

# AUTOFLEX DISC COUPLINGS

## SERIES CCR - CLOSE COUPLED RADIAL SPLIT

The Autoflex CCR is offered in both a six and eight link disc design. The six-link design is suitable for medium duty high-speed applications. The CCR eight-link coupling has been designed for heavy-duty high-speed applications and is often offered when replacing out high performance gear couplings. This allows for easy conversion between lubricated couplings to a non-lubricated, zero maintenance disc style coupling.

The Autoflex CCR is comprised of two coupling hubs, two guard rings and two disc packs. The radial split guard rings are piloted ensuring the highest level of balance.

The CCR has been designed to meet AGMA class 9 as manufactured and can be balanced to meet the AGMA class 11 or API 610 8th edition requirements.

The coupling can be installed with hubs reversed, offering the maximum flexibility in DBSE selection. The coupling has been designed with scalloped discs making one of the most flexible couplings available today. In addition, the coupling comes with overload collars, which protects the coupling from high peak loads.

Refer to the Autoflex CCA for lower speed requirements.

### CCR - 6 LINK (MEDIUM DUTY)

#### Technical Details

| Coupling Size - Links | Rating HP/100 rpm | Torque Rating  |               | Maximum Speed ② |            | Weight (lbs) | Inertia (lb.in <sup>2</sup> ) | Misalignment ③ |               |
|-----------------------|-------------------|----------------|---------------|-----------------|------------|--------------|-------------------------------|----------------|---------------|
|                       |                   | Cont. (in.lbs) | Peak (in.lbs) | Unbal. (rpm)    | Bal. (rpm) |              |                               | Axial (in)     | Parallel (in) |
| 113 - 6               | 2.1               | 1,330          | 2,390         | 9,500           | 18,000     | 5.91         | 13.7                          | 0.030          | 0.016         |
| 163 - 6               | 4.9               | 3,100          | 5,490         | 8,300           | 15,000     | 10.4         | 33.6                          | 0.038          | 0.017         |
| 225 - 6               | 9.8               | 6,200          | 11,000        | 7,400           | 13,000     | 17.2         | 74.4                          | 0.044          | 0.020         |
| 231 - 6               | 18                | 11,500         | 23,000        | 6,900           | 11,000     | 23.3         | 139                           | 0.052          | 0.021         |
| 281 - 6               | 31                | 19,500         | 38,900        | 6,200           | 9,600      | 37.1         | 290                           | 0.062          | 0.025         |
| 325 - 6               | 46                | 29,200         | 58,400        | 5,600           | 8,300      | 56.1         | 580                           | 0.070          | 0.029         |
| 363 - 6               | 67                | 42,500         | 85,000        | 5,200           | 7,300      | 79.6         | 1,040                         | 0.080          | 0.032         |
| 413 - 6               | 98                | 61,200         | 124,000       | 4,900           | 6,800      | 104          | 1,690                         | 0.090          | 0.036         |
| 450 - 6               | 120               | 77,900         | 156,000       | 4,500           | 6,000      | 145          | 2,900                         | 0.098          | 0.041         |
| 544 - 6               | 180               | 115,000        | 230,000       | 4,100           | 5,400      | 214          | 5,300                         | 0.114          | 0.051         |

1) Weights and Inertias are calculated using maximum bored hubs.

2) Maximum Unbalanced Speeds are based on AGMA 9000-C90 Class 9 with min DBSE and max interference bored coupling hubs.

3) Maximum Parallel Offset is based on a minimum DBSE (1/2 Deg. Angular misalignment per disc pack).

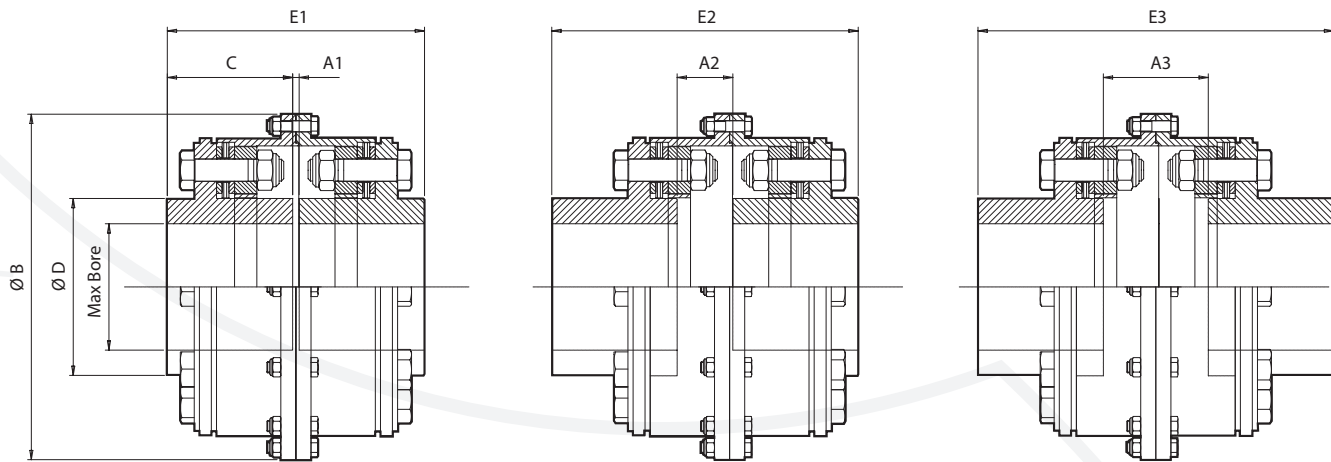
#### Dimensional Details

| Coupling Size - Links | Maximum Bore (in) | DBSE        |                   |                    | B (in) | C (in) | D (in) | E1 (in) | E2 (in) | E3 (in) |
|-----------------------|-------------------|-------------|-------------------|--------------------|--------|--------|--------|---------|---------|---------|
|                       |                   | A1 Min (in) | A2 1 Hub Rev (in) | A3 2 Hubs Rev (in) |        |        |        |         |         |         |
| 113 - 6               | 1 1/8             | 0.12        | 1.12              | 2.12               | 4.65   | 1.38   | 1.59   | 2.87    | 3.88    | 4.88    |
| 163 - 6               | 1 5/8             | 0.12        | 1.19              | 2.27               | 5.51   | 1.57   | 2.32   | 3.27    | 4.34    | 5.42    |
| 225 - 6               | 2 1/4             | 0.12        | 0.99              | 1.87               | 6.42   | 2.17   | 3.31   | 4.45    | 5.32    | 6.20    |
| 231 - 6               | 2 5/16            | 0.12        | 0.97              | 1.82               | 7.48   | 2.36   | 3.27   | 4.84    | 5.69    | 6.54    |
| 281 - 6               | 2 13/16           | 0.12        | 1.12              | 2.13               | 8.58   | 2.76   | 3.94   | 5.63    | 6.64    | 7.64    |
| 325 - 6               | 3 1/4             | 0.12        | 1.30              | 2.48               | 10.00  | 3.15   | 4.61   | 6.42    | 7.60    | 8.78    |
| 363 - 6               | 3 5/8             | 0.12        | 1.45              | 2.79               | 11.26  | 3.54   | 5.16   | 7.20    | 8.54    | 9.88    |
| 413 - 6               | 4 1/8             | 0.12        | 1.65              | 3.18               | 12.20  | 3.94   | 5.83   | 7.99    | 9.52    | 11.05   |
| 450 - 6               | 4 1/2             | 0.12        | 1.93              | 3.75               | 13.78  | 4.33   | 6.50   | 8.78    | 10.60   | 12.41   |
| 544 - 6               | 5 7/16            | 0.12        | 2.47              | 4.82               | 15.43  | 5.12   | 7.60   | 10.35   | 12.71   | 15.06   |

4) Maximum Bore assumes a standard AGMA interference fit with a square keyway. Larger bores are available using rectangular keys.

# AUTOFLEX DISC COUPLINGS

## SERIES CCR - CLOSE COUPLED RADIAL SPLIT



CCR 6 & 8 - Link Couplings

### CCR - 8 LINK (HEAVY DUTY)

#### Technical Details

| Coupling Size - Links | Rating HP/100 rpm | Torque Rating  |               | Maximum Speed ② |            | ① Weight (lbs) | ① Inertia (lb.in <sup>2</sup> ) | Misalignment ③ |               |
|-----------------------|-------------------|----------------|---------------|-----------------|------------|----------------|---------------------------------|----------------|---------------|
|                       |                   | Cont. (in.lbs) | Peak (in.lbs) | Unbal. (rpm)    | Bal. (rpm) |                |                                 | Axial (in)     | Parallel (in) |
| 269 - 8               | 47                | 29,800         | 59,700        | 6,200           | 9,700      | 37.1           | 268                             | 0.136          | 0.017         |
| 313 - 8               | 72                | 45,400         | 90,700        | 5,700           | 8,600      | 55.0           | 511                             | 0.155          | 0.020         |
| 350 - 8               | 100               | 65,800         | 132,000       | 5,200           | 7,800      | 77.1           | 876                             | 0.174          | 0.022         |
| 394 - 8               | 150               | 91,800         | 184,000       | 4,900           | 7,100      | 105            | 1,470                           | 0.193          | 0.024         |
| 431 - 8               | 200               | 125,000        | 250,000       | 4,500           | 6,400      | 143            | 2,430                           | 0.213          | 0.027         |
| 475 - 8               | 270               | 168,000        | 336,000       | 4,300           | 5,900      | 187            | 3,780                           | 0.232          | 0.029         |
| 488 - 8               | 350               | 221,000        | 443,000       | 4,000           | 5,600      | 236            | 5,340                           | 0.240          | 0.028         |
| 550 - 8               | 400               | 254,000        | 507,000       | 3,900           | 5,100      | 292            | 7,970                           | 0.273          | 0.037         |
| 588 - 8               | 500               | 318,000        | 635,000       | 3,700           | 4,800      | 364            | 11,400                          | 0.292          | 0.039         |
| 625 - 8               | 620               | 391,000        | 783,000       | 3,500           | 4,500      | 441            | 15,800                          | 0.312          | 0.043         |
| 750 - 8               | 1,000             | 641,000        | 1,280,000     | 3,100           | 3,800      | 708            | 35,100                          | 0.371          | 0.051         |
| 875 - 8               | 1,600             | 1,030,000      | 2,060,000     | 2,800           | 3,300      | 1,120          | 74,600                          | 0.432          | 0.061         |
| 1050 - 8              | 2,800             | 1,770,000      | 3,540,000     | 2,500           | 2,800      | 1,850          | 173,000                         | 0.514          | 0.069         |

1) Weights and Inertias are calculated using maximum bored hubs.

2) Maximum Unbalanced Speeds are based on AGMA 9000-C90 Class 9 with min DBSE and max interference bored coupling hubs.

3) Maximum Parallel Offset is based on a minimum DBSE (1/3 Deg. Angular misalignment per disc pack).

#### Dimensional Details

| Coupling Size - Links | ④ Maximum Bore (in) | DBSE        |                   |                    | B (in) | C (in) | D (in) | E1 (in) | E2 (in) | E3 (in) |
|-----------------------|---------------------|-------------|-------------------|--------------------|--------|--------|--------|---------|---------|---------|
|                       |                     | A1 Min (in) | A2 1 Hub Rev (in) | A3 2 Hubs Rev (in) |        |        |        |         |         |         |
| 269 - 8               | 2 11/16             | 0.16        | 1.22              | 2.28               | 8.54   | 2.76   | 3.86   | 5.67    | 6.73    | 7.80    |
| 313 - 8               | 3 1/8               | 0.16        | 1.34              | 2.52               | 9.65   | 3.15   | 4.45   | 6.46    | 7.64    | 8.82    |
| 350 - 8               | 3 1/2               | 0.20        | 1.54              | 2.87               | 10.59  | 3.54   | 5.00   | 7.28    | 8.62    | 9.96    |
| 394 - 8               | 3 15/16             | 0.20        | 1.61              | 3.03               | 11.69  | 3.94   | 5.55   | 8.07    | 9.49    | 10.91   |
| 431 - 8               | 4 5/16              | 0.24        | 1.81              | 3.39               | 12.99  | 4.33   | 6.14   | 8.90    | 10.47   | 12.05   |
| 475 - 8               | 4 3/4               | 0.24        | 1.97              | 3.70               | 13.98  | 4.72   | 6.73   | 9.69    | 11.42   | 13.15   |
| 488 - 8               | 4 7/8               | 0.24        | 1.85              | 3.46               | 14.80  | 4.92   | 6.89   | 10.08   | 11.69   | 13.31   |
| 550 - 8               | 5 1/2               | 0.28        | 2.64              | 5.00               | 16.14  | 5.71   | 7.91   | 11.69   | 14.06   | 16.42   |
| 588 - 8               | 5 7/8               | 0.31        | 2.76              | 5.20               | 17.40  | 6.10   | 8.46   | 12.52   | 14.96   | 17.40   |
| 625 - 8               | 6 1/4               | 0.31        | 3.07              | 5.83               | 18.39  | 6.50   | 9.02   | 13.31   | 16.06   | 18.82   |
| 750 - 8               | 7 1/2               | 0.39        | 3.62              | 6.85               | 21.65  | 7.68   | 10.79  | 15.75   | 18.98   | 22.20   |
| 875 - 8               | 8 3/4               | 0.47        | 4.25              | 8.03               | 25.28  | 9.06   | 12.56  | 18.58   | 22.36   | 26.14   |
| 1050 - 8              | 10 1/2              | 0.55        | 4.72              | 8.90               | 29.29  | 10.63  | 15.00  | 21.81   | 25.98   | 30.16   |

4) Maximum Bore assumes a standard AGMA interference fit with a square keyway. Larger bores are available using rectangular keys.