

BZ1

WITH KEYWAY MOUNTING

1,900 - 480,000 Nm

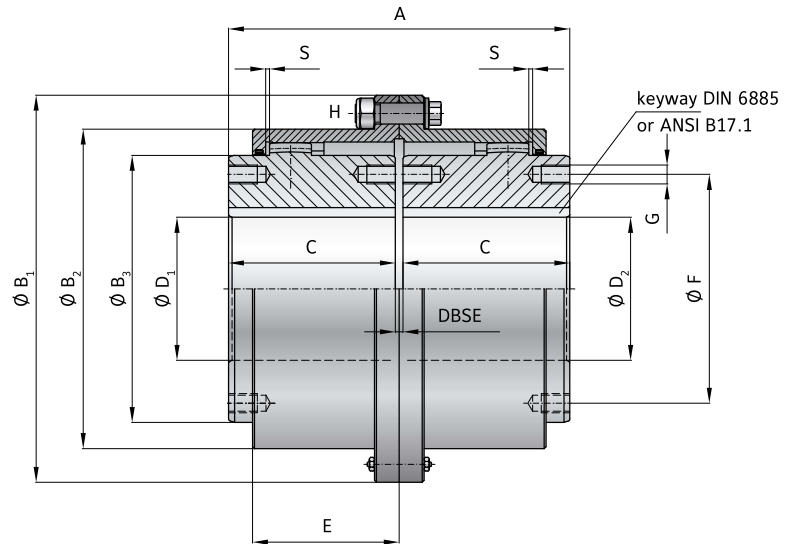


PROPERTIES

MATERIAL
Coupling from high strength steel

DESIGN
Hubs with keyway mounting or high precision cylindrical bore for

interference fitting.
Optional DIN 916 set screw for locking down onto shaft key.
Size 450 and up with axial threads in hubs.



MODEL BZ1 | SIZE 10 - 2000

| SIZE | | | 10 | 25 | 50 | 100 | 150 | 200 | 300 | 450 | 600 | 800 | 1500 | 2000 |
|---|--------------------|------------|---------|---------|---------|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Rated torque | (kNm) | T_{KN} | 1.9 | 2.9 | 5.7 | 9 | 14.5 | 22 | 34 | 45 | 70 | 85 | 150 | 200 |
| Max. torque | (kNm) | T_{Kmax} | 4.2 | 6.8 | 14 | 21.5 | 35 | 54 | 83 | 110 | 170 | 205 | 360 | 480 |
| Installed length | (mm) | A | 89 | 103 | 127 | 157 | 185 | 216 | 246 | 278 | 308 | 358 | 388 | 450 |
| Outside diameter | (mm) | B_1 | 111 | 142 | 168 | 200 | 225 | 265 | 300 | 330 | 370 | 406 | 438 | 505 |
| Flange diameter | (mm) | B_2 | 82.5 | 104.6 | 130.5 | 158.4 | 183.4 | 211.5 | 245.5 | 275.5 | 307 | 335 | 367 | 423 |
| Hub diameter | (mm) | B_3 | 68 | 86 | 105 | 132 | 151 | 179 | 209.5 | 234 | 255 | 280 | 306 | 356 |
| Hub fit length | (mm) | C | 43 | 50 | 62 | 76 | 90 | 105 | 120 | 135 | 150 | 175 | 190 | 220 |
| Max bore diameter H7 with 1 / 2 keyways* | (mm) | $D_{1/2}$ | 48 / 52 | 62 / 62 | 72 / 78 | 90 / 98 | 105 / 112 | 122 / 132 | 144 / 156 | 160 / 174 | 175 / 190 | 192 / 210 | 210 / 233 | 245 / 280 |
| Bore diameters from ϕ to ϕ H7 with interference fit | (mm) | $D_{1/2}$ | 12-52 | 18-62 | 30-78 | 32-98 | 42-112 | 45-132 | 50-156 | 60-174 | 70-190 | 90-210 | 110-233 | 120-280 |
| Distance between shaft ends | (mm) | DBSE | 3 | 3 | 3 | 5 | 5 | 6 | 8 | 8 | 8 | 8 | 8 | 10 |
| Hub length | (mm) | E | 39 | 46 | 59 | 78.5 | 92.5 | 108 | 123 | 139 | 154 | 179 | 194 | 225 |
| Hole circle diameter | (mm) | ϕF | 61 | 73 | 91 | 115 | 132 | 154 | 180 | 204 | 220 | 240 | 268 | 316 |
| Thread size | | G | M5 | M6 | M8 | M10 | M12 | M12 | M16 | M16 | M20 | M20 | M24 | M24 |
| Bolt | | H | M8 | M10 | M10 | M12 | M12 | M16 | M16 | M16 | M18 | M22 | M22 | M24 |
| Tightening torque | (Nm) | | 18 | 36 | 36 | 65 | 65 | 150 | 150 | 150 | 220 | 400 | 400 | 520 |
| Moment of inertia at Dmax | ($10^{-3}kgm^2$) | | 3.9 | 11.6 | 28.7 | 70.6 | 135.3 | 326.7 | 605.6 | 1021 | 1745.5 | 2963 | 4147.2 | 7982 |
| Weight at Dmax | (kg) | | 2.5 | 4.8 | 8.4 | 14.2 | 21.4 | 36.0 | 51.5 | 71 | 99 | 144 | 165 | 234.5 |
| Max speed | (1/min) | | 6000 | 4550 | 4000 | 3900 | 3700 | 3550 | 3000 | 2750 | 2420 | 2270 | 1950 | 1730 |
| Axial misalignment | (mm) | S | 1.5 | 1.5 | 1.5 | 2.5 | 2.5 | 3 | 4 | 4 | 4 | 4 | 4 | 5 |
| Angular misalignment | (Degree) | | 2x0.35 | 2x0.35 | 2x0.35 | 2x0.35 | 2x0.35 | 2x0.35 | 2x0.35 | 2x0.35 | 2x0.35 | 2x0.35 | 2x 0.35 | 2x 0.35 |

* Larger maximum bore possible with 2 keyways, due to increased stress distribution versus wall thickness.

| ORDERING EXAMPLE | BZ1 | 50 | 60 | 50 | XX |
|--|-----|----|----|----|----|
| Model | ● | | | | |
| Size | | ● | | | |
| Bore ϕ D1 H7 | | | ● | | |
| Bore ϕ D2 H7 | | | | ● | |
| Special designation only (e.g. special bore tolerance). | | | | | |
| For custom features place an XX at the end of the part number and describe the special requirements (e.g. BZ1 / 50 / 60 / 50 / XX) | | | | | |

BZ1

WITH KEYWAY MOUNTING

290,000 – 2,080,000 Nm



NEW

PROPERTIES

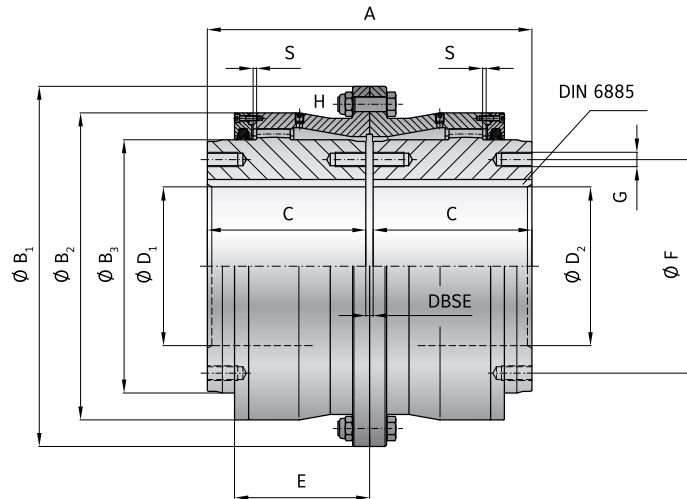
MATERIAL

Coupling from high strength steel

DESIGN

Hubs with keyway mounting or high precision cylindrical bore for interference fitting.

Optional DIN 916 set screw for locking down onto shaft key.



MODEL BZ1 | SIZE 3000 - 10000

| SIZE | | | 3000 | 4000 | 5000 | 7000 | 8000 | 10000 |
|---|----------------------------|---------------|---------|---------|---------|---------|---------|---------|
| Rated torque | (kNm) | T_{KN} | 290 | 402 | 518 | 693 | 882 | 1040 |
| Max. torque | (kNm) | T_{Kmax} | 580 | 804 | 1036 | 1386 | 1764 | 2080 |
| Installed length | (mm) | A | 532 | 592 | 652 | 712 | 772 | 820 |
| Outside diameter | (mm) | B_1 | 590 | 639 | 702 | 769 | 834 | 894 |
| Flange diameter | (mm) | B_2 | 503 | 553 | 597 | 657 | 722 | 763 |
| Hub diameter | (mm) | B_3 | 415 | 464 | 490 | 545 | 620 | 660 |
| Hub fit length | (mm) | C | 260 | 290 | 320 | 350 | 380 | 400 |
| Bore diameter H7 | (mm) | $D_{1/2}$ | 160-325 | 180-370 | 200-400 | 200-430 | 230-475 | 250-510 |
| Bore diameters from \emptyset to \emptyset H7 with interference fit | (mm) | $D_{1/2}$ | 160-325 | 180-370 | 200-400 | 200-430 | 230-475 | 250-510 |
| Distance between shaft ends | (mm) | DBSE | 12 | 12 | 12 | 12 | 12 | 20 |
| Hub length | (mm) | E | 221 | 245.5 | 262 | 280 | 292 | 315 |
| Hole circle diameter | (mm) | $\emptyset F$ | 350 | 400 | 430 | 490 | 560 | 580 |
| Thread size | | G | M24 | M24 | M30 | M30 | M24 | M36 |
| Bolt | | H | M24 | M24 | M30 | M30 | M30 | M36 |
| Tightening torque | (Nm) | | 670 | 670 | 1250 | 1250 | 1250 | 2170 |
| Moment of inertia at Dmax | (10^{-3}kgm^2) | | 18781 | 28323 | 44986 | 71329 | 113616 | 150801 |
| Weight at Dmax | (kg) | | 406 | 503 | 670 | 904 | 1201 | 1403 |
| Max speed | (1/min) | | 1100 | 990 | 890 | 785 | 700 | 645 |
| Axial misalignment | (mm) | S | 6 | 6 | 6 | 6 | 6 | 10 |
| Angular misalignment | (Degree) | | 2×0.35 | 2×0.35 | 2×0.35 | 2×0.35 | 2×0.35 | 2×0.35 |

CROWNED GEAR COUPLINGS BZ

| ORDERING EXAMPLE | BZ1 | 5000 | 210 | 390 | XX |
|---|-----|------|-----|-----|----|
| Model | ● | | | | |
| Size | | ● | | | |
| Bore \emptyset D1 H7 | | | ● | | |
| Bore \emptyset D2 H7 | | | | ● | |
| Special designation only (e.g. special bore tolerance). | | | | | |

For custom features place an XX at the end of the part number and describe the special requirements (e.g. BZ1 / 5000 / 210 / 390 / XX)