

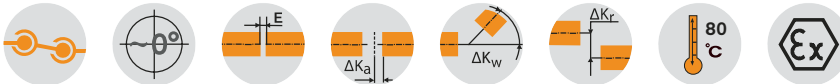
# GEARex® FA, FB and FAB

## All-steel gear couplings

Coupling in accordance with AGMA 9008-B00, high power density



For legend of pictogram please refer to flapper on the cover



| Dimensions |            |                                 |                                 |   |     |     |      |     |     |      |                |     |                 |                 |                 |                              |      |   |
|------------|------------|---------------------------------|---------------------------------|---|-----|-----|------|-----|-----|------|----------------|-----|-----------------|-----------------|-----------------|------------------------------|------|---|
| Size       | Pilot bore | Max. finish bore                |                                 | Dimensions [mm]                                     |     |     |      |     |     |      |                |     |                 |                 |                 |                              |      | Grease feeding [dm <sup>3</sup> ] <sup>2)</sup> |
|            |            | d <sub>1</sub> , d <sub>2</sub> | l <sub>1</sub> , l <sub>2</sub> | Hub lengthened max. l <sub>1</sub> , l <sub>2</sub> | EFA | EFB | EFAB | LFA | LFB | LFAB | L <sub>3</sub> | D   | DA <sub>1</sub> | DA <sub>2</sub> | F <sup>1)</sup> | d <sub>3</sub> <sup>1)</sup> |      |   |
| 10         | 26         | 50                              | 43                              | 105   | 3   | 21  | 12   | 89  | 107 | 98   | 55             | 67  | 111             | 83              | 74              | 52                           | 0.02 |   |
| 15         | 26         | 64                              | 50                              | 115   | 3   | 15  | 9    | 103 | 115 | 109  | 59             | 87  | 152             | 106             | 84              | 68                           | 0.04 |   |
| 20         | 31         | 80                              | 62                              | 130   | 3   | 31  | 17   | 127 | 155 | 141  | 79             | 108 | 178             | 129             | 104             | 85                           | 0.08 |   |
| 25         | 38         | 98                              | 76                              | 150   | 5   | 29  | 17   | 157 | 181 | 169  | 93             | 130 | 213             | 157             | 123             | 110                          | 0.12 |   |
| 30         | 44.5       | 112                             | 90                              | 170   | 5   | 33  | 19   | 185 | 213 | 199  | 109            | 153 | 240             | 181             | 148             | 130                          | 0.18 |   |
| 35         | 46         | 133                             | 105                             | 185   | 6   | 40  | 23   | 216 | 250 | 233  | 128            | 180 | 280             | 213             | 172             | 150                          | 0.22 |   |
| 40         | 52         | 158                             | 120                             | 215   | 6   | 42  | 24   | 246 | 282 | 264  | 144            | 214 | 318             | 249             | 192             | 175                          | 0.35 |   |
| 45         | 80         | 172                             | 135                             | 245   | 8   | 50  | 29   | 278 | 320 | 299  | 164            | 233 | 347             | 273             | 216             | 190                          | 0.45 |   |
| 50         | 80         | 192                             | 150                             | 295   | 8   | 56  | 32   | 308 | 356 | 332  | 182            | 260 | 390             | 308             | 241             | 220                          | 0.70 |   |
| 55         | 90         | 210                             | 175                             | 300   | 8   | 70  | 39   | 358 | 420 | 389  | 214            | 283 | 425.5           | 333             | 275             | 250                          | 0.90 |   |
| 60         | 100        | 232                             | 190                             | 305   | 8   | 84  | 46   | 388 | 464 | 426  | 236            | 312 | 457             | 364.5           | 316             | 265                          | 1.15 |   |
| 70         | 100        | 276                             | 220                             | 310   | 10  | 76  | 43   | 450 | 516 | 483  | 263            | 371 | 527             | 424             | 360             | 300                          | 1.50 |   |

| Technical data |                 |                           |                  |                            |       |        |   |                    |     |                     |
|----------------|-----------------|---------------------------|------------------|----------------------------|-------|--------|---|--------------------|-----|---------------------|
| Size           | Torque [Nm]     |                           | Max. speed [rpm] | Weight with max. bore [kg] |       |        | Mass moment of inertia with max. bore [kgm <sup>2</sup> ] | Dowel screw (10.9) |     |                     |
|                | T <sub>KN</sub> | T <sub>KN</sub> (42CrMo4) |                  | Sleeve                     | Hub   | Total  |   | z                  | M   | T <sub>A</sub> [Nm] |
| 10             | 930             | 1580                      | 8500             | 0.75                       | 0.55  | 2.73   | 0.00436   | 6                  | M6  | 15                  |
| 15             | 2000            | 3300                      | 6400             | 1.88                       | 1.12  | 6.38   | 0.01894   | 8                  | M8  | 36                  |
| 20             | 3500            | 6300                      | 5400             | 2.60                       | 2.09  | 9.94   | 0.04000   | 6                  | M10 | 72                  |
| 25             | 6500            | 11000                     | 4500             | 4.43                       | 3.56  | 16.83  | 0.09749   | 6                  | M12 | 125                 |
| 30             | 10000           | 17400                     | 4000             | 5.83                       | 6.18  | 25.21  | 0.18080   | 8                  | M12 | 125                 |
| 35             | 17000           | 28800                     | 3500             | 9.71                       | 9.87  | 41.25  | 0.41419   | 8                  | M14 | 200                 |
| 40             | 28500           | 48500                     | 3100             | 11.88                      | 16.07 | 58.14  | 0.75535   | 8                  | M14 | 200                 |
| 45             | 37000           | 62000                     | 3000             | 15.72                      | 21.42 | 77.08  | 1.17590   | 10                 | M14 | 200                 |
| 50             | 51000           | 86000                     | 2500             | 25.66                      | 29.59 | 114.40 | 2.24991   | 8                  | M18 | 430                 |
| 55             | 65000           | 110000                    | 2300             | 31.52                      | 40.30 | 150.41 | 3.45102   | 14                 | M18 | 430                 |
| 60             | 85000           | 145000                    | 2100             | 32.82                      | 52.96 | 177.44 | 4.16734   | 14                 | M18 | 430                 |
| 70             | 135000          | 240000                    | 1850             | 43.52                      | 85.77 | 268.20 | 9.32429   | 16                 | M20 | 610                 |

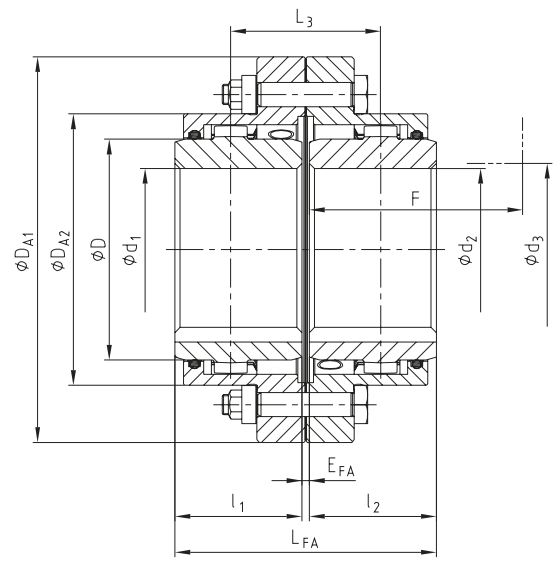
■ = Standard

<sup>1)</sup> Space required to align the coupling and replace the sealing ring

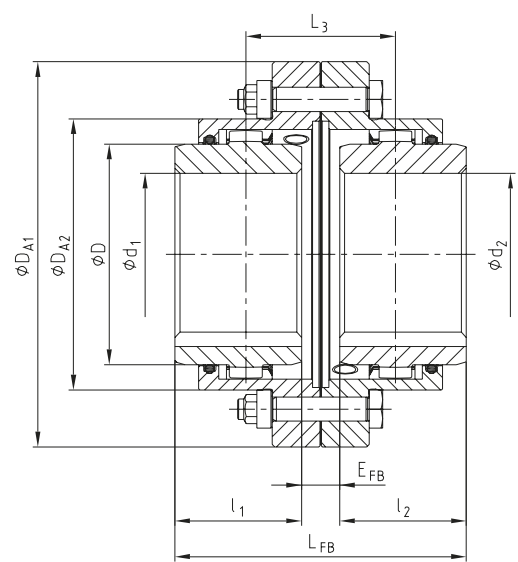
<sup>2)</sup> Grease feeding for each coupling half

|                   |                           |   |   |
|-------------------|---------------------------|---|---|
| Ordering example: | GEARex® FA 10             | d <sub>1</sub> Ø50                          | d <sub>2</sub> Ø50                          |
|                   | Type and size of coupling | Finish bore with keyway to DIN 6885 sheet 1 | Finish bore with keyway to DIN 6885 sheet 1 |

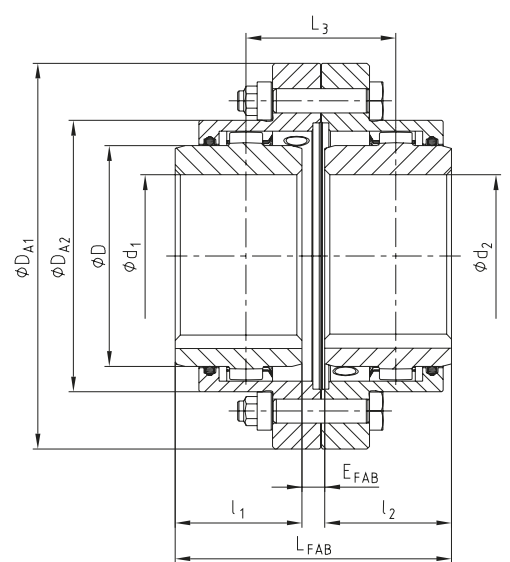
Type FA



Type FB

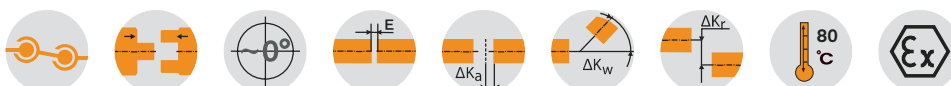
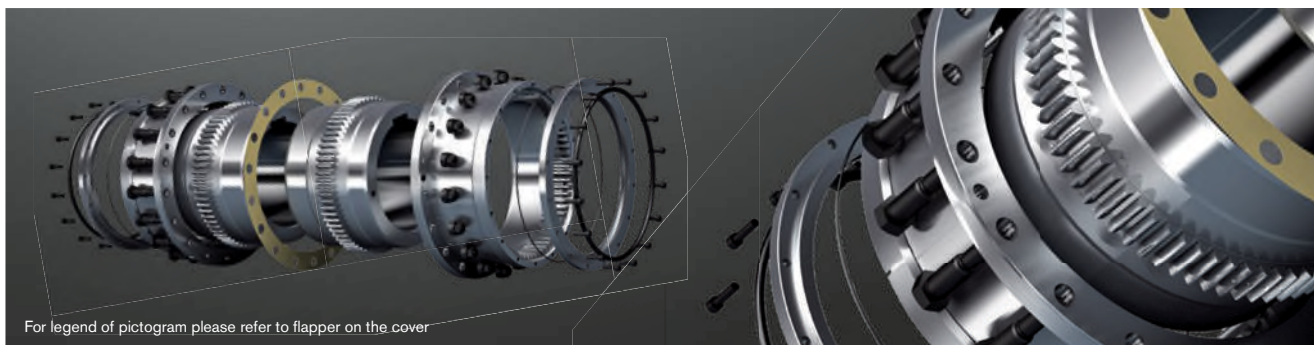


Type FAB



# GEARex® DA, DB and DAB All-steel gear couplings

Easy to assemble, high power density



| Dimensions |            |                                 |                                 |                 |     |      |      |      |      |                |     |       |     |                 |                              |      |   |
|------------|------------|---------------------------------|---------------------------------|-----------------|-----|------|------|------|------|----------------|-----|-------|-----|-----------------|------------------------------|------|---|
| Size       | Pilot bore | Max. finish bore                |                                 | Dimensions [mm] |     |      |      |      |      |                |     |       |     |                 |                              |      | Grease feeding [dm <sup>3</sup> ] <sup>2)</sup> |
|            |            | d <sub>1</sub> , d <sub>2</sub> | l <sub>1</sub> , l <sub>2</sub> | FDA             | EDB | EDAB | LDA  | LDB  | LDAB | L <sub>3</sub> | D   | DA1   | DA2 | F <sup>1)</sup> | d <sub>3</sub> <sup>1)</sup> |      |   |
| 20         | 31         | 80                              | 62                              | 3               | 31  | 17   | 133  | 155  | 144  | 79             | 108 | 187   | 146 | 105             | 85                           | 0.08 |   |
| 25         | 38         | 98                              | 76                              | 5               | 29  | 17   | 157  | 181  | 169  | 93             | 130 | 220   | 172 | 115             | 105                          | 0.12 |   |
| 30         | 44.5       | 112                             | 90                              | 5               | 33  | 19   | 185  | 213  | 199  | 109            | 153 | 248   | 194 | 140             | 120                          | 0.18 |   |
| 35         | 46         | 133                             | 105                             | 6               | 40  | 23   | 216  | 250  | 233  | 128            | 180 | 285   | 228 | 165             | 145                          | 0.22 |   |
| 40         | 52         | 158                             | 120                             | 6               | 42  | 24   | 246  | 282  | 264  | 144            | 214 | 335   | 270 | 180             | 160                          | 0.35 |   |
| 45         | 80         | 172                             | 135                             | 8               | 50  | 29   | 278  | 320  | 299  | 164            | 233 | 358   | 294 | 195             | 185                          | 0.45 |   |
| 50         | 80         | 192                             | 150                             | 8               | 56  | 32   | 388  | 356  | 332  | 182            | 260 | 390   | 332 | 215             | 205                          | 0.70 |   |
| 55         | 90         | 210                             | 175                             | 8               | 70  | 39   | 358  | 420  | 389  | 214            | 283 | 425.5 | 354 | 240             | 220                          | 0.90 |   |
| 60         | 100        | 232                             | 190                             | 8               | 84  | 46   | 388  | 464  | 426  | 236            | 312 | 457   | 380 | 260             | 245                          | 1.15 |   |
| 70         | 100        | 276                             | 220                             | 10              | 76  | 43   | 450  | 516  | 483  | 263            | 371 | 527   | 445 | 300             | 290                          | 1.50 |   |
| 80         | 140        | 300                             | 280                             | 10              | 50  | 30   | 570  | 610  | 590  | 310            | 394 | 545   | 475 | 340             | 310                          | 2.50 |   |
| 85         | 160        | 325                             | 292                             | 13              | 53  | 33   | 597  | 637  | 617  | 325            | 430 | 585   | 515 | 352             | 330                          | 3.00 |   |
| 90         | 180        | 350                             | 305                             | 13              | 83  | 48   | 623  | 693  | 658  | 353            | 464 | 640   | 560 | 365             | 360                          | 4.00 |   |
| 100        | 220        | 390                             | 330                             | 13              | 93  | 53   | 673  | 753  | 713  | 383            | 512 | 690   | 612 | 390             | 400                          | 5.00 |   |
| 110        | 220        | 420                             | 350                             | 20              | 296 | 158  | 720  | 996  | 858  | 508            | 560 | 765   | 665 | 410             | 420                          | 6.00 |   |
| 120        | 260        | 450                             | 420                             | 25              | 421 | 223  | 864  | 1261 | 1063 | 643            | 608 | 825   | 720 | 480             | 470                          | 7.50 |   |
| 130        | 300        | 500                             | 440                             | 25              | 415 | 220  | 905  | 1295 | 1100 | 660            | 684 | 950   | 805 | 520             | 520                          | 9    |   |
| 140        | 380        | 550                             | 460                             | 20              | 430 | 225  | 940  | 1350 | 1145 | 685            | 750 | 1010  | 875 | 570             | 590                          | 12   |   |
| 150        | 460        | 630                             | 520                             | 30              | 460 | 245  | 1070 | 1500 | 1285 | 765            | 850 | 1140  | 975 | 630             | 670                          | 15   |   |

| Technical data |                 |                           |                  |                            |      |       |   |                    |     |                     |
|----------------|-----------------|---------------------------|------------------|----------------------------|------|-------|---|--------------------|-----|---------------------|
| Size           | Torque [Nm]     |                           | Max. speed [rpm] | Weight with max. bore [kg] |      |       | Mass moment of inertia with max. bore [kgm <sup>2</sup> ] | Dowel screw (10.9) |     |                     |
|                | T <sub>KN</sub> | T <sub>KN</sub> (42CrMo4) |                  | Sleeve                     | Hub  | Total |   | z                  | M   | T <sub>A</sub> [Nm] |
| 20             | 3500            | 6300                      | 5400             | 3.6                        | 2.1  | 12.8  | 0.056   | 6                  | M10 | 72                  |
| 25             | 6500            | 11000                     | 4500             | 5.5                        | 3.6  | 20.3  | 0.125   | 6                  | M12 | 125                 |
| 30             | 10000           | 17400                     | 4000             | 6.9                        | 6.2  | 28.9  | 0.219   | 8                  | M12 | 125                 |
| 35             | 17000           | 28800                     | 3500             | 11.2                       | 9.8  | 46.6  | 0.488   | 8                  | M14 | 200                 |
| 40             | 28500           | 48500                     | 3100             | 16.3                       | 15.9 | 70.9  | 1.011   | 8                  | M14 | 200                 |
| 45             | 37000           | 62000                     | 3000             | 20.2                       | 21.4 | 90.7  | 1.482   | 10                 | M14 | 200                 |
| 50             | 51000           | 86000                     | 2500             | 27.0                       | 29.5 | 123.5 | 2.474   | 8                  | M18 | 430                 |
| 55             | 65000           | 110000                    | 2300             | 32.6                       | 40.2 | 159.1 | 3.714   | 14                 | M18 | 430                 |
| 60             | 85000           | 145000                    | 2100             | 32.0                       | 52.8 | 184.4 | 4.810   | 14                 | M18 | 430                 |
| 70             | 135000          | 240000                    | 1850             | 43.8                       | 85.5 | 280   | 9.907   | 16                 | M20 | 610                 |
| 80             | 175000          | 300000                    | 1750             | 64                         | 117  | 362   | 14.214  | 18                 | M20 | 610                 |
| 85             | 225000          | 380000                    | 1650             | 75                         | 148  | 446   | 20.320  | 20                 | M20 | 610                 |
| 90             | 290000          | 500000                    | 1550             | 101                        | 183  | 568   | 31.036  | 20                 | M24 | 1000                |
| 100            | 380000          | 650000                    | 1500             | 117                        | 232  | 698   | 45.358  | 24                 | M24 | 1000                |
| 110            | 480000          | 820000                    | 1250             | 140                        | 295  | 940   | 73.880  | 20                 | M30 | 1700                |
| 120            | 620000          | 1050000                   | 1150             | 188                        | 430  | 1312  | 118.40  | 24                 | M30 | 1700                |
| 130            | -               | 1450000                   | 1000             | 319                        | 603  | 1954  | 226.732   | 20                 | M36 | 2800                |
| 140            | -               | 1950000                   | 950              | 373                        | 758  | 2391  | 328.567   | 24                 | M36 | 2800                |
| 150            | -               | 2750000                   | 850              | 475                        | 983  | 3069  | 540.298   | 30                 | M36 | 2800                |

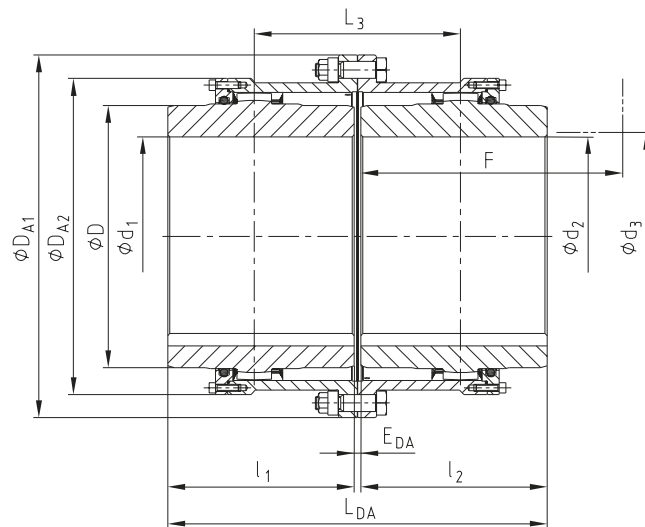
■ = Standard

<sup>1)</sup> Space required to align the coupling and replace the sealing ring

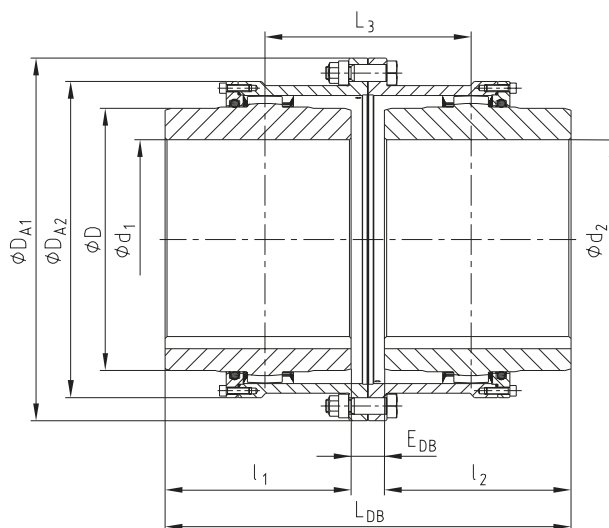
<sup>2)</sup> Grease feeding for each coupling half

|                   |                           |   |   |
|-------------------|---------------------------|---|---|
| Ordering example: | GEARex® DA 80             | d <sub>1</sub> Ø300                         | d <sub>2</sub> Ø300                         |
|                   | Type and size of coupling | Finish bore with keyway to DIN 6885 sheet 1 | Finish bore with keyway to DIN 6885 sheet 1 |

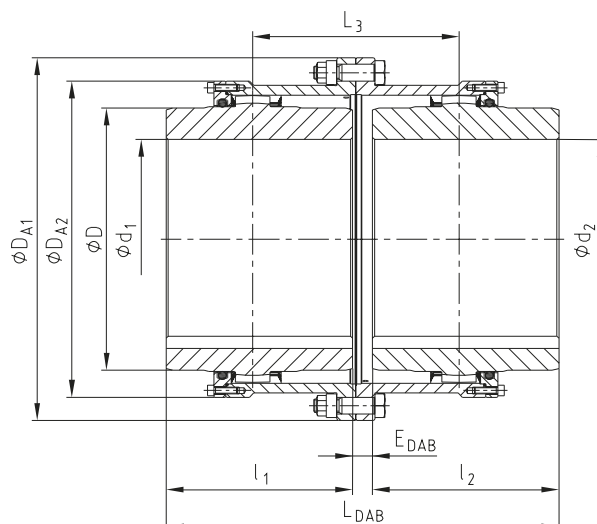
Type DA



Type DB



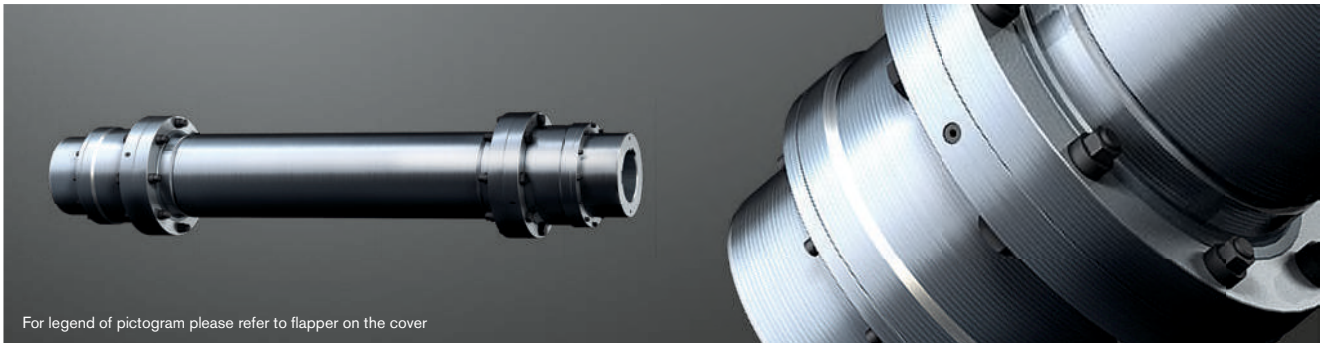
Type DAB



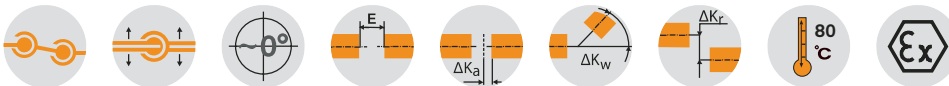
# GEARex® FH and DH

## All-steel gear couplings

Large shaft distance dimension, high power density



For legend of pictogram please refer to flapper on the cover



| Dimensions |                 |                           |            |                                 |                                 |   |     |                   |                   |                |                |                 |                              |                    |     |   |                     |
|------------|-----------------|---------------------------|------------|---------------------------------|---------------------------------|---|-----|-------------------|-------------------|----------------|----------------|-----------------|------------------------------|--------------------|-----|---|---------------------|
| Size       | Torque [Nm]     |                           | Pilot bore | Max. finish bore                |                                 | Dimensions [mm]                                     |     |                   |                   |                |                |                 |                              | Dowel screw (10.9) |     | Grease feeding [dm <sup>3</sup> ] <sup>2)</sup> |                     |
|            | T <sub>KN</sub> | T <sub>KN</sub> (42CrMo4) |            | d <sub>1</sub> , d <sub>2</sub> | l <sub>1</sub> , l <sub>2</sub> | Hub lengthened max. l <sub>1</sub> , l <sub>2</sub> | D   | DA1 <sup>3)</sup> | DA2 <sup>3)</sup> | L <sub>H</sub> | E <sub>H</sub> | F <sup>1)</sup> | d <sub>3</sub> <sup>1)</sup> | z                  | M   |   | T <sub>A</sub> [Nm] |
| 10         | 930             | 1580                      | 26         | 50                              | 43                              | 105   | 67  | 111               | 84                |                |                | 74              | 52                           | 6                  | M6  | 15  | 0.02                |
| 15         | 2000            | 3300                      | 26         | 64                              | 50                              | 115   | 87  | 152               | 107               |                |                | 84              | 68                           | 8                  | M8  | 36  | 0.04                |
| 20         | 3500            | 6300                      | 31         | 80                              | 62                              | 130   | 108 | 178               | 130               |                |                | 104             | 85                           | 6                  | M10 | 72  | 0.08                |
| 25         | 6500            | 11000                     | 38         | 98                              | 76                              | 150   | 130 | 213               | 158               |                |                | 123             | 110                          | 6                  | M12 | 125   | 0.12                |
| 30         | 10000           | 17400                     | 44.5       | 112                             | 90                              | 170   | 153 | 240               | 182               |                |                | 148             | 130                          | 8                  | M12 | 125   | 0.18                |
| 35         | 17000           | 28800                     | 46         | 133                             | 105                             | 185   | 180 | 280               | 214               |                |                | 172             | 150                          | 8                  | M14 | 200   | 0.22                |
| 40         | 28500           | 48500                     | 52         | 158                             | 120                             | 215   | 214 | 318               | 250               |                |                | 192             | 175                          | 8                  | M14 | 200   | 0.35                |
| 45         | 37000           | 62000                     | 80         | 172                             | 135                             | 245   | 233 | 347               | 274               |                |                | 216             | 190                          | 10                 | M14 | 200   | 0.45                |
| 50         | 51000           | 86000                     | 80         | 192                             | 150                             | 295   | 260 | 390               | 309               |                |                | 241             | 220                          | 8                  | M18 | 430   | 0.70                |
| 55         | 65000           | 110000                    | 90         | 210                             | 175                             | 300   | 283 | 425.5             | 334               |                |                | 275             | 250                          | 14                 | M18 | 430   | 0.90                |
| 60         | 85000           | 145000                    | 100        | 232                             | 190                             | 305   | 312 | 457               | 365.5             |                |                | 316             | 265                          | 14                 | M18 | 430   | 1.15                |
| 70         | 135000          | 240000                    | 100        | 276                             | 220                             | 310   | 371 | 527               | 425               |                |                | 360             | 300                          | 16                 | M20 | 610   | 1.50                |
| 80         | 175000          | 300000                    | 140        | 300                             | 280                             | -   | 394 | 545               | 475               |                |                | 340             | 310                          | 18                 | M20 | 610   | 2.50                |
| 85         | 225000          | 380000                    | 160        | 325                             | 292                             | -   | 430 | 585               | 515               |                |                | 352             | 330                          | 20                 | M20 | 610   | 3.00                |
| 90         | 290000          | 500000                    | 180        | 350                             | 305                             | -   | 464 | 640               | 560               |                |                | 365             | 360                          | 20                 | M24 | 1000  | 4.00                |
| 100        | 380000          | 650000                    | 220        | 390                             | 330                             | -   | 512 | 690               | 612               |                |                | 390             | 400                          | 24                 | M24 | 1000  | 5.00                |
| 110        | 480000          | 820000                    | 220        | 420                             | 350                             | -   | 560 | 765               | 665               |                |                | 410             | 420                          | 20                 | M30 | 1700  | 6.00                |
| 120        | 620000          | 1050000                   | 260        | 450                             | 420                             | -   | 608 | 825               | 720               |                |                | 480             | 470                          | 24                 | M30 | 1700  | 7.50                |
| 130        | -               | 1450000                   | 300        | 500                             | 440                             | -   | 684 | 950               | 805               |                |                | 520             | 520                          | 20                 | M36 | 2800  | 9.00                |
| 140        | -               | 1950000                   | 380        | 550                             | 460                             | -   | 750 | 1020              | 875               |                |                | 570             | 590                          | 24                 | M36 | 2800  | 12.00               |
| 150        | -               | 2750000                   | 460        | 630                             | 520                             | -   | 850 | 1140              | 975               |                |                | 630             | 670                          | 30                 | M36 | 2800  | 15.00               |

■ = Standard

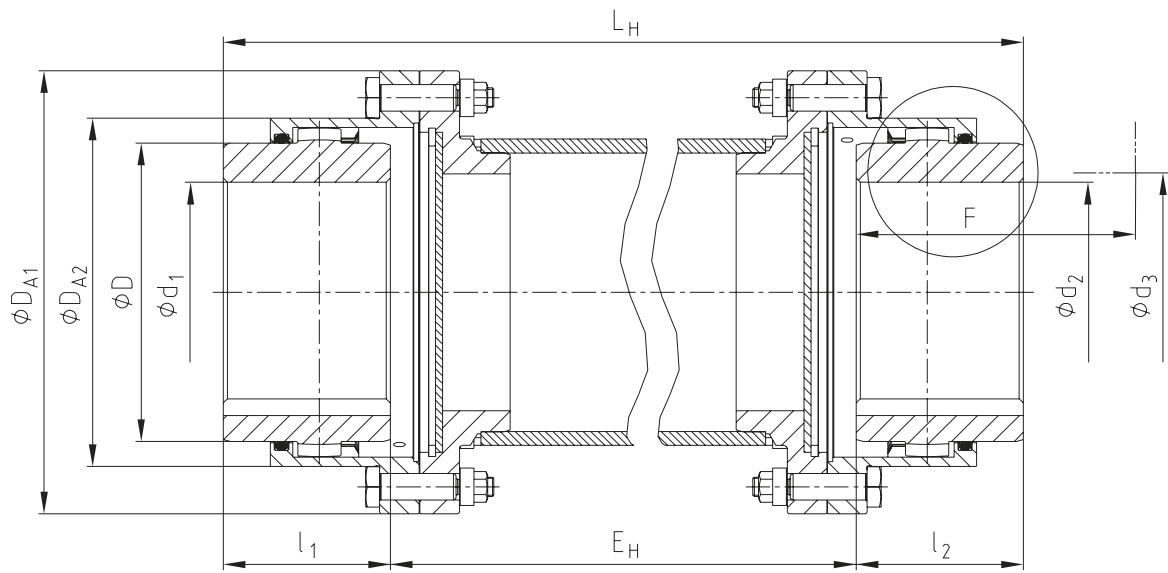
<sup>1)</sup> Space required to align the coupling and replace the sealing ring

<sup>2)</sup> Grease feeding for each coupling half

<sup>3)</sup> For dimension type F see page 104. For type D see page 106.

|                   |                           |   |   |   |
|-------------------|---------------------------|---|---|---|
| Ordering example: | GEARex® FH 10             | d <sub>1</sub> Ø50                          | d <sub>2</sub> Ø50                          | 250                                     |
|                   | Type and size of coupling | Finish bore with keyway to DIN 6885 sheet 1 | Finish bore with keyway to DIN 6885 sheet 1 | Shaft distance dimension E <sub>H</sub> |

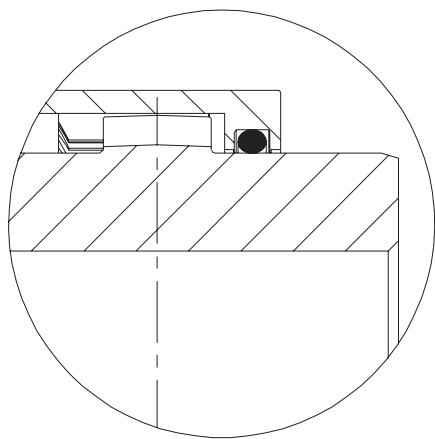
Components



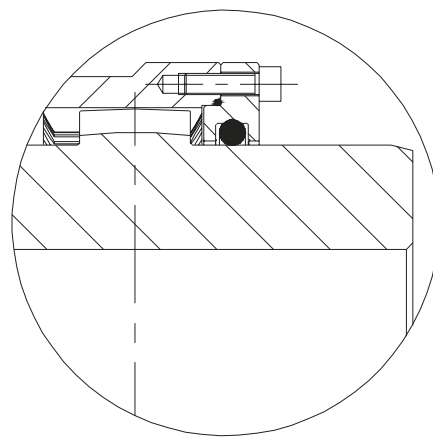
BoWex®

Types

Type FH



Type DH

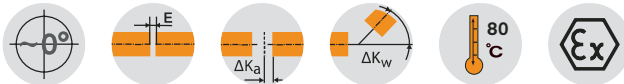
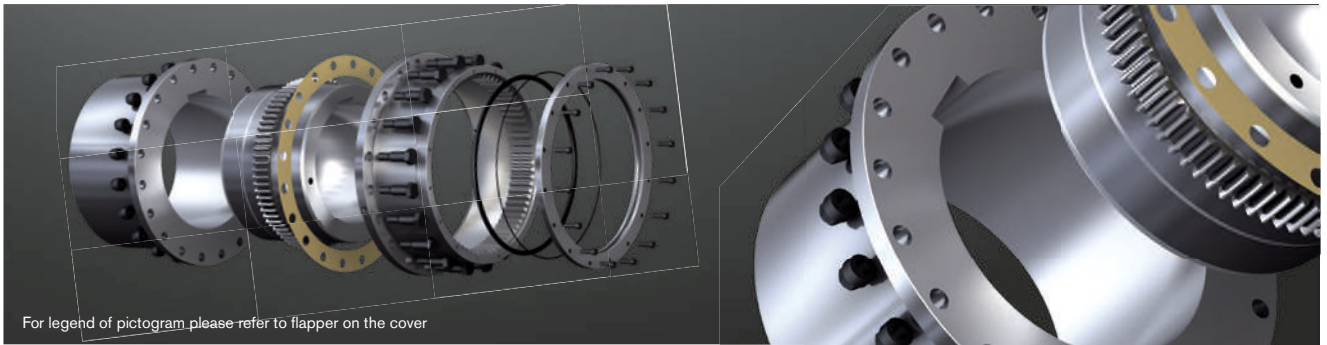


GEARex®

# GEARex® FR and DR

## All-steel gear couplings

Single-cardanic, high power density



| Dimensions |                 |                           |                  |                |                    |  |     |                   |                   |       |      |                 |                              |                    |     |                     |                      |  |
|------------|-----------------|---------------------------|------------------|----------------|--------------------|--|-----|-------------------|-------------------|-------|------|-----------------|------------------------------|--------------------|-----|---------------------|----------------------|--|
| Size       | Torque [Nm]     |                           | Max. finish bore |                | Dimensions [mm]    |  |     |                   |                   |       |      |                 |                              | Dowel screw (10.9) |     |                     | Grease feeding [dm³] |  |
|            | T <sub>KN</sub> | T <sub>KN</sub> (42CrMo4) | d <sub>1</sub>   | d <sub>4</sub> | l <sub>1, l2</sub> | Hub lengthened max. l <sub>1, l2</sub> | D   | DA1 <sup>2)</sup> | DA2 <sup>2)</sup> | DF    | LR   | F <sup>1)</sup> | d <sub>3</sub> <sup>1)</sup> | z                  | M   | T <sub>A</sub> [Nm] |                      |  |
| 10         | 930             | 1580                      | 50               | 60             | 43                 | 105                                    | 67  | 111               | 84                | 84    | 88   | 74              | 52                           | 6                  | M6  | 15                  | 0.02                 |  |
| 15         | 2000            | 3300                      | 64               | 78             | 50                 | 115                                    | 87  | 152               | 107               | 107   | 103  | 84              | 68                           | 8                  | M8  | 36                  | 0.04                 |  |
| 20         | 3500            | 6300                      | 80               | 95             | 62                 | 130                                    | 108 | 178               | 130               | 130   | 127  | 104             | 85                           | 6                  | M10 | 72                  | 0.08                 |  |
| 25         | 6500            | 11000                     | 98               | 115            | 76                 | 150                                    | 130 | 213               | 158               | 158   | 157  | 123             | 110                          | 6                  | M12 | 125                 | 0.12                 |  |
| 30         | 10000           | 17400                     | 112              | 135            | 90                 | 170                                    | 153 | 240               | 182               | 182   | 185  | 148             | 130                          | 8                  | M12 | 125                 | 0.18                 |  |
| 35         | 17000           | 28800                     | 133              | 155            | 105                | 185                                    | 180 | 280               | 214               | 214   | 216  | 172             | 150                          | 8                  | M14 | 200                 | 0.22                 |  |
| 40         | 28500           | 48500                     | 158              | 185            | 120                | 215                                    | 214 | 318               | 250               | 250   | 244  | 192             | 175                          | 8                  | M14 | 200                 | 0.35                 |  |
| 45         | 37000           | 62000                     | 172              | 200            | 135                | 245                                    | 233 | 347               | 274               | 274   | 276  | 216             | 190                          | 10                 | M14 | 200                 | 0.45                 |  |
| 50         | 51000           | 86000                     | 192              | 225            | 150                | 295                                    | 260 | 390               | 309               | 309   | 305  | 241             | 220                          | 8                  | M18 | 430                 | 0.70                 |  |
| 55         | 65000           | 110000                    | 210              | 245            | 175                | 300                                    | 283 | 425.5             | 334               | 334   | 356  | 275             | 250                          | 14                 | M18 | 430                 | 0.90                 |  |
| 60         | 85000           | 145000                    | 232              | 265            | 190                | 305                                    | 312 | 457               | 365.5             | 365.5 | 386  | 316             | 265                          | 14                 | M18 | 430                 | 1.15                 |  |
| 70         | 135000          | 240000                    | 276              | 310            | 220                | 310                                    | 371 | 527               | 425               | 425   | 450  | 360             | 300                          | 16                 | M20 | 610                 | 1.50                 |  |
| 80         | 175000          | 300000                    | 300              | 340            | 280                | -                                      | 394 | 545               | 475               | 462   | 570  | 340             | 310                          | 18                 | M20 | 610                 | 2.50                 |  |
| 85         | 225000          | 380000                    | 325              | 370            | 292                | -                                      | 430 | 585               | 515               | 500   | 597  | 352             | 330                          | 20                 | M20 | 610                 | 3.00                 |  |
| 90         | 290000          | 500000                    | 350              | 400            | 305                | -                                      | 464 | 640               | 560               | 546   | 623  | 365             | 360                          | 20                 | M24 | 1000                | 4.00                 |  |
| 100        | 380000          | 650000                    | 390              | 440            | 330                | -                                      | 512 | 690               | 612               | 594   | 673  | 390             | 400                          | 24                 | M24 | 1000                | 5.00                 |  |
| 110        | 480000          | 820000                    | 420              | 480            | 350                | -                                      | 560 | 765               | 665               | 647   | 710  | 410             | 420                          | 20                 | M30 | 1700                | 6.00                 |  |
| 120        | 620000          | 1050000                   | 450              | 520            | 420                | -                                      | 608 | 825               | 720               | 700   | 852  | 480             | 470                          | 24                 | M30 | 1700                | 7.50                 |  |
| 130        | -               | 1450000                   | 500              | 560            | 440                | -                                      | 684 | 950               | 805               | 760   | 890  | 520             | 520                          | 20                 | M36 | 2800                | 9.00                 |  |
| 140        | -               | 1950000                   | 550              | 610            | 460                | -                                      | 750 | 1020              | 875               | 835   | 930  | 570             | 590                          | 24                 | M36 | 2800                | 12.00                |  |
| 150        | -               | 2750000                   | 630              | 690            | 520                | -                                      | 850 | 1140              | 975               | 935   | 1055 | 630             | 670                          | 30                 | M36 | 2800                | 15.00                |  |

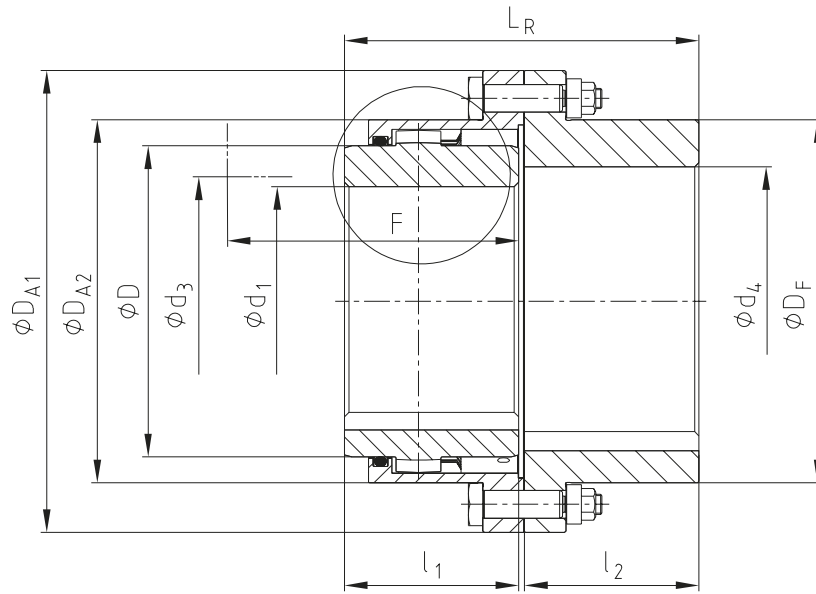
■ = Standard

<sup>1)</sup> Space required to align the coupling and replace the sealing ring

<sup>2)</sup> For dimension type F see page 104. For type D see page 106.

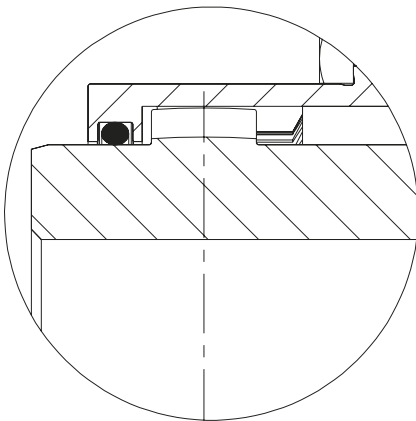
|                   |                           |   |   |
|-------------------|---------------------------|---|---|
| Ordering example: | GEARex® FR 10             | d <sub>1</sub> Ø50                          | d <sub>4</sub> Ø60                          |
|                   | Type and size of coupling | Finish bore with keyway to DIN 6885 sheet 1 | Finish bore with keyway to DIN 6885 sheet 1 |

## Components

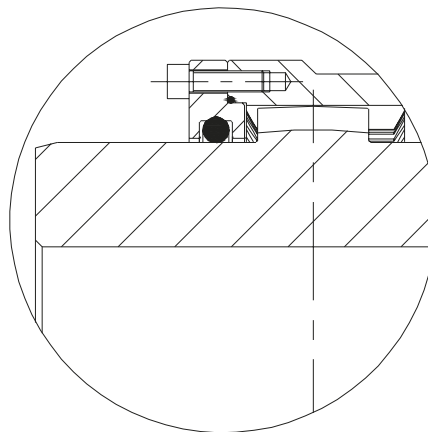


## Types

Type FR



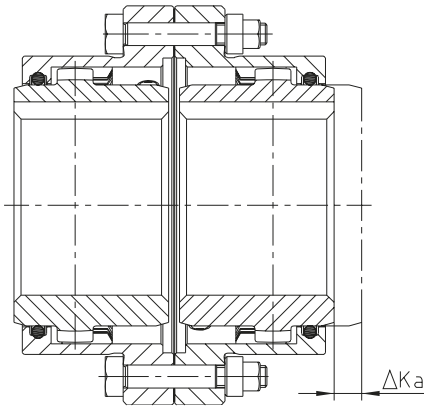
Type DR



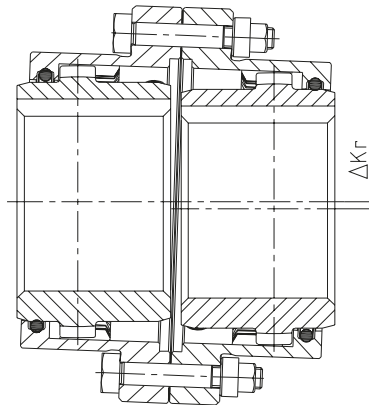


### Displacements

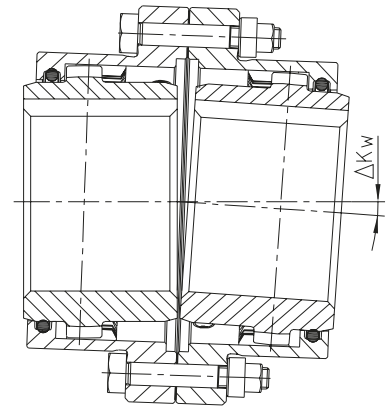
Axial displacement



Radial displacement



Angular displacement

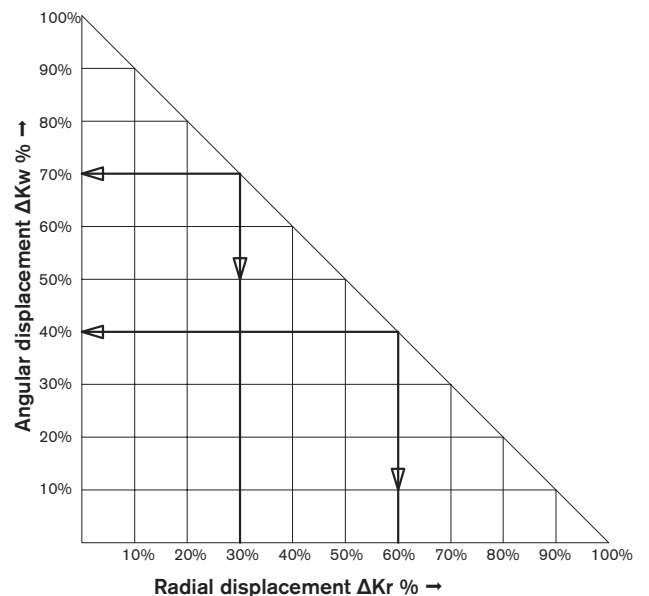


| Displacements |   |  |                  |
|---------------|---|--|------------------|
| Size          | Max. axial displacement $\Delta K_a$ [mm] | Max. permissible displacements <sup>1)</sup> |                  |
|               |   | $\Delta K_r$ [mm]                            | $\Delta K_w$ [°] |
| 10            |   | ± 0.4  |                  |
| 15            |   | ± 0.5  |                  |
| 20            |   | ± 0.6  |                  |
| 25            | ± 1.0                                     | ± 0.8  |                  |
| 30            |   | ± 1.0  |                  |
| 35            |   | ± 1.0  |                  |
| 40            |   | ± 1.2  |                  |
| 45            |   | ± 1.4  |                  |
| 50            |   | ± 1.6  |                  |
| 55            | ± 1.5                                     | ± 1.8  |                  |
| 60            |   | ± 2.0  | 0.5° each hub    |
| 70            |   | ± 2.2  |                  |
| 80            |   | ± 2.5  |                  |
| 85            |   | ± 2.8  |                  |
| 90            | ± 2.0                                     | ± 3.0  |                  |
| 100           |   | ± 3.2  |                  |
| 110           |   | ± 4.4  |                  |
| 120           |   | ± 5.5  |                  |
| 130           |   | ± 5.7  |                  |
| 140           | ± 2.5                                     | ± 6.0  |                  |
| 150           |   | ± 6.6  |                  |

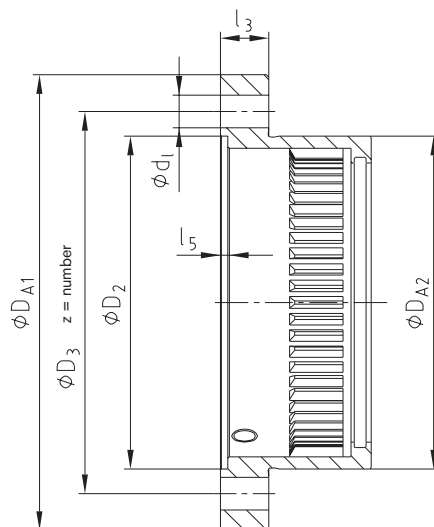
<sup>1)</sup> The displacement figures are maximum figures which must not arise in parallel. If radial and angular displacements arise in parallel, the figures need to be reduced (see examples of calculation and diagramme).

Example 1:  
 $\Delta K_r = 30\%$   
 $\Delta K_w = 70\%$

Example 2:  
 $\Delta K_r = 60\%$   
 $\Delta K_w = 40\%$



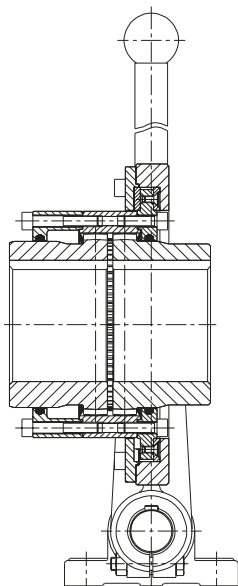
**Flange dimensions in accordance with AGMA 9008-B00**



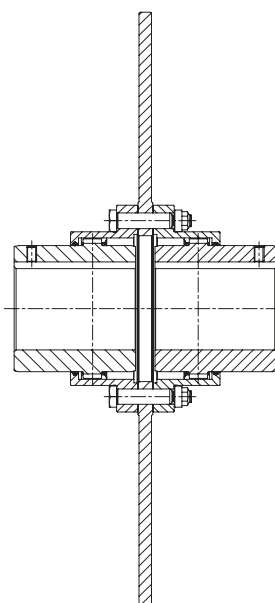
| Flange dimensions |                 |       |     |        |       |            |      |     |
|-------------------|-----------------|-------|-----|--------|-------|------------|------|-----|
| Size              | Dimensions [mm] |       |     |        |       |            |      |     |
|                   | DA1             | DA2   | D2  | D3     | d1    | z = number | l3   | l5  |
| 10                | 111             | 84    | 82  | 95.25  | 6.35  | 6          | 14   | 3   |
| 15                | 152             | 107   | 105 | 122.24 | 9.52  | 8          | 19   | 3   |
| 20                | 178             | 130   | 130 | 149.23 | 12.70 | 6          | 19   | 3   |
| 25                | 213             | 158   | 153 | 180.97 | 15.87 | 6          | 22   | 4   |
| 30                | 240             | 182   | 178 | 206.38 | 15.87 | 8          | 22   | 4   |
| 35                | 280             | 214   | 205 | 241.30 | 19.05 | 8          | 28.5 | 5   |
| 40                | 318             | 250   | 243 | 279.40 | 19.05 | 8          | 28.5 | 4   |
| 45                | 347             | 274   | 265 | 304.80 | 19.05 | 10         | 28.5 | 5.5 |
| 50                | 390             | 309   | 302 | 342.90 | 22.22 | 8          | 38   | 6   |
| 55                | 425.5           | 334   | 320 | 368.30 | 22.22 | 14         | 38   | 6   |
| 60                | 457             | 365.5 | 353 | 400.05 | 22.22 | 14         | 26   | 6   |
| 70                | 527             | 425   | 412 | 463.55 | 25.40 | 16         | 28.5 | 8   |

**Other types**

Type SD



Type with brake disk



Type VD (vertical assembly)

