

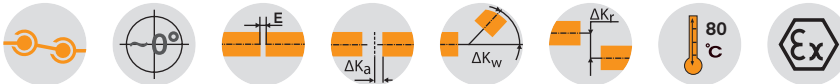
# GEARex® FA, FB and FAB

## 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]   |                 |                 |                  |                 |                 |                  |                |     |                 |                 |                 |                              |  |
|            |            | 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> <sup>2)</sup> | E <sub>FA</sub> | E <sub>FB</sub> | E <sub>FAB</sub> | L <sub>FA</sub> | L <sub>FB</sub> | L <sub>FAB</sub> | 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                           |  |
| 15         | 26         | 64                              | 50                              | 115   | 3               | 15              | 9                | 103             | 115             | 109              | 59             | 87  | 142             | 106             | 84              | 68                           |  |
| 20         | 31         | 80                              | 62                              | 130   | 3               | 31              | 17               | 127             | 155             | 141              | 79             | 108 | 174             | 129             | 104             | 85                           |  |
| 25         | 38         | 98                              | 76                              | 150   | 5               | 29              | 17               | 157             | 181             | 169              | 93             | 130 | 213             | 157             | 123             | 110                          |  |
| 30         | 44.5       | 112                             | 90                              | 170   | 5               | 33              | 19               | 185             | 213             | 199              | 109            | 153 | 240             | 181             | 148             | 130                          |  |
| 35         | 46         | 133                             | 105                             | 185   | 6               | 40              | 23               | 216             | 250             | 233              | 128            | 180 | 280             | 213             | 172             | 150                          |  |
| 40         | 52         | 158                             | 120                             | 215   | 6               | 42              | 24               | 246             | 282             | 264              | 144            | 214 | 318             | 249             | 192             | 175                          |  |
| 45         | 80         | 172                             | 135                             | 245   | 8               | 50              | 29               | 278             | 320             | 299              | 164            | 233 | 347             | 273             | 216             | 190                          |  |
| 50         | 80         | 192                             | 150                             | 295   | 8               | 56              | 32               | 308             | 356             | 332              | 182            | 260 | 390             | 308             | 241             | 220                          |  |
| 55         | 90         | 210                             | 175                             | 300   | 8               | 70              | 39               | 358             | 420             | 389              | 214            | 283 | 425.5           | 333             | 275             | 250                          |  |
| 60         | 100        | 232                             | 190                             | 305   | 8               | 84              | 46               | 388             | 464             | 426              | 236            | 312 | 457             | 364.5           | 316             | 265                          |  |
| 70         | 100        | 276                             | 220                             | 310   | 10              | 76              | 43               | 450             | 516             | 483              | 263            | 371 | 527             | 424             | 360             | 300                          |  |

| Technical data |                           |                           |                  |                            |       |        |   |                    |     |                     |  |
|----------------|---------------------------|---------------------------|------------------|----------------------------|-------|--------|---|--------------------|-----|---------------------|--|
| Size           | Torque [Nm] <sup>3)</sup> |                           | 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  | 2.75   | 0.004   | 6                  | M6  | 15                  |  |
| 15             | 2000                      | 3300                      | 6400             | 1.50                       | 1.10  | 5.60   | 0.015   | 8                  | M8  | 36                  |  |
| 20             | 3500                      | 6300                      | 5400             | 2.40                       | 2.10  | 9.50   | 0.037   | 6                  | M10 | 72                  |  |
| 25             | 6500                      | 11000                     | 4500             | 4.30                       | 3.60  | 16.60  | 0.096   | 6                  | M12 | 125                 |  |
| 30             | 10000                     | 17400                     | 4000             | 5.70                       | 6.20  | 25.00  | 0.178   | 8                  | M12 | 125                 |  |
| 35             | 17000                     | 28800                     | 3500             | 9.50                       | 9.90  | 40.90  | 0.410   | 8                  | M14 | 200                 |  |
| 40             | 28500                     | 48500                     | 3100             | 11.60                      | 16.00 | 57.50  | 0.746   | 8                  | M14 | 200                 |  |
| 45             | 37000                     | 62000                     | 3000             | 15.40                      | 21.40 | 76.40  | 1.163   | 10                 | M14 | 200                 |  |
| 50             | 51000                     | 86000                     | 2500             | 25.30                      | 29.50 | 113.50 | 2.229   | 8                  | M18 | 430                 |  |
| 55             | 65000                     | 110000                    | 2300             | 31.00                      | 40.20 | 149.00 | 3.415   | 14                 | M18 | 430                 |  |
| 60             | 85000                     | 145000                    | 2100             | 32.10                      | 52.80 | 175.70 | 4.514   | 14                 | M18 | 430                 |  |
| 70             | 135000                    | 240000                    | 1850             | 42.50                      | 85.50 | 265.50 | 9.212   | 16                 | M20 | 610                 |  |

■ = Standard

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

<sup>2)</sup> Lengthened hubs available as a standard for type FA only. For type FB and FAB lengthened hubs are available on request only.

<sup>3)</sup> Maximum torque of the coupling T<sub>K max</sub> = rated torque of the coupling T<sub>KN</sub> x 2. For selection see page 14 et seqq.

|                   |                           |   |   |
|-------------------|---------------------------|---|---|
| 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 |