Thin Section Ball Bearing

WJB Part Number Designation

Position	1	2	3	4	5	6	7	8	9
Description	Material	Series	Bearing Size			Bearing Type	Separator	Precision	Internal Fit
Example	WK	G	1	2	0	X	P	0	L

Position 1 – Material

	Races/Balls	Seals, Shields
WD	AISI 52100 or Eq.	One shield
WE	AISI 52100 or Eq.	Two shields
WH	AISI 52100 or Eq.	One seal – NBR
WJ	AISI 52100 or Eq.	Two seals – NBR
WK	AISI 52100 or Eq.	No seals or shields
WS	AISI 440C or Eq.	No seals or shields
WV	AISI 440C or Eq.	Two shields
WW	AISI 440C or Eq.	Two seals – NBR
WX	AISI 52100 or Eq.	No seals or shields with Ceramic balls
WY	AISI 440C or Eq.	No seals or shields with Ceramic balls

Position 2 – Series Standard Cross Section

Open Bearings

AA	0.1875" x 0.1875"
A	0.250" x 0.250"
B	0.3125" x 0.3125"
C	0.375" x 0.375"
D	0.500" x 0.500"
F	0.750" x 0.750"
G	1.000" x 1.000"

Sealed Bearings

HA	0.1875" x 0.250"
A	0.250" x 0.250"
B	0.3125" x 0.3125"
U	0.500" x 0.375"
G	1.000" x 1.000"

Position 3, 4 & 5 – Bearing Bore Size

3 numeric characters – Nominal bearing bore in inches multiply by 10

Examples:

4 inch bore = 040

12 inch bore = 120

Alphabetic Characters

"A" in position 3 & "A" in position 2 denotes 0.1875" x 0.1875" series

"A" in position 3 & "H" in position 2 denotes 0.1875" x 0.250" series

Position 6 – Bearing Type

A	Angular contact bearing
B	Angular contact pair – Duplexed back to back
C	Radial contact bearing
F	Angular contact pair – Duplexed face to face
T	Angular contact pair – Duplexed tandem
U	Angular contact single bearing – Ground for universal duplexing
X	4-Pt contact bearing
Z	Other

Position 7 – Separator (Bearing Type Noted)

C	Non-metallic composite, segmental, "snap-over" type - C, X
D	Phenolic laminate, 1 piece ring, "snap-over" type - C, X
E	Brass, segmental "snap-over" type - C, X
L	Nylon 1 piece molded ring with "snap-over" pockets - C, X
N	Nylon molded strip with "snap-over" pockets - C, X
P	Standard 1 piece formed ring with "snap-over" pockets- C, X
V	Brass, formed ring, "snap-over" pockets - C, X
X	PEEK, 1 piece molded ring with "snap-over" pockets - C, X
G	Nylon one-piece molded ring with circular pockets - A
H	Phenolic laminate 1 piece machined ring with circular pockets - A
J	Nylon molded strip with circular pockets - A
K	Phenolic laminate, riveted 2 pieces ring type - A, C, X
Q	PEEK, 1 piece molded ring with circular pockets - A
R	Standard 1 piece formed ring with circular pockets - A
U	Stainless steel, formed ring circular pockets type - A
Y	Brass, formed ring, circular pockets type – A
F	Full complement bearing - A, C, X
Z	Other (toroid ball spacers, spacer slugs, spacer ball or others available) - A, C, X

Position 8 – Precision

WJB Precision Class

0	Class 1 per ABEC 1F
1	Class 1 with Class 4 run-out
3	Class 3 per ABEC 3F
4	Class 4 per ABEC 5F
6	Class 6 per ABEC 7F

Position 9 – Internal Fit*

Diametral Clearance (inch)

A	+0.0000 to +0.0005
B	+0.0000 to +0.0010
C	+0.0005 to +0.0010
D	+0.0005 to +0.0015
E	+0.0010 to +0.0020
F	+0.0015 to +0.0025
G	+0.0020 to +0.0030
H	+0.0030 to +0.0040
I	+0.0040 to +0.0050
J	+0.0050 to +0.0060

Radial Preload (inch)

(negative radial clearance)

K	-0.0000 to -0.0005
L	-0.0000 to -0.0010
M	-0.0005 to -0.0010
N	-0.0005 to -0.0015
P	-0.0010 to -0.0020
R	-0.0015 to -0.0025
S	-0.0020 to -0.0030
T	-0.0030 to -0.0040
U	-0.0040 to -0.0050

* Apply to unmounted bearings only.

Thin Section Ball Bearing

Bearing Type and Size Availability

The following table shows the availability of AISI 52100 or equivalent standard thin section bearings.
For stainless steel (440C) series and special designs, please contact WJB Sales Department.

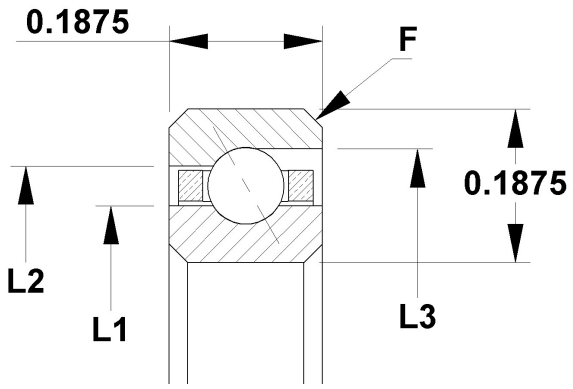
Series		WJHA Series 3/16" Radial Section			WKAA Series 3/16" Radial Section			WJA Series 1/4" Radial Section			WKA Series 1/4" Radial Section			WJB Series 5/16" Radial Section			WKB Series 5/16" Radial Section			WKC Series 3/8" Radial Section			WJU Series 5/16" Radial Section			WKD Series 1/2" Radial Section			WKF Series 3/4" Radial Section			WJG Series 1" Radial Section			WKG Series 1" Radial Section		
Bearing Type		A	C	X	A	C	X	A	C	X	A	C	X	A	C	X	A	C	X	A	C	X	A	C	X	A	C	X	A	C	X	A	C	X	A	C	X
Bore Diameter in Inches	3/4		■	■	■	■	■				■	■	■				■	■	■				■	■	■				■	■	■				■	■	■
	1		■	■	■	■	■				■	■	■				■	■	■				■	■	■				■	■	■				■	■	■
	1 1/2		■	■	■	■	■				■	■	■				■	■	■				■	■	■				■	■	■				■	■	■
	1 3/4		■	■	■	■	■				■	■	■				■	■	■				■	■	■				■	■	■				■	■	■
	2				■	■	■		■	■	■	■	■		■	■	■	■	■				■	■	■				■	■	■				■	■	■
	2 1/2				■	■	■		■	■	■	■	■		■	■	■	■	■				■	■	■				■	■	■				■	■	■
	3				■	■	■		■	■	■	■	■		■	■	■	■	■				■	■	■				■	■	■				■	■	■
	3 1/2				■	■	■		■	■	■	■	■		■	■	■	■	■				■	■	■				■	■	■				■	■	■
	4				■	■	■		■	■	■	■	■		■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■				■	■	■
	4 1/4				■	■	■		■	■	■	■	■		■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■				■	■	■
	4 1/2				■	■	■		■	■	■	■	■		■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■				■	■	■
	4 3/4				■	■	■		■	■	■	■	■		■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■				■	■	■
	5				■	■	■		■	■	■	■	■		■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■				■	■	■
	5 1/2				■	■	■		■	■	■	■	■		■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■				■	■	■
	6				■	■	■		■	■	■	■	■		■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■				■	■	■
	6 1/2				■	■	■		■	■	■	■	■		■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■				■	■	■
	7				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	7 1/2				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	8				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	9				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	10				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	11				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	12				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	14				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	16				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	18				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	20				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	21				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	22				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	25				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	30				■	■	■				■	■	■				■	■	■		■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■
	35				■	■	■				■	■	■				■	■	■					■	■	■			■	■	■		■	■	■	■	■
	40				■	■	■				■	■	■				■	■	■					■	■	■			■	■	■		■	■	■	■	■

A — Angular Contact
C — Radial Contact
X — 4-Pt Contact

Thin Section Ball Bearing

WKAA Series — Angular Contact

- **Snap-over assembly**
- **One-piece circular pocket cage**
- **3/32” steel balls**
- **Support radial and one direction axial load**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

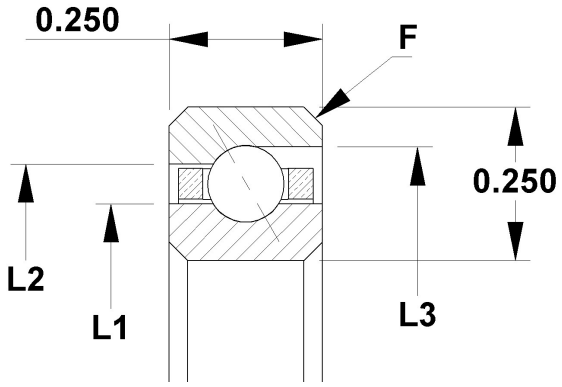
F_4 = 0.015 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches					Load Ratings in Pounds$_1$				Approx. Weight in lbs.
	Bearing Size		Land Diameters			Dynamic		Static$_2$		
	Bore	OD	L1	L2	L3	Radial$_3$	Thrust	Radial	Thrust	
WKAA10AG0	1.000	1.375	1.140	1.235	1.274	590	450	340	970	0.025
WKAA15AG0	1.500	1.875	1.640	1.735	1.774	681	560	480	1,380	0.038
WKAA17AG0	1.750	2.125	1.890	1.985	2.024	697	600	530	1,520	0.045

Thin Section Ball Bearing

WKA Series — Angular Contact

- **Snap-over assembly**
- **One-piece circular pocket cage**
- **1/8” steel balls**
- **Support radial and one direction axial load**



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2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

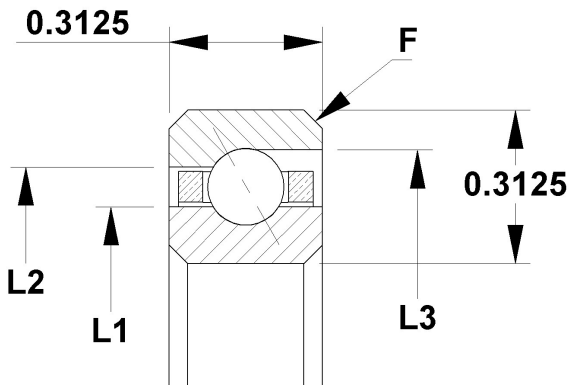
F_4 = 0.025 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches					Load Ratings in Pounds$_1$				Approx. Weight in lbs.
	Bearing Size		Land Diameters			Dynamic		Static$_2$		
	Bore	OD	L1	L2	L3	Radial$_3$	Thrust	Radial	Thrust	
WKA020AR0	2.000	2.500	2.186	2.314	2.369	1,065	960	790	2,280	0.10
WKA025AR0	2.500	3.000	2.686	2.814	2.869	1,150	1,100	960	2,780	0.12
WKA030AR0	3.000	3.500	3.186	3.314	3.367	1,225	1,230	1,140	3,290	0.14
WKA035AR0	3.500	4.000	3.686	3.814	3.867	1,292	1,350	1,310	3,790	0.17
WKA040AR0	4.000	4.500	4.186	4.314	4.367	1,353	1,470	1,490	4,300	0.19
WKA042AR0	4.250	4.750	4.436	4.564	4.615	1,382	1,530	1,580	4,550	0.20
WKA045AR0	4.500	5.000	4.686	4.814	4.865	1,410	1,580	1,660	4,810	0.21
WKA047AR0	4.750	5.250	4.936	5.064	5.115	1,437	1,640	1,750	5,060	0.22
WKA050AR0	5.000	5.500	5.186	5.314	5.365	1,463	1,690	1,840	5,310	0.23
WKA055AR0	5.500	6.000	5.686	5.814	5.863	1,513	1,800	2,020	5,820	0.25
WKA060AR0	6.000	6.500	6.186	6.314	6.363	1,561	1,900	2,190	6,320	0.28
WKA065AR0	6.500	7.000	6.686	6.814	6.861	1,605	2,000	2,370	6,830	0.30
WKA070AR0	7.000	7.500	7.186	7.314	7.361	1,648	2,100	2,540	7,340	0.32
WKA075AR0	7.500	8.000	7.686	7.814	7.861	1,689	2,190	2,720	7,840	0.34
WKA080AR0	8.000	8.500	8.186	8.314	8.359	1,728	2,280	2,890	8,350	0.36
WKA090AR0	9.000	9.500	9.186	9.314	9.357	1,802	2,470	3,240	9,360	0.41
WKA100AR0	10.000	10.500	10.186	10.314	10.355	1,871	2,640	3,590	10,370	0.45
WKA110AR0	11.000	11.500	11.186	11.314	11.353	1,936	2,810	3,940	11,380	0.50
WKA120AR0	12.000	12.500	12.186	12.314	12.349	1,998	2,970	4,290	12,390	0.54

Thin Section Ball Bearing

WKB Series — Angular Contact

- **Snap-over assembly**
- **One-piece circular pocket cage**
- **5/32” steel balls**
- **Support radial and one direction axial load**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

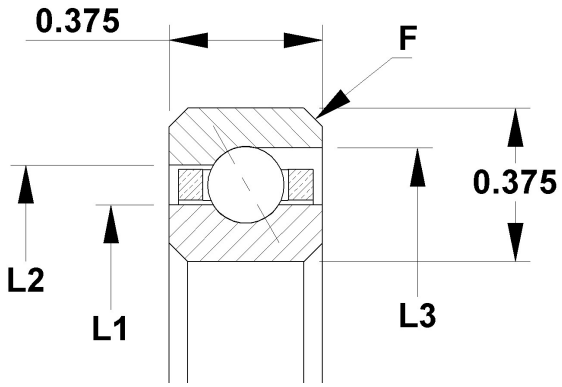
F_4 = 0.040 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches					Load Ratings in Pounds$_1$				Approx. Weight in lbs.
	Bearing Size		Land Diameters			Dynamic		Static$_2$		
	Bore	OD	L1	L2	L3	Radial$_3$	Thrust	Radial	Thrust	
WKB020AR0	2.000	2.625	2.231	2.393	2.464	1,520	1,380	1,090	3,150	0.15
WKB025AR0	2.500	3.125	2.731	2.893	2.964	1,650	1,590	1,340	3,860	0.19
WKB030AR0	3.000	3.625	3.231	3.393	3.462	1,737	1,750	1,550	4,470	0.22
WKB035AR0	3.500	4.125	3.731	3.893	3.962	1,840	1,930	1,790	5,180	0.27
WKB040AR0	4.000	4.625	4.231	4.393	4.460	1,934	2,100	2,040	5,890	0.30
WKB042AR0	4.250	4.875	4.481	4.643	4.710	1,967	2,170	2,150	6,200	0.31
WKB045AR0	4.500	5.125	4.731	4.893	4.960	2,000	2,240	2,250	6,500	0.34
WKB047AR0	4.750	5.375	4.981	5.143	5.210	2,051	2,340	2,390	6,910	0.35
WKB050AR0	5.000	5.625	5.231	5.393	5.460	2,081	2,410	2,500	7,210	0.37
WKB055AR0	5.500	6.125	5.731	5.893	5.958	2,158	2,560	2,740	7,920	0.40
WKB060AR0	6.000	6.625	6.231	6.393	6.458	2,230	2,710	2,990	8,630	0.44
WKB065AR0	6.500	7.125	6.731	6.893	6.958	2,281	2,840	3,200	9,240	0.47
WKB070AR0	7.000	7.625	7.231	7.393	7.456	2,347	2,980	3,450	9,960	0.50
WKB075AR0	7.500	8.125	7.731	7.893	7.955	2,409	3,120	3,700	10,670	0.54
WKB080AR0	8.000	8.625	8.231	8.393	8.453	2,469	3,260	3,940	11,380	0.57
WKB090AR0	9.000	9.625	9.231	9.393	9.451	2,568	3,510	4,400	12,700	0.64
WKB100AR0	10.000	10.625	10.231	10.393	10.449	2,673	3,760	4,890	14,120	0.71
WKB110AR0	11.000	11.625	11.231	11.393	11.447	2,760	4,000	5,350	15,440	0.78
WKB120AR0	12.000	12.625	12.231	12.393	12.445	2,853	4,240	5,840	16,860	0.85
WKB140AR0	14.000	14.625	14.231	14.393	14.439	3,005	4,670	6,760	19,500	0.98
WKB160AR0	16.000	16.625	16.231	16.393	16.433	3,154	5,100	7,710	22,250	1.12
WKB180AR0	18.000	18.625	18.231	18.393	18.425	3,292	5,510	8,660	24,990	1.26
WKB200AR0	20.000	20.625	20.231	20.393	20.416	3,421	5,900	9,610	27,730	1.40

Thin Section Ball Bearing

WKC Series — Angular Contact

- **Snap-over assembly**
- **One-piece circular pocket cage**
- **3/16” steel balls**
- **Support radial and one direction axial load**



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2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

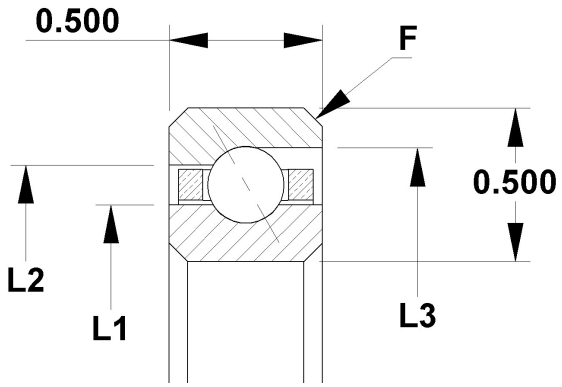
F_4 = 0.040 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches					Load Ratings in Pounds[1]				Approx. Weight in lbs.
	Bearing Size		Land Diameters			Dynamic		Static[2]		
	Bore	OD	L1	L2	L3	Radial[3]	Thrust	Radial	Thrust	
WKC040AR0	4.000	4.750	4.277	4.473	4.554	2,520	2,770	2,550	7,360	0.44
WKC042AR0	4.250	5.000	4.527	4.723	4.804	2,580	2,880	2,710	7,820	0.46
WKC045AR0	4.500	5.250	4.777	4.973	5.052	2,637	2,990	2,860	8,270	0.49
WKC047AR0	4.750	5.500	5.027	5.223	5.302	2,693	3,100	3,020	8,720	0.51
WKC050AR0	5.000	5.750	5.277	5.473	5.552	2,746	3,200	3,180	9,170	0.54
WKC055AR0	5.500	6.250	5.777	5.973	6.052	2,820	3,370	3,440	9,920	0.58
WKC060AR0	6.000	6.750	6.277	6.473	6.550	2,917	3,580	3,750	10,820	0.64
WKC065AR0	6.500	7.250	6.777	6.973	7.050	3,009	3,770	4,060	11,720	0.68
WKC070AR0	7.000	7.750	7.277	7.473	7.550	3,071	3,930	4,320	12,470	0.74
WKC075AR0	7.500	8.250	7.777	7.973	8.048	3,156	4,120	4,630	13,380	0.78
WKC080AR0	8.000	8.750	8.277	8.473	8.548	3,236	4,300	4,950	14,280	0.84
WKC090AR0	9.000	9.750	9.277	9.473	9.546	3,366	4,630	5,520	15,930	0.98
WKC100AR0	10.000	10.750	10.277	10.473	10.544	3,508	4,970	6,140	17,730	1.04
WKC110AR0	11.000	11.750	11.277	11.473	11.542	3,621	5,280	6,720	19,390	1.14
WKC120AR0	12.000	12.750	12.277	12.473	12.540	3,729	5,570	7,290	21,040	1.23
WKC140AR0	14.000	14.750	14.277	14.473	14.535	3,946	6,170	8,490	24,500	1.43
WKC160AR0	16.000	16.750	16.277	16.473	16.529	4,144	6,730	9,680	27,950	1.63
WKC180AR0	18.000	18.750	18.277	18.473	18.523	4,326	7,280	10,880	31,410	1.83
WKC200AR0	20.000	20.750	20.277	20.473	20.517	4,484	7,780	12,030	34,720	2.03
WKC250AR0	25.000	25.750	25.277	25.473	25.500	4,863	9,010	14,900	43,280	2.52
WKC300AR0	30.000	30.750	30.277	30.473	30.484	5,196	10,160	17,960	51,850	3.02

Thin Section Ball Bearing

WKD Series — Angular Contact

- **Snap-over assembly**
- **One-piece circular pocket cage**
- **1/4" steel balls**
- **Support radial and one direction axial load**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) "F" is the maximum shaft or housing fillet radius the bearing corners will clear.

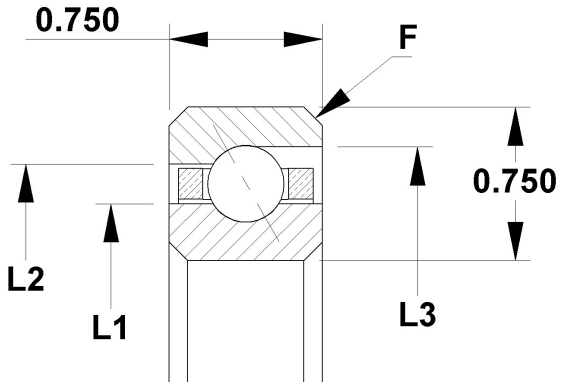
F_4 = 0.060 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches					Load Ratings in Pounds[1]				Approx. Weight in lbs.
	Bearing Size		Land Diameters			Dynamic		Static[2]		
	Bore	OD	L1	L2	L3	Radial[3]	Thrust	Radial	Thrust	
WKD040AR0	4.000	5.000	4.370	4.630	4.741	3,708	4,260	3,550	10,260	0.80
WKD042AR0	4.250	5.250	4.620	4.880	4.991	3,786	4,420	3,750	10,830	0.84
WKD045AR0	4.500	5.500	4.870	5.130	5.241	3,861	4,570	3,950	11,400	0.88
WKD047AR0	4.750	5.750	5.120	5.380	5.490	3,934	4,720	4,150	11,970	0.93
WKD050AR0	5.000	6.000	5.370	5.630	5.740	4,004	4,870	4,340	12,540	0.98
WKD055AR0	5.500	6.500	5.870	6.130	6.238	4,138	5,160	4,740	13,680	1.06
WKD060AR0	6.000	7.000	6.370	6.630	6.738	4,264	5,440	5,130	14,820	1.15
WKD065AR0	6.500	7.500	6.870	7.130	7.236	4,384	5,720	5,530	15,960	1.24
WKD070AR0	7.000	8.000	7.370	7.630	7.736	4,499	5,990	5,920	17,100	1.33
WKD075AR0	7.500	8.500	7.870	8.130	8.236	4,608	6,250	6,320	18,240	1.42
WKD080AR0	8.000	9.000	8.370	8.630	8.734	4,713	6,510	6,710	19,380	1.52
WKD090AR0	9.000	10.000	9.370	9.630	9.732	4,911	7,010	7,500	21,660	1.69
WKD100AR0	10.000	11.000	10.370	10.630	10.732	5,096	7,500	8,290	23,940	1.87
WKD110AR0	11.000	12.000	11.370	11.630	11.730	5,270	7,960	9,080	26,220	2.05
WKD120AR0	12.000	13.000	12.370	12.630	12.728	5,434	8,420	9,870	28,500	2.23
WKD140AR0	14.000	15.000	14.370	14.630	14.724	5,739	9,290	11,450	33,060	2.57
WKD160AR0	16.000	17.000	16.370	16.630	16.718	6,018	10,130	13,030	37,620	2.93
WKD180AR0	18.000	19.000	18.370	18.630	18.712	6,276	10,930	14,610	42,180	3.29
WKD200AR0	20.000	21.000	20.370	20.630	20.705	6,517	11,710	16,190	46,740	3.65
WKD210AR0	21.000	22.000	21.370	21.630	21.700	6,632	12,086	16,981	49,020	3.83
WKD250AR0	25.000	26.000	25.370	25.630	25.688	7,060	13,540	20,140	58,140	4.54
WKD300AR0	30.000	31.000	30.370	30.630	30.672	7,538	15,260	24,090	69,540	5.44

Thin Section Ball Bearing

WKF Series — Angular Contact

- **Snap-over assembly**
- **One-piece circular pocket cage**
- **3/8” steel balls**
- **Support radial and one direction axial load**



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3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

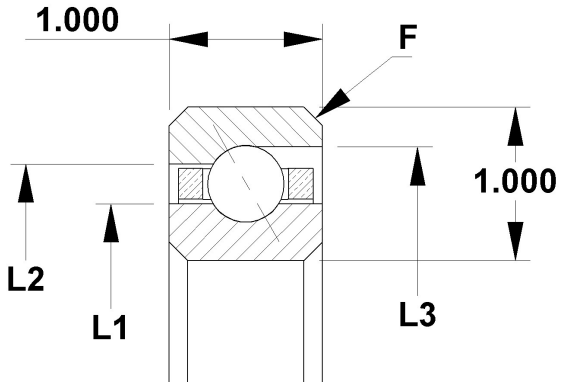
F_4 = 0.080 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches					Load Ratings in Pounds[1]				Approx. Weight in lbs.
	Bearing Size		Land Diameters			Dynamic		Static[2]		
	Bore	OD	L1	L2	L3	Radial[3]	Thrust	Radial	Thrust	
WKF040AR0	4.000	5.500	4.555	4.945	5.115	6,809	8,420	6,350	18,340	1.92
WKF042AR0	4.250	5.750	4.805	5.195	5.365	6,891	8,630	6,600	19,050	2.04
WKF045AR0	4.500	6.000	5.055	5.445	5.615	7,134	9,050	7,090	20,460	2.14
WKF047AR0	4.750	6.250	5.305	5.695	5.865	7,207	9,260	7,330	21,160	2.26
WKF050AR0	5.000	6.500	5.555	5.945	6.115	7,279	9,460	7,570	21,870	2.37
WKF055AR0	5.500	7.000	6.055	6.445	6.613	7,566	10,060	8,310	23,980	2.59
WKF060AR0	6.000	7.500	6.555	6.945	7.113	7,835	10,650	9,040	26,100	2.72
WKF065AR0	6.500	8.000	7.055	7.445	7.613	8,088	11,220	9,770	28,220	2.94
WKF070AR0	7.000	8.500	7.555	7.945	8.113	8,329	11,770	10,510	30,330	3.16
WKF075AR0	7.500	9.000	8.055	8.445	8.610	8,432	12,130	11,000	31,740	3.39
WKF080AR0	8.000	9.500	8.555	8.945	9.110	8,655	12,670	11,730	33,860	3.61
WKF090AR0	9.000	10.500	9.555	9.945	10.108	9,073	13,700	13,190	38,090	3.95
WKF100AR0	10.000	11.500	10.555	10.945	11.106	9,353	14,530	14,420	41,620	4.40
WKF110AR0	11.000	12.500	11.555	11.945	12.106	9,720	15,500	15,880	45,850	4.75
WKF120AR0	12.000	13.500	12.555	12.945	13.104	9,969	16,290	17,100	49,380	5.20
WKF140AR0	14.000	15.500	14.555	14.945	15.102	10,523	17,950	19,790	57,140	5.76
WKF160AR0	16.000	17.500	16.555	16.945	17.098	11,030	19,540	22,480	64,890	6.78
WKF180AR0	18.000	19.500	18.555	18.945	19.096	11,573	21,210	25,410	73,360	7.67
WKF200AR0	20.000	21.500	20.555	20.945	21.092	12,006	22,680	28,100	81,120	8.47
WKF250AR0	25.000	26.500	25.555	25.945	26.085	12,954	26,100	34,700	100,200	10.50
WKF300AR0	30.000	31.500	30.555	30.945	31.075	13,848	29,430	41,540	119,900	12.50
WKF350AR0	35.000	36.500	35.555	35.945	36.064	14,653	32,580	48,380	139,700	14.60
WKF400AR0	40.000	41.500	40.555	40.945	41.054	15,387	35,580	55,220	159,400	16.60

Thin Section Ball Bearing

WKG Series — Angular Contact

- **Snap-over assembly**
- **One-piece circular pocket cage**
- **1/2" steel balls**
- **Support radial and one direction axial load**



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3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) "F" is the maximum shaft or housing fillet radius the bearing corners will clear.

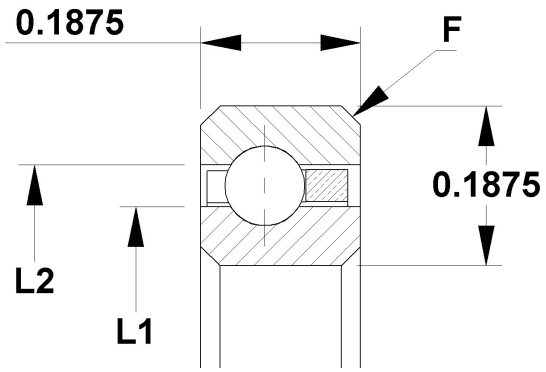
F_4 = 0.080 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches					Load Ratings in Pounds[1]				Approx. Weight in lbs.
	Bearing Size		Land Diameters			Dynamic		Static[2]		
	Bore	OD	L1	L2	L3	Radial[3]	Thrust	Radial	Thrust	
WKG040AR0	4.000	6.000	4.742	5.258	5.491	10,167	13,630	9,480	27,360	3.61
WKG042AR0	4.250	6.250	4.992	5.508	5.741	10,384	14,090	9,950	28,730	3.83
WKG045AR0	4.500	6.500	5.242	5.758	5.989	10,592	14,530	10,430	30,100	3.95
WKG047AR0	4.750	6.750	5.492	6.008	6.239	10,792	14,970	10,900	31,460	4.17
WKG050AR0	5.000	7.000	5.742	6.258	6.489	10,985	15,400	11,370	32,830	4.42
WKG055AR0	5.500	7.500	6.242	6.758	6.989	11,352	16,240	12,320	35,570	4.73
WKG060AR0	6.000	8.000	6.742	7.258	7.489	11,697	17,060	13,270	38,300	5.07
WKG065AR0	6.500	8.500	7.242	7.758	7.987	12,023	17,870	14,220	41,040	5.41
WKG070AR0	7.000	9.000	7.742	8.258	8.487	12,333	18,650	15,160	43,780	5.87
WKG075AR0	7.500	9.500	8.242	8.758	8.987	12,629	19,420	16,110	46,510	6.20
WKG080AR0	8.000	10.000	8.742	9.258	9.485	12,912	20,180	17,060	49,250	6.54
WKG090AR0	9.000	11.000	9.742	10.258	10.485	13,446	21,640	18,960	54,720	7.22
WKG100AR0	10.000	12.000	10.742	11.258	11.483	13,942	23,060	20,850	60,190	8.00
WKG110AR0	11.000	13.000	11.742	12.258	12.481	14,409	24,440	22,750	65,660	8.68
WKG120AR0	12.000	14.000	12.742	13.258	13.481	14,849	25,780	24,640	71,140	9.47
WKG140AR0	14.000	16.000	14.742	15.258	15.478	15,665	28,360	28,430	82,080	10.90
WKG160AR0	16.000	18.000	16.742	17.258	17.474	16,411	30,830	32,220	93,020	12.40
WKG180AR0	18.000	20.000	18.742	19.258	19.472	17,101	33,200	36,020	104,000	13.80
WKG200AR0	20.000	22.000	20.742	21.258	21.468	17,745	35,490	39,810	114,900	15.20
WKG220AR0	22.000	24.000	22.742	23.258	23.468	18,351	37,712	43,598	125,856	16.63
WKG250AR0	25.000	27.000	25.742	26.258	26.461	19,198	40,920	49,280	142,300	18.80
WKG300AR0	30.000	32.000	30.742	31.258	31.451	20,480	46,020	58,760	169,600	22.50
WKG350AR0	35.000	37.000	35.742	36.258	36.440	21,636	50,840	68,240	197,000	26.20
WKG400AR0	40.000	42.000	40.742	41.258	41.430	22,693	55,440	77,720	224,400	29.80

Thin Section Ball Bearing

WKAA Series — Radial Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **3/32” steel balls**
- **Support radial and both directions of axial load**



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3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

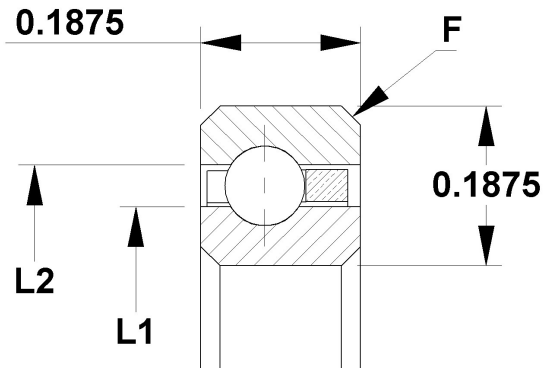
F_4 = 0.015 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings in Pounds[1]		Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic Radial[3]	Static[2] Radial	
	Bore	OD	L1	L2			
WKAA10CL0	1.000	1.375	1.140	1.235	558	290	0.026
WKAA15CL0	1.500	1.875	1.640	1.735	632	400	0.039
WKAA17CL0	1.750	2.125	1.890	1.985	663	460	0.045

Thin Section Ball Bearing

WKA Series — Radial Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **1/8” steel balls**
- **Support radial and both directions of axial load**



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4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

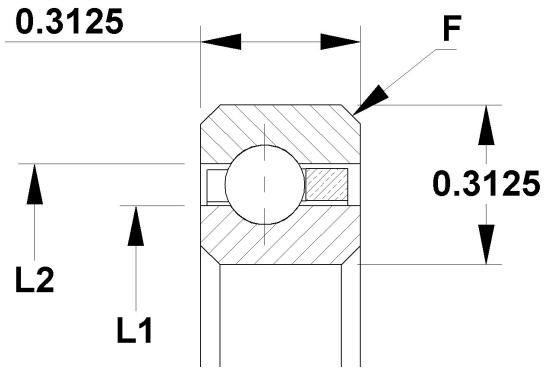
F_4 = 0.025 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings in Pounds[1]		Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic Radial[3]	Static[2] Radial	
	Bore	OD	L1	L2			
WKA020CP0	2.000	2.500	2.186	2.314	1,012	680	0.10
WKA025CP0	2.500	3.000	2.686	2.814	1,094	830	0.13
WKA030CP0	3.000	3.500	3.186	3.314	1,166	990	0.15
WKA035CP0	3.500	4.000	3.686	3.814	1,230	1,140	0.18
WKA040CP0	4.000	4.500	4.186	4.314	1,289	1,290	0.19
WKA042CP0	4.250	4.750	4.436	4.564	1,317	1,370	0.20
WKA045CP0	4.500	5.000	4.686	4.814	1,344	1,440	0.22
WKA047CP0	4.750	5.250	4.936	5.064	1,369	1,520	0.23
WKA050CP0	5.000	5.500	5.186	5.314	1,394	1,590	0.24
WKA055CP0	5.500	6.000	5.686	5.814	1,442	1,750	0.25
WKA060CP0	6.000	6.500	6.186	6.314	1,487	1,900	0.28
WKA065CP0	6.500	7.000	6.686	6.814	1,530	2,050	0.30
WKA070CP0	7.000	7.500	7.186	7.314	1,571	2,200	0.31
WKA075CP0	7.500	8.000	7.686	7.814	1,610	2,350	0.34
WKA080CP0	8.000	8.500	8.186	8.314	1,647	2,500	0.38
WKA090CP0	9.000	9.500	9.186	9.314	1,718	2,810	0.44
WKA100CP0	10.000	10.500	10.186	10.314	1,784	3,110	0.50
WKA110CP0	11.000	11.500	11.186	11.314	1,846	3,410	0.52
WKA120CP0	12.000	12.500	12.186	12.314	1,904	3,720	0.56

Thin Section Ball Bearing

WKB Series — Radial Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **5/32” steel balls**
- **Support radial and both directions of axial load**



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4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

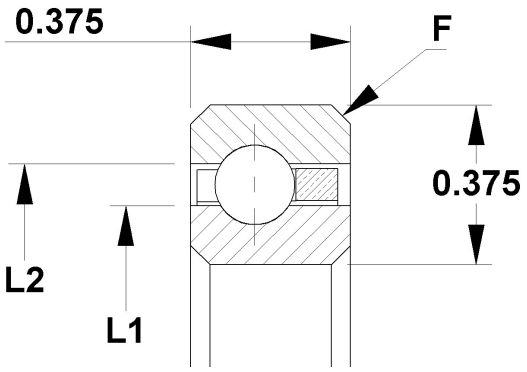
F_4 = 0.040 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings in Pounds$_1$		Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic Radial$_3$	Static$_2$ Radial	
	Bore	OD	L1	L2			
WKB020CP0	2.000	2.625	2.231	2.393	1,431	930	0.16
WKB025CP0	2.500	3.125	2.731	2.893	1,549	1,140	0.20
WKB030CP0	3.000	3.625	3.231	3.393	1,651	1,340	0.24
WKB035CP0	3.500	4.125	3.731	3.893	1,743	1,540	0.27
WKB040CP0	4.000	4.625	4.231	4.393	1,827	1,750	0.30
WKB042CP0	4.250	4.875	4.481	4.643	1,853	1,830	0.31
WKB045CP0	4.500	5.125	4.731	4.893	1,904	1,950	0.33
WKB047CP0	4.750	5.375	4.981	5.143	1,928	2,030	0.34
WKB050CP0	5.000	5.625	5.231	5.393	1,976	2,150	0.38
WKB055CP0	5.500	6.125	5.731	5.893	2,044	2,360	0.41
WKB060CP0	6.000	6.625	6.231	6.393	2,108	2,560	0.44
WKB065CP0	6.500	7.125	6.731	6.893	2,168	2,760	0.47
WKB070CP0	7.000	7.625	7.231	7.393	2,226	2,970	0.50
WKB075CP0	7.500	8.125	7.731	7.893	2,281	3,170	0.53
WKB080CP0	8.000	8.625	8.231	8.393	2,334	3,370	0.57
WKB090CP0	9.000	9.625	9.231	9.393	2,434	3,780	0.66
WKB100CP0	10.000	10.625	10.231	10.393	2,527	4,190	0.73
WKB110CP0	11.000	11.625	11.231	11.393	2,615	4,590	0.75
WKB120CP0	12.000	12.625	12.231	12.393	2,698	5,000	0.83
WKB140CP0	14.000	14.625	14.231	14.393	2,851	5,810	1.05
WKB160CP0	16.000	16.625	16.231	16.393	2,991	6,620	1.20
WKB180CP0	18.000	18.625	18.231	18.393	3,121	7,440	1.35
WKB200CP0	20.000	20.625	20.231	20.393	3,242	8,250	1.50

Thin Section Ball Bearing

WKC Series — Radial Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **3/16” steel balls**
- **Support radial and both directions of axial load**



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4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

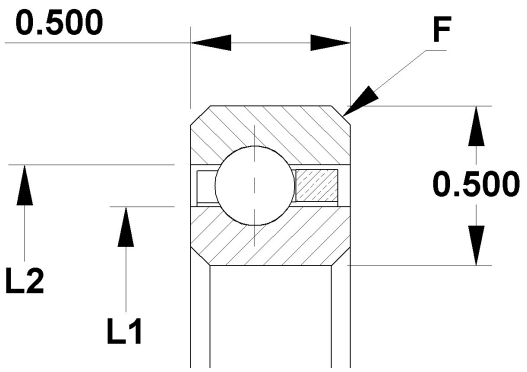
F_4 = 0.040 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings in Pounds[1]		Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic Radial[3]	Static[2] Radial	
	Bore	OD	L1	L2			
WKC040CP0	4.000	4.750	4.277	4.473	2,321	2,100	0.45
WKC042CP0	4.250	5.000	4.527	4.723	2,370	2,220	0.47
WKC045CP0	4.500	5.250	4.777	4.973	2,418	2,340	0.48
WKC047CP0	4.750	5.500	5.027	5.223	2,464	2,460	0.50
WKC050CP0	5.000	5.750	5.277	5.473	2,509	2,590	0.58
WKC055CP0	5.500	6.250	5.777	5.973	2,594	2,830	0.59
WKC060CP0	6.000	6.750	6.277	6.473	2,674	3,070	0.63
WKC065CP0	6.500	7.250	6.777	6.973	2,751	3,310	0.68
WKC070CP0	7.000	7.750	7.277	7.473	2,823	3,550	0.73
WKC075CP0	7.500	8.250	7.777	7.973	2,893	3,790	0.78
WKC080CP0	8.000	8.750	8.277	8.473	2,960	4,030	0.84
WKC090CP0	9.000	9.750	9.277	9.473	3,085	4,510	0.94
WKC100CP0	10.000	10.750	10.277	10.473	3,203	4,990	1.06
WKC110CP0	11.000	11.750	11.277	11.473	3,313	5,470	1.16
WKC120CP0	12.000	12.750	12.277	12.473	3,417	5,950	1.25
WKC140CP0	14.000	14.750	14.277	14.473	3,611	6,910	1.52
WKC160CP0	16.000	16.750	16.277	16.473	3,787	7,880	1.73
WKC180CP0	18.000	18.750	18.277	18.473	3,951	8,840	1.94
WKC200CP0	20.000	20.750	20.277	20.473	4,104	9,800	2.16
WKC250CP0	25.000	25.750	25.277	25.473	4,447	12,200	2.69
WKC300CP0	30.000	30.750	30.277	30.473	4,750	14,610	3.21

Thin Section Ball Bearing

WKD Series — Radial Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **1/4" steel balls**
- **Support radial and both directions of axial load**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) "F" is the maximum shaft or housing fillet radius the bearing corners will clear.

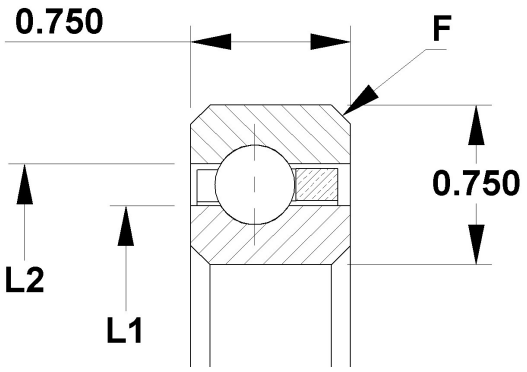
F_4 = 0.060 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings in Pounds$_1$		Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic Radial$_3$	Static$_2$ Radial	
	Bore	OD	L1	L2			
WKD040CP0	4.000	5.000	4.370	4.630	3,523	3,080	0.78
WKD042CP0	4.250	5.250	4.620	4.880	3,556	3,190	0.83
WKD045CP0	4.500	5.500	4.870	5.130	3,671	3,420	0.88
WKD047CP0	4.750	5.750	5.120	5.380	3,701	3,530	0.94
WKD050CP0	5.000	6.000	5.370	5.630	3,808	3,760	1.00
WKD055CP0	5.500	6.500	5.870	6.130	3,937	4,100	1.06
WKD060CP0	6.000	7.000	6.370	6.630	4,059	4,450	1.16
WKD065CP0	6.500	7.500	6.870	7.130	4,174	4,790	1.22
WKD070CP0	7.000	8.000	7.370	7.630	4,284	5,130	1.31
WKD075CP0	7.500	8.500	7.870	8.130	4,388	5,470	1.41
WKD080CP0	8.000	9.000	8.370	8.630	4,489	5,810	1.53
WKD090CP0	9.000	10.000	9.370	9.630	4,678	6,500	1.72
WKD100CP0	10.000	11.000	10.370	10.630	4,855	7,180	1.88
WKD110CP0	11.000	12.000	11.370	11.630	5,021	7,870	2.06
WKD120CP0	12.000	13.000	12.370	12.630	5,178	8,550	2.25
WKD140CP0	14.000	15.000	14.370	14.630	5,469	9,920	2.73
WKD160CP0	16.000	17.000	16.370	16.630	5,736	11,290	3.10
WKD180CP0	18.000	19.000	18.370	18.630	5,982	12,650	3.48
WKD200CP0	20.000	21.000	20.370	20.630	6,212	14,020	3.85
WKD210CP0	21.000	22.000	21.370	21.630	6,321	14,706	4.04
WKD250CP0	25.000	26.000	25.370	25.630	6,729	17,440	4.79
WKD300CP0	30.000	31.000	30.370	30.630	7,186	20,860	5.73

Thin Section Ball Bearing

WKF Series — Radial Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **3/8” steel balls**
- **Support radial and both directions of axial load**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

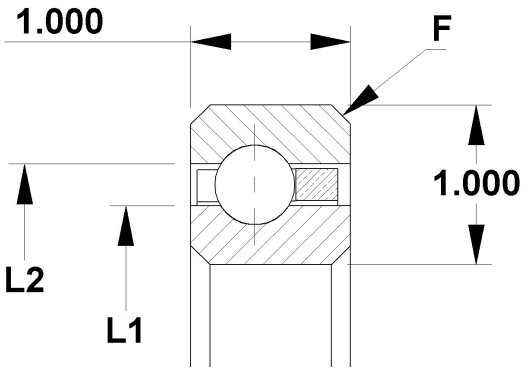
F_4 = 0.080 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings in Pounds[1]		Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic Radial[3]	Static[2] Radial	
	Bore	OD	L1	L2			
WKF040CP0	4.000	5.500	4.555	4.945	6,334	5,360	1.90
WKF042CP0	4.250	5.750	4.805	5.195	6,472	5,640	2.00
WKF045CP0	4.500	6.000	5.055	5.445	6,605	5,930	2.10
WKF047CP0	4.750	6.250	5.305	5.695	6,732	6,210	2.20
WKF050CP0	5.000	6.500	5.555	5.945	6,855	6,490	2.30
WKF055CP0	5.500	7.000	6.055	6.445	7,089	7,050	2.50
WKF060CP0	6.000	7.500	6.555	6.945	7,308	7,620	2.70
WKF065CP0	6.500	8.000	7.055	7.445	7,516	8,180	2.90
WKF070CP0	7.000	8.500	7.555	7.945	7,713	8,750	3.20
WKF075CP0	7.500	9.000	8.055	8.445	7,901	9,310	3.40
WKF080CP0	8.000	9.500	8.555	8.945	8,081	9,880	3.50
WKF090CP0	9.000	10.500	9.555	9.945	8,421	11,000	3.90
WKF100CP0	10.000	11.500	10.555	10.945	8,737	12,130	4.30
WKF110CP0	11.000	12.500	11.555	11.945	9,033	13,260	4.80
WKF120CP0	12.000	13.500	12.555	12.945	9,313	14,390	5.20
WKF140CP0	14.000	15.500	14.555	14.945	9,832	16,650	6.00
WKF160CP0	16.000	17.500	16.555	16.945	10,306	18,900	7.10
WKF180CP0	18.000	19.500	18.555	18.945	10,744	21,160	7.90
WKF200CP0	20.000	21.500	20.555	20.945	11,153	23,420	8.90
WKF250CP0	25.000	26.500	25.555	25.945	12,074	29,060	10.90
WKF300CP0	30.000	31.500	30.555	30.945	12,887	34,700	13.00
WKF350CP0	35.000	36.500	35.555	35.945	13,620	40,350	15.10
WKF400CP0	40.000	41.500	40.555	40.945	14,289	45,990	17.20

Thin Section Ball Bearing

WKG Series — Radial Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **1/2" steel balls**
- **Support radial and both directions of axial load**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) "F" is the maximum shaft or housing fillet radius the bearing corners will clear.

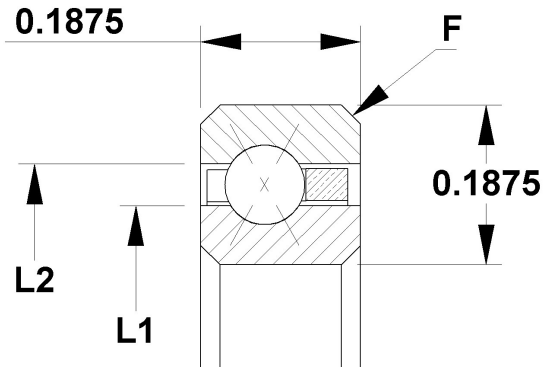
F_4 = 0.080 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings in Pounds$_1$		Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic Radial$_3$	Static$_2$ Radial	
	Bore	OD	L1	L2			
WKG040CP0	4.000	6.000	4.742	5.258	9,579	8,210	3.60
WKG042CP0	4.250	6.250	4.992	5.508	9,481	8,210	3.80
WKG045CP0	4.500	6.500	5.242	5.758	9,797	8,760	4.00
WKG047CP0	4.750	6.750	5.492	6.008	10,099	9,300	4.10
WKG050CP0	5.000	7.000	5.742	6.258	10,388	9,850	4.30
WKG055CP0	5.500	7.500	6.242	6.758	10,563	10,400	4.70
WKG060CP0	6.000	8.000	6.742	7.258	11,085	11,490	5.10
WKG065CP0	6.500	8.500	7.242	7.758	11,234	12,040	5.40
WKG070CP0	7.000	9.000	7.742	8.258	11,705	13,130	5.80
WKG075CP0	7.500	9.500	8.242	8.758	11,835	13,680	6.10
WKG080CP0	8.000	10.000	8.742	9.258	12,266	14,770	6.50
WKG090CP0	9.000	11.000	9.742	10.258	12,782	16,420	7.20
WKG100CP0	10.000	12.000	10.742	11.258	13,261	18,060	7.90
WKG110CP0	11.000	13.000	11.742	12.258	13,710	19,700	8.60
WKG120CP0	12.000	14.000	12.742	13.258	14,133	21,340	9.30
WKG140CP0	14.000	16.000	14.742	15.258	14,916	24,620	10.80
WKG160CP0	16.000	18.000	16.742	17.258	15,631	27,910	12.30
WKG180CP0	18.000	20.000	18.742	19.258	16,291	31,190	13.70
WKG200CP0	20.000	22.000	20.742	21.258	16,907	34,470	15.80
WKG220CP0	22.000	24.000	22.742	23.258	17,486	37,757	16.80
WKG250CP0	25.000	27.000	25.742	26.258	18,295	42,680	19.50
WKG300CP0	30.000	32.000	30.742	31.258	19,519	50,890	23.30
WKG350CP0	35.000	37.000	35.742	36.258	20,622	59,100	27.10
WKG400CP0	40.000	42.000	40.742	41.258	21,630	67,310	30.80

Thin Section Ball Bearing

WKAA Series — Four-Points Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **3/32” steel balls**
- **Support multiple load at the same time**
- **Able to replace two bearings with a single bearing**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

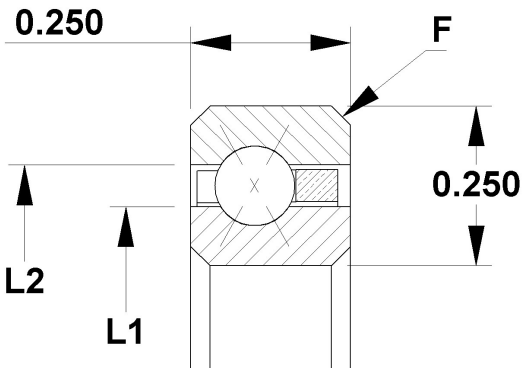
F_3 = 0.015 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings[1]						Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic			Static[2]			
	Bore	OD	L1	L2	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	
WKAA10XL0	1.000	1.375	1.140	1.235	247	370	110	290	730	170	0.026
WKAA15XL0	1.500	1.875	1.640	1.735	296	460	187	400	1,000	340	0.039
WKAA17XL0	1.750	2.125	1.890	1.985	319	500	232	460	1,140	440	0.045

Thin Section Ball Bearing

WKA Series — Four-Points Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **1/8” steel balls**
- **Support multiple load at the same time**
- **Able to replace two bearings with a single bearing**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

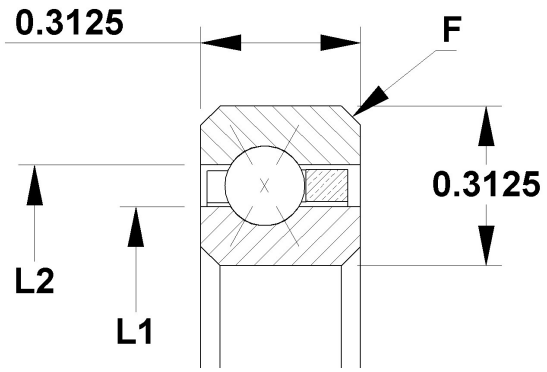
F_3 = 0.025 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings[1]						Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic			Static[2]			
	Bore	OD	L1	L2	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	
WKA020XP0	2.000	2.500	2.186	2.314	514	790	434	680	1,710	770	0.10
WKA025XP0	2.500	3.000	2.686	2.814	583	910	601	830	2,090	1,150	0.13
WKA027XP0	2.750	3.250	2.936	3.064	614	960	690	910	2,275	1,365	0.14
WKA030XP0	3.000	3.500	3.186	3.314	643	1,010	785	990	2,470	1,600	0.15
WKA035XP0	3.500	4.000	3.686	3.814	701	1,110	986	1,140	2,850	2,130	0.18
WKA040XP0	4.000	4.500	4.186	4.314	756	1,210	1,205	1,290	3,220	2,740	0.19
WKA042XP0	4.250	4.750	4.436	4.564	783	1,260	1,321	1,370	3,410	3,070	0.20
WKA045XP0	4.500	5.000	4.686	4.814	809	1,310	1,441	1,440	3,600	3,420	0.22
WKA047XP0	4.750	5.250	4.936	5.064	834	1,350	1,565	1,520	3,790	3,790	0.23
WKA050XP0	5.000	5.500	5.186	5.314	859	1,400	1,693	1,590	3,980	4,180	0.24
WKA055XP0	5.500	6.000	5.686	5.814	908	1,480	1,959	1,750	4,360	5,020	0.25
WKA060XP0	6.000	6.500	6.186	6.314	955	1,570	2,240	1,900	4,740	5,930	0.28
WKA065XP0	6.500	7.000	6.686	6.814	1,001	1,650	2,535	2,050	5,120	6,910	0.30
WKA070XP0	7.000	7.500	7.186	7.314	1,046	1,730	2,844	2,200	5,500	7,980	0.31
WKA075XP0	7.500	8.000	7.686	7.814	1,089	1,810	3,165	2,350	5,880	9,120	0.34
WKA080XP0	8.000	8.500	8.186	8.314	1,131	1,890	3,499	2,500	6,260	10,330	0.38
WKA090XP0	9.000	9.500	9.186	9.314	1,212	2,040	4,204	2,810	7,020	12,990	0.44
WKA100XP0	10.000	10.500	10.186	10.314	1,289	2,180	4,956	3,110	7,780	15,940	0.50
WKA110XP0	11.000	11.500	11.186	11.314	1,362	2,320	5,750	3,410	8,540	19,210	0.52
WKA120XP0	12.000	12.500	12.186	12.314	1,433	2,450	6,587	3,720	9,300	22,770	0.56

Thin Section Ball Bearing

WKB Series — Four-Points Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **5/32” steel balls**
- **Support multiple load at the same time**
- **Able to replace two bearings with a single bearing**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

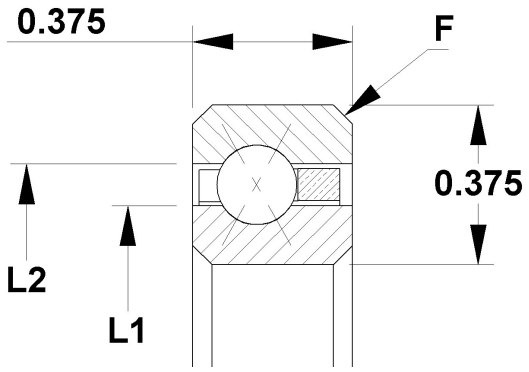
F_3 = 0.040 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings[1]						Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic			Static[2]			
	Bore	OD	L1	L2	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	
WKB020XP0	2.000	2.625	2.231	2.393	758	1,130	658	930	2,340	1,080	0.16
WKB025XP0	2.500	3.125	2.731	2.893	848	1,290	895	1,140	2,840	1,600	0.19
WKB030XP0	3.000	3.625	3.231	3.393	933	1,440	1,159	1,340	3,350	2,220	0.24
WKB035XP0	3.500	4.125	3.731	3.893	1,014	1,590	1,450	1,540	3,860	2,940	0.27
WKB040XP0	4.000	4.625	4.231	4.393	1,091	1,720	1,764	1,750	4,370	3,770	0.30
WKB042XP0	4.250	4.875	4.481	4.643	1,120	1,780	1,917	1,830	4,570	4,170	0.31
WKB045XP0	4.500	5.125	4.731	4.893	1,165	1,850	2,103	1,950	4,880	4,690	0.33
WKB047XP0	4.750	5.375	4.981	5.143	1,193	1,900	2,265	2,030	5,080	5,140	0.34
WKB050XP0	5.000	5.625	5.231	5.393	1,236	1,980	2,463	2,150	5,380	5,720	0.38
WKB055XP0	5.500	6.125	5.731	5.893	1,304	2,100	2,844	2,360	5,890	6,850	0.41
WKB060XP0	6.000	6.625	6.231	6.393	1,371	2,220	3,247	2,560	6,400	8,080	0.44
WKB065XP0	6.500	7.125	6.731	6.893	1,435	2,340	3,668	2,760	6,910	9,410	0.47
WKB070XP0	7.000	7.625	7.231	7.393	1,498	2,450	4,109	2,970	7,420	10,850	0.50
WKB075XP0	7.500	8.125	7.731	7.893	1,559	2,560	4,568	3,170	7,920	12,380	0.53
WKB080XP0	8.000	8.625	8.231	8.393	1,618	2,670	5,045	3,370	8,430	14,020	0.57
WKB090XP0	9.000	9.625	9.231	9.393	1,732	2,880	6,050	3,780	9,450	17,600	0.66
WKB100XP0	10.000	10.625	10.231	10.393	1,841	3,080	7,121	4,190	10,460	21,580	0.73
WKB110XP0	11.000	11.625	11.231	11.393	1,945	3,280	8,254	4,590	11,480	25,970	0.75
WKB120XP0	12.000	12.625	12.231	12.393	2,045	3,470	9,446	5,000	12,500	30,770	0.83
WKB140XP0	14.000	14.625	14.231	14.393	2,234	3,840	11,994	5,810	14,530	41,580	1.05
WKB160XP0	16.000	16.625	16.231	16.393	2,410	4,190	14,750	6,620	16,560	54,020	1.20
WKB180XP0	18.000	18.625	18.231	18.393	2,576	4,520	17,694	7,440	18,590	68,090	1.35
WKB200XP0	20.000	20.625	20.231	20.393	2,731	4,850	20,813	8,250	20,620	83,780	1.50

Thin Section Ball Bearing

WKC Series — Four-Points Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **3/16” steel balls**
- **Support multiple load at the same time**
- **Able to replace two bearings with a single bearing**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

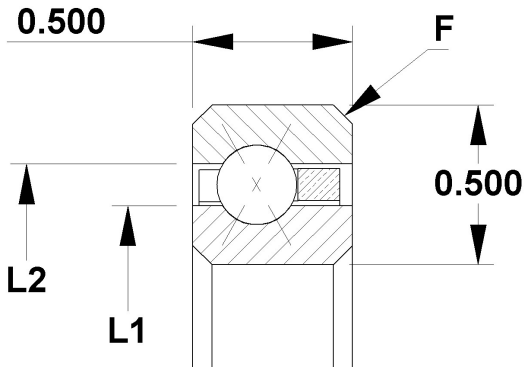
F_3 = 0.040 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings[1]						Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic			Static[2]			
	Bore	OD	L1	L2	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	
WKC040XP0	4.000	4.750	4.277	4.473	1,417	2,210	2,326	2,100	5,260	4,600	0.45
WKC042XP0	4.250	5.000	4.527	4.723	1,464	2,290	2,541	2,220	5,560	5,140	0.47
WKC045XP0	4.500	5.250	4.777	4.973	1,510	2,380	2,762	2,340	5,860	5,710	0.48
WKC047XP0	4.750	5.500	5.027	5.223	1,556	2,460	2,991	2,460	6,160	6,320	0.50
WKC050XP0	5.000	5.750	5.277	5.473	1,600	2,540	3,226	2,590	6,460	6,950	0.58
WKC055XP0	5.500	6.250	5.777	5.973	1,687	2,690	3,717	2,830	7,060	8,300	0.59
WKC060XP0	6.000	6.750	6.277	6.473	1,770	2,840	4,234	3,070	7,660	9,770	0.63
WKC065XP0	6.500	7.250	6.777	6.973	1,851	2,990	4,775	3,310	8,270	11,370	0.68
WKC070XP0	7.000	7.750	7.277	7.473	1,931	3,130	5,341	3,550	8,870	13,080	0.73
WKC075XP0	7.500	8.250	7.777	7.973	2,007	3,270	5,930	3,790	9,470	14,910	0.78
WKC080XP0	8.000	8.750	8.277	8.473	2,082	3,410	6,542	4,030	10,070	16,870	0.84
WKC090XP0	9.000	9.750	9.277	9.473	2,226	3,670	7,830	4,510	11,270	21,130	0.94
WKC100XP0	10.000	10.750	10.277	10.473	2,364	3,930	9,201	4,990	12,470	25,880	1.06
WKC110XP0	11.000	11.750	11.277	11.473	2,496	4,180	10,651	5,470	13,680	31,110	1.16
WKC120XP0	12.000	12.750	12.277	12.473	2,622	4,420	12,174	5,950	14,880	36,830	1.25
WKC140XP0	14.000	14.750	14.277	14.473	2,862	4,890	15,434	6,910	17,280	49,690	1.52
WKC160XP0	16.000	16.750	16.277	16.473	3,086	5,330	18,955	7,880	19,690	64,480	1.73
WKC180XP0	18.000	18.750	18.277	18.473	3,295	5,760	22,712	8,840	22,090	81,190	1.94
WKC200XP0	20.000	20.750	20.277	20.473	3,492	6,170	26,695	9,800	24,500	99,830	2.16
WKC250XP0	25.000	25.750	25.277	25.473	3,941	7,140	37,518	12,200	30,510	154,800	2.69
WKC300XP0	30.000	30.750	30.277	30.473	4,338	8,050	49,436	14,610	36,520	221,900	3.21

Thin Section Ball Bearing

WKD Series — Four-Points Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **1/4" steel balls**
- **Support multiple load at the same time**
- **Able to replace two bearings with a single bearing**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) "F" is the maximum shaft or housing fillet radius the bearing corners will clear.

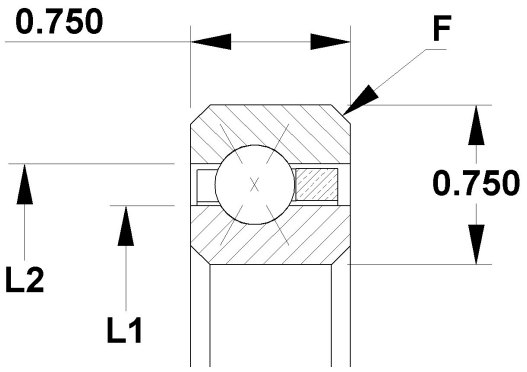
F_3 = 0.060 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings[1]						Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic			Static[2]			
	Bore	OD	L1	L2	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	
WKD040XP0	4.000	5.000	4.370	4.630	2,311	3,520	3,901	3,080	7,700	6,930	0.78
WKD042XP0	4.250	5.250	4.620	4.880	2,355	3,600	4,196	3,190	7,980	7,580	0.83
WKD045XP0	4.500	5.500	4.870	5.130	2,454	3,770	4,602	3,420	8,550	8,550	0.88
WKD047XP0	4.750	5.750	5.120	5.380	2,496	3,860	4,916	3,530	8,840	9,280	0.94
WKD050XP0	5.000	6.000	5.370	5.630	2,592	4,020	5,348	3,760	9,410	10,350	1.00
WKD055XP0	5.500	6.500	5.870	6.130	2,725	4,260	6,134	4,100	10,260	12,310	1.06
WKD060XP0	6.000	7.000	6.370	6.630	2,855	4,490	6,961	4,450	11,120	14,450	1.16
WKD065XP0	6.500	7.500	6.870	7.130	2,980	4,720	7,826	4,790	11,970	16,760	1.22
WKD070XP0	7.000	8.000	7.370	7.630	3,103	4,940	8,730	5,130	12,830	19,240	1.31
WKD075XP0	7.500	8.500	7.870	8.130	3,222	5,160	9,669	5,470	13,680	21,890	1.41
WKD080XP0	8.000	9.000	8.370	8.630	3,338	5,370	10,643	5,810	14,540	24,710	1.53
WKD090XP0	9.000	10.000	9.370	9.630	3,561	5,790	12,693	6,500	16,250	30,870	1.72
WKD100XP0	10.000	11.000	10.370	10.630	3,776	6,190	14,872	7,180	17,960	37,710	1.88
WKD110XP0	11.000	12.000	11.370	11.630	3,981	6,570	17,173	7,870	19,670	45,230	2.06
WKD120XP0	12.000	13.000	12.370	12.630	4,178	6,950	19,590	8,550	21,380	53,440	2.25
WKD140XP0	14.000	15.000	14.370	14.630	4,551	7,670	24,755	9,920	24,800	71,910	2.73
WKD160XP0	16.000	17.000	16.370	16.630	4,899	8,360	30,325	11,290	28,220	93,110	3.10
WKD180XP0	18.000	19.000	18.370	18.630	5,226	9,030	36,268	12,650	31,640	117,000	3.48
WKD200XP0	20.000	21.000	20.370	20.630	5,534	9,670	42,561	14,020	35,060	143,700	3.85
WKD210XP0	21.000	22.000	21.370	21.630	5,682	9,980	45,826	14,710	36,770	158,100	4.04
WKD250XP0	25.000	26.000	25.370	25.630	6,235	11,180	59,649	17,440	43,610	222,400	4.79
WKD300XP0	30.000	31.000	30.370	30.630	6,856	12,600	78,447	20,860	52,160	318,100	5.73

Thin Section Ball Bearing

WKF Series — Four-Points Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **3/8” steel balls**
- **Support multiple load at the same time**
- **Able to replace two bearings with a single bearing**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

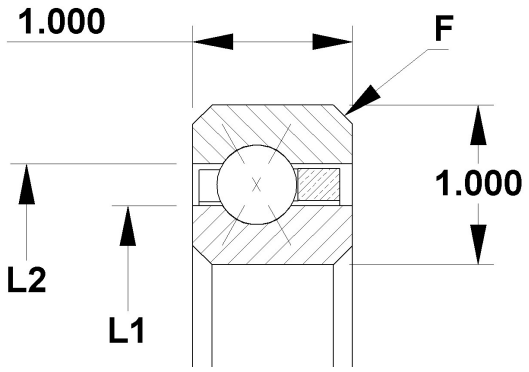
F_3 = 0.080 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings[1]						Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic			Static[2]			
	Bore	OD	L1	L2	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	
WKF040XP0	4.000	5.500	4.555	4.945	4,665	6,830	8,312	5,360	13,400	12,730	1.90
WKF042XP0	4.250	5.750	4.805	5.195	4,795	7,070	8,993	5,640	14,110	14,110	2.00
WKF045XP0	4.500	6.000	5.055	5.445	4,923	7,300	9,695	5,930	14,810	15,550	2.10
WKF047XP0	4.750	6.250	5.305	5.695	5,048	7,530	10,416	6,210	15,520	17,070	2.20
WKF050XP0	5.000	6.500	5.555	5.945	5,172	7,760	11,157	6,490	16,220	18,660	2.30
WKF055XP0	5.500	7.000	6.055	6.445	5,415	8,200	12,696	7,050	17,630	22,040	2.50
WKF060XP0	6.000	7.500	6.555	6.945	5,651	8,630	14,311	7,620	19,050	25,710	2.70
WKF065XP0	6.500	8.000	7.055	7.445	5,880	9,050	15,993	8,180	20,460	29,660	2.90
WKF070XP0	7.000	8.500	7.555	7.945	6,103	9,460	17,744	8,750	21,870	33,890	3.20
WKF075XP0	7.500	9.000	8.055	8.445	6,323	9,870	19,568	9,310	23,280	38,410	3.40
WKF080XP0	8.000	9.500	8.555	8.945	6,535	10,260	21,453	9,880	24,690	43,200	3.50
WKF090XP0	9.000	10.500	9.555	9.945	6,947	11,030	25,410	11,000	27,510	53,640	3.90
WKF100XP0	10.000	11.500	10.555	10.945	7,342	11,770	29,608	12,130	30,330	65,210	4.30
WKF110XP0	11.000	12.500	11.555	11.945	7,721	12,490	34,032	13,260	33,150	77,910	4.80
WKF120XP0	12.000	13.500	12.555	12.945	8,084	13,190	38,666	14,390	35,970	91,730	5.20
WKF140XP0	14.000	15.500	14.555	14.945	8,775	14,530	48,556	16,650	41,620	122,800	6.00
WKF160XP0	16.000	17.500	16.555	16.945	9,421	15,820	59,200	18,900	47,260	158,300	7.10
WKF180XP0	18.000	19.500	18.555	18.945	10,028	17,060	70,537	21,160	52,900	198,400	7.90
WKF200XP0	20.000	21.500	20.555	20.945	10,602	18,250	82,528	23,420	58,550	243,000	8.90
WKF250XP0	25.000	26.500	25.555	25.945	11,909	21,070	115,037	29,060	72,650	374,200	10.90
WKF300XP0	30.000	31.500	30.555	30.945	13,065	23,720	150,708	34,700	86,760	533,600	13.00
WKF350XP0	35.000	36.500	35.555	35.945	14,100	26,220	189,106	40,350	100,900	721,200	15.10
WKF400XP0	40.000	41.500	40.555	40.945	15,034	28,620	229,832	45,990	115,000	937,100	17.20

Thin Section Ball Bearing

WKG Series — Four-Points Contact

- **Conrad assembly**
- **One-piece snap-over cage**
- **1/2" steel balls**
- **Support multiple load at the same time**
- **Able to replace two bearings with a single bearing**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) "F" is the maximum shaft or housing fillet radius the bearing corners will clear.

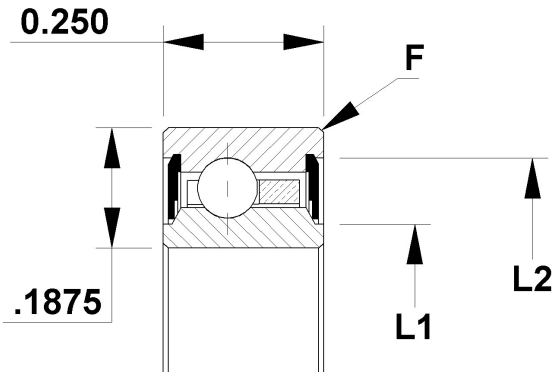
F_3 = 0.080 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings[1]						Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic			Static[2]			
	Bore	OD	L1	L2	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	
WKG040XP0	4.000	6.000	4.742	5.258	7,979	11,260	14,966	8,210	20,520	20,520	3.60
WKG042XP0	4.250	6.250	4.992	5.508	7,917	11,260	15,592	8,210	20,520	21,550	3.80
WKG045XP0	4.500	6.500	5.242	5.758	8,205	11,750	16,930	8,760	21,890	24,080	4.00
WKG047XP0	4.750	6.750	5.492	6.008	8,487	12,230	18,306	9,300	23,260	26,740	4.10
WKG050XP0	5.000	7.000	5.742	6.258	8,762	12,710	19,721	9,850	24,620	29,550	4.30
WKG055XP0	5.500	7.500	6.242	6.758	8,979	13,180	21,896	10,400	25,990	33,790	4.70
WKG060XP0	6.000	8.000	6.742	7.258	9,503	14,090	24,956	11,490	28,730	40,220	5.10
WKG065XP0	6.500	8.500	7.242	7.758	9,713	14,530	27,327	12,040	30,100	45,140	5.40
WKG070XP0	7.000	9.000	7.742	8.258	10,208	15,400	30,636	13,130	32,830	52,530	5.80
WKG075XP0	7.500	9.500	8.242	8.758	10,410	15,820	33,196	13,680	34,200	58,140	6.10
WKG080XP0	8.000	10.000	8.742	9.258	10,882	16,650	36,743	14,770	36,940	66,480	6.50
WKG090XP0	9.000	11.000	9.742	10.258	11,526	17,870	43,240	16,420	41,040	82,080	7.20
WKG100XP0	10.000	12.000	10.742	11.258	12,147	19,040	50,124	18,060	45,140	99,320	7.90
WKG110XP0	11.000	13.000	11.742	12.258	12,739	20,180	57,347	19,700	49,250	118,200	8.60
WKG120XP0	12.000	14.000	12.742	13.258	13,315	21,280	64,935	21,340	53,350	138,700	9.30
WKG140XP0	14.000	16.000	14.742	15.258	14,404	23,410	81,056	24,620	61,560	184,700	10.80
WKG160XP0	16.000	18.000	16.742	17.258	15,425	25,450	98,373	27,910	69,770	237,200	12.30
WKG180XP0	18.000	20.000	18.742	19.258	16,386	27,410	116,793	31,190	77,980	296,300	13.70
WKG200XP0	20.000	22.000	20.742	21.258	17,293	29,300	136,238	34,470	86,180	362,000	15.80
WKG220XP0	22.000	24.000	22.742	23.258	18,152	31,130	156,625	37,760	94,390	434,200	17.30
WKG250XP0	25.000	27.000	25.742	26.258	19,360	33,780	188,838	42,680	106,700	554,900	19.50
WKG300XP0	30.000	32.000	30.742	31.258	21,200	37,980	246,541	50,890	127,200	788,800	23.30
WKG350XP0	35.000	37.000	35.742	36.258	22,845	41,970	308,527	59,100	147,700	1,064,000	27.10
WKG400XP0	40.000	42.000	40.742	41.258	24,332	45,770	374,256	67,310	168,300	1,380,000	30.80

Thin Section Ball Bearing

WJHA Series — Radial Contact, Sealed

- **Conrad assembly**
- **One-piece snap-over cage**
- **3/32” steel balls**
- **Support radial and both directions of axial load**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) Torque data shown are for single bearing with standard internal fit-up, standard lubricant at room temperature, and under 5 lbs thrust load.
5) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

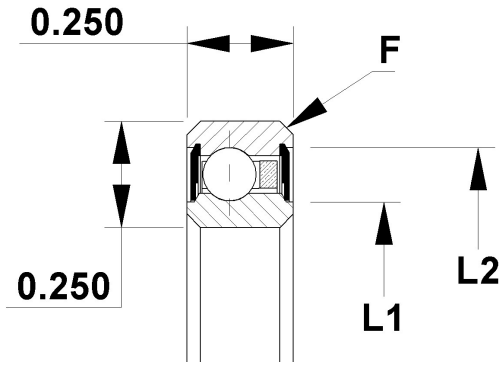
F_5 = 0.015 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings in Pounds$_1$		Limiting Speed (RPM)	Maximum Torque with No Load (in-oz)$_4$	Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic Radial$_3$	Static$_2$ Radial			
	Bore	OD	L1	L2					
WJHA10CL0	1.000	1.375	1.108	1.274	558	290	6,110	5	0.035
WJHA15CL0	1.500	1.875	1.608	1.774	632	400	4,300	5	0.052
WJHA17CL0	1.750	2.125	1.858	2.024	663	460	3,750	6	0.060

Thin Section Ball Bearing

WJA Series — Radial Contact, Sealed

- **Conrad assembly**
- **One-piece snap-over cage**
- **1/8” steel balls**
- **Support radial and both directions of axial load**



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3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) Torque data shown are for single bearing with standard internal fit-up, standard lubricant at room temperature, and under 5 lbs thrust load.
5) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

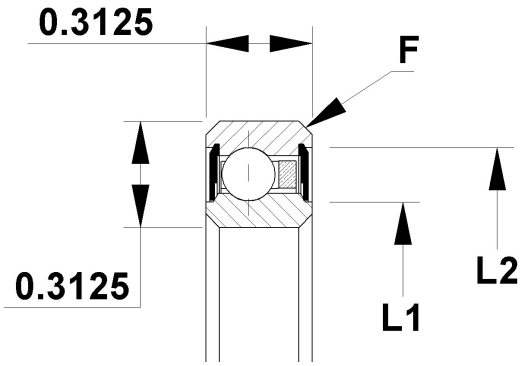
F_5 = 0.025 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings in Pounds$_1$		Limiting Speed (RPM)	Maximum Torque with No Load (in-oz)$_4$	Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic Radial$_3$	Static$_2$ Radial			
	Bore	OD	L1	L2					
WJA020CP0	2.000	2.500	2.148	2.356	1,012	680	3,220	6	0.10
WJA025CP0	2.500	3.000	2.648	2.856	1,094	830	2,630	8	0.12
WJA030CP0	3.000	3.500	3.148	3.356	1,166	990	2,230	12	0.14
WJA035CP0	3.500	4.000	3.648	3.856	1,230	1,140	1,930	16	0.17
WJA040CP0	4.000	4.500	4.148	4.356	1,289	1,290	1,700	20	0.19
WJA042CP0	4.250	4.750	4.398	4.606	1,317	1,370	1,610	24	0.20
WJA045CP0	4.500	5.000	4.648	4.856	1,344	1,440	1,520	28	0.21
WJA047CP0	4.750	5.250	4.898	5.106	1,369	1,520	1,450	32	0.22
WJA050CP0	5.000	5.500	5.148	5.356	1,394	1,590	1,380	36	0.23
WJA055CP0	5.500	6.000	5.648	5.856	1,442	1,750	1,260	44	0.25
WJA060CP0	6.000	6.500	6.148	6.356	1,487	1,900	1,160	52	0.28
WJA065CP0	6.500	7.000	6.648	6.856	1,530	2,050	1,070	61	0.30
WJA070CP0	7.000	7.500	7.148	7.356	1,571	2,200	1,000	70	0.31
WJA075CP0	7.500	8.000	7.648	7.856	1,610	2,350	930	80	0.34

Thin Section Ball Bearing

WJB Series — Radial Contact, Sealed

- **Conrad assembly**
- **One-piece snap-over cage**
- **5/32” steel balls**
- **Support radial and both directions of axial load**



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2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) Torque data shown are for single bearing with standard internal fit-up, standard lubricant at room temperature, and under 5 lbs thrust load.
5) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

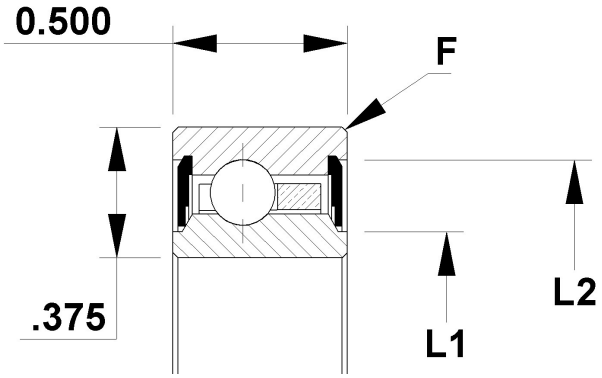
F_5 = 0.040 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings in Pounds$_1$		Limiting Speed (RPM)	Maximum Torque with No Load (in-oz)$_4$	Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic Radial$_3$	Static$_2$ Radial			
	Bore	OD	L1	L2					
WJB020CP0	2.000	2.625	2.199	2.425	1,431	930	3,130	6	0.15
WJB025CP0	2.500	3.125	2.699	2.925	1,549	1,140	2,580	8	0.19
WJB030CP0	3.000	3.625	3.199	3.425	1,651	1,340	2,190	12	0.22
WJB035CP0	3.500	4.125	3.699	3.925	1,743	1,540	1,900	16	0.27
WJB040CP0	4.000	4.625	4.199	4.425	1,827	1,750	1,630	20	0.30
WJB042CP0	4.250	4.875	4.449	4.675	1,853	1,830	1,600	24	0.31
WJB045CP0	4.500	5.125	4.699	4.925	1,904	1,950	1,500	28	0.34
WJB047CP0	4.750	5.375	4.949	5.175	1,928	2,030	1,430	32	0.35
WJB050CP0	5.000	5.625	5.199	5.425	1,976	2,150	1,360	36	0.37
WJB055CP0	5.500	6.125	5.699	5.925	2,044	2,360	1,240	44	0.40
WJB060CP0	6.000	6.625	6.199	6.425	2,108	2,560	1,150	52	0.44
WJB065CP0	6.500	7.125	6.699	6.925	2,168	2,760	1,060	61	0.47

Thin Section Ball Bearing

WJU Series — Radial Contact, Sealed

- **Conrad assembly**
- **One-piece snap-over cage**
- **3/16” steel balls**
- **Support radial and both directions of axial load**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) Torque data shown are for single bearing with standard internal fit-up, standard lubricant at room temperature, and under 5 lbs thrust load.
5) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

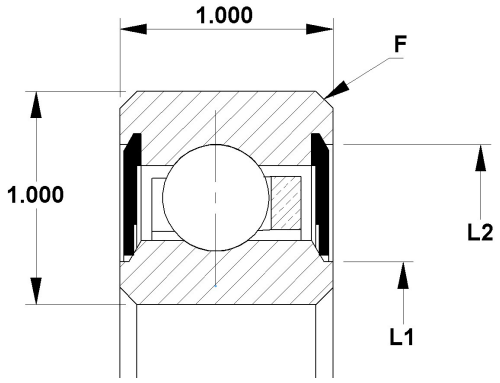
F_5 = 0.015 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings in Pounds[1]		Limiting Speed (RPM)	Maximum Torque with No Load (in-oz)[4]	Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic Radial[3]	Static[2] Radial			
	Bore	OD	L1	L2					
WJU040CP0	4.000	4.750	4.150	4.543	2,321	2,100	1,640	2.9	0.55
WJU042CP0	4.250	5.000	4.400	4.793	2,370	2,220	1,520	3.2	0.58
WJU045CP0	4.500	5.250	4.650	5.043	2,418	2,340	1,440	3.5	0.61
WJU047CP0	4.750	5.500	4.900	5.293	2,464	2,460	1,360	3.9	0.65
WJU050CP0	5.000	5.750	5.150	5.543	2,509	2,590	1,300	4.3	0.68
WJU055CP0	5.500	6.250	5.650	6.043	2,594	2,830	1,180	5.1	0.74
WJU060CP0	6.000	6.750	6.150	6.543	2,674	3,070	1,080	6.1	0.81
WJU065CP0	6.500	7.250	6.650	7.043	2,751	3,315	1,000	7.0	0.87
WJU070CP0	7.000	7.750	7.150	7.543	2,823	3,550	920	8.1	0.93
WJU075CP0	7.500	8.250	7.650	8.043	2,893	3,790	860	9.2	0.99
WJU080CP0	8.000	8.750	8.150	8.543	2,960	4,030	810	10.4	1.06
WJU085CP0	8.500	9.250	8.650	9.037	3,024	4,270	770	11.7	1.12
WJU090CP0	9.000	9.750	9.150	9.543	3,085	4,510	720	13.0	1.18
WJU100CP0	10.000	10.750	10.150	10.543	3,203	4,990	650	16.0	1.31
WJU110CP0	11.000	11.750	11.150	11.543	3,313	5,470	590	19.2	1.43
WJU120CP0	12.000	12.750	12.150	12.543	3,417	5,950	540	22.8	1.56

Thin Section Ball Bearing

WJG Series — Radial Contact, Sealed

- **Conrad assembly**
- **One-piece snap-over cage**
- **1/2” steel balls**
- **Support radial and both directions of axial load**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Radial load ratings are calculated per ISO 281:1990 and included for comparison only.
4) Torque data shown are for single bearing with standard internal fit-up, standard lubricant at room temperature, and under 5 lbs thrust load.
5) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

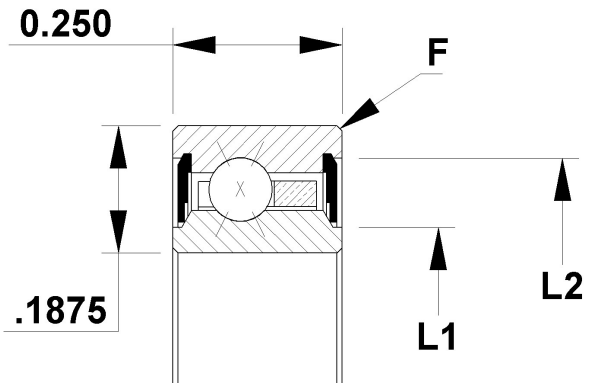
F_5 = 0.0 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings in Pounds$_1$		Limiting Speed (RPM)	Maximum Torque with No Load (in-oz)$_4$	Approx. Weight in lbs.
	Bearing Size		Land Diameters		Dynamic Radial$_3$	Static$_2$ Radial			
	Bore	OD	L1	L2					
WJG070CP0	7.000	9.000	7.554	8.602	11,705	13,130	240	17	5.80
WJG075CP0	7.500	9.500	8.054	9.102	11,835	13,680	225	19	6.10
WJG080CP0	8.000	10.000	8.554	9.602	12,266	14,770	210	21	6.50
WJG090CP0	9.000	11.000	9.554	10.602	12,782	16,420	190	26	7.20
WJG100CP0	10.000	12.000	10.554	11.602	13,261	18,060	175	32	7.90
WJG110CP0	11.000	13.000	11.554	12.602	13,710	19,700	160	38	8.60
WJG120CP0	12.000	14.000	12.554	13.602	14,133	21,340	140	44	9.30
WJG140CP0	14.000	16.000	14.554	15.602	14,916	24,620	125	59	10.80
WJG160CP0	16.000	18.000	16.554	17.602	15,631	27,910	110	76	12.30
WJG180CP0	18.000	20.000	18.554	19.602	16,291	31,190	100	95	13.70
WJG200CP0	20.000	22.000	20.554	21.602	16,907	34,470	90	115	15.80
WJG220CP0	22.000	24.000	22.554	23.602	17,486	37,760	80	139	16.80
WJG250CP0	25.000	27.000	25.554	26.602	18,295	42,680	75	177	19.50
WJG300CP0	30.000	32.000	30.554	31.602	19,519	50,890	60	252	23.30
WJG350CP0	35.000	37.000	35.554	36.602	20,622	59,100	55	339	27.10
WJG400CP0	40.000	42.000	40.554	41.602	21,630	67,310	50	440	30.80

Thin Section Ball Bearing

WJHA Series — Four-Points Contact, Sealed

- **Conrad assembly**
- **One-piece snap-over cage**
- **3/32” steel balls**
- **Support multiple load at the same time**
- **Able to replace two bearings with a single bearing**



F_4 = 0.015 x 45^0 Chamfer (4 PL)

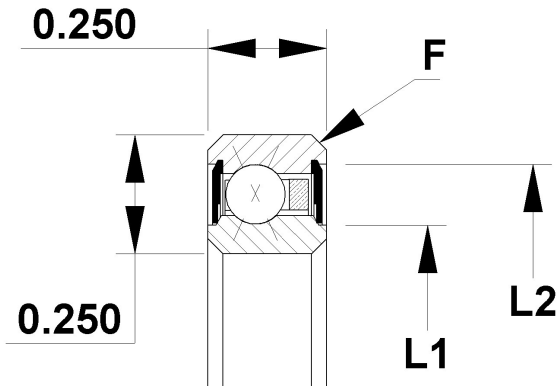
1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Torque data shown are for single bearing with standard internal fit-up, standard lubricant at room temperature, and under 5 lbs thrust load.
4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

WJB Bearing P/N	Dimensions in Inches				Load Ratings[1]						Limiting Speed (RPM)	Max. Torque with No Load (in-oz)[3]	Approx. Weight in lbs.
	Bearing Size		Land Dia.		Dynamic			Static[2]					
	Bore	OD	L1	L2	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)			
WJHA10XL0	1.000	1.375	1.108	1.274	247	370	110	290	730	170	3,000	5	0.035
WJHA15XL0	1.500	1.875	1.608	1.774	296	460	187	400	1,000	340	2,000	5	0.052
WJHA17XL0	1.750	2.125	1.858	2.024	319	500	232	460	1,140	440	1,710	6	0.060

Thin Section Ball Bearing

WJA Series — Four-Points Contact, Sealed

- **Conrad assembly**
- **One-piece snap-over cage**
- **1/8” steel balls**
- **Support multiple load at the same time**
- **Able to replace two bearings with a single bearing**



F_4 = 0.025 x 45^0 Chamfer (4 PL)

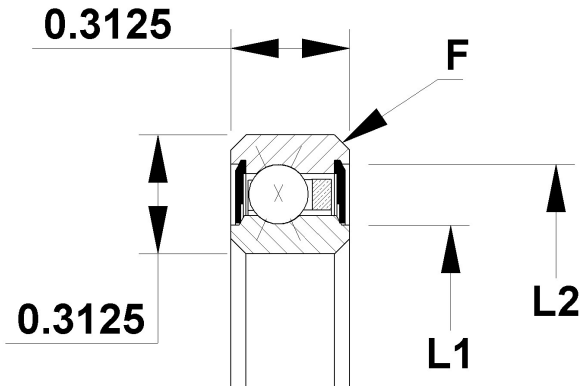
1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Torque data shown are for single bearing with standard internal fit-up, standard lubricant at room temperature, and under 5 lbs thrust load.
4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

WJB Bearing P/N	Dimensions in Inches				Load Ratings[1]						Limiting Speed (RPM)	Max. Torque with No Load (in-oz)[3]	Approx. Weight in lbs.
	Bearing Size		Land Dia.		Dynamic			Static[2]					
	Bore	OD	L1	L2	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)			
WJA020XP0	2.000	2.500	2.148	2.356	514	790	434	680	1,710	770	1,500	6	0.10
WJA025XP0	2.500	3.000	2.648	2.856	583	910	601	830	2,090	1,150	1,200	8	0.12
WJA030XP0	3.000	3.500	3.148	3.356	643	1,010	785	990	2,470	1,600	830	12	0.14
WJA035XP0	3.500	4.000	3.648	3.856	701	1,110	986	1,140	2,850	2,130	710	16	0.17
WJA040XP0	4.000	4.500	4.148	4.356	756	1,210	1,205	1,290	3,220	2,740	620	20	0.19
WJA042XP0	4.250	4.750	4.398	4.606	783	1,260	1,321	1,370	3,410	3,070	580	24	0.20
WJA045XP0	4.500	5.000	4.648	4.856	809	1,310	1,441	1,440	3,600	3,420	550	28	0.21
WJA047XP0	4.750	5.250	4.898	5.106	834	1,350	1,565	1,520	3,790	3,790	520	32	0.22
WJA050XP0	5.000	5.500	5.148	5.356	859	1,400	1,693	1,590	3,980	4,180	500	36	0.23
WJA055XP0	5.500	6.000	5.648	5.856	908	1,480	1,959	1,750	4,360	5,020	450	44	0.25
WJA060XP0	6.000	6.500	6.148	6.356	955	1,570	2,240	1,900	4,740	5,930	330	52	0.28
WJA065XP0	6.500	7.000	6.648	6.856	1,001	1,650	2,535	2,050	5,120	6,910	300	61	0.30
WJA070XP0	7.000	7.500	7.148	7.356	1,046	1,730	2,844	2,200	5,500	7,980	280	70	0.31
WJA075XP0	7.500	8.000	7.648	7.856	1,089	1,810	3,165	2,350	5,880	9,120	260	80	0.34

Thin Section Ball Bearing

WJB Series — Four-Points Contact, Sealed

- **Conrad assembly**
- **One-piece snap-over cage**
- **5/32” steel balls**
- **Support multiple load at the same time**
- **Able to replace two bearings with a single bearing**



F_4 = 0.040 x 45^0 Chamfer (4 PL)

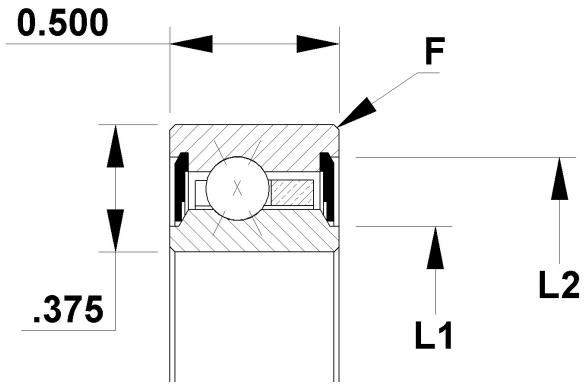
1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Torque data shown are for single bearing with standard internal fit-up, standard lubricant at room temperature, and under 5 lbs thrust load.
4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

WJB Bearing P/N	Dimensions in Inches				Load Ratings[1]						Limiting Speed (RPM)	Max. Torque with No Load (in-oz)[3]	Approx. Weight in lbs.
	Bearing Size		Land Dia.		Dynamic			Static[2]					
	Bore	OD	L1	L2	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)			
WJB020XP0	2.000	2.625	2.199	2.425	758	1,130	658	930	2,340	1,080	1,500	6	0.15
WJB025XP0	2.500	3.125	2.699	2.925	848	1,290	895	1,140	2,840	1,600	1,200	8	0.19
WJB030XP0	3.000	3.625	3.199	3.425	933	1,440	1,159	1,340	3,350	2,220	1,000	12	0.22
WJB035XP0	3.500	4.125	3.699	3.925	1,014	1,590	1,450	1,540	3,860	2,940	710	16	0.27
WJB040XP0	4.000	4.625	4.199	4.425	1,091	1,720	1,764	1,750	4,370	3,770	620	20	0.30
WJB042XP0	4.250	4.875	4.449	4.675	1,120	1,780	1,917	1,830	4,570	4,170	590	24	0.31
WJB045XP0	4.500	5.125	4.699	4.925	1,165	1,850	2,103	1,950	4,880	4,690	550	28	0.34
WJB047XP0	4.750	5.375	4.949	5.175	1,193	1,900	2,265	2,030	5,080	5,140	520	32	0.35
WJB050XP0	5.000	5.625	5.199	5.425	1,236	1,980	2,463	2,150	5,380	5,720	500	36	0.37
WJB055XP0	5.500	6.125	5.699	5.925	1,304	2,100	2,844	2,360	5,890	6,850	450	44	0.40
WJB060XP0	6.000	6.625	6.199	6.425	1,371	2,220	3,247	2,560	6,400	8,080	410	52	0.44
WJB065XP0	6.500	7.125	6.699	6.925	1,435	2,340	3,668	2,760	6,910	9,410	380	61	0.47

Thin Section Ball Bearing

WJU Series — Four-Points Contact, Sealed

- **Conrad assembly**
- **One-piece snap-over cage**
- **3/16” steel balls**
- **Support multiple load at the same time**
- **Able to replace two bearings with a single bearing**



F_4 = 0.015 x 45^0 Chamfer (4 PL)

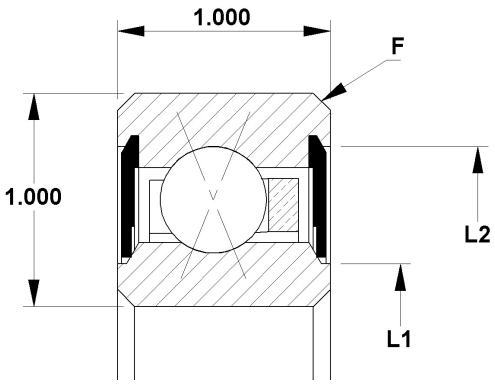
1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Torque data shown are for single bearing with standard internal fit-up, standard lubricant at room temperature, and under 5 lbs thrust load.
4) “F” is the maximum shaft or housing fillet radius the bearing corners will clear.

WJB Bearing P/N	Dimensions in Inches				Load Ratings[1]						Limiting Speed (RPM)	Max. Torque with No Load (in-oz)[3]	Approx. Weight in lbs.
	Bearing Size		Land Dia.		Dynamic			Static[2]					
	Bore	OD	L1	L2	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)			
WJU040XP0	4.000	4.750	4.150	4.543	1,417	2,210	2,326	2,100	5,260	4,600	620	2.9	0.55
WJU042XP0	4.250	5.000	4.400	4.793	1,464	2,290	2,541	2,220	5,560	5,140	590	3.2	0.58
WJU045XP0	4.500	5.250	4.650	5.043	1,510	2,380	2,762	2,340	5,860	5,710	550	3.5	0.61
WJU047XP0	4.750	5.500	4.900	5.293	1,556	2,460	2,991	2,460	6,160	6,320	520	3.9	0.65
WJU050XP0	5.000	5.750	5.150	5.543	1,600	2,540	3,226	2,590	6,460	6,950	500	4.3	0.68
WJU055XP0	5.500	6.250	5.650	6.043	1,687	2,690	3,717	2,830	7,060	8,300	450	5.1	0.74
WJU060XP0	6.000	6.750	6.150	6.543	1,770	2,840	4,234	3,070	7,660	9,770	410	6.1	0.81
WJU065XP0	6.500	7.250	6.650	7.043	1,851	2,990	4,775	3,310	8,270	11,370	380	7.0	0.87
WJU070XP0	7.000	7.750	7.150	7.543	1,931	3,130	5,341	3,550	8,870	13,080	350	8.1	0.93
WJU075XP0	7.500	8.250	7.650	8.043	2,007	3,270	5,930	3,790	9,470	14,910	330	9.2	0.99
WJU080XP0	8.000	8.750	8.150	8.543	2,082	3,410	6,542	4,030	10,070	16,870	310	10.4	1.06
WJU085XP0	8.500	9.250	8.650	9.043	2,155	3,543	7,176	4,270	10,670	18,940	265	11.7	1.12
WJU090XP0	9.000	9.750	9.150	9.543	2,226	3,670	7,830	4,510	11,270	21,130	220	13.0	1.18
WJU100XP0	10.000	10.750	10.150	10.543	2,364	3,930	9,201	4,990	12,470	25,880	200	16.0	1.31
WJU110XP0	11.000	11.750	11.150	11.543	2,496	4,180	10,651	5,470	13,680	31,110	180	19.2	1.43
WJU120XP0	12.000	12.750	12.150	12.543	2,622	4,420	12,174	5,950	14,880	36,830	160	22.8	1.56

Thin Section Ball Bearing

WJG Series — Four-Points Contact, Sealed

- **Conrad assembly**
- **One-piece snap-over cage**
- **1/2" steel balls**
- **Support multiple load at the same time**
- **Able to replace two bearings with a single bearing**



1) Load capacities listed are not simultaneous.
2) Static capacities are non-brinell limits based on rigid support from the shaft and housing.
3) Torque data shown are for single bearing with standard internal fit-up, standard lubricant at room temperature, and under 5 lbs thrust load.
4) "F" is the maximum shaft or housing fillet radius the bearing corners will clear.

F_4 = 0.080 x 45^0 Chamfer (4 PL)

WJB Bearing P/N	Dimensions in Inches				Load Ratings[1]						Limiting Speed (RPM)	Max. Torque with No Load (in-oz)[3]	Approx. Weight in lbs.
	Bearing Size		Land Dia.		Dynamic			Static[2]					
	Bore	OD	L1	L2	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)	Radial (lbs)	Thrust (lbs)	Moment (in-lbs)			
WJG070XP0	7.000	9.000	7.554	8.602	10,208	15,400	30,636	13,130	32,830	52,530	240	17	5.80
WJG075XP0	7.500	9.500	8.054	9.102	10,410	15,820	33,196	13,680	34,200	58,140	225	19	6.10
WJG080XP0	8.000	10.000	8.554	9.602	10,882	16,650	36,743	14,770	36,940	66,480	210	21	6.50
WJG090XP0	9.000	11.000	9.554	10.602	11,526	17,870	43,240	16,420	41,040	82,080	190	26	7.20
WJG100XP0	10.000	12.000	10.554	11.602	12,147	19,040	50,124	18,060	45,140	99,320	175	32	7.90
WJG110XP0	11.000	13.000	11.554	12.602	12,739	20,180	57,347	19,700	49,250	118,200	160	38	8.60
WJG120XP0	12.000	14.000	12.554	13.602	13,315	21,280	64,935	21,340	53,350	138,700	140	44	9.30
WJG140XP0	14.000	16.000	14.554	15.602	14,404	34,410	81,056	24,620	61,560	184,700	125	59	10.80
WJG160XP0	16.000	18.000	16.554	17.602	15,425	25,450	98,373	27,910	69,770	237,200	110	76	12.30
WJG180XP0	18.000	20.000	18.554	19.602	16,386	27,410	116,793	31,190	77,980	296,300	100	95	13.70
WJG200XP0	20.000	22.000	20.554	21.602	17,293	29,300	136,238	34,470	86,180	362,000	90	115	15.80
WJG220XP0	22.000	24.000	22.554	23.602	18,152	31,130	156,625	37,750	94,390	434,200	80	138	16.80
WJG250XP0	25.000	27.000	25.554	26.602	19,360	33,780	188,838	42,680	106,700	554,900	75	177	19.50
WJG300XP0	30.000	32.000	30.554	31.602	21,200	37,980	246,541	50,890	127,200	788,800	60	252	23.30
WJG350XP0	35.000	37.000	35.554	36.602	22,845	41,970	308,527	59,100	147,700	1,064,000	55	339	27.10
WJG400XP0	40.000	42.000	40.554	41.602	24,332	45,770	374,256	63,310	168,300	1,380,000	50	440	30.8

Precision Tolerances and Recommended Fits for Thin Section Bearing in Normal Applications

Type C – Precision Class 1 (Ref. ABEC 1F)												
Bearing Size (Inch Series)	Bearing Diameters		Axial and Radial Run-out		Rotating Shaft or Duplex DF Mounting		Stationary Shaft or Duplex DB Mounting				Bearing Diametral Clearance* Before Installation	
	Bearing Bore Nom. +0.0000	Bearing OD Nom. +0.0000	Inner Race	Outer Race	Shaft Diameter Nom. -0.0000	Housing Bore Nom. -0.0000	Shaft Diameter Nominal		Housing Bore Nominal			
10	–.0004	–.0005	0.0005	0.0008	0.0004	0.0005	–.0004	–.0008	–.0005	–.0010	0.001	0.0016
15	–.0005	–.0005	0.0006	0.0008	0.0005	0.0005	–.0005	–.0010	–.0005	–.0010	0.0012	0.0018
17	–.0006	–.0005	0.0008	0.001	0.0006	0.0005	–.0006	–.0012	–.0005	–.0010	0.0012	0.0024
20	–.0006	–.0005	0.0008	0.001	0.0006	0.0005	–.0006	–.0012	–.0005	–.0010	0.0012	0.0024
25	–.0006	–.0005	0.0008	0.001	0.0006	0.0005	–.0006	–.0012	–.0005	–.0010	0.0012	0.0024
30	–.0006	–.0006	0.0008	0.001	0.0006	0.0006	–.0006	–.0012	–.0006	–.0012	0.0012	0.0024
35	–.0008	–.0006	0.001	0.0012	0.0008	0.0006	–.0008	–.0016	–.0006	–.0012	0.0016	0.0028
40	–.0008	–.0006	0.001	0.0012	0.0008	0.0006	–.0008	–.0016	–.0006	–.0012	0.0016	0.0028
42	–.0008	–.0008	0.001	0.0014	0.0008	0.0008	–.0008	–.0016	–.0008	.–0016	0.0016	0.0028
45	–.0008	–.0008	0.001	0.0014	0.0008	0.0008	–.0008	–.0016	–.0008	–.0016	0.0016	0.0028
47	–.0010	–.0008	0.0012	0.0014	0.001	0.0008	–.0010	–.0020	–.0008	–.0016	0.002	0.0034
50	–.0010	–.0008	0.0012	0.0014	0.001	0.0008	–.0010	–.0020	–.0008	–.0016	0.002	0.0034
55	–.0010	–.0010	0.0012	0.0016	0.001	0.001	–.0010	–.0020	–.0010	–.0020	0.002	0.0034
60	–.0010	–.0010	0.0012	0.0016	0.001	0.001	–.0010	–.0020	–.0010	–.0020	0.002	0.0034
65	–.0010	–.0010	0.0012	0.0016	0.001	0.001	–.0010	–.0020	–.0010	–.0020	0.002	0.0034
70	–.0010	–.0012	0.0012	0.0016	0.001	0.0012	–.0010	–.0020	–.0012	–.0024	0.0024	0.0042
75	–.0012	–.0012	0.0016	0.0018	0.0012	0.0012	–.0012	–.0024	–.0012	–.0024	0.0024	0.0042
80	–.0012	–.0012	0.0016	0.0018	0.0012	0.0012	–.0012	–.0024	–.0012	–.0024	0.0024	0.0042
90	–.0012	–.0012	0.0016	0.0018	0.0012	0.0012	–.0012	–.0024	–.0012	–.0024	0.0024	0.0042
100	–.0014	–.0014	0.0018	0.002	0.0014	0.0014	–.0014	–.0028	–.0014	–.0028	0.0028	0.0048
110	–.0014	–.0014	0.0018	0.002	0.0014	0.0014	–.0014	–.0028	–.0014	–.0028	0.0028	0.0048
120	–.0014	–.0014	0.0018	0.002	0.0014	0.0014	–.0014	–.0028	–.0014	–.0028	0.0028	0.0048
140	–.0016	–.0016	0.0018	0.002	0.0016	0.0016	–.0016	–.0032	–.0016	–.0032	0.0032	0.0052
160	–.0018	–.0018	0.0018	0.002	0.0018	0.0018	–.0018	–.0036	–.0018	–.0036	0.0036	0.0056
180	–.0018	–.0018	0.002	0.002	0.0018	0.0018	–.0018	–.0036	–.0018	–.0036	0.0036	0.0056
200	–.0020	–.0020	0.002	0.002	0.002	0.002	–.0020	–.0040	–0020	–.0040	0.004	0.006
210	–.0020	–.0020	0.002	0.002	0.002	0.002	–.0020	–.0040	–0020	–.0040	0.004	0.006
220	–.0020	–.0020	0.002	0.002	0.002	0.002	–.0020	–.0040	–0020	–.0040	0.004	0.006
250	–.0030	–.0030	0.002	0.002	0.003	0.003	–.0030	–.0060	–.0030	–.0060	0.006	0.008
300	–.0030	–.0030	0.002	0.002	0.003	0.003	–.0030	–.0060	–.0030	–.0060	0.006	0.008
350	–.0040	–.0040	0.002	0.002	0.004	0.004	–.0040	–.0080	–.0040	–.0080	0.008	0.01
400	–.0040	–.0040	0.002	0.002	0.004	0.004	–.0040	–.0080	–.0040	–.0080	0.008	0.01

All dimensions are in inches

* Diametral clearance after installation theoretically can range rather widely if all contributing bearing, housing, and shaft tolerances are at either of their extremes.

Listed shaft and housing diameters are for steel supports with standard bearing diametral clearance. Recommended shaft and housing diameters can change greatly based on orientation, temperature, speed, non-standard diametral clearances, and desired performance characteristics. Contact Kaydon for design assistance when required.

Precision Tolerances and Recommended Fits for Thin Section Bearing in Normal Applications

Type X & A – Precision Class 1 (Ref. ABEC 1F)

Bearing Size (Inch Series)	Bearing Diameters		Axial and Radial Run-out		Rotating Shaft or Duplex DF Mounting		Stationary Shaft or Duplex DB Mounting				Bearing Diametral Clearance* (Type "X" only) Before Installation	
							Shaft Diameter Nominal		Housing Bore Nominal			
	Bearing Bore Nom. +0.0000	Bearing OD Nom. +0.0000	Inner Race	Outer Race	Shaft Diameter Nom. -0.0000	Housing Bore Nom. -0.0000						
10	–.0004	–.0005	0.0003	0.0004	0.0004	0.0005	–.0004	–.0008	–.0005	–.0010	0.0010	0.0015
15	–.0005	–.0005	0.0004	0.0004	0.0005	0.0005	–.0005	–.0010	–.0005	–.0010	0.0012	0.0017
17	–.0006	–.0005	0.0005	0.0005	0.0006	0.0005	–.0006	–.0012	–.0005	–.0010	0.0012	0.0022
20	–.0006	–.0005	0.0005	0.0005	0.0006	0.0005	–.0006	–.0012	–.0005	–.0010	0.0012	0.0022
25	–.0006	–.0005	0.0005	0.0005	0.0006	0.0005	–.0006	–.0012	–.0005	–.0010	0.0012	0.0022
30	–.0006	–.0006	0.0006	0.0006	0.0006	0.0006	–.0006	–.0012	–.0006	–.0012	0.0012	0.0022
35	–.0008	–.0006	0.0006	0.0006	0.0008	0.0006	–.0008	–.0016	–.0006	–.0012	0.0016	0.0026
40	–.0008	–.0006	0.0006	0.0006	0.0008	0.0006	–.0008	–.0016	–.0006	–.0012	0.0016	0.0026
42	–.0008	–.0008	0.0008	0.0008	0.0008	0.0008	–.0008	–.0016	–.0008	.–0016	0.0016	0.0026
45	–.0008	–.0008	0.0008	0.0008	0.0008	0.0008	–.0008	–.0016	–.0008	–.0016	0.0016	0.0026
47	–.0010	–.0008	0.0008	0.0008	0.0010	0.0008	–.0010	–.0020	–.0008	–.0016	0.0020	0.0030
50	–.0010	–.0008	0.0008	0.0008	0.0010	0.0008	–.0010	–.0020	–.0008	–.0016	0.0020	0.0030
55	–.0010	–.0010	0.0010	0.0010	0.0010	0.0010	–.0010	–.0020	–.0010	–.0020	0.0020	0.0030
60	–.0010	–.0010	0.0010	0.0010	0.0010	0.0010	–.0010	–.0020	–.0010	–.0020	0.0020	0.0030
65	–.0010	–.0010	0.0010	0.0010	0.0010	0.0010	–.0010	–.0020	–.0010	–.0020	0.0020	0.0030
70	–.0010	–.0012	0.0010	0.0010	0.0010	0.0012	–.0010	–.0020	–.0012	–.0024	0.0024	0.0034
75	–.0012	–.0012	0.0012	0.0012	0.0012	0.0012	–.0012	–.0024	–.0012	–.0024	0.0024	0.0034
80	–.0012	–.0012	0.0012	0.0012	0.0012	0.0012	–.0012	–.0024	–.0012	–.0024	0.0024	0.0034
90	–.0012	–.0012	0.0012	0.0012	0.0012	0.0012	–.0012	–.0024	–.0012	–.0024	0.0024	0.0034
100	–.0014	–.0014	0.0014	0.0014	0.0014	0.0014	–.0014	–.0028	–.0014	–.0028	0.0028	0.0038
110	–.0014	–.0014	0.0014	0.0014	0.0014	0.0014	–.0014	–.0028	–.0014	–.0028	0.0028	0.0038
120	–.0014	–.0014	0.0014	0.0014	0.0014	0.0014	–.0014	–.0028	–.0014	–.0028	0.0028	0.0038
140	–.0014	–.0014	0.0014	0.0014	0.0014	0.0014	–.0014	–.0028	–.0014	–.0028	0.0028	0.0038
160	–.0016	–.0016	0.0016	0.0016	0.0016	0.0016	–.0016	–.0032	–.0016	–.0032	0.0032	0.0042
180	–.0016	–.0016	0.0016	0.0016	0.0016	0.0016	–.0016	–.0032	–.0016	–.0032	0.0032	0.0042
200	–.0018	–.0018	0.0018	0.0018	0.0018	0.0018	–.0018	–.0036	–0018	–.0036	0.0036	0.0046
210	–.0018	–.0018	0.0018	0.0018	0.0018	0.0018	–.0018	–.0036	–0018	–.0036	0.0036	0.0046
220	–.0018	–.0018	0.0018	0.0018	0.0018	0.0018	–.0018	–.0036	–0018	–.0036	0.0036	0.0046
250	–.0018	–.0018	0.0018	0.0018	0.0018	0.0018	–.0018	–.0036	–.0018	–.0036	0.0036	0.0046
300	–.0018	–.0018	0.0018	0.0018	0.0018	0.0018	–.0018	–.0036	–.0018	–.0036	0.0036	0.0046
350	–.0020	–.0020	0.0020	0.0020	0.0020	0.0020	–.0020	–.0040	–.0020	–.0040	0.0040	0.0050
400	–.0020	–.0020	0.0020	0.0020	0.0020	0.0020	–.0020	–.0040	–.0020	–.0040	0.0040	0.0050

All dimensions are in inches

* Diametral clearance after installation theoretically can range rather widely if all contributing bearing, housing, and shaft tolerances are at either of their extremes.

Listed shaft and housing diameters are for steel supports with standard bearing diametral clearance. Recommended shaft and housing diameters can change greatly based on orientation, temperature, speed, non-standard diametral clearances, and desired performance characteristics. Contact Kaydon for design assistance when required.

Precision Tolerances and Recommended Fits for Thin Section Bearing in Normal Applications

Type C, X & A – Precision Class 3 (Ref. ABEC 3F)

Bearing Size (Inch Series)	Bearing Diameters		Axial and Radial Run-out		Rotating Shaft or Duplex DF Mounting		Stationary Shaft or Duplex DB Mounting				Bearing Diametral Clearance* (Type "X' & "C" only) Before Installation	
							Shaft Diameter Nominal		Housing Bore Nominal			
	Bearing Bore Nom. +0.0000	Bearing OD Nom. +0.0000	Inner Race	Outer Race	Shaft Diameter Nom. -0.0000	Housing Bore Nom. -0.0000						
10	–.0002	–.0003	0.0003	0.0004	0.0002	0.0003	–.0002	–.0004	–.0003	–.0006	0.0007	0.0011
15	–.0003	–.0003	0.0004	0.0004	0.0003	0.0003	–.0003	–.0006	–.0003	–.0006	0.0008	0.0012
17	–.0004	–.0004	0.0004	0.0005	0.0004	0.0004	–.0004	–.0008	–.0004	–.0008	0.0008	0.0018
20	–.0004	–.0004	0.0004	0.0005	0.0004	0.0004	–.0004	–.0008	–.0004	–.0008	0.0008	0.0018
25	–.0004	–.0004	0.0004	0.0005	0.0004	0.0004	–.0004	–.0008	–.0004	–.0008	0.0008	0.0018
30	–.0004	–.0004	0.0004	0.0006	0.0004	0.0004	–.0004	–.0008	–.0004	–.0008	0.0008	0.0018
35	–.0005	–.0004	0.0005	0.0006	0.0005	0.0004	–.0005	–.0010	–.0004	–.0008	0.0010	0.0020
40	–.0005	–.0004	0.0005	0.0006	0.0005	0.0004	–.0005	–.0010	–.0004	–.0008	0.0010	0.0020
42	–.0005	–.0005	0.0005	0.0008	0.0005	0.0005	–.0005	–.0010	–.0005	.–0010	0.0010	0.0020
45	–.0005	–.0005	0.0005	0.0008	0.0005	0.0005	–.0005	–.0010	–.0005	–.0010	0.0010	0.0020
47	–.0006	–.0005	0.0006	0.0008	0.0006	0.0005	–.0006	–.0012	–.0005	–.0010	0.0012	0.0022
50	–.0006	–.0005	0.0006	0.0008	0.0006	0.0005	–.0006	–.0012	–.0005	–.0010	0.0012	0.0022
55	–.0006	–.0006	0.0006	0.0009	0.0006	0.0006	–.0006	–.0012	–.0006	–.0012	0.0012	0.0022
60	–.0006	–.0006	0.0006	0.0009	0.0006	0.0006	–.0006	–.0012	–.0006	–.0012	0.0012	0.0022
65	–.0006	–.0006	0.0006	0.0009	0.0006	0.0006	–.0006	–.0012	–.0006	–.0012	0.0012	0.0022
70	–.0006	–.0007	0.0006	0.0010	0.0006	0.0007	–.0006	–.0012	–.0007	–.0014	0.0014	0.0024
75	–.0007	–.0007	0.0008	0.0010	0.0007	0.0007	–.0007	–.0014	–.0007	–.0014	0.0014	0.0024
80	–.0007	–.0007	0.0008	0.0010	0.0007	0.0007	–.0007	–.0014	–.0007	–.0014	0.0014	0.0024
90	–.0007	–.0007	0.0008	0.0010	0.0007	0.0007	–.0007	–.0014	–.0007	–.0014	0.0014	0.0024
100	–.0008	–.0008	0.0010	0.0012	0.0008	0.0008	–.0008	–.0016	–.0008	–.0016	0.0016	0.0026
110	–.0008	–.0008	0.0010	0.0012	0.0008	0.0008	–.0008	–.0016	–.0008	–.0016	0.0016	0.0026
120	–.0008	–.0009	0.0010	0.0014	0.0008	0.0009	–.0008	–.0016	–.0009	–.0018	0.0018	0.0028
140	–.0008	–.0009	0.0012	0.0014	0.0008	0.0009	–.0008	–.0016	–.0009	–.0018	0.0018	0.0028
160	–.0009	–.0010	0.0014	0.0016	0.0009	0.0010	–.0009	–.0018	–.0010	–.0020	0.0020	0.0030
180	–.0009	–.0010	0.0014	0.0016	0.0009	0.0010	–.0009	–.0018	–.0010	–.0020	0.0020	0.0030
200	–.0010	–.0012	0.0016	0.0018	0.0010	0.0012	–.0010	–.0020	–.0012	–.0024	0.0024	0.0034

All dimensions are in inches

* Diametral clearance after installation theoretically can range rather widely if all contributing bearing, housing, and shaft tolerances are at either of their extremes.

Listed shaft and housing diameters are for steel supports with standard bearing diametral clearance. Recommended shaft and housing diameters can change greatly based on orientation, temperature, speed, non-standard diametral clearances, and desired performance characteristics. Contact Kaydon for design assistance when required.

Thin Section Ball Bearing

Tolerances and Fits

Precision Tolerances and Recommended Fits for Thin Section Bearing in Normal Applications

Type A, C and X – Precision Class 5 (Ref. ABEC 5F)

Bearing Size (Inch Series)	Bearing Diameters		Axial and Radial Run-out				Rotating Shaft or Duplex DF Mounting		Stationary Shaft or Duplex DB Mounting				Bearing Diametral Clearance* (Type "X" and "C" only) Before Installation	
	Bearing Bore Nom. +0.0000	Bearing OD Nom. +0.0000	Inner Race		Outer Race		Shaft Dia. Nom. -0.0000	Housing Bore Nom. -0.0000	Shaft Diameter Nominal		Housing Bore Nominal			
			Radial	Axial	Radial	Axial								
10	–.0002	–.0002	0.0002	0.0003	0.0002	0.0003	0.0002	0.0002	–.0002	–.0004	–.0002	–.0004	0.0005	0.0009
15	–.0002	–.0002	0.0002	0.0003	0.0002	0.0003	0.0002	0.0002	–.0002	–.0004	–.0002	–.0004	0.0005	0.0009
17	–.0003	–.0003	0.0002	0.0003	0.0003	0.0004	0.0003	0.0003	–.0003	–.0006	–.0003	–.0006	0.0006	0.0012
20	–.0003	–.0003	0.0002	0.0003	0.0003	0.0004	0.0003	0.0003	–.0003	–.0006	–.0003	–.0006	0.0006	0.0012
25	–.0003	–.0003	0.0002	0.0003	0.0003	0.0004	0.0003	0.0003	–.0003	–.0006	–.0003	–.0006	0.0006	0.0012
30	–.0003	–.0003	0.0002	0.0003	0.0004	0.0005	0.0003	0.0003	–.0003	–.0006	–.0003	–.0006	0.0006	0.0012
35	–.0003	–.0003	0.0003	0.0004	0.0004	0.0005	0.0003	0.0003	–.0003	–.0006	–.0003	–.0006	0.0006	0.0012
40	–.0003	–.0003	0.0003	0.0004	0.0004	0.0005	0.0003	0.0003	–.0003	–.0006	–.0003	–.0006	0.0006	0.0012
42	–.0003	–.0004	0.0003	0.0004	0.0004	0.0005	0.0003	0.0004	–.0003	–.0006	–.0004	–.0008	0.0008	0.0014
45	–.0003	–.0004	0.0003	0.0004	0.0004	0.0005	0.0003	0.0004	–.0003	–.0006	–.0004	–.0008	0.0008	0.0014
47	–.0004	–.0004	0.0003	0.0004	0.0004	0.0005	0.0004	0.0004	–.0004	–.0008	–.0004	–.0008	0.0008	0.0014
50	–.0004	–.0004	0.0003	0.0004	0.0004	0.0005	0.0004	0.0004	–.0004	–.0008	–.0004	–.0008	0.0008	0.0014
55	–.0004	–.0005	0.0003	0.0004	0.0005	0.0006	0.0004	0.0005	–.0004	–.0008	–.0005	–.0010	0.0010	0.0016
60	–.0004	–.0005	0.0003	0.0004	0.0005	0.0006	0.0004	0.0005	–.0004	–.0008	–.0005	–.0010	0.0010	0.0016
65	–.0004	–.0005	0.0003	0.0004	0.0005	0.0006	0.0004	0.0005	–.0004	–.0008	–.0005	–.0010	0.0010	0.0016
70	–.0004	–.0005	0.0003	0.0004	0.0005	0.0006	0.0004	0.0005	–.0004	–.0008	–.0005	–.0010	0.0010	0.0016
75	–.0005	–.0005	0.0004	0.0005	0.0005	0.0006	0.0005	0.0005	–.0005	–.0010	–.0005	–.0010	0.0010	0.0016
80	–.0005	–.0005	0.0004	0.0005	0.0005	0.0006	0.0005	0.0005	–.0005	–.0010	–.0005	–.0010	0.0010	0.0016
90	–.0005	–.0005	0.0004	0.0005	0.0005	0.0006	0.0005	0.0005	–.0005	–.0010	–.0005	–.0010	0.0010	0.0016
100	–.0005	–.0005	0.0005	0.0006	0.0006	0.0007	0.0005	0.0005	–.0005	–.0010	–.0005	–.0010	0.0010	0.0016
110	–.0005	–.0005	0.0005	0.0006	0.0006	0.0007	0.0005	0.0005	–.0005	–.0010	–.0005	–.0010	0.0010	0.0016
120	–.0005	–.0006	0.0005	0.0006	0.0007	0.0008	0.0005	0.0006	–.0005	–.0010	–.0006	–.0012	0.0012	0.0018
140	–.0006	–.0006	0.0005	0.0007	0.0007	0.0008	0.0006	0.0006	–.0006	–.0012	–.0006	–.0012	0.0012	0.0018
160	–.0006	–.0007	0.0007	0.0008	0.0008	0.0009	0.0006	0.0007	–.0006	–.0012	–.0007	–.0014	0.0014	0.0020
180	–.0006	–.0007	0.0007	0.0008	0.0008	0.0009	0.0006	0.0007	–.0006	–.0012	–.0007	–.0014	0.0014	0.0020
200	–.0007	–.0008	0.0008	0.0009	0.0009	0.0010	0.0007	0.0008	–.0006	–.0014	–.0007	–.0016	0.0016	0.0022

All dimensions are in inches

* Diametral clearance after installation theoretically can range rather widely if all contributing bearing, housing, and shaft tolerances are at either of their extremes.

Listed shaft and housing diameters are for steel supports with standard bearing diametral clearance. Recommended shaft and housing diameters can change greatly based on orientation, temperature, speed, non-standard diametral clearances, and desired performance characteristics. Contact Kaydon for design assistance when required.

Precision Tolerances and Recommended Fits for Thin Section Bearing in Normal Applications

Type A, C and X – Precision Class 6 (Ref. ABEC 7F)

Bearing Size (Inch Series)	Bearing Diameters		Axial and Radial Run-out		Rotaing Shaft or Duplex DF Mounting		Stationary Shaft or Duplex DB Mounting				Bearing Diametral Clearance* (Type "X" and "C" only) Before Installation	
	Bearing Bore Nom. +0.0000	Bearing OD Nom. +0.0000	Inner Race	Outer Race	Shaft Dia. Nom. -0.0000	Housing Bore Nom. -0.0000	Shaft Diameter Nominal		Housing Bore Nominal			
10	–.00015	–.0002	0.0002	0.0002	0.0002	0.00020	–.00015	–.0003	–.0002	–.0004	0.0004	0.0008
15	–.0002	–.0002	0.0002	0.0002	0.0002	0.00020	–.0002	–.0004	–.0002	–.0004	0.0004	0.0008
17	–.0002	–.0002	0.0002	0.0002	0.0002	0.00020	–.0002	–.0004	–.0002	–.0004	0.0004	0.0010
20	–.0002	–.0002	0.0002	0.0002	0.0002	0.00020	–.0002	–.0004	–.0002	–.0004	0.0004	0.0010
25	–.0002	–.0002	0.0002	0.0002	0.0002	0.00020	–.0002	–.0004	–.0002	–.0004	0.0004	0.0010
30	–.0002	–.0003	0.0002	0.0002	0.0002	0.00030	–.0002	–.0004	–.0003	–.0006	0.0006	0.0012
35	–.00025	–.0003	0.0002	0.0002	0.0003	0.00030	–.00025	–.0005	–.0003	–.0006	0.0006	0.0012
40	–.00025	–.0003	0.0002	0.0002	0.0003	0.00030	–.00025	–.0005	–.0003	–.0006	0.0006	0.0012
42	–.00025	–.0004	0.0002	0.0003	0.0003	0.00040	–.00025	–.0005	–.0004	–.0008	0.0008	0.0014
45	–.00025	–.0004	0.0002	0.0003	0.0003	0.00040	–.00025	–.0005	–.0004	–.0008	0.0008	0.0014
47	–.0003	–.0004	0.0003	0.0003	0.0003	0.00040	–.0003	–.0006	–.0004	–.0008	0.0008	0.0014
50	–.0003	–.0004	0.0003	0.0003	0.0003	0.00040	–.0003	–.0006	–.0004	–.0008	0.0008	0.0014
55	–.0003	–.0004	0.0003	0.0003	0.0003	0.00040	–.0003	–.0006	–.0004	–.0008	0.0008	0.0014
60	–.0003	–.0004	0.0003	0.0003	0.0003	0.00040	–.0003	–.0006	–.0004	–.0008	0.0008	0.0014
65	–.0003	–.0004	0.0003	0.0003	0.0003	0.00040	–.0003	–.0006	–.0004	–.0008	0.0008	0.0014
70	–.0003	–.0004	0.0003	0.0004	0.0003	0.00040	–.0003	–.0006	–.0004	–.0008	0.0008	0.0014
75	–.0004	–.0004	0.0003	0.0004	0.0004	0.00040	–.0004	–.0008	–.0004	–.0008	0.0008	0.0014
80	–.0004	–.0004	0.0003	0.0004	0.0004	0.00040	–.0004	–.0008	–.0004	–.0008	0.0008	0.0014
90	–.0004	–.0004	0.0003	0.0004	0.0004	0.00040	–.0004	–.0008	–.0004	–.0008	0.0008	0.0014
100	–.0005	–.0005	0.0004	0.0004	0.0005	0.00050	–.0005	–.0010	–.0005	–.0010	0.0010	0.0016
110	–.0005	–.0005	0.0004	0.0004	0.0005	0.00050	–.0005	–.0010	–.0005	–.0010	0.0010	0.0016
120	–.0005	–.0005	0.0004	0.0005	0.0005	0.00050	–.0005	–.0010	–.0005	–.0010	0.0010	0.0016
140	–.0005	–.0006	0.0004	0.0005	0.0005	0.00060	–.0005	–.0010	–.0006	–.0012	0.0012	0.0018

All dimensions are in inches

* Diametral clearance after installation theoretically can range rather widely if all contributing bearing, housing, and shaft tolerances are at either of their extremes.

Listed shaft and housing diameters are for steel supports with standard bearing diametral clearance. Recommended shaft and housing diameters can change greatly based on orientation, temperature, speed, non-standard diametral clearances, and desired performance characteristics. Contact Kaydon for design assistance when required.