



TDC Bearing Guide

This Guide will help you identify the proper bearings for your Dental Handpiece Repair.

Section 1: How to properly measure a bearing to identify its Inner Diameter, Outer Diameter and Width

Section 2: Bearing Identification Schematics, including Bearing Picture, Measurements and Part #'s

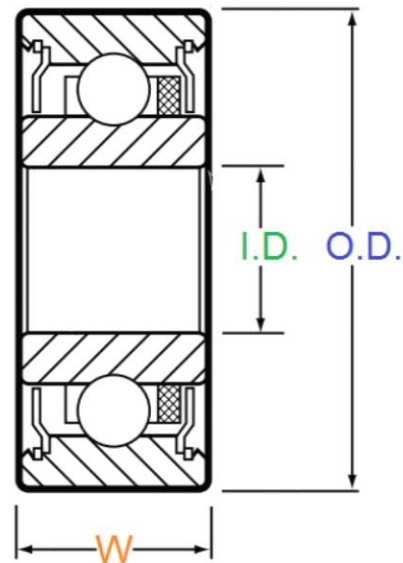
Section 3: Bearing Worksheet

Section 4: Metric vs. Standard Conversion Chart

Section 5: Bearing Configuration Chart

Section 1: Bearing Identification

Bearing Identification Guide



How to measure a bearing for identification:

- 1) Measure the Inner Diameter (I.D.)
- 2) Measure the Outer Diameter (O.D.)
- 3) Measure the Width (W)

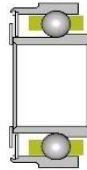
Final Measurement is: I.D. x O.D. x W

Section 2: TDC Highspeed Bearing Chart



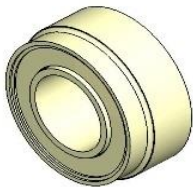
| Bearing # | | Ball Type |
|-----------|--|-----------|
| 101014500 | | Ceramic |

0.125 x 0.2535 x 0.095 in (3.175 x 6.439 x 2.413 mm)



| Bearing # | | Ball Type |
|--------------|--|-----------|
| 10101635B | | Steel |
| 10101635BM | | Steel |
| 10101635BM-C | | Ceramic |
| 10101635GC | | Ceramic |

0.125 x 0.250 x 0.0937 in (3.175 x 6.350 x 2.380 mm)



| Bearing# | | Ball Type |
|-----------|--|-----------|
| 10101ANG | | Steel |
| 10101KG | | Steel |
| 10101KC | | Ceramic |
| 10101KM | | Steel |
| 10101KM-C | | Ceramic |
| 10102 | | Steel |

0.125 x 0.250 x 0.1094 in (3.175 x 6.350 x 2.779 mm)



| Bearing# | | Ball Type |
|-----------|--|-----------|
| 10101DG | | Steel |
| 10101DCL | | Ceramic |
| 10101DM-C | | Ceramic |

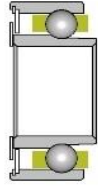
0.1245 x 0.2500 x 0.0930 in. (3.162x6.350x2.362mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| 10101F | | Ceramic |

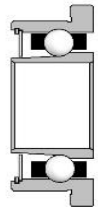
0.125 x 0.250 x 0.075 in (3.175 x 6.350 x 1.905 mm)

Section 2: TDC Highspeed Bearing Chart



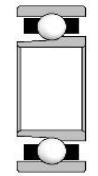
0.125 x 0.250 x 0.0937 in (3.175 x 6.350 x 2.380 mm)

| Bearing# | | Ball Type |
|-----------|--|-----------|
| 10102B | | Steel |
| 10102BM-C | | Ceramic |
| 10102BM-X | | Ceramic |



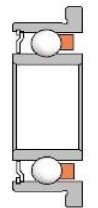
0.125 x 0.250 x 0.1094 in (3.175 x 6.350 x 2.779 mm)

| Bearing# | | Ball Type |
|-----------|--|-----------|
| 40405A | | Steel |
| 40405B | | Steel |
| 40405BM | | Steel |
| 40405BM-C | | Ceramic |
| 40405BG | | Steel |
| 40405BG-G | | Ceramic |



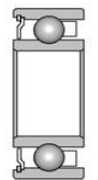
0.125 x 0.250 x 0.0937 in (3.175 x 6.350 x 2.380 mm)

| Bearing# | | Ball Type |
|-----------|--|-----------|
| 40405C | | Steel |
| 40405CM | | Steel |
| 40405CM-C | | Ceramic |
| 40405CG | | Steel |
| 40405CGC | | Ceramic |
| 40405D | | Steel |



0.125 x 0.250 x 0.0937 in (3.175 x 6.350 x 2.380 mm)

| Bearing# | | Ball Type |
|----------|--|-----------|
| 40433 | | Steel |



0.1246 x 0.250 x 0.0937 in (3.165 x 6.350 x 2.380 mm)

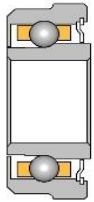
| Bearing# | | Ball Type |
|----------|--|-----------|
| 40405TP | | Ceramic |

Section 2: TDC Highspeed Bearing Chart



| Bearing# | | Ball Type |
|-----------|--|-----------|
| 40409BM | | Ceramic |
| 60103C-NH | | Steel |
| 60103CER | | Ceramic |
| 60103M | | Steel |
| 60103M-C | | Ceramic |

0.125 x 0.250 x 0.1094 in (3.175 x 6.350 x 2.779 mm)



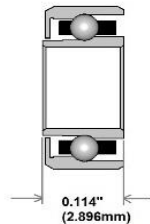
| Bearing# | | Ball type |
|----------|--|-----------|
| 40516 | | Ceramic |

0.125 x 0.296 x 0.113 in (3.175 x 7.518 x 2.870 mm)



| Bearing# | | Ball Type |
|-----------|--|-----------|
| 40516-ATC | | Ceramic |

0.1245 x 0.2500 x 0.0930 in. (3.162x6.350x2.362mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| 40516P | | Ceramic |

0.125 X 0.250X 0.1094 in (3.175 x 6.350 x 2.779mm)

Section 2: TDC Highspeed Bearing Chart



| Bearing# | | Ball Type |
|-----------|--|-----------|
| 50106A | | Steel |
| 50106ACER | | Ceramic |

0.125 x 0.250 x 0.0752 in (3.175 x 6.350 x 1.910 mm)



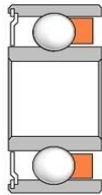
| Bearing# | | Ball Type |
|-----------|--|-----------|
| 50106B | | Steel |
| 50106BCER | | Ceramic |

0.125 x 0.250 x 0.0937 in (3.175 x 6.350 x 2.380 mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| 50106C | | Steel |

0.125 x 0.250 x 0.0937 in (3.175 x 6.350 x 2.380 mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| 60101 | | Steel/ SS |
| 60101H | | Steel/HS |

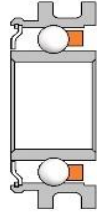
0.125 x 0.3125 x 0.1406 in (3.175 x 7.938 x 3.5712 mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| 60102 | | Steel |
| 60102CER | | Ceramic |
| 60102G | | Steel |
| 60102GC | | Ceramic |
| 60102M | | Steel |
| 60102M-C | | Ceramic |

0.125 x 0.250 x 0.1094 in (3.175 x 6.350 x 2.779 mm)

Section 2: TDC Highspeed Bearing Chart



| Bearing# | | Ball Type |
|----------|--|-----------|
| 70101 | | Steel |

0.125 x 0.295 x 0.109 in (3.175 x 7.493 x 2.769 mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| 80510 | | Ceramic |

0.1250 x 0.2755 x 0.0787 in (3.175x 7.00 x 2.00 mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| 80511 | | Ceramic |

0.1250 x 0.2362 x .0787 in (3.175 x 6.00 x 2.00 mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| 90180BRG | | Ceramic |

0.125 x 0.250 x 0.0937 in (3.175 x 6.350 x 2.380 mm)

Section 2: TDC Highspeed Bearing Chart



| Bearing# | | Ball Type |
|----------|--|-----------|
| KV200-L | | Ceramic |

0.0984 x 0.2795 x 0.1094 (2.50 x 7.10 x 2.78mm)



| Bearing# | | Ball type |
|----------|--|-----------|
| KV200-U | | Ceramic |

0.0787 x 0.1969 x 0.0906 (2.00 x 5.00 x 2.3mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| KV25L | | Ceramic |

0.125 x 0.250 x 0.075 in (3.175 x 6.350 x 1.905 mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| KV25L-R | | Ceramic |

0.1574 x 0.2755 x 0.0787 in (4.0 x 7.0 x 2.0 mm)

Section 2: TDC Highspeed Bearing Chart



| Bearing # | | Ball Type |
|------------|--|-----------|
| KV68LDN-C | | Ceramic |
| KV68LDN-OC | | Ceramic |
| KV68LDN-P | | Steel |

0.1575 x 0.2756 x 0.0787 in (4.00 x 7.00 x 2.00 mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| KVM05L-F | | Ceramic |

0.125 x 0.228 x 0.089 in (3.175 x 5.790 x 2.270mm)



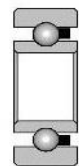
| Bearing# | | Ball Type |
|----------|--|-----------|
| KVM05L-R | | Ceramic |

0.1378 x 0.2555 x 0.0787 in (3.50 x 6.50 x 2.00 mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| 40435 | | Steel |

0.0937 x 0.1875 x 0.0625 (2.380 x 4.763 x 1.588 mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| 70136 | | Ceramic |

0.0925 x 0.2165 x 0.0787 in (2.35 x 5.50 x 2.00 mm)

Section 2: TDC Highspeed Bearing Chart



| Bearing# | | Ball Type |
|----------|--|-----------|
| H0005 | | Ceramic |

0.0937 x 0.1875 x 0.0937 in (2.38 x 4.76 x 2.38 mm)



| Bearing# | | Ball Type |
|----------|--|-----------|
| H0026 | | Ceramic |

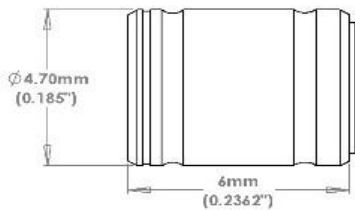
0.0787 x 0.1969 x 0.0906 (2.00 x 5.00 x 2.3mm)



FRONT VIEW

BACK VIEW

| Bearing# | | Ball Type |
|----------|--|-----------|
| 10204B | | Ceramic |



0.0787 x 0.1850 x 0.2362 in (2.0 x 4.7 x 6.0 mm)

Section 4: Metric vs. Standard Conversion Chart



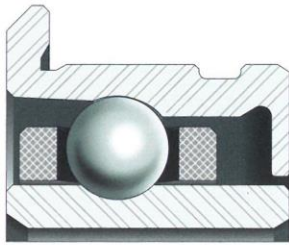
The Dentist's Choice Bearing Measurement Conversion Chart

Inch/Metric Conversion Chart

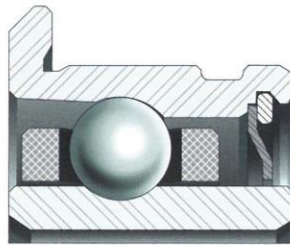
| FRACTION | INCH | MM | FRACTION | INCH | MM |
|----------|--------|---------|----------|--------|---------|
| 1/64 | 0.0156 | 0.3969 | 1/2 | 0.5000 | 12.7000 |
| | 0.0250 | 0.6350 | | 0.5118 | 13.0000 |
| 1/32 | 0.0312 | 0.7937 | 33/64 | 0.5156 | 13.0968 |
| | 0.0394 | 1.0000 | 17/32 | 0.5312 | 13.4937 |
| | 0.0400 | 1.0160 | 35/64 | 0.5469 | 13.8906 |
| 3/64 | 0.0469 | 1.1906 | | 0.5512 | 14.0000 |
| | 0.0472 | 1.2000 | 9/16 | 0.5625 | 14.2875 |
| | 0.0550 | 1.3970 | 37/64 | 0.5781 | 14.6844 |
| | 0.0591 | 1.5000 | | 0.5906 | 15.0000 |
| 1/16 | 0.0625 | 1.5875 | 19/32 | 0.5937 | 15.0812 |
| | 0.0709 | 1.8000 | 39/64 | 0.6094 | 15.4781 |
| 5/64 | 0.0781 | 1.9844 | 5/8 | 0.6250 | 15.8750 |
| | 0.0787 | 2.0000 | | 0.6299 | 16.0000 |
| | 0.0906 | 2.3012 | 41/64 | 0.6406 | 16.2719 |
| 3/32 | 0.0937 | 2.3812 | | 0.6500 | 16.5100 |
| | 0.0984 | 2.5000 | 21/32 | 0.6562 | 16.6687 |
| | 0.1000 | 2.5400 | | 0.6620 | 16.8148 |
| | 0.1024 | 2.6000 | | 0.6693 | 17.0000 |
| 7/64 | 0.1094 | 2.7781 | 43/64 | 0.6719 | 17.0656 |
| | 0.1100 | 2.7940 | 11/16 | 0.6875 | 17.4625 |
| | 0.1102 | 2.8000 | 45/64 | 0.7031 | 17.8594 |
| | 0.1181 | 3.0000 | | 0.7087 | 18.0000 |
| 1/8 | 0.1250 | 3.1750 | 23/32 | 0.7187 | 18.2562 |
| | 0.1256 | 3.1902 | 47/64 | 0.7344 | 18.6532 |
| | 0.1378 | 3.5000 | | 0.7435 | 18.8849 |
| 9/64 | 0.1406 | 3.5719 | | 0.7480 | 19.0000 |
| 5/32 | 0.1562 | 3.9687 | 3/4 | 0.7500 | 19.0500 |
| | 0.1575 | 4.0000 | 49/64 | 0.7656 | 19.4469 |
| 11/64 | 0.1719 | 4.3656 | | 0.7717 | 19.6012 |
| 3/16 | 0.1875 | 4.7625 | 25/32 | 0.7812 | 19.8433 |
| | 0.1892 | 4.8057 | | 0.7874 | 20.0000 |
| | 0.1969 | 5.0000 | 51/64 | 0.7969 | 20.2402 |
| 13/64 | 0.2031 | 5.1594 | 13/16 | 0.8125 | 20.6375 |
| | 0.2165 | 5.4991 | | 0.8268 | 21.0000 |
| 7/32 | 0.2187 | 5.5562 | 53/64 | 0.8281 | 21.0344 |
| 15/64 | 0.2344 | 5.9531 | 27/32 | 0.8437 | 21.4312 |
| | 0.2362 | 6.0000 | 55/64 | 0.8594 | 21.8281 |
| 1/4 | 0.2500 | 6.3500 | | 0.8661 | 22.0000 |
| 17/64 | 0.2656 | 6.7469 | 7/8 | 0.8750 | 22.2250 |
| | 0.2756 | 7.0000 | 57/64 | 0.8906 | 22.6219 |
| 9/32 | 0.2812 | 7.1437 | | 0.9055 | 23.0000 |
| | 0.2883 | 7.3228 | 29/32 | 0.9062 | 23.0187 |
| 19/64 | 0.2969 | 7.5406 | 59/64 | 0.9219 | 23.4156 |
| 5/16 | 0.3125 | 7.9375 | 15/16 | 0.9375 | 23.8125 |
| | 0.3150 | 8.0000 | | 0.9449 | 24.0000 |
| 21/64 | 0.3281 | 8.3344 | 61/64 | 0.9531 | 24.2094 |
| 11/32 | 0.3437 | 8.7312 | 31/32 | 0.9687 | 24.6062 |
| | 0.3543 | 9.0000 | | 0.9843 | 25.0000 |
| 23/64 | 0.3594 | 9.1281 | 63/64 | 0.9844 | 25.0031 |
| 3/8 | 0.3750 | 9.5250 | | 1.0000 | 25.4000 |
| 25/64 | 0.3906 | 9.9213 | | 1.0236 | 26.0000 |
| | 0.3937 | 10.0000 | | 1.0415 | 26.4541 |
| 13/32 | 0.4062 | 10.3187 | | 1.0480 | 26.6192 |
| | 0.4100 | 10.4140 | 1-1/16 | 1.0625 | 26.9875 |
| 27/64 | 0.4219 | 10.7156 | | 1.0630 | 27.0000 |
| | 0.4250 | 10.7950 | | 1.1025 | 28.0000 |
| | 0.4331 | 11.0000 | 1-1/8 | 1.1250 | 28.5750 |
| 7/16 | 0.4375 | 11.1125 | | 1.1417 | 29.0000 |
| 29/64 | 0.4531 | 11.5094 | | 1.1812 | 30.0000 |
| | 0.4600 | 11.6840 | 1-3/16 | 1.1875 | 30.1625 |
| 15/32 | 0.4687 | 11.9062 | 1-1/4 | 1.2500 | 31.7500 |
| | 0.4724 | 12.0000 | 1-1/2 | 1.5000 | 38.1000 |
| 31/64 | 0.4844 | 12.3031 | | | |

Section 5: Bearing Configuration Chart

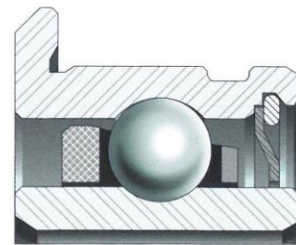
Common Bearing Configurations



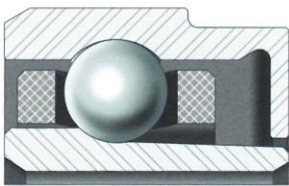
Angular Contact
Flanged, Integral Shield



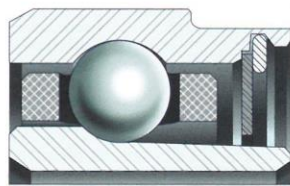
Angular Contact
Flanged, Removable Shield



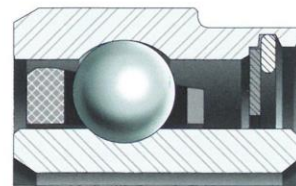
Radial, Flanged
Removable Shield



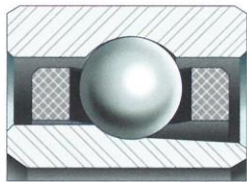
Angular Contact
Stepped, Integral Shield



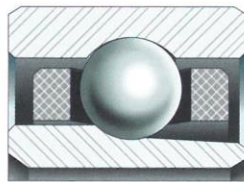
Angular Contact
Stepped, Removable Shield



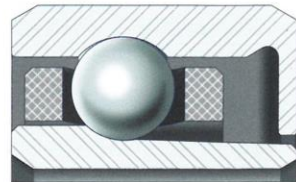
Radial, Stepped
Removable Shield



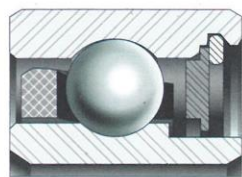
Angular Contact, Open
OEM Burr Tube (Larger Bore)



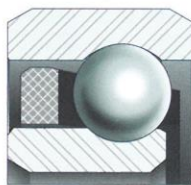
Angular Contact, Open
Aftermarket Burr Tube



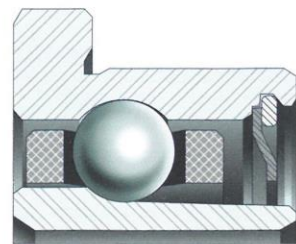
Angular Contact
Straight, Integral Shield



Radial, Straight
Removable Shield



Radial
Open



Angular Contact
Flanged, Removable Shield