	8	-50	10	20	+5	+5	-5	-10	-5	-10
4.50	-5	-5	5	8	-50	10	20	+5	+5	-5	-10	-5	-10
4.75	-6	-5	6	8	-50	12	22	+5	+5	-6	-12	-5	-10
5.00	-6	-5	6	8	-50	12	22	+5	+5	-6	-12	-5	-10
5.50	-6	-6	6	9	-50	12	22	+6	+6	-6	-12	-5	-12
6.00	-6	-6	6	9	-50	12	22	+6	+6	-6	-12	-6	-12
6.50	-6	-6	6	9	-50	12	22	+6	+6	-6	-12	-6	-12
7.00	-6	-7	6	10	-50	14	24	+6	+7	-6	-12	-7	-14
7.50	-7	-7	8	10	-50	14	24	+7	+7	-7	-14	-7	-14
8.00	-7	-7	8	10	-50	14	24	+7	+7	-7	-14	-7	-14
9.00	-7	-7	8	10	-50	14	24	+7	+7	-7	-14	-7	-14
10.00	-8	-8	10	12	-50	16	26	+8	+8	-8	-16	-8	-16
11.00	-8	-8	10	12	-50	16	26	+8	+8	-8	-16	-8	-16
12.00	-8	-9	10	14	-50	18	28	+8	+9	-8	-16	-8	-18
14.00	-8	-9	12	14	-100	18	28	+8	+9	-8	-16	-9	-18
16.00	-9	-10	14	16	-100	20	30	+9	+10	-9	-18	-10	-20
18.00	-9	-10	14	16	-100	20	30	+9	+10	-9	-18	-20	-20
20.00	-10	-12	16	18	-100	24	34	+10	+12	-10	-20	-12	-24

Does not apply to bearings with preload. Values in 0.0001 inches.

Slim Section Ball Bearings Tolerance Tables & Recommended Fits

PRECISION CLASS 4

Bearing Bore Size Inches	ABEC 5F ALL TYPES														
	Diameters		Race Runout		Race Runout		Width Nominal	Radial Play		Rotating Shaft		Stationary Shaft			
	Bore Nominal	O.D. Nominal	Radial		Axial			Before Installation (C & X-TYPE ONLY)	Shaft OD Nominal	Housing ID Nominal	Shaft OD		Housing ID		
			Inner Max	Outer Max	Inner Max	Outer Max					Max	Min	Max	Min	
1.00	-2	-2	2	2	3	3	-50	5	9	+2	+2	-2	-4	-2	-4
1.50	-2	-2	2	2	3	3	-50	5	9	+2	+2	-2	-4	-2	-4
2.00	-3	-3	2	3	3	4	-50	5	9	+3	+3	-3	-6	-3	-6
2.50	-3	-3	2	3	3	4	-50	5	9	+3	+3	-3	-6	-3	-6
3.00	-3	-3	2	4	3	5	-50	6	12	+3	+3	-3	-6	-3	-6
3.50	-3	-3	3	4	4	5	-50	6	12	+3	+3	-3	-6	-3	-6
4.00	-3	-3	3	4	4	5	-50	6	12	+3	+3	-3	-6	-3	-6
4.25	-3	-4	3	4	4	5	-50	8	14	+3	+4	-3	-6	-4	-8
4.50	-3	-4	3	4	4	5	-50	8	14	+3	+4	-3	-6	-4	-8
4.75	-4	-4	3	4	4	5	-50	8	14	+4	+4	-4	-8	-4	-8
5.00	-4	-4	3	4	4	5	-50	8	14	+4	+4	-4	-8	-4	-8
5.50	-4	-5	3	5	4	6	-50	10	16	+4	+5	-4	-8	-5	-10
6.00	-4	-5	3	5	4	6	-50	10	16	+4	+5	-4	-8	-5	-10
6.50	-4	-5	3	5	4	6	-50	10	16	+4	+5	-4	-8	-5	-10
7.00	-4	-5	3	5	4	6	-50	10	16	+4	+5	-4	-8	-5	-10
7.50	-5	-5	4	5	5	6	-50	10	16	+5	+5	-5	-10	-5	-10
8.00	-5	-5	4	5	5	6	-50	10	16	+5	+5	-5	-10	-5	-10
9.00	-5	-5	4	5	5	6	-50	10	16	+5	+5	-5	-10	-5	-10
10.00	-5	-5	5	6	6	7	-50	10	16	+5	+5	-5	-10	-5	-10
11.00	-5	-5	5	6	6	7	-50	10	16	+5	+5	-5	-10	-5	-10
12.00	-5	-6	5	7	6	8	-50	12	18	+5	+6	-5	-10	-6	-12
14.00	-6	-6	5	7	7	8	-100	12	18	+6	+6	-6	-12	-6	-12
16.00	-6	-7	7	8	8	9	-100	14	20	+6	+7	-6	-12	-7	-14
18.00	-6	-7	7	8	8	9	-100	14	20	+6	+7	-6	-12	-7	-14
20.00	-7	-8	8	9	9	10	-100	14	22	+7	+8	-7	-14	-8	-16

Does not apply to bearings with preload.
Values in 0.0001 inches

Custom Features

SSB manufactures many custom bearings designed to optimize bearing performance for specific applications. Special features include changes in radial play, lubricants, materials, preloading, and design. Contact SSB for your custom bearing needs.

Materials

The standard bearings shown in the catalog have SAE 52100 steel rings and balls. Slim Section's ball bearings can be manufactured from other specialty bearing steel to provide corrosion resistance, high temperature capability, alternative load capacity or chemical compatibility.

Rings: SSB can manufacture thin section ball bearings from SAE 440C stainless steel to provide corrosion resistance. As an alternative to stainless steel rings, the entire surface of the rings can be plated with nodular thin dense chrome (TDC). This plating, which meets AMS 2438, achieves a molecular bond that will not flake, peel, or separate from the base material. The TDC plate has a hardness of HRC 70-78 and can withstand temperatures well beyond the range of the base material.

Special SSB Inc. bearings can be manufactured from aluminum, 300 series stainless steel, 17-4 stainless steel, and other metals.

Balls: Some special ball materials available include 440C stainless steel, 300 series stainless steel, silicon nitride and M-50 steel.

Lubrication

Many different lubricants are available from SSB Inc. for special applications. Greases which are designed specifically for high speed, low torque, water resistance, high temperature, oscillatory motion and food machinery can be provided. Additional lubricants, such as dry film, are suitable for use in vacuums and space applications.

Sealing

Standard seals for SSB Inc. are molded from elastomers (Buna N or PTFE). Fiber glass reinforced seals, stainless steel shields and many other options are available for low torque and other special applications.

Radial Play

The radial play (diametral clearance) of a thin section ball bearing will need to be predetermined if mounting fits other than those recommended are used. Special radial play may be required for a temperature differential across the bearing, for housing and shaft materials that have different coefficients for thermal expansion, or to change operating characteristics of the bearing. Radial preloaded bearings are measured to meet bore and O.D. tolerances prior to preload.

Preloading of Duplex Bearings

Standard duplex bearings are ground so that there will be a light axial preload induced on the bearing at nominal conditions. In some applications increased bearing stiffness may be required. In these cases the duplex grinding can be done so that a heavier axial load is induced in the mounted bearing. The load can be increased or decreased to meet the requirements of a particular application. Consult SSB engineering for special requirements.

Mounting Features

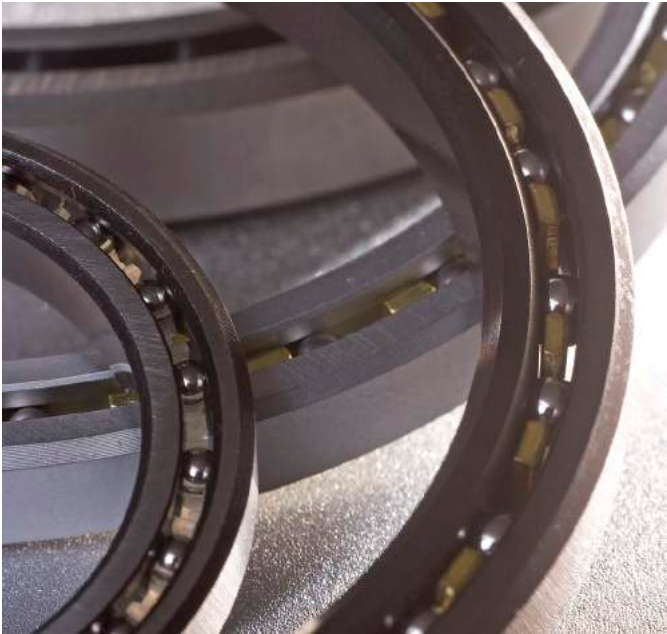
Mounting features, such as flanges, anti-rotation tabs and mounting holes can be incorporated on the inner and outer rings. Mating parts, such as gears and housings, may be integrated into the bearing rings for improved performance and cost.



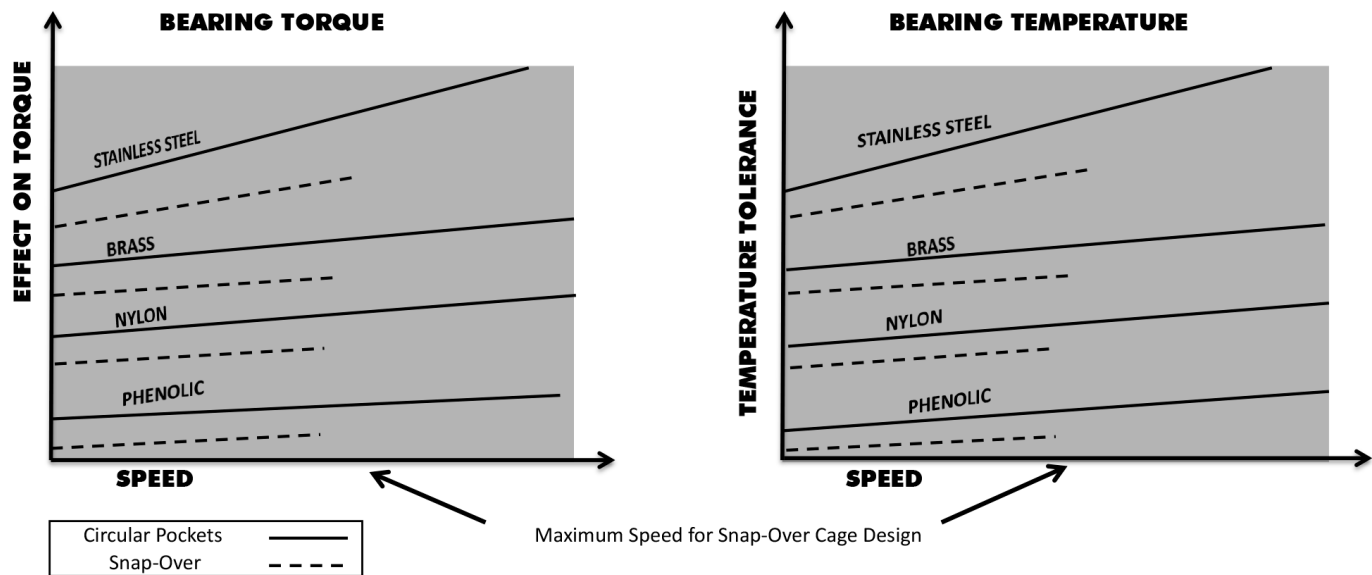
Separators

Standard SSB Inc. ball bearings, RA through RG and R series, are manufactured with brass separators. The RAA series contains nylon separators. The A-Type bearings contain one piece circular pocket separators, while the C and X-Type have snap-over separators. The four basic separator materials are: brass, nylon, phenolic, and stainless steel.

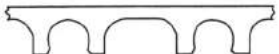
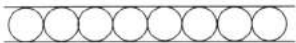
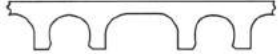
The graph below schematically illustrates the effects of cage design and material on bearing performance. For example, the one piece circular pocket design may reach roughly two times the speed of the snap-over design. Likewise, a brass separator design will generate more torque and withstand higher temperatures than a phenolic separator. Exact speed limits depend on bearing size, bearing type, lubrication and loading. For assistance in selecting the appropriate separator for special applications, contact SSB Engineering.



Schematic Illustrations of Effects of Cage Design and Material on Bearing Torque Speed and Temperature Tolerance



Separator Selection Guide

DESIGN	Separator Type	Description	Material	Advantages	Bearing Features	Limitations
	D	One piece ring, snap-over type	Phenolic Laminate	Low torque and light weight applications. Can be oil impregnated as required.	Designed for use in C-Type and X-Type bearings.	Not recommended for high speed or high temperature applications above 250°F.
	F	Full complement of balls	N/A	Highest loading capacity and maximum stiffness.	All bearing types. C- and X-Type require a filling slot.	Higher torque and lower speed limits. Not recommended for high torque and/or high speed.
	G	One piece ring, circular pockets	Nylon	Low torque and light weight applications. High speed limits.	Used in A-Type bearings, standard for RAA series.	Not recommended for temperatures outside of the standard range: -65° to 250°F.
	H	One piece ring, circular pockets	Phenolic Laminate	Low torque and light weight applications. Can be oil impregnated as required.	Used in A-Type bearings.	Not recommended for temperatures above 250°F.
	L	One piece ring, snap-over type	Nylon	Low torque and light weight applications. High speed limits.	Used in both C- and X-Type bearings, standard for RAA series.	Not recommended for temperatures outside of the standard range: -65° to 250°F.
	P	One piece ring, snap-over type	Brass	Ideal for commercial applications with moderate torque and speed requirements.	Standard separator for C- and X Type bearings RA through RG series.	Not recommended for low torque applications.
	R	One piece ring, circular pockets	Brass	Ideal for commercial applications with moderate torque and speed requirements.	Standard separator for A-Type bearings RA through RG series.	Not recommended for low torque applications.
	T	One piece ring, snap-over design	Stainless Steel	High strength, improved corrosion resistance. High temperature capabilities.	Used in C- and X-Type bearings.	Not recommended for low torque applications.
	U	One piece ring, circular pockets	Stainless Steel	High strength, improved corrosion resistance. High temperature capabilities.	Used in A-Type bearings.	Not recommended for low torque applications.
Z Other (please specify when ordering)						
		Toroids	PTFE or Plymide	Low torque applications, higher capacity than standard bearings.	Used in A-Type bearings. Offers increased ball complement.	Not intended for use in high speed applications. Material may have temperature limitations.
		Spacer Balls	Metal or ceranics, same as ball material	High temperature applications, offers higher resistance to wear.	Filling slot required for C- and X-type bearings. Reduced ball complement in A-Type bearings.	Lower load capacity in A-type bearings.
		Slugs	PTFE	Low torque applications, higher capacity than standard bearings.	Used in C and X-Type bearings. Offers increased ball complement.	Not intended for use in high speed applications. Material may have temperature limitations.



THE PARAGON GROUP REGISTRAR

36165 Remuda Dr. Temecula, CA 92592

Certificate of Registration

This is to certify that the Quality Management System of
Slim Section Bearings, Inc. div. Ritbearing Corp.

12425 Mills Ave. Suite A1 Chino, CA 91710

Has been certified to ISO 9001/2008 for the following scope:

Scope of Registration

Manufacture of Bearings for Government and Commercial Industries

Approved By: Joseph M. Heath,

President

Date of Issue:

6/30/2016

Certification Number:

2016-R0030

Date of Expiration:

6/30/2019





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