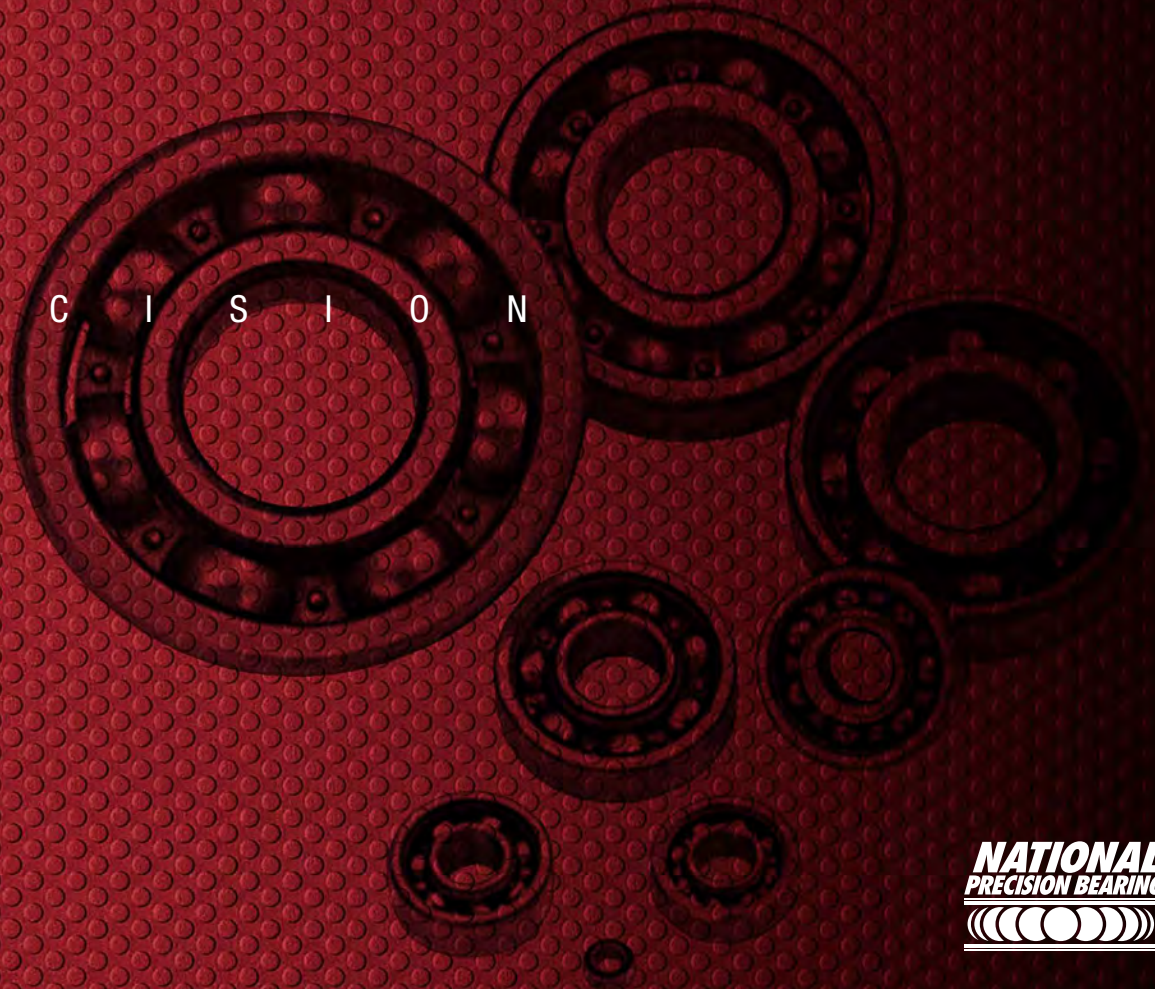


N A T I O N A L

BALL BEARINGS

INDUSTRIAL SERIES

P R E C I S I O N



B E A R I N G





BALL BEARINGS

INDUSTRIAL SERIES



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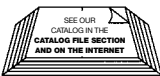
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See our listing in the Thomas Register



<http://www.npb.thomasregister.com>

National Precision Bearing reserves the right to change specifications and other information included in this catalog without notice. All information, data and dimension tables in this catalog have been carefully compiled and thoroughly checked. However, no responsibility for possible errors or omissions can be assumed.

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R SERIES
Extra Light Inch

Tel: 800.426.8038

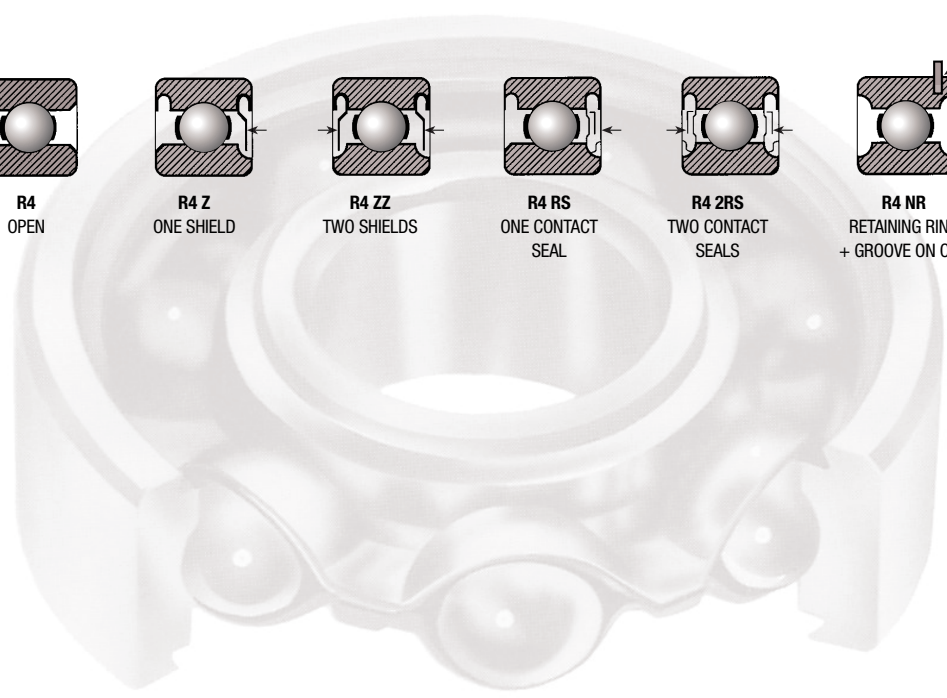
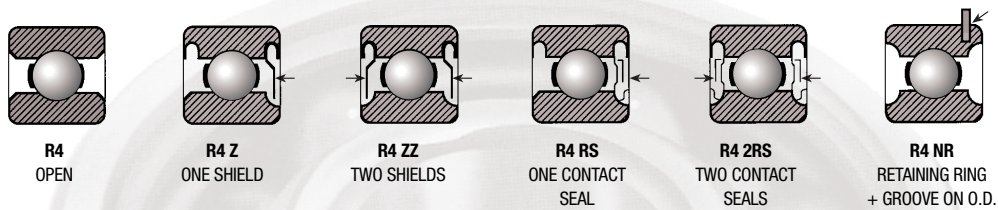
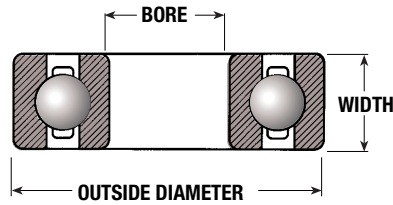
Fax: 425.222.5950

Email: sales@nationalprecision.com

www.nationalprecision.com

| BASIC PART NUMBER | BORE | | | OUTSIDE DIAMETER | | | WIDTH | | MAX. FILLET RADIUS | BALLS | | STATIC LOAD-LBS | DYNAMIC LOAD-LBS |
|-------------------|-------|--------|--------|------------------|--------|--------|-----------------------|-------------|--------------------|-------|-------|-----------------|------------------|
| | FRAC. | INCH | TOL. | FRAC. | INCH | TOL. | TOL. +.0000 -.0050 | | | NO. | DIAM. | | |
| | | | | | | | OPEN | SEAL/SHIELD | | | | | |
| R 2 | 1/8 | .1250 | -.0003 | 3/8 | .3750 | -.0004 | .1562 | .1562 | .012 | 7 | 1/16 | 49 | 113 |
| R 3 | 3/16 | .1875 | -.0003 | 1/2 | .5000 | -.0004 | .1562 | .1960 | .012 | 7 | 3/32 | 70 | 145 |
| R 4 | 1/4 | .2500 | -.0003 | 5/8 | .6250 | -.0004 | .1960 | .1960 | .012 | 7 | 1/8 | 195 | 385 |
| R 4A | 1/4 | .2500 | -.0003 | 3/4 | .7500 | -.0004 | .2188 | .2812 | .016 | 6 | 9/54 | 150 | 320 |
| R 6 | 3/8 | .3750 | -.0003 | 7/8 | .8750 | -.0004 | .2188 | .2812 | .016 | 7 | 5/32 | 305 | 570 |
| R 8 | 1/2 | .5000 | -.0003 | 1 1/8 | 1.1250 | -.0004 | .2500 | .3125 | .016 | 8 | 3/16 | 500 | 885 |
| R 10 | 5/8 | .6250 | -.0003 | 1 3/8 | 1.3750 | -.0005 | .2812 | .3438 | .031 | 9 | 3/16 | 565 | 970 |
| R 12 | 3/4 | .7500 | -.0004 | 1 5/8 | 1.6250 | -.0005 | .3125 | .4375 | .031 | 10 | 7/32 | 850 | 1265 |
| R 14 | 7/8 | .8750 | -.0004 | 1 7/8 | 1.8750 | -.0005 | .3750 | .5000 | .031 | 10 | 1/4 | 1110 | 1735 |
| R 16 | 1 | 1.0000 | -.0004 | 2 | 2.0000 | -.0005 | .3750 | .5000 | .031 | 10 | 1/4 | 1110 | 1735 |
| R 18 | 1 1/8 | 1.1250 | -.0004 | 2 1/8 | 2.1250 | -.0005 | .3750 | .5000 | .031 | 11 | 1/4 | 1225 | 1840 |
| R 20 | 1 1/4 | 1.2500 | -.0005 | 2 1/4 | 2.2500 | -.0005 | .3750 | .5000 | .031 | 12 | 1/4 | 1335 | 1920 |

MATERIAL - Standard SAE 52100
Stainless Steel available upon request





**600 SERIES
Extra Small**

Tel: 800.426.8038

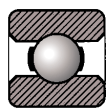
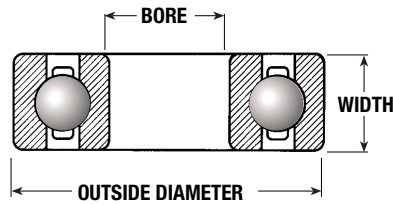
Fax: 425.222.5950

Email: sales@nationalprecision.com

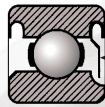
www.nationalprecision.com

| BASIC PART NUMBER | BORE | | | OUTSIDE DIAMETER | | | WIDTH | | MAX. FILLET RADIUS | BALLS | | STATIC LOAD-LBS | DYNAMIC LOAD-LBS |
|-------------------|-------|-------|--------|------------------|--------|--------|-----------------------|-------|--------------------|-------|-------|-----------------|------------------|
| | MM | INCH | TOL. | MM | INCH | TOL. | TOL. +.0000 -.0050 | | | NO. | DIAM. | | |
| | | | | | | | MM | INCH | | | | | |
| 634 | 4 | .1575 | -.0003 | 16 | .6299 | -.0004 | 5 | .1969 | .012 | 6 | 1/8 | 165 | 330 |
| 635 | 5 | .1969 | -.0003 | 19 | .7480 | -.0004 | 6 | .2362 | .012 | 7 | 1/8 | 195 | 385 |
| 626 | 6 | .2362 | -.0003 | 19 | .7480 | -.0004 | 6 | .2362 | .012 | 7 | 1/8 | 195 | 385 |
| 627 | 7 | .2756 | -.0003 | 22 | .8661 | -.0004 | 7 | .2756 | .012 | 7 | 5/32 | 305 | 570 |
| 608 | 8 | .3150 | -.0003 | 22 | .8661 | -.0004 | 7 | .2756 | .012 | 7 | 5/32 | 305 | 570 |
| 608 N2 | 7.932 | .3123 | -.0003 | 22 | .8661 | -.0004 | 7 | .2756 | .012 | 7 | 5/32 | 305 | 570 |
| 608 N3 | 7.940 | .3126 | -.0003 | 22 | .8661 | -.0004 | 7 | .2756 | .012 | 7 | 5/32 | 305 | 570 |
| 629 | 9 | .3543 | -.0003 | 26 | 1.0236 | -.0004 | 8 | .3150 | .025 | 7 | 3/16 | 440 | 780 |

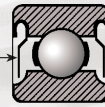
MATERIAL - Standard SAE 52100
Stainless Steel available upon request



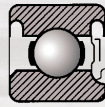
608
OPEN



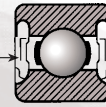
608 Z
ONE SHIELD



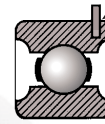
608 ZZ
TWO SHIELDS



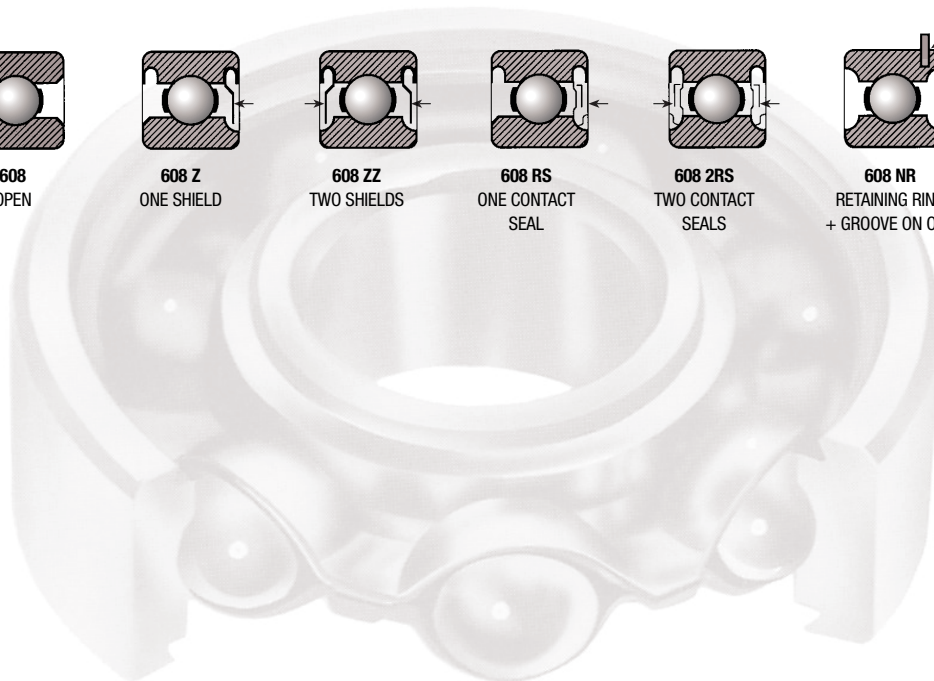
608 RS
ONE CONTACT
SEAL



608 2RS
TWO CONTACT
SEALS



608 NR
RETAINING RING
+ GROOVE ON O.D.



600 Series



**6000 SERIES
Extra Light**

Tel: 800.426.8038

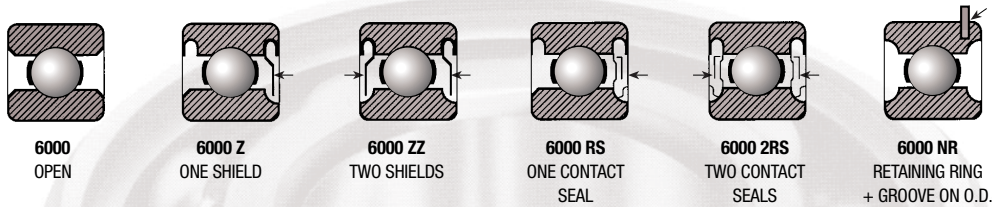
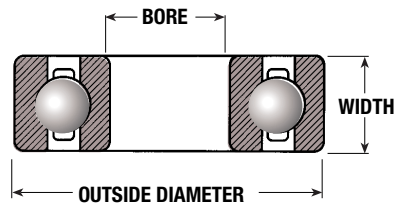
Fax: 425.222.5950

Email: sales@nationalprecision.com

www.nationalprecision.com

| BASIC PART NUMBER | BORE | | | OUTSIDE DIAMETER | | | WIDTH | | MAX. FILLET RADIUS | BALLS | | STATIC LOAD-LBS | DYNAMIC LOAD-LBS |
|-------------------------|------|--------|--------|------------------|--------|--------|-----------------------|-------|--------------------------|-------|-------|--------------------|---------------------|
| | MM | INCH | TOL. | MM | INCH | TOL. | TOL. +.0000 -.0050 | | | NO. | DIAM. | | |
| | | | | | | | MM | INCH | | | | | |
| 6000 | 10 | .3937 | -.0003 | 26 | 1.0236 | -.0004 | 8 | .3150 | .012 | 7 | 3/16 | 440 | 790 |
| 6001 | 12 | .4724 | -.0003 | 28 | 1.1024 | -.0004 | 8 | .3150 | .012 | 7 | 3/16 | 500 | 805 |
| 6002 | 15 | .5906 | -.0003 | 32 | 1.2598 | -.0005 | 9 | .3543 | .012 | 9 | 3/16 | 565 | 965 |
| 6003 | 17 | .6693 | -.0003 | 35 | 1.3780 | -.0005 | 10 | .3937 | .012 | 10 | 3/16 | 625 | 1040 |
| 6004 | 20 | .7874 | -.0004 | 42 | 1.6535 | -.0005 | 12 | .4724 | .024 | 8 | 1/4 | 1000 | 1500 |
| 6005 | 25 | .9843 | -.0004 | 47 | 1.8504 | -.0005 | 12 | .4724 | .024 | 10 | 1/4 | 1115 | 1730 |
| 6006 | 30 | 1.1811 | -.0004 | 55 | 2.1654 | -.0005 | 13 | .5118 | .039 | 11 | 9/32 | 1550 | 2280 |
| 6007 | 35 | 1.3780 | -.0005 | 62 | 2.4409 | -.0005 | 14 | .5512 | .039 | 11 | 5/16 | 1905 | 2760 |
| 6008 | 40 | 1.5748 | -.0005 | 68 | 2.6772 | -.0005 | 15 | .5906 | .039 | 13 | 5/16 | 2085 | 3050 |
| 6009 | 45 | 1.7717 | -.0005 | 75 | 2.9528 | -.0005 | 16 | .6299 | .039 | 13 | 11/32 | 2735 | 3620 |
| 6010 | 50 | 1.9685 | -.0005 | 80 | 3.1496 | -.0005 | 16 | .6299 | .039 | 14 | 11/32 | 2945 | 3760 |
| 6011 | 55 | 2.1654 | -.0006 | 90 | 2.5433 | -.0006 | 18 | .7087 | .039 | 13 | 13/32 | 3820 | 4870 |
| 6012 | 60 | 2.3622 | -.0006 | 95 | 3.7402 | -.0006 | 18 | .7087 | .039 | 14 | 13/32 | 4115 | 5070 |
| 6013 | 65 | 2.5591 | -.0006 | 100 | 3.9370 | -.0006 | 18 | .7087 | .039 | 15 | 12/32 | 4405 | 5260 |
| 6014 | 70 | 2.7559 | -.0006 | 110 | 4.3307 | -.0006 | 20 | .7874 | .039 | 14 | 15/32 | 5475 | 6560 |

MATERIAL - Standard SAE 52100
Stainless Steel available upon request





**6200 SERIES
Light Series**

Tel: 800.426.8038

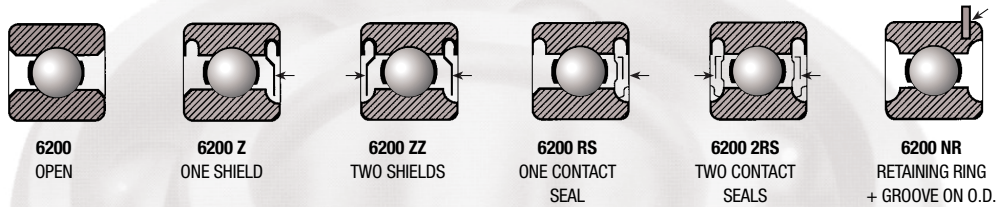
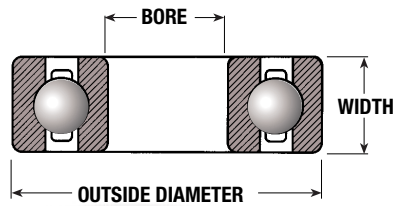
Fax: 425.222.5950

Email: sales@nationalprecision.com

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| BASIC PART NUMBER | BORE | | | OUTSIDE DIAMETER | | | WIDTH | | MAX. FILLET RADIUS | BALLS | | STATIC LOAD-LBS | DYNAMIC LOAD-LBS |
|-------------------------|------|--------|--------|------------------|--------|--------|-----------------------|-------|--------------------------|-------|-------|--------------------|---------------------|
| | MM | INCH | TOL. | MM | INCH | TOL. | TOL. +.0000 -.0050 | | | NO. | DIAM. | | |
| | | | | | | | MM | INCH | | | | | |
| 6200 | 10 | .3937 | -.0003 | 30 | 1.1811 | -.0004 | 9 | .3543 | .025 | 8 | 3/16 | 500 | 885 |
| 6201 | 12 | .4724 | -.0003 | 32 | 1.2598 | -.0005 | 10 | .3937 | .025 | 7 | 7/32 | 595 | 1055 |
| 6202 | 15 | .5906 | -.0003 | 35 | 1.3780 | -.0005 | 11 | .4331 | .025 | 8 | 7/32 | 675 | 1180 |
| 6203 | 17 | .6693 | -.0003 | 40 | 1.5748 | -.0005 | 12 | .4724 | .025 | 8 | 1/4 | 890 | 1500 |
| 6204 | 20 | .7874 | -.0004 | 47 | 1.8504 | -.0005 | 14 | .5512 | .040 | 8 | 5/16 | 1390 | 2220 |
| 6205 | 25 | .9843 | -.0004 | 52 | 2.0472 | -.0005 | 15 | .5906 | .040 | 9 | 5/16 | 1565 | 2415 |
| 6206 | 30 | 1.1811 | -.0004 | 62 | 2.4409 | -.0005 | 16 | .6299 | .040 | 9 | 3/8 | 2255 | 3360 |
| 6207 | 35 | 1.3780 | -.0005 | 72 | 2.8346 | -.0005 | 17 | .6693 | .040 | 9 | 7/16 | 3070 | 4430 |
| 6208 | 40 | 1.5748 | -.0005 | 80 | 3.1496 | -.0005 | 18 | .7087 | .040 | 9 | 15/32 | 3520 | 5035 |
| 6209 | 45 | 1.7717 | -.0005 | 85 | 3.3465 | -.0005 | 19 | .7480 | .040 | 9 | 1/2 | 4005 | 5655 |
| 6210 | 50 | 1.9685 | -.0005 | 90 | 3.5433 | -.0006 | 20 | .7874 | .040 | 10 | 1/2 | 4450 | 6065 |
| 6211 | 55 | 2.1654 | -.0006 | 100 | 3.9370 | -.0006 | 21 | .8268 | .060 | 10 | 9/16 | 5630 | 7500 |
| 6212 | 60 | 2.3622 | -.0006 | 110 | 4.3307 | -.0006 | 22 | .8661 | .060 | 10 | 5/8 | 6955 | 9065 |
| 6213 | 65 | 2.5591 | -.0006 | 120 | 4.7244 | -.0006 | 23 | .9055 | .060 | 10 | 21/32 | 7665 | 9900 |
| 6214 | 70 | 2.7559 | -.0006 | 125 | 4.9213 | -.0008 | 24 | .9449 | .060 | 10 | 11/16 | 8415 | 10715 |

MATERIAL - Standard SAE 52100
Stainless Steel available upon request



6200 Series



6300 SERIES
Medium

Tel: 800.426.8038

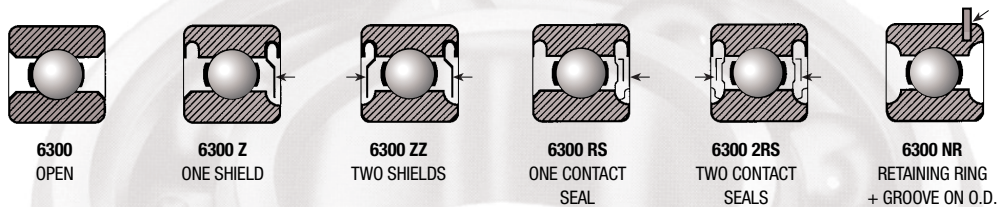
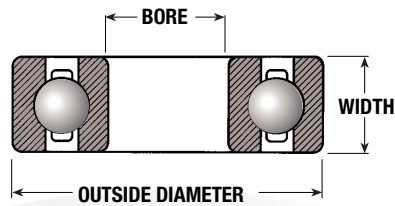
Fax: 425.222.5950

Email: sales@nationalprecision.com

www.nationalprecision.com

| BASIC PART NUMBER | BORE | | | OUTSIDE DIAMETER | | | WIDTH | | MAX. FILLET RADIUS | BALLS | | STATIC LOAD-LBS | DYNAMIC LOAD-LBS |
|-------------------------|------|--------|--------|------------------|--------|--------|-----------------------|--------|--------------------------|-------|-------|--------------------|---------------------|
| | MM | INCH | TOL. | MM | INCH | TOL. | TOL. +.0000 -.0050 | | | NO. | DIAM. | | |
| | | | | | | | MM | INCH | | | | | |
| 6300 | 10 | .3937 | -.0003 | 35 | 1.3780 | -.0005 | 11 | .4331 | .025 | 6 | 9/32 | 845 | 1430 |
| 6301 | 12 | .4724 | -.0003 | 37 | 1.4567 | -.0005 | 12 | .4724 | .040 | 6 | 5/16 | 1045 | 1655 |
| 6302 | 15 | .5906 | -.0003 | 42 | 1.6535 | -.0005 | 13 | .5118 | .040 | 7 | 5/16 | 1215 | 1975 |
| 6303 | 17 | .6693 | -.0003 | 47 | 1.8504 | -.0005 | 14 | .5512 | .040 | 7 | 11/32 | 1470 | 2335 |
| 6304 | 20 | .7874 | -.0004 | 52 | 2.0472 | -.0005 | 15 | .5906 | .040 | 7 | 3/8 | 1750 | 2730 |
| 6305 | 25 | .9843 | -.0004 | 62 | 2.4409 | -.0005 | 17 | .6693 | .040 | 7 | 7/16 | 2385 | 3690 |
| 6306 | 30 | 1.1811 | -.0004 | 72 | 2.8346 | -.0005 | 19 | .7480 | .040 | 8 | 15/32 | 3130 | 4605 |
| 6307 | 35 | 1.3780 | -.0005 | 80 | 3.1496 | -.0005 | 21 | .8268 | .060 | 8 | 17/32 | 4020 | 5775 |
| 6308 | 40 | 1.5748 | -.0005 | 90 | 3.5433 | -.0006 | 23 | .9055 | .060 | 8 | 19/32 | 5020 | 7060 |
| 6309 | 45 | 1.7717 | -.0005 | 100 | 3.9370 | -.0006 | 25 | .9843 | .060 | 8 | 11/16 | 7000 | 9120 |
| 6310 | 50 | 1.9685 | -.0005 | 110 | 4.3307 | -.0006 | 27 | 1.0630 | .080 | 8 | 3/4 | 8010 | 10750 |
| 6311 | 55 | 2.1654 | -.0006 | 120 | 4.7244 | -.0006 | 29 | 1.1417 | .080 | 8 | 13/16 | 9400 | 12410 |
| 6312 | 60 | 2.3622 | -.0006 | 130 | 5.1181 | -.0008 | 31 | 1.2205 | .080 | 8 | 7/8 | 10900 | 14180 |
| 6313 | 65 | 2.5591 | -.0006 | 140 | 5.5118 | -.0008 | 33 | 1.2292 | .080 | 8 | 15/16 | 12515 | 16050 |
| 6314 | 70 | 2.7559 | -.0006 | 150 | 5.9055 | -.0008 | 35 | 1.3780 | .080 | 8 | 1 | 14240 | 18025 |

MATERIAL - Standard SAE 52100
Stainless Steel available upon request



6000, 6200, & 6300 SERIES Interchange

B A L L B E A R I N G S



Tel: 800.426.8038

Fax: 425.222.5950

Email: sales@nationalprecision.com

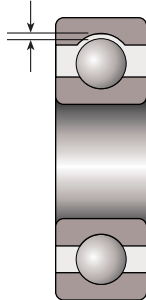
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| National Precision Bearing | S.K.F. | Koyo | Nachi | B.C.A | Fafnir Torrington | Federal | Hoover | NTN | M.R.C. | Norma Hoffman | New Departure | FAG | NSK | Steyr | ISO Series |
|----------------------------|----------|----------|-----------|--------|-------------------|---------|--------|----------|----------|---------------|---------------|---|----------|----------|------------|
| 6000 | 6000 | 6000 | 6000 | 100 | 9100 K | 9100 | 100 | 6000 | 100 KS | 6100 | 3 L00 | 6000 | 6000 | 6000 | 6000 |
| 6000 Z | 6000 Z | 6000 Z | 6000 Z | 100 S | 9100 KD | 9100 F | 7100 | 6000 Z | 100 KSF | 6100 P | 73 L00 | 6000 Z | 6000 Z | 6000 Z | 6000 Z |
| 6000 ZZ | 6000-ZZ | 6000-ZZ | 6000-ZZ | 100 SS | 9100 KDD | 9100 FF | 77100 | 6000 ZZ | 100 KSFF | 6100 PP | 773 L00 | 6000 ZZ | 6000 ZZ | 6000-ZZ | 6000 ZZ |
| 6000 RS | 6000 RS | 6000 RS | 6000 NSL | 100 D | 9100P | 9100 R | 9100 | 6000 L | 100 KSZ | 100 N | 93 L00 | 6000 RS | 6000 V | 6000 G | 6000 RS |
| 6000-2RS | 6000-2RS | 6000-2RS | 6000-2NSL | 100 DD | 9100 PP | 9100 RR | 99100 | 6000 LL | 100 KSZZ | 100 NN | 993 L00 | 6000-2RS | 6000 W | 6000-2G | 6000-2RS |
| 6000 NR | 6000 NR | 6000 NR | 6000 NR | 100 L | 9100 KG | 9100 CG | 100 G | 6000 NR | 100 KSG | 4100 | 43 L00 | 6000 N & Snap-Ring 6000 ZN & Snap-Ring | 6000 NR | 6000 NR | 6000 NR |
| 6000 ZNR | 6000 ZNR | 6000 ZNR | 6000ZNR | 100SL | 9100 KDG | 9100 GF | 7100 G | 6000 ZNR | 100 KSFG | 4100 P | 473 L00 | 6000 ZNR | 6000 ZNR | 6000 ZNR | 6000 ZNR |
| 6200 | 6200 | 6200 | 6200 | 200 | 200 K | 1200 | 200 | 6200 | 200 S | 200 | 3200 | 6200 | 6200 | 6200 | 6200 |
| 6200 Z | 6200 Z | 6200 Z | 6200 Z | 200 S | 200 KD | 1200 F | 7200 | 6200 Z | 200 SF | 200 P | 7500 | 6200 Z | 6200 Z | 6200 Z | 6200 Z |
| 6200 ZZ | 6200-ZZ | 6200-ZZ | 6200-ZZ | 200 SS | 200 KDD | 1200 FF | 77200 | 6200-ZZ | 200 SFF | 200 PP | 77500 | 6200 ZZ | 6200-ZZ | 6200-ZZ | 6200 ZZ |
| 6200 RS | 6200 RS | 6200 RS | 6200 NSL | 200 D | 200 P | 1200 R | 9200 | 6200 L | 200 SZ | 200 N | 9500 | 6200 RS | 6200 V | 6200 G | 6200 RS |
| 6200-2RS | 6200-2RS | 6200-2RS | 6200-2NSL | 200 DD | 200 PP | 1200 RR | 99200 | 6200 LL | 200 SZZ | 200 NN | 99500 | 6200-2RS | 6200 W | 6200-2G | 6200-2RS |
| 6200 NR | 6200 NR | 6200 NR | 6200 NR | 200 L | 200 KG | 1200 CG | 200 G | 6200 NR | 200 SG | 4200 | 43200 | 6200 N & Snap-Ring 6200 ZN & Snap-Ring | 6200 NR | 6200 NR | 6200 NR |
| 6200 ZNR | 6200 ZNR | 6200 ZNR | 6200 ZNR | 200 LS | 200 KDG | 1200 GF | 7200 G | 6200 ZNR | 200 SFG | 4200 P | 47500 | 6200 ZNR | 6200 ZNR | 6200 ZNR | 6200 ZNR |
| 6300 | 6300 | 6300 | 6300 | 300 | 300 K | 1300 | 300 | 6300 | 300 S | 300 | 3300 | 6300 | 6300 | 6300 | 6300 |
| 6300 Z | 6300 Z | 6300 Z | 6300 Z | 300 S | 300 KD | 1300 F | 7300 | 6300 Z | 300 SF | 300 P | 7600 | 6300 Z | 6300 Z | 6300 Z | 6300 Z |
| 6300 ZZ | 6300-ZZ | 6300-ZZ | 6300-ZZ | 300 SS | 300 KDD | 1300 FF | 77300 | 6300-ZZ | 300 SFF | 300 PP | 77600 | 6300 ZZ | 6300-ZZ | 6300-ZZ | 6300 ZZ |
| 6300 RS | 6300 RS | 6300 RS | 6300 NSL | 300 D | 300 P | 1300 R | 9300 | 6300 L | 300 SZ | 300 N | 9600 | 6300 RS | 6300 V | 6300 G | 6300 RS |
| 6300-2RS | 6300-2RS | 6300-2RS | 6300-2NSL | 300 DD | 300 PP | 1300 RR | 99300 | 6300 LL | 300 SZZ | 300 NN | 99600 | 6300-2RS | 6300 W | 6300-2G | 6300-2RS |
| 6300 NR | 6300 NR | 6300 NR | 6300 NR | 300 L | 300 KG | 1300 CG | 300 G | 6300 NR | 300 SG | 4300 | 43300 | 6300 N & Snap-Ring 6300 ZN & Snap-Ring | 6300 NR | 6300 NR | 6300 NR |
| 6300 ZNR | 6300 ZNR | 6300 ZNR | 6300 ZNR | 300 SL | 300 KDG | 1300 GF | 7300 G | 6300 ZNR | 300 SFG | 4300 P | 47600 | 6300 ZNR | 6300 ZNR | 6300 ZNR | 6300 ZNR |

RADIAL INTERNAL CLEARANCE OPTIONS Single Row Deep Groove Ball Bearings

- C/1 - Internal Clearance is smaller than C/2.
- C/2 - Internal Clearance is smaller than STANDARD.
- STANDARD - No clearance marking is indicated on the bearing or packaging.
- C/3 - Internal Clearance larger than STANDARD.
- C/4 - Internal Clearance larger than C/3.
- C/5 - Internal Clearance larger than C/4.

Radial Internal Clearance



| BORE DIAMETER d (METRIC) | | RADIAL INTERNAL CLEARANCE (INCH) | | | | | | | | | |
|--------------------------|-------|----------------------------------|--------|----------|-------|-------|-------|-------|-------|-------|-------|
| | | C/2 | | STANDARD | | C/3 | | C/4 | | C/5 | |
| Over | Incl. | min | max | min | max | min | max | min | max | min | max |
| 2.5 | 6 | .0000 | .0003 | .0001 | .0005 | .0003 | .0009 | .0005 | .0012 | .0008 | .0014 |
| 6 | 10 | .0000 | .0003 | .0001 | .0005 | .0003 | .0009 | .0005 | .0012 | .0009 | .0018 |
| 10 | 18 | .0000 | .00035 | .0001 | .0007 | .0004 | .0010 | .0007 | .0013 | .0010 | .0019 |
| 18 | 24 | .0000 | .0004 | .0002 | .0008 | .0005 | .0011 | .0008 | .0014 | .0011 | .0018 |
| 24 | 30 | .00005 | .00045 | .0002 | .0008 | .0005 | .0011 | .0009 | .0016 | .0012 | .0021 |
| 30 | 40 | .00005 | .00045 | .0002 | .0009 | .0006 | .0013 | .0011 | .0018 | .0015 | .0025 |
| 40 | 50 | .00005 | .00045 | .0002 | .0009 | .0007 | .0014 | .0012 | .0020 | .0017 | .0029 |
| 50 | 65 | .00005 | .0006 | .0003 | .0011 | .0009 | .0017 | .0015 | .0024 | .0021 | .0035 |
| 65 | 80 | .00005 | .0006 | .0004 | .0012 | .0010 | .0020 | .0018 | .0028 | .0025 | .0041 |
| 80 | 100 | .00005 | .0007 | .0005 | .0014 | .0012 | .0023 | .0021 | .0033 | .0030 | .0047 |

Interchange / Internal Clearance



SPECIALS

Tel: 800.426.8038

Fax: 425.222.5950

Email: sales@nationalprecision.com

www.nationalprecision.com

Numerous special applications require non-standard bearings. A few of the more popular sizes are listed to the right. A wide variety of additional Specials are available upon request.

| <u>PART NUMBER</u> | <u>DESCRIPTION</u> |
|--------------------|--|
| 6201 ZZ-1/2 | 6201 ZZ with a .500 bore |
| 6201-2RS-1/2 | 6201-2RS with a .500 bore |
| 6201 ZZ-13 | 6201 ZZ with a 13mm bore |
| 6202-2RS-13 | 6202-2RS with a 13mm bore |
| 6202 ZZ-5/8 | 6202 ZZ with a .625 bore |
| 6202 ZZ-16 | 6202 ZZ with a 16mm bore |
| 99502H | 6202-2RS with a .625 bore and a 1.375 O.D. |
| 499502H | 6202-2RS with a .625 bore, 1.375 O.D. and a Snap Ring on the O.D |
| 6203 ZZ-5/8 | 6203 ZZ with a .625 bore |
| 6203-2RS-5/8 | 6203-2RS with a .625 bore |
| 7109 | 6202 Z with a 9mm bore |

Applications that require such things as high temperature seals, non-metallic retainers, etc. can be supplied.

Consult National for engineering assistance at **1-800-426-8038**.



**1600 Series
Commercial Inch**

Tel: 800.426.8038

Fax: 425.222.5950

Email: sales@nationalprecision.com

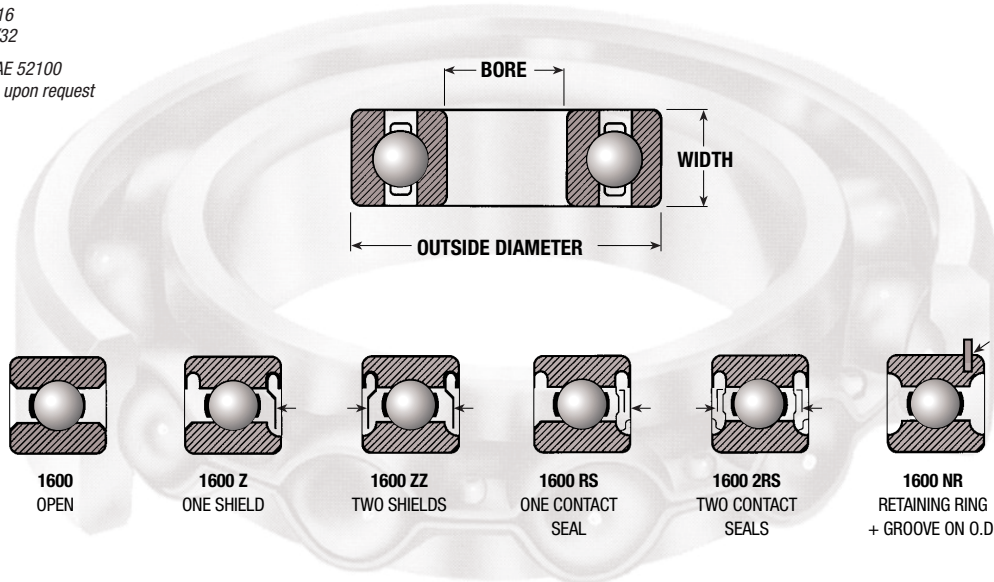
www.nationalprecision.com

| BASIC PART NUMBER | BORE | | OUTSIDE DIAMETER | | WIDTH | | RADIUS INCHES | LOAD RATINGS | | BEARING WEIGHT (lbs.) |
|-------------------|----------|--------|-----------------------|--------|-----------------------|--------|---------------|--------------|--------|-----------------------|
| | FRACTION | INCHES | TOL. +.0000 -.0050 | | TOL. +.0000 -.0050 | | | DYNAMIC | STATIC | |
| | | | FRACTION | INCHES | FRACTION | INCHES | | | | |
| 1601 | 3/16 | .1875 | 11/16 | .6875 | *1/4 | .2500 | .012 | 294 | 146 | .009 |
| 1602 | 1/4 | .2500 | 11/16 | .6875 | *1/4 | .2500 | .012 | 294 | 146 | .014 |
| 1603 | 5/16 | .3125 | 7/8 | .8750 | **9/32 | .2812 | .012 | 464 | 228 | .021 |
| 1604 | 3/8 | .3750 | 7/8 | .8750 | **9/32 | .2812 | .015 | 464 | 228 | .019 |
| 1605 | 5/16 | .3125 | 29/32 | .9062 | 5/16 | .3125 | .012 | 464 | 228 | .037 |
| 1606 | 3/8 | .3750 | 29/32 | .9062 | 5/16 | .3125 | .015 | 464 | 228 | .048 |
| 1607 | 7/16 | .4375 | 29/32 | .9062 | 5/16 | .3125 | .015 | 400 | 229 | .049 |
| 1614 | 3/8 | .3750 | 1 1/8 | 1.1250 | 3/8 | .3750 | .025 | 400 | 229 | .077 |
| 1615 | 7/16 | .4375 | 1 1/8 | 1.1250 | 3/8 | .3750 | .025 | 400 | 229 | .071 |
| 1616 | 1/2 | .5000 | 1 1/8 | 1.1250 | 3/8 | .3750 | .025 | 400 | 229 | .066 |
| 1620 | 7/16 | .4375 | 1 3/8 | 1.3750 | 7/16 | .4375 | .025 | 600 | 354 | .100 |
| 1621 | 1/2 | .5000 | 1 3/8 | 1.3750 | 7/16 | .4375 | .025 | 600 | 354 | .106 |
| 1622 | 9/16 | .5625 | 1 3/8 | 1.3750 | 7/16 | .4375 | .025 | 600 | 354 | .101 |
| 1623 | 5/8 | .6250 | 1 3/8 | 1.3750 | 7/16 | .4375 | .025 | 600 | 354 | .088 |
| 1628 | 5/8 | .6250 | 1 5/8 | 1.6250 | 1/2 | .5000 | .025 | 738 | 454 | .159 |
| 1630 | 3/4 | .7500 | 1 5/8 | 1.6250 | 1/2 | .5000 | .025 | 738 | 454 | .143 |
| 1633 | 5/8 | .6250 | 1 3/4 | 1.7500 | 1/2 | .5000 | .025 | 738 | 454 | .203 |
| 1635 | 3/4 | .7500 | 1 3/4 | 1.7500 | 1/2 | .5000 | .025 | 738 | 454 | .187 |
| 1638 | 3/4 | .7500 | 2 | 2.0000 | 9/16 | .5625 | .035 | 1100 | 709 | .265 |
| 1640 | 7/8 | .8750 | 2 | 2.0000 | 9/16 | .5625 | .035 | 1100 | 709 | .247 |
| 1641 | 1 | 1.0000 | 2 | 2.0000 | 9/16 | .5625 | .035 | 1100 | 709 | .221 |
| 1652 | 1 1/8 | 1.1250 | 2 1/2 | 2.5000 | 5/8 | .6250 | .035 | 1306 | 857 | .463 |
| 1654 | 1 1/4 | 1.2500 | 2 1/2 | 2.5000 | 5/8 | .6250 | .035 | 1306 | 857 | .419 |
| 1657 | 1 1/4 | 1.2500 | 2 9/16 | 2.5625 | 11/16 | .6875 | .035 | 1528 | 1021 | .474 |
| 1658 | 1 5/16 | 1.3125 | 2 9/16 | 2.5625 | 11/16 | .6875 | .035 | 1528 | 1021 | .441 |

* Width RS & 2RS = 5/16

**Width RS & 2RS = 11/32

MATERIAL - Standard SAE 52100
Stainless Steel available upon request



1600 Series

1600 SERIES Interchange

B A L L B E A R I N G S



Tel: 800.426.8038

Fax: 425.222.5950

Email: sales@nationalprecision.com

www.nationalprecision.com

| NATIONAL PRECISION BEARING | GENERAL | NICE/SKF | SCHATZ |
|--|----------------------------------|----------------------------|------------------------------|
| 1601 1601 ZZ 1601 2RS | 21103-00 21103-77 21103-78 | 1601NS 1601DS 1601DC | BR 01 BR 7701 BR 9901A |
| 1602 1602 ZZ 1602 2RS | 21104-00 21104-77 21104-88 | 1602NS 1602DS 1602DC | BR 02 BR 7702 BR 9902A |
| 1603 1603 ZZ 1603 2RS | 21405-00 21405-77 21405-88 | 1603NS 1603DS 1603DC | BR 03 BR 7703 BR 9903A |
| 1604 1604 ZZ 1604 2RS | 21406-00 21406-77 21406-88 | 1604NS 1604DS 1604DC | BR 04 BR 7704 BR 9904A |
| 1605 1605 ZZ 1605 2RS | 21505-00 21505-77 21505-88 | 1605NS 1605DS 1605DC | BR 05 BR 7705 BR 9905A |
| 1606 1606 ZZ 1606 2RS | 21506-00 21506-77 21506-88 | 1606NS 1606DS 1606DC | BR 06 BR 7706 BR 9906A |
| 1607 1607 ZZ 1607 2RS | 21507-00 21507-77 21507-88 | 1607NS 1607DS 1607DC | BR 07 BR 7707 BR 9907A |
| 1614 1614 ZZ 1614 2RS | 21806-00 21806-77 21806-88 | 1614NS 1614DS 1614DC | BR 14 BR 7714 BR 9914A |
| 1615 1615 ZZ 1615 2RS | 21807-00 21807-77 21807-88 | 1615NS 1615DS 1615DC | BR 15 BR 7715 BR 9915A |
| 1616 1616 ZZ 1616 2RS | 21808-00 21808-77 21808-88 | 1616NS 1616DS 1616DC | BR 16 BR 7716 BR 9916A |
| 1620 1620 ZZ 1620 2RS | 22207-00 22207-77 22207-88 | 1620NS 1620DS 1620DC | BR 20 BR 7720 BR 9920A |
| 1621 1621 ZZ 1621 2RS | 22208-00 22208-77 22208-88 | 1621NS 1621DS 1621DC | BR 21 BR 7721 BR 9921A |
| 1622 1622 ZZ 1622 2RS | 22209-00 22209-77 22209-88 | 1622NS 1622DS 1622DC | BR 22 BR 7722 BR 9922A |

| NATIONAL PRECISION BEARING | GENERAL | NICE/SKF | SCHATZ |
|--|----------------------------------|----------------------------|------------------------------|
| 1623 1623 ZZ 1623 2RS | 22210-00 22210-77 22210-88 | 1623NS 1623DS 1623DC | BR 23 BR 7723 BR 9923A |
| 1628 1628 ZZ 1628 2RS | 22610-00 22610-77 22610-88 | 1628NS 1628DS 1628DC | BR 28 BR 7728 BR 9928A |
| 1630 1630 ZZ 1630 2RS | 22612-00 22612-77 22612-88 | 1630NS 1630DS 1630DC | BR 30 BR 7730 BR 9930A |
| 1633 1633 ZZ 1633 2RS | 22810-00 22810-77 22810-88 | 1633NS 1633DS 1633DC | BR 33 BR 7733 BR 9933A |
| 1635 1635 ZZ 1635 2RS | 22812-00 22812-77 22812-88 | 1635NS 1635DS 1635DC | BR 35 BR 7735 BR 9935A |
| 1638 1638 ZZ 1638 2RS | 23212-00 23212-77 23212-88 | 1638NS 1638DS 1638DC | BR 38 BR 7738 BR 9938A |
| 1640 1640 ZZ 1640 2RS | 23214-00 23214-77 23214-88 | 1640NS 1640DS 1640DC | BR 40 BR 7740 BR 9940A |
| 1641 1641 ZZ 1641 2RS | 23216-00 23216-77 23216-88 | 1641NS 1641DS 1641DC | BR 41 BR 7741 BR 9941A |
| 1652 1652 ZZ 1652 2RS | 24018-00 24018-77 24018-88 | 1652NS 1652DS 1652DC | BR 52 BR 7752 BR 9952A |
| 1654 1654 ZZ 1654 2RS | 24020-00 24020-77 24020-88 | 1654NS 1654DS 1654DC | BR 54 BR 7754 BR 9954A |
| 1657 1657 ZZ 1657 2RS | 24120-00 24120-77 24120-88 | 1657NS 1657DS 1657DC | BR 57 BR 7757 BR 9957A |
| 1658 1658 ZZ 1658 2RS | 24121-00 24121-77 24121-88 | 1658NS 1658DS 1658DC | BR 58 BR 7758 BR 9958A |

Interchange



V GROOVE Guide Wheel Bearings

Tel: 800.426.8038

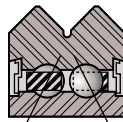
Fax: 425.222.5950

Email: sales@nationalprecision.com

www.nationalprecision.com

| NATIONAL PART NUMBER | INDUSTRY PART NUMBER | BORE +.0000 -.0003 | O.D. ±.005 | WIDTH ±.0000 -.0050 | L1 REF. | L2 REF. | R WILL CLEAR RADIUS | GAGE WIRE DIA. | DYNAMIC RADIAL LOAD LBS. Based on average life of 2500 hrs | | | | THRUST LOAD LBS. | STATIC RADIAL LOAD LBS. |
|----------------------|----------------------|--------------------------|---------------|---------------------------|------------|------------|------------------------|----------------|---|---------|---------|----------|------------------|-------------------------|
| | | | | | | | | | 33.3 RPM | 100 RPM | 500 RPM | 1000 RPM | | |
| NW1 | W1 | .1875 | .771 | .3100 | .314 | .625 | .012 | .0937 | 350 | 245 | 145 | 112 | 65 | 245 |
| NW1X | W1X | .1875 | .771 | .3100 | .314 | .625 | .012 | .0937 | 350 | 245 | 145 | 112 | 65 | 245 |
| NW1SSX | W1SSX | .1875 | .771 | .3100 | .314 | .625 | .012 | .0937 | 310 | 218 | 126 | 100 | 55 | 200 |
| NW2 | W2 | .3750 | 1.210 | .4375 | .530 | 1.000 | .012 | .1250 | 734 | 487 | 288 | 227 | 122 | 610 |
| NW2X | W2X | .3750 | 1.210 | .4375 | .530 | 1.000 | .012 | .1250 | 734 | 487 | 288 | 227 | 122 | 610 |
| NW2SSX | W2SSX | .3750 | 1.210 | .4375 | .530 | 1.000 | .012 | .1250 | 562 | 390 | 230 | 183 | 90 | 455 |
| NW3 | W3 | .4724 | 1.803 | .6250 | .640 | 1.500 | .024 | .1875 | 1338 | 925 | 543 | 435 | 535 | 910 |
| NW3X | W3X | .4724 | 1.803 | .6250 | .640 | 1.500 | .024 | .1875 | 1338 | 925 | 543 | 435 | 535 | 910 |
| NW3SSX | W3SSX | .4724 | 1.803 | .6250 | .640 | 1.500 | .024 | .1875 | 1070 | 745 | 434 | 349 | 428 | 705 |
| NW4 | W4 | .5906 | 2.360 | .7500 | .878 | 2.000 | .024 | .2500 | 2055 | 1405 | 815 | 650 | 655 | 1235 |
| NW4X | W4X | .5906 | 2.360 | .7500 | .878 | 2.000 | .024 | .2500 | 2055 | 1405 | 815 | 650 | 655 | 1235 |
| NW4SSX | W4SSX | .5906 | 2.360 | .7500 | .878 | 2.000 | .024 | .2500 | 1593 | 1129 | 648 | 520 | 510 | 955 |

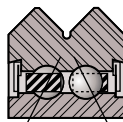
TWO SHIELDS



NW1

SAE: 52100

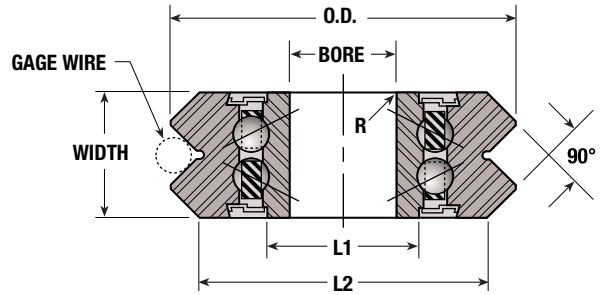
TWO SEALS



NW1X

— AISI-440C

—



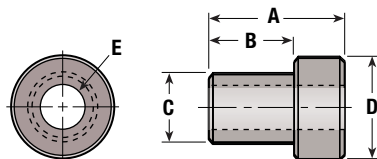
V Groove Guide Wheel Bearings

V GROOVE Guide Wheel Bushings

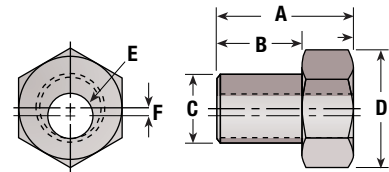


| CONCENTRIC | | ADJUSTABLE | | A | B | C | D | E | NBX SERIES F |
|-------------------|-------------------|-------------------|-------------------|-------|------|-------|------|------|--------------|
| NATIONAL PART NO. | INDUSTRY PART NO. | NATIONAL PART NO. | INDUSTRY PART NO. | | | | | | |
| NB1 | N1 | NB1 | NX1 | .550 | .300 | .1873 | 7/16 | .140 | .012 |
| NB2 | N2 | NB2 | NX2 | .706 | .425 | .3748 | 9/16 | .250 | .024 |
| NB3 | N3 | NB3 | NX3 | .990 | .615 | .4722 | 3/4 | .312 | .042 |
| NB4 | N4 | NB4 | NX4 | 1.177 | .740 | .5904 | 7/8 | .375 | .060 |

NB CONCENTRIC BUSHING



NBX AJUSTABLE BUSHING



INDUSTRIAL AIRFRAME TYPE Ball Bearings

(Not intended for aircraft applications)

B A L L B E A R I N G S



Tel: 800.426.8038

Fax: 425.222.5950

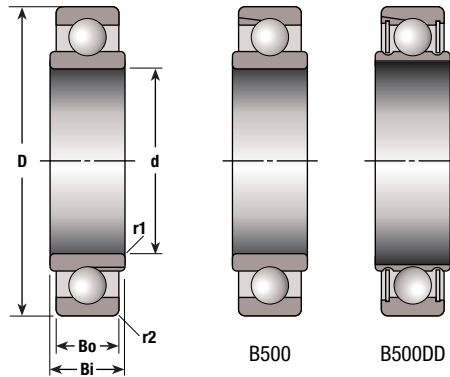
Email: sales@nationalprecision.com

www.nationalprecision.com

B500 Series Single Row Torque Tube Type

| BEARING NUMBER | | BORE d +.0007 -.0007 | O.D. D +.0000 -.0010 | WIDTH | | MINIMUM CHAMFER | | BALLS | | THRUST LOAD LBS. | STATIC RADIAL LOAD LBS. |
|----------------|--------|-------------------------------|-------------------------------|----------------------|----------------------|-----------------|------|-------|------|---------------------|----------------------------|
| TYPE | TYPE | | | Bi +.000 -.005 | Bo +.000 -.005 | r1 | r2 | NO. | DIA. | | |
| OPEN | SEALED | | | | | | | | | | |
| B538 | B538DD | .6250 | 1.0625 | .281 | .250 | .015 | .015 | 21 | 1/8 | 1500 | 3280 |
| B539 | B539DD | .7500 | 1.1875 | .281 | .250 | .015 | .015 | 24 | 1/8 | 1700 | 3750 |
| B540 | B540DD | .8750 | 1.3125 | .281 | .250 | .015 | .015 | 27 | 1/8 | 1900 | 4220 |
| B541 | B541DD | 1.0625 | 1.5000 | .281 | .250 | .015 | .015 | 32 | 1/8 | 2200 | 5000 |
| B542 | B542DD | 1.3125 | 1.7500 | .281 | .250 | .015 | .015 | 38 | 1/8 | 2700 | 5950 |
| B543 | B543DD | 1.5625 | 2.0000 | .281 | .250 | .015 | .015 | 44 | 1/8 | 3200 | 6880 |

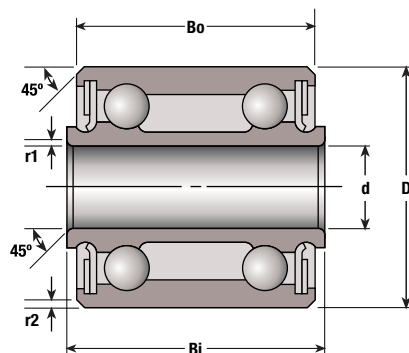
DD = Equipped with Teflon® coated fabric seal



DW Series Double Row Extra Wide Type

| BEARING NUMBER | BORE d +.0000 -.0005 | O.D. D +.0000 -.0005 | WIDTH | | MINIMUM CHAMFER | | BALLS | | THRUST LOAD LBS. | STATIC RADIAL LOAD LBS. |
|----------------|-------------------------------|-------------------------------|----------------------|----------------------|----------------------|----------------------|-------|------|---------------------|----------------------------|
| | | | Bi +.000 -.005 | Bo +.000 -.005 | r1 +.015 -.000 | r2 +.015 -.000 | NO. | DIA. | | |
| DW4K2* | .2500 | .6250 | .562 | .500 | .005 | .016 | 16 | 3/32 | 500 | 1400 |
| DW4K* | .2500 | .7500 | .875 | .750 | .005 | .016 | 14 | 9/64 | 900 | 2770 |
| DW4 | .2500 | .7500 | .875 | .750 | .005 | .016 | 24 | 1/8 | 1240 | 3750 |
| DW5 | .3125 | .8750 | .938 | .813 | .005 | .016 | 26 | 9/64 | 1600 | 5140 |
| DW6 | .3750 | 1.0625 | 1.188 | 1.063 | .005 | .016 | 24 | 3/16 | 2600 | 8440 |

* Retainer type



Equipped with Teflon® seals.

Industrial Airframe Type Bearings

INDUSTRIAL AIRFRAME TYPE Ball Bearings

(Not intended for aircraft applications)

B A L L B E A R I N G S



Tel: 800.426.8038

Fax: 425.222.5950

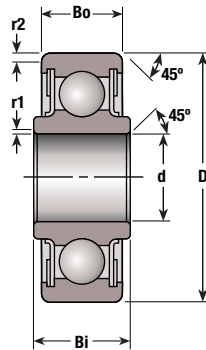
Email: sales@nationalprecision.com

www.nationalprecision.com

KP Series

Single Row
Radial Type

| BEARING NUMBER | BORE | | O.D. | | WIDTH | | MINIMUM CHAMFER | | BALLS | | THRUST LOAD LBS. | STATIC RADIAL LOAD LBS. |
|----------------|-----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|-----------------|------|-------|-------|------------------|-------------------------|
| | d +.0000 -.0005 | D +.0000 -.0005 | Bi +.000 -.005 | Bo +.000 -.005 | r1 +.015 -.000 | r2 +.015 -.000 | NO. | SIZE | | | | |
| KP 3L | .1900 | .6250 | .245 | .203 | .005 | .010 | 10 | 1/8 | 700 | 1560 | | |
| KP 3 | .1900 | .7774 | .297 | .270 | .005 | .022 | 12 | 1/8 | 900 | 1880 | | |
| KP 4 | .2500 | .9014 | .484 | .335 | .005 | .032 | 11 | 5/32 | 1200 | 2680 | | |
| KP 5 | .3125 | 1.2500 | .558 | .375 | .015 | .032 | 9 | 1/4 | 2500 | 5620 | | |
| KP 6 | .3750 | 1.4375 | .620 | .469 | .015 | .032 | 10 | 9/32 | 3500 | 7910 | | |
| KP 8 | .5000 | 1.6875 | .620 | .500 | .015 | .044 | 10 | 3/8 | 5200 | 11800 | | |
| KP 10 | .6250 | 1.9375 | .620 | .500 | .015 | .044 | 10 | 3/8 | 6200 | 14100 | | |

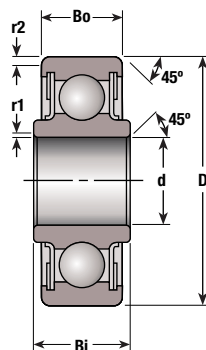


Equipped with Teflon® seals.

KPA Series

Single Row
Radial Type

| BEARING NUMBER | BORE | | O.D. | | WIDTH | | MINIMUM CHAMFER | | BALLS | | THRUST LOAD LBS. | STATIC RADIAL LOAD LBS. |
|----------------|-----------------------|-----------------------|----------------------|----------------------|----------------------|----------------------|-----------------|------|-------|------|------------------|-------------------------|
| | d +.0000 -.0005 | D +.0000 -.0005 | Bi +.000 -.005 | Bo +.000 -.005 | r1 +.015 -.000 | r2 +.015 -.000 | NO. | SIZE | | | | |
| KP 3AL | .1900 | .5000 | .237 | .196 | .005 | .012 | 11 | 3/32 | 430 | 970 | | |
| KP 3A | .1900 | .6250 | .297 | .234 | .005 | .016 | 10 | 1/8 | 700 | 1560 | | |
| KP 4A | .2500 | .7500 | .281 | .219 | .005 | .016 | 12 | 1/8 | 900 | 1880 | | |
| KP 5A | .3125 | .8125 | .297 | .234 | .015 | .016 | 14 | 1/8 | 1000 | 2190 | | |
| KP 6A | .3750 | .8750 | .313 | .250 | .015 | .016 | 16 | 1/8 | 1100 | 2500 | | |
| KP 8A | .5000 | 1.1250 | .375 | .313 | .015 | .016 | 16 | 5/32 | 1700 | 3910 | | |
| KP10A | .6250 | 1.3750 | .406 | .344 | .015 | .032 | 14 | 7/32 | 3000 | 6700 | | |



Equipped with Teflon® seals.

Industrial Airframe Type Bearings

Metric Conversion Table

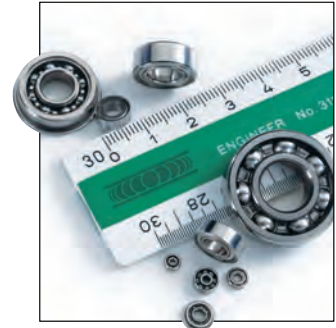
| Fraction | Inch | mm |
|------------|--------|----------------|
| 1/64 | 0.0156 | 0.3969 |
| | 0.0250 | 0.6350 |
| 1/32 | 0.0312 | 0.7937 |
| | 0.0394 | 1.0000 |
| | 0.0400 | 1.0160 |
| 3/64 | 0.0469 | 1.1906 |
| | 0.0472 | 1.2000 |
| | 0.0550 | 1.3970 |
| | 0.0591 | 1.5000 |
| 1/16 | 0.0625 | 1.5875 |
| | 0.0709 | 1.8000 |
| 5/64 | 0.0781 | 1.9844 |
| | 0.0787 | 2.0000 |
| | 0.0906 | 2.3012 |
| 3/32 | 0.0937 | 2.3812 |
| | 0.0984 | 2.5000 |
| | 0.1000 | 2.5400 |
| | 0.1024 | 2.6000 |
| 7/64 | 0.1094 | 2.7781 |
| | 0.1100 | 2.7940 |
| | 0.1102 | 2.8000 |
| | 0.1181 | 3.0000 |
| 1/8 | 0.1250 | 3.1750 |
| | 0.1256 | 3.1902 |
| | 0.1378 | 3.5000 |
| 9/64 | 0.1406 | 3.5719 |
| 5/32 | 0.1562 | 3.9687 |
| | 0.1575 | 4.0000 |
| 11/64 | 0.1719 | 4.3656 |
| 3/16 | 0.1875 | 4.7625 |
| | 0.1892 | 4.8057 |
| | 0.1969 | 5.0000 |
| 13/64 | 0.2031 | 5.1594 |
| | 0.2165 | 5.4991 |
| 7/32 | 0.2187 | 5.5562 |
| 15/64 | 0.2344 | 5.9531 |
| | 0.2362 | 6.0000 |
| 1/4 | 0.2500 | 6.3500 |
| 17/64 | 0.2656 | 6.7469 |
| | 0.2756 | 7.0000 |
| 9/32 | 0.2812 | 7.1437 |
| | 0.2883 | 7.3228 |
| 19/64 | 0.2969 | 7.5406 |
| 5/16 | 0.3125 | 7.9375 |
| | 0.3150 | 8.0000 |
| 21/64 | 0.3281 | 8.3344 |
| 11/32 | 0.3437 | 8.7312 |
| | 0.3543 | 9.0000 |
| 23/64 | 0.3594 | 9.1281 |
| 3/8 | 0.3750 | 9.5250 |
| 25/64 | 0.3906 | 9.9213 |
| | 0.3937 | 10.0000 |
| 13/32 | 0.4062 | 10.3187 |

| Fraction | Inch | mm |
|------------|--------|----------------|
| 27/64 | 0.4100 | 10.4140 |
| | 0.4219 | 10.7156 |
| | 0.4250 | 10.7950 |
| | 0.4331 | 11.0000 |
| 7/16 | 0.4375 | 11.1125 |
| 29/64 | 0.4531 | 11.5094 |
| | 0.4600 | 11.6840 |
| 15/32 | 0.4687 | 11.9062 |
| | 0.4724 | 12.0000 |
| 31/64 | 0.4844 | 12.3031 |
| 1/2 | 0.5000 | 12.7000 |
| | 0.5118 | 13.0000 |
| 33/64 | 0.5156 | 13.0968 |
| 17/32 | 0.5312 | 13.4937 |
| 35/64 | 0.5469 | 13.8906 |
| | 0.5512 | 14.0000 |
| 9/16 | 0.5625 | 14.2875 |
| 37/64 | 0.5781 | 14.6844 |
| | 0.5906 | 15.0000 |
| 19/32 | 0.5937 | 15.0812 |
| 39/64 | 0.6094 | 15.4781 |
| 5/8 | 0.6250 | 15.8750 |
| | 0.6299 | 16.0000 |
| 41/64 | 0.6406 | 16.2719 |
| | 0.6500 | 16.5100 |
| 21/32 | 0.6562 | 16.6687 |
| | 0.6620 | 16.8148 |
| | 0.6693 | 17.0000 |
| 43/64 | 0.6719 | 17.0656 |
| 11/16 | 0.6875 | 17.4625 |
| 45/64 | 0.7031 | 17.8594 |
| | 0.7087 | 18.0000 |
| 23/32 | 0.7187 | 18.2562 |
| 47/64 | 0.7344 | 18.6532 |
| | 0.7435 | 18.8849 |
| | 0.7480 | 19.0000 |
| 3/4 | 0.7500 | 19.0500 |
| 49/64 | 0.7656 | 19.4469 |
| | 0.7717 | 19.6012 |
| 25/32 | 0.7812 | 19.8433 |
| | 0.7874 | 20.0000 |
| 51/64 | 0.7969 | 20.2402 |
| 13/16 | 0.8125 | 20.6375 |
| | 0.8268 | 21.0000 |
| 53/64 | 0.8281 | 21.0344 |
| 27/32 | 0.8437 | 21.4312 |
| 55/64 | 0.8594 | 21.8281 |
| | 0.8661 | 22.0000 |
| 7/8 | 0.8750 | 22.2250 |
| 57/64 | 0.8906 | 22.6219 |
| | 0.9055 | 23.0000 |
| 29/32 | 0.9062 | 23.0187 |
| 59/64 | 0.9219 | 23.4156 |

| Fraction | Inch | mm |
|--------------|--------|-----------------|
| 15/16 | 0.9375 | 23.8125 |
| | 0.9449 | 24.0000 |
| 61/64 | 0.9531 | 24.2094 |
| 31/32 | 0.9687 | 24.6062 |
| | 0.9843 | 25.0000 |
| 63/64 | 0.9844 | 25.0031 |
| 1 | 1.0000 | 25.4000 |
| | 1.0236 | 26.0000 |
| | 1.0415 | 26.4541 |
| | 1.0480 | 26.6192 |
| | 1.0630 | 27.0000 |
| | 1.1025 | 28.0000 |
| | 1.1417 | 29.0000 |
| | 1.1812 | 30.0000 |
| 1-1/4 | 1.2500 | 31.7500 |
| 1-1/2 | 1.5000 | 38.1000 |
| | 1.5354 | 39.0000 |
| | 1.5748 | 40.0000 |
| | 1.6535 | 42.0000 |
| 1-3/4 | 1.7500 | 44.4500 |
| | 1.7717 | 45.0000 |
| | 1.8898 | 48.0000 |
| | 1.9685 | 50.0000 |
| 2 | 2.0000 | 50.8000 |
| | 2.0472 | 52.0000 |
| | 2.1654 | 55.0000 |
| | 2.2047 | 56.0000 |
| 2-1/4 | 2.2500 | 57.1500 |
| | 2.3622 | 60.0000 |
| 2-1/2 | 2.5000 | 63.5000 |
| | 2.5197 | 64.0000 |
| 2-3/4 | 2.7500 | 69.8500 |
| | 2.8346 | 72.0000 |
| | 2.9528 | 75.0000 |
| 3 | 3.0000 | 76.2000 |
| | 3.1496 | 80.0000 |
| 3-1/4 | 3.2500 | 82.5500 |
| 3-1/2 | 3.5000 | 88.9000 |
| | 3.5433 | 90.0000 |
| 3-3/4 | 3.7500 | 95.2500 |
| | 3.9370 | 100.0000 |
| 4 | 4.0000 | 101.6000 |
| 4-1/4 | 4.2500 | 107.9500 |
| | 4.3307 | 110.0000 |
| 4-1/2 | 4.5000 | 114.3000 |
| | 4.7244 | 120.0000 |
| 4-3/4 | 4.7500 | 120.6500 |
| 5 | 5.0000 | 127.0000 |
| 5-1/2 | 5.5000 | 139.7000 |

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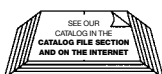
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