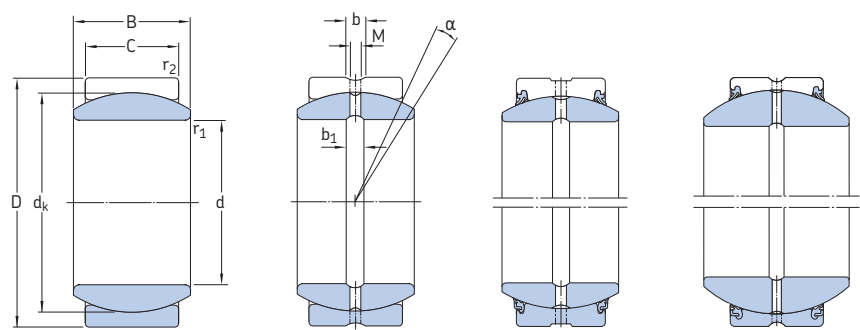


Radial spherical plain bearings, steel/steel, metric sizes  
d 4 – 40 mm



GE .. E

GE .. ES

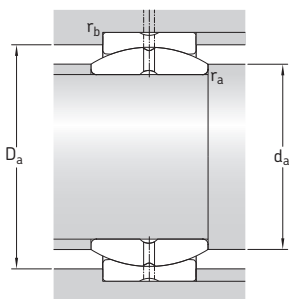
GE .. ES-2RS  
GE .. ES-2LS

GEH .. ES-2RS  
GEH .. ES-2LS

| Principal dimensions |    |    |    | Angle<br>of tilt <sup>1)</sup><br><br>$\alpha$ | Basic load ratings |                          | Mass  | Designations <sup>2)</sup>            |                                |
|----------------------|----|----|----|------------------------------------------------|--------------------|--------------------------|-------|---------------------------------------|--------------------------------|
| d                    | D  | B  | C  |                                                | dynamic<br>C       | static<br>C <sub>0</sub> |       | without seals<br>with standards seals | suffix for<br>heavy-duty seals |
| mm                   |    |    |    | degrees                                        | kN                 |                          | kg    | –                                     |                                |
| 4                    | 12 | 5  | 3  | 16                                             | 2,04               | 10,2                     | 0,003 | GE 4 E                                | –                              |
| 5                    | 14 | 6  | 4  | 13                                             | 3,4                | 17                       | 0,004 | GE 5 E                                | –                              |
| 6                    | 14 | 6  | 4  | 13                                             | 3,4                | 17                       | 0,004 | GE 6 E                                | –                              |
| 8                    | 16 | 8  | 5  | 15                                             | 5,5                | 27,5                     | 0,008 | GE 8 E                                | –                              |
| 10                   | 19 | 9  | 6  | 12                                             | 8,15               | 40,5                     | 0,012 | GE 10 E                               | –                              |
| 12                   | 22 | 10 | 7  | 10                                             | 10,8               | 54                       | 0,017 | GE 12 E                               | –                              |
| 15                   | 26 | 12 | 9  | 8                                              | 17                 | 85                       | 0,032 | GE 15 ES                              | –                              |
|                      | 26 | 12 | 9  | 8                                              | 17                 | 85                       | 0,032 | GE 15 ES-2RS                          | –                              |
| 17                   | 30 | 14 | 10 | 10                                             | 21,2               | 106                      | 0,050 | GE 17 ES                              | –                              |
|                      | 30 | 14 | 10 | 10                                             | 21,2               | 106                      | 0,050 | GE 17 ES-2RS                          | –                              |
| 20                   | 35 | 16 | 12 | 9                                              | 30                 | 146                      | 0,065 | GE 20 ES                              | –                              |
|                      | 35 | 16 | 12 | 9                                              | 30                 | 146                      | 0,065 | GE 20 ES-2RS                          | -2LS                           |
|                      | 42 | 25 | 16 | 17                                             | 48                 | 240                      | 0,16  | GEH 20 ES-2RS                         | -2LS                           |
| 25                   | 42 | 20 | 16 | 7                                              | 48                 | 240                      | 0,12  | GE 25 ES                              | –                              |
|                      | 42 | 20 | 16 | 7                                              | 48                 | 240                      | 0,12  | GE 25 ES-2RS                          | -2LS                           |
|                      | 47 | 28 | 18 | 17                                             | 62                 | 310                      | 0,20  | GEH 25 ES-2RS                         | -2LS                           |
| 30                   | 47 | 22 | 18 | 6                                              | 62                 | 310                      | 0,16  | GE 30 ES                              | –                              |
|                      | 47 | 22 | 18 | 6                                              | 62                 | 310                      | 0,16  | GE 30 ES-2RS                          | -2LS                           |
|                      | 55 | 32 | 20 | 17                                             | 80                 | 400                      | 0,35  | GEH 30 ES-2RS                         | -2LS                           |
| 35                   | 55 | 25 | 20 | 6                                              | 80                 | 400                      | 0,23  | GE 35 ES                              | –                              |
|                      | 55 | 25 | 20 | 6                                              | 80                 | 400                      | 0,23  | GE 35 ES-2RS                          | -2LS                           |
|                      | 62 | 35 | 22 | 15                                             | 100                | 500                      | 0,47  | GEH 35 ES-2RS                         | -2LS                           |
| 40                   | 62 | 28 | 22 | 7                                              | 100                | 500                      | 0,32  | GE 40 ES                              | –                              |
|                      | 62 | 28 | 22 | 6                                              | 100                | 500                      | 0,32  | GE 40 ES-2RS                          | -2LS                           |
|                      | 68 | 40 | 25 | 17                                             | 127                | 640                      | 0,61  | GEH 40 ES-2RS                         | -2LS                           |

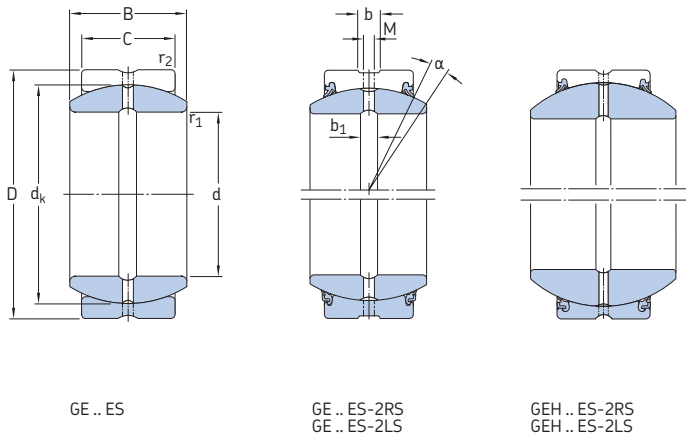
1) To fully utilize the angle of tilt, the shaft shoulder should not be made larger than  $d_{a \max}$ .

2) Bearings with an outside diameter  $D \geq 150$  mm have the multi-groove system in the outer ring as standard. Bearings with an outside diameter  $D < 150$  mm can be supplied with the multi-groove system on request (designation suffix ESL).



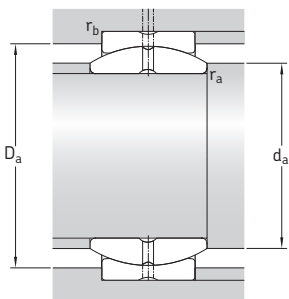
| Dimensions |                |     |                |     |                       |                       | Abutment and fillet dimensions |                       |                       |                       |                       |                       |
|------------|----------------|-----|----------------|-----|-----------------------|-----------------------|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| d          | d <sub>k</sub> | b   | b <sub>1</sub> | M   | r <sub>1</sub><br>min | r <sub>2</sub><br>min | d <sub>a</sub><br>min          | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
| mm         |                |     |                |     |                       |                       | mm                             |                       |                       |                       |                       |                       |
| 4          | 8              | –   | –              | –   | 0,3                   | 0,3                   | 5,5                            | 6,2                   | 7,6                   | 10,7                  | 0,3                   | 0,3                   |
| 5          | 10             | –   | –              | –   | 0,3                   | 0,3                   | 6,6                            | 8                     | 9,5                   | 12,6                  | 0,3                   | 0,3                   |
| 6          | 10             | –   | –              | –   | 0,3                   | 0,3                   | 7,5                            | 8                     | 9,5                   | 12,6                  | 0,3                   | 0,3                   |
| 8          | 13             | –   | –              | –   | 0,3                   | 0,3                   | 9,6                            | 10,2                  | 12,3                  | 14,5                  | 0,3                   | 0,3                   |
| 10         | 16             | –   | –              | –   | 0,3                   | 0,3                   | 11,7                           | 13,2                  | 17,5                  | 15,2                  | 0,3                   | 0,3                   |
| 12         | 18             | –   | –              | –   | 0,3                   | 0,3                   | 13,8                           | 15                    | 17,1                  | 20,4                  | 0,3                   | 0,3                   |
| 15         | 22             | 2,3 | 2,3            | 1,5 | 0,3                   | 0,3                   | 16,9                           | 18,4                  | 20,9                  | 24,3                  | 0,3                   | 0,3                   |
|            | 22             | 2,3 | 2,3            | 1,5 | 0,3                   | 0,3                   | 16,9                           | 18,4                  | 22,8                  | 24,3                  | 0,3                   | 0,3                   |
| 17         | 25             | 2,3 | 2,3            | 1,5 | 0,3                   | 0,3                   | 19                             | 20,7                  | 23,7                  | 28,3                  | 0,3                   | 0,3                   |
|            | 25             | 2,3 | 2,3            | 1,5 | 0,3                   | 0,3                   | 19                             | 20,7                  | 26                    | 28,3                  | 0,3                   | 0,3                   |
| 20         | 29             | 3,1 | 3,1            | 2   | 0,3                   | 0,3                   | 22,1                           | 24,2                  | 27,6                  | 33,2                  | 0,3                   | 0,3                   |
|            | 29             | 3,1 | 3,1            | 2   | 0,3                   | 0,3                   | 22,1                           | 24,2                  | 30,9                  | 33,2                  | 0,3                   | 0,3                   |
|            | 35,5           | 3,1 | 3,1            | 2   | 0,3                   | 0,6                   | 22,7                           | 25,2                  | 36,9                  | 39,2                  | 0,3                   | 0,6                   |
| 25         | 35,5           | 3,1 | 3,1            | 2   | 0,6                   | 0,6                   | 28,2                           | 29,3                  | 33,7                  | 39,2                  | 0,6                   | 0,6                   |
|            | 35,5           | 3,1 | 3,1            | 2   | 0,6                   | 0,6                   | 28,2                           | 29,3                  | 36,9                  | 39,2                  | 0,6                   | 0,6                   |
|            | 40,7           | 3,1 | 3,1            | 2   | 0,6                   | 0,6                   | 28,6                           | 29,5                  | 41,3                  | 44                    | 0,6                   | 0,6                   |
| 30         | 40,7           | 3,1 | 3,1            | 2   | 0,6                   | 0,6                   | 33,3                           | 34,2                  | 38,7                  | 44                    | 0,6                   | 0,6                   |
|            | 40,7           | 3,1 | 3,1            | 2   | 0,6                   | 0,6                   | 33,3                           | 34,2                  | 41,3                  | 44                    | 0,6                   | 0,6                   |
|            | 47             | 3,9 | 3,9            | 2,5 | 0,6                   | 1                     | 33,7                           | 34,4                  | 48,5                  | 50,9                  | 0,6                   | 1                     |
| 35         | 47             | 3,9 | 3,9            | 2,5 | 0,6                   | 1                     | 38,5                           | 39,8                  | 44,6                  | 50,9                  | 0,6                   | 1                     |
|            | 47             | 3,9 | 3,9            | 2,5 | 0,6                   | 1                     | 38,5                           | 39,8                  | 48,5                  | 50,9                  | 0,6                   | 1                     |
|            | 53             | 3,9 | 3,9            | 2,5 | 0,6                   | 1                     | 38,8                           | 39,8                  | 54,5                  | 57,8                  | 0,6                   | 1                     |
| 40         | 53             | 3,9 | 3,9            | 2,5 | 0,6                   | 1                     | 43,6                           | 45                    | 50,3                  | 57,8                  | 0,6                   | 1                     |
|            | 53             | 3,9 | 3,9            | 2,5 | 0,6                   | 1                     | 43,6                           | 45                    | 54,5                  | 57,8                  | 0,6                   | 1                     |
|            | 60             | 4,6 | 4,6            | 3   | 0,6                   | 1                     | 44,1                           | 44,7                  | 61                    | 63,6                  | 0,6                   | 1                     |

Radial spherical plain bearings, steel/steel, metric sizes  
d 45 – 120 mm



| Principal dimensions |     |     |    | Angle of tilt <sup>1)</sup> | Basic load ratings |                | Mass | Designations <sup>2)</sup> |                             |
|----------------------|-----|-----|----|-----------------------------|--------------------|----------------|------|----------------------------|-----------------------------|
| d                    | D   | B   | C  | $\alpha$                    | C                  | C <sub>0</sub> |      | without seals              | suffix for heavy-duty seals |
| mm                   |     |     |    | degrees                     | kN                 |                | kg   | –                          |                             |
| 45                   | 68  | 32  | 25 | 7                           | 127                | 640            | 0,46 | GE 45 ES                   | –                           |
|                      | 68  | 32  | 25 | 7                           | 127                | 640            | 0,46 | GE 45 ES-2RS               | -2LS                        |
|                      | 75  | 43  | 28 | 14                          | 156                | 780            | 0,80 | GEH 45 ES-2RS              | -2LS                        |
| 50                   | 75  | 35  | 28 | 6                           | 156                | 780            | 0,56 | GE 50 ES                   | –                           |
|                      | 75  | 35  | 28 | 6                           | 156                | 780            | 0,56 | GE 50 ES-2RS               | -2LS                        |
|                      | 90  | 56  | 36 | 17                          | 245                | 1 220          | 1,60 | GEH 50 ES-2RS              | -2LS                        |
| 60                   | 90  | 44  | 36 | 6                           | 245                | 1 220          | 1,10 | GE 60 ES                   | –                           |
|                      | 90  | 44  | 36 | 6                           | 245                | 1 220          | 1,10 | GE 60 ES-2RS               | -2LS                        |
|                      | 105 | 63  | 40 | 17                          | 315                | 1 560          | 2,40 | GEH 60 ES-2RS              | -2LS                        |
| 70                   | 105 | 49  | 40 | 6                           | 315                | 1 560          | 1,55 | GE 70 ES                   | –                           |
|                      | 105 | 49  | 40 | 6                           | 315                | 1 560          | 1,55 | GE 70 ES-2RS               | -2LS                        |
|                      | 120 | 70  | 45 | 16                          | 400                | 2 000          | 3,40 | GEH 70 ES-2RS              | -2LS                        |
| 80                   | 120 | 55  | 45 | 6                           | 400                | 2 000          | 2,30 | GE 80 ES                   | –                           |
|                      | 120 | 55  | 45 | 5                           | 400                | 2 000          | 2,30 | GE 80 ES-2RS               | -2LS                        |
|                      | 130 | 75  | 50 | 14                          | 490                | 2 450          | 4,10 | GEH 80 ES-2RS              | -2LS                        |
| 90                   | 130 | 60  | 50 | 5                           | 490                | 2 450          | 2,75 | GE 90 ES                   | –                           |
|                      | 130 | 60  | 50 | 5                           | 490                | 2 450          | 2,75 | GE 90 ES-2RS               | -2LS                        |
|                      | 150 | 85  | 55 | 15                          | 610                | 3 050          | 6,30 | GEH 90 ES-2RS              | -2LS                        |
| 100                  | 150 | 70  | 55 | 7                           | 610                | 3 050          | 4,40 | GE 100 ES                  | –                           |
|                      | 150 | 70  | 55 | 6                           | 610                | 3 050          | 4,40 | GE 100 ES-2RS              | -2LS                        |
|                      | 160 | 85  | 55 | 13                          | 655                | 3 250          | 6,80 | GEH 100 ES-2RS             | -2LS                        |
| 110                  | 160 | 70  | 55 | 6                           | 655                | 3 250          | 4,80 | GE 110 ES                  | –                           |
|                      | 160 | 70  | 55 | 6                           | 655                | 3 250          | 4,80 | GE 110 ES-2RS              | -2LS                        |
|                      | 180 | 100 | 70 | 12                          | 950                | 4 750          | 11,0 | GEH 110 ES-2RS             | -2LS                        |
| 120                  | 180 | 85  | 70 | 6                           | 950                | 4 750          | 8,25 | GE 120 ES                  | –                           |
|                      | 180 | 85  | 70 | 6                           | 950                | 4 750          | 8,25 | GE 120 ES-2RS              | -2LS                        |
|                      | 210 | 115 | 70 | 16                          | 1 080              | 5 400          | 15,0 | GEH 120 ES-2RS             | -2LS                        |

1) To fully utilize the angle of tilt, the shaft shoulder should not be made larger than  $d_{a \max}$ .  
2) Bearings with an outside diameter  $D \geq 150$  mm have the multi-groove system in the outer ring as standard. Bearings with an outside diameter  $D < 150$  mm can be supplied with the multi-groove system on request (designation suffix ESL).

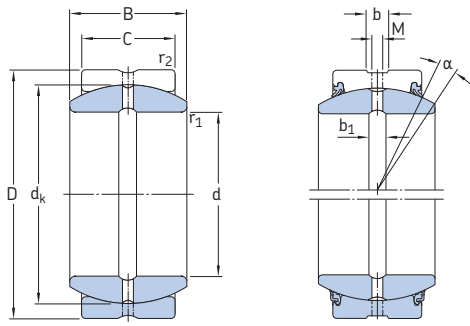


## Dimensions

## Abutment and fillet dimensions

| d          | d <sub>k</sub> | b    | b <sub>1</sub> | M | r <sub>1</sub><br>min | r <sub>2</sub><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|------------|----------------|------|----------------|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| mm         |                |      |                |   |                       |                       | mm                    |                       |                       |                       |                       |                       |
| <b>45</b>  | 60             | 4,6  | 4,6            | 3 | 0,6                   | 1                     | 49,4                  | 50,8                  | 57                    | 63,6                  | 0,6                   | 1                     |
|            | 60             | 4,6  | 4,6            | 3 | 0,6                   | 1                     | 49,4                  | 50,8                  | 61                    | 63,6                  | 0,6                   | 1                     |
|            | 66             | 4,6  | 4,6            | 3 | 0,6                   | 1                     | 49,8                  | 50,1                  | 66,2                  | 70,5                  | 0,6                   | 1                     |
| <b>50</b>  | 66             | 4,6  | 4,6            | 3 | 0,6                   | 1                     | 54,6                  | 56                    | 62,7                  | 70,5                  | 0,6                   | 1                     |
|            | 66             | 4,6  | 4,6            | 3 | 0,6                   | 1                     | 54,6                  | 56                    | 66,2                  | 70,5                  | 0,6                   | 1                     |
|            | 80             | 6,2  | 6,2            | 4 | 0,6                   | 1                     | 55,8                  | 57,1                  | 79,7                  | 84,2                  | 0,6                   | 1                     |
| <b>60</b>  | 80             | 6,2  | 6,2            | 4 | 1                     | 1                     | 66,4                  | 66,8                  | 76                    | 84,2                  | 1                     | 1                     |
|            | 80             | 6,2  | 6,2            | 4 | 1                     | 1                     | 66,4                  | 66,8                  | 79,7                  | 84,2                  | 1                     | 1                     |
|            | 92             | 7,7  | 7,7            | 4 | 1                     | 1                     | 67                    | 67                    | 92                    | 99                    | 1                     | 1                     |
| <b>70</b>  | 92             | 7,7  | 7,7            | 4 | 1                     | 1                     | 76,7                  | 77,9                  | 87,4                  | 99                    | 1                     | 1                     |
|            | 92             | 7,7  | 7,7            | 4 | 1                     | 1                     | 76,7                  | 77,9                  | 92                    | 99                    | 1                     | 1                     |
|            | 105            | 7,7  | 7,7            | 4 | 1                     | 1                     | 77,5                  | 78,3                  | 104,4                 | 113,8                 | 1                     | 1                     |
| <b>80</b>  | 105            | 7,7  | 7,7            | 4 | 1                     | 1                     | 87,1                  | 89,4                  | 99,7                  | 113,8                 | 1                     | 1                     |
|            | 105            | 7,7  | 7,7            | 4 | 1                     | 1                     | 87,1                  | 89,4                  | 104,4                 | 113,8                 | 1                     | 1                     |
|            | 115            | 9,5  | 9,5            | 5 | 1                     | 1                     | 87,2                  | 87,2                  | 112,9                 | 123,5                 | 1                     | 1                     |
| <b>90</b>  | 115            | 9,5  | 9,5            | 5 | 1                     | 1                     | 97,4                  | 98,1                  | 109,3                 | 123,5                 | 1                     | 1                     |
|            | 115            | 9,5  | 9,5            | 5 | 1                     | 1                     | 97,4                  | 98,1                  | 112,9                 | 123,5                 | 1                     | 1                     |
|            | 130            | 11,3 | 11,3           | 5 | 1                     | 1                     | 98,2                  | 98,4                  | 131                   | 143,2                 | 1                     | 1                     |
| <b>100</b> | 130            | 11,3 | 11,3           | 5 | 1                     | 1                     | 107,8                 | 109,5                 | 123,5                 | 143,2                 | 1                     | 1                     |
|            | 130            | 11,3 | 11,3           | 5 | 1                     | 1                     | 107,8                 | 109,5                 | 131                   | 143,2                 | 1                     | 1                     |
|            | 140            | 11,5 | 11,5           | 5 | 1                     | 1                     | 108,1                 | 111,2                 | 141,5                 | 153,3                 | 1                     | 1                     |
| <b>110</b> | 140            | 11,5 | 11,5           | 5 | 1                     | 1                     | 118                   | 121                   | 133                   | 153                   | 1                     | 1                     |
|            | 140            | 11,5 | 11,5           | 5 | 1                     | 1                     | 118                   | 121                   | 141,5                 | 153                   | 1                     | 1                     |
|            | 160            | 13,5 | 13,5           | 6 | 1                     | 1                     | 119,5                 | 124,5                 | 157,5                 | 172                   | 1                     | 1                     |
| <b>120</b> | 160            | 13,5 | 13,5           | 6 | 1                     | 1                     | 129,5                 | 135,5                 | 152                   | 172                   | 1                     | 1                     |
|            | 160            | 13,5 | 13,5           | 6 | 1                     | 1                     | 129,5                 | 135,5                 | 157,5                 | 172                   | 1                     | 1                     |
|            | 180            | 13,5 | 13,5           | 6 | 1                     | 1                     | 130                   | 138,5                 | 180                   | 202,5                 | 1                     | 1                     |

Radial spherical plain bearings, steel/steel, metric sizes  
d 140 – 300 mm

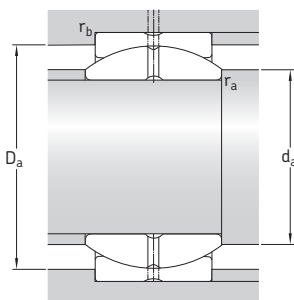


GE .. ES

GE .. ES-2RS  
GE .. ES-2LS

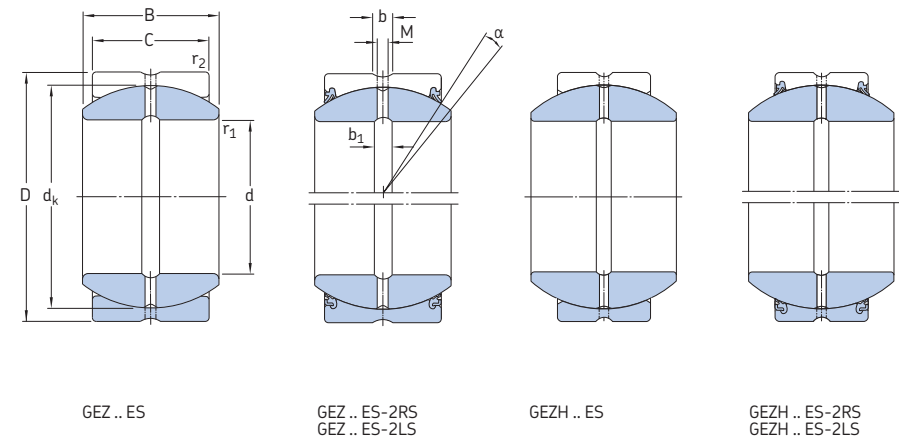
| Principal dimensions |     |     |     | Angle<br>of tilt <sup>1)</sup> | Basic load ratings |                | Mass | Designations <sup>2)</sup> |                             |
|----------------------|-----|-----|-----|--------------------------------|--------------------|----------------|------|----------------------------|-----------------------------|
| d                    | D   | B   | C   |                                | dynamic            | static         |      | without seals              | suffix for heavy-duty seals |
|                      |     |     |     | $\alpha$                       | C                  | C <sub>0</sub> |      | with standard seals        |                             |
| mm                   |     |     |     | degrees                        | kN                 |                | kg   | –                          |                             |
| 140                  | 210 | 90  | 70  | 7                              | 1 080              | 5 400          | 11,0 | GE 140 ES                  | –                           |
|                      | 210 | 90  | 70  | 7                              | 1 080              | 5 400          | 11,0 | GE 140 ES-2RS              | -2LS                        |
| 160                  | 230 | 105 | 80  | 8                              | 1 370              | 6 800          | 14,0 | GE 160 ES                  | –                           |
|                      | 230 | 105 | 80  | 8                              | 1 370              | 6 800          | 14,0 | GE 160 ES-2RS              | -2LS                        |
| 180                  | 260 | 105 | 80  | 6                              | 1 530              | 7 650          | 18,5 | GE 180 ES                  | –                           |
|                      | 260 | 105 | 80  | 6                              | 1 530              | 7 650          | 18,5 | GE 180 ES-2RS              | -2LS                        |
| 200                  | 290 | 130 | 100 | 7                              | 2 120              | 10 600         | 28,0 | GE 200 ES                  | –                           |
|                      | 290 | 130 | 100 | 7                              | 2 120              | 10 600         | 28,0 | GE 200 ES-2RS              | -2LS                        |
| 220                  | 320 | 135 | 100 | 8                              | 2 320              | 11 600         | 35,5 | GE 220 ES-2RS              | -2LS                        |
| 240                  | 340 | 140 | 100 | 8                              | 2 550              | 12 700         | 40,0 | GE 240 ES-2RS              | -2LS                        |
| 260                  | 370 | 150 | 110 | 7                              | 3 050              | 15 300         | 51,5 | GE 260 ES-2RS              | -2LS                        |
| 280                  | 400 | 155 | 120 | 6                              | 3 550              | 18 000         | 65,0 | GE 280 ES-2RS              | -2LS                        |
| 300                  | 430 | 165 | 120 | 7                              | 3 800              | 19 000         | 78,5 | GE 300 ES-2RS              | -2LS                        |

<sup>1)</sup> To fully utilize the angle of tilt, the shaft shoulder should not be made larger than d<sub>a max</sub>.  
<sup>2)</sup> Bearings with an outside diameter D ≥ 150 mm have the multi-groove system in the outer ring as standard.



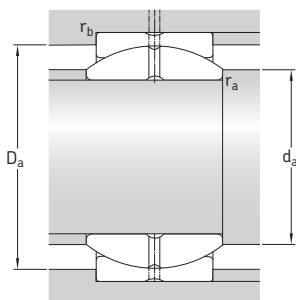
| Dimensions |                |      |                |   |                       |                       |  | Abutment and fillet dimensions |                       |                       |                       |                       |                       |
|------------|----------------|------|----------------|---|-----------------------|-----------------------|--|--------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| d          | d <sub>k</sub> | b    | b <sub>1</sub> | M | r <sub>1</sub><br>min | r <sub>2</sub><br>min |  | d <sub>a</sub><br>min          | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
| mm         |                |      |                |   |                       |                       |  | mm                             |                       |                       |                       |                       |                       |
| <b>140</b> | 180            | 13,5 | 13,5           | 6 | 1                     | 1                     |  | 149                            | 155,5                 | 171                   | 202,5                 | 1                     | 1                     |
|            | 180            | 13,5 | 13,5           | 6 | 1                     | 1                     |  | 149                            | 155,5                 | 180                   | 202,5                 | 1                     | 1                     |
| <b>160</b> | 200            | 13,5 | 13,5           | 6 | 1                     | 1                     |  | 169,5                          | 170                   | 190                   | 222                   | 1                     | 1                     |
|            | 200            | 13,5 | 13,5           | 6 | 1                     | 1                     |  | 169,5                          | 170                   | 197                   | 222                   | 1                     | 1                     |
| <b>180</b> | 225            | 13,5 | 13,5           | 6 | 1,1                   | 1,1                   |  | 191                            | 199                   | 214                   | 250,5                 | 1                     | 1                     |
|            | 225            | 13,5 | 13,5           | 6 | 1,1                   | 1,1                   |  | 191                            | 199                   | 224,5                 | 250,5                 | 1                     | 1                     |
| <b>200</b> | 250            | 15,5 | 15,5           | 7 | 1,1                   | 1,1                   |  | 212,5                          | 213,5                 | 237,5                 | 279,5                 | 1                     | 1                     |
|            | 250            | 15,5 | 15,5           | 7 | 1,1                   | 1,1                   |  | 212,5                          | 213,5                 | 244,5                 | 279,5                 | 1                     | 1                     |
| <b>220</b> | 275            | 15,5 | 15,5           | 7 | 1,1                   | 1,1                   |  | 232,5                          | 239,5                 | 271                   | 309,5                 | 1                     | 1                     |
| <b>240</b> | 300            | 15,5 | 15,5           | 7 | 1,1                   | 1,1                   |  | 252,5                          | 265                   | 298                   | 329,5                 | 1                     | 1                     |
| <b>260</b> | 325            | 15,5 | 15,5           | 7 | 1,1                   | 1,1                   |  | 273                            | 288                   | 321,5                 | 359                   | 1                     | 1                     |
| <b>280</b> | 350            | 15,5 | 15,5           | 7 | 1,1                   | 1,1                   |  | 294                            | 313,5                 | 344,5                 | 388,5                 | 1                     | 1                     |
| <b>300</b> | 375            | 15,5 | 15,5           | 7 | 1,1                   | 1,1                   |  | 314                            | 336,5                 | 371                   | 418,5                 | 1                     | 1                     |

Radial spherical plain bearings, steel/steel, inch sizes  
d 0.5 – 2 in



| Principal dimensions   |                  |                  |                | Angle of tilt <sup>1)</sup> | Basic load ratings |                | Mass           | Designations       | suffix for seal variants |            |
|------------------------|------------------|------------------|----------------|-----------------------------|--------------------|----------------|----------------|--------------------|--------------------------|------------|
| d                      | D                | B                | C              | α                           | C                  | C <sub>0</sub> |                | without seals      | standard                 | heavy-duty |
| in/mm                  |                  |                  |                | degrees                     | lbf/kN             |                | lb/kg          | –                  |                          |            |
| <b>0.5</b><br>12,700   | 0.8750<br>22,225 | 0.437<br>11,10   | 0.375<br>9,53  | 6                           | 3 150<br>14        | 9 340<br>41,5  | 0.044<br>0,020 | <b>GEZ 008 ES</b>  | –                        | –          |
| <b>0.625</b><br>15,875 | 1.0625<br>26,988 | 0.547<br>13,89   | 0.469<br>11,91 | 6                           | 4 840<br>21,5      | 14 740<br>65,5 | 0.077<br>0,035 | <b>GEZ 010 ES</b>  | –                        | –          |
| <b>0.75</b><br>19,050  | 1.2500<br>31,750 | 0.656<br>16,66   | 0.562<br>14,28 | 6                           | 7 090<br>31,5      | 20 930<br>93   | 0.12<br>0,055  | <b>GEZ 012 ES</b>  | -2RS                     | –          |
| <b>0.875</b><br>22,225 | 1.4375<br>36,513 | 0.765<br>19,43   | 0.656<br>16,66 | 6                           | 9 560<br>42,5      | 28 580<br>127  | 0.19<br>0,085  | <b>GEZ 014 ES</b>  | –                        | –          |
| <b>1</b><br>25,400     | 1.6250<br>41,275 | 0.875<br>22,23   | 0.750<br>19,05 | 6                           | 12 600<br>56       | 37 350<br>166  | 0.26<br>0,12   | <b>GEZ 100 ES</b>  | -2RS                     | -2LS       |
| <b>1.25</b><br>31,750  | 2.0000<br>50,800 | 1.093<br>27,76   | 0.937<br>23,80 | 6                           | 19 460<br>86,5     | 58 500<br>260  | 0.51<br>0,23   | <b>GEZ 104 ES</b>  | -2RS                     | -2LS       |
|                        |                  | 2.4375<br>61,913 | 1.390<br>35,31 | 8                           | 28 125<br>125      | 84 375<br>375  | 1.20<br>0,54   | <b>GEZH 104 ES</b> | -2RS                     | -2LS       |
| <b>1.375</b><br>34,925 | 2.1875<br>55,563 | 1.187<br>30,15   | 1.031<br>26,19 | 6                           | 23 400<br>104      | 69 750<br>310  | 0.77<br>0,35   | <b>GEZ 106 ES</b>  | -2RS                     | -2LS       |
|                        |                  | 2.4375<br>61,913 | 1.312<br>33,33 | 6                           | 28 130<br>125      | 84 380<br>375  | 0.93<br>0,42   | <b>GEZ 108 ES</b>  | -2RS                     | -2LS       |
| <b>1.5</b><br>38,100   | 2.8125<br>71,438 | 1.580<br>40,13   | 1.312<br>33,33 | 7                           | 38 250<br>170      | 114 750<br>510 | 1.75<br>0,79   | <b>GEZH 108 ES</b> | -2RS                     | -2LS       |
|                        |                  | 2.8125<br>71,438 | 1.531<br>38,89 | 6                           | 38 250<br>170      | 114 750<br>510 | 1.40<br>0,64   | <b>GEZ 112 ES</b>  | -2RS                     | -2LS       |
| <b>1.75</b><br>44,450  | 3.1875<br>80,963 | 1.820<br>46,23   | 1.500<br>38,10 | 7                           | 50 400<br>224      | 150 750<br>670 | 2.50<br>1,13   | <b>GEZH 112 ES</b> | -2RS                     | -2LS       |
|                        |                  | 3.1875<br>80,963 | 1.750<br>44,45 | 6                           | 50 400<br>224      | 150 750<br>670 | 2.05<br>0,93   | <b>GEZ 200 ES</b>  | -2RS                     | -2LS       |
| <b>2</b><br>50,800     | 3.5625<br>90,488 | 2.070<br>52,58   | 1.687<br>42,85 | 8                           | 63 000<br>280      | 191 250<br>850 | 3.50<br>1,60   | <b>GEZH 200 ES</b> | -2RS                     | -2LS       |

<sup>1)</sup> To fully utilize the angle of tilt, the shaft shoulder should not be larger than d<sub>a max</sub>.



## Dimensions

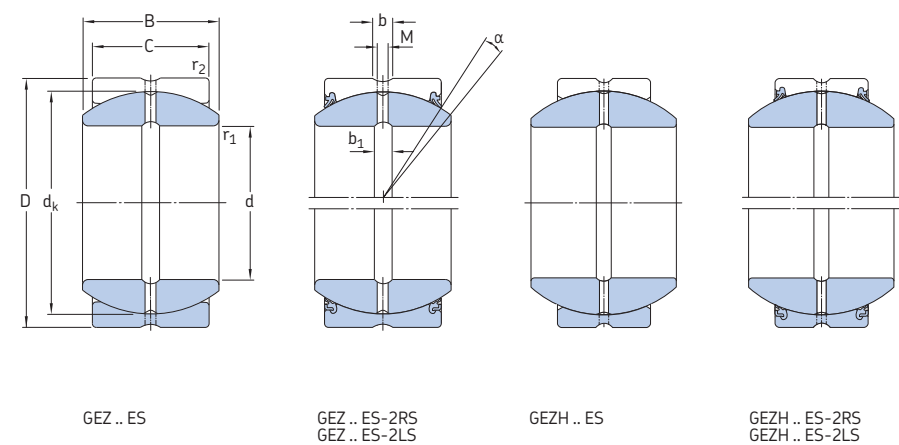
## Abutment and fillet dimensions

| d                      | d <sub>k</sub>   | b            | b <sub>1</sub> | M            | r <sub>1</sub> <sup>1)</sup><br>min | r <sub>2</sub> <sup>2)</sup><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub> sealed<br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|------------------------|------------------|--------------|----------------|--------------|-------------------------------------|-------------------------------------|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| in/mm                  |                  |              |                |              |                                     |                                     | in/mm                 |                       |                       |                              |                       |                       |                       |
| <b>0.5</b><br>12,700   | 0.7190<br>18,263 | 0.102<br>2,6 | 0.098<br>2,5   | 0.059<br>1,5 | 0.006<br>0,2                        | 0.024<br>0,6                        | 0.54<br>13,7          | 0.57<br>14,5          | 0.68<br>17,3          | –                            | 0.78<br>19,9          | 0.006<br>0,2          | 0.024<br>0,6          |
| <b>0.625</b><br>15,875 | 0.8990<br>22,835 | 0.126<br>3,2 | 0.118<br>3     | 0.098<br>2,5 | 0.006<br>0,2                        | 0.039<br>1                          | 0.67<br>17            | 0.71<br>18,1          | 0.85<br>21,7          | –                            | 0.93<br>23,6          | 0.006<br>0,2          | 0.039<br>1            |
| <b>0.75</b><br>19,050  | 1.0800<br>27,432 | 0.126<br>3,2 | 0.118<br>3     | 0.098<br>2,5 | 0.012<br>0,3                        | 0.039<br>1                          | 0.82<br>20,9          | 0.86<br>21,8          | 1.03<br>26,1          | 1.1<br>27,9                  | 1.11<br>28,3          | 0.012<br>0,3          | 0.039<br>1            |
| <b>0.875</b><br>22,225 | 1.2580<br>31,953 | 0.126<br>3,2 | 0.118<br>3     | 0.098<br>2,5 | 0.012<br>0,3                        | 0.039<br>1                          | 0.95<br>24,2          | 1<br>25,4             | 1.2<br>30,4           | –                            | 1.3<br>33             | 0.012<br>0,3          | 0.039<br>1            |
| <b>1</b><br>25,400     | 1.4370<br>36,500 | 0.126<br>3,2 | 0.118<br>3     | 0.098<br>2,5 | 0.012<br>0,3                        | 0.039<br>1                          | 1.08<br>27,5          | 1.14<br>29            | 1.37<br>34,7          | 1.39<br>35,2                 | 1.48<br>37,7          | 0.012<br>0,3          | 0.039<br>1            |
| <b>1.25</b><br>31,750  | 1.7950<br>45,593 | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.024<br>0,6                        | 0.039<br>1                          | 1.37<br>34,8          | 1.43<br>36,2          | 1.7<br>43,3           | 1.76<br>44,8                 | 1.85<br>47            | 0.024<br>0,6          | 0.039<br>1            |
|                        | 2.1550<br>54,737 | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.039<br>1                          | 0.039<br>1                          | 1.43<br>36,2          | 1.65<br>41,8          | 2.05<br>52            | 2.06<br>52,3                 | 2.28<br>58            | 0.039<br>1            | 0.039<br>1            |
| <b>1.375</b><br>34,925 | 1.9370<br>49,200 | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.024<br>0,6                        | 0.039<br>1                          | 1.5<br>38,1           | 1.53<br>38,9          | 1.84<br>46,7          | 1.85<br>47,1                 | 2.035<br>51,7         | 0.024<br>0,6          | 0.039<br>1            |
| <b>1.5</b><br>38,100   | 2.1550<br>54,737 | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.024<br>0,6                        | 0.039<br>1                          | 1.63<br>41,4          | 1.71<br>43,4          | 2.05<br>52            | 2.06<br>52,3                 | 2.28<br>58            | 0.024<br>0,6          | 0.039<br>1            |
|                        | 2.5150<br>63,881 | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.039<br>1                          | 0.039<br>1                          | 1.69<br>42,8          | 1.96<br>49,7          | 2.39<br>60,7          | 2.41<br>61,3                 | 2.65<br>67,4          | 0.039<br>1            | 0.039<br>1            |
| <b>1.75</b><br>44,450  | 2.5150<br>63,881 | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.024<br>0,6                        | 0.039<br>1                          | 1.91<br>48,5          | 2<br>50,7             | 2.39<br>60,7          | 2.41<br>61,3                 | 2.65<br>67,4          | 0.024<br>0,6          | 0.039<br>1            |
|                        | 2.8750<br>73,025 | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.059<br>1,5                        | 0.039<br>1                          | 2.00<br>50,9          | 2.22<br>56,5          | 2.73<br>69,4          | 2.85<br>72,4                 | 2.99<br>75,9          | 0.059<br>1,5          | 0.039<br>1            |
| <b>2</b><br>50,800     | 2.8750<br>73,025 | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.024<br>0,6                        | 0.039<br>1                          | 2.17<br>55,1          | 2.28<br>57,9          | 2.73<br>69,4          | 2.85<br>72,4                 | 2.99<br>75,9          | 0.024<br>0,6          | 0.039<br>1            |
|                        | 3.2350<br>82,169 | 0.224<br>5,7 | 0.197<br>5     | 0.157<br>4   | 0.059<br>1,5                        | 0.039<br>1                          | 2.26<br>57,5          | 2.48<br>63,1          | 3.07<br>78,1          | 3.11<br>79                   | 3.36<br>85,3          | 0.059<br>1,5          | 0.039<br>1            |

<sup>1)</sup> Equal to maximum shaft fillet radius  $r_{a \max}$ .

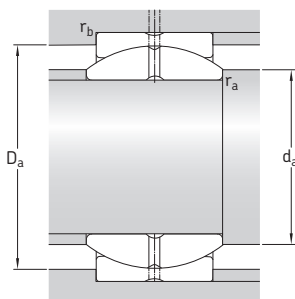
<sup>2)</sup> Equal to maximum housing fillet radius  $r_{b \max}$ .

Radial spherical plain bearings, steel/steel, inch sizes  
d 2.25 – 4 in



| Principal dimensions  |         |        |       | Angle of tilt <sup>1)</sup> | Basic load ratings |                | Mass  | Designations  | suffix for seal variants |            |
|-----------------------|---------|--------|-------|-----------------------------|--------------------|----------------|-------|---------------|--------------------------|------------|
| d                     | D       | B      | C     | $\alpha$                    | C                  | C <sub>0</sub> |       | without seals | standard                 | heavy-duty |
| in/mm                 |         |        |       | degrees                     | lbf/kN             |                | lb/kg | –             |                          |            |
| <b>2.25</b><br>57,150 | 3.5625  | 1.969  | 1.687 | 6                           | 63 000             | 191 250        | 2.85  | GEZ 204 ES    | -2RS                     | -2LS       |
|                       | 90,488  | 50,01  | 42,85 |                             | 280                | 850            | 1,30  |               |                          |            |
|                       | 3.9375  | 2.318  | 1.875 | 8                           | 77 625             | 234 000        | 4.65  | GEZH 204 ES   | -2RS                     | -2LS       |
|                       | 100,013 | 58,88  | 47,63 |                             | 345                | 1 040          | 2,10  |               |                          |            |
| <b>2.5</b><br>63,500  | 3.9375  | 2.187  | 1.875 | 6                           | 77 630             | 234 000        | 4.10  | GEZ 208 ES    | -2RS                     | -2LS       |
|                       | 100,013 | 55,55  | 47,63 |                             | 345                | 1 040          | 1,85  |               |                          |            |
|                       | 4.3750  | 2.545  | 2.062 | 8                           | 95 625             | 285 750        | 6.30  | GEZH 208 ES   | -2RS                     | -2LS       |
|                       | 111,125 | 64,64  | 52,38 |                             | 425                | 1 270          | 2,85  |               |                          |            |
| <b>2.75</b><br>69,850 | 4.3750  | 2.406  | 2.062 | 6                           | 95 630             | 285 750        | 5.30  | GEZ 212 ES    | -2RS                     | -2LS       |
|                       | 111,125 | 61,11  | 52,38 |                             | 425                | 1 270          | 2,40  |               |                          |            |
|                       | 4.7500  | 2.790  | 2.250 | 8                           | 112 500            | 337 500        | 8.05  | GEZH 212 ES   | -2RS                     | -2LS       |
|                       | 120,650 | 70,87  | 57,15 |                             | 500                | 1 500          | 3,65  |               |                          |            |
| <b>3</b><br>76,200    | 4.7500  | 2.625  | 2.250 | 6                           | 112 500            | 337 500        | 6.85  | GEZ 300 ES    | -2RS                     | -2LS       |
|                       | 120,650 | 66,68  | 57,15 |                             | 500                | 1 500          | 3,10  |               |                          |            |
|                       | 5.1250  | 3.022  | 2.437 | 8                           | 131 625            | 396 000        | 10.0  | GEZH 300 ES   | -2RS                     | -2LS       |
|                       | 130,175 | 76,76  | 61,90 |                             | 585                | 1 760          | 4,55  |               |                          |            |
| <b>3.25</b><br>82,550 | 5.1250  | 2.844  | 2.437 | 6                           | 131 630            | 396 000        | 8.40  | GEZ 304 ES    | -2RS                     | -2LS       |
|                       | 130,175 | 72,24  | 61,90 |                             | 585                | 1 760          | 3,80  |               |                          |            |
|                       | 5.5000  | 3.265  | 2.625 | 9                           | 153 000            | 459 000        | 12.3  | GEZH 304 ES   | -2RS                     | -2LS       |
|                       | 139,700 | 82,93  | 66,68 |                             | 680                | 2 040          | 5,60  |               |                          |            |
| <b>3.5</b><br>88,900  | 5.5000  | 3.062  | 2.625 | 6                           | 153 000            | 459 000        | 10.5  | GEZ 308 ES    | -2RS                     | -2LS       |
|                       | 139,700 | 77,78  | 66,68 |                             | 680                | 2 040          | 4,80  |               |                          |            |
|                       | 5.8750  | 3.560  | 2.812 | 9                           | 175 500            | 531 000        | 15.0  | GEZH 308 ES   | -2RS                     | -2LS       |
|                       | 149,225 | 90,42  | 71,43 |                             | 780                | 2 360          | 6,80  |               |                          |            |
| <b>3.75</b><br>95,250 | 5.8750  | 3.281  | 2.812 | 6                           | 175 500            | 531 000        | 13.0  | GEZ 312 ES    | -2RS                     | -2LS       |
|                       | 149,225 | 83,34  | 71,43 |                             | 780                | 2 360          | 5,80  |               |                          |            |
|                       | 6.2500  | 3.738  | 3.000 | 9                           | 202 500            | 596 250        | 17.9  | GEZH 312 ES   | -2RS                     | -2LS       |
|                       | 158,750 | 94,95  | 76,20 |                             | 900                | 2 650          | 8,10  |               |                          |            |
| <b>4</b><br>101,600   | 6.2500  | 3.500  | 3.000 | 6                           | 202 500            | 596 250        | 15.5  | GEZ 400 ES    | -2RS                     | -2LS       |
|                       | 158,750 | 88,90  | 76,20 |                             | 900                | 2 650          | 7,00  |               |                          |            |
|                       | 7.0000  | 4.225  | 3.375 | 9                           | 252 000            | 765 000        | 30.0  | GEZH 400 ES   | -2RS                     | -2LS       |
|                       | 177,800 | 107,32 | 85,73 |                             | 1 120              | 3 400          | 13,5  |               |                          |            |

<sup>1)</sup> To fully utilize the angle of tilt, the shaft shoulder should not be larger than  $d_{a \max}$ .



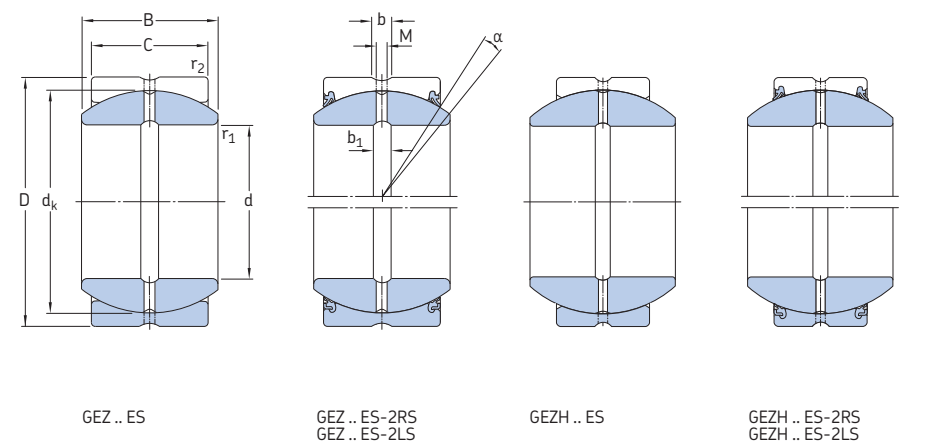
## Dimensions

## Abutment and fillet dimensions

| d                     | d <sub>k</sub> | b     | b <sub>1</sub> | M     | r <sub>1</sub> <sup>1)</sup><br>min | r <sub>2</sub> <sup>2)</sup><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub> sealed<br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|-----------------------|----------------|-------|----------------|-------|-------------------------------------|-------------------------------------|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| in/mm                 |                |       |                |       |                                     |                                     | in/mm                 |                       |                       |                              |                       |                       |                       |
| <b>2.25</b><br>57,150 | 3.2350         | 0.224 | 0.197          | 0.157 | 0.024                               | 0.039                               | 2.43                  | 2.57                  | 3.07                  | 3.11                         | 3.36                  | 0.024                 | 0.039                 |
|                       | 82,169         | 5,7   | 5              | 4     | 0,6                                 | 1                                   | 61,7                  | 65,2                  | 78,1                  | 79                           | 85,3                  | 0,6                   | 1                     |
|                       | 3.5900         | 0.354 | 0.315          | 0.256 | 0.059                               | 0.039                               | 2.52                  | 2.74                  | 3.41                  | 3.43                         | 3.73                  | 0.059                 | 0.039                 |
| <b>2.5</b><br>63,500  | 3.5900         | 0.354 | 0.315          | 0.256 | 0.024                               | 0.039                               | 2.69                  | 2.85                  | 3.41                  | 3.43                         | 3.73                  | 0.024                 | 0.039                 |
|                       | 91,186         | 9     | 8              | 6,5   | 0,6                                 | 1                                   | 68,3                  | 72,3                  | 86,6                  | 87                           | 94,7                  | 0,6                   | 1                     |
|                       | 3.9500         | 0.354 | 0.315          | 0.256 | 0.079                               | 0.039                               | 2.84                  | 3.02                  | 3.75                  | 3.78                         | 4.16                  | 0.079                 | 0.039                 |
| <b>2.75</b><br>69,850 | 100,330        | 9     | 8              | 6,5   | 2                                   | 1                                   | 72                    | 76,7                  | 95,3                  | 96                           | 105,7                 | 2                     | 1                     |
|                       | 3.9500         | 0.354 | 0.315          | 0.256 | 0.024                               | 0.039                               | 2.95                  | 3.13                  | 3.75                  | 3.78                         | 4.16                  | 0.024                 | 0.039                 |
|                       | 100,330        | 9     | 8              | 6,5   | 0,6                                 | 1                                   | 74,9                  | 79,6                  | 95,3                  | 96                           | 105,7                 | 0,6                   | 1                     |
| <b>3</b><br>76,200    | 4.3120         | 0.354 | 0.315          | 0.256 | 0.079                               | 0.039                               | 3.09                  | 3.29                  | 4.09                  | 4.13                         | 4.53                  | 0.079                 | 0.039                 |
|                       | 109,525        | 9     | 8              | 6,5   | 2                                   | 1                                   | 78,6                  | 83,5                  | 104                   | 104,8                        | 115                   | 2                     | 1                     |
|                       | 4.6750         | 0.366 | 0.315          | 0.256 | 0.024                               | 0.039                               | 3.2                   | 3.42                  | 4.09                  | 4.13                         | 4.53                  | 0.024                 | 0.039                 |
| <b>3.25</b><br>82,550 | 109,525        | 9     | 8              | 6,5   | 0,6                                 | 1                                   | 81,4                  | 86,9                  | 104                   | 104,8                        | 115                   | 0,6                   | 1                     |
|                       | 118,745        | 9,3   | 8              | 6,5   | 2                                   | 1                                   | 85,1                  | 90,6                  | 112,8                 | 114,2                        | 124,4                 | 2                     | 1                     |
|                       | 4.6750         | 0.366 | 0.315          | 0.256 | 0.079                               | 0.039                               | 3.46                  | 3.71                  | 4.44                  | 4.5                          | 4.9                   | 0.024                 | 0.039                 |
| <b>3.5</b><br>88,900  | 118,745        | 9,3   | 8              | 6,5   | 0,6                                 | 1                                   | 88                    | 94,2                  | 112,8                 | 114,2                        | 124,4                 | 0,6                   | 1                     |
|                       | 128,016        | 10,5  | 8              | 6,5   | 2                                   | 1                                   | 92,7                  | 97,5                  | 121,6                 | 122,8                        | 133,8                 | 2                     | 1                     |
|                       | 5.0400         | 0.413 | 0.315          | 0.256 | 0.079                               | 0.039                               | 3.65                  | 3.84                  | 4.79                  | 4.83                         | 5.27                  | 0.079                 | 0.039                 |
| <b>3.75</b><br>95,250 | 128,016        | 10,5  | 8              | 6,5   | 0,6                                 | 1                                   | 94,6                  | 101,7                 | 121,6                 | 122,8                        | 133,8                 | 0,6                   | 1                     |
|                       | 136,906        | 10,5  | 8              | 6,5   | 2                                   | 1                                   | 99,3                  | 102,5                 | 130,1                 | 131,4                        | 143,1                 | 2                     | 1                     |
|                       | 5.3900         | 0.413 | 0.315          | 0.256 | 0.079                               | 0.039                               | 3.91                  | 4.04                  | 5.12                  | 5.17                         | 5.63                  | 0.079                 | 0.039                 |
| <b>4</b><br>101,600   | 136,906        | 10,5  | 8              | 6,5   | 0,6                                 | 1                                   | 94,6                  | 101,7                 | 121,6                 | 122,8                        | 133,8                 | 0,6                   | 1                     |
|                       | 146,050        | 10,5  | 10             | 8     | 2                                   | 1                                   | 105,8                 | 110,9                 | 139                   | 139,5                        | 152,5                 | 2                     | 1                     |
|                       | 5.7500         | 0.413 | 0.394          | 0.315 | 0.079                               | 0.043                               | 4.17                  | 4.37                  | 5.47                  | 5.49                         | 6                     | 0.079                 | 0.043                 |
| <b>4</b><br>101,600   | 146,050        | 10,5  | 10             | 8     | 0,6                                 | 1                                   | 108                   | 115,5                 | 139                   | 139,5                        | 152,5                 | 0,6                   | 1                     |
|                       | 164,465        | 11    | 10             | 8     | 2                                   | 1,1                                 | 113                   | 124,5                 | 156,5                 | 157                          | 171                   | 2                     | 1,1                   |
|                       | 6.4750         | 0.433 | 0.394          | 0.315 | 0.079                               | 0.043                               | 4.45                  | 4.9                   | 6.16                  | 6.18                         | 6.73                  | 0.079                 | 0.043                 |

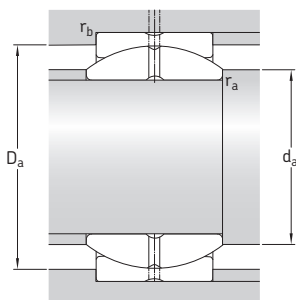
1) Equal to maximum shaft fillet radius  $r_{a \max}$ .2) Equal to maximum housing fillet radius  $r_{b \max}$ .

Radial spherical plain bearings, steel/steel, inch sizes  
d 4.5 – 6 in



| Principal dimensions |         |        |        | Angle of tilt <sup>1)</sup> | Basic load ratings |                | Mass  | Designations  | suffix for seal variants |            |
|----------------------|---------|--------|--------|-----------------------------|--------------------|----------------|-------|---------------|--------------------------|------------|
| d                    | D       | B      | C      | α                           | C                  | C <sub>0</sub> |       | without seals | standard                 | heavy-duty |
| in/mm                |         |        |        | degrees                     | lbf/kN             |                | lb/kg | –             |                          |            |
| 4.5<br>114,300       | 7.0000  | 3.937  | 3.375  | 6                           | 252 000            | 765 000        | 21.5  | GEZ 408 ES    | -2RS                     | -2LS       |
|                      | 177,800 | 100,00 | 85,73  |                             | 1 120              | 3 400          | 9,80  |               |                          |            |
|                      | 7.7500  | 4.690  | 3.750  | 9                           | 315 000            | 933 750        | 36.0  | GEZH 408 ES   | -2RS                     | -2LS       |
|                      | 196,850 | 119,17 | 95,25  |                             | 1 400              | 4 150          | 16,5  |               |                          |            |
| 4.75<br>120,650      | 7.3750  | 4.156  | 3.562  | 6                           | 281 250            | 843 750        | 25.5  | GEZ 412 ES    | -2RS                     | -2LS       |
|                      | 187,325 | 105,56 | 90,48  |                             | 1 250              | 3 750          | 11,5  |               |                          |            |
| 5<br>127,000         | 7.7500  | 4.375  | 3.750  | 6                           | 315 000            | 933 750        | 30.0  | GEZ 500 ES    | -2RS                     | -2LS       |
|                      | 196,850 | 111,13 | 95,25  |                             | 1 400              | 4 150          | 13,5  |               |                          |            |
| 5.5<br>139,700       | 8.7500  | 4.950  | 4.125  | 7                           | 389 250            | 1 170 000      | 45.5  | GEZH 508 ES   | -2RS                     | -2LS       |
|                      | 222,250 | 125,73 | 104,78 |                             | 1 730              | 5 200          | 20,5  |               |                          |            |
| 6<br>152,400         | 8.7500  | 4.750  | 4.125  | 5                           | 389 250            | 1 170 000      | 38.5  | GEZ 600 ES    | -2RS                     | -2LS       |
|                      | 222,250 | 120,65 | 104,78 |                             | 1 730              | 5 200          | 17,5  |               |                          |            |

<sup>1)</sup> To fully utilize the angle of tilt, the shaft shoulder should not be larger than d<sub>a max</sub>.



## Dimensions

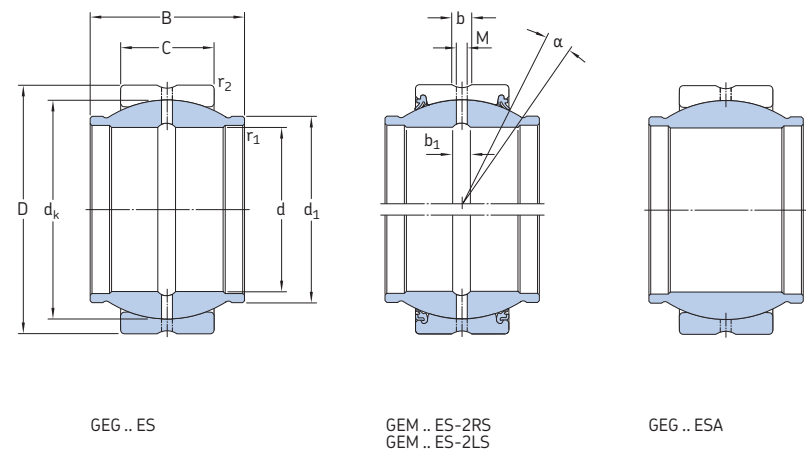
## Abutment and fillet dimensions

| d           | d <sub>k</sub> | b     | b <sub>1</sub> | M     | r <sub>1</sub> <sup>1)</sup><br>min | r <sub>2</sub> <sup>2)</sup><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub> sealed<br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|-------------|----------------|-------|----------------|-------|-------------------------------------|-------------------------------------|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| in/mm       |                |       |                |       |                                     |                                     | in/mm                 |                       |                       |                              |                       |                       |                       |
| <b>4.5</b>  | 6.4750         | 0.433 | 0.394          | 0.315 | 0.039                               | 0.043                               | 4.82                  | 5.14                  | 6.16                  | 6.18                         | 6.73                  | 0.039                 | 0.043                 |
| 114,300     | 164,465        | 11    | 10             | 8     | 1                                   | 1.1                                 | 122,5                 | 130,5                 | 156,5                 | 157                          | 171                   | 1                     | 1.1                   |
|             | 7.1900         | 0.433 | 0.394          | 0.315 | 0.079                               | 0.043                               | 4.96                  | 5.45                  | 6.83                  | 6.91                         | 7.42                  | 0.079                 | 0.043                 |
|             | 182,626        | 11    | 10             | 8     | 2                                   | 1.1                                 | 126                   | 138,4                 | 173,5                 | 175,5                        | 188,5                 | 2                     | 1.1                   |
| <b>4.75</b> | 6.8250         | 0.433 | 0.394          | 0.315 | 0.039                               | 0.043                               | 5.08                  | 5.41                  | 6.5                   | 6.56                         | 7.05                  | 0.039                 | 0.043                 |
| 120,650     | 173,355        | 11    | 10             | 8     | 1                                   | 1.1                                 | 129                   | 137,5                 | 165                   | 166,5                        | 179                   | 1                     | 1.1                   |
| <b>5</b>    | 7.1900         | 0.433 | 0.394          | 0.315 | 0.039                               | 0.043                               | 5.33                  | 5.69                  | 6.83                  | 6.91                         | 7.42                  | 0.039                 | 0.043                 |
| 127,000     | 182,626        | 11    | 10             | 8     | 1                                   | 1.1                                 | 135,5                 | 144,5                 | 173,5                 | 175,5                        | 188,5                 | 1                     | 1.1                   |
| <b>5.5</b>  | 8.1560         | 0.591 | 0.433          | 0.315 | 0.079                               | 0.043                               | 5.98                  | 6.46                  | 7.76                  | 7.78                         | 8.41                  | 0.079                 | 0.043                 |
| 139,700     | 207,162        | 15    | 11             | 8     | 2                                   | 1.1                                 | 152                   | 164                   | 197                   | 197,5                        | 213,5                 | 2                     | 1.1                   |
| <b>6</b>    | 8.1560         | 0.591 | 0.433          | 0.315 | 0.039                               | 0.043                               | 6.34                  | 6.61                  | 7.76                  | 7.78                         | 8.41                  | 0.039                 | 0.043                 |
| 152,400     | 207,162        | 15    | 11             | 8     | 1                                   | 1.1                                 | 161                   | 168                   | 197                   | 197,5                        | 213,5                 | 1                     | 1.1                   |

<sup>1)</sup> Equal to maximum shaft fillet radius  $r_{a \max}$ .

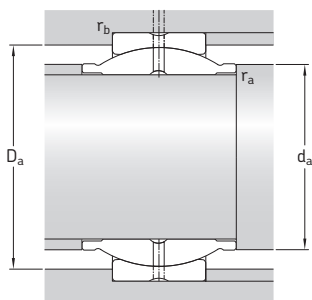
<sup>2)</sup> Equal to maximum housing fillet radius  $r_{b \max}$ .

Radial spherical plain bearings with an extended inner ring, steel/steel, metric sizes  
d 12 – 125 mm



| Principal dimensions |     |     |    | Angle of tilt | Basic load ratings |                | Mass  | Designations <sup>1)</sup> |                             |
|----------------------|-----|-----|----|---------------|--------------------|----------------|-------|----------------------------|-----------------------------|
| d                    | D   | B   | C  | $\alpha$      | C                  | C <sub>0</sub> |       | without seals              | suffix for heavy-duty seals |
| mm                   |     |     |    | degrees       | kN                 |                | kg    | –                          |                             |
| 12                   | 22  | 12  | 7  | 4             | 10,8               | 54             | 0,020 | GEG 12 ESA <sup>2)</sup>   | –                           |
| 16                   | 28  | 16  | 9  | 4             | 17,6               | 88             | 0,035 | GEG 16 ES                  | –                           |
| 20                   | 35  | 20  | 12 | 4             | 30                 | 146            | 0,070 | GEG 20 ES                  | –                           |
|                      | 35  | 24  | 12 | 6             | 30                 | 146            | 0,073 | GEM 20 ES-2RS              | -2LS                        |
| 25                   | 42  | 25  | 16 | 4             | 48                 | 240            | 0,13  | GEG 25 ES                  | –                           |
|                      | 42  | 29  | 16 | 4             | 48                 | 240            | 0,13  | GEM 25 ES-2RS              | -2LS                        |
| 30                   | 47  | 30  | 18 | 4             | 62                 | 310            | 0,17  | GEM 30 ES-2RS              | -2LS                        |
| 32                   | 52  | 32  | 18 | 4             | 65,5               | 325            | 0,17  | GEG 32 ES                  | –                           |
| 35                   | 55  | 35  | 20 | 4             | 80                 | 400            | 0,25  | GEM 35 ES-2RS              | -2LS                        |
| 40                   | 62  | 38  | 22 | 4             | 100                | 500            | 0,35  | GEM 40 ES-2RS              | -2LS                        |
|                      | 62  | 40  | 22 | 4             | 100                | 500            | 0,34  | GEG 40 ES                  | –                           |
| 45                   | 68  | 40  | 25 | 4             | 127                | 640            | 0,49  | GEM 45 ES-2RS              | -2LS                        |
| 50                   | 75  | 43  | 28 | 4             | 156                | 780            | 0,60  | GEM 50 ES-2RS              | -2LS                        |
|                      | 75  | 50  | 28 | 4             | 156                | 780            | 0,56  | GEG 50 ES                  | –                           |
| 60                   | 90  | 54  | 36 | 3             | 245                | 1 220          | 1,15  | GEM 60 ES-2RS              | -2LS                        |
| 63                   | 95  | 63  | 36 | 4             | 255                | 1 270          | 1,25  | GEG 63 ES                  | –                           |
| 70                   | 105 | 65  | 40 | 4             | 315                | 1 560          | 1,65  | GEM 70 ES-2RS              | -2LS                        |
| 80                   | 120 | 74  | 45 | 4             | 400                | 2 000          | 2,50  | GEM 80 ES-2RS              | -2LS                        |
|                      | 120 | 80  | 45 | 4             | 400                | 2 000          | 2,40  | GEG 80 ES                  | –                           |
| 100                  | 150 | 100 | 55 | 4             | 610                | 3 050          | 4,80  | GEG 100 ES                 | –                           |
| 125                  | 180 | 125 | 70 | 4             | 950                | 4 750          | 8,50  | GEG 125 ES                 | –                           |

<sup>1)</sup> Bearings with an outside diameter  $D \geq 150$  mm have the multi-groove system in the outer ring as standard. Bearings with an outside diameter  $D < 150$  mm can be supplied with the multi-groove system on request (designation suffix ESL).  
<sup>2)</sup> Can only be relubricated via the outer ring.

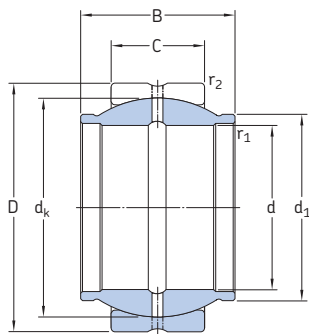


## Dimensions

## Abutment and fillet dimensions

| d   | d <sub>k</sub> | d <sub>1</sub> | b    | b <sub>1</sub> | M   | r <sub>1</sub><br>min | r <sub>2</sub><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|-----|----------------|----------------|------|----------------|-----|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| mm  |                |                |      |                |     |                       |                       | mm                    |                       |                       |                       |                       |                       |
| 12  | 18             | 15,5           | 2,3  | –              | 1,5 | 0,3                   | 0,3                   | 14,5                  | 15,5                  | 17,1                  | 20,4                  | 0,3                   | 0,3                   |
| 16  | 23             | 20             | 2,3  | 2,3            | 1,5 | 0,3                   | 0,3                   | 18,7                  | 20                    | 21,9                  | 26,3                  | 0,3                   | 0,3                   |
| 20  | 29             | 25             | 3,1  | 3,1            | 2   | 0,3                   | 0,3                   | 23,1                  | 25                    | 27,6                  | 33,2                  | 0,3                   | 0,3                   |
|     | 29             | 24             | 3,1  | 3,1            | 2   | 0,3                   | 0,3                   | 23                    | 24                    | 30,9                  | 33,2                  | 0,3                   | 0,3                   |
| 25  | 35,5           | 30,5           | 3,1  | 3,1            | 2   | 0,6                   | 0,6                   | 29,2                  | 30,5                  | 33,7                  | 39,2                  | 0,6                   | 0,6                   |
|     | 35,5           | 29             | 3,1  | 3,1            | 2   | 0,3                   | 0,6                   | 28,3                  | 29                    | 36,9                  | 39,2                  | 0,3                   | 0,6                   |
| 30  | 40,7           | 34             | 3,1  | 3,1            | 2   | 0,3                   | 0,6                   | 33,5                  | 34                    | 41,3                  | 44                    | 0,3                   | 0,6                   |
| 32  | 43             | 38             | 3,9  | 3,9            | 2,5 | 0,6                   | 1                     | 36,3                  | 38                    | 40,9                  | 48,1                  | 0,6                   | 1                     |
| 35  | 47             | 40             | 3,9  | 3,9            | 2,5 | 0,6                   | 1                     | 38,8                  | 40                    | 48,5                  | 50,9                  | 0,6                   | 1                     |
| 40  | 53             | 45             | 3,9  | 3,9            | 2,5 | 0,6                   | 1                     | 44                    | 45                    | 54,5                  | 57,8                  | 0,6                   | 1                     |
|     | 53             | 46             | 3,9  | 3,9            | 2,5 | 0,6                   | 1                     | 44,8                  | 46                    | 50,3                  | 57,8                  | 0,6                   | 1                     |
| 45  | 60             | 52             | 4,6  | 4,6            | 3   | 0,6                   | 1                     | 49,6                  | 52                    | 61                    | 63,6                  | 0,6                   | 1                     |
| 50  | 66             | 57             | 4,6  | 4,6            | 3   | 0,6                   | 1                     | 54,8                  | 57                    | 66,2                  | 70,5                  | 0,6                   | 1                     |
|     | 66             | 57             | 4,6  | 4,6            | 3   | 0,6                   | 1                     | 55,9                  | 57                    | 62,7                  | 70,5                  | 0,6                   | 1                     |
| 60  | 80             | 68             | 6,2  | 6,2            | 4   | 0,6                   | 1                     | 65,4                  | 68                    | 79,7                  | 84,2                  | 0,6                   | 1                     |
| 63  | 83             | 71,5           | 6,2  | 6,2            | 4   | 1                     | 1                     | 69,7                  | 71,5                  | 78,9                  | 89,2                  | 1                     | 1                     |
| 70  | 92             | 78             | 7,7  | 7,7            | 4   | 0,6                   | 1                     | 75,7                  | 78                    | 92                    | 99                    | 0,6                   | 1                     |
| 80  | 105            | 90             | 7,7  | 7,7            | 4   | 0,6                   | 1                     | 86,1                  | 90                    | 104,4                 | 113,8                 | 0,6                   | 1                     |
|     | 105            | 91             | 7,7  | 7,7            | 4   | 1                     | 1                     | 88,7                  | 91                    | 99,7                  | 113,8                 | 1                     | 1                     |
| 100 | 130            | 113            | 11,3 | 11,3           | 5   | 1                     | 1                     | 110,1                 | 113                   | 123,5                 | 143,2                 | 1                     | 1                     |
| 125 | 160            | 138            | 13,5 | 13,5           | 6   | 1                     | 1                     | 136,5                 | 138                   | 152                   | 172                   | 1                     | 1                     |

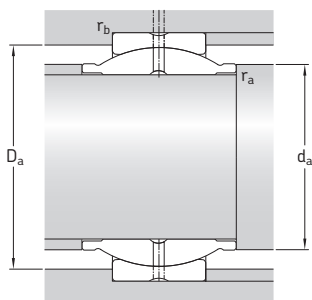
Radial spherical plain bearings with an extended inner ring, steel/steel, metric sizes  
d 160 – 200 mm



GEG .. ES

| Principal dimensions |     |     |     | Angle<br>of tilt<br><br>$\alpha$ | Basic load ratings |                          | Mass | Designation <sup>1)</sup><br>without seals |
|----------------------|-----|-----|-----|----------------------------------|--------------------|--------------------------|------|--------------------------------------------|
| d                    | D   | B   | C   |                                  | dynamic<br>C       | static<br>C <sub>0</sub> |      |                                            |
| mm                   |     |     |     | degrees                          | kN                 |                          | kg   | –                                          |
| 160                  | 230 | 160 | 80  | 4                                | 1 370              | 6 800                    | 16,5 | GEG 160 ES                                 |
| 200                  | 290 | 200 | 100 | 4                                | 2 120              | 10 600                   | 32,0 | GEG 200 ES                                 |

<sup>1)</sup> Bearings with an outside diameter D ≥ 150 mm have the multi-groove system in the outer ring as standard.

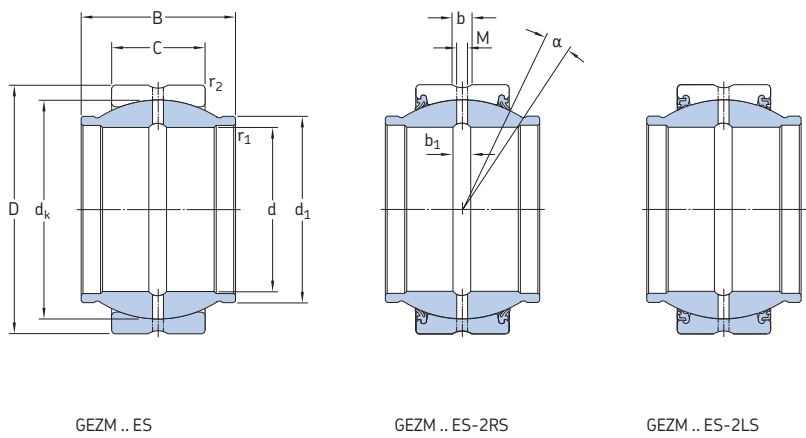


### Dimensions

### Abutment and fillet dimensions

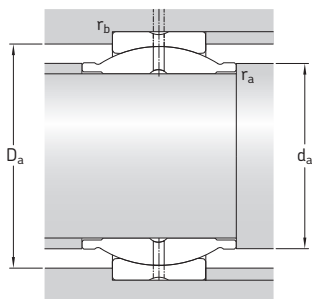
| d          | d <sub>k</sub> | d <sub>1</sub> | b    | b <sub>1</sub> | M | r <sub>1</sub><br>min | r <sub>2</sub><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|------------|----------------|----------------|------|----------------|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| mm         |                |                |      |                |   |                       |                       | mm                    |                       |                       |                       |                       |                       |
| <b>160</b> | 200            | 177            | 13,5 | 13,5           | 6 | 1                     | 1                     | 172                   | 177                   | 190                   | 222                   | 1                     | 1                     |
| <b>200</b> | 250            | 221            | 15,5 | 15,5           | 7 | 1,1                   | 1,1                   | 213                   | 221                   | 237,5                 | 279,5                 | 1                     | 1                     |

Radial spherical plain bearings with an extended inner ring, steel/steel, inch sizes  
d 0.5 – 2.5 in



| Principal dimensions   |                   |                |                | Angle of tilt <sup>1)</sup> |          | Basic load ratings |                  | Mass           | Designations       | suffix for seal variants |             |
|------------------------|-------------------|----------------|----------------|-----------------------------|----------|--------------------|------------------|----------------|--------------------|--------------------------|-------------|
| d                      | D                 | B              | C              | α                           | α sealed | C                  | C <sub>0</sub>   |                | without seals      | standard                 | heavy-duty  |
| in/mm                  |                   |                |                | degrees                     |          | lbf/kN             |                  | lb/kg          | –                  |                          |             |
| <b>0.5</b><br>12,700   | 0.8750<br>22,225  | 0.750<br>19,05 | 0.375<br>9,53  | 9                           | –        | 3 150<br>14        | 9 340<br>41,5    | 0.051<br>0,023 | <b>GEZM 008 ES</b> | –                        | –           |
| <b>0.625</b><br>15,875 | 1.0625<br>26,988  | 0.937<br>23,80 | 0.469<br>11,91 | 9                           | –        | 4 840<br>21,5      | 14 738<br>65,5   | 0.090<br>0,041 | <b>GEZM 010 ES</b> | –                        | –           |
| <b>0.75</b><br>19,050  | 1.2500<br>31,750  | 1.125<br>28,58 | 0.562<br>14,28 | 9                           | 5        | 7 090<br>31,5      | 20 925<br>93     | 0.15<br>0,068  | <b>GEZM 012 ES</b> | <b>-2RS</b>              | –           |
| <b>0.875</b><br>22,225 | 1.4375<br>36,513  | 1.312<br>33,33 | 0.656<br>16,66 | 9                           | –        | 9 560<br>42,5      | 28 575<br>127    | 0.23<br>0,11   | <b>GEZM 014 ES</b> | –                        | –           |
| <b>1</b><br>25,400     | 1.6250<br>41,275  | 1.500<br>38,10 | 0.750<br>19,05 | 9                           | 5        | 12 600<br>56       | 37 350<br>166    | 0.34<br>0,15   | <b>GEZM 100 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>1.25</b><br>31,750  | 2.0000<br>50,800  | 1.875<br>47,63 | 0.937<br>23,80 | 9                           | 5        | 19 460<br>86,5     | 58 500<br>260    | 0.63<br>0,29   | <b>GEZM 104 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>1.375</b><br>34,925 | 2.1875<br>55,563  | 2.062<br>52,38 | 1.031<br>26,19 | 9                           | 5        | 23 400<br>104      | 69 750<br>310    | 0.81<br>0,37   | <b>GEZM 106 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>1.5</b><br>38,100   | 2.4375<br>61,913  | 2.250<br>57,15 | 1.125<br>28,58 | 9                           | 5        | 28 130<br>125      | 84 380<br>375    | 1.15<br>0,51   | <b>GEZM 108 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>1.75</b><br>44,450  | 2.8125<br>71,438  | 2.625<br>66,68 | 1.312<br>33,33 | 9                           | 5        | 38 250<br>170      | 114 750<br>510   | 1.80<br>0,81   | <b>GEZM 112 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>2</b><br>50,800     | 3.1875<br>80,963  | 3.000<br>76,20 | 1.500<br>38,10 | 9                           | 5        | 50 400<br>224      | 150 750<br>670   | 2.65<br>1,20   | <b>GEZM 200 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>2.25</b><br>57,150  | 3.5625<br>90,488  | 3.375<br>85,73 | 1.687<br>42,85 | 9                           | 5        | 63 000<br>280      | 191 250<br>850   | 3.65<br>1,65   | <b>GEZM 204 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>2.5</b><br>63,500   | 3.9375<br>100,013 | 3.750<br>95,25 | 1.875<br>47,63 | 9                           | 5        | 77 625<br>350      | 234 000<br>1 040 | 4.95<br>2,25   | <b>GEZM 208 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |

<sup>1)</sup> To fully utilize the angle of tilt, the shaft shoulder should not be larger than d<sub>a max</sub>.



## Dimensions

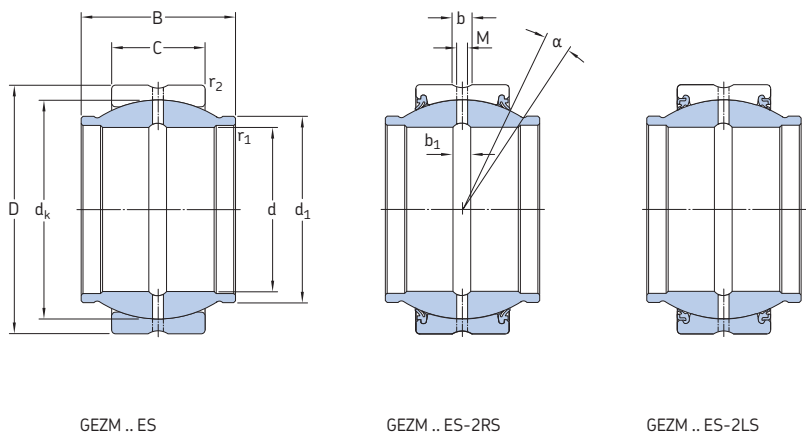
## Abutment and fillet dimensions

| d                      | d <sub>k</sub>   | d <sub>1</sub> | b            | b <sub>1</sub> | M            | r <sub>1</sub> <sup>1)</sup><br>min | r <sub>2</sub> <sup>2)</sup><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub> sealed<br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|------------------------|------------------|----------------|--------------|----------------|--------------|-------------------------------------|-------------------------------------|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| in/mm                  |                  |                |              |                |              |                                     |                                     | in/mm                 |                       |                       |                              |                       |                       |                       |
| <b>0.5</b><br>12,700   | 0.7190<br>18,263 | 0.625<br>15,9  | 0.102<br>2,6 | 0.098<br>2,5   | 0.059<br>1,5 | 0.012<br>0,3                        | 0.024<br>0,6                        | 0.56<br>14,3          | 0.63<br>15,9          | 0.68<br>17,3          | –<br>–                       | 0.78<br>19,9          | 0.012<br>0,3          | 0.024<br>0,6          |
| <b>0.625</b><br>15,875 | 0.8990<br>22,835 | 0.780<br>19,8  | 0.126<br>3,2 | 0.118<br>3     | 0.098<br>2,5 | 0.024<br>0,6                        | 0.039<br>1,0                        | 0.72<br>18,4          | 0.78<br>19,8          | 0.85<br>21,7          | –<br>–                       | 0.93<br>23,6          | 0.024<br>0,6          | 0.039<br>1            |
| <b>0.75</b><br>19,050  | 1.0800<br>27,432 | 0.920<br>23,4  | 0.126<br>3,2 | 0.118<br>3     | 0.098<br>2,5 | 0.024<br>0,6                        | 0.039<br>1,0                        | 0.85<br>21,7          | 0.92<br>23,4          | 1.03<br>26,1          | 1.1<br>27,9                  | 1.11<br>28,3          | 0.024<br>0,6          | 0.039<br>1            |
| <b>0.875</b><br>22,225 | 1.2580<br>31,953 | 1.070<br>27,2  | 0.126<br>3,2 | 0.118<br>3     | 0.098<br>2,5 | 0.024<br>0,6                        | 0.039<br>1,0                        | 0.98<br>24,9          | 1.07<br>27,2          | 1.2<br>30,4           | –<br>–                       | 1.30<br>33            | 0.024<br>0,6          | 0.039<br>1            |
| <b>1</b><br>25,400     | 1.4370<br>36,500 | 1.220<br>31,0  | 0.126<br>3,2 | 0.118<br>3     | 0.098<br>2,5 | 0.024<br>0,6                        | 0.039<br>1,0                        | 1.11<br>28,2          | 1.22<br>31            | 1.37<br>34,7          | 1.39<br>35,2                 | 1.48<br>37,7          | 0.024<br>0,6          | 0.039<br>1            |
| <b>1.25</b><br>31,750  | 1.7950<br>45,593 | 1.525<br>38,7  | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.039<br>1,0                        | 0.039<br>1,0                        | 1.41<br>35,8          | 1.53<br>38,7          | 1.7<br>43,3           | 1.76<br>44,8                 | 1.85<br>47            | 0.039<br>1            | 0.039<br>1            |
| <b>1.375</b><br>34,925 | 1.9370<br>49,200 | 1.670<br>42,4  | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.039<br>1,0                        | 0.039<br>1,0                        | 1.54<br>39,1          | 1.67<br>42,4          | 1.84<br>46,7          | 1.85<br>47,1                 | 2.04<br>51,7          | 0.039<br>1            | 0.039<br>1            |
| <b>1.5</b><br>38,100   | 2.1550<br>54,737 | 1.850<br>47,0  | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.039<br>1,0                        | 0.039<br>1,0                        | 1.71<br>43,3          | 1.85<br>47            | 2.05<br>52            | 2.06<br>52,3                 | 2.28<br>58            | 0.039<br>1            | 0.039<br>1            |
| <b>1.75</b><br>44,450  | 2.5150<br>63,881 | 2.165<br>55,0  | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.039<br>1,0                        | 0.039<br>1,0                        | 1.97<br>49,9          | 2.17<br>55            | 2.39<br>60,7          | 2.41<br>61,3                 | 2.65<br>67,4          | 0.039<br>1            | 0.039<br>1            |
| <b>2</b><br>50,800     | 2.8750<br>73,025 | 2.460<br>62,5  | 0.189<br>4,8 | 0.197<br>5     | 0.157<br>4   | 0.039<br>1,0                        | 0.039<br>1,0                        | 2.22<br>56,5          | 2.46<br>62,5          | 2.73<br>69,4          | 2.85<br>72,4                 | 2.99<br>75,9          | 0.039<br>1            | 0.039<br>1            |
| <b>2.25</b><br>57,150  | 3.2350<br>82,169 | 2.760<br>70,1  | 0.224<br>5,7 | 0.197<br>5     | 0.157<br>4   | 0.039<br>1,0                        | 0.039<br>1,0                        | 2.48<br>63,1          | 2.76<br>70,1          | 3.07<br>78,1          | 3.11<br>79                   | 3.36<br>85,3          | 0.039<br>1            | 0.039<br>1            |
| <b>2.5</b><br>63,500   | 3.5900<br>91,186 | 3.060<br>77,7  | 0.354<br>9   | 0.315<br>8     | 0.256<br>6,5 | 0.039<br>1,0                        | 0.039<br>1,0                        | 2.74<br>69,6          | 3.06<br>77,7          | 3.41<br>86,6          | 3.43<br>87                   | 3.73<br>94,7          | 0.039<br>1            | 0.039<br>1            |

<sup>1)</sup> Equal to maximum shaft fillet radius  $r_{a \max}$ .

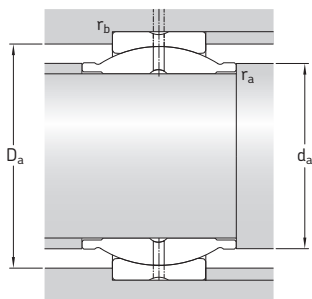
<sup>2)</sup> Equal to maximum housing fillet radius  $r_{b \max}$ .

Radial spherical plain bearings with an extended inner ring, steel/steel, inch sizes  
d 2.75 – 6 in



| Principal dimensions  |                   |                 |                 | Angle of tilt <sup>1)</sup> |                 | Basic load ratings |                    | Mass         | Designations       | suffix for seal variants |             |
|-----------------------|-------------------|-----------------|-----------------|-----------------------------|-----------------|--------------------|--------------------|--------------|--------------------|--------------------------|-------------|
| d                     | D                 | B               | C               | $\alpha$                    | $\alpha$ sealed | C                  | C <sub>0</sub>     |              | without seals      | standard                 | heavy-duty  |
| in/mm                 |                   |                 |                 | degrees                     |                 | lbf/kN             |                    | lb/kg        | –                  |                          |             |
| <b>2.75</b><br>69,850 | 4.3750<br>111,125 | 4.125<br>104,78 | 2.062<br>52,38  | 9                           | 5               | 95 625<br>430      | 285 750<br>1 270   | 6.85<br>3,10 | <b>GEZM 212 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>3</b><br>76,200    | 4.7500<br>120,650 | 4.500<br>114,30 | 2.250<br>57,15  | 9                           | 5               | 112 500<br>500     | 337 500<br>1 500   | 8.80<br>4,00 | <b>GEZM 300 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>3.25</b><br>82,550 | 5.1250<br>130,175 | 4.875<br>123,83 | 2.437<br>61,90  | 9                           | 5               | 131 625<br>590     | 396 000<br>1 760   | 11.0<br>5,00 | <b>GEZM 304 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>3.5</b><br>88,900  | 5.5000<br>139,700 | 5.250<br>133,35 | 2.625<br>66,68  | 9                           | 5               | 153 000<br>680     | 459 000<br>2 040   | 14.0<br>6,25 | <b>GEZM 308 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>3.75</b><br>95,250 | 5.8750<br>149,225 | 5.625<br>142,88 | 2.812<br>71,43  | 9                           | 5               | 175 500<br>780     | 531 000<br>2 360   | 17.0<br>7,60 | <b>GEZM 312 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>4</b><br>101,600   | 6.2500<br>158,750 | 6.000<br>152,40 | 3.000<br>76,20  | 9                           | 5               | 202 500<br>900     | 596 250<br>2 650   | 20.0<br>9,10 | <b>GEZM 400 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>4.5</b><br>114,300 | 7.0000<br>177,800 | 6.750<br>171,45 | 3.375<br>85,73  | 7                           | 5               | 252 000<br>1 120   | 765 000<br>3 400   | 28.5<br>13,0 | <b>GEZM 408 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>5</b><br>127,000   | 7.7500<br>196,850 | 7.500<br>190,50 | 3.750<br>95,25  | 7                           | 5               | 315 000<br>1 400   | 933 750<br>4 150   | 38.5<br>17,5 | <b>GEZM 500 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |
| <b>6</b><br>152,400   | 8.7500<br>222,250 | 8.250<br>209,55 | 4.125<br>104,78 | 7                           | 5               | 389 250<br>1 730   | 1 170 000<br>5 200 | 47.5<br>21,5 | <b>GEZM 600 ES</b> | <b>-2RS</b>              | <b>-2LS</b> |

<sup>1)</sup> To fully utilize the angle of tilt, the shaft shoulder should not be larger than d<sub>a max</sub>.



## Dimensions

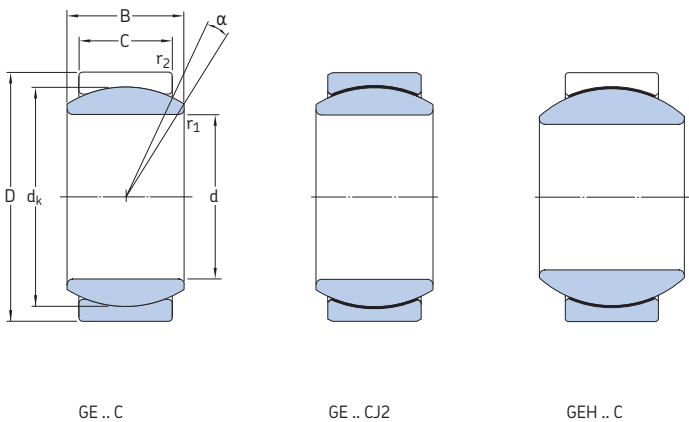
## Abutment and fillet dimensions

| d                     | d <sub>k</sub>    | d <sub>1</sub> | b             | b <sub>1</sub> | M            | r <sub>1</sub> <sup>1)</sup><br>min | r <sub>2</sub> <sup>2)</sup><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub> sealed<br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|-----------------------|-------------------|----------------|---------------|----------------|--------------|-------------------------------------|-------------------------------------|-----------------------|-----------------------|-----------------------|------------------------------|-----------------------|-----------------------|-----------------------|
| in/mm                 |                   |                |               |                |              |                                     |                                     | in/mm                 |                       |                       |                              |                       |                       |                       |
| <b>2.75</b><br>69,850 | 3.9500<br>100,330 | 3.380<br>85,9  | 0.354<br>9    | 0.315<br>8     | 0.256<br>6,5 | 0.039<br>1,0                        | 0.039<br>1,0                        | 3.00<br>76,2          | 3.38<br>85,9          | 3.75<br>95,3          | 3.78<br>96                   | 4.16<br>105,7         | 0.039<br>1            | 0.039<br>1            |
| <b>3</b><br>76,200    | 4.3120<br>109,525 | 3.675<br>93,3  | 0.354<br>9    | 0.315<br>8     | 0.256<br>6,5 | 0.039<br>1,0                        | 0.039<br>1,0                        | 3.26<br>82,8          | 3.68<br>93,3          | 4.09<br>104           | 4.13<br>104,8                | 4.53<br>115           | 0.039<br>1            | 0.039<br>1            |
| <b>3.25</b><br>82,550 | 4.6750<br>118,745 | 3.985<br>101,2 | 0.366<br>9,3  | 0.315<br>8     | 0.256<br>6,5 | 0.039<br>1,0                        | 0.039<br>1,0                        | 3.52<br>89,4          | 3.99<br>101,2         | 4.44<br>112,8         | 4.5<br>114,2                 | 4.90<br>124,4         | 0.039<br>1            | 0.039<br>1            |
| <b>3.5</b><br>88,900  | 5.0400<br>128,016 | 4.300<br>109,2 | 0.413<br>10,5 | 0.315<br>8     | 0.256<br>6,5 | 0.039<br>1,0                        | 0.039<br>1,0                        | 3.78<br>95,9          | 4.3<br>109,2          | 4.79<br>121,6         | 4.83<br>122,8                | 5.27<br>133,8         | 0.039<br>1            | 0.039<br>1            |
| <b>3.75</b><br>95,250 | 5.3900<br>136,906 | 4.590<br>116,6 | 0.413<br>10,5 | 0.315<br>8     | 0.256<br>6,5 | 0.039<br>1,0                        | 0.039<br>1,0                        | 4.04<br>102,5         | 4.59<br>116,6         | 5.12<br>130,1         | 5.17<br>131,4                | 5.63<br>143,1         | 0.039<br>1            | 0.039<br>1            |
| <b>4</b><br>101,600   | 5.7500<br>146,050 | 4.905<br>124,6 | 0.413<br>10,5 | 0.394<br>10    | 0.315<br>8   | 0.059<br>1,5                        | 0.039<br>1,0                        | 4.33<br>110           | 4.91<br>124,6         | 5.47<br>139           | 5.49<br>139,5                | 6.00<br>152,5         | 0.059<br>1,5          | 0.039<br>1            |
| <b>4.5</b><br>114,300 | 6.4750<br>164,465 | 5.525<br>140,3 | 0.433<br>11   | 0.394<br>10    | 0.315<br>8   | 0.079<br>2,0                        | 0.043<br>1,1                        | 4.94<br>125,5         | 5.53<br>140,3         | 6.16<br>156,5         | 6.18<br>157                  | 6.73<br>171           | 0.079<br>2            | 0.043<br>1,1          |
| <b>5</b><br>127,000   | 7.1900<br>182,626 | 6.130<br>155,7 | 0.433<br>11   | 0.394<br>10    | 0.315<br>8   | 0.079<br>2,0                        | 0.043<br>1,1                        | 5.45<br>138,5         | 6.13<br>155,7         | 6.83<br>173,5         | 6.91<br>175,5                | 7.42<br>188,5         | 0.079<br>2            | 0.043<br>1,1          |
| <b>6</b><br>152,400   | 8.1560<br>207,162 | 7.020<br>178,3 | 0.591<br>15   | 0.433<br>11    | 0.315<br>8   | 0.079<br>2,0                        | 0.043<br>1,1                        | 6.46<br>164           | 7.02<br>178,3         | 7.76<br>197           | 7.78<br>197,5                | 8.41<br>213,5         | 0.079<br>2            | 0.043<br>1,1          |

<sup>1)</sup> Equal to maximum shaft fillet radius  $r_{a \max}$ .

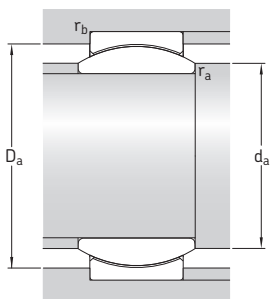
<sup>2)</sup> Equal to maximum housing fillet radius  $r_{b \max}$ .

Maintenance-free radial spherical plain bearings, steel/PTFE sintered bronze, metric sizes  
d 4 – 60 mm



| Principal dimensions |    |    |    | Angle<br>of tilt <sup>1)</sup><br>$\alpha$ | Basic load ratings |                          | Mass  | Designation |
|----------------------|----|----|----|--------------------------------------------|--------------------|--------------------------|-------|-------------|
| d                    | D  | B  | C  |                                            | dynamic<br>C       | static<br>C <sub>0</sub> |       |             |
| mm                   |    |    |    | degrees                                    | kN                 |                          | kg    | –           |
| 4                    | 12 | 5  | 3  | 16                                         | 2,16               | 5,4                      | 0,003 | GE 4 C      |
| 6                    | 14 | 6  | 4  | 13                                         | 3,6                | 9                        | 0,004 | GE 6 C      |
| 8                    | 16 | 8  | 5  | 15                                         | 5,85               | 14,6                     | 0,008 | GE 8 C      |
| 10                   | 19 | 9  | 6  | 12                                         | 8,65               | 21,6                     | 0,012 | GE 10 C     |
|                      | 22 | 12 | 7  | 18                                         | 11,4               | 28,5                     | 0,020 | GEH 10 C    |
| 12                   | 22 | 10 | 7  | 10                                         | 11,4               | 28,5                     | 0,017 | GE 12 C     |
|                      | 26 | 15 | 9  | 18                                         | 18                 | 45                       | 0,030 | GEH 12 C    |
| 15                   | 26 | 12 | 9  | 8                                          | 18                 | 45                       | 0,032 | GE 15 C     |
|                      | 30 | 16 | 10 | 16                                         | 22,4               | 56                       | 0,050 | GEH 15 C    |
| 17                   | 30 | 14 | 10 | 10                                         | 22,4               | 56                       | 0,050 | GE 17 C     |
|                      | 35 | 20 | 12 | 19                                         | 31,5               | 78                       | 0,090 | GEH 17 C    |
| 20                   | 35 | 16 | 12 | 9                                          | 31,5               | 78                       | 0,065 | GE 20 C     |
|                      | 42 | 25 | 16 | 17                                         | 51                 | 127                      | 0,16  | GEH 20 C    |
| 25                   | 42 | 20 | 16 | 7                                          | 51                 | 127                      | 0,12  | GE 25 C     |
|                      | 47 | 28 | 18 | 17                                         | 65,5               | 166                      | 0,20  | GEH 25 C    |
| 30                   | 47 | 22 | 18 | 6                                          | 65,5               | 166                      | 0,16  | GE 30 C     |
| 35                   | 55 | 25 | 20 | 6                                          | 80                 | 200                      | 0,23  | GE 35 CJ2   |
| 40                   | 62 | 28 | 22 | 7                                          | 100                | 250                      | 0,32  | GE 40 CJ2   |
| 45                   | 68 | 32 | 25 | 7                                          | 127                | 320                      | 0,46  | GE 45 CJ2   |
| 50                   | 75 | 35 | 28 | 6                                          | 156                | 390                      | 0,56  | GE 50 CJ2   |
| 60                   | 90 | 44 | 36 | 6                                          | 245                | 610                      | 1,10  | GE 60 CJ2   |

<sup>1)</sup> To fully utilize the angle of tilt, the shaft shoulder should not be larger than  $d_{a \max}$ .

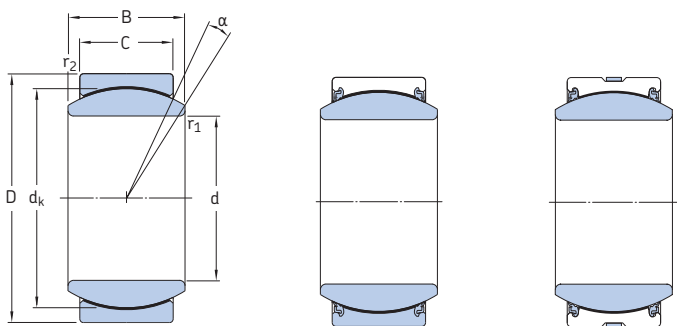


### Dimensions

### Abutment and fillet dimensions

| d         | d <sub>k</sub> | r <sub>1</sub><br>min | r <sub>2</sub><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|-----------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| mm        |                |                       |                       | mm                    |                       |                       |                       |                       |                       |
| <b>4</b>  | 8              | 0,3                   | 0,3                   | 5,4                   | 6,2                   | 7,6                   | 10,7                  | 0,3                   | 0,3                   |
| <b>6</b>  | 10             | 0,3                   | 0,3                   | 7,4                   | 8                     | 9,5                   | 12,7                  | 0,3                   | 0,3                   |
| <b>8</b>  | 13             | 0,3                   | 0,3                   | 9,4                   | 10,2                  | 12,3                  | 14,6                  | 0,3                   | 0,3                   |
| <b>10</b> | 16             | 0,3                   | 0,3                   | 11,5                  | 13,2                  | 15,2                  | 17,6                  | 0,3                   | 0,3                   |
|           | 18             | 0,3                   | 0,3                   | 11,6                  | 13,4                  | 17,1                  | 20,6                  | 0,3                   | 0,3                   |
| <b>12</b> | 18             | 0,3                   | 0,3                   | 13,5                  | 15                    | 17,1                  | 20,6                  | 0,3                   | 0,3                   |
|           | 22             | 0,3                   | 0,3                   | 13,7                  | 16,1                  | 20,9                  | 24,5                  | 0,3                   | 0,3                   |
| <b>15</b> | 22             | 0,3                   | 0,3                   | 16,6                  | 18,4                  | 20,9                  | 24,5                  | 0,3                   | 0,3                   |
|           | 25             | 0,3                   | 0,3                   | 16,7                  | 19,2                  | 23,7                  | 28,5                  | 0,3                   | 0,3                   |
| <b>17</b> | 25             | 0,3                   | 0,3                   | 18,7                  | 20,7                  | 23,7                  | 28,5                  | 0,3                   | 0,3                   |
|           | 29             | 0,3                   | 0,3                   | 18,9                  | 21                    | 27,6                  | 33,4                  | 0,3                   | 0,3                   |
| <b>20</b> | 29             | 0,3                   | 0,3                   | 21,8                  | 24,2                  | 27,6                  | 33,4                  | 0,3                   | 0,3                   |
|           | 35,5           | 0,3                   | 0,6                   | 22,1                  | 25,2                  | 33,7                  | 39,5                  | 0,3                   | 0,6                   |
| <b>25</b> | 35,5           | 0,6                   | 0,6                   | 27,7                  | 29,3                  | 33,7                  | 39,5                  | 0,6                   | 0,6                   |
|           | 40,7           | 0,6                   | 0,6                   | 27,9                  | 29,5                  | 38,7                  | 44,4                  | 0,6                   | 0,6                   |
| <b>30</b> | 40,7           | 0,6                   | 0,6                   | 32,8                  | 34,2                  | 38,7                  | 44,4                  | 0,6                   | 0,6                   |
| <b>35</b> | 47             | 0,6                   | 1                     | 37,9                  | 39,8                  | 44,7                  | 51,4                  | 0,6                   | 1                     |
| <b>40</b> | 53             | 0,6                   | 1                     | 42,9                  | 45                    | 50,4                  | 58,3                  | 0,6                   | 1                     |
| <b>45</b> | 60             | 0,6                   | 1                     | 48,7                  | 50,8                  | 57                    | 64,2                  | 0,6                   | 1                     |
| <b>50</b> | 66             | 0,6                   | 1                     | 53,9                  | 56                    | 62,7                  | 71,1                  | 0,6                   | 1                     |
| <b>60</b> | 80             | 1                     | 1                     | 65,4                  | 66,8                  | 76                    | 85,8                  | 1                     | 1                     |

Maintenance-free radial spherical plain bearings, steel/PTFE fabric, metric sizes  
d 12 – 90 mm



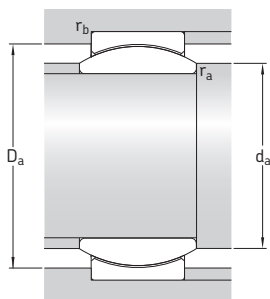
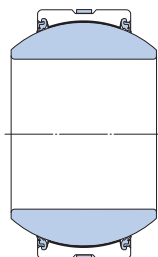
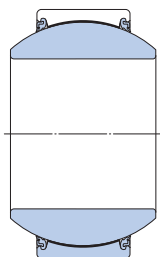
GE ..TXGR

GE ..TX(G3)E-2LS

GE ..TX(G3)A-2LS

| Principal dimensions |            |          |          | Angle<br>of tilt <sup>1)</sup> | Basic load ratings |                | Mass          | Designations                    |                                     |
|----------------------|------------|----------|----------|--------------------------------|--------------------|----------------|---------------|---------------------------------|-------------------------------------|
| d                    | D          | B        | C        |                                | dynamic            | static         |               | Material                        | Stainless steel                     |
|                      |            |          |          | $\alpha$                       | C                  | C <sub>0</sub> |               | Bearing steel                   |                                     |
| mm                   |            |          |          | degrees                        | kN                 |                | kg            | —                               |                                     |
| 12                   | 22         | 10       | 7        | 10                             | 30                 | 50             | 0,017         | —                               | GE 12 TXGR                          |
| 15                   | 26         | 12       | 9        | 8                              | 47,5               | 80             | 0,032         | —                               | GE 15 TXGR                          |
| 17                   | 30         | 14       | 10       | 10                             | 60                 | 100            | 0,050         | —                               | GE 17 TXGR                          |
| 20                   | 35<br>42   | 16<br>25 | 12<br>16 | 9<br>17                        | 83<br>137          | 140<br>228     | 0,065<br>0,15 | GE 20 TXE-2LS<br>GEH 20 TXE-2LS | GE 20 TXG3E-2LS<br>GEH 20 TXG3E-2LS |
| 25                   | 42<br>47   | 20<br>28 | 16<br>18 | 7<br>17                        | 137<br>176         | 228<br>290     | 0,12<br>0,19  | GE 25 TXE-2LS<br>GEH 25 TXE-2LS | GE 25 TXG3E-2LS<br>GEH 25 TXG3E-2LS |
| 30                   | 47<br>55   | 22<br>32 | 18<br>20 | 6<br>17                        | 176<br>224         | 290<br>375     | 0,16<br>0,29  | GE 30 TXE-2LS<br>GEH 30 TXE-2LS | GE 30 TXG3E-2LS<br>GEH 30 TXG3E-2LS |
| 35                   | 55<br>62   | 25<br>35 | 20<br>22 | 6<br>15                        | 224<br>280         | 375<br>465     | 0,23<br>0,39  | GE 35 TXE-2LS<br>GEH 35 TXE-2LS | GE 35 TXG3E-2LS<br>GEH 35 TXG3E-2LS |
| 40                   | 62<br>68   | 28<br>40 | 22<br>25 | 6<br>17                        | 280<br>360         | 465<br>600     | 0,32<br>0,52  | GE 40 TXE-2LS<br>GEH 40 TXE-2LS | GE 40 TXG3E-2LS<br>GEH 40 TXG3E-2LS |
| 45                   | 68<br>75   | 32<br>43 | 25<br>28 | 7<br>14                        | 360<br>440         | 600<br>735     | 0,46<br>0,69  | GE 45 TXE-2LS<br>GEH 45 TXE-2LS | GE 45 TXG3E-2LS<br>GEH 45 TXG3E-2LS |
| 50                   | 75<br>90   | 35<br>56 | 28<br>36 | 6<br>17                        | 440<br>695         | 735<br>1 160   | 0,56<br>1,41  | GE 50 TXE-2LS<br>GEH 50 TXE-2LS | GE 50 TXG3E-2LS<br>GEH 50 TXG3E-2LS |
| 60                   | 90<br>105  | 44<br>63 | 36<br>40 | 6<br>17                        | 695<br>880         | 1 160<br>1 460 | 1,10<br>2,06  | GE 60 TXE-2LS<br>GEH 60 TXE-2LS | GE 60 TXG3E-2LS<br>GEH 60 TXG3A-2LS |
| 70                   | 105<br>120 | 49<br>70 | 40<br>45 | 6<br>16                        | 880<br>1 140       | 1 460<br>1 900 | 1,55<br>2,99  | GE 70 TXE-2LS<br>GEH 70 TXE-2LS | GE 70 TXG3A-2LS<br>GEH 70 TXG3A-2LS |
| 80                   | 120<br>130 | 55<br>75 | 45<br>50 | 5<br>14                        | 1 140<br>1 370     | 1 900<br>2 320 | 2,30<br>3,55  | GE 80 TXE-2LS<br>GEH 80 TXE-2LS | GE 80 TXG3A-2LS<br>GEH 80 TXG3A-2LS |
| 90                   | 130<br>150 | 60<br>85 | 50<br>55 | 5<br>15                        | 1 370<br>1 730     | 2 320<br>2 850 | 2,75<br>5,40  | GE 90 TXE-2LS<br>GEH 90 TXA-2LS | GE 90 TXG3A-2LS<br>GEH 90 TXG3A-2LS |

<sup>1)</sup> To fully utilize the angle of tilt, the shaft shoulder should not be larger than  $d_{a \max}$ .



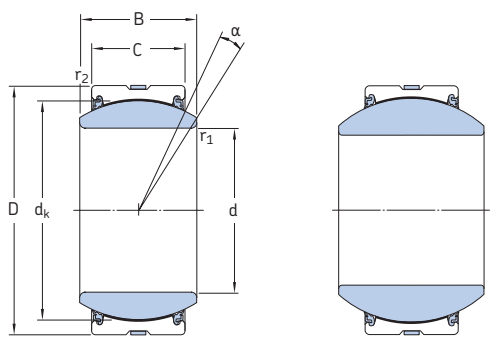
GEH ..TX(G3)E-2LS

GEH ..TX(G3)A-2LS

**Dimensions****Abutment and fillet dimensions**

| d         | d <sub>k</sub> | r <sub>1</sub><br>min | r <sub>2</sub><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|-----------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| mm        |                |                       |                       | mm                    |                       |                       |                       |                       |                       |
| <b>12</b> | 18             | 0,3                   | 0,3                   | 13,8                  | 15                    | 17,1                  | 20,4                  | 0,3                   | 0,3                   |
| <b>15</b> | 22             | 0,3                   | 0,3                   | 16,9                  | 18,4                  | 20,9                  | 24,3                  | 0,3                   | 0,3                   |
| <b>17</b> | 25             | 0,3                   | 0,3                   | 19                    | 20,7                  | 23,7                  | 28,3                  | 0,3                   | 0,3                   |
| <b>20</b> | 29             | 0,3                   | 0,3                   | 22,1                  | 24,2                  | 27,6                  | 33,2                  | 0,3                   | 0,3                   |
|           | 35,5           | 0,3                   | 0,6                   | 22,9                  | 25,2                  | 36,9                  | 39,2                  | 0,3                   | 0,6                   |
| <b>25</b> | 35,5           | 0,6                   | 0,6                   | 28,2                  | 29,3                  | 36,9                  | 39,2                  | 0,6                   | 0,6                   |
|           | 40,7           | 0,6                   | 0,6                   | 28,7                  | 29,5                  | 41,3                  | 44                    | 0,6                   | 0,6                   |
| <b>30</b> | 40,7           | 0,6                   | 0,6                   | 33,3                  | 34,2                  | 41,3                  | 44                    | 0,6                   | 0,6                   |
|           | 47             | 0,6                   | 1                     | 33,8                  | 34,4                  | 48,5                  | 51                    | 0,6                   | 1                     |
| <b>35</b> | 47             | 0,6                   | 1                     | 38,5                  | 39,8                  | 48,5                  | 51                    | 0,6                   | 1                     |
|           | 53             | 0,6                   | 1                     | 39                    | 39,7                  | 54,5                  | 57,5                  | 0,6                   | 1                     |
| <b>40</b> | 53             | 0,6                   | 1                     | 43,5                  | 45                    | 54,5                  | 57,5                  | 0,6                   | 1                     |
|           | 60             | 0,6                   | 1                     | 44,2                  | 44,7                  | 61                    | 63,5                  | 0,6                   | 1                     |
| <b>45</b> | 60             | 0,6                   | 1                     | 49,5                  | 50,8                  | 61                    | 63,5                  | 0,6                   | 1                     |
|           | 66             | 0,6                   | 1                     | 50                    | 50                    | 66,5                  | 70,5                  | 0,6                   | 1                     |
| <b>50</b> | 66             | 0,6                   | 1                     | 54,5                  | 56                    | 66,5                  | 70,5                  | 0,6                   | 1                     |
|           | 80             | 0,6                   | 1                     | 56                    | 57,1                  | 80                    | 84                    | 0,6                   | 1                     |
| <b>60</b> | 80             | 1                     | 1                     | 66,5                  | 66,8                  | 80                    | 84                    | 1                     | 1                     |
|           | 92             | 1                     | 1                     | 67                    | 67                    | 92                    | 99                    | 1                     | 1                     |
| <b>70</b> | 92             | 1                     | 1                     | 76,5                  | 77,9                  | 92                    | 99                    | 1                     | 1                     |
|           | 105            | 1                     | 1                     | 77,8                  | 78,2                  | 105                   | 113                   | 1                     | 1                     |
| <b>80</b> | 105            | 1                     | 1                     | 87                    | 89,4                  | 105                   | 113                   | 1                     | 1                     |
|           | 115            | 1                     | 1                     | 87,1                  | 87,1                  | 113                   | 123                   | 1                     | 1                     |
| <b>90</b> | 115            | 1                     | 1                     | 97,5                  | 98,1                  | 113                   | 123                   | 1                     | 1                     |
|           | 130            | 1                     | 1                     | 98,3                  | 98,3                  | 131                   | 144                   | 1                     | 1                     |

Maintenance-free radial spherical plain bearings, steel/PTFE fabric, metric sizes  
d 100 – 300 mm

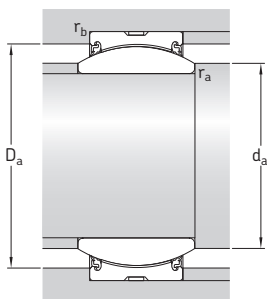


GE .. TX(G3)A-2LS

GEH .. TX(G3)A-2LS

| Principal dimensions |     |     |     | Angle<br>of tilt <sup>1)</sup> | Basic load ratings |                | Mass  | Designations    |                   |
|----------------------|-----|-----|-----|--------------------------------|--------------------|----------------|-------|-----------------|-------------------|
| d                    | D   | B   | C   |                                | dynamic            | static         |       | Material        | Bearing steel     |
|                      |     |     |     | $\alpha$                       | C                  | C <sub>0</sub> |       |                 | Stainless steel   |
| mm                   |     |     |     | degrees                        | kN                 |                | kg    | –               |                   |
| 100                  | 150 | 70  | 55  | 6                              | 1 730              | 2 850          | 4,40  | GE 100 TXA-2LS  | GE 100 TXG3A-2LS  |
|                      | 160 | 85  | 55  | 13                             | 1 860              | 3 100          | 5,90  | GEH 100 TXA-2LS | GEH 100 TXG3A-2LS |
| 110                  | 160 | 70  | 55  | 6                              | 1 860              | 3 100          | 4,80  | GE 110 TXA-2LS  | GE 110 TXG3A-2LS  |
|                      | 180 | 100 | 70  | 12                             | 2 700              | 4 500          | 9,50  | GEH 110 TXA-2LS | GEH 110 TXG3A-2LS |
| 120                  | 180 | 85  | 70  | 6                              | 2 700              | 4 500          | 8,25  | GE 120 TXA-2LS  | GE 120 TXG3A-2LS  |
|                      | 210 | 115 | 70  | 16                             | 3 000              | 5 000          | 14,90 | GEH 120 TXA-2LS | GEH 120 TXG3A-2LS |
| 140                  | 210 | 90  | 70  | 7                              | 3 000              | 5 000          | 11,0  | GE 140 TXA-2LS  | GE 140 TXG3A-2LS  |
| 160                  | 230 | 105 | 80  | 8                              | 3 800              | 6 400          | 14,0  | GE 160 TXA-2LS  | GE 160 TXG3A-2LS  |
| 180                  | 260 | 105 | 80  | 6                              | 4 300              | 7 200          | 18,5  | GE 180 TXA-2LS  | GE 180 TXG3A-2LS  |
| 200                  | 290 | 130 | 100 | 7                              | 6 000              | 10 000         | 28,0  | GE 200 TXA-2LS  | GE 200 TXG3A-2LS  |
| 220                  | 320 | 135 | 100 | 8                              | 6 550              | 11 000         | 35,5  | GE 220 TXA-2LS  | –                 |
| 240                  | 340 | 140 | 100 | 8                              | 7 200              | 12 000         | 40,0  | GE 240 TXA-2LS  | –                 |
| 260                  | 370 | 150 | 110 | 7                              | 8 650              | 14 300         | 51,5  | GE 260 TXA-2LS  | –                 |
| 280                  | 400 | 155 | 120 | 6                              | 10 000             | 16 600         | 65,0  | GE 280 TXA-2LS  | –                 |
| 300                  | 430 | 165 | 120 | 7                              | 10 800             | 18 000         | 78,5  | GE 300 TXA-2LS  | –                 |

<sup>1)</sup> To fully utilize the angle of tilt, the shaft shoulder should not be larger than d<sub>a max</sub>.

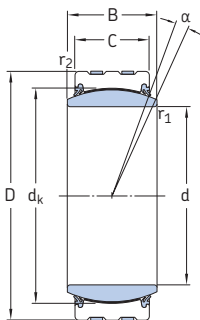


### Dimensions

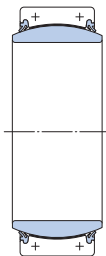
### Abutment and fillet dimensions

| d          | d <sub>k</sub> | r <sub>1</sub><br>min | r <sub>2</sub><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|------------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| mm         |                |                       |                       | mm                    |                       |                       |                       |                       |                       |
| <b>100</b> | 130            | 1                     | 1                     | 108                   | 109,5                 | 131                   | 144                   | 1                     | 1                     |
|            | 140            | 1                     | 1                     | 108,5                 | 111,2                 | 141,5                 | 153                   | 1                     | 1                     |
| <b>110</b> | 140            | 1                     | 1                     | 118                   | 121                   | 141,5                 | 153                   | 1                     | 1                     |
|            | 160            | 1                     | 1                     | 120                   | 124,5                 | 157,5                 | 172                   | 1                     | 1                     |
| <b>120</b> | 160            | 1                     | 1                     | 130                   | 135,5                 | 157,5                 | 172                   | 1                     | 1                     |
|            | 180            | 1                     | 1                     | 130,5                 | 138                   | 180                   | 202                   | 1                     | 1                     |
| <b>140</b> | 180            | 1                     | 1                     | 149                   | 155,5                 | 180                   | 202                   | 1                     | 1                     |
| <b>160</b> | 200            | 1                     | 1                     | 170                   | 170                   | 197                   | 222                   | 1                     | 1                     |
| <b>180</b> | 225            | 1,1                   | 1,1                   | 191                   | 199                   | 224,5                 | 250                   | 1                     | 1                     |
| <b>200</b> | 250            | 1,1                   | 1,1                   | 213                   | 213,5                 | 244,5                 | 279                   | 1                     | 1                     |
| <b>220</b> | 275            | 1,1                   | 1,1                   | 233                   | 239,5                 | 271                   | 309                   | 1                     | 1                     |
| <b>240</b> | 300            | 1,1                   | 1,1                   | 253                   | 265                   | 298                   | 329                   | 1                     | 1                     |
| <b>260</b> | 325            | 1,1                   | 1,1                   | 273                   | 288                   | 321,5                 | 359                   | 1                     | 1                     |
| <b>280</b> | 350            | 1,1                   | 1,1                   | 294                   | 313,5                 | 344,5                 | 388                   | 1                     | 1                     |
| <b>300</b> | 375            | 1,1                   | 1,1                   | 314                   | 336,5                 | 371                   | 418                   | 1                     | 1                     |

Maintenance-free radial spherical plain bearings, steel/PTFE fabric, metric sizes  
d 320 – 800 mm



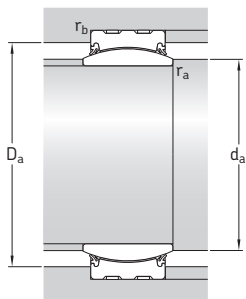
GEC .. TXA-2RS  
d ≤ 400 mm



GEC .. TXA-2RS  
d ≥ 420 mm

| Principal dimensions |       |     |     | Angle<br>of tilt <sup>1)</sup><br><br>$\alpha$ | Basic load ratings |                | Mass | Designation     |
|----------------------|-------|-----|-----|------------------------------------------------|--------------------|----------------|------|-----------------|
| d                    | D     | B   | C   |                                                | C                  | C <sub>0</sub> |      |                 |
| mm                   |       |     |     | degrees                                        | kN                 |                | kg   | –               |
| 320                  | 440   | 160 | 135 | 4                                              | 14 000             | 23 200         | 75   | GEC 320 TXA-2RS |
| 340                  | 460   | 160 | 135 | 3                                              | 14 600             | 24 500         | 82,5 | GEC 340 TXA-2RS |
| 360                  | 480   | 160 | 135 | 3                                              | 15 300             | 25 500         | 84   | GEC 360 TXA-2RS |
| 380                  | 520   | 190 | 160 | 4                                              | 19 300             | 32 500         | 125  | GEC 380 TXA-2RS |
| 400                  | 540   | 190 | 160 | 3                                              | 20 400             | 34 000         | 130  | GEC 400 TXA-2RS |
| 420                  | 560   | 190 | 160 | 3                                              | 21 200             | 35 500         | 140  | GEC 420 TXA-2RS |
| 440                  | 600   | 218 | 185 | 3                                              | 26 000             | 43 000         | 195  | GEC 440 TXA-2RS |
| 460                  | 620   | 218 | 185 | 3                                              | 27 000             | 45 000         | 200  | GEC 460 TXA-2RS |
| 480                  | 650   | 230 | 195 | 3                                              | 30 000             | 50 000         | 235  | GEC 480 TXA-2RS |
| 500                  | 670   | 230 | 195 | 3                                              | 31 000             | 51 000         | 245  | GEC 500 TXA-2RS |
| 530                  | 710   | 243 | 205 | 3                                              | 34 500             | 57 000         | 290  | GEC 530 TXA-2RS |
| 560                  | 750   | 258 | 215 | 3                                              | 38 000             | 63 000         | 340  | GEC 560 TXA-2RS |
| 600                  | 800   | 272 | 230 | 3                                              | 43 000             | 72 000         | 405  | GEC 600 TXA-2RS |
| 630                  | 850   | 300 | 260 | 3                                              | 52 000             | 86 500         | 525  | GEC 630 TXA-2RS |
| 670                  | 900   | 308 | 260 | 3                                              | 55 000             | 91 500         | 590  | GEC 670 TXA-2RS |
| 710                  | 950   | 325 | 275 | 3                                              | 62 000             | 102 000        | 685  | GEC 710 TXA-2RS |
| 750                  | 1 000 | 335 | 280 | 3                                              | 65 500             | 110 000        | 770  | GEC 750 TXA-2RS |
| 800                  | 1 060 | 355 | 300 | 3                                              | 75 000             | 125 000        | 910  | GEC 800 TXA-2RS |

<sup>1)</sup> To fully utilize the angle of tilt, the shaft shoulder should not be larger than d<sub>a max</sub>.

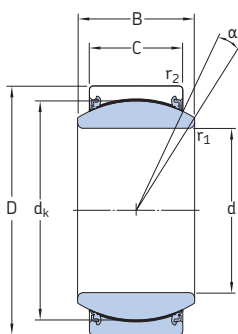


### Dimensions

### Abutment and fillet dimensions

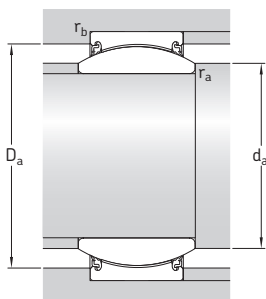
| d   | $d_k$ | $r_1$<br>min | $r_2$<br>min | $d_a$<br>min | $d_a$<br>max | $D_a$<br>min | $D_a$<br>max | $r_a$<br>max | $r_b$<br>max |
|-----|-------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| mm  |       |              |              | mm           |              |              |              |              |              |
| 320 | 380   | 1,1          | 3            | 337          | 344          | 376          | 414          | 1            | 3            |
| 340 | 400   | 1,1          | 3            | 357          | 366          | 396          | 434          | 1            | 3            |
| 360 | 420   | 1,1          | 3            | 376          | 388          | 416          | 454          | 1            | 3            |
| 380 | 450   | 1,5          | 4            | 400          | 407          | 445          | 490          | 1,5          | 4            |
| 400 | 470   | 1,5          | 4            | 420          | 429          | 465          | 510          | 1,5          | 4            |
| 420 | 490   | 1,5          | 4            | 439          | 451          | 485          | 530          | 1,5          | 4            |
| 440 | 520   | 1,5          | 4            | 461          | 472          | 514          | 568          | 1,5          | 4            |
| 460 | 540   | 1,5          | 4            | 482          | 494          | 534          | 587          | 1,5          | 4            |
| 480 | 565   | 2            | 5            | 504          | 516          | 559          | 613          | 2            | 5            |
| 500 | 585   | 2            | 5            | 524          | 537          | 579          | 633          | 2            | 5            |
| 530 | 620   | 2            | 5            | 555          | 570          | 613          | 672          | 2            | 5            |
| 560 | 655   | 2            | 5            | 585          | 602          | 648          | 711          | 2            | 5            |
| 600 | 700   | 2            | 5            | 627          | 644          | 692          | 760          | 2            | 5            |
| 630 | 740   | 3            | 6            | 662          | 676          | 732          | 802          | 3            | 6            |
| 670 | 785   | 3            | 6            | 702          | 722          | 776          | 853          | 3            | 6            |
| 710 | 830   | 3            | 6            | 744          | 763          | 821          | 901          | 3            | 6            |
| 750 | 875   | 3            | 6            | 784          | 808          | 865          | 950          | 3            | 6            |
| 800 | 930   | 3            | 6            | 835          | 859          | 920          | 1008         | 3            | 6            |

Maintenance-free radial spherical plain bearings, steel/PTFE fabric, inch sizes  
d 1 – 3.75 in



GEZ .. TXE-2LS

| Principal dimensions   |                   |                |                | Angle of tilt | Basic load ratings |                  | Mass         | Designation            |
|------------------------|-------------------|----------------|----------------|---------------|--------------------|------------------|--------------|------------------------|
| d                      | D                 | B              | C              | $\alpha$      | C                  | $C_0$            |              |                        |
| in/mm                  |                   |                |                | degrees       | lbf/kN             |                  | lb/kg        | –                      |
| <b>1</b><br>25,400     | 1.6250<br>41,275  | 0.875<br>22,23 | 0.750<br>19,05 | 6             | 18 680<br>83       | 37 350<br>166    | 0.26<br>0,12 | <b>GEZ 100 TXE-2LS</b> |
| <b>1.25</b><br>31,750  | 2.0000<br>50,800  | 1.093<br>27,76 | 0.937<br>23,80 | 6             | 29 030<br>129      | 58 500<br>260    | 0.51<br>0,23 | <b>GEZ 104 TXE-2LS</b> |
| <b>1.375</b><br>34,925 | 2.1875<br>55,563  | 1.187<br>30,15 | 1.031<br>26,19 | 5             | 35 100<br>156      | 69 750<br>310    | 0.77<br>0,35 | <b>GEZ 106 TXE-2LS</b> |
| <b>1.5</b><br>38,100   | 2.4375<br>61,913  | 1.312<br>33,33 | 1.125<br>28,58 | 6             | 41 850<br>186      | 84 380<br>375    | 0.93<br>0,42 | <b>GEZ 108 TXE-2LS</b> |
| <b>1.75</b><br>44,450  | 2.8125<br>71,438  | 1.531<br>38,89 | 1.312<br>33,33 | 6             | 57 380<br>255      | 114 750<br>510   | 1.40<br>0,64 | <b>GEZ 112 TXE-2LS</b> |
| <b>2</b><br>50,800     | 3.1875<br>80,963  | 1.750<br>44,45 | 1.500<br>38,10 | 6             | 75 380<br>335      | 150 750<br>670   | 2.05<br>0,93 | <b>GEZ 200 TXE-2LS</b> |
| <b>2.25</b><br>57,150  | 3.5625<br>90,488  | 1.969<br>50,01 | 1.687<br>42,85 | 6             | 95 630<br>425      | 191 250<br>850   | 2.85<br>1,30 | <b>GEZ 204 TXE-2LS</b> |
| <b>2.5</b><br>63,500   | 3.9375<br>100,013 | 2.187<br>55,55 | 1.875<br>47,63 | 6             | 117 000<br>520     | 234 000<br>1 040 | 4.10<br>1,85 | <b>GEZ 208 TXE-2LS</b> |
| <b>2.75</b><br>69,850  | 4.3750<br>111,125 | 2.406<br>61,11 | 2.062<br>52,38 | 6             | 141 750<br>630     | 285 750<br>1 270 | 5.30<br>2,40 | <b>GEZ 212 TXE-2LS</b> |
| <b>3</b><br>76,200     | 4.75<br>120,650   | 2.625<br>66,68 | 2.25<br>57,15  | 6             | 168 750<br>750     | 337 500<br>1500  | 6.84<br>3,1  | <b>GEZ 300 TXE-2LS</b> |
| <b>3.25</b><br>82,550  | 5.125<br>130,175  | 2.844<br>72,24 | 2.437<br>61,9  | 6             | 198 000<br>880     | 396 000<br>1760  | 8.38<br>3,8  | <b>GEZ 304 TXE-2LS</b> |
| <b>3.5</b><br>88,900   | 5.5<br>139,700    | 3.062<br>77,78 | 2.625<br>66,68 | 6             | 229 500<br>1020    | 459 000<br>2040  | 10.58<br>4,8 | <b>GEZ 308 TXE-2LS</b> |
| <b>3.75</b><br>95,250  | 5.875<br>149,225  | 3.281<br>83,34 | 2.812<br>71,43 | 6             | 265 500<br>1180    | 531 000<br>2360  | 12.79<br>5,8 | <b>GEZ 312 TXE-2LS</b> |

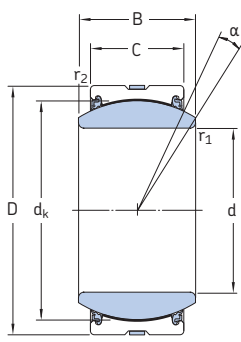


## Dimensions

## Abutment and fillet dimensions

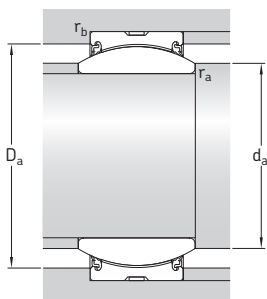
| d                      | d <sub>k</sub>    | r <sub>1</sub><br>min | r <sub>2</sub><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|------------------------|-------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| in/mm                  |                   | in/mm                 |                       |                       |                       |                       |                       |                       |                       |
| <b>1</b><br>25,400     | 1.4370<br>36,500  | 0.012<br>0,3          | 0.039<br>1            | 1.09<br>27,6          | 1.14<br>28,9          | 1.45<br>36,8          | 1.46<br>37,1          | 0.012<br>0,3          | 0.039<br>1            |
| <b>1.25</b><br>31,750  | 1.7950<br>45,593  | 0.024<br>0,6          | 0.039<br>1            | 1.38<br>35            | 1.42<br>36,1          | 1.81<br>45,9          | 1.83<br>46,4          | 0.024<br>0,6          | 0.039<br>1            |
| <b>1.375</b><br>34,925 | 1.9370<br>49,200  | 0.024<br>0,6          | 0.039<br>1            | 1.51<br>38,3          | 1.53<br>38,8          | 1.93<br>49            | 2.01<br>51            | 0.024<br>0,6          | 0.039<br>1            |
| <b>1.5</b><br>38,100   | 2.1550<br>54,737  | 0.024<br>0,6          | 0.039<br>1            | 1.64<br>41,6          | 1.71<br>43,4          | 2.17<br>55,1          | 2.25<br>57,2          | 0.024<br>0,6          | 0.039<br>1            |
| <b>1.75</b><br>44,450  | 2.5150<br>63,881  | 0.024<br>0,6          | 0.039<br>1            | 1.92<br>48,8          | 1.99<br>50,6          | 2.52<br>64,1          | 2.62<br>66,5          | 0.024<br>0,6          | 0.039<br>1            |
| <b>2</b><br>50,800     | 2.8750<br>73,025  | 0.024<br>0,6          | 0.039<br>1            | 2.18<br>55,4          | 2.28<br>57,9          | 2.85<br>72,4          | 2.95<br>74,9          | 0.024<br>0,6          | 0.039<br>1            |
| <b>2.25</b><br>57,150  | 3.2350<br>82,169  | 0.024<br>0,6          | 0.039<br>1            | 2.44<br>62            | 2.56<br>65,1          | 3.22<br>81,9          | 3.31<br>84,1          | 0.024<br>0,6          | 0.039<br>1            |
| <b>2.5</b><br>63,500   | 3.5900<br>91,186  | 0.024<br>0,6          | 0.039<br>1            | 2.7<br>68,6           | 2.85<br>72,3          | 3.56<br>90,4          | 3.68<br>93,4          | 0.024<br>0,6          | 0.039<br>1            |
| <b>2.75</b><br>69,850  | 3.9500<br>100,330 | 0.024<br>0,6          | 0.039<br>1            | 2.96<br>75,2          | 3.13<br>79,5          | 3.95<br>100,4         | 4.1<br>104,2          | 0.024<br>0,6          | 0.039<br>1            |
| <b>3</b><br>76,200     | 4.3120<br>109,525 | 0.024<br>0,6          | 0.039<br>1            | 3.220<br>81,8         | 3.417<br>86,8         | 4.299<br>109,2        | 4.469<br>113,5        | 0.024<br>0,6          | 0.039<br>1            |
| <b>3.25</b><br>82,550  | 4.675<br>118,745  | 0.024<br>0,6          | 0.039<br>1            | 3.480<br>88,4         | 3.709<br>94,2         | 4.677<br>118,8        | 4.831<br>122,7        | 0.024<br>0,6          | 0.039<br>1            |
| <b>3.5</b><br>88,900   | 5.04<br>128,016   | 0.024<br>0,6          | 0.039<br>1            | 3.740<br>95           | 4.000<br>101,6        | 5.024<br>127,6        | 5.197<br>132          | 0.024<br>0,6          | 0.039<br>1            |
| <b>3.75</b><br>95,250  | 5.39<br>136,906   | 0.024<br>0,6          | 0.039<br>1            | 4.000<br>101,6        | 4.276<br>108,6        | 5.362<br>136,2        | 5.559<br>141,2        | 0.024<br>0,6          | 0.039<br>1            |

Maintenance-free radial spherical plain bearings, steel/PTFE fabric, inch sizes  
d 4 – 6 in



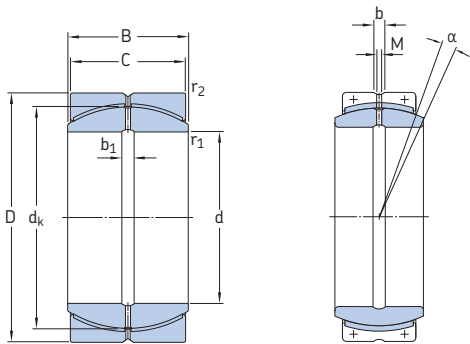
GEZ .. TXA-2LS

| Principal dimensions |         |        |        | Angle of tilt | Basic load ratings |                | Mass   | Designation     |
|----------------------|---------|--------|--------|---------------|--------------------|----------------|--------|-----------------|
| d                    | D       | B      | C      | α             | C                  | C <sub>0</sub> |        |                 |
| in/mm                |         |        |        | degrees       | lbf/kN             |                | lb/kg  | –               |
| 4                    | 6.25    | 3.5    | 3      | 6             | 301 500            | 596 250        | 15.435 | GEZ 400 TXA-2LS |
| 101,600              | 158,750 | 88,9   | 76,2   |               | 1340               | 2650           | 7      |                 |
| 4.5                  | 7       | 3.937  | 3.375  | 6             | 382 500            | 765 000        | 21.609 | GEZ 408 TXA-2LS |
| 114,300              | 177,800 | 100    | 85,725 |               | 1700               | 3400           | 9,8    |                 |
| 4.75                 | 7.375   | 4.156  | 3.562  | 6             | 427 500            | 843 750        | 25.358 | GEZ 412 TXA-2LS |
| 120,650              | 187,325 | 105,56 | 90,48  |               | 1900               | 3750           | 11,5   |                 |
| 5                    | 7.75    | 4.375  | 3.75   | 6             | 468 000            | 933 750        | 29.768 | GEZ 500 TXA-2LS |
| 127                  | 196,850 | 111,13 | 95,25  |               | 2080               | 4150           | 13,5   |                 |
| 6                    | 8.75    | 4.75   | 4.125  | 5             | 585 000            | 1 170 000      | 38.588 | GEZ 600 TXA-2LS |
| 152,400              | 222,250 | 120,65 | 104,78 |               | 2600               | 5200           | 17,5   |                 |


**Dimensions**
**Abutment and fillet dimensions**

| d           | d <sub>k</sub> | r <sub>1</sub><br>min | r <sub>2</sub><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|-------------|----------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| in/mm       |                |                       |                       | in/mm                 |                       |                       |                       |                       |                       |
| <b>4</b>    | 5.75           | 0.024                 | 0.039                 | 4.272                 | 4.547                 | 5.709                 | 5.925                 | 0.024                 | 0.039                 |
| 101,600     | 146,050        | 0,6                   | 1                     | 108,5                 | 115,5                 | 145                   | 150,5                 | 0,6                   | 1                     |
| <b>4.5</b>  | 6.475          | 0.039                 | 0.043                 | 4.843                 | 5.138                 | 6.358                 | 6.634                 | 0.039                 | 0.043                 |
| 114,300     | 164,465        | 1                     | 1,1                   | 123                   | 130,5                 | 161,5                 | 168,5                 | 1                     | 1,1                   |
| <b>4.75</b> | 6.825          | 0.039                 | 0.043                 | 5.098                 | 5.413                 | 6.850                 | 6.969                 | 0.039                 | 0.043                 |
| 120,650     | 173,355        | 1                     | 1,1                   | 129,5                 | 137,5                 | 174                   | 177                   | 1                     | 1,1                   |
| <b>5</b>    | 7.19           | 0.039                 | 0.043                 | 5.354                 | 5.689                 | 7.106                 | 7.323                 | 0.039                 | 0.043                 |
| 127         | 182,626        | 1                     | 1,1                   | 136                   | 144,5                 | 180,5                 | 186                   | 1                     | 1,1                   |
| <b>6</b>    | 8.156          | 0.039                 | 0.043                 | 6.358                 | 6.614                 | 8.012                 | 8.307                 | 0.039                 | 0.043                 |
| 152,400     | 207,162        | 1                     | 1,1                   | 161,5                 | 168                   | 203,5                 | 211                   | 1                     | 1,1                   |

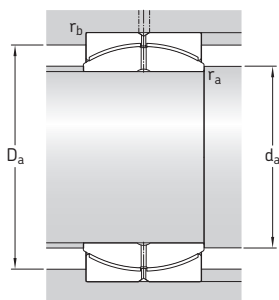
Maintenance-free radial spherical plain bearings, steel/PTFE FRP, metric sizes  
d 100 – 420 mm



GEP .. FS

GEC .. FBAS

| Principal dimensions |     |     |     | Angle of tilt | Basic load ratings |        | Mass | Designation  |
|----------------------|-----|-----|-----|---------------|--------------------|--------|------|--------------|
| d                    | D   | B   | C   | $\alpha$      | C                  | $C_0$  |      |              |
| mm                   |     |     |     | degrees       | kN                 |        | kg   | –            |
| 100                  | 150 | 71  | 67  | 2             | 600                | 900    | 4,5  | GEP 100 FS   |
| 110                  | 160 | 78  | 74  | 2             | 720                | 1 080  | 5,35 | GEP 110 FS   |
| 120                  | 180 | 85  | 80  | 2             | 850                | 1 270  | 7,95 | GEP 120 FS   |
| 140                  | 210 | 100 | 95  | 2             | 1 200              | 1 800  | 13   | GEP 140 FS   |
| 160                  | 230 | 115 | 109 | 2             | 1 600              | 2 400  | 16,5 | GEP 160 FS   |
| 180                  | 260 | 128 | 122 | 2             | 2 080              | 3 100  | 24,5 | GEP 180 FS   |
| 200                  | 290 | 140 | 134 | 2             | 2 450              | 3 650  | 33,5 | GEP 200 FS   |
| 220                  | 320 | 155 | 148 | 2             | 3 050              | 4 550  | 46   | GEP 220 FS   |
| 240                  | 340 | 170 | 162 | 2             | 3 550              | 5 400  | 53,5 | GEP 240 FS   |
| 260                  | 370 | 185 | 175 | 2             | 4 250              | 6 400  | 69,5 | GEP 260 FS   |
| 280                  | 400 | 200 | 190 | 2             | 5 000              | 7 500  | 89,5 | GEP 280 FS   |
| 300                  | 430 | 212 | 200 | 2             | 5 600              | 8 300  | 110  | GEP 300 FS   |
| 320                  | 440 | 160 | 135 | 4             | 3 000              | 4 500  | 69,0 | GEC 320 FBAS |
|                      | 460 | 230 | 218 | 2             | 6 400              | 9 650  | 135  | GEP 320 FS   |
| 340                  | 460 | 160 | 135 | 3             | 3 150              | 4 750  | 73,0 | GEC 340 FBAS |
|                      | 480 | 243 | 230 | 2             | 7 100              | 10 800 | 150  | GEP 340 FS   |
| 360                  | 480 | 160 | 135 | 3             | 3 250              | 4 900  | 77,0 | GEC 360 FBAS |
|                      | 520 | 258 | 243 | 2             | 8 150              | 12 200 | 200  | GEP 360 FS   |
| 380                  | 520 | 190 | 160 | 4             | 4 300              | 6 550  | 116  | GEC 380 FBAS |
|                      | 540 | 272 | 258 | 2             | 9 150              | 13 700 | 220  | GEP 380 FS   |
| 400                  | 540 | 190 | 160 | 3             | 4 500              | 6 700  | 120  | GEC 400 FBAS |
|                      | 580 | 280 | 265 | 2             | 9 650              | 14 600 | 275  | GEP 400 FS   |
| 420                  | 560 | 190 | 160 | 3             | 4 650              | 6 950  | 126  | GEC 420 FBAS |
|                      | 600 | 300 | 280 | 2             | 10 600             | 16 000 | 300  | GEP 420 FS   |

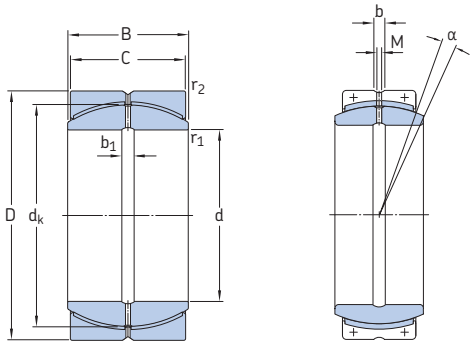


## Dimensions

## Abutment and fillet dimensions

| d          | d <sub>k</sub> | b    | b <sub>1</sub> | M | r <sub>1</sub><br>min | r <sub>2</sub><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|------------|----------------|------|----------------|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| mm         |                |      |                |   |                       |                       | mm                    |                       |                       |                       |                       |                       |
| <b>100</b> | 135            | 7,5  | 7,5            | 4 | 1                     | 1                     | 107                   | 114                   | 125,6                 | 141,9                 | 1                     | 1                     |
| <b>110</b> | 145            | 7,5  | 7,5            | 4 | 1                     | 1                     | 117                   | 122                   | 135                   | 151                   | 1                     | 1                     |
| <b>120</b> | 160            | 7,5  | 7,5            | 4 | 1                     | 1                     | 128                   | 135                   | 149                   | 171                   | 1                     | 1                     |
| <b>140</b> | 185            | 7,5  | 7,5            | 4 | 1                     | 1                     | 148                   | 155                   | 173                   | 200                   | 1                     | 1                     |
| <b>160</b> | 210            | 7,5  | 7,5            | 4 | 1                     | 1                     | 169                   | 175                   | 195                   | 218                   | 1                     | 1                     |
| <b>180</b> | 240            | 7,5  | 7,5            | 4 | 1,1                   | 1,1                   | 191                   | 203                   | 224                   | 246                   | 1                     | 1                     |
| <b>200</b> | 260            | 11,5 | 11,5           | 5 | 1,1                   | 1,1                   | 211                   | 219                   | 242                   | 276                   | 1                     | 1                     |
| <b>220</b> | 290            | 13,5 | 13,5           | 6 | 1,1                   | 1,1                   | 232                   | 245                   | 270                   | 304                   | 1                     | 1                     |
| <b>240</b> | 310            | 13,5 | 13,5           | 6 | 1,1                   | 1,1                   | 253                   | 259                   | 289                   | 323                   | 1                     | 1                     |
| <b>260</b> | 340            | 15,5 | 15,5           | 7 | 1,1                   | 1,1                   | 274                   | 285                   | 317                   | 352                   | 1                     | 1                     |
| <b>280</b> | 370            | 15,5 | 15,5           | 7 | 1,1                   | 1,1                   | 294                   | 311                   | 345                   | 381                   | 1                     | 1                     |
| <b>300</b> | 390            | 15,5 | 15,5           | 7 | 1,1                   | 1,1                   | 315                   | 327                   | 363                   | 411                   | 1                     | 1                     |
| <b>320</b> | 380            | 21   | 21             | 8 | 1,1                   | 3                     | 328                   | 344                   | 370                   | 426                   | 1                     | 3                     |
|            | 414            | 21   | 21             | 8 | 1,1                   | 3                     | 335                   | 344                   | 385                   | 434                   | 1                     | 3                     |
| <b>340</b> | 400            | 21   | 21             | 8 | 1,1                   | 3                     | 348                   | 366                   | 391                   | 446                   | 1                     | 3                     |
|            | 434            | 21   | 21             | 8 | 1,1                   | 3                     | 356                   | 359                   | 404                   | 453                   | 1                     | 3                     |
| <b>360</b> | 420            | 21   | 21             | 8 | 1,1                   | 3                     | 368                   | 388                   | 412,5                 | 466                   | 1                     | 3                     |
|            | 474            | 21   | 21             | 8 | 1,1                   | 4                     | 377                   | 397                   | 441                   | 490                   | 1                     | 4                     |
| <b>380</b> | 450            | 21   | 21             | 8 | 1,5                   | 4                     | 389                   | 407                   | 435,5                 | 503                   | 1,5                   | 4                     |
|            | 494            | 21   | 21             | 8 | 1,5                   | 4                     | 398                   | 412                   | 460                   | 508                   | 1,5                   | 4                     |
| <b>400</b> | 470            | 21   | 21             | 8 | 1,5                   | 4                     | 409                   | 429                   | 457                   | 523                   | 1,5                   | 4                     |
|            | 514            | 21   | 21             | 8 | 1,5                   | 4                     | 418                   | 431                   | 478                   | 549                   | 1,5                   | 4                     |
| <b>420</b> | 490            | 21   | 21             | 8 | 1,5                   | 4                     | 429                   | 451                   | 478,5                 | 543                   | 1,5                   | 4                     |
|            | 534            | 21   | 21             | 8 | 1,5                   | 4                     | 439                   | 441                   | 497                   | 568                   | 1,5                   | 4                     |

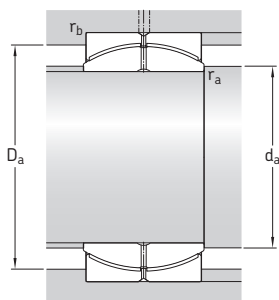
Maintenance-free radial spherical plain bearings, steel/PTFE FRP, metric sizes  
d 440 – 850 mm



GEP .. FS

GEC .. FBAS

| Principal dimensions |       |     |     | Angle of tilt | Basic load ratings |                | Mass  | Designation  |
|----------------------|-------|-----|-----|---------------|--------------------|----------------|-------|--------------|
| d                    | D     | B   | C   | $\alpha$      | C                  | C <sub>0</sub> |       |              |
| mm                   |       |     |     | degrees       | kN                 |                | kg    | –            |
| 440                  | 600   | 218 | 185 | 3             | 5 850              | 8 800          | 176   | GEC 440 FBAS |
|                      | 630   | 315 | 300 | 2             | 12 200             | 18 600         | 360   | GEP 440 FS   |
| 460                  | 620   | 218 | 185 | 3             | 6 000              | 9 000          | 182   | GEC 460 FBAS |
|                      | 650   | 325 | 308 | 2             | 12 900             | 19 600         | 380   | GEP 460 FS   |
| 480                  | 650   | 230 | 195 | 3             | 6 700              | 10 000         | 216   | GEC 480 FBAS |
|                      | 680   | 340 | 320 | 2             | 14 300             | 21 200         | 435   | GEP 480 FS   |
| 500                  | 670   | 230 | 195 | 3             | 6 800              | 10 200         | 224   | GEC 500 FBAS |
|                      | 710   | 355 | 335 | 2             | 15 300             | 23 200         | 500   | GEP 500 FS   |
| 530                  | 710   | 243 | 205 | 3             | 7 650              | 11 400         | 266   | GEC 530 FBAS |
|                      | 750   | 375 | 355 | 2             | 17 000             | 25 500         | 585   | GEP 530 FS   |
| 560                  | 750   | 258 | 215 | 4             | 8 500              | 12 700         | 313   | GEC 560 FBAS |
|                      | 800   | 400 | 380 | 2             | 19 600             | 29 000         | 730   | GEP 560 FS   |
| 600                  | 800   | 272 | 230 | 3             | 9 800              | 14 600         | 378   | GEC 600 FBAS |
|                      | 850   | 425 | 400 | 2             | 22 000             | 33 500         | 860   | GEP 600 FS   |
| 630                  | 850   | 300 | 260 | 3             | 11 800             | 18 000         | 494   | GEC 630 FBAS |
|                      | 900   | 450 | 425 | 2             | 24 500             | 37 500         | 1 040 | GEP 630 FS   |
| 670                  | 900   | 308 | 260 | 3             | 12 500             | 18 600         | 551   | GEC 670 FBAS |
|                      | 950   | 475 | 450 | 2             | 27 500             | 41 500         | 1 210 | GEP 670 FS   |
| 710                  | 950   | 325 | 275 | 3             | 14 000             | 21 200         | 643   | GEC 710 FBAS |
|                      | 1 000 | 500 | 475 | 2             | 31 000             | 46 500         | 1 400 | GEP 710 FS   |
| 750                  | 1 000 | 335 | 280 | 3             | 15 000             | 22 400         | 727   | GEC 750 FBAS |
|                      | 1 060 | 530 | 500 | 2             | 34 500             | 52 000         | 1 670 | GEP 750 FS   |
| 800                  | 1 060 | 355 | 300 | 3             | 17 300             | 26 000         | 861   | GEC 800 FBAS |
|                      | 1 120 | 565 | 530 | 2             | 39 000             | 58 500         | 1 940 | GEP 800 FS   |
| 850                  | 1 120 | 365 | 310 | 3             | 18 600             | 28 000         | 983   | GEC 850 FBAS |
|                      | 1 220 | 600 | 565 | 2             | 45 000             | 67 000         | 2 600 | GEP 850 FS   |

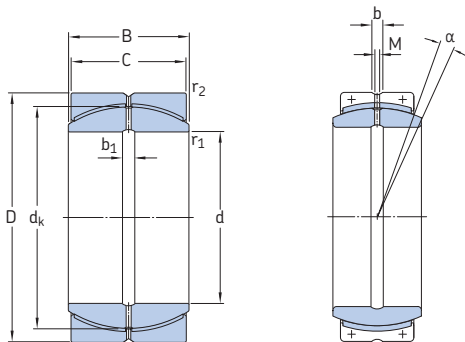


## Dimensions

## Abutment and fillet dimensions

| d          | d <sub>k</sub> | b        | b <sub>1</sub> | M        | r <sub>1</sub><br>min | r <sub>2</sub><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>max | D <sub>a</sub><br>min | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|------------|----------------|----------|----------------|----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| mm         |                |          |                |          |                       |                       | mm                    |                       |                       |                       |                       |                       |
| <b>440</b> | 520<br>574     | 27<br>27 | 27<br>27       | 10<br>10 | 1,5<br>1,5            | 4<br>4                | 450<br>460            | 472<br>479            | 502<br>534            | 583<br>596            | 1,5<br>1,5            | 4<br>4                |
| <b>460</b> | 540<br>593     | 27<br>27 | 27<br>27       | 10<br>10 | 1,5<br>1,5            | 4<br>5                | 470<br>481            | 494<br>496            | 524,5<br>552          | 603<br>612            | 1,5<br>1,5            | 4<br>5                |
| <b>480</b> | 565<br>623     | 27<br>27 | 27<br>27       | 10<br>10 | 2<br>2                | 5<br>5                | 491<br>503            | 516<br>522            | 547,5<br>580          | 629<br>641            | 2<br>2                | 5<br>5                |
| <b>500</b> | 585<br>643     | 27<br>27 | 27<br>27       | 10<br>10 | 2<br>2                | 5<br>5                | 511<br>523            | 537<br>536            | 571<br>598            | 650<br>670            | 2<br>2                | 5<br>5                |
| <b>530</b> | 620<br>673     | 27<br>27 | 27<br>27       | 10<br>10 | 2<br>2                | 5<br>5                | 541<br>554            | 570<br>558            | 605<br>626            | 689<br>709            | 2<br>2                | 5<br>5                |
| <b>560</b> | 655<br>723     | 27<br>27 | 27<br>27       | 10<br>10 | 2<br>2                | 5<br>5                | 572<br>585            | 602<br>602            | 639<br>673            | 729<br>758            | 2<br>2                | 5<br>5                |
| <b>600</b> | 700<br>773     | 27<br>27 | 27<br>27       | 10<br>10 | 2<br>2                | 5<br>6                | 612<br>627            | 644<br>645            | 683<br>719            | 779<br>801            | 2<br>2                | 5<br>6                |
| <b>630</b> | 740<br>813     | 35<br>35 | 35<br>35       | 13<br>13 | 3<br>3                | 6<br>6                | 646<br>661            | 676<br>677            | 716<br>757            | 824<br>850            | 3<br>3                | 6<br>6                |
| <b>670</b> | 785<br>862     | 35<br>35 | 35<br>35       | 13<br>13 | 3<br>3                | 6<br>6                | 686<br>702            | 722<br>719            | 765<br>802            | 874<br>898            | 3<br>3                | 6<br>6                |
| <b>710</b> | 830<br>912     | 35<br>35 | 35<br>35       | 13<br>13 | 3<br>3                | 6<br>6                | 726<br>743            | 763<br>762            | 810<br>849            | 924<br>946            | 3<br>3                | 6<br>6                |
| <b>750</b> | 875<br>972     | 35<br>35 | 35<br>35       | 13<br>13 | 3<br>3                | 6<br>6                | 766<br>784            | 808<br>814            | 856<br>904            | 974<br>1 005          | 3<br>3                | 6<br>6                |
| <b>800</b> | 930<br>1 022   | 35<br>35 | 35<br>35       | 13<br>13 | 3<br>3                | 6<br>6                | 817<br>836            | 859<br>851            | 907<br>951            | 1 033<br>1 062        | 3<br>3                | 6<br>6                |
| <b>850</b> | 985<br>1 112   | 35<br>35 | 35<br>35       | 13<br>13 | 3<br>3                | 6<br>7,5              | 867<br>888            | 914<br>936            | 963<br>1 035          | 1 093<br>1 156        | 3<br>3                | 6<br>7,5              |

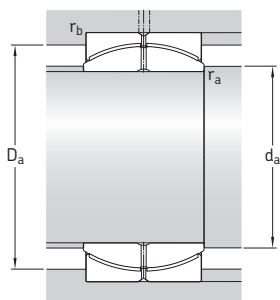
Maintenance-free radial spherical plain bearings, steel/PTFE FRP, metric sizes  
d 900 – 1 000 mm



GEP .. FS

GEC .. FBAS

| Principal dimensions |       |     |     | Angle of tilt | Basic load ratings |        | Mass  | Designation   |
|----------------------|-------|-----|-----|---------------|--------------------|--------|-------|---------------|
| d                    | D     | B   | C   | $\alpha$      | C                  | $C_0$  |       |               |
| mm                   |       |     |     | degrees       | kN                 |        | kg    | –             |
| 900                  | 1 180 | 375 | 320 | 3             | 20 400             | 31 000 | 1 120 | GEC 900 FBAS  |
|                      | 1 250 | 635 | 600 | 2             | 49 000             | 73 500 | 2 690 | GEP 900 FS    |
| 950                  | 1 250 | 400 | 340 | 3             | 23 200             | 34 500 | 1 340 | GEC 950 FBAS  |
|                      | 1 360 | 670 | 635 | 2             | 56 000             | 85 000 | 3 620 | GEP 950 FS    |
| 1 000                | 1 320 | 438 | 370 | 3             | 27 000             | 40 000 | 1 650 | GEC 1000 FBAS |
|                      | 1 450 | 710 | 670 | 2             | 63 000             | 95 000 | 4 470 | GEP 1000 FS   |



### Dimensions

### Abutment and fillet dimensions

| d            | d <sub>k</sub> | b  | b <sub>1</sub> | M  | r <sub>1</sub><br>min | r <sub>2</sub><br>min | d <sub>a</sub><br>min | d <sub>a</sub><br>max | D <sub>a</sub><br>min | D <sub>a</sub><br>max | r <sub>a</sub><br>max | r <sub>b</sub><br>max |
|--------------|----------------|----|----------------|----|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| mm           |                |    |                |    |                       |                       | mm                    |                       |                       |                       |                       |                       |
| <b>900</b>   | 1 040          | 35 | 35             | 13 | 3                     | 6                     | 917                   | 970                   | 1 017                 | 1 153                 | 3                     | 6                     |
|              | 1 142          | 35 | 35             | 13 | 3                     | 7,5                   | 938                   | 949                   | 1 063                 | 1 183                 | 3                     | 7,5                   |
| <b>950</b>   | 1 100          | 40 | 40             | 15 | 4                     | 7,5                   | 969                   | 1 024                 | 1 074                 | 1 217                 | 4                     | 7,5                   |
|              | 1 242          | 40 | 40             | 15 | 4                     | 7,5                   | 993                   | 1 045                 | 1 156                 | 1 290                 | 4                     | 7,5                   |
| <b>1 000</b> | 1 160          | 40 | 40             | 15 | 4                     | 7,5                   | 1 020                 | 1 074                 | 1 128                 | 1 287                 | 4                     | 7,5                   |
|              | 1 312          | 40 | 40             | 15 | 4                     | 7,5                   | 1 045                 | 1 103                 | 1 221                 | 1 378                 | 4                     | 7,5                   |