Reich Kupplungen

Reich USA Corporation

D2C
Designed to Customer

# R - FLEX

## ALL STEEL COUPLING

**Your drive is our strength. Your strength is our drive.**

# R-FLEX Disc Couplings

*The R-FLEX coupling is an all metal, maintenance free coupling manufactured to the highest standards for applications requiring no backlash and high torsional stiffness.*

With this product and our well trained Engineering staff, Reich USA can provide the right solution for your coupling requirements. This catalog shows the standard line of R-FLEX couplings to get you started. Please do not hesitate to contact our Engineering department for application advice or special designs.

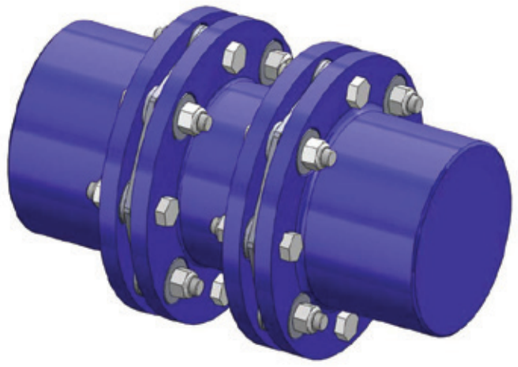


**Fig. 2** Double flex coupling with spacer

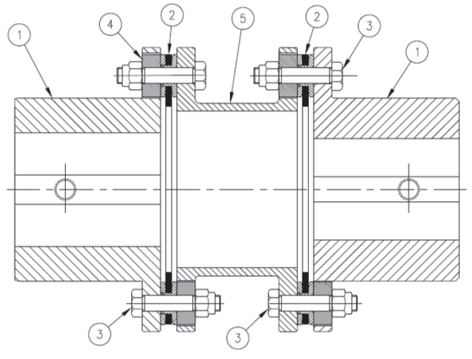



**Fig. 3** Double flex with spacer coupling components

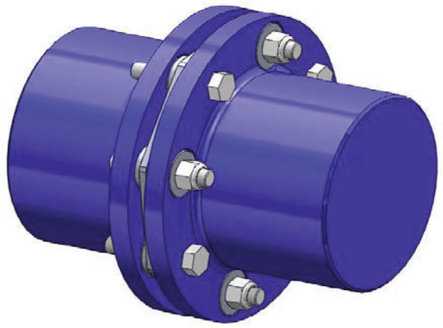


**Fig. 1** Single flex coupling without spacer

### R-FLEX Couplings Advantages and Features

- Torsionally rigid and backlash-free torque transmission
- All metal construction
- Low weight with high torque capacity
- High rotation speeds
- No maintenance or lubrication required
- Accommodate angular, axial and radial misalignments
- Operate at high and low temperatures
- Small reaction forces from shaft misalignment
- Possible to replace disc pack elements without displacement of coupled equipment
- Can be provided to meet API 610 and API 671 upon request
- Almost unlimited life and wear-free with proper shaft alignment

### Components:

1) Hub – Steel
2) Disc Pack – Stainless Steel
3) Bolts/Nuts – Alloy Steel
4) Washers – Steel
5) Center Spacer – Steel or Composite upon request



# R-FLEX Disc Couplings

### Coupling Selection

The selection of the coupling size depends mainly upon the required torque transmission and the shaft size(s) of the coupled components. However, other application conditions like shaft misalignments, application speeds or shaft expansion must be taken into consideration as well. For any special applications, please consult with Reich USA Engineers.

When selecting a coupling type and size, make sure that under all operating conditions the coupling nominal torque capacity or speed range is not exceeded.

1. Calculate the driving torque ($T_{AN}$) to be transmitted from:

$$T_{AN}(\text{lb-in}) = 63{,}000 \times \frac{\text{HP}}{\text{RPM}} \quad \text{or} \quad T_{AN}(\text{Nm}) = 9550 \times \frac{\text{P(kW)}}{\text{RPM}}$$

2. Determine the required coupling torque capacity ($T_{KN}$) by taking the proper service factor ($S_m$) into consideration in order to compensate for the operating characteristics of the driving and driven equipment. See Table 1.

$$T_{KN} \geqq T_{AN} \times S_m$$

NOTE: R-FLEX couplings can transmit for a short period a peak torque of up to 1.5 X TKN without considering an additional service factor.

3. Check if selected coupling is suitable for speed, shaft sizes, shaft misalignment and peak torque requirements.

### Example Calculation

An 125 HP (93.2 kw) electric motor is to drive a reciprocating compressor at 890 RPM. The motor shaft size is 3.5" (88.9 mm) and the compressor shaft is 3.0" (76.2 mm). Distance between shaft ends is approximately 5.25" (133.4 mm).

1. Driving torque $T_{AN} = 63{,}000 \times \frac{125}{890} = 8848$ lb-in

or $T_{AN} = 9550 \times \frac{93.2}{890} = 1000$ Nm

2. Required coupling torque capacity based on a service factor $S_m$ = 3.0 from Table 1:

$$T_{KN} \geqq 8848 \times 3.0 = 26{,}545 \text{ lb-in}$$
$$\text{or } \geqq 1000 \times 3.0 = 3000 \text{ Nm}$$

Selected coupling size: HBSX 650-8-AH

$$T_{KN} = 39{,}820 \text{ lb-in} \geqq 26{,}545 \text{ lb-in}$$
$$\text{or } T_{KN} = 4500 \text{ Nm} \geqq 3000 \text{ Nm}$$

3. This coupling will accommodate the 3.5" motor shaft and the 3.0" compressor shaft. The HBSX series provides the required DBSE of 5.25" (133.4 mm).

### Safety Notice

R-FLEX couplings are designed and manufactured to high standards and tolerances for reliable and safe operation. Any modifications not authorized by Reich USA that can compromise the working conditions of the couplings are not recommended. The couplings must only be used within the specified design limits to ensure their safe operation and long service life.

**Table 1** Service factor ($S_m$)

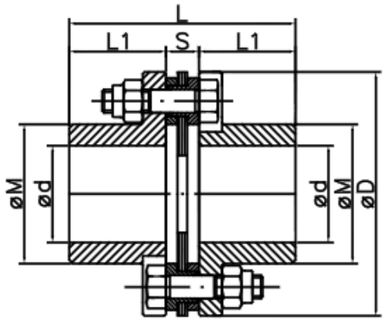
| Load | Driven Equipment | Driving Equipment | |
|---|---|---|---|
| | | Motor or Turbine | Reciprocating Engine |
| Uniform | Centrifugal Pumps; Conveyors-Even Loaded; Alternators; Fans and Blowers-light duty; Generators-even loaded; Mixers-liquid | 1.0 | 3.0 |
| Light Shock | Centrifugal Pumps; Generators-Pulsating Load; Grinders; Hydraulic Pumps; Machine Tools; Oscillating Pumps; Textile Machinery; Woodworking Machinery | 1.5 | 3.0 |
| Medium Shock | Air Compressors-Multi-Cylinder; Cranes; Elevators; Hoists; Punch Presses; Reciprocating Pumps; Ship Drives | 2.0 | 4.0 |
| Heavy Shock | Air Compressors-Single Cylinder; Dredges; Drilling Rigs; Mine Machinery; Rubber Mixers | 3.0 | 5.0 |

**NOTE:** The service factors listed are intended only as a general guide. If the working conditions (i.e. RPM, Power, starting frequency, temperature) change, it may be necessary to change the coupling selection.

# HN-4 Disc Coupling
# 4-Bolts Without Spacer

## Technical Data

**METRIC/INCH DATA**




| Size | Nominal Torque | | Maximum Torque | | Short Circuit Torque | | Max Axial Misalignment[1] | | Max Speed[2] |
|---|---|---|---|---|---|---|---|---|---|
| | [Nm] | [lb-in] | [Nm] | [lb-in] | [Nm] | [lb-in] | ± [mm] | ± [in] | [RPM] |
| **63-4** | 130 | 1150 | 195 | 1720 | 390 | 3450 | 1.1 | 0.043 | 30000 |
| **75-4** | 160 | 1410 | 240 | 2120 | 480 | 4240 | 1.4 | 0.055 | 25000 |
| **88-4** | 360 | 3180 | 540 | 4770 | 1080 | 9550 | 1.6 | 0.063 | 21500 |
| **98-4** | 420 | 3710 | 630 | 5570 | 1260 | 11100 | 1.9 | 0.075 | 19500 |
| **122-4** | 800 | 7080 | 1200 | 10600 | 2400 | 21200 | 2.2 | 0.087 | 15500 |
| **137-4** | 1300 | 11500 | 1950 | 17250 | 3900 | 34510 | 2.5 | 0.098 | 13500 |
| **162-4** | 1600 | 14160 | 2400 | 21240 | 4800 | 42480 | 3.2 | 0.126 | 11500 |
| **192-4** | 3200 | 28320 | 4800 | 42480 | 9600 | 84960 | 3.6 | 0.142 | 9500 |
| **215-4** | 3800 | 33630 | 5700 | 50440 | 11400 | 100900 | 4.1 | 0.161 | 8500 |

**Notes:**

1) Max angular misalignment = 0º30'; HBX-8 couplings have no parallel misalignment capability; $\Delta p = 0$
2) Max speeds (RPM) are calculated with the main components (hubs, adaptors, spacers, etc.) manufactured in carbon steel, dynamically balanced and standard dimensions. Please consult with Reich USA for the specific design and balance requirements based on the actual application speed.

Due to constantly improving our products, the figures and dimensions in this catalog are subject to change without prior notice

## Coupling Selection

Please contact Reich USA for the proper coupling pre-selection. With our technical expertise, Reich USA's engineers will help make the best pre-selection possible to minimize calculation time and cost, while optimizing the package assembly and maintenance features.



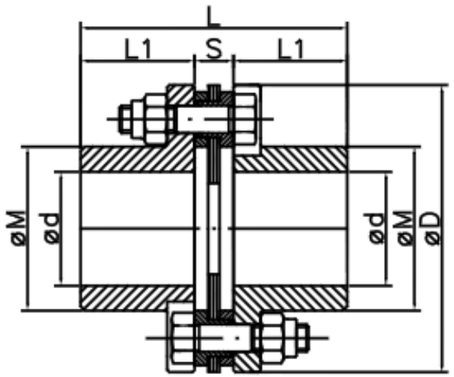
HN-4 Disc Coupling
4-Bolts Without Spacer

## Dimensional Data

**METRIC/INCH DIMENSIONS**

| Size | D [mm] | L [mm] | d max [mm] | L1 [mm] | S [mm] | M [mm] | Weight[1] [kg] | Inertia[1] [kg-m²] | Torsional stiffness[2] [Nm/rad] x 10⁶ |
|---|---|---|---|---|---|---|---|---|---|
| **63-4** | 63 | 58.5 | 25 | 25 | 8.5 | 36 | 0.4 | 0.0002 | 0.1280 |
| **75-4** | 75 | 78.5 | 35 | 35 | 8.5 | 48 | 0.8 | 0.0004 | 0.1600 |
| **88-4** | 88 | 89.0 | 38 | 40 | 9.0 | 53 | 1.2 | 0.0010 | 0.3000 |
| **98-4** | 98 | 99.5 | 45 | 45 | 9.5 | 64 | 1.8 | 0.0019 | 0.4000 |
| **122-4** | 122 | 120.5 | 55 | 55 | 10.5 | 75 | 3.2 | 0.0051 | 0.7900 |
| **137-4** | 137 | 143 | 60 | 65 | 13.0 | 85 | 5.0 | 0.0102 | 1.2600 |
| **162-4** | 162 | 173 | 80 | 80 | 13.0 | 110 | 8.2 | 0.0243 | 1.5500 |
| **192-4** | 192 | 194 | 90 | 90 | 14.0 | 124 | 13 | 0.0527 | 2.8200 |
| **215-4** | 215 | 225 | 100 | 105 | 15.0 | 143 | 19 | 0.0962 | 3.7300 |

| Size | D [in] | L [in] | d max [in] | L1 [in] | S [in] | M [in] | Weight[1] [lb] | Inertia[1] [lb-in²] | Torsional stiffness[2] [lb-in/rad] x 10⁶ |
|---|---|---|---|---|---|---|---|---|---|
| **63-4** | 2.48 | 2.30 | 0.98 | 0.98 | 0.33 | 1.42 | 0.9 | 0.632 | 1.133 |
| **75-4** | 2.95 | 3.09 | 1.38 | 1.38 | 0.33 | 1.89 | 1.7 | 1.518 | 1.416 |
| **88-4** | 3.46 | 3.50 | 1.50 | 1.57 | 0.35 | 2.09 | 2.6 | 3.492 | 2.655 |
| **98-4** | 3.86 | 3.92 | 1.77 | 1.77 | 0.37 | 2.52 | 3.9 | 6.463 | 3.540 |
| **122-4** | 4.80 | 4.74 | 2.17 | 2.17 | 0.41 | 2.95 | 7.0 | 17.52 | 6.992 |
| **137-4** | 5.39 | 5.63 | 2.36 | 2.56 | 0.51 | 3.35 | 11 | 34.96 | 11.152 |
| **162-4** | 6.38 | 6.81 | 3.15 | 3.15 | 0.51 | 4.33 | 18 | 83.16 | 13.719 |
| **192-4** | 7.56 | 7.64 | 3.54 | 3.54 | 0.55 | 4.88 | 28 | 180.2 | 24.959 |
| **215-4** | 8.46 | 8.86 | 3.94 | 4.13 | 0.59 | 5.63 | 43 | 328.6 | 33.013 |




**Notes:**

1) Weight and inertia are calculated with steel hubs, standard dimensions, with max bore "dmax", and hub maximum "M"
2) Torsional stiffness is given between hub flanges for standard dimensions (spacer, element blades, bolts, adaptors, etc.)

Other hub and length dimensions available upon request

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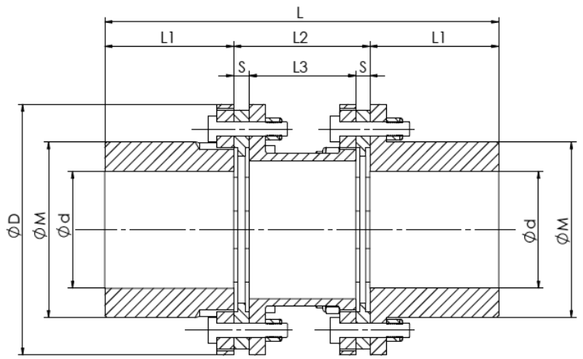
# HNS-4 Disc Coupling
# 4-Bolts With Spacer

## Technical Data

**METRIC/INCH DATA**




| Size | Nominal Torque | | Maximum Torque | | Short Circuit Torque | | Max Misalignment[1] | | | | Max Speed[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Axial | | Parallel | | |
| | [Nm] | [lb-in] | [Nm] | [lb-in] | [Nm] | [lb-in] | ± [mm] | ± [in] | [mm] | [in] | [RPM] |
| **63-4** | 130 | 1150 | 195 | 1720 | 390 | 3450 | 2.2 | 0.087 | 0.81 | 0.032 | 30000 |
| **75-4** | 160 | 1410 | 240 | 2120 | 480 | 4240 | 2.8 | 0.110 | 0.81 | 0.032 | 25000 |
| **88-4** | 360 | 3180 | 540 | 4770 | 1080 | 9550 | 3.2 | 0.126 | 1.07 | 0.042 | 21500 |
| **98-4** | 420 | 3710 | 630 | 5570 | 1260 | 11100 | 3.8 | 0.150 | 1.06 | 0.042 | 19500 |
| **122-4** | 800 | 7080 | 1200 | 10600 | 2400 | 21200 | 4.4 | 0.173 | 1.30 | 0.051 | 15500 |
| **137-4** | 1300 | 11500 | 1950 | 17250 | 3900 | 34510 | 5.0 | 0.197 | 1.52 | 0.060 | 13500 |
| **162-4** | 1600 | 14160 | 2400 | 21240 | 4800 | 42480 | 6.4 | 0.252 | 1.52 | 0.060 | 11500 |
| **192-4** | 3200 | 28320 | 4800 | 42480 | 9600 | 84960 | 7.2 | 0.283 | 1.85 | 0.073 | 9500 |
| **215-4** | 3800 | 33630 | 5700 | 50440 | 11400 | 100900 | 8.4 | 0.331 | 1.83 | 0.072 | 8500 |

**Notes:**

1) Max angular misalignment = 0°30'; HBX-8 couplings have no parallel misalignment capability; $\Delta p = 0$
2) Max speeds (RPM) are calculated with the main components (hubs, adaptors, spacers, etc.) manufactured in carbon steel, dynamically balanced and standard dimensions. Please consult with Reich USA for the specific design and balance requirements based on the actual application speed.

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## Coupling Selection

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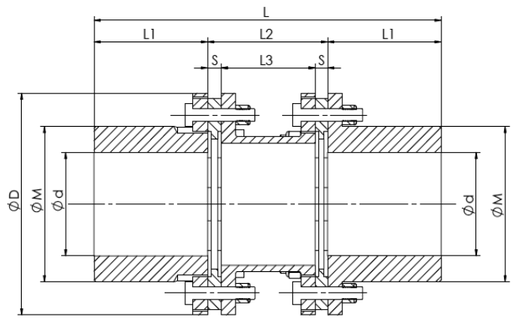
HNS-4 Disc Coupling
4-Bolts With Spacer

## Dimensional Data

**METRIC/INCH DIMENSIONS**

| Size | D [mm] | L [mm] | d max [mm] | L1 [mm] | S [mm] | L2 [mm] | L3 [mm] | M [mm] | Weight[1] [kg] | Inertia[1] [kg-m$^2$] | Torsional stiffness[2] [Nm/rad] x $10^6$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **63-4** | 63 | 105 | 25 | 25 | 8.5 | 55 | 38 | 36 | 0.7 | 0.0004 | 0.0375 |
| **75-4** | 75 | 125 | 35 | 35 | 8.5 | 55 | 38 | 48 | 1.2 | 0.0008 | 0.0599 |
| **88-4** | 88 | 150 | 38 | 40 | 9.0 | 70 | 52 | 53 | 2.0 | 0.0018 | 0.0976 |
| **98-4** | 98 | 160 | 45 | 45 | 9.5 | 70 | 51 | 64 | 2.7 | 0.0031 | 0.1423 |
| **122-4** | 122 | 195 | 55 | 55 | 10.5 | 85 | 64 | 75 | 5.0 | 0.0089 | 0.2690 |
| **137-4** | 137 | 230 | 60 | 65 | 13.0 | 100 | 74 | 85 | 7.9 | 0.0177 | 0.4583 |
| **162-4** | 162 | 260 | 80 | 80 | 13.0 | 100 | 74 | 110 | 11.9 | 0.0385 | 0.6546 |
| **192-4** | 192 | 300 | 90 | 90 | 14.0 | 120 | 92 | 124 | 19.3 | 0.0872 | 1.0985 |
| **215-4** | 215 | 330 | 100 | 105 | 15.0 | 120 | 90 | 143 | 27.6 | 0.1535 | 1.5672 |

| Size | D [in] | L [in] | d max [in] | L1 [in] | S [in] | L2 [in] | L3 [in] | M [in] | Weight[1] [lb] | Inertia[1] [lb-in$^2$] | Torsional stiffness[2] [lb-in/rad] x $10^6$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **63-4** | 2.48 | 4.13 | 0.98 | 0.98 | 0.33 | 2.17 | 1.50 | 1.42 | 1.6 | 1.230 | 0.332 |
| **75-4** | 2.95 | 4.92 | 1.38 | 1.38 | 0.33 | 2.17 | 1.50 | 1.89 | 2.6 | 2.629 | 0.530 |
| **88-4** | 3.46 | 5.91 | 1.50 | 1.57 | 0.35 | 2.76 | 2.05 | 2.09 | 4.4 | 6.311 | 0.864 |
| **98-4** | 3.86 | 6.30 | 1.77 | 1.77 | 0.37 | 2.76 | 2.01 | 2.52 | 5.9 | 10.65 | 1.259 |
| **122-4** | 4.80 | 7.68 | 2.17 | 2.17 | 0.41 | 3.35 | 2.52 | 2.95 | 10.9 | 30.33 | 2.381 |
| **137-4** | 5.39 | 9.06 | 2.36 | 2.56 | 0.51 | 3.94 | 2.91 | 3.35 | 17.5 | 60.50 | 4.056 |
| **162-4** | 6.38 | 10.24 | 3.15 | 3.15 | 0.51 | 3.94 | 2.91 | 4.33 | 26.2 | 131.6 | 5.794 |
| **192-4** | 7.56 | 11.81 | 3.54 | 3.54 | 0.55 | 4.72 | 3.62 | 4.88 | 42.6 | 298.0 | 9.722 |
| **215-4** | 8.46 | 12.99 | 3.94 | 4.13 | 0.59 | 4.72 | 3.54 | 5.63 | 60.8 | 524.6 | 13.871 |




**Notes:**

1) Weight and inertia are calculated with steel hubs, standard dimensions, with max bore "dmax", and hub maximum "M"
2) Torsional stiffness is given between hub flanges for standard dimensions (spacer, element blades, bolts, adaptors, etc.)

Other hub and length dimensions available upon request

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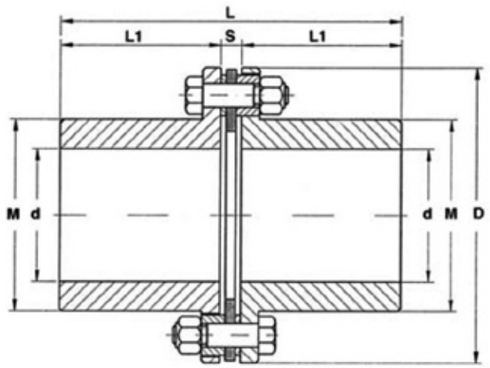
# GCX-4 Disc Coupling
# 4-Bolts Without Spacer

## Technical Data

**METRIC/INCH DATA**




| Size | Nominal Torque | | Maximum Torque | | Short Circuit Torque | | Max Axial Misalignment[1] | | Max Speed[2] |
|---|---|---|---|---|---|---|---|---|---|
| | [Nm] | [lb-in] | [Nm] | [lb-in] | [Nm] | [lb-in] | ± [mm] | ± [in] | [RPM] |
| 9-4 | 60 | 530 | 90 | 800 | 180 | 1590 | 1.0 | 0.039 | 5000 |
| 13-4 | 90 | 800 | 135 | 1190 | 270 | 2390 | 1.4 | 0.055 | 4500 |
| 26-4 | 180 | 1590 | 270 | 2390 | 540 | 4780 | 1.6 | 0.063 | 4300 |
| 36-4 | 250 | 2210 | 375 | 3320 | 750 | 6640 | 1.8 | 0.071 | 4200 |
| 80-4 | 560 | 4960 | 840 | 7430 | 1680 | 14870 | 2.1 | 0.083 | 4000 |
| 125-4 | 900 | 7970 | 1350 | 11950 | 2700 | 23900 | 2.4 | 0.094 | 3800 |
| 160-4 | 1100 | 9740 | 1650 | 14600 | 3300 | 29210 | 3.0 | 0.118 | 3600 |
| 255-4 | 1800 | 15930 | 2700 | 23900 | 5400 | 47790 | 3.5 | 0.138 | 3000 |
| 345-4 | 2400 | 21240 | 3600 | 31860 | 7200 | 63720 | 4.0 | 0.157 | 3000 |
| 560-4 | 3900 | 34520 | 5850 | 51780 | 11700 | 103550 | 4.5 | 0.177 | 3000 |
| 800-4 | 5600 | 49560 | 8400 | 74350 | 16800 | 148690 | 5.0 | 0.197 | 3000 |

**Notes:**

1) Max angular misalignment = 0°30'; HBX-8 couplings have no parallel misalignment capability; $\Delta p = 0$
2) Max speeds (RPM) are calculated with the main components (hubs, adaptors, spacers, etc.) manufactured in carbon steel, dynamically balanced and standard dimensions. Please consult with Reich USA for the specific design and balance requirements based on the actual application speed.

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## Coupling Selection

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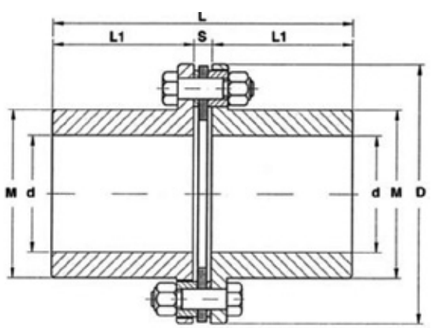
GCX-4 Disc Coupling
4-Bolts Without Spacer

## Dimensional Data

**METRIC/INCH DIMENSIONS**

| Size | D [mm] | L [mm] | d min [mm] | d max [mm] | L1 [mm] | S [mm] | M [mm] | Weight[1] [kg] | Inertia[1] [kg-m$^2$] | Torsional stiffness[2] [Nm/rad] x $10^6$ |
|---|---|---|---|---|---|---|---|---|---|---|
| 9-4 | 67 | 57.5 | 13 | 23 | 25 | 7.5 | 33 | 0.5 | 0.0002 | 0.0736 |
| 13-4 | 81 | 107 | 13 | 32 | 50 | 7 | 46 | 1.4 | 0.0008 | 0.1128 |
| 26-4 | 93 | 118 | 13 | 35 | 55 | 8 | 50 | 2.1 | 0.0016 | 0.2394 |
| 36-4 | 104 | 118.5 | 13 | 42 | 55 | 8.5 | 61 | 3.1 | 0.0028 | 0.3178 |
| 80-4 | 126 | 141.5 | 17 | 50 | 65 | 11.5 | 72 | 5.6 | 0.0076 | 0.6877 |
| 125-4 | 143 | 151.5 | 17 | 58 | 70 | 11.5 | 82 | 5.9 | 0.0135 | 1.0919 |
| 160-4 | 168 | 193.5 | 17 | 75 | 90 | 13.5 | 105 | 10.1 | 0.0304 | 1.3803 |
| 255-4 | 194 | 215.5 | 20 | 85 | 100 | 15.5 | 118 | 15.1 | 0.0618 | 2.2494 |
| 345-4 | 214 | 246 | 20 | 95 | 115 | 16 | 137 | 21.3 | 0.1051 | 2.8204 |
| 560-4 | 246 | 279 | 20 | 110 | 130 | 19 | 156 | 31.3 | 0.2078 | 4.7382 |
| 800-4 | 275 | 307 | 20 | 120 | 140 | 27 | 168 | 44.9 | 0.3811 | 9.9277 |

| Size | D [in] | L [in] | min [in] | max [in] | L1 [in] | S [in] | M [in] | Weight[1] [lb] | Inertia[1] [lb-in$^2$] | Torsional stiffness[2] [lb-in/rad] x $10^6$ |
|---|---|---|---|---|---|---|---|---|---|---|
| 9-4 | 2.64 | 2.26 | 0.51 | 0.91 | 0.98 | 0.30 | 1.30 | 1.1 | 0.8213 | 0.6514 |
| 13-4 | 3.19 | 4.21 | 0.51 | 1.26 | 1.97 | 0.28 | 1.81 | 3.1 | 2.690 | 0.9984 |
| 26-4 | 3.66 | 4.65 | 0.51 | 1.38 | 2.17 | 0.31 | 1.97 | 4.6 | 5.467 | 2.119 |
| 36-4 | 4.09 | 4.67 | 0.51 | 1.65 | 2.17 | 0.33 | 2.40 | 6.8 | 9.568 | 2.813 |
| 80-4 | 4.96 | 5.57 | 0.67 | 1.97 | 2.56 | 0.45 | 2.83 | 12.3 | 25.97 | 6.087 |
| 125-4 | 5.63 | 5.96 | 0.67 | 2.28 | 2.76 | 0.45 | 3.23 | 12.9 | 46.27 | 9.664 |
| 160-4 | 6.61 | 7.62 | 0.67 | 2.95 | 3.54 | 0.53 | 4.13 | 22.3 | 103.8 | 12.217 |
| 255-4 | 7.64 | 8.48 | 0.79 | 3.35 | 3.94 | 0.61 | 4.65 | 33.3 | 211.3 | 19.909 |
| 345-4 | 8.43 | 9.69 | 0.79 | 3.74 | 4.53 | 0.63 | 5.39 | 47.0 | 359.0 | 24.963 |
| 560-4 | 9.69 | 11.0 | 0.79 | 4.33 | 5.12 | 0.75 | 6.14 | 69.0 | 710.1 | 41.936 |
| 800-4 | 10.83 | 12.1 | 0.79 | 4.72 | 5.51 | 1.06 | 6.61 | 99.0 | 1302 | 87.867 |




**Notes:**

1) Weight and inertia are calculated with steel hubs, standard dimensions, with max bore "dmax", and hub maximum "M"
2) Torsional stiffness is given between hub flanges for standard dimensions (spacer, element blades, bolts, adaptors, etc.)

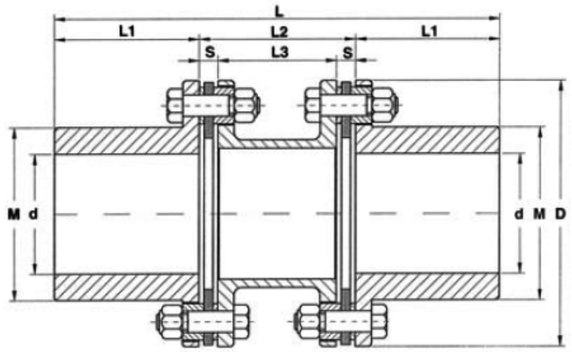
Other hub and length dimensions available upon request

Figures and dimensions in this catalog may change without prior notice

# GCSX-4 Disc Coupling
# 4-Bolts With Spacer

## Technical Data

**METRIC/INCH DIMENSIONS**




| Size | Nominal Torque | | Maximum Torque | | Short Circuit Torque | | Max Misalignment[1] | | | | Max Speed[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Axial | | Parallel | | |
| | [Nm] | [lb-in] | [Nm] | [lb-in] | [Nm] | [lb-in] | ± [mm] | ± [in] | [mm] | [in] | [RPM] |
| **9-4** | 60 | 530 | 90 | 800 | 180 | 1590 | 2.0 | 0.079 | 0.83 | 0.033 | 5000 |
| **13-4** | 90 | 800 | 135 | 1190 | 270 | 2390 | 2.8 | 0.110 | 0.856 | 0.034 | 4500 |
| **26-4** | 180 | 1590 | 270 | 2390 | 540 | 4780 | 3.2 | 0.126 | 0.995 | 0.039 | 4300 |
| **36-4** | 250 | 2210 | 375 | 3320 | 750 | 6640 | 3.6 | 0.142 | 1.161 | 0.046 | 4200 |
| **80-4** | 560 | 4960 | 840 | 7430 | 1680 | 14870 | 4.2 | 0.165 | 1.248 | 0.049 | 4000 |
| **125-4** | 900 | 7970 | 1350 | 11950 | 2700 | 23900 | 4.8 | 0.189 | 1.633 | 0.064 | 3800 |
| **160-4** | 1100 | 9740 | 1650 | 14600 | 3300 | 29210 | 6.0 | 0.236 | 1.650 | 0.065 | 3600 |
| **255-4** | 1800 | 15930 | 2700 | 23900 | 5400 | 47790 | 7.0 | 0.276 | 2.156 | 0.085 | 3000 |
| **345-4** | 2400 | 21240 | 3600 | 31860 | 7200 | 63720 | 8.0 | 0.315 | 2.567 | 0.101 | 3000 |
| **560-4** | 3900 | 34520 | 5850 | 51780 | 11700 | 103550 | 9.0 | 0.354 | 2.619 | 0.103 | 3000 |
| **800-4** | 5600 | 49560 | 8400 | 74350 | 16800 | 148690 | 10.0 | 0.394 | 3.265 | 0.129 | 3000 |

**Notes:**

1) Max angular misalignment = 0°30'; HBX-8 couplings have no parallel misalignment capability; $\Delta p = 0$
2) Max speeds (RPM) are calculated with the main components (hubs, adaptors, spacers, etc.) manufactured in carbon steel, dynamically balanced and standard dimensions. Please consult with Reich USA for the specific design and balance requirements based on the actual application speed.

Due to constantly improving our products, the figures and dimensions in this catalog are subject to change without prior notice

## Coupling Selection

Please contact Reich USA for the proper coupling pre-selection. With our technical expertise, Reich USA's engineers will help make the best pre-selection possible to minimize calculation time and cost, while optimizing the package assembly and maintenance features.



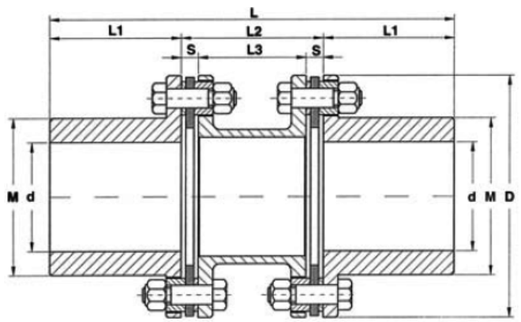
GCSX-4 Disc Coupling
4-Bolts With Spacer

## Dimensional Data

METRIC/INCH DIMENSIONS

| Size | D [mm] | L [mm] | d min [mm] | d max [mm] | L1 [mm] | S [mm] | L2 [mm] | L3 [mm] | M [mm] | Weight[1] [kg] | Inertia[1] [kg-m$^2$] | Torsional stiffness[2] [Nm/rad] x $10^6$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **9-4** | 67 | 105 | 13 | 23 | 25 | 7.5 | 55 | 40 | 33 | 0.9 | 0.0004 | 0.0314 |
| **13-4** | 81 | 156 | 13 | 32 | 50 | 7.0 | 56 | 42 | 46 | 2.1 | 0.0015 | 0.0549 |
| **26-4** | 93 | 175 | 13 | 35 | 55 | 8.0 | 65 | 49 | 50 | 3.2 | 0.0029 | 0.0814 |
| **36-4** | 104 | 185 | 13 | 42 | 55 | 8.5 | 75 | 58 | 61 | 4.5 | 0.0049 | 0.1275 |
| **80-4** | 126 | 213 | 17 | 50 | 65 | 11.5 | 83 | 60 | 72 | 8.2 | 0.0133 | 0.2521 |
| **125-4** | 143 | 245 | 17 | 58 | 70 | 11.5 | 105 | 82 | 82 | 9.9 | 0.0245 | 0.4140 |
| **160-4** | 168 | 288 | 17 | 75 | 90 | 13.5 | 108 | 81 | 105 | 15.1 | 0.0513 | 0.5062 |
| **255-4** | 194 | 339 | 20 | 85 | 100 | 15.5 | 139 | 108 | 118 | 23.6 | 0.1076 | 0.8466 |
| **345-4** | 214 | 393 | 20 | 95 | 115 | 16.0 | 163 | 131 | 137 | 31.8 | 0.1730 | 1.1321 |
| **560-4** | 246 | 429 | 20 | 110 | 130 | 19.0 | 169 | 131 | 156 | 46.3 | 0.3428 | 1.6785 |
| **800-4** | 275 | 494 | 20 | 120 | 140 | 27.0 | 214 | 160 | 168 | 70.9 | 0.6632 | 2.9558 |

| Size | D [in] | L [in] | d min [in] | d max [in] | L1 [in] | S [in] | L2 [in] | L3 [in] | M [in] | Weight[1] [lb] | Inertia[1] [lb-in$^2$] | Torsional stiffness[2] [lb-in/rad] x $10^6$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **9-4** | 2.64 | 4.13 | 0.51 | 0.91 | 0.98 | 0.30 | 2.17 | 1.57 | 1.30 | 2.0 | 1.505 | 0.278 |
| **13-4** | 3.19 | 6.14 | 0.51 | 1.26 | 1.97 | 0.28 | 2.20 | 1.65 | 1.81 | 4.6 | 5.126 | 0.486 |
| **26-4** | 3.66 | 6.89 | 0.51 | 1.38 | 2.17 | 0.31 | 2.56 | 1.93 | 1.97 | 7.1 | 9.910 | 0.720 |
| **36-4** | 4.09 | 7.28 | 0.51 | 1.65 | 2.17 | 0.33 | 2.95 | 2.28 | 2.40 | 9.9 | 16.74 | 1.128 |
| **80-4** | 4.96 | 8.39 | 0.67 | 1.97 | 2.56 | 0.45 | 3.27 | 2.36 | 2.83 | 18.1 | 45.45 | 2.231 |
| **125-4** | 5.63 | 9.65 | 0.67 | 2.28 | 2.76 | 0.45 | 4.13 | 3.23 | 3.23 | 21.7 | 83.78 | 3.664 |
| **160-4** | 6.61 | 11.34 | 0.67 | 2.95 | 3.54 | 0.53 | 4.25 | 3.19 | 4.13 | 33.3 | 175.2 | 4.480 |
| **255-4** | 7.64 | 13.35 | 0.79 | 3.35 | 3.94 | 0.61 | 5.47 | 4.25 | 4.65 | 52.0 | 367.7 | 7.493 |
| **345-4** | 8.43 | 15.47 | 0.79 | 3.74 | 4.53 | 0.63 | 6.42 | 5.16 | 5.39 | 70.1 | 591.3 | 10.020 |
| **560-4** | 9.69 | 16.89 | 0.79 | 4.33 | 5.12 | 0.75 | 6.65 | 5.16 | 6.14 | 102.1 | 1171 | 14.856 |
| **800-4** | 10.83 | 19.45 | 0.79 | 4.72 | 5.51 | 1.06 | 8.43 | 6.30 | 6.61 | 156.3 | 2266 | 26.161 |




**Notes:**

1) Weight and inertia are calculated with steel hubs, standard dimensions, with max bore "dmax", and hub maximum "M"
2) Torsional stiffness is given between hub flanges for standard dimensions (spacer, element blades, bolts, adaptors, etc.)

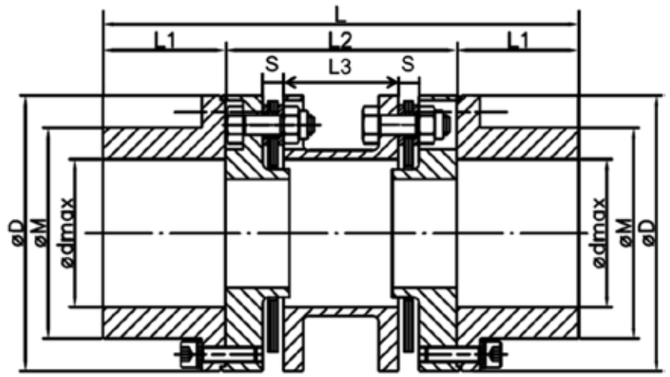
Other hub and length dimensions available upon request

Figures and dimensions in this catalog may change without prior notice

# HNS-AH-6 Disc Coupling
# 6-Bolts With Dropout Spacer

## Technical Data

**METRIC/INCH DATA**




| Size | Nominal Torque | | Maximum Torque | | Short Circuit Torque | | Maximum Misalignment[1] | | | | Max Speed[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Axial | | Parallel | | |
| | [Nm] | [lb-in] | [Nm] | [lb-in] | [Nm] | [lb-in] | ± [mm] | ± [in] | [mm] | [in] | [RPM] |
| **85-6** | 320 | 2830 | 480 | 4250 | 960 | 8500 | 2.0 | 0.079 | 0.49 | 0.019 | 22500 |
| **105-6** | 750 | 6640 | 1125 | 9960 | 2250 | 19910 | 2.4 | 0.094 | 0.60 | 0.024 | 18000 |
| **125-6** | 950 | 8410 | 1425 | 12610 | 2850 | 25220 | 3.2 | 0.126 | 0.60 | 0.023 | 15000 |
| **140-6** | 1600 | 14160 | 2400 | 21240 | 4800 | 42480 | 3.4 | 0.134 | 0.67 | 0.027 | 13500 |
| **160-6** | 2800 | 24780 | 4200 | 37170 | 8400 | 74350 | 3.8 | 0.150 | 0.82 | 0.032 | 12000 |
| **185-6** | 5500 | 48680 | 8250 | 73020 | 16500 | 146040 | 4.2 | 0.165 | 0.96 | 0.038 | 10000 |
| **205-6** | 6700 | 59300 | 10050 | 88950 | 20100 | 177900 | 4.8 | 0.189 | 1.01 | 0.040 | 9000 |

**Notes:**

1) Max angular misalignment = 0°30'; HBX-8 couplings have no parallel misalignment capability; $\Delta p = 0$
2) Max speeds (RPM) are calculated with the main components (hubs, adaptors, spacers, etc.) manufactured in carbon steel, dynamically balanced and standard dimensions. Please consult with Reich USA for the specific design and balance requirements based on the actual application speed.

Due to constantly improving our products, the figures and dimensions in this catalog are subject to change without prior notice

## Coupling Selection

Please contact Reich USA for the proper coupling pre-selection. With our technical expertise, Reich USA's engineers will help make the best pre-selection possible to minimize calculation time and cost, while optimizing the package assembly and maintenance features.



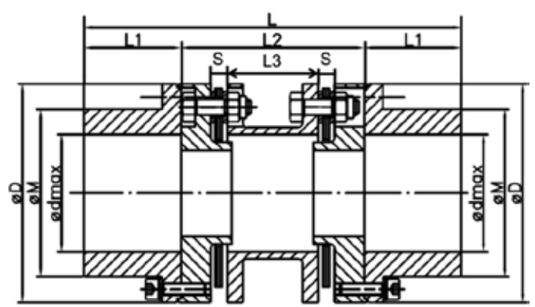
HNS-AH-6 Disc Coupling
6-Bolts With Dropout Spacer

## Dimensional Data

**METRIC/INCH DIMENSIONS**

| Size | D [mm] | L [mm] | d max [mm] | L1 [mm] | S [mm] | L2 [mm] | L3 [mm] | M [mm] | Weight[1] [kg] | Inertia[1] [kg-m²] | Torsional stiffness[2] [Nm/rad] x 10⁶ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **85-6** | 85 | 150 | 42 | 40 | 8.5 | 70 | 29 | 59 | 2.7 | 0.0025 | 0.1862 |
| **105-6** | 105 | 175 | 55 | 45 | 9.0 | 85 | 37 | 79 | 5.1 | 0.0075 | 0.3989 |
| **125-6** | 125 | 195 | 70 | 55 | 9.5 | 85 | 36 | 98 | 7.8 | 0.0166 | 0.6439 |
| **140-6** | 140 | 224 | 75 | 62 | 10.5 | 100 | 41 | 107 | 12.0 | 0.0320 | 1.0833 |
| **160-6** | 160 | 260 | 90 | 70 | 13.0 | 120 | 50 | 123 | 17.3 | 0.0617 | 1.7289 |
| **185-6** | 185 | 325 | 105 | 90 | 14.0 | 145 | 59 | 143 | 28.4 | 0.1311 | 2.6874 |
| **205-6** | 205 | 340 | 120 | 95 | 15.0 | 150 | 62 | 163 | 37.5 | 0.2251 | 3.7580 |

| Size | D [in] | L [in] | d max [in] | L1 [in] | S [in] | L2 [in] | L3 [in] | M [in] | Weight[1] [lb] | Inertia[1] [lb-in²] | Torsional stiffness[2] [lb-in/rad] x 10⁶ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **85-6** | 3.35 | 5.91 | 1.65 | 1.57 | 0.33 | 2.76 | 1.14 | 2.32 | 6.0 | 8.658 | 1.648 |
| **105-6** | 4.13 | 6.89 | 2.17 | 1.77 | 0.35 | 3.35 | 1.46 | 3.11 | 11.3 | 25.77 | 3.531 |
| **125-6** | 4.92 | 7.68 | 2.76 | 2.17 | 0.37 | 3.35 | 1.42 | 3.86 | 17.2 | 56.71 | 5.699 |
| **140-6** | 5.51 | 8.82 | 2.95 | 2.44 | 0.41 | 3.94 | 1.61 | 4.21 | 26.5 | 109.2 | 9.588 |
| **160-6** | 6.30 | 10.24 | 3.54 | 2.76 | 0.51 | 4.72 | 1.97 | 4.84 | 38.2 | 210.9 | 15.302 |
| **185-6** | 7.28 | 12.80 | 4.13 | 3.54 | 0.55 | 5.71 | 2.32 | 5.63 | 62.6 | 448.1 | 23.785 |
| **205-6** | 8.07 | 13.39 | 4.72 | 3.74 | 0.59 | 5.91 | 2.44 | 6.42 | 82.6 | 769.3 | 33.261 |




**Notes:**

1) Weight and inertia are calculated with steel hubs, standard dimensions, with max bore "dmax", and hub maximum "M"
2) Torsional stiffness is given between hub flanges for standard dimensions (spacer, element blades, bolts, adaptors, etc.)

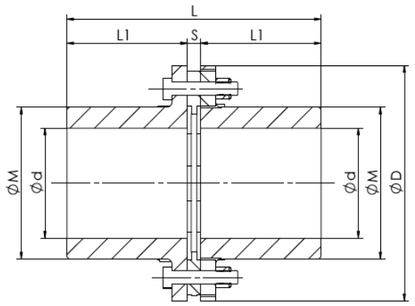
Other hub and length dimensions available upon request

Figures and dimensions in this catalog may change without prior notice

# HBX-8 Disc Coupling
# 8-Bolts Without Spacer

## Technical Data

**METRIC/INCH DATA**




| Size | Nominal Torque | | Maximum Torque | | Short Circuit Torque | | Max Axial Misalignment [1] | | Max Speed [2] |
|---|---|---|---|---|---|---|---|---|---|
| | [Nm] | [lb-in] | [Nm] | [lb-in] | [Nm] | [lb-in] | ± [mm] | ± [in] | [RPM] |
| 650-8 | 4500 | 39820 | 6750 | 59740 | 13500 | 119480 | 1.8 | 0.071 | 8500 |
| 1260-8 | 8800 | 77880 | 13200 | 116830 | 26400 | 233650 | 2.2 | 0.087 | 8300 |
| 2010-8 | 14100 | 124800 | 21150 | 187190 | 42300 | 374380 | 2.2 | 0.087 | 7700 |
| 3160-8 | 22200 | 196480 | 33300 | 294720 | 66600 | 589450 | 2.5 | 0.098 | 6600 |
| 4630-8 | 32500 | 287640 | 48750 | 431470 | 97500 | 862940 | 2.9 | 0.114 | 5600 |
| 6470-8 | 45500 | 402700 | 68250 | 604060 | 136500 | 1208120 | 3.1 | 0.122 | 5200 |
| 8770-8 | 61600 | 545200 | 92400 | 817800 | 184800 | 1635600 | 3.3 | 0.130 | 4700 |
| 13850-8 | 97300 | 861170 | 145950 | 1291760 | 291900 | 2583500 | 3.7 | 0.146 | 4200 |
| 14840-8 | 104200 | 922240 | 156300 | 1383360 | 312600 | 2766700 | 4.2 | 0.165 | 3900 |

**Notes:**

1) Max angular misalignment = 0º30'; HBX-8 couplings have no parallel misalignment capability; $\Delta p = 0$
2) Max speeds (RPM) are calculated with the main components (hubs, adaptors, spacers, etc.) manufactured in carbon steel, dynamically balanced and standard dimensions. Please consult with Reich USA for the specific design and balance requirements based on the actual application speed.

Due to constantly improving our products, the figures and dimensions in this catalog are subject to change without prior notice

## Coupling Selection

Please contact Reich USA for the proper coupling pre-selection. With our technical expertise, Reich USA's engineers will help make the best pre-selection possible to minimize calculation time and cost, while optimizing the package assembly and maintenance features.



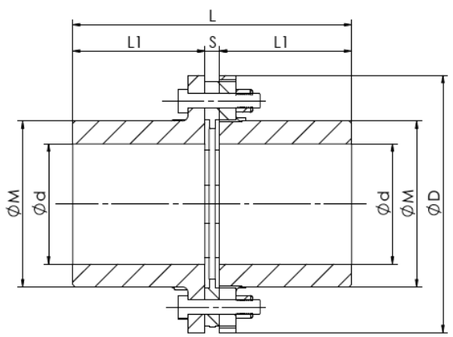
HBX-8 Disc Coupling
8 Bolts Without Spacer

## Dimensional Data

**METRIC/INCH DIMENSIONS**

| Size | D [mm] | L [mm] | d min [mm] | d max [mm] | L1 [mm] | S [mm] | M [mm] | Weight [1] [kg] | Inertia [1] [kg-m²] | Torsional stiffness [2] [Nm/rad] x 10⁶ |
|---|---|---|---|---|---|---|---|---|---|---|
| 650-8 | 214 | 233 | 25 | 95 | 110 | 13.0 | 138 | 22 | 0.1078 | 11.281 |
| 1260-8 | 246 | 255 | 25 | 110 | 120 | 15.0 | 155 | 30 | 0.1990 | 20.797 |
| 2010-8 | 275 | 269 | 25 | 120 | 125 | 19.0 | 170 | 42 | 0.3455 | 47.872 |
| 3160-8 | 308 | 313.5 | 25 | 135 | 145 | 23.5 | 193 | 63 | 0.5005 | 60.723 |
| 4630-8 | 346 | 355 | 25 | 150 | 165 | 25.0 | 218 | 92 | 1.228 | 82.600 |
| 6470-8 | 375 | 387 | 25 | 165 | 180 | 27.0 | 238 | 119 | 1.920 | 120.07 |
| 8770-8 | 410 | 418 | 25 | 180 | 195 | 28.0 | 258 | 152 | 2.942 | 143.02 |
| 13850-8 | 445 | 446 | 25 | 190 | 205 | 36.0 | 272 | 191 | 4.306 | 252.11 |
| 14840-8 | 470 | 476 | 25 | 205 | 220 | 36.0 | 297 | 230 | 5.775 | 227.69 |

| Size | D [in] | L [in] | d min [in] | d max [in] | L1 [in] | S [in] | M [in] | Weight [1] [lb] | Inertia [1] [lb-in²] | Torsional stiffness [2] [lb-in/rad] x 10⁶ |
|---|---|---|---|---|---|---|---|---|---|---|
| 650-8 | 8.43 | 9.17 | 0.98 | 3.74 | 4.33 | 0.51 | 5.43 | 49 | 368.5 | 99.845 |
| 1260-8 | 9.69 | 10.04 | 0.98 | 4.33 | 4.72 | 0.59 | 6.10 | 66 | 680.1 | 184.07 |
| 2010-8 | 10.83 | 10.59 | 0.98 | 4.72 | 4.92 | 0.75 | 6.69 | 92 | 1181 | 423.70 |
| 3160-8 | 12.13 | 12.34 | 0.98 | 5.31 | 5.71 | 0.93 | 7.60 | 138 | 1710 | 537.44 |
| 4630-8 | 13.62 | 13.98 | 0.98 | 5.91 | 6.50 | 0.98 | 8.58 | 202 | 4196 | 731.07 |
| 6470-8 | 14.76 | 15.24 | 0.98 | 6.50 | 7.09 | 1.06 | 9.37 | 263 | 6561 | 1062.7 |
| 8770-8 | 16.14 | 16.46 | 0.98 | 7.09 | 7.68 | 1.10 | 10.16 | 335 | 10050 | 1265.8 |
| 13850-8 | 17.52 | 17.56 | 0.98 | 7.48 | 8.07 | 1.42 | 10.71 | 420 | 14710 | 2231.3 |
| 14840-8 | 18.50 | 18.74 | 0.98 | 8.07 | 8.66 | 1.42 | 11.69 | 507 | 19730 | 2015.2 |




**Notes:**

1) Weight and inertia are calculated with steel hubs, standard dimensions, with max bores "dmax" and hub maximum "M"
2) Torsional stiffness is given between hub flanges for standard dimensions (spacer, element blades, bolts, adaptors, etc.)

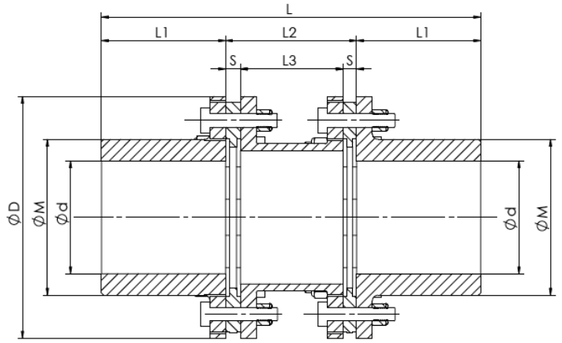
Other hub and length dimensions available upon request

Figures and dimensions in this catalog may change without prior notice

# HBSX-8 Disc Coupling
# 8-Bolts With Spacer

## Technical Data

**METRIC/INCH DATA**




| Size | Nominal Torque | | Maximum Torque | | Short Circuit Torque | | Max Misalignment [1] | | | | Max Speed [2] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Axial | | Parallel | | |
| | [Nm] | [lb-in] | [Nm] | [lb-in] | [Nm] | [lb-in] | ± [mm] | ± [in] | [mm] | [in] | [RPM] |
| **650-8** | 4500 | 39820 | 6750 | 59740 | 13500 | 119480 | 3.6 | 0.142 | 0.91 | 0.036 | 8500 |
| **1260-8** | 8800 | 77880 | 13200 | 116830 | 26400 | 233650 | 4.4 | 0.173 | 1.03 | 0.041 | 8300 |
| **2010-8** | 14100 | 124800 | 21150 | 187190 | 42300 | 374380 | 4.4 | 0.173 | 1.27 | 0.050 | 7700 |
| **3160-8** | 22200 | 196480 | 33300 | 294720 | 66600 | 589450 | 5.0 | 0.197 | 1.49 | 0.059 | 6600 |
| **4630-8** | 32500 | 287640 | 48750 | 431470 | 97500 | 862940 | 5.8 | 0.228 | 1.59 | 0.063 | 5600 |
| **6470-8** | 45500 | 402700 | 68250 | 604060 | 136500 | 1208120 | 6.2 | 0.244 | 1.78 | 0.070 | 5200 |
| **8770-8** | 61600 | 545200 | 92400 | 817800 | 184800 | 1635600 | 6.6 | 0.260 | 1.98 | 0.078 | 4700 |
| **13850-8** | 97300 | 861170 | 145950 | 1291760 | 291900 | 2583500 | 7.4 | 0.291 | 2.16 | 0.085 | 4200 |
| **14840-8** | 104200 | 922240 | 156300 | 1383360 | 312600 | 2766700 | 8.4 | 0.331 | 2.13 | 0.084 | 3900 |

**Notes:**

1) Maximum angular misalignment = 0°30' per disc pack element
2) Max speeds (RPM) are calculated with the main components (hubs, adaptors, spacers, etc.) manufactured in carbon steel and with standard dimensions. For higher operational speeds, alternative materials or special designs are available.

Due to constantly improving our products, the figures and dimensions in this catalog are subject to change without prior notice

## Coupling Selection

Please contact Reich USA for the proper coupling pre-selection. With our technical expertise, Reich USA's engineers will help make the best pre-selection possible to minimize calculation time and cost, while optimizing the package assembly and maintenance features.



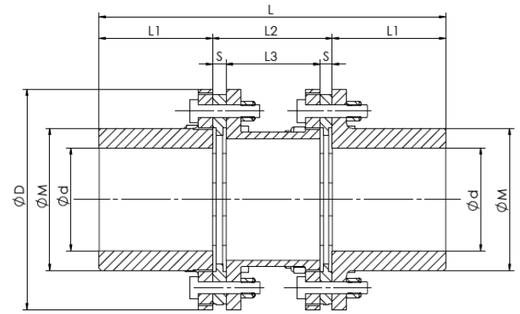
# HBSX-8 Disc Coupling
# 8 Bolts With Spacer

## Dimensional Data

**METRIC/INCH DIMENSIONS**

| Size | D [mm] | L [mm] | d min [mm] | d max [mm] | L1 [mm] | S [mm] | L2 [mm] | L3 [mm] | M [mm] | Weight [1] [kg] | Inertia [1] [kg-m²] | Torsional stiffness [2] [Nm/rad] x 10⁶ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **650-8** | 214 | 337 | 25 | 95 | 110 | 13.0 | 117 | 91 | 138 | 31 | 0.1651 | 3.5316 |
| **1260-8** | 246 | 373 | 25 | 110 | 120 | 15.0 | 133 | 103 | 155 | 42 | 0.3096 | 6.1803 |
| **2010-8** | 275 | 415 | 25 | 120 | 125 | 19.0 | 165 | 127 | 170 | 64 | 0.5775 | 10.301 |
| **3160-8** | 308 | 484 | 25 | 135 | 145 | 23.5 | 194 | 147 | 193 | 95 | 1.117 | 13.930 |
| **4630-8** | 346 | 537 | 25 | 150 | 165 | 25.0 | 207 | 157 | 218 | 135 | 2.010 | 18.639 |
| **6470-8** | 375 | 591 | 25 | 165 | 180 | 27.0 | 231 | 177 | 238 | 180 | 3.189 | 24.917 |
| **8770-8** | 410 | 645 | 25 | 180 | 195 | 28.0 | 255 | 199 | 258 | 230 | 4.920 | 29.528 |
| **13850-8** | 445 | 693 | 25 | 190 | 205 | 36.0 | 283 | 211 | 272 | 296 | 7.325 | 37.769 |
| **14840-8** | 470 | 720 | 25 | 205 | 220 | 36.0 | 280 | 208 | 297 | 342 | 9.510 | 51.306 |

| Size | D [in] | L [in] | d min [in] | d max [in] | L1 [in] | S [in] | L2 [in] | L3 [in] | M [in] | Weight [1] [lb] | Inertia [1] [lb-in²] | Torsional stiffness [2] [lb-in/rad] x 10⁶ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **650-8** | 8.43 | 13.27 | 0.98 | 3.74 | 4.33 | 0.51 | 4.61 | 3.58 | 5.43 | 68 | 564.1 | 31.257 |
| **1260-8** | 9.69 | 14.69 | 0.98 | 4.33 | 4.72 | 0.59 | 5.24 | 4.06 | 6.10 | 93 | 1058 | 54.700 |
| **2010-8** | 10.83 | 16.34 | 0.98 | 4.72 | 4.92 | 0.75 | 6.50 | 5.00 | 6.69 | 141 | 1973 | 91.171 |
| **3160-8** | 12.13 | 19.06 | 0.98 | 5.31 | 5.71 | 0.93 | 7.64 | 5.79 | 7.60 | 209 | 3817 | 123.29 |
| **4630-8** | 13.62 | 21.14 | 0.98 | 5.91 | 6.50 | 0.98 | 8.15 | 6.18 | 8.58 | 297 | 6869 | 164.97 |
| **6470-8** | 14.76 | 23.27 | 0.98 | 6.50 | 7.09 | 1.06 | 9.09 | 6.97 | 9.37 | 397 | 10900 | 220.53 |
| **8770-8** | 16.14 | 25.39 | 0.98 | 7.09 | 7.68 | 1.10 | 10.04 | 7.83 | 10.16 | 507 | 16810 | 261.34 |
| **13850-8** | 17.52 | 27.28 | 0.98 | 7.48 | 8.07 | 1.42 | 11.14 | 8.31 | 10.71 | 652 | 25030 | 334.28 |
| **14840-8** | 18.50 | 28.35 | 0.98 | 8.07 | 8.66 | 1.42 | 11.02 | 8.19 | 11.69 | 754 | 32500 | 454.09 |




**Notes:**

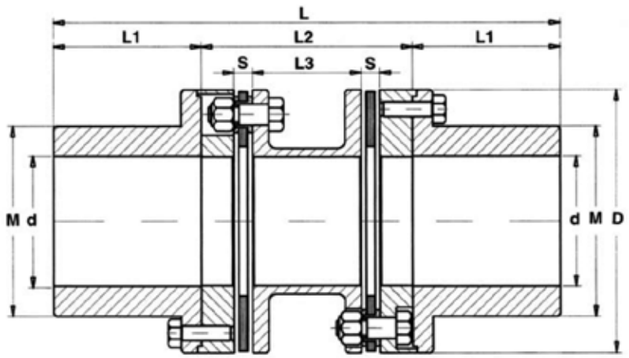
1) Weight and inertia are calculated with steel hubs, standard dimensions, with max bores "dmax" and hub maximum "M"
2) Torsional stiffness is given between hub flanges for standard dimensions (spacer, element blades, bolts, adaptors, etc.)

Other hub and length dimensions available upon request

Figures and dimensions in this catalog may change without prior notice

## Technical Data

**METRIC/INCH DATA**




| Size | Nominal Torque | | Maximum Torque | | Short Circuit Torque | | Max Misalignment[1] | | | | Max Speed[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Axial | | Parallel | | |
| | [Nm] | [lb-in] | [Nm] | [lb-in] | [Nm] | [lb-in] | ± [mm] | ± [in] | [mm] | [in] | [RPM] |
| **650-8** | 4500 | 39820 | 6750 | 59740 | 13500 | 119400 | 3.6 | 0.142 | 0.62 | 0.024 | 8500 |
| **1260-8** | 8800 | 77880 | 13200 | 116800 | 26400 | 233600 | 4.4 | 0.173 | 0.72 | 0.029 | 8300 |
| **2010-8** | 14100 | 124790 | 21150 | 187190 | 42300 | 374380 | 4.4 | 0.173 | 0.85 | 0.033 | 7700 |
| **3160-8** | 22200 | 196480 | 33300 | 294720 | 66600 | 589450 | 5.0 | 0.197 | 1.03 | 0.041 | 6600 |
| **4630-8** | 32500 | 287640 | 48750 | 431470 | 97500 | 862940 | 5.8 | 0.228 | 1.20 | 0.047 | 5600 |
| **6470-8** | 45500 | 402700 | 68250 | 604060 | 136500 | 1208100 | 6.2 | 0.244 | 1.34 | 0.053 | 5200 |
| **8770-8** | 61600 | 545200 | 92400 | 817800 | 184800 | 1635600 | 6.6 | 0.260 | 1.41 | 0.056 | 4700 |
| **13850-8** | 97300 | 861170 | 145950 | 1291700 | 291900 | 2583500 | 7.4 | 0.291 | 1.68 | 0.066 | 4200 |
| **14840-8** | 104200 | 922240 | 156300 | 1383300 | 312600 | 2766700 | 8.4 | 0.331 | 1.68 | 0.066 | 3900 |
| **19700-8** | 138400 | 1224900 | 207600 | 1837400 | 415200 | 3674800 | 9.8 | 0.386 | 1.76 | 0.069 | 3500 |
| **23700-8** | 166500 | 1473600 | 249750 | 2210400 | 499500 | 4420900 | 10.0 | 0.394 | 1.91 | 0.075 | 3100 |
| **35000-8** | 245900 | 2176300 | 368850 | 3264500 | 737700 | 6529100 | 12.0 | 0.472 | 2.05 | 0.081 | 2800 |

**Notes:**

1) Max angular misalignment = 0°30'; HBX-8 couplings have no parallel misalignment capability; $\Delta p = 0$
2) Max speeds (RPM) are calculated with the main components (hubs, adaptors, spacers, etc.) manufactured in carbon steel, dynamically balanced and standard dimensions. Please consult with Reich USA for the specific design and balance requirements based on the actual application speed.

Due to constantly improving our products, the figures and dimensions in this catalog are subject to change without prior notice

### Coupling Selection

Please contact Reich USA for the proper coupling pre-selection. With our technical expertise, Reich USA's engineers will help make the best pre-selection possible to minimize calculation time and cost, while optimizing the package assembly and maintenance features.



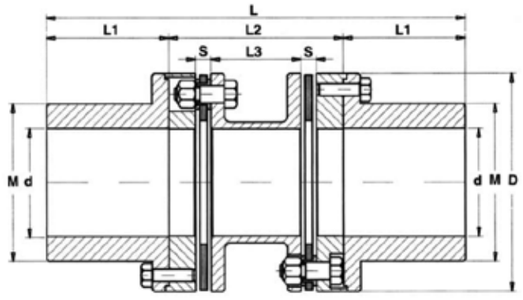
HBSX-8-AH Disc Coupling
8-Bolt With Dropout Spacer

## Dimensional Data

**METRIC/INCH DIMENSIONS**

| Size | D [mm] | L [mm] | d min [mm] | d max [mm] | L1 [mm] | S [mm] | L2 [mm] | L3 [mm] | M [mm] | Weight[1] [kg] | Inertia[1] [kg-m$^2$] | Torsional stiffness[2] [Nm/rad] x $10^6$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **650-8** | 214 | 350 | 25 | 125 | 110 | 13 | 130 | 58 | 175 | 39 | 0.2615 | 4.022 |
| **1260-8** | 246 | 400 | 25 | 140 | 125 | 15 | 150 | 68 | 196 | 57 | 0.4968 | 6.671 |
| **2010-8** | 275 | 440 | 25 | 155 | 130 | 19 | 180 | 78 | 217 | 81 | 0.8768 | 10.497 |
| **3160-8** | 308 | 520 | 25 | 175 | 150 | 23.5 | 220 | 95 | 245 | 123 | 1.710 | 16.088 |
| **4630-8** | 346 | 590 | 25 | 200 | 170 | 25 | 250 | 112 | 288 | 182 | 3.228 | 22.171 |
| **6470-8** | 375 | 650 | 25 | 220 | 185 | 27 | 280 | 126 | 310 | 232 | 4.898 | 30.607 |
| **8770-8** | 410 | 700 | 25 | 245 | 200 | 28 | 300 | 134 | 346 | 304 | 7.750 | 38.651 |
| **13850-8** | 445 | 770 | 25 | 260 | 210 | 36 | 350 | 156 | 365 | 391 | 11.53 | 50.423 |
| **14840-8** | 470 | 800 | 25 | 275 | 225 | 36 | 350 | 156 | 390 | 446 | 14.81 | 61.705 |
| **19700-8** | 565 | 940 | 25 | 340 | 280 | 36 | 380 | 166 | 476 | 751 | 36.50 | 118.70 |
| **23700-8** | 595 | 990 | 25 | 355 | 290 | 37.5 | 410 | 181 | 498 | 876 | 47.10 | 138.32 |
| **35000-8** | 665 | 1090 | 25 | 395 | 320 | 41 | 450 | 194 | 556 | 1242 | 82.95 | 200.12 |

| Size | D [in] | L [in] | d min [in] | d max [in] | L1 [in] | S [in] | L2 [in] | L3 [in] | M [in] | Weight[1] [lb] | Inertia[1] [lb-in$^2$] | Torsional stiffness[2] [lb-in/rad] x $10^6$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **650-8** | 8.43 | 13.78 | 0.98 | 4.92 | 4.33 | 0.51 | 5.12 | 2.28 | 6.89 | 85 | 893.5 | 35.60 |
| **1260-8** | 9.69 | 15.75 | 0.98 | 5.51 | 4.92 | 0.59 | 5.91 | 2.68 | 7.72 | 125 | 1698 | 59.04 |
| **2010-8** | 10.83 | 17.32 | 0.98 | 6.10 | 5.12 | 0.75 | 7.09 | 3.07 | 8.54 | 178 | 2996 | 92.91 |
| **3160-8** | 12.13 | 20.47 | 0.98 | 6.89 | 5.91 | 0.93 | 8.66 | 3.74 | 9.65 | 270 | 5843 | 142.39 |
| **4630-8** | 13.62 | 23.23 | 0.98 | 7.87 | 6.69 | 0.98 | 9.84 | 4.41 | 11.34 | 400 | 11030 | 196.23 |
| **6470-8** | 14.76 | 25.59 | 0.98 | 8.66 | 7.28 | 1.06 | 11.02 | 4.96 | 12.20 | 512 | 16740 | 270.89 |
| **8770-8** | 16.14 | 27.56 | 0.98 | 9.65 | 7.87 | 1.10 | 11.81 | 5.28 | 13.62 | 670 | 26480 | 342.09 |
| **13850-8** | 17.52 | 30.31 | 0.98 | 10.24 | 8.27 | 1.42 | 13.78 | 6.14 | 14.37 | 862 | 39410 | 446.28 |
| **14840-8** | 18.50 | 31.50 | 0.98 | 10.83 | 8.86 | 1.42 | 13.78 | 6.14 | 15.35 | 984 | 50600 | 546.13 |
| **19700-8** | 22.24 | 37.01 | 0.98 | 13.39 | 11.02 | 1.42 | 14.96 | 6.54 | 18.74 | 1656 | 124730 | 1050.6 |
| **23700-8** | 23.43 | 38.98 | 0.98 | 13.98 | 11.42 | 1.48 | 16.14 | 7.13 | 19.61 | 1931 | 160960 | 1224.2 |
| **35000-8** | 26.18 | 42.91 | 0.98 | 15.55 | 12.60 | 1.61 | 17.72 | 7.64 | 21.89 | 2739 | 283460 | 1771.2 |




**Note:**

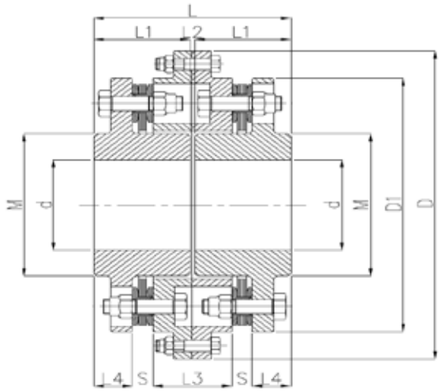
1) Weight and inertia are calculated with steel hubs, standard dimensions, with max bore "dmax", and hub maximum "M"
2) Torsional stiffness is given between hub flanges for standard dimensions (spacer, element blades, bolts, adaptors, etc.)

Other hub and length dimensions available upon request

Figures and dimensions in this catalog may change without prior notice

## Technical Data

**METRIC/INCH DATA**




| Size | Nominal Torque | | Maximum Torque | | Short Circuit Torque | | Max Misalignment[1] | | | | Max Speed[2] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Axial | | Parallel | | |
| | [Nm] | [lb-in] | [Nm] | [lb-in] | [Nm] | [lb-in] | ± [mm] | ± [in] | [mm] | [in] | [RPM] |
| **170-8** | 1200 | 10620 | 1800 | 15930 | 3600 | 31860 | 2.0 | 0.079 | 0.42 | 0.017 | 14000 |
| **330-8** | 2300 | 20350 | 3450 | 30530 | 6900 | 61070 | 2.8 | 0.110 | 0.50 | 0.020 | 10000 |
| **650-8** | 4500 | 39820 | 6750 | 59740 | 13500 | 119400 | 3.6 | 0.142 | 0.56 | 0.022 | 8500 |
| **1260-8** | 8800 | 77880 | 13200 | 116800 | 26400 | 233600 | 4.4 | 0.173 | 0.75 | 0.030 | 8300 |
| **2010-8** | 14100 | 124790 | 21150 | 187190 | 42300 | 374380 | 4.4 | 0.173 | 0.86 | 0.034 | 7700 |
| **2700-8** | 19000 | 168160 | 28500 | 252240 | 57000 | 504490 | 4.4 | 0.173 | 1.07 | 0.042 | 7700 |
| **3160-8** | 22200 | 196480 | 33300 | 294720 | 66600 | 589450 | 5.0 | 0.197 | 1.23 | 0.048 | 6600 |
| **4630-8** | 32500 | 287640 | 48750 | 431470 | 97500 | 862940 | 5.8 | 0.228 | 1.41 | 0.055 | 5600 |
| **8770-8** | 61600 | 545200 | 92400 | 817800 | 184800 | 1635600 | 6.6 | 0.260 | 1.45 | 0.057 | 4700 |
| **13850-8** | 97300 | 861170 | 145950 | 1291700 | 291900 | 2583500 | 7.4 | 0.291 | 1.71 | 0.067 | 4200 |
| **14840-8** | 104200 | 922240 | 156300 | 1383300 | 312600 | 2766700 | 8.4 | 0.331 | 1.97 | 0.078 | 3900 |
| **19700-8** | 138400 | 1224900 | 207600 | 1837400 | 415200 | 3674800 | 9.8 | 0.386 | 2.34 | 0.092 | 3500 |

**Notes:**
1) Max angular misalignment = 0°30'; HBX-8 couplings have no parallel misalignment capability; $\Delta p = 0$
2) Max speeds (RPM) are calculated with the main components (hubs, adaptors, spacers, etc.) manufactured in carbon steel, dynamically balanced and standard dimensions. Please consult with Reich USA for the specific design and balance requirements based on the actual application speed.

Due to constantly improving our products, the figures and dimensions in this catalog are subject to change without prior notice

## Coupling Selection

Please contact Reich USA for the proper coupling pre-selection. With our technical expertise, Reich USA's engineers will help make the best pre-selection possible to minimize calculation time and cost, while optimizing the package assembly and maintenance features.



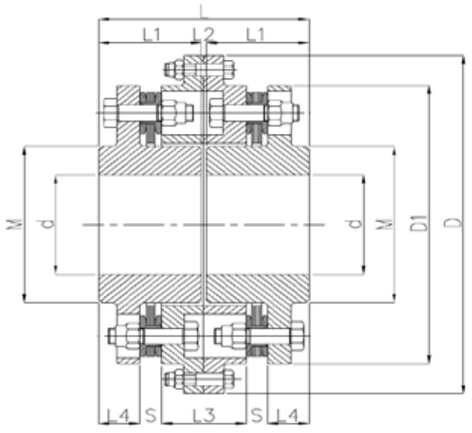
HBSX-8-RH Disc Coupling
8-Bolt With Reversed Hubs and Spacer

## Dimensional Data

**METRIC/INCH DIMENSIONS**

| Size | D [mm] | D1 [mm] | L [mm] | d min [mm] | d max [mm] | L1 [mm] | S [mm] | L2 [mm] | L3 [mm] | L4 [mm] | M [mm] | Weight[1] [kg] | Inertia[1] [kg-m$^2$] | Torsional stiffness[2] [Nm/rad] x $10^6$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **170-8** | 155 | 119 | 89 | 25 | 46 | 43 | 8.2 | 3 | 40 | 16.3 | 64 | 7.2 | 0.0164 | 1.2753 |
| **330-8** | 185 | 148 | 103 | 25 | 62 | 50 | 9.5 | 3 | 48 | 18 | 86 | 9.0 | 0.0335 | 2.5506 |
| **650-8** | 260 | 214 | 127 | 25 | 85 | 62 | 13 | 3 | 51 | 25 | 120 | 24 | 0.1832 | 5.2974 |
| **1260-8** | 295 | 246 | 157 | 25 | 98 | 76 | 15 | 5 | 71 | 28 | 138 | 39 | 0.3708 | 9.5157 |
| **2010-8** | 330 | 275 | 185 | 25 | 105 | 90 | 19 | 5 | 79 | 34 | 150 | 56 | 0.6771 | 16.285 |
| **2700-8** | 330 | 275 | 216 | 25 | 105 | 105 | 23 | 6 | 100 | 35 | 150 | 67 | 0.7788 | 20.111 |
| **3160-8** | 365 | 308 | 246 | 25 | 125 | 120 | 23.5 | 6 | 117 | 41 | 175 | 93 | 1.369 | 25.997 |
| **4630-8** | 415 | 346 | 278 | 25 | 135 | 135 | 25 | 8 | 136 | 46 | 195 | 136 | 2.490 | 35.610 |
| **8770-8** | 475 | 410 | 308 | 25 | 155 | 150 | 28 | 8 | 138 | 57 | 220 | 210 | 5.261 | 63.078 |
| **13850-8** | 535 | 445 | 358 | 25 | 165 | 175 | 36 | 8 | 160 | 63 | 235 | 295 | 8.942 | 81.227 |
| **14840-8** | 560 | 470 | 388 | 25 | 180 | 190 | 36 | 8 | 190 | 63 | 260 | 413 | 13.98 | 97.511 |
| **19700-8** | 675 | 555 | 450 | 25 | 225 | 220 | 36 | 10 | 232 | 73 | 320 | 490 | 23.47 | 174.81 |

| Size | D [in] | D1 [in] | L [in] | d min [in] | d max [in] | L1 [in] | S [in] | L2 [in] | L3 [in] | L4 [in] | M [in] | Weight[1] [lb] | Inertia[1] [lb-in$^2$] | Torsional stiffness[2] [lb-in/rad] x $10^6$ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **170-8** | 6.10 | 4.69 | 3.50 | 0.98 | 1.81 | 1.69 | 0.32 | 0.12 | 1.57 | 0.64 | 2.52 | 16 | 56.14 | 11.287 |
| **330-8** | 7.28 | 5.83 | 4.06 | 0.98 | 2.44 | 1.97 | 0.37 | 0.12 | 1.89 | 0.71 | 3.39 | 20 | 114.4 | 22.575 |
| **650-8** | 10.24 | 8.43 | 5.00 | 0.98 | 3.35 | 2.44 | 0.51 | 0.12 | 2.01 | 0.98 | 4.72 | 54 | 626.0 | 46.886 |
| **1260-8** | 11.61 | 9.69 | 6.18 | 0.98 | 3.86 | 2.99 | 0.59 | 0.20 | 2.80 | 1.10 | 5.43 | 85 | 1267 | 84.221 |
| **2010-8** | 12.99 | 10.83 | 7.28 | 0.98 | 4.13 | 3.54 | 0.75 | 0.20 | 3.11 | 1.34 | 5.91 | 125 | 2314 | 144.13 |
| **2700-8** | 12.99 | 10.83 | 8.50 | 0.98 | 4.13 | 4.13 | 0.91 | 0.24 | 3.94 | 1.38 | 5.91 | 147 | 2661 | 178.00 |
| **3160-8** | 14.37 | 12.13 | 9.69 | 0.98 | 4.92 | 4.72 | 0.93 | 0.24 | 4.61 | 1.61 | 6.89 | 205 | 4677 | 230.09 |
| **4630-8** | 16.34 | 13.62 | 10.94 | 0.98 | 5.31 | 5.31 | 0.98 | 0.31 | 5.35 | 1.81 | 7.68 | 299 | 8508 | 315.17 |
| **8770-8** | 18.70 | 16.14 | 12.13 | 0.98 | 6.10 | 5.91 | 1.10 | 0.31 | 5.43 | 2.24 | 8.66 | 463 | 17978 | 558.28 |
| **13850-8** | 21.06 | 17.52 | 14.09 | 0.98 | 6.50 | 6.89 | 1.42 | 0.31 | 6.30 | 2.48 | 9.25 | 650 | 30558 | 718.92 |
| **14840-8** | 22.05 | 18.50 | 15.28 | 0.98 | 7.09 | 7.48 | 1.42 | 0.31 | 7.48 | 2.48 | 10.24 | 910 | 47770 | 863.04 |
| **19700-8** | 26.57 | 21.85 | 17.72 | 0.98 | 8.86 | 8.66 | 1.42 | 0.39 | 9.13 | 2.87 | 12.60 | 1080 | 80214 | 1547.2 |




**Note:**
1) Weight and inertia are calculated with steel hubs, standard dimensions, with max bore "dmax", and hub maximum "M"
2) Torsional stiffness is given between hub flanges for standard dimensions (spacer, element blades, bolts, adaptors, etc.)

Other hub and length dimensions available upon request

Figures and dimensions in this catalog may change without prior notice

THESE INSTRUCTIONS ARE FOR THE STANDARD SERIES COUPLINGS WITH NORMAL RUNNING CONDITIONS. SPECIAL COUPLING DESIGNS MAY HAVE DIFFERENT INSTRUCTIONS.

**1. Attachment To The Shaft – BORE and KEYWAY**

A. Inspect the shaft, hub bores, and keyways to make sure that they are clean and free of burrs. Lightly oiling the shaft will make it easier to assemble the hub on the shaft.
B. Place the hub on the shaft. Be sure to slide the hub far enough onto the shaft so the shaft end is even with the hub face. This should not be changed without consulting Reich USA Corp.
C. Standard hubs are supplied with a slight clearance fit. For hubs with interference fits, consult with Reich USA for proper assembly instructions. The use of torches or rosebuds is not recommended because this can cause high stresses and permanent distortions.
D. Fit the key into the hub. If supplied with a set screw, turn the set screw until the top of the key is contacted in the hub.
E. Follow the instructions for axial alignment and secure the second hub if needed following these installation steps.

**2. Coupling Alignment**

The life of the coupling is directly affected by the alignment accuracy between the two coupling halves. Careful initial alignment will permit the coupling to operate at full capacity and allow for some future operational misalignments (e.g. equipment settling). Keeping all three directions of misalignment (axial, angular and parallel (radial)) within the limits stated in installation instructions provided with each coupling will increase the coupling and equipment life.

The values in the Technical Data tables are for general use and can vary in specific cases. After having properly aligned the coupling, make sure that all the bolts and nuts are tightened to their proper torque. It is a good idea to check the torque after some hours of operation as well.

**Axial Alignment**

The allowable tolerance for axial misalignment will vary with the number of disc pack bolts. In general, fewer disc pack bolts will mean higher allowable misalignment capabilities. In order to ensure proper coupling operation and coupling life, it is recommended to not exceed the values stated on the installation instructions shipped with the coupling.

**To perform the axial alignment:**

A. Bring the equipment into the best visual alignment possible.
B. Position the hubs axially so that the distance between shaft ends is within the minimum and maximum dimensions L2 ± Δa or S ± Δa/2. See Figures 3 and 4, respectively, for reference.

For non-standard couplings, see instructions on the corresponding coupling drawing.

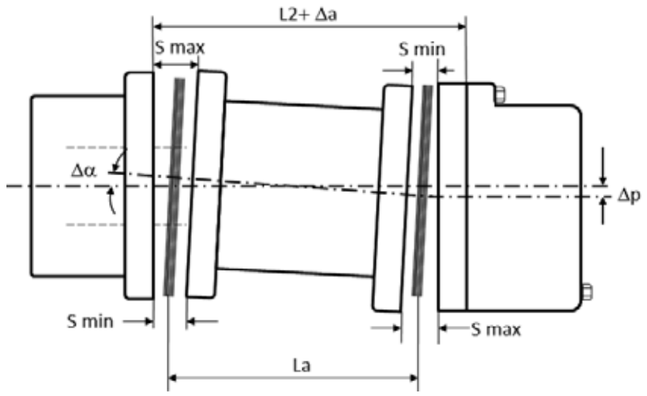



**Figure 3** Double flex coupling alignment dimensions



R-FLEX Disc Couplings
General Assembly Instructions

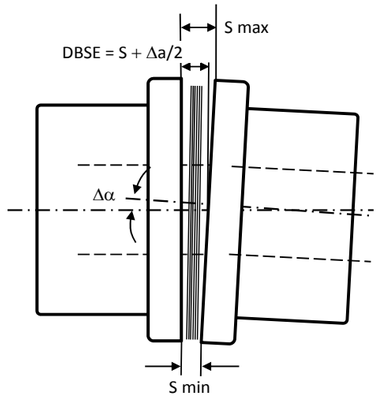



**Figure 4** Single flex coupling alignment dimensions

**CAUTION**
**All rotating power transmission products are potentially dangerous and must be properly guarded for the speeds and applications for which they were intended.**

**Angular Alignment**

1. With a dial indicator or laser system (see Figure 6) measure the angular misalignment by determining the parallelism of the coupling flange faces.
2. Dimension Δα, as shown in Figures 3 and 4, should be measured in at least three points, equally spaced, to determine the maximum value for Δα. This must not exceed the maximum allowable dimension stated in the Technical Detail tables for each coupling series.
3. Adjust or shim the equipment to bring either the indicator reading or the measured and calculated flange gap within the maximum allowable angular misalignment.

**Parallel (Radial) Alignment**

*Please note*: Couplings with one disc pack have no parallel misalignment capability, so Δp = 0 for single disc pack couplings.

1. Initial parallel misalignment can be checked by using a straight-edge across the hub flanges (see Figure 5) to measure the approximate distance Δp. A more precise method is to use a dial indicator or laser system and measure the parallel off-set in at least two locations 90 degrees apart while rotating the hub (see Figure 6).
2. Adjust or shim the equipment to bring the indicator or laser reading within the maximum allowable parallel misalignment Δp per the values shown in the Technical Data tables for each coupling series.

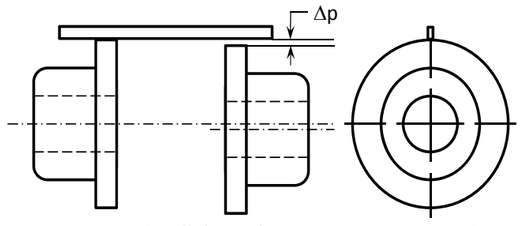



**Figure 5** Parallel misalignment measurement

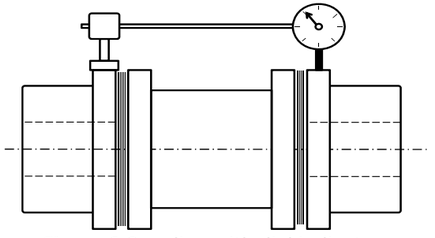


**Figure 6** Coupling with dial indicator



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