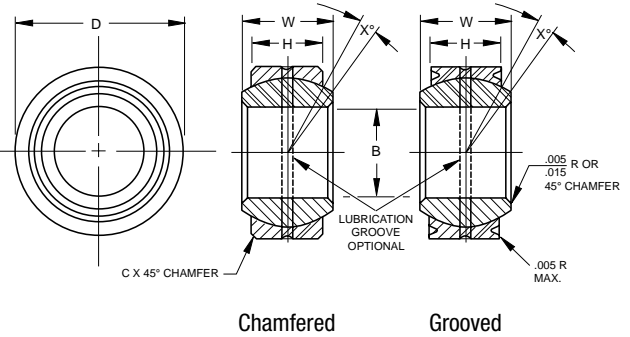


## MS21154B GROOVED RACE & MS21155B CHAMFERED RACE, BRONZE SERIES METAL-TO-METAL SPHERICAL BEARING, NARROW

- Qualified to AS8976 (formerly MIL-B-8976)
- Narrow series, metal-to-metal
- Material MS21154S & MS21155S steel series 03-503 and 03-505  
Outer ring: Alloy steel, AMS-S-5000, AMS-S-6758 or AMS-S-6050  
Inner ring: CRES 440C, HRC 55 min. AMS 5630
- Material MS21154B & MS21155B bronze series 03-523 and 03-525  
Outer ring: Aluminum bronze  
Inner ring: CRES 440C, HRC 55 min. AMS 5630



### SPECIFICATIONS AND ORDERING INFORMATION

#### DIMENSIONS – TOLERANCES

| BLN-x-2210<br>Chamfered<br>BLN-x-2215<br>Grooved<br>Bronze Race | BSN-x-2211<br>Chamfered<br>BSN-x-2216<br>Grooved<br>Steel Race | B                               |        | D                              |        | H               |       | W                           |       | A     | C <sup>(1)</sup>            | X°   |      |    |
|---|--|---------------------------------|--------|--------------------------------|--------|-----------------|-------|-----------------------------|-------|-------|-----------------------------|------|------|----|
|   |  | + .0000, -.0005<br>+.000, -.013 |        | + .0000, -.0005<br>+.000, .013 |        | ± .005<br>± .13 |       | + .000, -.002<br>+.00, -.05 |       | Min.  | + .020, -.010<br>+.51, -.25 | Ref. |      |    |
| Chamfered/Grooved Dash Numbers                                  |  | in.                             | mm     | in.                            | mm     | in.             | mm    | in.                         | mm    | in.   | mm                          | in.  | mm   |    |
| -03   |  | .1900                           | 4.826  | .5625                          | 14.288 | .218            | 5.54  | .281                        | 7.14  | .293  | 7.44                        | .020 | 0.51 | 10 |
| -04   |  | .2500                           | 6.350  | .6562                          | 16.667 | .250            | 6.35  | .343                        | 8.71  | .364  | 9.25                        | .020 | 0.51 | 10 |
| -05   |  | .3125                           | 7.938  | .7500                          | 19.050 | .281            | 7.14  | .375                        | 9.52  | .419  | 10.64                       | .020 | 0.51 | 10 |
| -06   |  | .3750                           | 9.525  | .8125                          | 20.638 | .312            | 7.92  | .406                        | 10.31 | .475  | 12.06                       | .020 | 0.51 | 9  |
| -07   |  | .4375                           | 11.113 | .9062                          | 23.017 | .343            | 8.71  | .437                        | 11.10 | .530  | 13.46                       | .020 | 0.51 | 8  |
| -08   |  | .5000                           | 12.700 | 1.0000                         | 25.400 | .390            | 9.91  | .500                        | 12.70 | .600  | 15.24                       | .030 | 0.76 | 8  |
| -09   |  | .5625                           | 14.288 | 1.0937                         | 27.780 | .437            | 11.10 | .562                        | 14.27 | .670  | 17.02                       | .030 | 0.76 | 8  |
| -10   |  | .6250                           | 15.875 | 1.1875                         | 30.163 | .500            | 12.70 | .625                        | 15.88 | .739  | 18.77                       | .030 | 0.76 | 8  |
| -12   |  | .7500                           | 19.050 | 1.4375                         | 36.513 | .593            | 15.06 | .750                        | 19.05 | .920  | 23.37                       | .030 | 0.76 | 8  |
| -14   |  | .8750                           | 22.225 | 1.5625                         | 39.688 | .703            | 17.86 | .875                        | 22.22 | .980  | 24.89                       | .030 | 0.76 | 8  |
| -16   |  | 1.0000                          | 25.400 | 1.7500                         | 44.450 | .797            | 20.24 | 1.000                       | 25.40 | 1.118 | 28.40                       | .030 | 0.76 | 9  |
| -20   |  | 1.2500                          | 31.750 | 2.0000                         | 50.800 | .942            | 23.93 | 1.093                       | 27.76 | 1.390 | 35.31                       | .030 | 0.76 | 6  |
| -24   |  | 1.5000                          | 38.100 | 2.4375                         | 61.913 | 1.130           | 28.70 | 1.312                       | 33.32 | 1.750 | 44.45                       | .030 | 0.76 | 6  |
| -28   |  | 1.7500                          | 44.450 | 2.8125                         | 71.438 | 1.317           | 33.45 | 1.531                       | 38.89 | 2.000 | 50.80                       | .030 | 0.76 | 6  |
| -32   |  | 2.0000                          | 50.800 | 3.1875                         | 80.963 | 1.505           | 38.23 | 1.750                       | 44.45 | 2.225 | 56.51                       | .030 | 0.76 | 6  |

<sup>(1)</sup>Chamfered Type only. <sup>(2)</sup>Grooved Type only. See page 17 for groove dimensions

#### LOAD RATINGS

| BLN-x-2210<br>Chamfered<br>BLN-x-2215<br>Grooved<br>Bronze Race | BSN-x-2211<br>Chamfered<br>BSN-x-2216<br>Grooved<br>Steel Race | Axial Static Limit Load<br>Bronze Race |        | Radial<br>Limit Load Rating <sup>(1)</sup> |         |                 |        | Axial Static Limit Load<br>Steel Race |        | Weight<br>Approx. |      |
|---|--|--|--------|--|---------|-----------------|--------|---------------------------------------|--------|-------------------|------|
|   |  | lbs.                                   | N      | CRES                                       |         | Aluminum Bronze |        | lbs.                                  | N      | lbs.              | kg   |
| -03   |  | 850                                    | 3780   | 4600                                       | 20500   | 2800            | 12500  | 2100                                  | 9340   | .02               | .009 |
| -04   |  | 1100                                   | 4890   | 7080                                       | 31500   | 4300            | 19100  | 2800                                  | 12455  | .02               | .009 |
| -05   |  | 1400                                   | 6230   | 8500                                       | 37800   | 5200            | 23100  | 3550                                  | 15790  | .03               | .014 |
| -06   |  | 1760                                   | 7830   | 11050                                      | 49200   | 6750            | 30000  | 4400                                  | 19570  | .04               | .018 |
| -07   |  | 2150                                   | 9560   | 13900                                      | 61800   | 8500            | 37800  | 5400                                  | 24020  | .05               | .023 |
| -08   |  | 2800                                   | 12455  | 18850                                      | 83800   | 11500           | 51200  | 7050                                  | 31360  | .07               | .032 |
| -09   |  | 3550                                   | 15790  | 25500                                      | 114000  | 15600           | 69400  | 8900                                  | 39590  | .09               | .041 |
| -10   |  | 4650                                   | 20685  | 31900                                      | 142000  | 19500           | 86700  | 11700                                 | 52040  | .12               | .054 |
| -12   |  | 6575                                   | 29245  | 46750                                      | 208000  | 28500           | 127000 | 16500                                 | 73395  | .21               | .095 |
| -14   |  | 9300                                   | 41365  | 62750                                      | 279000  | 38300           | 170000 | 23300                                 | 103640 | .27               | .122 |
| -16   |  | 12000                                  | 53380  | 83350                                      | 371000  | 51000           | 227000 | 30000                                 | 133450 | .29               | .131 |
| -20   |  | 38000                                  | 170000 | 114000                                     | 506000  | 71000           | 316000 | 12160                                 | 54000  | .39               | .176 |
| -24   |  | 38000                                  | 170000 | 169000                                     | 752000  | 106000          | 470000 | 12160                                 | 54000  | .96               | .432 |
| -28   |  | 38000                                  | 170000 | 228000                                     | 1016000 | 143000          | 635000 | 12160                                 | 54000  | 1.48              | .666 |
| -32   |  | 38000                                  | 170000 | 292000                                     | 1297000 | 182000          | 810000 | 12160                                 | 54000  | 2.10              | .945 |

<sup>(1)</sup>Load ratings based on AS21155 for CRES and Aluminum bronze

| RBC Aerospace P/N | Style     | Race   | Part No.   |
|-------------------|-----------|--------|------------|
| BLN-x-2210        | Chamfered | Bronze | MS21155B-x |
| BSN-x-2211        | Chamfered | Steel  | MS21155S-x |
| BLN-x-2215        | Grooved   | Bronze | MS21154B-x |
| BSN-x-2216        | Grooved   | Steel  | MS21154S-x |