# DCB Flexible Coupling

Fail safe coupling for use on reciprocating machinery up to 5520 kNm.

## The Standard Range Comprises

- Flywheel to shaft
- Flywheel to flange
- Shaft to shaft

## Applications

- Marine propulsion
- High power generator sets
- Reciprocating compressors

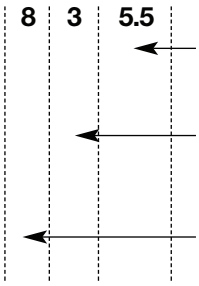
## Features

- Intrinsically fail safe
- Control of resonant torsional vibration
- Severe shock load protection
- Maintenance free
- Misalignment capability
- Noise attenuation

## Benefits

- Ensuring continuous operation of the driveline in the unlikely event of rubber damage.
- Achieving low vibratory loads in the driveline components by selection of optimum stiffness characteristics.
- Avoiding failure of the driveline under short circuit and other transient conditions.
- With no lubrication or adjustment required resulting in low running costs.
- Allows axial and radial misalignment between the driving and driven machines.
- Giving quiet running conditions in sensitive applications by the elimination of metal to metal contact.

## Construction Details

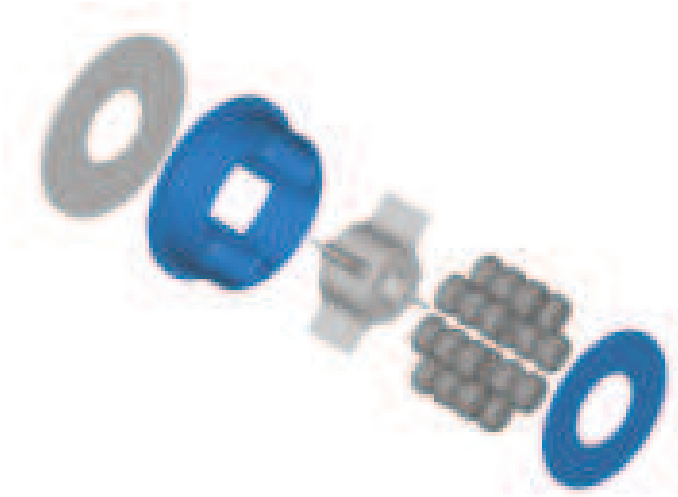



Each rubber element would be 5.5 inch diameter.

Each cavity would house three rubber elements.

Eight rubber element cavities radially spaced around coupling diameter referred to as "Series 8" coupling.

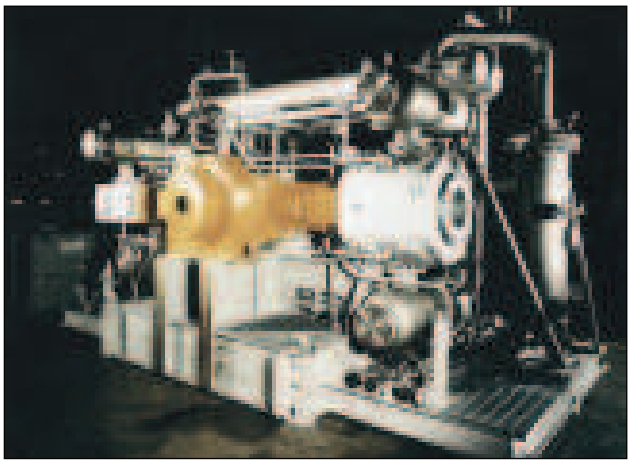
- Available options are: Series 6, Series 8, Series 10, Series16.
- 2, 3, 4 or 5 rubber elements per cavity are available. Rubber elements up to 15" diameter are manufactured.
- The inner and outer members are manufactured in steel to BS3100 Grade A1.
- Some sizes are available in SG Iron Castings to BS2789 Grade 420/12.



# DCB Typical Applications

Main propulsion. Couplings fitted between main engine and gearbox, gearbox and thrust block, and between thrust block and propulsion unit.

Bio-gas generator sets. Coupling fitted between gas engine and alternator.



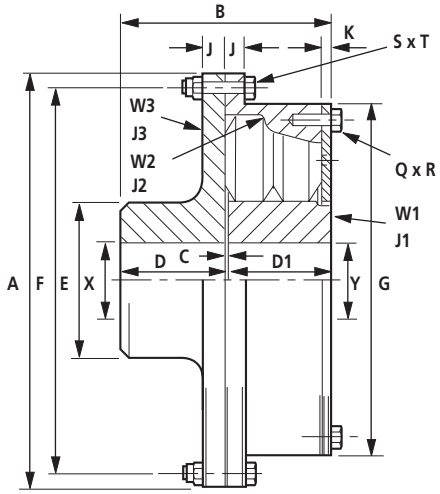
Compressor sets. Coupling fitted between electric motor and compressor units.

Rail traction. Coupling fitted between diesel engine and transmission via a universal joint shaft.

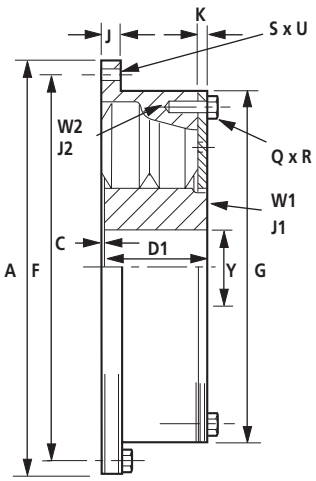
Diesel generator sets. Couplings fitted between diesel engines and alternators, to provide electrical supply for ice breaker.

# DCB Series 6

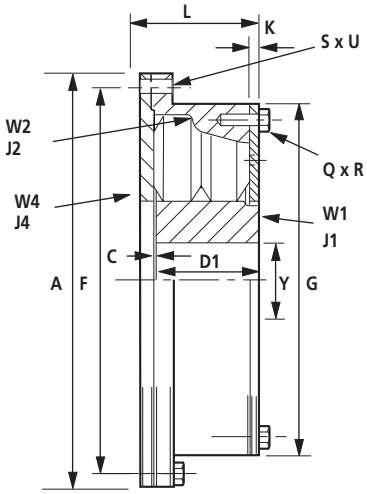
### Full Coupling




### Flex Half




### Flex Half & Keep Plate




## Dimensions, Weight, Inertia and Alignment

| COUPLING SIZE | | 622.5 | 632.5 | 623.5 | 633.5 | 624.5 | 625.5 | 626.5 | 628.0 | 638.0 |
|---|---|---|---|---|---|---|---|---|---|---|
| DIMENSIONS (mm) | A | 280 | 280 | 370 | 370 | 455 | 565 | 675 | 810 | 810 |
| | B | 141 | 205 | 194 | 282 | 247 | 306 | 363 | 444 | 648 |
| | C | 3 | 3 | 4 | 4 | 5 | 6 | 7 | 8 | 8 |
| | D | 69 | 101 | 95 | 139 | 121 | 150 | 178 | 218 | 320 |
| | D1 | 69 | 101 | 95 | 139 | 121 | 150 | 178 | 218 | 320 |
| | E | 82 | 82 | 112 | 112 | 142 | 180 | 215 | 260 | 260 |
| | F | 255 | 255 | 345 | 345 | 430 | 530 | 630 | 765 | 765 |
| | G | 225 | 225 | 315 | 315 | 400 | 490 | 580 | 715 | 715 |
| | J | 14 | 14 | 14 | 14 | 14 | 18 | 25 | 25 | 25 |
| | K | 8.5 | 8.5 | 10 | 10 | 11.5 | 16 | 20 | 23 | 23 |
| | L | 81 | 113 | 109 | 153 | 138 | 172 | 205 | 249 | 351 |
| | Q | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | R | M10 | M10 | M10 | M10 | M10 | M16 | M20 | M20 | M20 |
| | S | 8 | 12 | 12 | 18 | 16 | 8 | 8 | 12 | 18 |
| | T | M10 | M10 | M10 | M10 | M10 | M16 | M20 | M20 | M20 |
| | U | 10.5 | 10.5 | 10.5 | 10.5 | 10.5 | 17 | 21 | 21 | 21 |
| | MAX. X | 50 | 50 | 70 | 70 | 90 | 110 | 130 | 165 | 165 |
| | MAX. Y | 50 | 50 | 70 | 70 | 90 | 110 | 130 | 165 | 165 |
| MAXIMUM SPEED (rpm) | (1) | 4150 | 4150 | 3150 | 3150 | 2570 | 2080 | 1730 | 1440 | 1440 |
| WEIGHT (3) (kg) | W1 | 3.32 | 4.98 | 8.9 | 13.4 | 18.4 | 33.6 | 57.7 | 103.8 | 155.7 |
| | W2 | 10.2 | 14.5 | 23.9 | 33.9 | 43.9 | 85.0 | 146.1 | 261.2 | 370.6 |
| | W3 | 9.9 | 11.2 | 15.1 | 19.4 | 25.1 | 51.6 | 98.1 | 145.3 | 166.7 |
| | W4 | 4.0 | 4.0 | 7.6 | 7.6 | 13.7 | 28.3 | 50.4 | 83.2 | 83.2 |
| INERTIA (3) ($kg\ m^2$) | J1 | 0.0088 | 0.0132 | 0.0480 | 0.0720 | 0.1666 | 0.4537 | 1.098 | 3.028 | 4.542 |
| | J2 | 0.1068 | 0.1516 | 0.4557 | 0.6466 | 1.313 | 3.851 | 9.349 | 24.65 | 34.97 |
| | J3 | 0.077 | 0.084 | 0.163 | 0.241 | 0.490 | 1.51 | 4.25 | 8.82 | 9.1 |
| | J4 | 0.042 | 0.042 | 0.141 | 0.141 | 0.389 | 1.24 | 3.16 | 7.51 | 7.51 |
| ALLOWABLE MISALIGNMENT (2) | | | | | | | | | | |
| RADIAL (mm) | | 1.5 | 1.5 | 2.0 | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 | 4.0 |
| AXIAL (mm) | | 1.5 | 1.5 | 2.0 | 2.0 | 2.5 | 3.0 | 3.5 | 4.0 | 4.0 |
| CONICAL (degree) | | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |

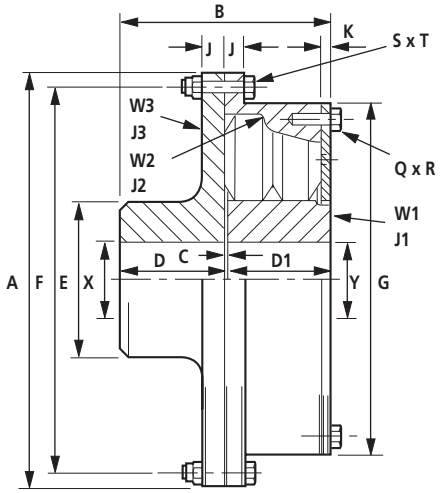
(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

(2) Installations should be initially aligned as accurately as possible. In order to allow for deterioration in alignment over time, it is recommended that initial alignment should not exceed 25% of the above noted data. The forces on the driving and driven machinery should be calculated to ensure that these do not exceed the manufacturers allowables.

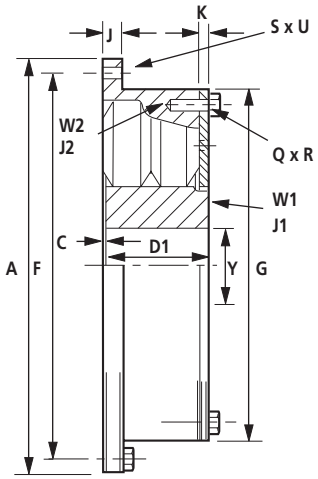
(3) Weights and inertias are based on the maximum bore size.

# DCB Series 6

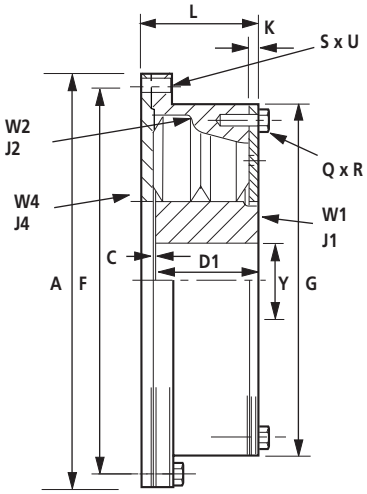
## Full Coupling




## Flex Half




## Flex Half & Keep Plate




## Dimensions, Weight, Inertia and Alignment

| COUPLING SIZE | | 629.5 | 639.5 | 6211.0 | 6311.0 | 6213.0 | 6313.0 | 6215.0 | 6315.0 |
|---|---|---|---|---|---|---|---|---|---|
| DIMENSIONS (mm) | A | 995 | 995 | 1135 | 1135 | 1365 | 1365 | 1560 | 1560 |
| | B | 530 | 772 | 616 | 756 | 726 | 891 | 840 | 1030 |
| | C | 10 | 10 | 12 | 12 | 16 | 16 | 20 | 20 |
| | D | 260 | 381 | 302 | 442 | 355 | 520 | 410 | 600 |
| | D1 | 260 | 381 | 302 | 442 | 355 | 520 | 410 | 600 |
| | E | 310 | 310 | 365 | 365 | 426 | 426 | 495 | 495 |
| | F | 930 | 930 | 1070 | 1070 | 1270 | 1270 | 1465 | 1465 |
| | G | 850 | 850 | 990 | 990 | 1165 | 1165 | 1358 | 1358 |
| | J | 35 | 35 | 35 | 35 | 55 | 55 | 55 | 55 |
| | K | 28.5 | 28.5 | 34 | 34 | 41 | 41 | 49 | 49 |
| | L | 299 | 420 | 355 | 495 | 412 | 577 | 479 | 669 |
| | Q | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | R | M30 | M30 | M30 | M30 | M42 | M42 | M42 | M42 |
| | S | 8 | 12 | 12 | 18 | 8 | 12 | 12 | 18 |
| | T | M30 | M30 | M30 | M30 | M42 | M42 | M42 | M42 |
| | U | 31 | 31 | 31 | 31 | 43 | 43 | 43 | 43 |
| | MAX. X | 195 | 195 | 230 | 230 | 268 | 268 | 310 | 310 |
| | MAX. Y | 195 | 195 | 230 | 230 | 268 | 268 | 310 | 310 |
| MAXIMUM SPEED (rpm) | (1) | 1180 | 1180 | 1030 | 1030 | 860 | 860 | 750 | 750 |
| WEIGHT (3) (kg) | W1 | 177.0 | 265.5 | 276.1 | 414.4 | 443.5 | 676.0 | 704.2 | 1084.2 |
| | W2 | 464.1 | 658.6 | 673.7 | 955.4 | 1220.4 | 1765.2 | 1935.0 | 2558.8 |
| | W3 | 287.5 | 324.0 | 403.1 | 468.6 | 815.1 | 920.0 | 1135.0 | 1293.0 |
| | W4 | 159 | 159 | 292 | 292 | 424 | 424 | 660 | 660 |
| INERTIA (3) ($kg\ m^2$) | J1 | 7.281 | 10.92 | 15.38 | 23.37 | 33.95 | 52.38 | 72.82 | 113.7 |
| | J2 | 63.13 | 89.6 | 130 | 174 | 318 | 459 | 665 | 881 |
| | J3 | 27.7 | 28.3 | 47.7 | 50.5 | 160 | 167 | 264 | 271 |
| | J4 | 21.6 | 21.6 | 51.7 | 51.7 | 108 | 108 | 220 | 220 |
| ALLOWABLE MISALIGNMENT (2) | | | | | | | | | |
| RADIAL (mm) | | 5.0 | 5.0 | 6.0 | 6.0 | 8.0 | 8.0 | 10.0 | 10.0 |
| AXIAL (mm) | | 5.0 | 5.0 | 6.0 | 6.0 | 8.0 | 8.0 | 10.0 | 10.0 |
| CONICAL (degree) | | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |

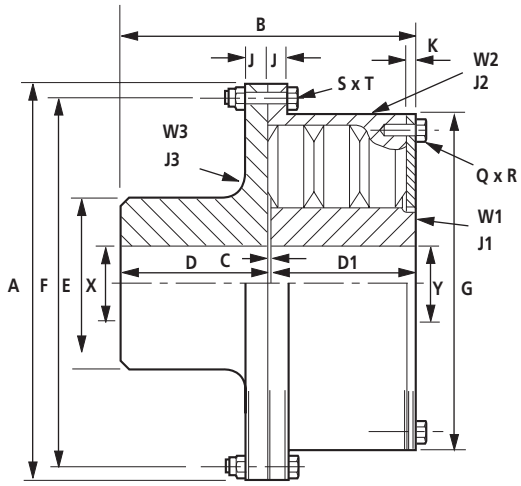
**(1)** For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

**(2)** Installations should be initially aligned as accurately as possible. In order to allow for deterioration in alignment over time, it is recommended that initial alignment should not exceed 25% of the above noted data. The forces on the driving and driven machinery should be calculated to ensure that these do not exceed the manufacturers allowables.

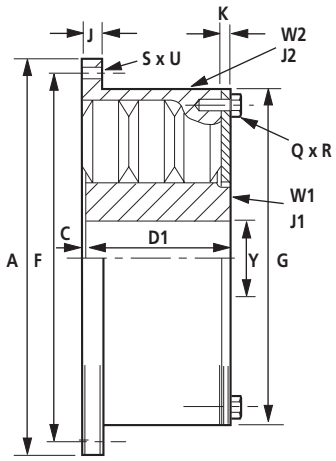
**(3)** Weights and inertias are based on the maximum bore size.

# DCB Series 8

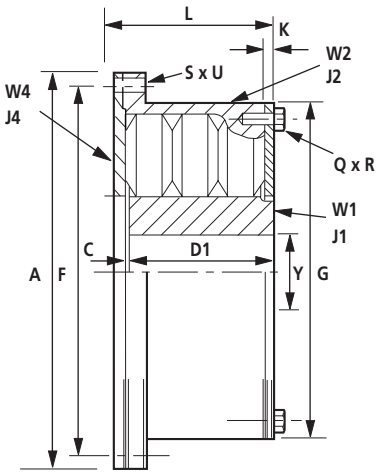
## Full Coupling




## Flex Half




## Flex Half & Keep Plate




## Dimensions, Weight, Inertia and Alignment

| COUPLING SIZE | | 822.5 | 823.5 | 823.5 SAE14 | 833.5 | 833.5 SAE14 | 824.5 | 824.5 SAE18 | 834.5 | 834.5 SAE18 | 844.5 | 844.5 SAE18 | 825.5 | 825.5 SAE21 | 835.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIMENSIONS (mm) | A | 325 | 425 | 466.7 | 425 | 466.7 | 550 | 571.5 | 550 | 571.5 | 550 | 571.5 | 660 | 673.1 | 660 |
| | B | 139 | 194 | - | 282 | - | 249 | - | 363 | - | 420 | - | 304 | - | 444 |
| | C | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 |
| | D | 68 | 95 | - | 139 | - | 122 | - | 179 | - | 179 | - | 149 | - | 219 |
| | D1 | 68 | 95 | 95 | 139 | 139 | 122 | 122 | 179 | 179 | 236 | 236 | 149 | 149 | 219 |
| | E | 130 | 175 | - | 175 | - | 225 | - | 225 | - | 225 | - | 275 | - | 275 |
| | F | 300 | 400 | 438 | 400 | 438 | 515 | 543 | 515 | 543 | 515 | 543 | 625 | 641.3 | 625 |
| | G | 270 | 370 | 370 | 370 | 370 | 475 | 475 | 475 | 475 | 475 | 475 | 585 | 585 | 585 |
| | J | 14 | 14 | 14 | 14 | 14 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 |
| | K | 8 | 10 | 10 | 10 | 10 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 12.5 | 15.5 | 15.5 | 15.5 |
| | L | 79 | 108 | 108 | 153 | 153 | 140 | 140 | 197 | 197 | 254 | 254 | 171 | 171 | 241 |
| | Q | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | R | M10 | M10 | M10 | M10 | M10 | M16 | M16 | M16 | M16 | M16 | M16 | M16 | M16 | M16 |
| | S | 8 | 12 | 8 | 24 | 8 | 8 | 6 | 16 | 6 | 16 | 6 | 12 | 12 | 24 |
| | T | M10 | M10 | - | M10 | - | M16 | - | M16 | - | M16 | - | M16 | - | M16 |
| | U | 10.5 | 10.5 | 13.5 | 10.5 | 13.5 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 | 17 |
| | MAX. X | 80 | 108 | - | 108 | - | 140 | - | 140 | - | 140 | - | 172 | - | 172 |
| | MAX. Y | 80 | 108 | 108 | 108 | 108 | 140 | 140 | 140 | 140 | 140 | 140 | 172 | 172 | 172 |
| MAXIMUM SPEED (rpm) | (1) | 3600 | 2760 | 2760 | 2760 | 2760 | 2130 | 2130 | 2130 | 2130 | 2130 | 2130 | 1800 | 1800 | 1800 |
| WEIGHT (3) (kg) | W1 | 6.12 | 15.96 | 15.96 | 23.82 | 23.82 | 34.6 | 34.6 | 51.7 | 51.7 | 68.9 | 68.9 | 71.2 | 71.2 | 94.1 |
| | W2 | 12.7 | 30.3 | 30.5 | 38.6 | 40.8 | 56.2 | 58.8 | 77.3 | 79.9 | 94.5 | 97.1 | 104.3 | 105.4 | 137.7 |
| | W3 | 12.2 | 24.2 | - | 29.4 | - | 51.4 | - | 62.4 | - | 62.4 | - | 82.0 | - | 101.8 |
| | W4 | 4.4 | 8.4 | 10.4 | 8.4 | 10.4 | 20.2 | 22.1 | 20.2 | 22.1 | 20.2 | 22.1 | 35.6 | 37.3 | 35.6 |
| INERTIA (3) ($kg\ m^2$) | J1 | 0.028 | 0.136 | 0.136 | 0.204 | 0.204 | 0.492 | 0.492 | 0.739 | 0.739 | 0.989 | 0.989 | 1.358 | 1.358 | 2.057 |
| | J2 | 0.195 | 0.959 | 1.063 | 1.208 | 1.311 | 2.793 | 2.945 | 3.538 | 3.690 | 4.292 | 4.444 | 6.982 | 7.182 | 9.221 |
| | J3 | 0.123 | 0.401 | - | 0.487 | - | 1.44 | - | 1.53 | - | 1.53 | - | 3.10 | - | 3.36 |
| | J4 | 0.067 | 0.219 | 0.322 | 0.219 | 0.322 | 0.888 | 1.04 | 0.888 | 1.04 | 0.888 | 1.04 | 2.26 | 2.45 | 2.26 |
| ALLOWABLE MISALIGNMENT (2) | | | | | | | | | | | | | | | |
| RADIAL (mm) | | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 3.0 | 3.0 | 3.0 |
| AXIAL (mm) | | 1.5 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 3.0 | 3.0 | 3.0 |
| CONICAL (degree) | | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |

(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

(2) Installations should be initially aligned as accurately as possible. In order to allow for deterioration in alignment over time, it is recommended that initial alignment should not exceed 25% of the above noted data. The forces on the driving and driven machinery should be calculated to ensure that these do not exceed the manufacturers allowables.

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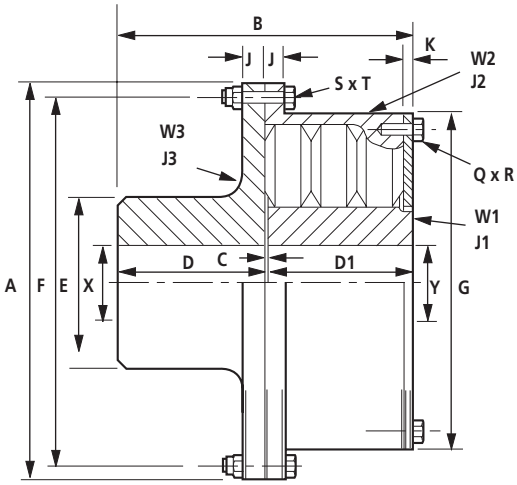
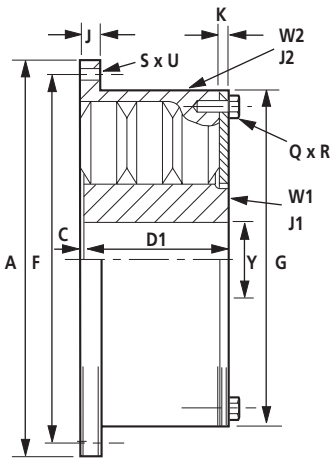
# DCB Series 8

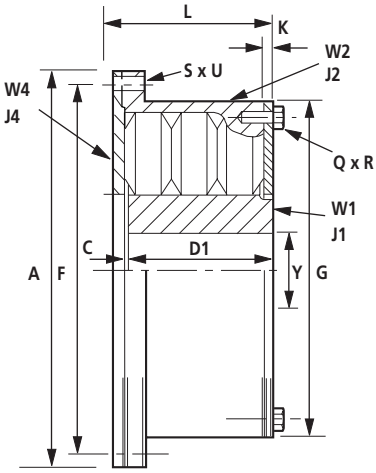
## Full Coupling




## Flex Half




## Flex Half & Keep Plate




## Dimensions, Weight, Inertia and Alignment

| COUPLING SIZE | | 835.5 SAE21 | 845.5 | 845.5 SAE21 | 855.5 | 855.5 SAE21 | 826.5 | 836.5 | 846.5 | 827.5 | 837.5 | 847.5 | 857.5 | 828.0 | 838.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIMENSIONS (mm) | A | 673.1 | 660 | 673.1 | 660 | 673.1 | 785 | 785 | 785 | 890 | 890 | 890 | 890 | 940 | 940 |
| | B | - | 514 | - | 584 | - | 357 | 523 | 605 | 414 | 606 | 701 | 796 | 440 | 644 |
| | C | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 |
| | D | - | 219 | - | 219 | - | 175 | 258 | 258 | 203 | 299 | 299 | 299 | 216 | 318 |
| | D1 | 219 | 289 | 289 | 359 | 359 | 175 | 258 | 340 | 203 | 299 | 394 | 489 | 216 | 318 |
| | E | - | 275 | - | 275 | - | 325 | 325 | 325 | 380 | 380 | 380 | 380 | 395 | 395 |
| | F | 641.3 | 625 | 641.3 | 625 | 641.3 | 740 | 740 | 740 | 845 | 845 | 845 | 845 | 895 | 895 |
| | G | 585 | 585 | 585 | 585 | 585 | 690 | 690 | 690 | 795 | 795 | 795 | 795 | 845 | 845 |
| | J | 18 | 18 | 18 | 18 | 18 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| | K | 15.5 | 15.5 | 15.5 | 15.5 | 15.5 | 17.5 | 17.5 | 17.5 | 21 | 21 | 21 | 21 | 21 | 21 |
| | L | 241 | 311 | 311 | 381 | 381 | 200 | 283 | 365 | 231 | 327 | 422 | 517 | 245 | 347 |
| | Q | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | R | M16 | M16 | M16 | M16 | M16 | M20 | M20 | M20 | M20 | M20 | M20 | M20 | M20 | M20 |
| | S | 12 | 24 | 12 | 24 | 12 | 12 | 24 | 24 | 16 | 32 | 32 | 32 | 16 | 32 |
| | T | - | M16 | - | M16 | - | M20 | M20 | M20 | M20 | M20 | M20 | M20 | M20 | M20 |
| | U | 17 | 17 | 17 | 17 | 17 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 |
| | MAX. X | - | 172 | - | 172 | - | 205 | 205 | 205 | 240 | 240 | 240 | 240 | 250 | 250 |
| | MAX. Y | 172 | 172 | 172 | 172 | 172 | 205 | 205 | 205 | 240 | 240 | 240 | 240 | 250 | 250 |
| MAXIMUM SPEED (rpm) | (1) | 1800 | 1800 | 1800 | 1800 | 1800 | 1490 | 1490 | 1490 | 1315 | 1315 | 1315 | 1315 | 1240 | 1240 |
| WEIGHT (3) (kg) | W1 | 94.1 | 116.9 | 116.9 | 139.6 | 139.6 | 160.4 | 211.5 | 261.9 | 156.3 | 232.8 | 308.6 | 384.6 | 191.8 | 287.2 |
| | W2 | 139.8 | 171.1 | 173.2 | 204.5 | 206.6 | 167.9 | 221.8 | 274.9 | 252.6 | 335.7 | 418.0 | 500.3 | 294.5 | 393.0 |
| | W3 | - | 101.8 | - | 101.8 | - | 146.8 | 179.4 | 179.4 | 207.9 | 259.1 | 259.1 | 259.1 | 236.0 | 294.7 |
| | W4 | 37.3 | 35.6 | 37.3 | 35.6 | 37.3 | 56.5 | 56.5 | 56.5 | 80.4 | 80.4 | 80.4 | 80.4 | 94.0 | 94.0 |
| INERTIA (3) ($kg\ m^2$) | J1 | 2.057 | 2.747 | 2.747 | 3.437 | 3.437 | 3.136 | 4.743 | 7.546 | 6.262 | 9.359 | 12.48 | 15.58 | 8.624 | 13.00 |
| | J2 | 9.421 | 11.46 | 11.66 | 13.68 | 13.88 | 15.72 | 20.73 | 25.67 | 30.77 | 41.06 | 51.15 | 61.34 | 40.36 | 54.15 |
| | J3 | - | 3.36 | - | 3.36 | - | 8.32 | 8.95 | 8.95 | 14.5 | 15.7 | 15.7 | 15.7 | 18.0 | 19.5 |
| | J4 | 2.45 | 2.26 | 2.45 | 2.26 | 2.45 | 5.09 | 5.09 | 5.09 | 9.33 | 9.33 | 9.33 | 9.33 | 12.2 | 12.2 |
| ALLOWABLE MISALIGNMENT (2) | | | | | | | | | | | | | | | |
| RADIAL (mm) | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.5 | 3.5 | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| AXIAL (mm) | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.5 | 3.5 | 3.5 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| CONICAL (degree) | | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |

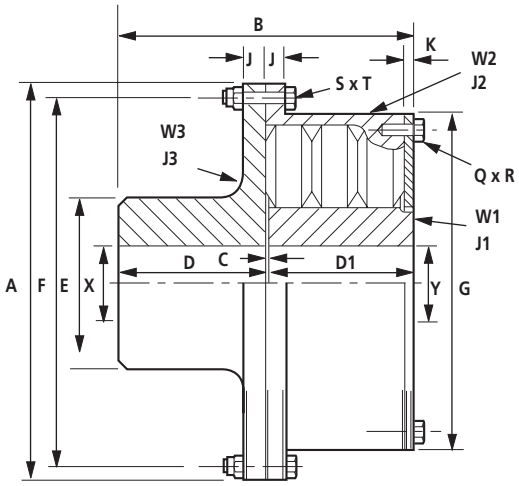
(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

(2) Installations should be initially aligned as accurately as possible. In order to allow for deterioration in alignment over time, it is recommended that initial alignment should not exceed 25% of the above noted data. The forces on the driving and driven machinery should be calculated to ensure that these do not exceed the manufacturers allowables.

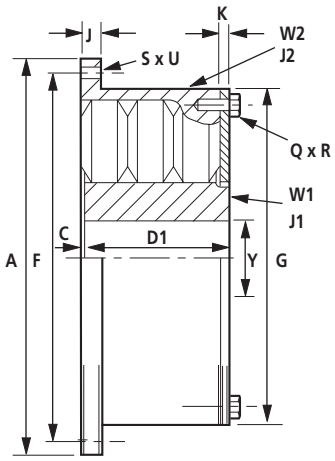
(3) Weights and inertias are based on the maximum bore size.

# DCB Series 8

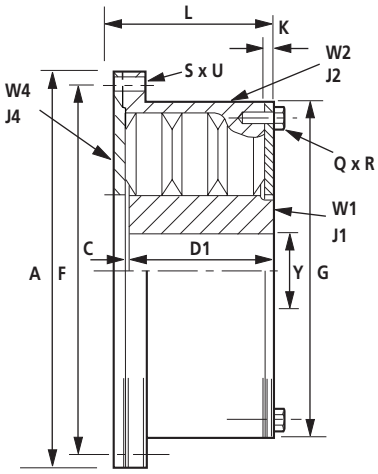
## Full Coupling




## Flex Half




## Flex Half & Keep Plate




## Dimensions, Weight, Inertia and Alignment

| COUPLING SIZE | | 848.0 | 858.0 | 829.5 | 839.5 | 849.5 | 859.5 | 8211.0 | 8311.0 | 8411.0 | 8213.0 | 8313.0 | 8413.0 | 8215.0 | 8315.0 | 8415.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DIMENSIONS (mm) | A | 940 | 940 | 1160 | 1160 | 1160 | 1160 | 1330 | 1330 | 1330 | 1610 | 1610 | 1610 | 1830 | 1830 | 1830 |
| | B | 746 | 848 | 528 | 770 | 891 | 1012 | 612 | 892 | 1032 | 724 | 1054 | 1219 | 834 | 1215 | 1406 |
| | C | 8 | 8 | 10 | 10 | 10 | 10 | 12 | 12 | 12 | 14 | 14 | 14 | 17 | 17 | 17 |
| | D | 318 | 318 | 259 | 380 | 380 | 380 | 300 | 440 | 440 | 355 | 520 | 520 | 408 | 599 | 599 |
| | D1 | 420 | 521 | 259 | 380 | 501 | 622 | 300 | 440 | 580 | 355 | 520 | 685 | 408 | 599 | 790 |
| | E | 395 | 395 | 475 | 475 | 475 | 475 | 560 | 560 | 560 | 660 | 660 | 660 | 762 | 762 | 762 |
| | F | 895 | 895 | 1095 | 1095 | 1095 | 1095 | 1265 | 1265 | 1265 | 1515 | 1515 | 1515 | 1730 | 1730 | 1730 |
| | G | 845 | 845 | 1015 | 1015 | 1015 | 1015 | 1185 | 1185 | 1185 | 1410 | 1410 | 1410 | 1625 | 1625 | 1625 |
| | J | 25 | 25 | 35 | 35 | 35 | 35 | 35 | 35 | 35 | 55 | 55 | 55 | 55 | 55 | 55 |
| | K | 21 | 21 | 28 | 28 | 28 | 28 | 33 | 33 | 33 | 39 | 39 | 39 | 45 | 45 | 45 |
| | L | 449 | 550 | 297 | 418 | 539 | 666 | 345 | 485 | 625 | 408 | 573 | 738 | 470 | 661 | 851 |
| | Q | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | R | M20 | M20 | M30 | M30 | M30 | M30 | M30 | M30 | M30 | M42 | M42 | M42 | M42 | M42 | M42 |
| | S | 32 | 32 | 12 | 24 | 24 | 24 | 16 | 32 | 32 | 12 | 24 | 24 | 16 | 32 | 32 |
| | T | M20 | M20 | M30 | M30 | M30 | M30 | M30 | M30 | M30 | M42 | M42 | M42 | M42 | M42 | M42 |
| | U | 21 | 21 | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 43 | 43 | 43 | 43 | 43 | 43 |
| | MAX. X | 250 | 250 | 300 | 300 | 300 | 300 | 350 | 350 | 350 | 414 | 414 | 414 | 475 | 475 | 475 |
| | MAX. Y | 250 | 250 | 300 | 300 | 300 | 300 | 350 | 350 | 350 | 414 | 414 | 414 | 475 | 475 | 475 |
| MAXIMUM SPEED (rpm) | (1) | 1240 | 1240 | 1010 | 1010 | 1010 | 1010 | 880 | 880 | 880 | 730 | 730 | 730 | 640 | 640 | 640 |
| WEIGHT (3) (kg) | W1 | 382.6 | 477.6 | 333.3 | 498.5 | 663.7 | 838.0 | 522.2 | 795.5 | 1056 | 873 | 1304 | 1736 | 1345 | 2013 | 2681 |
| | W2 | 491.6 | 589.3 | 555.0 | 729.7 | 904.0 | 1078.3 | 865.7 | 1148 | 1431 | 1558 | 2041 | 2530 | 2306 | 3054 | 3803 |
| | W3 | 294.7 | 294.7 | 457 | 558 | 558 | 558 | 665 | 830 | 830 | 1305 | 1574 | 1574 | 1826 | 2244 | 2244 |
| | W4 | 94 | 94 | 192 | 192 | 192 | 192 | 294 | 294 | 294 | 516 | 516 | 516 | 766 | 766 | 766 |
| INERTIA (3) ($kg\ m^2$) | J1 | 17.39 | 21.78 | 21.48 | 32.37 | 43.26 | 54.15 | 45.66 | 70.63 | 94.00 | 107 | 161 | 215 | 218 | 330 | 442 |
| | J2 | 67.84 | 81.42 | 112 | 147 | 182 | 217 | 234 | 311 | 388 | 609 | 799 | 989 | 1180 | 1567 | 1954 |
| | J3 | 19.5 | 19.5 | 56.0 | 59.8 | 59.8 | 59.8 | 101 | 110 | 110 | 320 | 339 | 339 | 541 | 591 | 591 |
| | J4 | 12.2 | 12.2 | 37.8 | 37.8 | 37.8 | 37.8 | 76.5 | 76.5 | 76.5 | 195 | 195 | 195 | 375 | 375 | 375 |
| ALLOWABLE MISALIGNMENT (2) | | | | | | | | | | | | | | | | |
| RADIAL (mm) | | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | 7.0 | 7.0 | 7.0 | 8.0 | 8.0 | 8.0 |
| AXIAL (mm) | | 4.0 | 4.0 | 5.0 | 5.0 | 5.0 | 5.0 | 6.0 | 6.0 | 6.0 | 7.0 | 7.0 | 7.0 | 8.0 | 8.0 | 8.0 |
| CONICAL (degree) | | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |

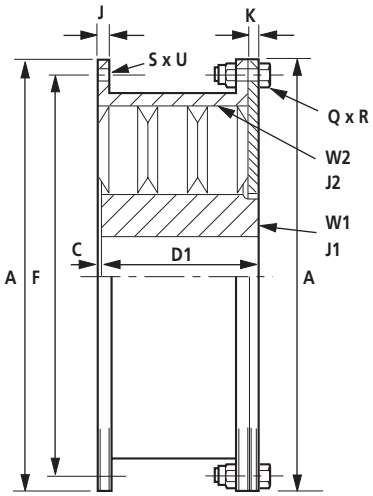
**(1)** For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

**(2)** Installations should be initially aligned as accurately as possible. In order to allow for deterioration in alignment over time, it is recommended that initial alignment should not exceed 25% of the above noted data. The forces on the driving and driven machinery should be calculated to ensure that these do not exceed the manufacturers allowables.

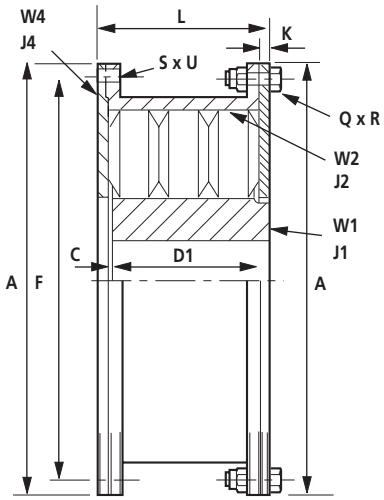
**(3)** Weights and inertias are based on the maximum bore size.

# DCB Series 10

## Flex Half




## Flex Half & Keep Plate




## Dimensions, Weight, Inertia and Alignment

| COUPLING SIZE | | 10211.0 | 10311.0 | 10411.0 | 10213.0 | 10313.0 | 10413.0 | 10215.0 | 10315.0 | 10415.0 |
|---|---|---|---|---|---|---|---|---|---|---|
| DIMENSIONS (mm) | A | 1510 | 1510 | 1510 | 1770 | 1770 | 1770 | 2020 | 2020 | 2020 |
| | C | 15 | 15 | 15 | 15 | 15 | 15 | 20 | 20 | 20 |
| | D1 | 295 | 435 | 575 | 350 | 515 | 680 | 399 | 589 | 780 |
| | F | 1420 | 1420 | 1420 | 1691 | 1691 | 1691 | 1930 | 1930 | 1930 |
| | J | 38 | 38 | 38 | 50 | 50 | 50 | 50 | 50 | 50 |
| | K | 31 | 31 | 31 | 35 | 35 | 35 | 38 | 38 | 38 |
| | L | 310 | 450 | 590 | 365 | 530 | 695 | 419 | 609 | 800 |
| | Q | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | R | M30 | M30 | M30 | M36 | M36 | M36 | M36 | M36 | M36 |
| | S | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| | U | 37 | 37 | 37 | 43 | 43 | 43 | 43 | 43 | 43 |
| MAXIMUM SPEED (rpm) (1) | | 770 | 770 | 770 | 650 | 650 | 650 | 570 | 570 | 570 |
| WEIGHT (3) (kg) | W1 | 857 | 1285 | 1710 | 1340 | 2010 | 2680 | 1868 | 2800 | 3735 |
| | W2 | 1191 | 1526 | 1860 | 1888 | 2386 | 2884 | 2585 | 3327 | 4199 |
| | W4 | 317 | 317 | 317 | 566 | 566 | 566 | 732 | 732 | 732 |
| INERTIA (3) ($kg\ m^2$) | J1 | 86 | 125 | 166 | 220 | 326 | 435 | 465 | 698 | 931 |
| | J2 | 471 | 600 | 730 | 1016 | 1276 | 1529 | 1822 | 2332 | 2936 |
| | J4 | 115 | 115 | 115 | 272 | 272 | 272 | 461 | 461 | 461 |
| ALLOWABLE MISALIGNMENT (2) | | | | | | | | | | |
| RADIAL (mm) | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| AXIAL (mm) | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| CONICAL (degree) | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |

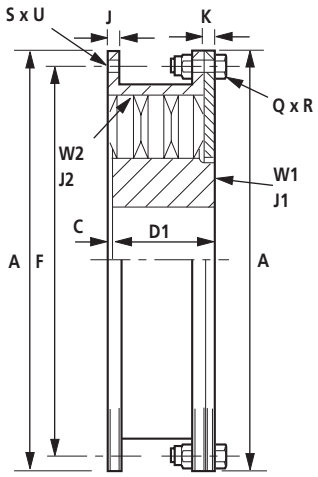
**(1)** For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

**(2)** Installations should be initially aligned as accurately as possible. In order to allow for deterioration in alignment over time, it is recommended that initial alignment should not exceed 25% of the above noted data. The forces on the driving and driven machinery should be calculated to ensure that these do not exceed the manufacturers allowables.

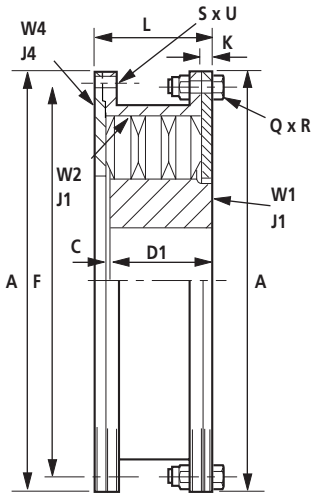
**(3)** Weights and inertias are based on the maximum bore size.

# DCB Series 16

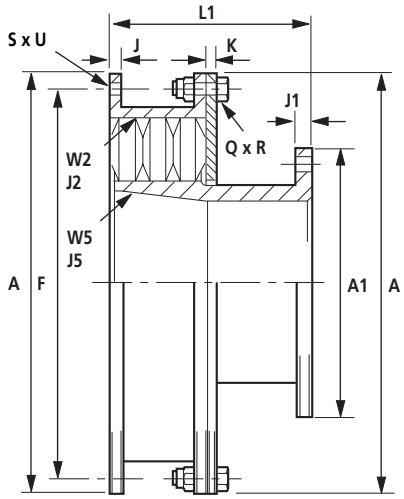
### Full Coupling




### Flex Half & Keep Plate




### Flex Half & Flanged Inner Member




## Dimensions, Weight, Inertia and Alignment

| COUPLING SIZE | | 16313.0 | 16413.0 | 16513.0 | 16315.0 | 16415.0 | 16515.0 |
|---|---|---|---|---|---|---|---|
| DIMENSIONS (mm) | A | 2486 | 2486 | 2486 | 2921 | 2921 | 2921 |
| | A1 | 1400 | 1400 | 1400 | 1700 | 1700 | 1700 |
| | C | 15 | 15 | 15 | 20 | 20 | 20 |
| | D1 | 520 | 685 | 850 | 601 | 792 | 982 |
| | F | 2370 | 2370 | 2370 | 2800 | 2800 | 2800 |
| | J | 50 | 50 | 50 | 70 | 70 | 70 |
| | J1 | 75 | 75 | 75 | 95 | 95 | 95 |
| | K | 40 | 40 | 40 | 50 | 50 | 50 |
| | L | 535 | 700 | 865 | 621 | 812 | 1002 |
| | L1 | 805 | 970 | 1135 | 985 | 1176 | 1367 |
| | Q | 24 | 24 | 24 | 24 | 24 | 24 |
| | R | M30 | M30 | M30 | M36 | M36 | M36 |
| | S | 24 | 24 | 24 | 24 | 24 | 24 |
| | U | 43 | 43 | 43 | 50 | 50 | 50 |
| MAXIMUM SPEED (rpm) (1) | | 490 | 490 | 490 | 390 | 390 | 390 |
| WEIGHT (3) (kg) | W1 | 1770 | 2370 | 2970 | 3158 | 4077 | 5247 |
| | W2 | 3547 | 4307 | 5069 | 6309 | 7545 | 8782 |
| | W4 | 903 | 903 | 903 | 1810 | 1810 | 1810 |
| | W5 | 2913 | 3623 | 4319 | 5761 | 7147 | 8534 |
| INERTIA (3) (kg m$^2$) | J1 | 3692 | 4920 | 5820 | 5693 | 7591 | 9488 |
| | J2 | 4169 | 5049 | 5931 | 10033 | 11936 | 13838 |
| | J4 | 994 | 994 | 994 | 2534 | 2534 | 2534 |
| | J5 | 1731 | 2226 | 2713 | 4255 | 5418 | 6580 |
| ALLOWABLE MISALIGNMENT (2) | | | | | | | |
| RADIAL (mm) | | 8 | 8 | 8 | 8 | 8 | 8 |
| AXIAL (mm) | | 8 | 8 | 8 | 8 | 8 | 8 |
| CONICAL (degree) | | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |

(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

(2) Installations should be initially aligned as accurately as possible. In order to allow for deterioration in alignment over time, it is recommended that initial alignment should not exceed 25% of the above noted data. The forces on the driving and driven machinery should be calculated to ensure that these do not exceed the manufacturers allowables.

(3) Weights and inertias are based on the maximum bore size.

# DCB Technical Data

## 1.1 Torque Capacity - Diesel Engine Drives

The DCB Coupling is selected on the "Nominal Torque, $T_{KN}$" without service factors.

The full torque capacity of the coupling for transient vibration whilst passing through major criticals on run up is published as the Maximum Torque $T_{Kmax}$
($T_{Kmax}$ = 3 x $T_{KN}$.)

There is additional torque capacity built within the coupling for short circuit torques.

The published "Vibratory Torque, $T_{KW}$", relates to the amplitude of the permissible continous torque fluctuation. The vibratory torque values shown in the Technical Data are at a frequency of 10Hz. The measure of acceptability of the coupling for vibrating drives is published as "Allowable Dissipated Heat at Ambient Temperature 30°C".

## 1.2 Transient Torques

Prediction of transient torques in marine drives can be complex. Normal installations are well provided for by selecting couplings based on the "Nominal Torque $T_{KN}$." Transients, such as start up and clutch manoeuvre, are usually within the "Maximum Torque, $T_{Kmax}$" for the coupling.

Care needs to be taken in the design of couplings with shaft brakes, to ensure coupling torques are not increased by severe deceleration.

Sudden torque applications of propulsion devices, such as thrusters or waterjets, need to be considered when designing the coupling connection.

## 2.0 Stiffness Properties

The Renold Hi-Tec Coupling remains fully flexible under all torque conditions. The DCB series is a non-bonded type operating with the Rubber-in-Compression principle.

## 2.1 Axial Stiffness

When subject to axial misalignment, the coupling will have an axial resistance which gradually reduces due to the effect of vibratory torque.

The axial stiffness of the coupling is torque dependent. The variation is as shown in the Technical Data on pages 16 to 22.

## 2.2 Radial Stiffness

The radial stiffness of the coupling is torque dependent, and is as shown in the Technical Data on pages 16 to 22.

## 2.3 Torsional Stiffness

The torsional stiffness of the coupling is dependent upon applied torque and temperature as shown in the Technical Data on pages 16 to 22.

## 2.4 Prediction of the System Torsional Vibration Characteristics.

An adequate prediction of the system's torsional vibration characteristics, can be made by the following method.

**2.4.1** Use the torsional stiffness, as published in the catalogue, which is based upon data measured at 30˚C ambient temperature.

**2.4.2** Repeat the calculation made in 2.4.1 but using the maximum temperature correction factor $S_{t100}$, and dynamic magnifier correction factor, $M_{100}$, for the selected rubber. Use tables on page 15 to adjust values for both torsional stiffness and dynamic magnifier. ie, $C_{T100} = C_{Tdyn}{}^{x} S_{t100}$

**2.4.3** Review calculations 2.4.1 and 2.4.2 and if the speed range is clear of criticals which do not exceed the allowable heat dissipation value as published in the catalogue then the coupling is considered suitable for the application, with respect to the torsional vibration characteristics. If there is a critical in the speed range, then the actual temperature of the coupling should be calculated at this speed.

# DCB Technical Data

| Rubber Grade | $Temp_{max}$ °C | $S_t$ |
|---|---|---|
| NM 45 | 100 | $St_{100} = 0.71$ |
| SM 50 | 100 | $St_{100} = 0.65$ |
| SM 60 | 100 | $St_{100} = 0.61$ |
| SM 70 | 100 | $St_{100} = 0.44$ |
| SM 80 | 100 | $St_{100} = 0.37$ |
| **SM 60 is considered "standard"** | | |

| Rubber Grade | Dynamic Magnifier at 30°C ($M_{30}$) | Dynamic Magnifier at 100°C ($M_{100}$) |
|---|---|---|
| NM 45 | 15 | 21.1 |
| SM 50 | 10 | 15.4 |
| SM 60 | 8 | 13.1 |
| SM 70 | 6 | 13.6 |
| SM 80 | 4 | 10.8 |
| **SM 60 is considered "standard"** | | |

## 2.5 Prediction of the Actual Coupling Temperature and Torsional Stiffness

**2.5.1** Use the torsional stiffness as published in the catalogue. This is based upon data measured at 30˚C and the dynamic magnifier at 30˚C. ($M_{30}$)

**2.5.2** Compare the synthesis value of the calculated heat load in the coupling ($P_K$) at the speed of interest, to the "Allowable Heat Dissipation" ($P_{KW}$).

The coupling temperature rise

$$°C = Temp_{coup} = \left(\frac{P_K}{P_{KW}}\right) \times 70$$

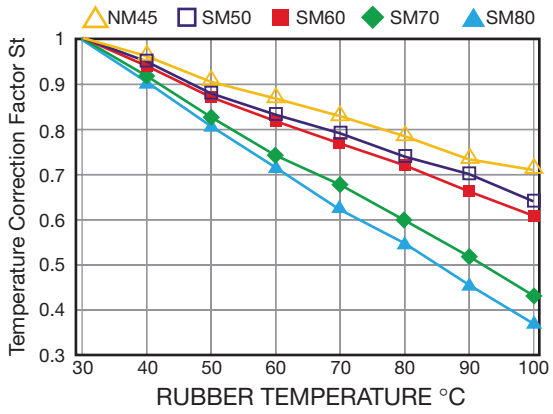
The coupling temperature = $\vartheta$

$\vartheta$ = $Temp_{coup}$ + Ambient Temp.

**2.5.3** Calculate the temperature correction factor, $S_t$, from 2.6 (if the coupling temperature > 100°C, then use $S_{t100}$). Calculate the dynamic Magnifier as per 2.7. Repeat the calculation with the new value of coupling stiffness and dynamic magnifier.

**2.5.4** Calculate the coupling temperature as per 2.5. Repeat calculation until the coupling temperature agrees with the correction factors for torsional stiffness and dynamic magnifier used in the calculation.

## 2.6 Temperature Correction Factor




## 2.7 Dynamic Magnifier Correction Factor

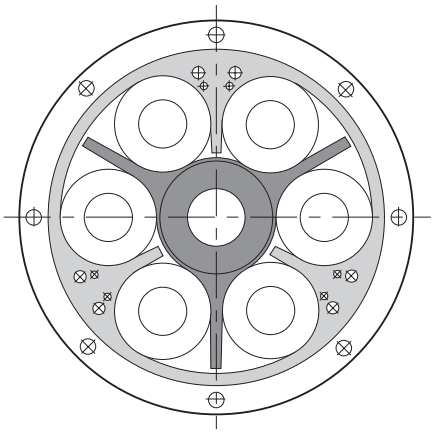
The Dynamic Magnifier of the rubber is subject to temperature variation in the same way as the torsional stiffness.

$$M_T = \frac{M_{30}}{S_t} \qquad \Psi_T = \Psi_{30} \times S_t$$

| Rubber Grade | Dynamic Magnifier ($M_{30}$) | Relative Damping $\Psi_{30}$ |
|---|---|---|
| NM 45 | 15 | 0.42 |
| SM 50 | 10 | 0.63 |
| SM 60 | 8 | 0.78 |
| SM 70 | 6 | 1.05 |
| SM 80 | 4 | 1.57 |
| **SM 60 is considered "standard"** | | |

# DCB Series 6 Technical Data

## End View - Series 6



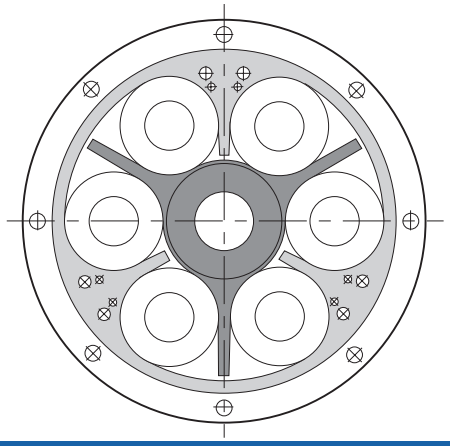
| COUPLING SIZE | | 622.5 | 632.5 | 623.5 | 633.5 | 624.5 | 625.5 | 626.5 | 628.0 | 638.0 |
|---|---|---|---|---|---|---|---|---|---|---|
| NOMINAL TORQUE $T_{KN}$ (kNm) | | 0.51 | 0.76 | 1.39 | 2.08 | 2.90 | 5.30 | 8.77 | 16.50 | 24.80 |
| MAXIMUM TORQUE $T_{Kmax}$ (kNm) | | 1.52 | 2.28 | 4.14 | 6.21 | 8.67 | 15.90 | 26.40 | 49.50 | 74.20 |
| VIBRATORY TORQUE $T_{KW}$ (kNm) | | 0.19 | 0.29 | 0.52 | 0.78 | 1.08 | 1.99 | 3.32 | 6.22 | 9.33 |
| ALLOWABLE | NM 45 | 69 | 103 | 97 | 146 | 125 | 153 | 181 | 223 | 335 |
| DISSIPATED | SM 50 | 77 | 115 | 108 | 162 | 139 | 170 | 201 | 248 | 372 |
| HEAT AT AMB. | SM 60 | 87 | 130 | 122 | 183 | 158 | 193 | 228 | 281 | 422 |
| TEMP. 30°C. (W) $P_{KW}$ | SM 70 | 98 | 147 | 137 | 206 | 176 | 215 | 254 | 314 | 471 |
| | SM 80 | 108 | 162 | 152 | 228 | 195 | 238 | 282 | 347 | 521 |
| MAXIMUM SPEED (rpm) (1) | | 4150 | 4150 | 3150 | 3150 | 2570 | 2080 | 1730 | 1440 | 1440 |
| DYNAMIC TORSIONAL STIFFNESS $C_{Tdyn}$ (MNm/rad) | | | | | | | | | | |
| | NM 45 | 0.003 | 0.004 | 0.007 | 0.010 | 0.015 | 0.022 | 0.037 | 0.078 | 0.111 |
| | SM 50 | 0.003 | 0.005 | 0.008 | 0.012 | 0.018 | 0.027 | 0.045 | 0.084 | 0.132 |
| @ 0.25 $T_{KN}$ | SM 60 | 0.004 | 0.006 | 0.010 | 0.015 | 0.021 | 0.035 | 0.057 | 0.106 | 0.171 |
| | SM 70 | 0.005 | 0.008 | 0014 | 0.021 | 0.030 | 0.056 | 0.093 | 0.174 | 0.262 |
| | SM 80 | 0.009 | 0.014 | 0.024 | 0.036 | 0.050 | 0.075 | 0.123 | 0.229 | 0.365 |
| | NM 45 | 0.004 | 0.006 | 0.011 | 0.016 | 0.023 | 0.036 | 0.059 | 0.110 | 0.176 |
| | SM 50 | 0.005 | 0.008 | 0.014 | 0.021 | 0.030 | 0.048 | 0.079 | 0.147 | 0.215 |
| @ 0.5 $T_{KN}$ | SM 60 | 0.006 | 0.009 | 0.016 | 0.024 | 0.034 | 0.053 | 0.087 | 0.162 | 0.248 |
| | SM 70 | 0.007 | 0.011 | 0.019 | 0.029 | 0.040 | 0.063 | 0.104 | 0.194 | 0.308 |
| | SM 80 | 0.013 | 0.020 | 0.036 | 0.054 | 0.076 | 0.097 | 0.160 | 0.299 | 0.475 |
| | NM 45 | 0.006 | 0.008 | 0.015 | 0.023 | 0.033 | 0.056 | 0.093 | 0.174 | 0.274 |
| | SM 50 | 0.007 | 0.011 | 0.020 | 0.030 | 0.043 | 0.069 | 0.114 | 0.212 | 0.318 |
| @ 0.75 $T_{KN}$ | SM 60 | 0.008 | 0.012 | 0.023 | 0.035 | 0.048 | 0.077 | 0.127 | 0.237 | 0.358 |
| | SM 70 | 0.010 | 0.015 | 0.026 | 0.039 | 0.055 | 0.087 | 0.144 | 0.269 | 0.415 |
| | SM 80 | 0.018 | 0.027 | 0.051 | 0.077 | 0.108 | 0.135 | 0.222 | 0.414 | 0.658 |
| | NM 45 | 0.008 | 0.012 | 0.022 | 0.033 | 0.046 | 0.085 | 0.140 | 0.261 | 0.407 |
| | SM 50 | 0.010 | 0.015 | 0.027 | 0.041 | 0.059 | 0.096 | 0.159 | 0.296 | 0.448 |
| @ 1.0 $T_{KN}$ | SM 60 | 0.011 | 0.016 | 0.030 | 0.045 | 0.064 | 0.102 | 0.169 | 0.315 | 0.478 |
| | SM 70 | 0.012 | 0.018 | 0.034 | 0.051 | 0.072 | 0.116 | 0.191 | 0.357 | 0.541 |
| | SM 80 | 0.024 | 0.036 | 0.066 | 0.099 | 0.140 | 0.184 | 0.305 | 0.568 | 0.883 |
| | NM 45 | 730 | 1095 | 1020 | 1530 | 1312 | 1600 | 1896 | 2334 | 3500 |
| RADIAL STIFFNESS | SM 50 | 833 | 1250 | 1162 | 1743 | 1500 | 1830 | 2166 | 2666 | 4000 |
| NO LOAD (N/mm) | SM 60 | 1250 | 1875 | 1748 | 2622 | 2250 | 2750 | 3250 | 4000 | 6000 |
| | SM 70 | 1666 | 2500 | 2332 | 3498 | 3000 | 3666 | 4333 | 5332 | 8000 |
| | SM 80 | 1958 | 2937 | 2740 | 4110 | 3525 | 4310 | 5091 | 6266 | 9400 |
| | NM 45 | 1262 | 1890 | 1762 | 2643 | 2272 | 2775 | 3280 | 4035 | 6050 |
| RADIAL STIFFNESS | SM 50 | 1250 | 1875 | 1750 | 2625 | 2250 | 2750 | 3250 | 4000 | 6000 |
| @ $T_{KN}$ (N/mm) | SM 60 | 1666 | 2500 | 2332 | 3498 | 3000 | 3666 | 4333 | 5332 | 8000 |
| | SM 70 | 2084 | 3126 | 2916 | 4374 | 3750 | 4582 | 5416 | 6666 | 10000 |
| | SM 80 | 2916 | 4374 | 4080 | 6120 | 5250 | 6416 | 7582 | 9333 | 14000 |
| | NM 45 | 285 | 428 | 400 | 600 | 515 | 630 | 744 | 916 | 1374 |
| AXIAL STIFFNESS | SM 50 | 336 | 504 | 470 | 705 | 605 | 756 | 890 | 1100 | 1650 |
| (N/mm) | SM 60 | 540 | 810 | 758 | 1137 | 975 | 1192 | 1409 | 1733 | 2600 |
| | SM 70 | 746 | 1120 | 1044 | 1566 | 1740 | 2126 | 2512 | 3092 | 4638 |
| | SM 80 | 1688 | 2532 | 2362 | 3543 | 3030 | 3700 | 4372 | 5380 | 8070 |
| | NM 45 | 390 | 590 | 540 | 810 | 680 | 830 | 980 | 1200 | 1800 |
| MAXIMUM AXIAL (2) | SM 50 | 470 | 710 | 660 | 990 | 940 | 1150 | 1360 | 1680 | 2520 |
| LOAD AT POINT | SM 60 | 650 | 980 | 920 | 1380 | 1200 | 1460 | 1720 | 2120 | 3180 |
| OF SLIP @ $T_{KN}$ (N) | SM 70 | 840 | 1260 | 1180 | 1770 | 1500 | 1830 | 2160 | 2660 | 3990 |

(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

(2) The Renold Hi-Tec Coupling will "slip" axially when the maximum axial force is reached.

# DCB Series 6 Technical Data

## End View - Series 6



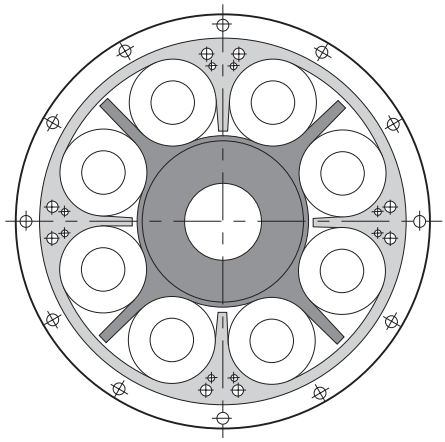
| COUPLING SIZE | | 629.5 | 639.5 | 6211.0 | 6311.0 | 6213.0 | 6313.0 | 6215.0 | 6315.0 |
|---|---|---|---|---|---|---|---|---|---|
| NOMINAL TORQUE $T_{KN}$ (kNm) | | 27.5 | 41.3 | 43.1 | 64.7 | 71.4 | 107.0 | 110.0 | 166.0 |
| MAXIMUM TORQUE $T_{Kmax}$ (kNm) | | 82.6 | 124.0 | 130.0 | 194.0 | 214.0 | 321.0 | 331.0 | 497.0 |
| VIBRATORY TORQUE $T_{KW}$ (kNm) | | 10.4 | 15.6 | 16.2 | 24.3 | 26.7 | 40.0 | 41.3 | 62.0 |
| ALLOWABLE | NM 45 | 265 | 398 | 306 | 459 | 362 | 543 | 418 | 627 |
| DISSIPATED | SM 50 | 294 | 441 | 340 | 510 | 402 | 603 | 464 | 696 |
| HEAT AT AMB. | SM 60 | 333 | 500 | 386 | 579 | 456 | 684 | 526 | 789 |
| TEMP. 30°C. (W) $P_{KW}$ | SM 70 | 372 | 558 | 431 | 646 | 510 | 765 | 588 | 882 |
| | SM 80 | 412 | 618 | 477 | 716 | 563 | 845 | 650 | 975 |
| MAXIMUM SPEED (rpm) (1) | | 1180 | 1180 | 1030 | 1030 | 860 | 860 | 750 | 750 |
| DYNAMIC TORSIONAL STIFFNESS $C_{Tdyn}$ (MNm/rad) | | | | | | | | | |
| | NM 45 | 0.116 | 0.186 | 0.179 | 0.288 | 0.296 | 0.475 | 0.454 | 0.730 |
| | SM 50 | 0.141 | 0.221 | 0.219 | 0.344 | 0.361 | 0.567 | 0.555 | 0.871 |
| @ 0.25 $T_{KN}$ | SM 60 | 0.178 | 0.286 | 0.276 | 0.444 | 0.456 | 0.732 | 0.701 | 1.125 |
| | SM 70 | 0.291 | 0.440 | 0.452 | 0.683 | 0.745 | 1.127 | 1.145 | 1.731 |
| | SM 80 | 0.384 | 0.611 | 0.597 | 0.950 | 0.985 | 1.565 | 1.513 | 2.403 |
| | NM 45 | 0.183 | 0.295 | 0.285 | 0.458 | 0.470 | 0.756 | 0.722 | 1.162 |
| | SM 50 | 0.247 | 0.360 | 0.383 | 0.559 | 0.632 | 0.923 | 0.971 | 1.419 |
| @ 0.5 $T_{KN}$ | SM 60 | 0.271 | 0.415 | 0.420 | 0.645 | 0.694 | 1.065 | 1.066 | 1.636 |
| | SM 70 | 0.326 | 0.515 | 0.506 | 0.800 | 0.835 | 1.320 | 1.283 | 2.027 |
| | SM 80 | 0.500 | 0.796 | 0.776 | 1.236 | 1.281 | 2.039 | 1.968 | 3.133 |
| | NM 45 | 0.291 | 0.458 | 0.451 | 0.712 | 0.745 | 1.175 | 1.144 | 1.804 |
| | SM 50 | 0.355 | 0.533 | 0.550 | 0.827 | 0.908 | 1.365 | 1.395 | 2.097 |
| @ 0.75 $T_{KN}$ | SM 60 | 0.397 | 0.599 | 0.616 | 0.930 | 1.017 | 1.535 | 1.563 | 2.359 |
| | SM 70 | 0.450 | 0.696 | 0.699 | 1.080 | 1.154 | 1.782 | 1.742 | 2.738 |
| | SM 80 | 0.694 | 1.102 | 1.077 | 1.711 | 1.778 | 2.824 | 2.731 | 4.338 |
| | NM 45 | 0.437 | 0.682 | 0.678 | 1.058 | 1.120 | 1.747 | 1.720 | 2.683 |
| | SM 50 | 0.496 | 0.750 | 0.769 | 1.164 | 1.270 | 1.922 | 1.950 | 2.952 |
| @ 1.0 $T_{KN}$ | SM 60 | 0.527 | 0.801 | 0.818 | 1.244 | 1.350 | 2.054 | 2.074 | 3.155 |
| | SM 70 | 0.597 | 0.906 | 0.928 | 1.406 | 1.531 | 2.321 | 2.352 | 3.566 |
| | SM 80 | 0.951 | 1.479 | 1.476 | 2.297 | 2.436 | 3.791 | 3.742 | 5.825 |
| | NM 45 | 2770 | 4155 | 3210 | 4815 | 3800 | 5700 | 4400 | 6600 |
| RADIAL STIFFNESS | SM 50 | 3165 | 4748 | 3666 | 5500 | 4330 | 6495 | 5000 | 7500 |
| NO LOAD (N/mm) | SM 60 | 4750 | 7125 | 5500 | 8250 | 6500 | 9750 | 7500 | 11250 |
| | SM 70 | 6330 | 9495 | 7330 | 11000 | 8650 | 12975 | 10000 | 15000 |
| | SM 80 | 7440 | 11160 | 8620 | 12930 | 10180 | 15270 | 11750 | 17625 |
| | NM 45 | 4792 | 7190 | 5550 | 8325 | 6558 | 9837 | 7575 | 11363 |
| RADIAL STIFFNESS | SM 50 | 4750 | 7125 | 5500 | 8250 | 6500 | 9750 | 7500 | 11250 |
| @ $T_{KN}$ (N/mm) | SM 60 | 6330 | 9500 | 7330 | 11000 | 8660 | 12990 | 10000 | 15000 |
| | SM 70 | 7915 | 11870 | 9165 | 13750 | 10830 | 16256 | 12500 | 18750 |
| | SM 80 | 11080 | 16620 | 12830 | 19245 | 15165 | 22750 | 17500 | 26250 |
| | NM 45 | 1088 | 1632 | 1260 | 1890 | 1489 | 2234 | 1718 | 2577 |
| AXIAL STIFFNESS | SM 50 | 1306 | 1959 | 1512 | 2268 | 1787 | 2680 | 2062 | 3090 |
| (N/mm) | SM 60 | 2059 | 3088 | 2384 | 3576 | 2818 | 4228 | 3250 | 4875 |
| | SM 70 | 3672 | 5508 | 4252 | 6378 | 5025 | 7538 | 5798 | 8700 |
| | SM 80 | 6390 | 9585 | 7400 | 11100 | 8745 | 13116 | 10090 | 15135 |
| | NM 45 | 1430 | 2140 | 1660 | 2500 | 1960 | 2940 | 2260 | 3400 |
| MAXIMUM AXIAL (2) | SM 50 | 1990 | 3000 | 2300 | 3450 | 2720 | 4080 | 3140 | 4700 |
| LOAD AT POINT | SM 60 | 2520 | 3780 | 2920 | 4380 | 3450 | 5180 | 4000 | 6000 |
| OF SLIP @ $T_{KN}$ (N) | SM 70 | 3160 | 4740 | 3660 | 5500 | 4320 | 6480 | 5000 | 7500 |

(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

(2) The Renold Hi-Tec Coupling will "slip" axially when the maximum axial force is reached.

# DCB Series 8 Technical Data

## End View - Series 8



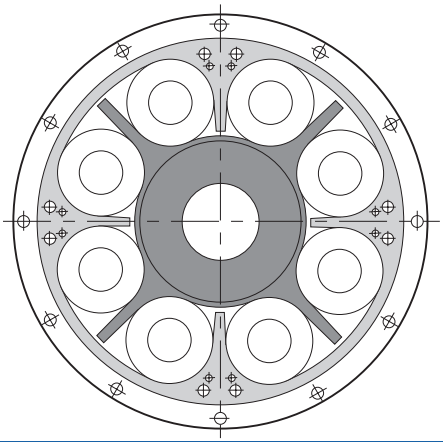
| COUPLING SIZE | | 822.5 | 823.5 | 833.5 | 824.5 | 834.5 | 844.5 | 825.5 | 835.5 | 845.5 | 855.5 | 826.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOMINAL TORQUE $T_{KN}$ (kNm) | | 0.83 | 2.25 | 3.37 | 4.84 | 7.26 | 9.68 | 8.98 | 13.47 | 17.96 | 22.45 | 14.67 |
| MAXIMUM TORQUE $T_{Kmax}$ (kNm) | | 2.52 | 6.74 | 10.1 | 14.52 | 21.78 | 29.04 | 26.94 | 40.42 | 53.89 | 67.36 | 44.01 |
| VIBRATORY TORQUE $T_{KW}$ (kNm) | | 0.31 | 0.84 | 1.26 | 1.81 | 2.73 | 3.63 | 3.37 | 5.05 | 6.74 | 8.42 | 5.50 |
| ALLOWABLE | NM 45 | 93 | 130 | 195 | 166 | 250 | 332 | 204 | 306 | 409 | 510 | 241 |
| DISSIPATED | SM 50 | 103 | 144 | 216 | 185 | 278 | 370 | 227 | 340 | 454 | 566 | 268 |
| HEAT AT AMB. | SM 60 | 117 | 163 | 245 | 210 | 315 | 420 | 257 | 385 | 514 | 642 | 304 |
| TEMP. 30°C. (W) $P_{KW}$ | SM 70 | 131 | 182 | 274 | 234 | 352 | 468 | 287 | 430 | 574 | 716 | 340 |
| | SM 80 | 144 | 202 | 303 | 260 | 390 | 520 | 317 | 475 | 634 | 792 | 375 |
| MAXIMUM SPEED (rpm) (1) | | 3600 | 2760 | 2760 | 2130 | 2130 | 2130 | 1800 | 1800 | 1800 | 1800 | 1490 |
| DYNAMIC TORSIONAL STIFFNESS $C_{Tdyn}$ (MNm/rad) | | | | | | | | | | | | |
| | NM 45 | 0.006 | 0.016 | 0.024 | 0.039 | 0.057 | 0.070 | 0.060 | 0.090 | 0.120 | 0.144 | 0.105 |
| | SM 50 | 0.007 | 0.020 | 0.030 | 0.047 | 0.064 | 0.083 | 0.076 | 0.113 | 0.147 | 0.188 | 0.127 |
| @ 0.25 $T_{KN}$ | SM 60 | 0.010 | 0.026 | 0.040 | 0.059 | 0.088 | 0.110 | 0.100 | 0.154 | 0.206 | 0.251 | 0.170 |
| | SM 70 | 0.016 | 0.042 | 0.064 | 0.089 | 0.135 | 0.177 | 0.170 | 0.251 | 0.338 | 0.407 | 0.274 |
| | SM 80 | 0.025 | 0.068 | 0.101 | 0.151 | 0.248 | 0.318 | 0.230 | 0.359 | 0.529 | 0.615 | 0.437 |
| | NM 45 | 0.009 | 0.025 | 0.037 | 0.057 | 0.081 | 0.102 | 0.093 | 0.143 | 0.190 | 0.230 | 0.159 |
| | SM 50 | 0.012 | 0.033 | 0.049 | 0.078 | 0.105 | 0.136 | 0.130 | 0.184 | 0.249 | 0.297 | 0.211 |
| @ 0.5 $T_{KN}$ | SM 60 | 0.015 | 0.040 | 0.060 | 0.095 | 0.137 | 0.171 | 0.150 | 0.224 | 0.296 | 0.360 | 0.257 |
| | SM 70 | 0.019 | 0.052 | 0.078 | 0.119 | 0.183 | 0.228 | 0.190 | 0.294 | 0.390 | 0.489 | 0.337 |
| | SM 80 | 0.031 | 0.083 | 0.124 | 0.229 | 0.338 | 0.409 | 0.298 | 0.468 | 0.637 | 0.784 | 0.535 |
| | NM 45 | 0.014 | 0.037 | 0.055 | 0.082 | 0.119 | 0.149 | 0.145 | 0.222 | 0.287 | 0.354 | 0.239 |
| | SM 50 | 0.018 | 0.048 | 0.071 | 0.113 | 0.155 | 0.199 | 0.185 | 0.272 | 0.365 | 0.441 | 0.308 |
| @ 0.75 $T_{KN}$ | SM 60 | 0.021 | 0.057 | 0.085 | 0.132 | 0.193 | 0.240 | 0.218 | 0.323 | 0.419 | 0.518 | 0.366 |
| | SM 70 | 0.026 | 0.070 | 0.106 | 0.163 | 0.248 | 0.307 | 0.261 | 0.397 | 0.518 | 0.646 | 0.455 |
| | SM 80 | 0.042 | 0.112 | 0.169 | 0.326 | 0.460 | 0.549 | 0.412 | 0.648 | 0.848 | 1.072 | 0.727 |
| | NM 45 | 0.020 | 0.054 | 0.081 | 0.115 | 0.167 | 0.216 | 0.216 | 0.331 | 0.431 | 0.534 | 0.349 |
| | SM 50 | 0.025 | 0.066 | 0.099 | 0.154 | 0.216 | 0.278 | 0.257 | 0.383 | 0.502 | 0.610 | 0.427 |
| @ 1.0 $T_{KN}$ | SM 60 | 0.028 | 0.076 | 0.114 | 0.177 | 0.260 | 0.325 | 0.288 | 0.432 | 0.561 | 0.692 | 0.489 |
| | SM 70 | 0.034 | 0.092 | 0.138 | 0.212 | 0.322 | 0.403 | 0.345 | 0.517 | 0.681 | 0.840 | 0.594 |
| | SM 80 | 0.056 | 0.152 | 0.228 | 0.423 | 0.606 | 0.726 | 0.563 | 0.870 | 1.135 | 1.478 | 0.981 |
| | NM 45 | 972 | 1360 | 2040 | 1750 | 2625 | 3500 | 2140 | 3210 | 4280 | 5350 | 2528 |
| RADIAL STIFFNESS | SM 50 | 1111 | 1550 | 2325 | 2000 | 3000 | 4000 | 2444 | 3666 | 4888 | 6110 | 2888 |
| NO LOAD (N/mm) | SM 60 | 1666 | 2330 | 3495 | 3000 | 4500 | 6000 | 3666 | 5500 | 7332 | 9165 | 4333 |
| | SM 70 | 2222 | 3110 | 4665 | 4000 | 6000 | 8000 | 4888 | 7332 | 9776 | 12220 | 5778 |
| | SM 80 | 2610 | 3655 | 5482 | 4700 | 7050 | 9400 | 5744 | 8616 | 11488 | 14360 | 6788 |
| | NM 45 | 1683 | 2350 | 3525 | 3030 | 4545 | 6060 | 3700 | 5550 | 7400 | 9250 | 4376 |
| RADIAL STIFFNESS | SM 50 | 1666 | 2333 | 3500 | 3000 | 4500 | 6000 | 3666 | 5500 | 7332 | 9165 | 4333 |
| @ $T_{KN}$ (N/mm) | SM 60 | 2222 | 3110 | 4665 | 4000 | 6000 | 8000 | 4888 | 7332 | 9776 | 12220 | 5778 |
| | SM 70 | 2778 | 3888 | 5832 | 5000 | 7500 | 10000 | 6110 | 9165 | 12220 | 15275 | 7222 |
| | SM 80 | 3888 | 5440 | 8160 | 7000 | 10500 | 14000 | 8555 | 12832 | 17110 | 21388 | 10110 |
| | NM 45 | 380 | 534 | 800 | 687 | 1030 | 1374 | 840 | 1260 | 1680 | 2100 | 992 |
| AXIAL STIFFNESS | SM 50 | 448 | 628 | 942 | 807 | 1210 | 1614 | 986 | 1480 | 1972 | 2465 | 1166 |
| (N/mm) | SM 60 | 721 | 1010 | 1515 | 1300 | 1950 | 2600 | 1588 | 2382 | 3176 | 3970 | 1878 |
| | SM 70 | 995 | 1392 | 2086 | 2320 | 3480 | 4640 | 2835 | 4253 | 5670 | 7088 | 3350 |
| | SM 80 | 2250 | 3150 | 4725 | 4040 | 6060 | 8080 | 4937 | 7410 | 9874 | 12342 | 5835 |
| | NM 45 | 520 | 720 | 1080 | 910 | 1380 | 1820 | 1110 | 1660 | 2220 | 2780 | 1310 |
| MAXIMUM AXIAL (2) | SM 50 | 630 | 880 | 1320 | 1250 | 1880 | 2500 | 1530 | 2290 | 3060 | 3820 | 1800 |
| LOAD AT POINT | SM 60 | 870 | 1220 | 1830 | 1600 | 2400 | 3200 | 2000 | 3000 | 4000 | 5000 | 2360 |
| OF SLIP @ $T_{KN}$ (N) | SM 70 | 1120 | 1570 | 2360 | 2000 | 3000 | 4000 | 2440 | 3660 | 4880 | 6100 | 2900 |
| | SM 80 | 1890 | 2650 | 3980 | 2800 | 4200 | 5600 | 3420 | 5120 | 6840 | 8550 | 4040 |

(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

(2) The Renold Hi-Tec Coupling will "slip" axially when the maximum axial force is reached.

# DCB Series 8 Technical Data

## End View - Series 8



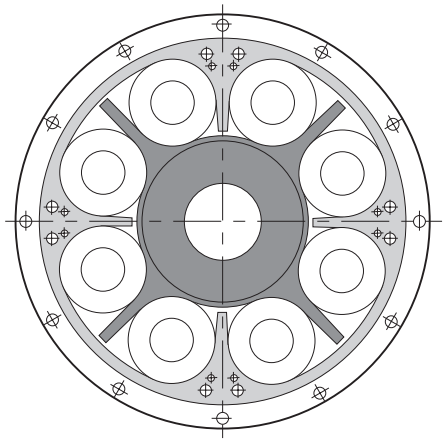
| COUPLING SIZE | | 836.5 | 846.5 | 827.5 | 837.5 | 847.5 | 857.5 | 828.0 | 838.0 | 848.0 | 858.0 | 829.5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOMINAL TORQUE $T_{KN}$ (kNm) | | 22.01 | 29.34 | 22.37 | 33.55 | 44.73 | 55.92 | 27.03 | 40.55 | 54.06 | 67.58 | 45.78 |
| MAXIMUM TORQUE $T_{Kmax}$ (kNm) | | 66.02 | 88.03 | 67.10 | 100.65 | 134.20 | 167.75 | 81.10 | 121.64 | 162.19 | 202.74 | 137.34 |
| VIBRATORY TORQUE $T_{KW}$ (kNm) | | 8.25 | 11.00 | 8.39 | 12.561 | 16.77 | 20.97 | 10.41 | 15.21 | 20.27 | 25.34 | 17.33 |
| ALLOWABLE | NM 45 | 363 | 482 | 278 | 418 | 556 | 696 | 297 | 446 | 594 | 743 | 353 |
| DISSIPATED | SM 50 | 402 | 536 | 309 | 464 | 618 | 773 | 330 | 495 | 660 | 825 | 392 |
| HEAT AT AMB. | SM 60 | 456 | 608 | 351 | 526 | 702 | 877 | 374 | 561 | 748 | 935 | 444 |
| TEMP. 30°C. (W) $P_{KW}$ | SM 70 | 510 | 680 | 392 | 588 | 784 | 980 | 418 | 627 | 836 | 1045 | 497 |
| | SM 80 | 563 | 750 | 433 | 650 | 866 | 1083 | 462 | 693 | 924 | 1155 | 550 |
| MAXIMUM SPEED (rpm) (1) | | 1490 | 1490 | 1315 | 1315 | 1315 | 1315 | 1240 | 1240 | 1240 | 1240 | 1010 |
| DYNAMIC TORSIONAL STIFFNESS $C_{Tdyn}$ (MNm/rad) | | | | | | | | | | | | |
| | NM 45 | 0.157 | 0.209 | 0.160 | 0.240 | 0.320 | 0.400 | 0.195 | 0.293 | 0.391 | 0.488 | 0.328 |
| | SM 50 | 0.191 | 0.255 | 0.195 | 0.292 | 0.390 | 0.487 | 0.238 | 0.357 | 0.476 | 0.594 | 0.399 |
| @ 0.25 $T_{KN}$ | SM 60 | 0.256 | 0.341 | 0.261 | 0.391 | 0.521 | 0.651 | 0.318 | 0.477 | 0.636 | 0.795 | 0.534 |
| | SM 70 | 0.410 | 0.547 | 0.419 | 0.628 | 0.837 | 1.046 | 0.511 | 0.767 | 1.022 | 1.278 | 0.857 |
| | SM 80 | 0.655 | 0.874 | 0.668 | 1.003 | 1.337 | 1.671 | 0.816 | 1.224 | 1.632 | 2.040 | 1.369 |
| | NM 45 | 0.238 | 0.317 | 0.243 | 0.364 | 0.485 | 0.607 | 0.296 | 0.445 | 0.593 | 0.741 | 0.497 |
| | SM 50 | 0.316 | 0.422 | 0.323 | 0.484 | 0.645 | 0.807 | 0.394 | 0.591 | 0.788 | 0.985 | 0.661 |
| @ 0.5 $T_{KN}$ | SM 60 | 0.385 | 0.514 | 0.393 | 0.589 | 0.786 | 0.982 | 0.480 | 0.720 | 0.959 | 1.199 | 0.805 |
| | SM 70 | 0.505 | 0.673 | 0.515 | 0.773 | 1.030 | 1.288 | 0.629 | 0.943 | 1.258 | 1.572 | 1.055 |
| | SM 80 | 0.802 | 1.069 | 0.818 | 1.227 | 1.636 | 2.045 | 0.999 | 1.498 | 1.997 | 2.497 | 1.675 |
| | NM 45 | 0.358 | 0.477 | 0.365 | 0.547 | 0.730 | 0.912 | 0.445 | 0.668 | 0.891 | 1.114 | 0.747 |
| | SM 50 | 0.461 | 0.615 | 0.470 | 0.706 | 0.941 | 1.176 | 0.574 | 0.862 | 1.149 | 1.436 | 0.963 |
| @ 0.75 $T_{KN}$ | SM 60 | 0.549 | 0.731 | 0.559 | 0.839 | 1.119 | 1.398 | 0.683 | 1.024 | 1.366 | 1.707 | 1.145 |
| | SM 70 | 0.682 | 0.909 | 0.695 | 1.043 | 1.391 | 1.739 | 0.849 | 1.274 | 1.698 | 2.123 | 1.424 |
| | SM 80 | 1.091 | 1.454 | 1.112 | 1.668 | 2.224 | 2.780 | 1.358 | 2.037 | 2.716 | 3.395 | 2.277 |
| | NM 45 | 0.523 | 0.698 | 0.534 | 0.801 | 1.068 | 1.335 | 0.652 | 0.978 | 1.304 | 1.629 | 1.093 |
| | SM 50 | 0.640 | 0.854 | 0.653 | 0.980 | 1.306 | 1.633 | 0.797 | 1.196 | 1.595 | 1.993 | 1.337 |
| @ 1.0 $T_{KN}$ | SM 60 | 0.734 | 0.979 | 0.749 | 1.123 | 1.497 | 1.872 | 0.914 | 1.371 | 1.828 | 2.285 | 1.533 |
| | SM 70 | 0.891 | 1.188 | 0.909 | 1.363 | 1.818 | 2.272 | 1.110 | 1.665 | 2.220 | 2.775 | 1.861 |
| | SM 80 | 1.471 | 1.962 | 1.500 | 2.251 | 3.001 | 3.751 | 1.832 | 2.748 | 3.664 | 4.580 | 3.072 |
| | NM 45 | 3792 | 5056 | 2988 | 4482 | 5976 | 7470 | 3112 | 4668 | 6224 | 7780 | 3696 |
| RADIAL STIFFNESS | SM 50 | 4332 | 5776 | 3413 | 5120 | 6826 | 8533 | 3555 | 5332 | 7110 | 8888 | 4220 |
| NO LOAD (N/mm) | SM 60 | 6500 | 8666 | 5120 | 7680 | 10240 | 12800 | 5332 | 8000 | 10660 | 13325 | 6332 |
| | SM 70 | 8667 | 11556 | 6828 | 10242 | 13656 | 17070 | 7110 | 10665 | 14220 | 17775 | 8442 |
| | SM 80 | 10180 | 13576 | 8022 | 12030 | 16044 | 20050 | 8355 | 12530 | 16710 | 20888 | 9920 |
| | NM 45 | 6564 | 8752 | 5170 | 7755 | 10340 | 12925 | 5381 | 8070 | 10760 | 13450 | 6390 |
| RADIAL STIFFNESS | SM 50 | 6500 | 8666 | 5120 | 7680 | 10240 | 12800 | 5332 | 8000 | 10660 | 13325 | 6332 |
| @ $T_{KN}$ (N/mm) | SM 60 | 8666 | 11556 | 6828 | 10242 | 13656 | 17070 | 7110 | 10665 | 14220 | 17775 | 8442 |
| | SM 70 | 10830 | 14444 | 8535 | 12800 | 17070 | 21338 | 8888 | 13330 | 17776 | 22220 | 10554 |
| | SM 80 | 15165 | 20220 | 11948 | 17922 | 23896 | 29870 | 12444 | 18666 | 24888 | 31110 | 14776 |
| | NM 45 | 1488 | 1984 | 1145 | 1718 | 2290 | 2862 | 1221 | 1832 | 2442 | 3052 | 1450 |
| AXIAL STIFFNESS | SM 50 | 1750 | 2332 | 1345 | 2018 | 2690 | 3362 | 1434 | 2152 | 2868 | 3586 | 1700 |
| (N/mm) | SM 60 | 2817 | 3756 | 2167 | 3250 | 4334 | 5418 | 2310 | 3466 | 4620 | 5778 | 2744 |
| | SM 70 | 5026 | 6700 | 3866 | 5800 | 7730 | 9666 | 4124 | 6186 | 8248 | 10311 | 4898 |
| | SM 80 | 8752 | 11670 | 6733 | 10100 | 13466 | 16832 | 7182 | 10773 | 14364 | 17955 | 8528 |
| | NM 45 | 1970 | 2620 | 1520 | 2280 | 3040 | 3800 | 1620 | 2430 | 3240 | 4050 | 1920 |
| MAXIMUM AXIAL (2) | SM 50 | 2700 | 3600 | 2080 | 3130 | 4160 | 5200 | 2220 | 3330 | 4440 | 5550 | 2640 |
| LOAD AT POINT | SM 60 | 3550 | 4720 | 2720 | 4100 | 5440 | 6800 | 2840 | 4260 | 5680 | 7100 | 3380 |
| OF SLIP @ $T_{KN}$ (N) | SM 70 | 4350 | 5890 | 3330 | 5000 | 6660 | 8330 | 3550 | 5330 | 7100 | 8880 | 4220 |
| | SM 80 | 6050 | 8080 | 4660 | 6980 | 9320 | 11650 | 4980 | 7470 | 9960 | 12450 | 5900 |

(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

(2) The Renold Hi-Tec Coupling will "slip" axially when the maximum axial force is reached.

# DCB Series 8 Technical Data

## End View - Series 8



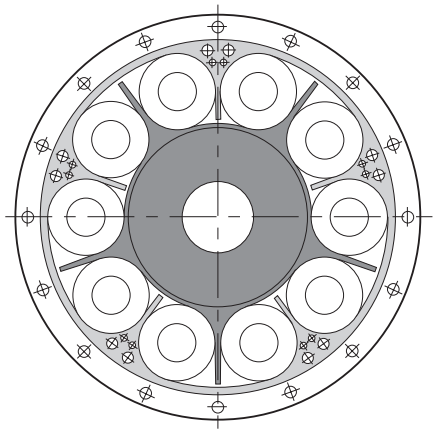
| COUPLING SIZE | | 839.5 | 849.5 | 859.5 | 8211.0 | 8311.0 | 8411.0 | 8213.0 | 8313.0 | 8413.0 | 8215.0 | 8315.0 | 8415.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| NOMINAL TORQUE $T_{KN}$ (kNm) | | 68.67 | 91.56 | 114.50 | 71.94 | 107.91 | 143.88 | 118.59 | 177.56 | 237.18 | 185.30 | 277.95 | 370.60 |
| MAXIMUM TORQUE $T_{Kmax}$ (kNm) | | 206.01 | 274.68 | 343.50 | 215.82 | 323.73 | 431.64 | 355.78 | 533.66 | 711.55 | 555.90 | 833.85 | 1111.80 |
| VIBRATORY TORQUE $T_{KW}$ (kNm) | | 25.75 | 34.34 | 37.90 | 26.98 | 40.47 | 53.96 | 44.47 | 66.71 | 88.94 | 69.49 | 104.23 | 138.98 |
| ALLOWABLE | NM 45 | 529 | 706 | 883 | 409 | 613 | 818 | 483 | 724 | 966 | 557 | 836 | 1114 |
| DISSIPATED | SM 50 | 588 | 784 | 980 | 454 | 681 | 908 | 537 | 805 | 1074 | 619 | 928 | 1238 |
| HEAT AT AMB. | SM 60 | 666 | 888 | 1110 | 515 | 772 | 1030 | 608 | 912 | 1216 | 701 | 1052 | 1402 |
| TEMP. 30°C. (W) $P_{KW}$ | SM 70 | 745 | 994 | 1243 | 575 | 862 | 1150 | 679 | 1019 | 1358 | 784 | 1176 | 1568 |
| | SM 80 | 823 | 1100 | 1375 | 635 | 953 | 1270 | 751 | 1126 | 1502 | 867 | 1300 | 1734 |
| MAXIMUM SPEED (rpm) (1) | | 1010 | 1010 | 1010 | 880 | 880 | 880 | 730 | 730 | 730 | 640 | 640 | 640 |
| DYNAMIC TORSIONAL STIFFNESS $C_{Tdyn}$ (MNm/rad) | | | | | | | | | | | | | |
| | NM 45 | 0.491 | 0.655 | 0.819 | 0.512 | 0.768 | 1.024 | 0.846 | 1.268 | 1.691 | 1.299 | 1.948 | 2.597 |
| | SM 50 | 0.598 | 0.798 | 0.997 | 0.623 | 0.935 | 1.247 | 1.029 | 1.544 | 2.059 | 1.581 | 2.371 | 3.162 |
| @ 0.25 $T_{KN}$ | SM 60 | 0.800 | 1.067 | 1.334 | 0.834 | 1.251 | 1.668 | 1.377 | 2.066 | 2.754 | 2.115 | 3.173 | 4.231 |
| | SM 70 | 1.286 | 1.714 | 2.143 | 1.340 | 2.010 | 2.680 | 2.212 | 3.318 | 4.424 | 3.397 | 5.096 | 6.795 |
| | SM 80 | 2.053 | 2.737 | 3.421 | 2.140 | 3.209 | 4.279 | 3.532 | 5.298 | 7.064 | 5.425 | 8.138 | 10.851 |
| | NM 45 | 0.745 | 0.994 | 1.242 | 0.777 | 1.165 | 1.554 | 1.283 | 1.924 | 2.565 | 1.970 | 2.955 | 3.940 |
| | SM 50 | 0.991 | 1.322 | 1.652 | 1.033 | 1.550 | 2.066 | 1.705 | 2.558 | 3.411 | 2.620 | 3.929 | 5.239 |
| @ 0.5 $T_{KN}$ | SM 60 | 1.207 | 1.609 | 2.011 | 1.258 | 1.887 | 2.516 | 2.076 | 3.115 | 4.153 | 3.189 | 4.784 | 6.379 |
| | SM 70 | 1.582 | 2.109 | 2.637 | 1.649 | 2.473 | 3.298 | 2.722 | 4.083 | 5.444 | 4.181 | 6.272 | 8.362 |
| | SM 80 | 2.512 | 3.349 | 4.187 | 2.618 | 3.927 | 5.237 | 4.322 | 6.484 | 8.645 | 6.639 | 9.959 | 13.279 |
| | NM 45 | 1.121 | 1.494 | 1.868 | 1.168 | 1.752 | 2.336 | 1.928 | 2.892 | 3.856 | 2.962 | 4.443 | 5.924 |
| | SM 50 | 1.445 | 1.927 | 2.409 | 1.506 | 2.259 | 3.012 | 2.486 | 3.730 | 4.973 | 3.819 | 5.729 | 7.639 |
| @ 0.75 $T_{KN}$ | SM 60 | 1.718 | 2.291 | 2.863 | 1.791 | 2.686 | 3.581 | 2.956 | 4.434 | 5.912 | 4.541 | 6.811 | 9.081 |
| | SM 70 | 2.136 | 2.848 | 3.560 | 2.226 | 3.339 | 4.453 | 3.675 | 5.513 | 7.350 | 5.645 | 8.468 | 11.290 |
| | SM 80 | 3.416 | 4.554 | 5.693 | 3.560 | 5.340 | 7.120 | 5.877 | 8.816 | 11.755 | 9.028 | 13.541 | 18.055 |
| | NM 45 | 1.640 | 2.186 | 2.733 | 1.709 | 2.563 | 3.418 | 2.821 | 4.232 | 5.642 | 4.333 | 6.500 | 8.667 |
| | SM 50 | 2.006 | 2.675 | 3.343 | 2.091 | 3.136 | 4.181 | 3.451 | 5.177 | 6.903 | 5.301 | 7.952 | 10.603 |
| @ 1.0 $T_{KN}$ | SM 60 | 2.299 | 3.066 | 3.832 | 2.397 | 3.595 | 4.793 | 3.956 | 5.935 | 7.913 | 6.077 | 9.116 | 12.154 |
| | SM 70 | 2.792 | 3.723 | 4.653 | 2.910 | 4.365 | 5.820 | 4.804 | 7.206 | 9.608 | 7.379 | 11.068 | 14.758 |
| | SM 80 | 4.608 | 6.145 | 7.681 | 4.803 | 7.205 | 9.606 | 7.929 | 11.894 | 15.859 | 12.180 | 18.270 | 24.359 |
| | NM 45 | 5544 | 7392 | 9240 | 4280 | 6420 | 8560 | 5058 | 7587 | 10116 | 5836 | 8754 | 11672 |
| RADIAL STIFFNESS | SM 50 | 6330 | 8440 | 10550 | 4888 | 7332 | 9776 | 5777 | 8666 | 11552 | 6665 | 10000 | 13330 |
| NO LOAD (N/mm) | SM 60 | 9500 | 12664 | 15828 | 7332 | 11000 | 14664 | 8665 | 13000 | 17330 | 10000 | 15000 | 20000 |
| | SM 70 | 12660 | 16884 | 21108 | 9776 | 14664 | 19550 | 11534 | 17300 | 23068 | 13330 | 20000 | 26660 |
| | SM 80 | 14880 | 19840 | 24800 | 11488 | 17232 | 22976 | 13576 | 20634 | 27150 | 15660 | 23500 | 31330 |
| | NM 45 | 9585 | 12780 | 15975 | 7400 | 11100 | 14800 | 8745 | 13118 | 17490 | 10100 | 15150 | 20200 |
| RADIAL STIFFNESS | SM 50 | 9500 | 12664 | 15828 | 7332 | 11000 | 14664 | 8665 | 13000 | 17330 | 10000 | 15000 | 20000 |
| @ $T_{KN}$ (N/mm) | SM 60 | 12660 | 16884 | 21108 | 9776 | 14664 | 19550 | 11550 | 17325 | 23100 | 13330 | 20000 | 26660 |
| | SM 70 | 15830 | 21100 | 26370 | 12220 | 18330 | 24440 | 14440 | 21660 | 28880 | 16660 | 24990 | 33320 |
| | SM 80 | 22160 | 29550 | 36940 | 17110 | 25665 | 34220 | 20220 | 30330 | 40440 | 23330 | 35000 | 46660 |
| | NM 45 | 2175 | 2900 | 3625 | 1679 | 2518 | 3358 | 1984 | 2976 | 3968 | 2290 | 3435 | 4580 |
| AXIAL STIFFNESS | SM 50 | 2550 | 3400 | 4250 | 1972 | 2960 | 3944 | 2332 | 3498 | 4334 | 2690 | 4035 | 5380 |
| (N/mm) | SM 60 | 4116 | 5488 | 6860 | 3177 | 4766 | 6354 | 3755 | 5632 | 7510 | 4333 | 6500 | 8666 |
| | SM 70 | 7347 | 9796 | 12245 | 5670 | 8505 | 11340 | 6702 | 10050 | 13400 | 7733 | 11600 | 15466 |
| | SM 80 | 12792 | 17056 | 21320 | 9875 | 14810 | 19750 | 11670 | 17500 | 23340 | 13466 | 20200 | 26932 |
| | NM 45 | 2880 | 3840 | 4800 | 2220 | 3330 | 4440 | 2630 | 3950 | 5260 | 3030 | 4540 | 6060 |
| MAXIMUM AXIAL (2) | SM 50 | 3960 | 5280 | 6600 | 3060 | 4580 | 6120 | 3600 | 5400 | 7200 | 4160 | 6250 | 8320 |
| LOAD AT POINT | SM 60 | 5070 | 6760 | 8450 | 3910 | 5860 | 7820 | 4620 | 6930 | 9240 | 5330 | 8000 | 10660 |
| OF SLIP @ $T_{KN}$ (N) | SM 70 | 6330 | 8440 | 10550 | 4880 | 7320 | 9760 | 5770 | 8660 | 11540 | 6660 | 9990 | 13320 |
| | SM 80 | 8850 | 11800 | 14750 | 6840 | 10260 | 13680 | 8090 | 12130 | 16180 | 9330 | 14000 | 18660 |

(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

(2) The Renold Hi-Tec Coupling will "slip" axially when the maximum axial force is reached.

# DCB Series 10 Technical Data

## End View - Series 10



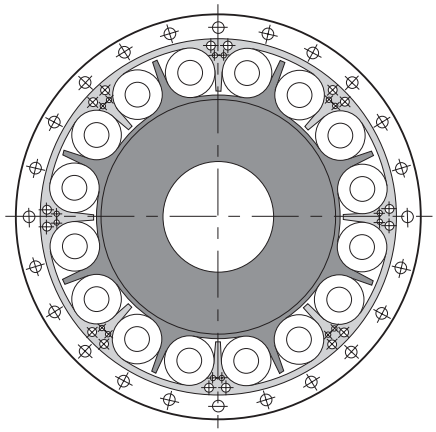
| COUPLING SIZE | | 10211.0 | 10311.0 | 10411.0 | 10213.0 | 10313.0 | 10413.0 | 10215.0 | 10315.0 | 10415.0 |
|---|---|---|---|---|---|---|---|---|---|---|
| NOMINAL TORQUE $T_{KN}$ (kNm) | | 106 | 160 | 213 | 177 | 266 | 354 | 278 | 417 | 556 |
| MAXIMUM TORQUE $T_{Kmax}$ (kNm) | | 319 | 479 | 639 | 513 | 797 | 1062 | 834 | 1250 | 1670 |
| VIBRATORY TORQUE $T_{KW}$ (kNm) | | 39.9 | 59.8 | 79.8 | 66.4 | 99.6 | 133.0 | 104.0 | 156.0 | 209.0 |
| ALLOWABLE | NM 45 | 510 | 765 | 1020 | 604 | 906 | 1208 | 696 | 1044 | 1392 |
| DISSIPATED | SM 50 | 568 | 852 | 1136 | 671 | 1008 | 1344 | 774 | 1161 | 1548 |
| HEAT AT AMB. | SM 60 | 643 | 965 | 1286 | 760 | 1140 | 1520 | 877 | 1315 | 1754 |
| TEMP. 30°C. (W) $P_{KW}$ | SM 70 | 719 | 1078 | 1438 | 850 | 1275 | 1700 | 980 | 1470 | 1960 |
| | SM 80 | 795 | 1192 | 1590 | 939 | 1409 | 1880 | 1083 | 1625 | 2166 |
| MAXIMUM SPEED (rpm) (1) | | 770 | 770 | 770 | 650 | 650 | 650 | 570 | 570 | 570 |
| DYNAMIC TORSIONAL STIFFNESS $C_{Tdyn}$ (MNm/rad) | | | | | | | | | | |
| | NM 45 | 0.760 | 1.141 | 1.521 | 1.280 | 1.921 | 2.561 | 2.083 | 3.125 | 4.167 |
| | SM 50 | 0.926 | 1.389 | 1.851 | 1.559 | 2.338 | 3.117 | 2.536 | 3.804 | 5.072 |
| @ 0.25 $T_{KN}$ | SM 60 | 1.239 | 1.858 | 2.477 | 2.086 | 3.128 | 4.171 | 3.393 | 5.090 | 6.787 |
| | SM 70 | 1.989 | 2.984 | 3.979 | 3.350 | 5.024 | 6.699 | 5.450 | 8.175 | 10.900 |
| | SM 80 | 3.177 | 4.765 | 6.354 | 5.349 | 8.023 | 10.698 | 8.703 | 13.055 | 17.407 |
| | NM 45 | 1.154 | 1.730 | 2.307 | 1.942 | 2.914 | 3.885 | 3.161 | 4.741 | 6.321 |
| | SM 50 | 1.534 | 2.301 | 3.068 | 2.583 | 3.874 | 5.165 | 4.202 | 6.303 | 8.404 |
| @ 0.5 $T_{KN}$ | SM 60 | 1.868 | 2.801 | 3.735 | 3.144 | 4.717 | 6.289 | 5.116 | 7.675 | 10.233 |
| | SM 70 | 2.448 | 3.672 | 4.896 | 4.122 | 6.183 | 8.244 | 6.707 | 10.061 | 13.415 |
| | SM 80 | 3.888 | 5.831 | 7.775 | 6.546 | 9.818 | 13.091 | 10.651 | 15.976 | 21.301 |
| | NM 45 | 1.734 | 2.601 | 3.468 | 2.920 | 4.380 | 5.840 | 4.751 | 7.127 | 9.502 |
| | SM 50 | 2.236 | 3.354 | 4.473 | 3.765 | 5.648 | 7.531 | 6.127 | 9.190 | 12.254 |
| @ 0.75 $T_{KN}$ | SM 60 | 2.659 | 3.988 | 5.317 | 4.477 | 6.715 | 8.953 | 7.284 | 10.926 | 14.568 |
| | SM 70 | 3.305 | 4.958 | 6.611 | 5.565 | 8.348 | 11.131 | 9.056 | 13.584 | 18.112 |
| | SM 80 | 5.286 | 7.929 | 10.572 | 8.900 | 13.350 | 17.800 | 14.482 | 21.723 | 28.964 |
| | NM 45 | 2.537 | 3.806 | 5.075 | 4.272 | 6.408 | 8.544 | 6.952 | 10.427 | 13.903 |
| | SM 50 | 3.104 | 4.656 | 6.208 | 5.226 | 7.840 | 10.453 | 8.504 | 12.756 | 17.009 |
| @ 1.0 $T_{KN}$ | SM 60 | 3.558 | 5.338 | 7.117 | 5.991 | 8.987 | 11.983 | 9.749 | 14.623 | 19.498 |
| | SM 70 | 4.321 | 6.481 | 8.641 | 7.275 | 10.912 | 14.509 | 11.837 | 17.755 | 23.674 |
| | SM 80 | 7.132 | 10.697 | 14.263 | 12.008 | 18.011 | 24.015 | 19.538 | 29.307 | 39.077 |
| | NM 45 | 5350 | 8025 | 10700 | 6322 | 9483 | 12644 | 7295 | 10942 | 14590 |
| RADIAL STIFFNESS | SM 50 | 6100 | 9150 | 12200 | 7220 | 10830 | 14440 | 8331 | 12500 | 16660 |
| NO LOAD (N/mm) | SM 60 | 9165 | 13747 | 18330 | 10830 | 16245 | 21660 | 12500 | 18750 | 25000 |
| | SM 70 | 12220 | 18330 | 24440 | 14418 | 21627 | 28836 | 16662 | 25000 | 33324 |
| | SM 80 | 14360 | 21540 | 28720 | 16970 | 25455 | 33940 | 19580 | 29370 | 39160 |
| | NM 45 | 9250 | 13875 | 18500 | 10930 | 16395 | 21860 | 12625 | 19838 | 25250 |
| RADIAL STIFFNESS | SM 50 | 9165 | 13748 | 18330 | 10830 | 16245 | 21660 | 12500 | 18750 | 25000 |
| @ $T_{KN}$ (N/mm) | SM 60 | 12220 | 18330 | 24440 | 14440 | 21660 | 28880 | 16660 | 24990 | 33320 |
| | SM 70 | 15275 | 22910 | 30550 | 18050 | 27075 | 36100 | 20825 | 31238 | 41650 |
| | SM 80 | 21380 | 32070 | 42760 | 25275 | 37912 | 50550 | 29163 | 43744 | 58326 |
| | NM 45 | 2100 | 3148 | 4200 | 2480 | 3720 | 4960 | 2862 | 4294 | 5724 |
| AXIAL STIFFNESS | SM 50 | 2465 | 3700 | 4930 | 2914 | 4372 | 5418 | 3362 | 5044 | 6724 |
| (N/mm) | SM 60 | 3970 | 5958 | 7942 | 4694 | 7040 | 11724 | 5416 | 8125 | 10832 |
| | SM 70 | 7088 | 10632 | 14175 | 8378 | 12560 | 16750 | 9666 | 14500 | 19332 |
| | SM 80 | 12345 | 18510 | 24688 | 14588 | 21875 | 29175 | 16833 | 2520 | 33666 |
| | NM 45 | 2780 | 4160 | 5550 | 3300 | 4940 | 6580 | 3790 | 5670 | 7580 |
| MAXIMUM AXIAL (2) | SM 50 | 3820 | 5720 | 7650 | 4500 | 6750 | 9000 | 5200 | 7820 | 10400 |
| LOAD AT POINT | SM 60 | 4880 | 7320 | 9800 | 5780 | 8660 | 11550 | 6660 | 10000 | 13320 |
| OF SLIP @ $T_{KN}$ (N) | SM 70 | 6100 | 9150 | 12200 | 7220 | 10820 | 14440 | 8320 | 12500 | 16640 |
| | SM 80 | 8550 | 12820 | 17100 | 10120 | 15160 | 20220 | 11660 | 17500 | 23320 |

(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

(2) The Renold Hi-Tec Coupling will "slip" axially when the maximum axial force is reached.

# DCB Series 16 Technical Data

## End View - Series 16



| COUPLING SIZE | | 16313.0 | 16413.0 | 16513.0 | 16315.0 | 16415.0 | 16515.0 |
|---|---|---|---|---|---|---|---|
| NOMINAL TORQUE $T_{KN}$ (kNm) | | 723 | 963 | 1200 | 1100 | 1470 | 1840 |
| MAXIMUM TORQUE $T_{Kmax}$ (kNm) | | 2170 | 2890 | 3610 | 3320 | 4520 | 5520 |
| VIBRATORY TORQUE $T_{KW}$ (kNm) | | 271 | 361 | 451 | 415 | 552 | 690 |
| ALLOWABLE | SM 50 | 1610 | 2147 | 2683 | 1857 | 2476 | 3095 |
| DISSIPATED HEAT AT | SM 60 | 1824 | 2432 | 3040 | 2105 | 2807 | 3508 |
| AMB. TEMP. 30°C. (W) $P_{KW}$ | SM 70 | 2038 | 2717 | 3397 | 2352 | 3136 | 3920 |
| MAXIMUM SPEED (rpm) (1) | | 490 | 490 | 490 | 390 | 390 | 390 |
| DYNAMIC TORSIONAL STIFFNESS $C_{Tdyn}$ (MNm/rad) | | | | | | | |
| | SM 50 | 6.056 | 8.075 | 10.094 | 9.278 | 12.371 | 15.464 |
| @ 0.25 $T_{KN}$ | SM 60 | 8.104 | 10.805 | 13.506 | 12.415 | 16.553 | 20.691 |
| | SM 70 | 13.015 | 17.354 | 21.692 | 19.939 | 26.586 | 33.232 |
| | SM 50 | 10.035 | 13.380 | 16.725 | 15.374 | 20.498 | 25.623 |
| @ 0.5 $T_{KN}$ | SM 60 | 12.218 | 16.291 | 20.364 | 18.718 | 24.957 | 31.197 |
| | SM 70 | 16.018 | 21.357 | 26.696 | 24.539 | 32.718 | 40.898 |
| | SM 50 | 14.631 | 19.508 | 24.385 | 22.414 | 29.886 | 37.357 |
| @ 0.75 $T_{KN}$ | SM 60 | 17.395 | 23.193 | 28.992 | 26.649 | 35.531 | 44.414 |
| | SM 70 | 21.626 | 28.835 | 36.043 | 33.130 | 44.174 | 55.217 |
| | SM 50 | 20.309 | 27.078 | 33.848 | 31.112 | 41.483 | 51.854 |
| @ 1.0 $T_{KN}$ | SM 60 | 23.281 | 31.041 | 38.801 | 35.665 | 47.554 | 59.442 |
| | SM 70 | 28.267 | 37.690 | 47.112 | 43.305 | 57.739 | 72.174 |
| RADIAL STIFFNESS | SM 50 | 17330 | 23100 | 28875 | 20000 | 26660 | 33325 |
| NO LOAD (N/mm) | SM 60 | 26000 | 34660 | 43325 | 30000 | 40000 | 50000 |
| | SM 70 | 34600 | 46133 | 57666 | 40000 | 53330 | 66660 |
| RADIAL STIFFNESS | SM 50 | 26000 | 34666 | 43333 | 30000 | 40000 | 50000 |
| @ $T_{KN}$ (N/mm) | SM 60 | 34650 | 46200 | 57750 | 40000 | 53330 | 66660 |
| | SM 70 | 43320 | 57760 | 72200 | 49980 | 66640 | 83300 |
| AXIAL STIFFNESS | SM 50 | 6996 | 9328 | 11660 | 8070 | 10080 | 13450 |
| (N/mm) | SM 60 | 11264 | 15000 | 18750 | 13000 | 17333 | 21666 |
| | SM 70 | 20100 | 26800 | 33500 | 23200 | 30933 | 38666 |
| MAXIMUM AXIAL (2) | SM 50 | 10800 | 14400 | 18000 | 12500 | 16660 | 20830 |
| LOAD AT POINT | SM 60 | 13860 | 18480 | 23100 | 16000 | 21330 | 26660 |
| OF SLIP @ $T_{KN}$ (N) | SM 70 | 17320 | 23100 | 28880 | 20000 | 26660 | 33330 |

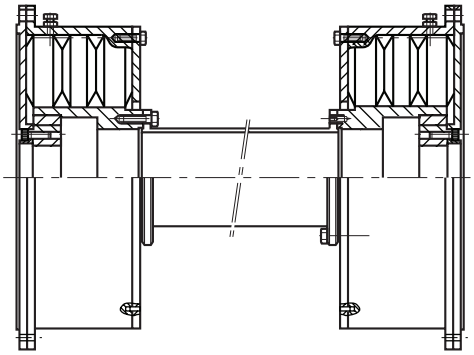
(1) For operation above 80% of the declared maximum coupling speed, it is recommended that the coupling is dynamically balanced.

(2) The Renold Hi-Tec Coupling will "slip" axially when the maximum axial force is reached.

# DCB Design Variations

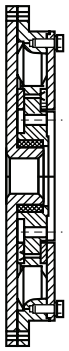
The DCB coupling can be adapted to meet customer requirements, as can be seen from the design variations shown below. For a more comprehesive list contact Renold Hi-Tec.

## Cardan Shaft Coupling



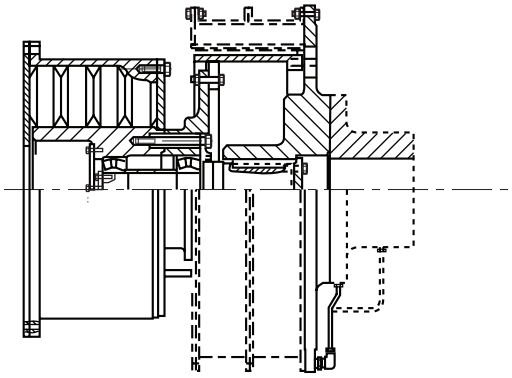
Cardan shaft coupling to give high misalignment capability, low axial and angular stiffness and high noise attenuation.

## Universal Joint Shaft Coupling



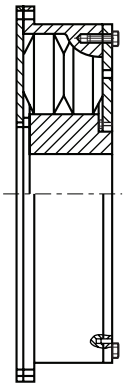
Coupling for use with a universal joint shaft. The coupling has radial and axial bearings to accept the sinusoidal loads from the universal joint shaft.

## Clutch Coupling



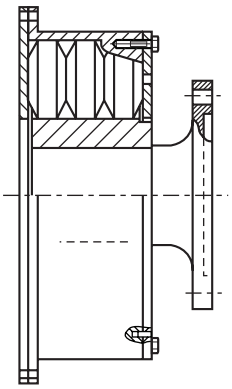
Clutch coupling to allow the drive to be engaged and disengaged.

## Limited End Float Coupling



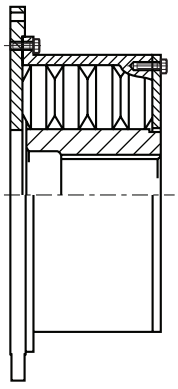
Limited end float coupling for use on applications where axial restraint is required, such as alternators with sleeve bearings.

## Stub Shaft Coupling



Stub shaft coupling for flywheel to flange application or when increased distance between the driving and driven machines is required.

## Adaptor Plate Coupling



Adaptor plate coupling for adapting the standard DCB coupling to meet customer requirements.