



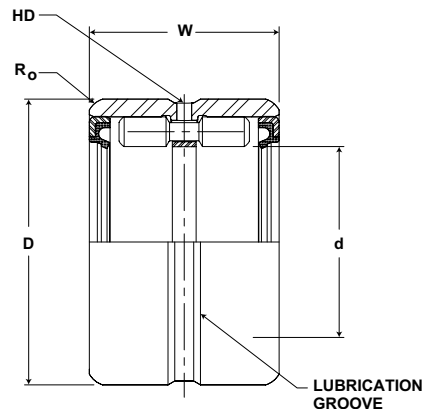
**Basic Construction Type:** Machined Race with full Complement of Needles

**Rolling Elements:** Center Guided Precision Needles

**Bearing Material:** Bearing Quality Steel

**Seal Type:** Rubber Lip

**Lubrication:** Sealed Bearings: Lithium Soap Grease NLGI #1  
Unsealed Bearings: Rust Preventative



## GR SERIES (continued)

| Part No.                  | d                                   |      | D                                   |      | W                        | Housing Bore Diameter |                  |                         | HD                        | Ro                      | Limiting Speed (In Oil)* | Basic Dynamic Rating | Basic Static Rating | Outer & Roller Assembly Weight |
|---------------------------|-------------------------------------|------|-------------------------------------|------|--------------------------|-----------------------|------------------|-------------------------|---------------------------|-------------------------|--------------------------|----------------------|---------------------|--------------------------------|
|                           | Shaft Diameter                      |      | Outside Diameter                    |      | Width                    |                       |                  |                         | Radial Lub. Hole Diameter | Max Hsg Radius to Clear |                          |                      |                     |                                |
|                           | inch mm                             |      | inch mm                             |      | inch mm                  | inch mm               |                  |                         | inch mm                   |                         | RPM                      | lb/N                 | lb/N                | lb kg                          |
|                           | Nom                                 | Tol. | Nom                                 | Tol. | Tol +0/-0.005 (+0/-0.13) | Rotating              | Stationary       | Tol.                    | (Ref)                     | (Ref)                   |                          |                      |                     |                                |
| GR 20 N                   | 1.2500 +0/-0.0005<br>31.8 +0/-0.013 |      | 1.7500 +0/-0.0005<br>44.5 +0/-0.013 |      | 1.000<br>25.40           | 1.7497<br>44.460      | 1.7507<br>44.485 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.04<br>1               | 4,800                    | 6,500<br>28,912      | 17,000<br>75,616    | .27<br>.12                     |
| GR 20 SS, S, RS, SRS, RSS |                                     |      |                                     |      | 1.250<br>31.75           | 1.7497<br>44.460      | 1.7507<br>44.485 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.04<br>1               | 3,050                    | 6,500<br>28,912      | 17,000<br>75,616    | .39<br>.15                     |
| GR 20                     |                                     |      |                                     |      |                          | 1.7497<br>44.460      | 1.7507<br>44.485 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.04<br>1               | 4,800                    | 8,300<br>36,918      | 23,100<br>102,749   | .39<br>.15                     |
| GR 22 N                   | 1.3750 +0/-0.0005<br>34.9 +0/-0.013 |      | 1.8750 +0/-0.0006<br>47.6 +0/-0.015 |      | 1.000<br>25.40           | 1.8747<br>47.636      | 1.8757<br>47.662 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.04<br>1               | 4,400                    | 7,100<br>31,581      | 18,600<br>82,733    | .31<br>.14                     |
| GR 22 SS, S, RS, SRS, RSS |                                     |      |                                     |      | 1.250<br>31.75           | 1.8747<br>47.636      | 1.8757<br>47.662 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.04<br>1               | 2,800                    | 7,100<br>31,581      | 18,600<br>82,733    | .36<br>.16                     |
| GR 22                     |                                     |      |                                     |      |                          | 1.8747<br>47.636      | 1.8757<br>47.662 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.04<br>1               | 4,400                    | 9,050<br>40,254      | 25,500<br>113,424   | .36<br>.16                     |
| GR 24 N                   | 1.5000 +0/-0.0005<br>38.1 +0/-0.013 |      | 2.0625 +0/-0.0006<br>52.4 +0/-0.015 |      | 1.000<br>25.40           | 2.0621<br>52.398      | 2.0632<br>52.426 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 4,000                    | 7,150<br>31,803      | 20,200<br>89,850    | .41<br>.19                     |
| GR 24 SS, S, RS, SRS, RSS |                                     |      |                                     |      | 1.250<br>31.75           | 2.0621<br>52.398      | 2.0632<br>52.426 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 2,500                    | 7,150<br>31,803      | 20,200<br>89,850    | .47<br>.21                     |
| GR 24                     |                                     |      |                                     |      |                          | 2.0621<br>52.398      | 2.0632<br>52.426 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 4,000                    | 9,150<br>40,699      | 27,800<br>123,654   | .47<br>.21                     |
| GR 26 N                   | 1.6250 +0/-0.0005<br>41.3 +0/-0.013 |      | 2.1875 +0/-0.0006<br>55.6 +0/-0.015 |      | 1.000<br>25.40           | 2.1871<br>55.574      | 2.1882<br>55.602 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 3,700                    | 7,500<br>33,360      | 21,700<br>96,522    | .46<br>.21                     |
| GR 26 SS, S, RS, SRS, RSS |                                     |      |                                     |      | 1.250<br>31.75           | 2.1871<br>55.574      | 2.1882<br>55.602 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 2,350                    | 7,500<br>33,360      | 21,700<br>96,522    | .51<br>.23                     |
| GR 26                     |                                     |      |                                     |      |                          | 2.1871<br>55.574      | 2.1882<br>55.602 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 3,700                    | 9,600<br>42,701      | 29,800<br>132,550   | .51<br>.23                     |
| GR 28 N                   | 1.7500 +0/-0.0005<br>44.5 +0/-0.013 |      | 2.3125 +0/-0.0006<br>58.8 +0/-0.015 |      | 1.000<br>25.40           | 2.3121<br>58.750      | 2.3132<br>58.778 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 3,400                    | 7,750<br>34,472      | 23,300<br>103,638   | .47<br>.21                     |
| GR 28 SS, S, RS, SRS, RSS |                                     |      |                                     |      | 1.250<br>31.75           | 2.3121<br>58.750      | 2.3132<br>58.778 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 2,200                    | 7,750<br>34,472      | 23,300<br>103,638   | .55<br>.25                     |
| GR 28                     |                                     |      |                                     |      |                          | 2.3121<br>58.750      | 2.3132<br>58.778 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 3,400                    | 9,850<br>43,813      | 32,100<br>142,781   | .55<br>.25                     |
| GR 30 SS, S, RS, SRS, RSS | 1.8750 +0/-0.0005<br>47.6 +0/-0.013 |      | 2.4375 +0/-0.0006<br>61.9 +0/-0.015 |      | 1.250<br>31.75           | 2.4371<br>61.927      | 2.4382<br>61.955 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 2,040                    | 8,150<br>36,251      | 25,200<br>112,090   | .59<br>.27                     |
| GR 30                     |                                     |      |                                     |      |                          | 2.4371<br>61.927      | 2.4382<br>61.955 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 3,100                    | 8,150<br>36,251      | 25,200<br>112,090   | .59<br>.27                     |
| GR 32 N                   | 2.0000 +0/-0.0005<br>50.8 +0/-0.013 |      | 2.5625 +0/-0.0006<br>65.1 +0/-0.015 |      | 1.000<br>25.40           | 2.5621<br>65.103      | 2.5632<br>65.131 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 3,000                    | 8,000<br>35,584      | 26,700<br>118,762   | .55<br>.25                     |
| GR 32 SS, S, RS, SRS, RSS |                                     |      |                                     |      | 1.250<br>31.75           | 2.5621<br>65.103      | 2.5632<br>65.131 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 1,900                    | 8,000<br>35,584      | 26,700<br>118,762   | .61<br>.28                     |
| GR 32                     |                                     |      |                                     |      |                          | 2.5621<br>65.103      | 2.5632<br>65.131 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 3,000                    | 10,250<br>45,592     | 36,700<br>163,242   | .61<br>.28                     |
|                           |                                     |      |                                     |      |                          | 2.5621<br>65.103      | 2.5632<br>65.131 | +0/-0.0007<br>+0/-0.018 | .09<br>2                  | 0.06<br>2               | 3,000                    | 10,250<br>45,592     | 36,700<br>163,242   | .61<br>.28                     |

For sealed bearings, Outside diameter may be slightly oversize due to seal press fit.

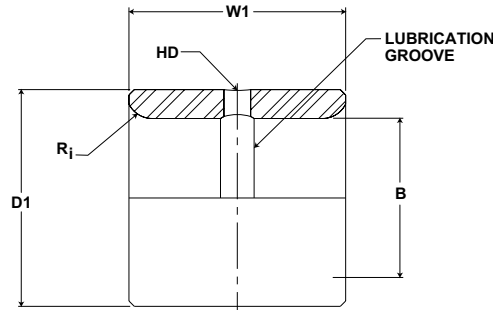
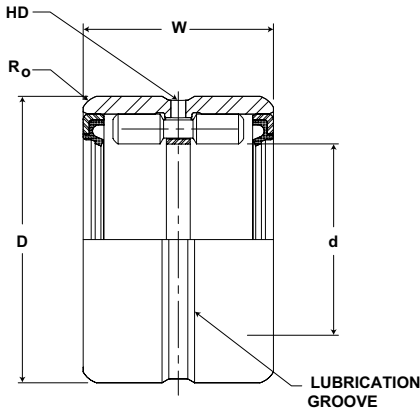
For DS matching as DS suffix to part number

\* For bearing properly filled with #1 grease reduce speed by 50%

Metric dimensions for reference only.

Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.

For more information on bearing capabilities outside of our standard offering, please contact Application Engineering (800) 626-2093.



## GR SERIES (continued)

| Part No.                     |                           | B                |                         | D1               |                         | W1                     | HD                        | Ri                        | Recommended Shaft Diameter with inner ring |                |                         | Inner Weight |
|------------------------------|---------------------------|------------------|-------------------------|------------------|-------------------------|------------------------|---------------------------|---------------------------|--------------------------------------------|----------------|-------------------------|--------------|
| Outer Ring & Roller Assembly | Separable Inner Ring Only | Bore Diameter    |                         | Outside Diameter |                         | Width                  | Radial Lub. Hole Diameter | Max Shaft Radius to Clear |                                            |                |                         |              |
|                              |                           | inch mm          |                         | inch mm          |                         | inch mm                |                           |                           | inch mm                                    |                |                         | lb kg        |
|                              |                           | Nom              | Tol.                    | Nom              | Tol.                    | Tol +0/- .005 (+0/.13) | (Ref)                     | (Ref)                     | Rotating                                   | Stationary     | Tol.                    |              |
| GR 20 N                      | MI 16 N                   | 1.0000<br>25.410 | +0/- .0005<br>+0/- .013 | 1.2491<br>31.740 | +0/- .0006<br>+0/- .015 | 1.010<br>25.66         | 0.13<br>3                 | 0.40<br>10                | 1.0005<br>25.4                             | 0.9996<br>25.4 | +0/- .0005<br>+0/- .013 | .13<br>.06   |
| GR 20 SS, S, RS, SRS, RSS    | MI 16                     | 1.0000<br>25.410 | +0/- .0005<br>+0/- .013 | 1.2491<br>31.740 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.40<br>10                | 1.0005<br>25.4                             | 0.9996<br>25.4 | +0/- .0005<br>+0/- .013 | .16<br>.07   |
| GR 20                        | MI 16                     | 1.0000<br>25.410 | +0/- .0005<br>+0/- .013 | 1.2491<br>31.740 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.40<br>10                | 1.0005<br>25.4                             | 0.9996<br>25.4 | +0/- .0005<br>+0/- .013 | .16<br>.07   |
| GR 22 N                      | MI 18 N                   | 1.1250<br>28.586 | +0/- .0005<br>+0/- .013 | 1.3741<br>34.916 | +0/- .0006<br>+0/- .015 | 1.010<br>25.66         | 0.13<br>3                 | 0.40<br>10                | 1.1255<br>28.6                             | 1.1246<br>28.6 | +0/- .0005<br>+0/- .013 | .14<br>.06   |
| GR 22 SS, S, RS, SRS, RSS    | MI 18                     | 1.1250<br>28.586 | +0/- .0005<br>+0/- .013 | 1.3741<br>34.916 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.40<br>10                | 1.1255<br>28.6                             | 1.1246<br>28.6 | +0/- .0005<br>+0/- .013 | .17<br>.08   |
| GR 22                        | MI 17                     | 1.0625<br>26.998 | +0/- .0005<br>+0/- .013 | 1.3741<br>34.916 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.40<br>10                | 1.0630<br>27.0                             | 1.0621<br>27.0 | +0/- .0005<br>+0/- .013 | .16<br>.07   |
| GR 24 N                      | MI 20 N                   | 1.2500<br>31.763 | +0/- .0005<br>+0/- .013 | 1.4990<br>38.090 | +0/- .0006<br>+0/- .015 | 1.010<br>25.66         | 0.13<br>3                 | 0.06<br>2                 | 1.2505<br>31.8                             | 1.2496<br>31.8 | +0/- .0005<br>+0/- .013 | .19<br>.09   |
| GR 24 SS, S, RS, SRS, RSS    | MI 20                     | 1.2500<br>31.763 | +0/- .0005<br>+0/- .013 | 1.4990<br>38.090 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.06<br>2                 | 1.2505<br>31.8                             | 1.2496<br>31.8 | +0/- .0005<br>+0/- .013 | .22<br>.09   |
| GR 24                        | MI 19                     | 1.1875<br>30.174 | +0/- .0005<br>+0/- .013 | 1.4990<br>38.090 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.06<br>2                 | 1.1880<br>30.2                             | 1.1871<br>30.2 | +0/- .0005<br>+0/- .013 | .24<br>.11   |
| GR 26 N                      | MI 21 N                   | 1.3125<br>33.351 | +0/- .0005<br>+0/- .013 | 1.6240<br>41.266 | +0/- .0006<br>+0/- .015 | 1.010<br>25.66         | 0.13<br>3                 | 0.06<br>2                 | 1.3130<br>33.4                             | 1.3121<br>33.3 | +0/- .0005<br>+0/- .013 | .20<br>.09   |
| GR 26 SS, S, RS, SRS, RSS    | MI 21                     | 1.3125<br>33.351 | +0/- .0005<br>+0/- .013 | 1.6240<br>41.266 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.06<br>2                 | 1.3130<br>33.4                             | 1.3121<br>33.3 | +0/- .0005<br>+0/- .013 | .26<br>.12   |
| GR 26                        | MI 22 4S                  | 1.3750<br>34.939 | +0/- .0005<br>+0/- .013 | 1.6240<br>41.266 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.06<br>2                 | 1.3755<br>35.0                             | 1.3746<br>34.9 | +0/- .0005<br>+0/- .013 | .20<br>.09   |
| GR 28 N                      | MI 24 N                   | 1.5000<br>38.115 | +0/- .0005<br>+0/- .013 | 1.7490<br>44.442 | +0/- .0006<br>+0/- .015 | 1.010<br>25.66         | 0.13<br>3                 | 0.06<br>2                 | 1.5005<br>38.1                             | 1.4996<br>38.1 | +0/- .0005<br>+0/- .013 | .22<br>.09   |
| GR 28 SS, S, RS, SRS, RSS    | MI 22                     | 1.3750<br>34.939 | +0/- .0005<br>+0/- .013 | 1.7490<br>44.442 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.06<br>2                 | 1.3755<br>35.0                             | 1.3746<br>34.9 | +0/- .0005<br>+0/- .013 | .26<br>.12   |
| GR 28                        | MI 23                     | 1.4375<br>36.527 | +0/- .0005<br>+0/- .013 | 1.7490<br>44.442 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.06<br>2                 | 1.4380<br>36.5                             | 1.4371<br>36.5 | +0/- .0005<br>+0/- .013 | .27<br>.12   |
|                              | MI 24                     | 1.5000<br>38.115 | +0/- .0005<br>+0/- .013 | 1.7490<br>44.442 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.06<br>2                 | 1.5005<br>38.1                             | 1.4996<br>38.1 | +0/- .0005<br>+0/- .013 | .22<br>.09   |
| GR 30 SS, S, RS, SRS, RSS    | MI 25 4S                  | 1.5625<br>39.703 | +0/- .0005<br>+0/- .013 | 1.8740<br>47.618 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.06<br>2                 | 1.5630<br>39.7                             | 1.5621<br>39.7 | +0/- .0005<br>+0/- .013 | .27<br>.12   |
| GR 30                        | MI 25 4S                  | 1.5625<br>39.703 | +0/- .0005<br>+0/- .013 | 1.8740<br>47.618 | +0/- .0006<br>+0/- .015 | 1.260<br>32.02         | 0.13<br>3                 | 0.06<br>2                 | 1.5630<br>39.7                             | 1.5621<br>39.7 | +0/- .0005<br>+0/- .013 | .27<br>.12   |
| GR 32 N                      | MI 26 N                   | 1.6250<br>41.291 | +0/- .0005<br>+0/- .013 | 1.9989<br>50.792 | +0/- .0007<br>+0/- .018 | 1.010<br>25.66         | 0.13<br>3                 | 0.06<br>2                 | 1.6255<br>41.3                             | 1.6246<br>41.3 | +0/- .0005<br>+0/- .013 | .30<br>.14   |
| GR 32 SS, S, RS, SRS, RSS    | MI 25                     | 1.5625<br>39.703 | +0/- .0005<br>+0/- .013 | 1.9989<br>50.792 | +0/- .0007<br>+0/- .018 | 1.260<br>32.02         | 0.13<br>3                 | 0.06<br>2                 | 1.5630<br>39.7                             | 1.5621<br>39.7 | +0/- .0005<br>+0/- .013 | .30<br>.14   |
| GR 32                        | MI 26                     | 1.6250<br>41.291 | +0/- .0005<br>+0/- .013 | 1.9989<br>50.792 | +0/- .0007<br>+0/- .018 | 1.260<br>32.0          | 0.13<br>3                 | 0.06<br>2                 | 1.6255<br>41.3                             | 1.6246<br>41.3 | +0/- .0005<br>+0/- .013 | .38<br>.17   |
|                              | MI 27                     | 1.6875<br>42.879 | +0/- .0005<br>+0/- .013 | 1.9989<br>50.792 | +0/- .0007<br>+0/- .018 | 1.260<br>32.0          | 0.13<br>3                 | 0.06<br>2                 | 1.6880<br>42.9                             | 1.6871<br>42.9 | +0/- .0005<br>+0/- .013 | .32<br>.15   |