

DG COUPLING ELEMENTS

High quality elements to match original manufacturers couplings, commonly used in imported heavy construction & earthmoving plant eg, excavators, cranes, dozers, forklifts etc. Komatsu, Kobelco, Hitachi, Kato, Tadano.



DG/4-30 DG/4-30CB



DG/40-140 DG/40-140CB



DG/30 - 110HAL OR H

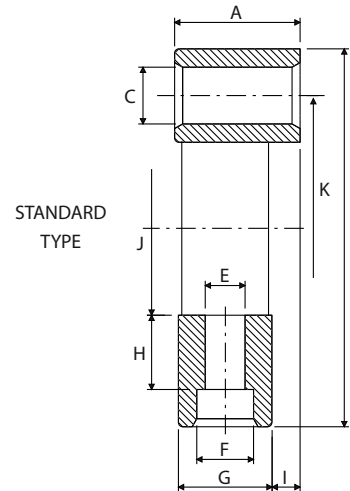
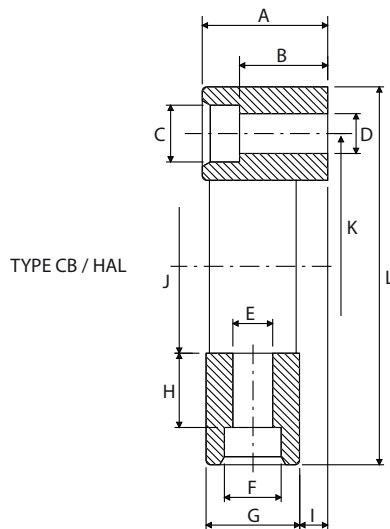
FLEXIBLE COUPLINGS & REPLACEMENT ELEMENTS

ORDER CODE

| Rubber Element Type | |
|---------------------|-------------------|
| Sd. (thru hole) | Counter Bore Hole |
| DG/4 | DG/4CB |
| DG/8 | DG/8CB |
| DG/16 | DG/16CB |
| DG/25 | DG/25CB |
| DG/30 | DG/30CB |
| DG/50 | DG/50CB |
| DG/140 | DG/140CB |

| Hytrel Element Type | |
|---------------------|--------------|
| Element C/W insert | Element Only |
| DG/30HAL | |
| DG/40HAL | |
| DG/50HAL | |
| DG/110HAL | |
| DG/140HAL | DG/140H |

STD., Cb & hAL TYPE COUPLING ELEMENTS



NOTE: Type Std. & CB = Black rubber type
Type HAL = White Hytrel type

All dimensions in mm.
All torques in Nm.

| Type Std./Cb/hAL | A | b | C | D | E | F | G | h | i | J | K Spacing | L | Nominal Torque | Max Torque |
|------------------|----|------|------|------|------|------|------|------|---|-----|--------------|-----|----------------|------------|
| 4 | 28 | 17 | 13.5 | 8.5 | 8.5 | 13.5 | 24 | 18.5 | 4 | 45 | 80/3 x 120° | 100 | 50 | 125 |
| 8 | 32 | 20.5 | 16.5 | 10.5 | 10.5 | 16.5 | 28 | 20.5 | 4 | 60 | 100/3 x 120° | 120 | 100 | 280 |
| 16 | 42 | 23.5 | 18.5 | 12.5 | 12.5 | 18.5 | 36 | 25.2 | 6 | 70 | 125/3 x 120° | 150 | 200 | 560 |
| 25 | 46 | 26 | 21.5 | 14.5 | 14.5 | 21.5 | 40 | 27 | 6 | 85 | 140/3 x 120° | 170 | 315 | 875 |
| 30 | 58 | 34.5 | 24.5 | 16.5 | 16.5 | 24.5 | 50 | 34.5 | 8 | 100 | 165/3 x 120° | 200 | 500 | 1400 |
| 40 | 50 | 29.5 | 24.5 | 16.5 | 16.5 | 24.5 | 47.5 | 29 | 4 | 85 | 140/4 x 90° | 170 | 600 | 1600 |
| 50 | 58 | 34.5 | 24.5 | 16.5 | 16.5 | 24.5 | 50 | 34.5 | 8 | 100 | 165/4 x 90° | 200 | 700 | 2100 |
| 110 | 56 | 37 | 26 | 18.5 | 18.5 | 26 | 53 | 37 | 8 | 100 | 180/4 x 90° | 230 | 1200 | 2500 |
| 140 | 70 | 45.5 | 30.5 | 20.5 | 20.5 | 30.5 | 62 | 47 | 8 | 125 | 215/4 x 90° | 260 | 1700 | 4900 |



ADAPTive RUBBER ELEMENT COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

POWER RATINGS MATCHED TO APPLICATION.

The coupling design features a very flexible element for power transfer, ensuring maximal torque capacity, with dampening of shock loads and excellent misalignment capacity. The element works well in harsh environments resulting in long life cycles.

BROAD APPLICATION VERSATILITY.

The steel hub design permits ease of modification to suit specialized or challenging applications. The coupling range suits a large range of shaft sizes from 16mm (5/8") to 57mm (2 1/4") in popular splines and round bores. Specials can also be made to order.

STANDARD SPLINED OR ROUND BORE SHAFT CONNECTIONS.

The DG Coupling range suits most splined shaft connections for hydraulic pumps and motors including imperial and metric sizes. Splined hubs use our popular CLAMPLOCK lateral or axial positive locking mechanisms eliminating the spline wear associated with unlocked spline connections.

Standard bore sizes using taperlock bushes are available in imperial and metric sizes to suit hydraulic pumps and motors and IEC electric motor shaft standards.

MAXIMUM MISALIGNMENT TOLERANCES.

Axial Displacement.

The element locates the hubs on the shafts. However, up to +/- 2mm axial displacement is tolerated at 1000rpm .

Radial Misalignment.

Between 2mm @ 3000rpm and up to a total of 5mm at 1000 rpm.

SPEED: Consult factory for speeds exceeding 4000 RPM.

Angular Misalignment.

The total angular misalignment is 2° at 1400 rpm. This is speed dependent .

Ordering Information

To order a DG flexible coupling

1. Select the element size that will suit the torque output from the driving shaft. eg electric motor.
2. Select the flange and the hub sizes from the tables above. Ideally, the hub size will fit onto the smallest shaft.
3. The complete coupling will comprise of 3 ordered parts. The flange, the element and the hub.

Example

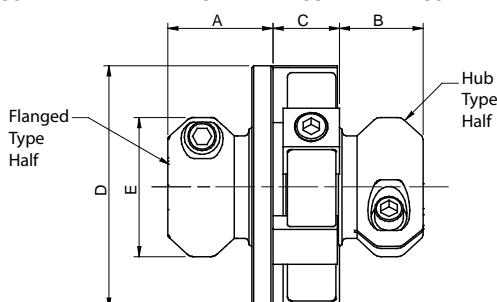
To couple an electric motor to a hydraulic pump. The electric motor is 90L IEC frame 4 pole motor. Power rating is 1.5 kW at 1440 rpm. Shaft size is 24mm with a 8mm key.

The pump is an SAE B pump with input shaft of 13T 16/32DP spline, nom. OD 7/8"

1. From page 43, use the formula to convert kW into torque. ie $T = (1.5 \times 9549) / 1440 = 10 \text{ Nm}$. The required element will therefore be a DG/8CB.
2. For the smallest shaft, being the 13T spline, use the hub part DG8HB03
3. For the electric motor, shaft size 24mm, use the flange part DG8FL74

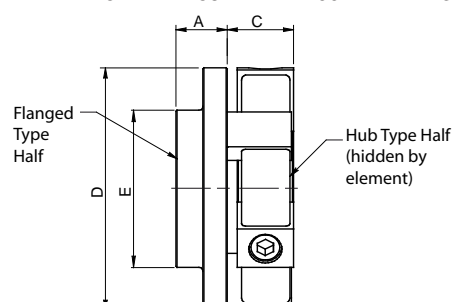
CLAMPLOCK STYLE SPLINED HALF DIMENSIONS.

| SERIES | A | B | C | D | E |
|--------|----|------|----|-----|----|
| DG8 | 52 | 44.6 | 33 | 120 | 69 |
| DG25 | 62 | 39 | 46 | 170 | 79 |
| DG50 | 71 | 43 | 58 | 200 | 94 |



TAPERLOCK STYLE ROUND BORE DIMENSIONS.

| SERIES | A | C | D | E |
|--------|------|----|-----|-----|
| DG8 | 25.4 | 33 | 120 | 78 |
| DG25 | 31.8 | 46 | 170 | 99 |
| DG50 | 44.5 | 58 | 200 | 113 |



All dimensions in mm



DG8 Spline to spline coupling

PERFORMANCE SPECIFICATIONS.

| SERIES | Continuous Torque | Maximum Torque | Intermittent Torque |
|--------|----------------------|------------------------|----------------------|
| DG8 | 100 Nm 83 ft lbs | 250 Nm 183 ft lbs | 157 Nm 116 ft lbs |
| DG25 | 315 Nm 250 ft lbs | 800 Nm 590 ft lbs | 475 Nm 350 ft lbs |
| DG50 | 700 Nm 466 ft lbs | 2000 Nm 1475 ft lbs | 884 Nm 652 ft lbs |



ADAPTIVE RUBBER ELEMENT COUPLINGS FOR HYDRAULIC PUMPS & GENERAL USE

**FLEXIBLE COUPLINGS &
REPLACEMENT ELEMENTS**

DG8

| Spline OD | No. of teeth | Spline Specification | Part Number hub | Part Number Flange | Bore OD | Keyway | Part Number hub | Part Number Flange |
|-----------|--------------|----------------------|-----------------|--------------------|---------|--------|-----------------|--------------------|
| 5/8" | 9 | ANSI 16/32 INV CL5 | DG8hb01 | DG8FL01 | 7/8" | 1/4" | DG8hb14 | DG8FL14 |
| 7/8" | 13 | ANSI 16/32 INV CL5 | DG8hb03 | DG8FL03 | 1" | 1/4" | DG8hb15 | DG8FL15 |
| 1" | 15 | ANSI 16/32 INV CL5 | DG8hb04 | DG8FL04 | 1 1/4" | 5/16" | DG8hb24 | DG8FL24 |
| 1 1/4" | 14 | ANSI 12/24 INV CL5 | DG8hb06 | DG8FL06 | 24 | 8 | DG8hb74 | DG8FL74 |
| | | | | | 25 | 8 | DG8hb26 | DG8FL26 |

Rubber Element Part Number DG/8Cb

DG25

| Spline OD | No. of teeth | Spline Specification | Part Number hub | Part Number Flange | Spline OD | No. of teeth | Spline Specification | Part Number hub | Part Number Flange |
|-----------|--------------|----------------------|-----------------|--------------------|-----------|--------------|----------------------|-----------------|--------------------|
| 7/8" | 13 | ANSI 16/32 INV CL5 | DG25hb03 | DG25FL03 | 30 | 14 | DIN 5480 2 MOD INV | DG25hb10 | - |
| 1" | 15 | ANSI 16/32 INV CL5 | DG25hb04 | DG25FL04 | 35 | 16 | DIN 5480 2 MOD INV | DG25hb11 | - |
| 1" | 6 | SAE B Straight | DG25hb05 | DG25FL05 | 36 | 8 | DIN 5462 INV | DG25hb115 | - |
| 1 1/4" | 14 | ANSI 12/24 INV CL5 | DG25hb06 | DG25FL06 | 40 | 18 | DIN 5480 2 MOD INV | - | DG25FL41 |
| 1 3/8" | 6 | SAE B Straight | DG25hb33 | DG25FL33 | 45 | 21 | DIN 5480 2 MOD INV | - | DG25FL42 |
| 1 3/8" | 21 | ANSI 16/32 INV CL5 | DG25hb07 | DG25FL07 | | | | | |
| 1 1/2" | 14 | ANSI 10/20 INV CL5 | - | DG25FL36 | | | | | |
| 1 1/2" | 17 | ANSI 12/24 INV CL5 | DG25hb32 | - | | | | | |
| 1 1/2" | 23 | ANSI 16/32 INV CL5 | DG25hb43 | DG25FL43 | | | | | |
| 1 3/4" | 13 | ANSI 8/16 INV CL5 | DG25hb08 | DG25FL08 | | | | | |
| 1 3/4" | 27 | ANSI 16/32 INV CL5 | - | DG25FL09 | | | | | |

| Bore OD | Keyway | Part Number hub | Part Number Flange | Bore OD | Keyway | Part Number hub | Part Number Flange |
|---------|--------|-----------------|--------------------|---------|--------|-----------------|--------------------|
| 1 1/4" | 5/16" | DG25hb24 | DG25FL24 | 32 | 10 | DG25hb80 | DG25FL80 |
| 1 1/2" | 3/8" | DG25hb60 | DG25FL60 | 35 | 10 | DG25hb50 | DG25FL50 |
| | | | | 38 | 10 | DG25hb51 | DG25FL51 |
| | | | | 48 | 14 | - | DG25FL55 |

Rubber Element Part Number DG/25Cb

DG50

| Spline OD | No. of teeth | Spline Specification | Part Number hub | Part Number Flange | Spline OD | No. of teeth | Spline Specification | Part Number hub | Part Number Flange |
|-----------|--------------|----------------------|-----------------|--------------------|-----------|--------------|----------------------|-----------------|--------------------|
| 1 1/4" | 14 | ANSI 12/24 INV CL5 | - | DG50FL06 | 40 | 18 | DIN 5480 2 MOD INV | DG50hb41 | DG50FL41 |
| 1 3/8" | 21 | ANSI 16/32 INV CL5 | - | DG50FL07 | 45 | 21 | DIN 5480 2 MOD INV | DG50hb42 | DG50FL42 |
| 1 1/2" | 14 | ANSI 10/20 INV CL5 | DG50hb36 | - | 55 | 26 | DIN 5480 2 MOD INV | DG50hb47 | DG50FL47 |
| 1 3/4" | 13 | ANSI 8/16 INV CL5 | DG50hb08 | DG50FL08 | 60 | 28 | DIN 5480 2 MOD INV | DG50hb118 | DG50FL118 |
| 1 3/4" | 27 | ANSI 16/32 INV CL5 | DG50hb09 | DG50FL09 | | | | | |
| 2" | 15 | ANSI 8/16 INV CL5 | DG50hb37 | DG50FL37 | | | | | |
| 2 1/4" | 26 | ANSI 12/24 INV CL5 | DG50hb48 | DG50FL48 | | | | | |
| 2 1/4" | 17 | ANSI 8/16 INV CL5 | DG50hb96 | DG50FL96 | | | | | |

| Bore OD | Keyway | Part Number hub | Part Number Flange | Bore OD | Keyway | Part Number hub | Part Number Flange |
|---------|--------|-----------------|--------------------|---------|--------|-----------------|--------------------|
| 1 1/2" | 3/8" | DG50hb60 | DG50FL60 | 32 | 10 | DG50hb80 | DG50FL80 |
| 1 3/4" | 7/15" | DG50hb61 | DG50FL61 | 38 | 10 | DG50hb51 | DG50FL51 |
| 2 1/4" | 1/2" | - | DG50FL116 | 42 | 12 | DG50hb53 | DG50FL53 |
| | | | | 48 | 14 | DG50hb55 | DG50FL55 |

Rubber Element Part Number DG/50Cb

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*OTHER SIZES ARE AVAILABLE UPON REQUEST. CONTACT OUR SALES OFFICE

† FOR SHAFT SIZES SEE HYDRAULIC MOTOR & PUMP STANDARDS-PAGE 20 & ELECTRIC MOTOR SIZES PAGE 21