# Couplings

# Contents

## COUPLINGS

## KCP (Korea) – Korea Coupling Co., Ltd.

Korea Coupling Co., Ltd., is a specialist manufacturer of power transmission equipment including high quality shaft couplings for various industries such as steel mills, paper mining, chemical and cement, etc.

**www.koreacoupling.co.kr**

# Couplings Element Identification

## CONE RING RUBBER

Synthetic Rubber, See Cone Ring Couplings

## JAW COUPLING SPIDER ELEMENT

Nitrile Rubber, See Jaw Couplings

## CURVED JAW (ROTEX) ELEMENT - RED
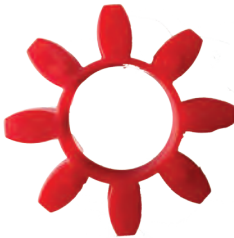
Polyurethane 98 Shore Hardness,
see Curved Jaw Couplings

## MAX-DYNAMIC ELEMENT

Omega ® Equivalent Polyurethane Element,
see Max Dynamic Couplings

## CURVED JAW (ROTEX) ELEMENT - YELLOW

Polyurethane 92 Shore Hardness,
see Curved Jaw Couplings

## MAX-DYNAMIC SPACER ELEMENT

Omega ® Equivalent Polyurethane Element,
see Max Dynamic Couplings

## HRC ELEMENT

Nitrile Rubber, See HRC Couplings

## POLYURETHANE JAW COUPLING SPIDER

Polyurethane spider element, See Jaw Couplings

# Couplings Element Identification

## SNAP WRAP ELEMENT



Nitrile rubber wrap element, see Jaw Couplings

## SYNTHETIC TYRE



Synthetic rubber tyre element, see Tyre Couplings

## TAPER GRID



Steel taper grid, see Taper Grid Couplings

**Finer Power Transmissions™**

"Australia's Only
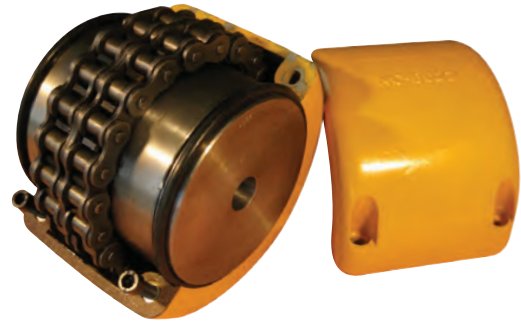Genuine Wholesaler"

# Chain Coupling

The Finer Chain Coupling consists of two sprockets joined together by standard duplex roller chain. This highly compact structure provides high flexibility between shafts, power transmission capabilities and is durable and robust.

Chain Couplings allow for easy maintenance, it is a simple easy on/easy off process.

Finer Power Transmissions Chain Couplings are supplied with casings standard.

## Chain Coupling Ratings

| Coupling | Min. Bore | Max. Bore | Max. RPM | | Weight Kg |
| --- | --- | --- | --- | --- | --- |
| | | | Without Cover | With Cover | |
| C4012 | 14 | 22 | 875 | 5000 | 0.73 |
| C4016 | 16 | 32 | 875 | 5000 | 1.5 |
| C5016 | 18 | 40 | 800 | 4000 | 2.75 |
| C5018 | 18 | 45 | 800 | 4000 | 3.6 |
| C6018 | 22 | 56 | 675 | 3000 | 6.55 |
| C6022 | 28 | 71 | 675 | 3000 | 10.4 |
| C8018 | 32 | 80 | 500 | 2000 | 13.2 |
| C8022 | 40 | 100 | 500 | 2000 | 21.8 |
| C10020 | 45 | 110 | 450 | 1800 | 32.4 |

| Coupling | A | B | C | D | E | K(2) |
| --- | --- | --- | --- | --- | --- | --- |
| C4012 | 62 | 79.4 | 36 | 36 | 7.4 | - |
| C4016 | 77 | 87.4 | 51.5 | 40 | 7.4 | 0.75 |
| C5016 | 96 | 99.7 | 64 | 45 | 9.7 | - |
| C5018 | 106 | 99.7 | 73.5 | 45 | 9.7 | 1.06 |
| C6018 | 127 | 123.5 | 89.5 | 56 | 11.5 | - |
| C6022 | 151 | 123.5 | 116 | 56 | 11.5 | 1.38 |
| C8018 | 169 | 141.2 | 115 | 63 | 15.2 | - |
| C8022 | 202 | 157.2 | 142 | 71 | 15.2 | 2.06 |
| C10020 | 233 | 178.8 | 162 | 80 | 18.8 | 2.34 |

**Straight Bore Chain Coupling**
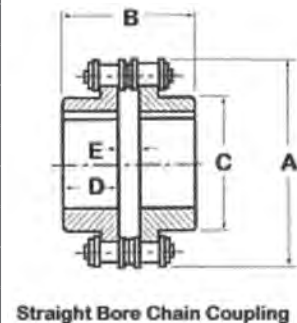
For increased safety Chain Coupling covers should be used. The cover not only improves the safety of the work place but also increases the Chain Couplings overall durability.

| Coupling Covers | Cover Required when RPM Exceeds | A | B | Weight |
| --- | --- | --- | --- | --- |
| C4012 | 875 | 77 | 72 | 0.3 |
| C4016 | | 92 | 72 | 0.35 |
| C5016 | 800 | 110 | 87 | 0.5 |
| C5018 | | 122 | 85 | 0.6 |
| C6018 | 675 | 147 | 105 | 1.2 |
| C6022 | | 168 | 117 | 1.2 |
| C8018 | 500 | 190 | 129 | 1.9 |
| C8022 | | 226 | 137 | 2.7 |
| C10020 | 450 | 281 | 153 | 4.1 |

(2) Space required to loosen bushing with shortened hex key

# Cone Ring Coupling

Finer Cone Ring Couplings are based on a time proven design. The coupling consists of two flanges interlocked with a number of elements, depending on the coupling size.

The Cone Rings Couplings unique flexible element comprises tapered rubber rings mounted on steel pins. The rubber rings absorb commonly encountered misalignment, shock and vibration.

The Cone Ring Coupling is as popular as ever for its ease of maintenance. No Lubrication is required. The Pin and Rubber design ensures trouble free maintenance, as they can be removed and changed without the need to take the coupling off the shafts.

The flanges are high-grade cast iron; the pins are hexagonal steel bar; and the rings are synthetic rubber.



TYPICAL TAPERLOCK KXT ASSEMBLY — TAPERLOCK KXT BUSH HALF / KXT PIN HALF — PILOT BORE KX BUSH HALF / KX PIN HALF

| Size | No. of Pins (Rubbers) | Pin/ Rubber Size (D.Brown) | Max.Bore PB/ Bush Size | | D | H | | L | M | R | | T | | Kg | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Pin Half | Bush Half | | Pin Half | Bush Half | | | Pin Half | Bush Half | Pin Half | Bush Half | Pin Half | Bush Half |
| KX020 | 6 (18) | 1 ((GC3/4"-3) | – | – | 88 | – | – | – | – | 12 | 23 | 53 | 33 | 0A | 0A |
| KX030 | 4 (12) | 2 (GC 1"-3) | 38 | 32 | 127 | 64 | 58 | 85 | 3 | 12 | 26 | 41 | | 1.8 | 2.5 |
| KX038 | 6 (18) | 2 (GC 1"-3) | 42 | 38 | 132 | 72 | 64 | 99 | 3 | 12 | 26 | 48 | | 2.1 | 2.3 |
| KX042 | 8 (24) | 2 (GC 1"-3) | 48 | 42 | 146 | 83 | 78 | 115 | 3 | 12 | 26 | 56 | | 3.0 | 3.2 |
| KXT042 | | | 1610 | 1215 | | | | 69.5 | | | | 28.4 | 38.1 | 1.8 | 2.3 |
| KX048 | 6 (18) | 3 (GC 1 3/4"-3) | 55 | 48 | 171 | 90 | 82 | 90 | 3 | 17 | 33 | 61 | | 4.9 | 5.0 |
| KXT048 | | | 2012 | 1615 | | | | 82 | | | | 35 | 38.1 | 3.6 | 4.6 |
| KX058 | 8 (24) | 3 (GC 1 3/4"-3) | 65 | 58 | 193 | 106 | 98 | 139 | 3 | 17 | 33 | 68 | | 5.1 | 5.9 |
| KXT058 | | | 2517 | 2012 | | | | 82.3 | | | | 47.5 | 31.8 | 3.8 | 5.6 |
| KX070 | 10 (30) | 3 (GC 1 3/4"-3) | 75 | 70 | 216 | 128 | 117 | 155 | 3 | 17 | 33 | 76 | | 9.2 | 9.0 |
| KXT070 | | | 3020 | 2525 | | | | 121.5 | | | | 55 | 63.5 | 6.1 | 7.6 |
| KX075 | 8 (32) | 4 (GC 2 3/4"-3) | 80 | 75 | 254 | 127 | 127 | 179 | 3 | 30 | 56 | 88 | | 16.5 | 16.9 |
| KX085 | 10 (40) | 4 (GC 2 3/4"-3) | 105 | 85 | 279 | 166 | 148 | 203 | 3 | 30 | 56 | 100 | | 22.4 | 21.5 |
| KXT085 | | | 3535 | 3030 | | | | 172.2 | | | | 93 | 76.2 | 17.1 | 19.6 |
| KX105 | 12 (48) | 4 (GC 2 3/4"-3) | 120 | 85 | 330 | 202 | 180 | 237 | 3 | 30 | 56 | 117 | | 36.3 | 35.0 |
| KXT105 | | | 4040 | 3535 | | | | 197.5 | | | | 105.6 | 88.9 | 24.5 | 27.5 |
| KX120 | 10 (40) | 5 (GC 4 1/4"-3) | 130 | 120 | 370 | 232 | 206 | 270 | 6 | 46 | 76 | 132 | | 56.1 | 51.0 |
| KXT120 | | | 4040 | 4040 | | | | 217.2 | | | | 105.6 | 105.6 | 39.5 | 40.5 |
| KX135 | 12 (48) | 5 (GC 4 1/4"-3) | 135 | 135 | 419 | 240 | 230 | 300 | 6 | 46 | 76 | 147 | | 70.0 | 71.0 |
| KXT135 | | | 4545 | 4545 | | | | 239.6 | | | | 119.3 | 114.3 | 52.8 | 56.8 |
| KX150 | 14 (56) | 5 (GC 4 1/4"-3) | 150 | 150 | 457 | 160 | 256 | 336 | 6 | 46 | 76 | 165 | | 88.6 | 93.0 |
| KXT150 | | | 5050 | 5050 | | | | 265 | | | | 132 | 127 | 66.8 | 72.8 |

# Cone Ring Coupling

| Size | Power Ratings (Kw @ ) | | | | | Max .rpm | Nominal Torque (Nm) |
|------|---------|---------|---------|----------|----------|----------|---------------------|
|      | 100 rpm | 720 rpm | 960 rpm | 1440 rpm | 2880 rpm |          |                     |
| 020  |         |         |         |          |          |          |                     |
| 030  | 0.16    | 8.4     | 11.1    | 16.7     | 33.4     | 4600     | 110                 |
| 038  | 1.87    | 13.5    | 18.0    | 26.9     | 53.9     | 4400     | 175                 |
| 042  | 2.84    | 20.4    | 27.3    | 40.9     | 81.8     | 4000     | 265                 |
| 048  | 4.93    | 35.5    | 47.3    | 71.0     | 142.0    | 3400     | 465                 |
| 058  | 7.54    | 54.3    | 72.4    | 108.6    | 217.2    | 3020     | 720                 |
| 070  | 10.70   | 77.0    | 102.7   | 154.1    | -        | 2700     | 1020                |
| 075  | 25.7    | 185.0   | 246.7   | 370.1    | -        | 2300     | 2450                |
| 085  | 35.5    | 255.6   | 340.8   | 511.2    | -        | 2090     | 3390                |
| 105  | 53      | 382     | 509     | 763      | -        | 1760     | 5080                |
| 120  | 90      | 648     | 864     | 1296     | -        | 1570     | 8474                |
| 135  | 122     | 878     | 1171    | -        | -        | 1390     | 11520               |
| 150  | 159     | 1145    | 1526    | -        | -        | 1280     | 15140               |

## Selection Procedure

1. From the service factors table (below) determine the service factor
2. Calculate the Design Power by multiplying the Absorbed Power of the driven machine by the Service Factor.
3. Determine the size of coupling required by matching the design power to a power rating that matches or exceeds the Design Power.

The Pin Half is normally mounted on the drive shaft.

| Duty | Electric Motors |
|------|-----------------|
| Uniform | 1.0 |
| Light | 1.5 |
| Moderate | 2.0 |
| Heavy | 2.5 |
| Severe | 3.0 |

# Curve Jaw (Rotex) Couplings

| TYPE | Hub Type | Max Speed RPM | Rated Torque (Nm) | | D | D1 | d-min | d-max | S | L1 | L2 | L | Mass kg/hub |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 92 Sh A YELLOW | 98 Sh A RED | | | | | | | | | |
| GE19 | 1 | 19000 | 10 | 17 | 40 | 32 | 6 | 19 | 1.0 | 39 | 25 | 65 | 0.19 |
| | 1a | | | | | | 19 | 24 | | | | | |
| GE24 | 1 | 14000 | 35 | 60 | 56 | 40 | 9 | 24 | 1.0 | 46 | 30 | 77 | 0.38 |
| | 1a | | | | | | 22 | 28 | | | | | |
| GE28 | 1 | 11800 | 95 | 160 | 65 | 48 | 10 | 28 | 1.5 | 52.5 | 35 | 89 | 0.62 |
| | 1a | | | | | | 28 | 38 | | | | | |
| GE38 | 1 | 9500 | 190 | 325 | 80 | 66 | 12 | 38 | 1.0 | 66 | 45 | 112 | 1.36 |
| | 1a | | | | | | 38 | 45 | | | | | |
| GE42 | 1 | 8000 | 265 | 450 | 95 | 75 | 14 | 42 | 1.0 | 73 | 50 | 124 | 2.03 |
| | 1a | | | | | | 42 | 55 | | | | | |
| GE48 | 1 | 7100 | 310 | 525 | 105 | 85 | 15 | 48 | 1.5 | 80.5 | 56 | 138 | 2.85 |
| | 1a | | | | | | 48 | 60 | | | | | |
| GE55 | 1 | 6300 | 410 | 685 | 120 | 98 | 20 | 55 | 2.0 | 91 | 65 | 158 | 4.32 |
| | 1a | | | | | | 55 | 70 | | | | | |
| GE65 | 1 | 5600 | 625 | 940 | 135 | 115 | 22 | 65 | 1.5 | 105.5 | 75 | 182 | 6.66 |
| | 1a | | | | | | 22 | 65 | | | | | |
| GE75 | 1 | 4750 | 1280 | 1920 | 160 | 135 | 30 | 75 | 1.0 | 120 | 85 | 206 | 10.48 |
| | 1a | | | | | | 30 | 75 | | | | | |
| GE90 | 1 | 3750 | 2400 | 3600 | 200 | 160 | 40 | 90 | 1.5 | 139.5 | 100 | 241 | 17.89 |
| | 1a | | | | | | 180 | 40 | 90 | | | | | |

Curve Jaw (Rotex) Couplings (Pilot Bore)

NB. Type 1 Refers to stepped hubs and Type 1a are NOT stepped (Full Hub).

# Curve Jaw (Rotex) Couplings
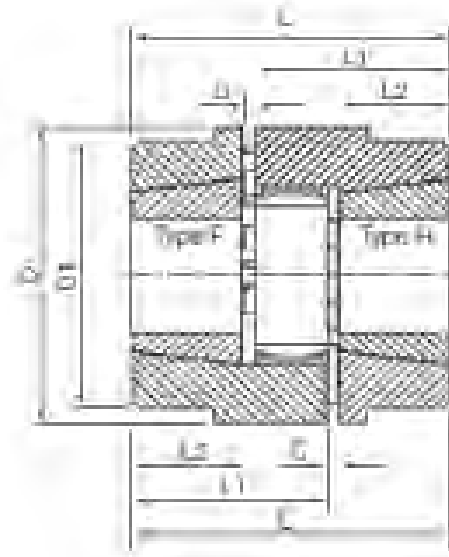
| | | Curve Jaw (Rotex) Couplings (Taperlock) | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TYPE | Max Speed RPM | Rated Torque (Nm) | | Bush Size | Max Bore | D | D1 | S | L1 | L2 L2 | L | Mass kg/ hub |
| | | 92 Sh A YELLOW | 98 Sh A RED | | | | | | | | | |
| 28 F | 11800 | 95 | 160 | 1108 | 28 | 65 | – | 1.5 | 40.5 | 23 | 65 | 0.46 |
| 28 H | | | | 1108 | 28 | 65 | – | 1.5 | 40.5 | 23 | 65 | 0.46 |
| 38 F | 9500 | 190 | 325 | 1108 | 28 | 80 | 78 | 1 | 44 | 23 | 68 | 0.79 |
| 38 H | | | | 1108 | 28 | 80 | 78 | 1 | 44 | 23 | 68 | 0.79 |
| 42 F | 8000 | 265 | 450 | 1610 | 42 | 95 | 94 | 1 | 49 | 26 | 76 | 1.1 |
| 42 H | | | | 1610 | 42 | 95 | 94 | 1 | 49 | 26 | 76 | 1.1 |
| 48 F | 7100 | 310 | 525 | 1615 | 42 | 105 | 104 | 1.5 | 63.5 | 39 | 104 | 2.07 |
| 48 H | | | | 1615 | 42 | 105 | 104 | 1.5 | 63.5 | 39 | 104 | 2.07 |
| 55 F | 6300 | 410 | 685 | 2012 | 50 | 120 | 118 | 2 | 59 | 33 | 94 | 2.22 |
| 55 H | | | | 2012 | 50 | 120 | 118 | 2 | 59 | 33 | 94 | 2.22 |
| 65 F | 5600 | 625 | 940 | 2012 | 50 | 135 | 133 | 1.5 | 63.5 | 33 | 98 | 3.14 |
| 65 H | | | | 2517 | 65 | 135 | 133 | 1.5 | 75.5 | 45 | 122 | 4.03 |
| 75 F | 4750 | 1280 | 1920 | 2517 | 65 | 160 | 135 | 1 | 81 | 46 | 128 | 4.69 |
| 75 H | | | | 3020 | 75 | 160 | 135 | 1 | 87 | 52 | 140 | 4.99 |
| 90 F | 3750 | 2400 | 3600 | 3020 | 75 | 200 | 160 | 1.5 | 91.5 | 52 | 145 | 7.74 |
| 90 H | | | | 3525 | 100 | 200 | 160 | 1.5 | 103.5 | 64 | 169 | 8.74 |

# Flexible Tyre Coupling

Finer Power Transmissions™

"Why compete against your supplier
when you can be our partner"

COUPLINGS

Finer stock a range of the highly flexible Tyre Couplings. Consisting of two flanges, the two
halves are joined by a rubber tyre. The tyre itself is torsionally soft and flexible; this allows the Tyre Coupling to compensate for
large amounts of shock loading and backlash, as well as both parallel and axial misalignment.

## Highly Flexible

Compensates for misalignment, upto; 4° angular, 6mm parallel, 8mm axial.
Torsional flexibility of upto 12°, at max. torque.

| Size | Power @ 100 rpm in Kw | Nominal Torque | Max. Speed rpm | Bore B | | Bush F | Bush H | Max. Misalignment | | End Float |
|------|------|------|------|------|------|------|------|------|------|------|
| | | | | Max. | Min. | | | Parallel | Angular | |
| T4 | 0.26 | 25 | 4500 | 25 | 10 | 1008 | 1008 | 1.1 | 4 | 1.3 |
| T5 | 0.69 | 66 | 4500 | 32 | 11 | 1210 | 1210 | 1.3 | 4 | 1.7 |
| T6 | 1.33 | 127 | 4000 | 42 | 14 | 1610 | 1610 | 1.6 | 4 | 2 |
| T7 | 2.62 | 250 | 3600 | 50 | 14 | 2012 | 1610 | 1.9 | 4 | 2.3 |
| T8 | 3.93 | 375 | 3100 | 65 | 14 | 2517 | 2012 | 2.1 | 4 | 2.6 |
| T9 | 5.24 | 500 | 3000 | 65 | 16 | 2517 | 2517 | 2.4 | 4 | 3 |
| T10 | 7.07 | 675 | 2600 | 75 | 16 | 3020 | 2517 | 2.6 | 4 | 3.3 |
| T11 | 9.20 | 875 | 2300 | 75 | 24 | 3020 | 3020 | 2.9 | 4 | 3.7 |
| T12 | 13.9 | 1300 | 2050 | 100 | 24 | 3525 | 3020 | 3.2 | 4 | 4 |
| T14 | 24.3 | 2320 | 1800 | 100 | 35 | 3525 | 3525 | 3.7 | 4 | 4.6 |
| T16 | 39.4 | 3770 | 1600 | 115 | 40 | 4030 | 4030 | 4.2 | 4 | 5.3 |



SIZES F40 – 60    SIZES F70 – 250

F Flange    H Flange    F Flange    H Flange

| Size | A | C | D | E | | F | L | | G | J | M | Kg | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | | | F | H | | F | H | | | | F | H |
| T4 | 104 | 82 | - | 22 | 22 | - | 33.5 | 33.5 | N/A | 29 | 11 | 0.8 | 0.8 |
| T5 | 133 | 100 | 79 | 25 | 25 | - | 38 | 38 | N/A | 38 | 12.5 | 1.2 | 1.2 |
| T6 | 165 | 125 | 103 | 25 | 25 | - | 42 | 42 | N/A | 36 | 16.5 | 2.0 | 2.0 |
| T7 | 187 | 144 | 80 | 32 | 25 | 50 | 44 | 42 | 13 | 36 | 11.5 | 3.1 | 3.0 |
| T8 | 211 | 167 | 98 | 45 | 32 | 54 | 58 | 45 | 16 | 42 | 12.5 | 4.9 | 4.6 |
| T9 | 235 | 188 | 108 | 45 | 45 | 60 | 59 | 59 | 16 | 48 | 13.5 | 7.0 | 7.0 |
| T10 | 254 | 216 | 120 | 51 | 45 | 62 | 65 | 59 | 16 | 48 | 13.5 | 9.9 | 9.4 |
| T11 | 279 | 233 | 134 | 51 | 51 | 62 | 63.5 | 63.5 | 16 | 55 | 12.5 | 11.7 | 11.7 |
| T12 | 314 | 264 | 140 | 65 | 51 | 67 | 78.5 | 65.5 | 16 | 67 | 14.5 | 16.5 | 16.9 |
| T14 | 359 | 311 | 178 | 65 | 65 | 73 | 81 | 81 | 17 | 67 | 16 | 22.3 | 22.3 |
| T16 | 402 | 345 | 197 | 77 | 77 | 78 | 92 | 92 | 19 | 80 | 15 | 32.5 | 32.5 |

J is the clearance required for tightening and loosening the bush on the shaft
G is the distance required to release the clamping screws

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# Flexible Tyre Coupling

## Power Ratings (KW)

| Speed rev/ min | Coupling Size | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | T4 | T5 | T6 | T7 | T8 | T9 | T10 | T11 | T12 | T14 | T16 |
| 100 | 0.25 | 0.69 | 1.33 | 2.62 | 3.93 | 5.24 | 7.07 | 9.16 | 13.9 | 24.3 | 39.5 |
| 200 | 0.5 | 1.38 | 2.66 | 5.24 | 7.85 | 10.5 | 14.1 | 18.3 | 27.9 | 48.7 | 79 |
| 300 | 0.75 | 2.07 | 3.99 | 7.85 | 11.8 | 15.7 | 21.2 | 27.5 | 41.8 | 73 | 118 |
| 400 | 1.01 | 2.76 | 5.32 | 10.5 | 15.7 | 20.9 | 28.3 | 36.6 | 55.7 | 97.4 | 158 |
| 500 | 1.26 | 3.46 | 6.65 | 13.1 | 19.6 | 26.2 | 35.3 | 45.8 | 69.6 | 122 | 197 |
| 600 | 1.51 | 4.15 | 7.98 | 15.7 | 23.6 | 31.4 | 42.4 | 55 | 83.6 | 146 | 237 |
| 700 | 1.76 | 4.84 | 9.31 | 18.3 | 27.5 | 36.6 | 49.5 | 64.1 | 97.5 | 170 | 276 |
| 720 | 1.81 | 4.98 | 9.57 | 18.8 | 28.3 | 37.7 | 50.9 | 66 | 100 | 175 | 284 |
| 800 | 2.01 | 5.53 | 10.6 | 20.9 | 31.4 | 41.9 | 56.5 | 73.3 | 111 | 195 | 316 |
| 900 | 2.26 | 6.22 | 12 | 23.6 | 35.3 | 47.1 | 63.6 | 82.5 | 125 | 219 | 355 |
| 960 | 2.41 | 6.63 | 12.8 | 25.1 | 37.7 | 50.3 | 67.9 | 88 | 134 | 234 | 379 |
| 1000 | 2.51 | 6.91 | 13.3 | 26.2 | 39.3 | 52.4 | 70.7 | 91.6 | 139 | 243 | 395 |
| 1200 | 3.02 | 8.29 | 16 | 31.4 | 47.1 | 62.8 | 84.8 | 110 | 167 | 292 | 474 |
| 1400 | 3.52 | 9.68 | 18.6 | 36.6 | 55 | 73.3 | 99 | 128 | 195 | 341 | 553 |
| 1440 | 3.62 | 9.95 | 19.1 | 37.7 | 56.5 | 75.4 | 102 | 132 | 201 | 351 | 568 |
| 1600 | 4.02 | 11.101 | 21.3 | 41.9 | 62.8 | 83.8 | 113 | 147 | 223 | 390 | 632 |
| 1800 | 4.52 | 12.401 | 23.9 | 47.1 | 70.7 | 94.2 | 127 | 165 | 251 | 438 | |
| 2000 | 5.03 | 13.801 | 26.6 | 52.4 | 78.5 | 105.5 | 141 | 183 | 279 | | |
| 2200 | 5.53 | 15.201 | 29.3 | 57.601 | 86.4 | 115 | 155 | 202 | | | |
| 2400 | 6.03 | 16.601 | 31.9 | 62.8 | 94.2 | 126 | 170 | | | | |
| 2600 | 6.53 | 18.001 | 34.6 | 68.1 | 102 | 136 | 184 | | | | |
| 2800 | 7.04 | 19.401 | 37.2 | 73.3 | 110 | 147 | | | | | |
| 2880 | 7.24 | 19.901 | 38.3 | 75.4 | 113 | 151 | | | | | |
| 3000 | 7.54 | 20.701 | 39.9 | 78.5 | 118 | 157 | | | | | |
| 3600 | 9.05 | 24.901 | 47.9 | 94.2 | | | | | | | |

## Physical Characteristics

| Characteristics | Coupling Size | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | T4 | T5 | T6 | T7 | T8 | T9 | T10 | T11 | T12 | T14 | T16 |
| Maximum speed rev/min | 4,500 | 4,500 | 4,000 | 3,600 | 3,100 | 3,000 | 2,600 | 2,300 | 2,050 | 1,800 | 1,600 |
| Nominal Torque Nm TK N | 24 | 66 | 127 | 250 | 375 | 500 | 675 | 875 | 1,330 | 2,325 | 3,770 |
| Maximum Torque Nm TK MAX | 64 | 160 | 318 | 487 | 759 | 1,096 | 1,517 | 2,137 | 3,547 | 5,642 | 9,339 |
| Torsional Stiffness Nm/O | 5 | 13 | 26 | 41 | 63 | 91 | 126 | 178 | 296 | 470 | 778 |
| Max. parallel misalignment mm | 1.1 | 1.3 | 1.6 | 1.9 | 2.1 | 2.4 | 2.6 | 2.9 | 3.2 | 3.7 | 4.2 |
| Maximum end float mm ± | 1.3 | 1.7 | 2 | 2.3 | 2.6 | 3 | 3.3 | 3.7 | 4 | 4.6 | 5.3 |
| Approximate mass. kg | 0.1 | 0.3 | 0.5 | 0.7 | 1 | 1.1 | 1.1 | 1.4 | 2.3 | 2.6 | 3.4 |
| Alternating Torque ± Nm @ 10Hz TKW | 11 | 26 | 53 | 81 | 127 | 183 | 252 | 356 | 591 | 940 | 1,556 |
| Resonance Factor V R | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| Damping Coefficient | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |

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# Flexible Tyre Coupling

| Flexible Tyre Coupling Service Factors | | |
|---|---|---|
| Duty | Type of Driving Unit | |
| | Electric Motors | Internal Combustion Engine |
| Uniform | 1.0 | 1.5 |
| Light | 1.5 | 2.0 |
| Moderate | 2.0 | 2.5 |
| Heavy | 2.5 | 3.0 |

## Selection Procedure

1. Identify required service factor from table on previous page
2. Multiply service factor by normal running power to establish design power
3. Select coupling size from the power ratings table on previous page. From the appropriate speed continue across until you find a power greater than the design power calculated above
4. Check from the HRC Coupling Dimensions Table that the flanges chosen can accommodate the required bores.

NB. Please contact Finer Power Transmissions if you are not sure about the selection procedure, we will be happy to assist you as best we can.

![Finer Power Transmissions logo]

"Australia's Only
Genuine Wholesaler"

# HRC Coupling

The HRC Coupling is a proven performer, consisting of two cast iron flanges and a rubber element, which performs under compression.

The modular design allows for a simple fitting and easy maintenance whilst the rubber element absorbs shock loading and compensates for marginal misalignment.

Finer Power Transmissions carries a full range of HRC Couplings in Pilot Bore and Taper Lock.

| Coupling | A | B | E | F | G | Bush | Max. Bore | | C | D | J |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | mm | inch | | | |
| 70 | 69 | 60 | 31 | 25 | 18 | 1008 | 25 | 1 | 20 | 23.75 | 29 |
| 90 | 85 | 70 | 32 | 30.5 | 22.5 | 1108 | 28 | 1 1/8 | 19.5 | 23.25 | 29 |
| 110 | 112 | 100 | 45 | 45 | 29 | 1610 | 32 | 1 1/4 | 18.5 | 26.75 | 38 |
| 130 | 130 | 105 | 50 | 53 | 36 | 1610 | 42 | 1 5/8 | 18 | 26.5 | 38 |
| 150 | 150 | 115 | 62 | 60 | 40 | 2012 | 50 | 2 | 23.5 | 33.5 | 42 |
| 180 | 180 | 125 | 77 | 73 | 49 | 2517 | 60 | 2 1/2 | 34.5 | 46.5 | 48 |
| 230 | 225 | 155 | 99 | 85.5 | 59.5 | 3020 | 75 | 3 | 39.5 | 52.5 | 55 |
| 280 | 275 | 185 | 119 | 105.5 | 74.5 | 3525 | 90 | 3 1/2 | 74 | 90 | 67 |

![Diagrams of B Flange, F Flange, H Flange with ASSEMBLED LENGTH]

**B Flange**   **F Flange**   **H Flange**
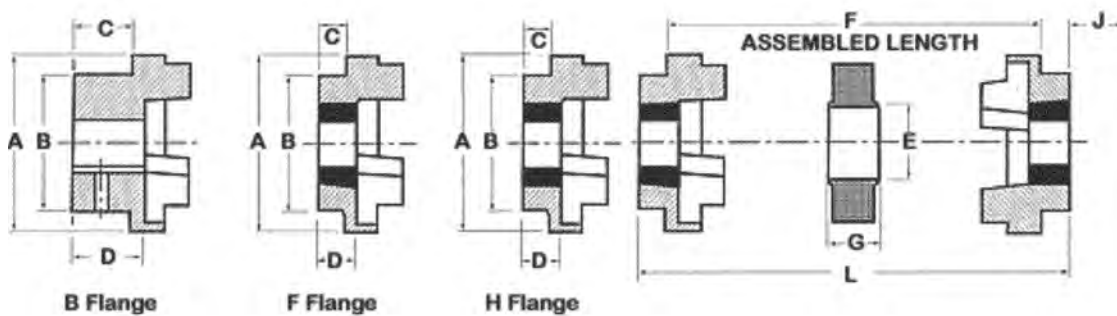
| Coupling | Assembled Length (L) FF,FH,HH | Weight Kg | Inertia Mr2 kgm | Dynamic Stiffness Nm/° | Maximum Misalignment | | Nominal Torque Nm |
|---|---|---|---|---|---|---|---|
| | | | | | Parallel | Axial | |
| 70 | 65 | 1 | 0.00085 | - | 0.3 | 0.2 | 31 |
| 90 | 69.5 | 1.17 | 0.00115 | - | 0.3 | 0.5 | 80 |
| 110 | 82 | 5 | 0.004 | 65 | 0.3 | 0.6 | 160 |
| 130 | 89 | 5.46 | 0.0078 | 130 | 0.4 | 0.8 | 315 |
| 150 | 107 | 7.11 | 0.0181 | 175 | 0.4 | 0.9 | 600 |
| 180 | 142 | 16.6 | 0.0434 | 229 | 0.4 | 1.1 | 950 |
| 230 | 164.5 | 26 | 0.12068 | 587 | 0.5 | 1.3 | 2000 |
| 280 | 207.5 | 55.3 | 0.44653 | 1025 | 0.5 | 1.7 | 3150 |

# HRC Coupling

## Service Factors

| SPECIAL CASES<br>For applications where substantial shock, vibration and torque fluctuation occur, and for reciprocating machines e.g. internal combustion engines, piston type pumps and compressors, refer to your local Authorised Distributor with full machine details for torsional analysis. | Type of Driving Unit | | | Type of Driving Unit | | |
|---|---|---|---|---|---|---|
| | Electric Motors<br>Steam Turbines | | | Internal Combustion Engines<br>Steam Engines<br>Water Turbines | | |
| Driven Machine Class | Hours per day duty | | | Hours per day duty | | |
| | 8 and under | Over 8 to 16 inclusive | Over 16 | 8 and under | Over 8 to 16 inclusive | Over 16 |
| UNIFORM<br>Agitators, Brewing machinery, Centrifugal blowers, Centrifugal compressors†, Conveyors, Centrifugal fans and pumps, Generators, Sewage disposal equipment. | 1 | 1.12 | 1.25 | 1.25 | 1.4 | 1.6 |
| MODERATE SHOCK*<br>Clay working machinery, Crane hoists, Laundry machinery, Wood working machinery, Machine tools, Rotary mills, Paper mill machinery, Textile machinery, Non-unifomly loaded centrifugal pumps. | 1.6 | 1.8 | 2 | 2 | 2.24 | 2.5 |
| HEAVY SHOCK*<br>Reciprocating conveyors, Crushers, Shakers, Metal mills, Rubber machinery (Banbury mixers and mills), Reciprocating compressors, Welding sets. | 2.5 | 2.8 | 3.12 | 3.12 | 3.55 | 4 |

## Power Ratings (KW)

| Speed rev/min. | Coupling Sizes | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 70 | 90 | 110 | 130 | 150 | 180 | 230 | 280 |
| 100 | 0.33 | 0.84 | 1.68 | 3.3 | 6.28 | 9.95 | 20.9 | 33 |
| 200 | 0.66 | 1.68 | 3.35 | 6.6 | 12.6 | 19.9 | 41.9 | 65 |
| 400 | 1.32 | 3.35 | 6.7 | 13.2 | 25.1 | 39.8 | 83.8 | 132 |
| 600 | 1.98 | 5.03 | 10.1 | 19.8 | 37.7 | 59.7 | 126 | 198 |
| 720 | 2.37 | 6.03 | 12.1 | 23.8 | 45.2 | 71.6 | 151 | 238 |
| 800 | 2.64 | 6.7 | 13.4 | 26.4 | 50.3 | 79.6 | 168 | 264 |
| 960 | 3.17 | 8.04 | 16.1 | 31.7 | 60.3 | 95.5 | 201 | 317 |
| 1200 | 3.96 | 10.1 | 20.1 | 39.6 | 75.4 | 119 | 251 | 396 |
| 1440 | 4.75 | 12.1 | 24.1 | 47.5 | 90.5 | 143 | 302 | 475 |
| 1600 | 5.28 | 13.4 | 26.8 | 52.8 | 101 | 159 | 335 | 528 |
| 1800 | 5.94 | 15.1 | 30.2 | 59.4 | 113 | 179 | 377 | 594 |
| 2000 | 6.6 | 16.8 | 33.5 | 66 | 126 | 199 | 419 | 660 |
| 2200 | 7.26 | 18.4 | 36.9 | 72.6 | 138 | 219 | 461 | 726 |
| 2400 | 7.92 | 20.1 | 40.2 | 79.2 | 151 | 239 | 503 | |
| 2600 | 8.58 | 21.8 | 43.6 | 85.8 | 163 | 259 | 545 | |
| 2880 | 9.5 | 24.1 | 48.3 | 95 | 181 | 286 | | |
| 3000 | 9.9 | 25.1 | 50.3 | 99 | 188 | 298 | | |
| 3600 | 11.9 | 30.1 | 60.3 | 118 | 226 | | | |

For speeds below 100 rev/min, and intermediate speeds, use nominal torque ratings.

* Maximum coupling speeds are calculated using an allowable peripheral speed for the hub material.
  For selection of smaller sizes with speeds in excess of 3600 rev/min – Consult your local Authorised Distributor.

Every effort has been taken to ensure that the data listed in this catalogue is correct. Finer Power Transmissions P/L will not accept liability for any damage. or loss caused as a result of the data in this catalogue.

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# HRC Coupling Selection

## Selection - from power of IEC Motors

(1). Opposite motor frame size under the applicable speed find motor power.

(2) Selection of Taperlock (H or F) of Bored to size (B) is shown in column headed 'Size'.

| Motor | | 3000 rev/min | | | 1500 rev/min | | | 1000 rev/min | | | 750 rev/min | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Motor Power (kW) | Size | | Motor Power (kW) | Size | | Motor Power (kW) | Size | | Motor Power (kW) | Size | |
| | | | Flange Type | | | Flange Type | | | Flange Type | | | Flange Type | |
| Frame Size | Shaft Dia | | H or F | B | | H or F | B | | H or F | B | | H or F | B |
| 63 | 11 | 0.18 | 70 | 70 | 0.12 | 70 | 70 | - | - | - | - | - | - |
| | | 0.25 | 70 | 70 | 0.18 | 70 | 70 | - | - | - | - | - | - |
| 71 | 14 | 0.37 | 70 | 70 | 0.25 | 70 | 70 | - | - | - | - | - | - |
| | | 0.55 | 70 | 70 | 0.37 | 70 | 70 | - | - | - | - | - | - |
| 80 | 19 | 0.75 | 70 | 70 | 0.55 | 70 | 70 | 0.37 | 70 | 70 | - | - | - |
| | | 1.1 | 70 | 70 | 0.75 | 70 | 70 | 0.55 | 70 | 70 | - | - | - |
| 90S | 24 | 1.5 | 70 | 70 | 1.1 | 70 | 70 | 0.75 | 70 | 70 | - | - | - |
| 90L | 24 | 2.2 | 70 | 70 | 1.5 | 70 | 70 | 1.1 | 70 | 70 | - | - | - |
| 100L | 28 | 3 | 90 | 70 | 2.2 | 90 | 70 | 1.5 | 90 | 70 | 0.75 | 90 | 70 |
| | | | | | 3 | 90 | 70 | | | | 1.1 | 90 | 70 |
| 112M | 28 | 4 | 90 | 70 | 4 | 90 | 90 | 2.2 | 90 | 90 | 1.5 | 90 | 70 |
| 132S | 38 | 5.5 | 130 | 90 | 5.5 | 130 | 90 | 3 | 130 | 90 | 2.2 | 130 | 90 |
| | | 7.5 | 130 | 90 | | | | | | | | | |
| 132M | 38 | - | - | - | 7.5 | 130 | 90 | 4 | 130 | 90 | 3 | 130 | 90 |
| | | | | | | | | 5.5 | 130 | 110 | | | |
| 160M | 42 | 11 | 130 | 90 | 11 | 130 | 90 | 7.5 | 130 | 110 | 4 | 130 | 110 |
| | | 15 | 130 | 90 | | | | | | | 5.5 | 130 | 110 |
| 160L | 42 | 18.5 | 130 | 110 | 15 | 130 | 110 | 11 | 130 | 130 | 7.5 | 130 | 110 |
| 180M | 48 | 22 | 150 | 110 | 18.5 | 150 | 130 | - | - | - | - | - | - |
| 180L | 48 | - | - | - | 22 | 150 | 130 | 15 | 150 | 130 | 11 | 150 | 130 |
| 200L | 55 | 30 | 180 | 110 | 30 | 180 | 130 | 18.5 | 180 | 130 | 15 | 180 | 130 |
| | | 37 | 180 | 130 | | | | 22 | 180 | 150 | | | |
| 225S | 60 | - | - | - | 37 | 180 | 150 | - | - | - | 18.5 | 180 | 150 |
| 225M | 55* / 60 | 45 | 180 | 130 | 45 | 180 | 150 | 30 | 180 | 150 | 22 | 180 | 150 |
| 250M | 60* / 70 | 55 | 180 | 130 | 55 | 230 | 150 | 37 | 230 | 150 | 30 | 230 | 180 |
| 280S | 65* / 80 | 75 | - | 150 | 75 | 280 | 180 | 45 | 280 | 180 | 37 | 280 | 180 |
| 280S | 65* / 80 | 90 | - | 180 | 90 | 280 | 180 | 55 | 280 | 180 | 45 | 280 | 180 |
| 315S | 65* / 85 | 110 | - | 180 | 110 | 280 | 230 | 75 | 280 | 230 | 55 | 280 | 230 |
| 315S | 65* / 85 | 132 | - | 180 | 132 | 280 | 230 | 90 | 280 | 230 | 75 | 280 | 230 |

## Selection Procedure

1. Identify required service factor from table on previous page
2. Multiply service factor by normal running power to establish design power
3. Select coupling size from the power ratings table on previous page. From the appropriate speed continue across until you find a power greater than the design power calculated above
4. Check from the HRC Coupling Dimensions Table that the flanges chosen can accommodate the required bores.

NB. Please contact Finer Power Transmissions if you are not sure about the selection procedure, we will be happy to assist you as best we can.

# Jaw Coupling

The Finer Jaw Coupling is recognised across a large range of industries. The Jaw Coupling is highly resilient, it does not require any lubrication and can work in environments contaminated with oil, dirt, sand, moisture and grease.

The rubber insert is designed to absorb shock loading and does not allow for any metal on metal contact. Finer Power Transmissions stocks both the Spider Elements as well as the Wrap Element Kits.

Finer Power Transmissions stocks a range of jaw couplings in a variety of pre-bored and keyed sizes.

| Size | Pilot Bore | Element* | Wrap | Kit | Metric (mm) | | | | | | | | | | Imperial (inch) | | | | | |
|------|-----------|----------|------|-----|----|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|---|-----|
| | | | | | 14 | 19 | 20 | 24 | 25 | 28 | 32 | 38 | 42 | 48 | 3/8 | 1/2 | 5/8 | 3/4 | 1 | 1 1/4 |
| L050 | ✓ | ✓ | | | | | | | | | | | | | | ✓ | | | | |
| L070 | ✓ | ✓ | | | ✓ | ✓ | | | | | | | | | | ✓ | | | | |
| L075 | ✓ | ✓ | | | ✓ | ✓ | | | | | | | | | | ✓ | ✓ | ✓ | | |
| L095 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | | ✓ | ✓ | ✓ | ✓ | |
| L100 | ✓ | ✓ | ✓ | ✓ | | | | ✓ | ✓ | ✓ | ✓ | ✓ | | | | | ✓ | ✓ | ✓ | ✓ |
| L110 | ✓ | ✓ | ✓ | ✓ | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | | | | | | ✓ | ✓ |
| L150 | ✓ | ✓ | ✓ | ✓ | | | | ✓ | | | ✓ | ✓ | ✓ | ✓ | | | | | | ✓ |
| L190 PB | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | | | |
| L225 PB | ✓ | ✓ | ✓ | | | | | | | | | | | | | | | | | |

*Available in Standard & Polyurethane



TYPE1    TYPE2
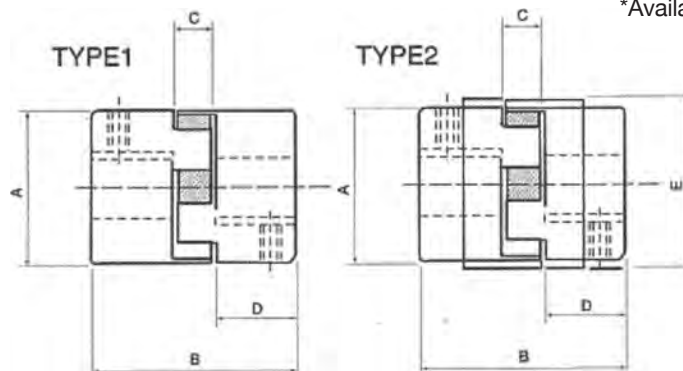
| Coupling | Type | A | B | C | D | Stock Bore | Weight (Kg) | | Max Bore. |
|----------|------|---|---|---|---|-----------|------------|---|-----------|
| | | | | | | | Min. Bore | Max. Bore | |
| L070PB | 1 | 35 | 53 | 13 | 19 | 6 | 0.26 | 0.24 | 19 |
| L075PB | 1 | 44.5 | 53 | 13 | 21 | 6 | 0.45 | 0.39 | 22 |
| L095PB | 1 | 54 | 65 | 13 | 25 | 11 | 0.79 | 0.69 | 29 |
| L100PB | 1 | 65 | 86 | 19 | 35 | 11 | 1.55 | 1.32 | 35 |
| L110PB | 1 | 84 | 110 | 24 | 43 | 16 | 2.93 | 2.55 | 42 |
| L150PB | 1 | 96 | 113 | 25 | 45 | 16 | 4.06 | 3.51 | 48 |
| L190PB | 1 | 115 | 133 | | | | | | |
| L225PB | 1 | 127 | 155 | | | | | | |

| Coupling | Max. RPM | Torque in Lbs. | Horsepower capacities at indicated speeds (RPM) | | | | | | | |
|----------|----------|----------------|-----|-----|-----|-----|-----|------|------|------|
| | | | 50 | 100 | 300 | 600 | 900 | 1200 | 1800 | 3600 |
| L070 PB | 14000 | 44.1 | - | 0.07 | 0.21 | 0.42 | 0.63 | 0.84 | 1.26 | 2.52 |
| L075 PB | 11000 | 88.2 | 0.035 | 0.14 | 0.38 | 0.76 | 1.26 | 1.68 | 2.52 | 1.04 |
| L095 PB | 9000 | 189.0 | 0.115 | 0.30 | 0.90 | 1.80 | 2.70 | 3.60 | 5.40 | 10.80 |
| L100 PB | 7000 | 416.0 | 0.330 | 0.66 | 1.98 | 3.96 | 5.94 | 7.92 | 11.90 | 23.80 |
| L110 PB | 5000 | 788.0 | .630 | 1.25 | 3.75 | 7.50 | 11.30 | 15.00 | 22.50 | 45.00 |
| L150 PB | 5000 | 1260.0 | 1.000 | 2.00 | 6.00 | 12.00 | 18.00 | 24.00 | 36.00 | 72.00 |

COUPLINGS

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# MAX DYNAMIC® Coupling
## - Omega® equivalent

## Characteristics of MAX DYNAMIC® Coupling

1. Facility protection for twirl and twist, impact and abrasion
2. Very simple replacement and maintenance without oil and grease
3. Very simple replacement without the separation of motor or connector on the related line due to it's simple structure
4. Possible for the dissimilar connection and assembling with same hub
5. Polyurethane based for having good water resistance, chemical resistance
6. Highest flexible elasticity on run
7. Less noise

### Application

- Agitator
- Blower
- Compressor
- Conveyors
- Cranes and Hoists

- Elevators
- Fans
- Generators
- Pump
- Brewery and Distilling

- Food Industry
- Lumber Industry
- Pulp and Paper Mill
- Rubber Industry
- Steel Industry

- Textile Mills
- Aggregate Processing Cement

# MAX DYNAMIC® Standard Coupling



| Max Dynamic Coupling No. | Torque (kgf.m) | Max. Bore (mm) | Max. rpm | Power Rating (kw/rpm) | Dimensions (mm) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | A | B | C | | D | E | F |
| | | | | | Out Dia | Hub Length | Min. Shaft Spacing | Max. Shaft Spacing | Hub Dia | Total Length | |
| | | | | | | | | | | In | Out |
| D-2 | 2.20 | 28 | 7,500 | 0.0023 | 89 | 24 | 35 | 47 | 47 | 83 | 95 |
| D-3 | 4.20 | 34 | 7,500 | 0.0043 | 102 | 32 | 9 | 47 | 59 | 83 | 111 |
| D-4 | 6.40 | 42 | 7,500 | 0.0066 | 116 | 37 | 9 | 47 | 66 | 83 | 121 |
| D-5 | 11.00 | 48 | 7,500 | 0.0110 | 137 | 45 | 10 | 52 | 80 | 100 | 142 |
| D-10 | 16.70 | 55 | 7,500 | 0.0170 | 162 | 45 | 11 | 53 | 93 | 101 | 143 |
| D-20 | 26.70 | 60 | 6,600 | 0.0270 | 184 | 50 | 15 | 63 | 114 | 115 | 163 |
| D-30 | 42.10 | 75 | 5,800 | 0.0430 | 210 | 56 | 12 | 68 | 138 | 124 | 180 |
| D-40 | 63.40 | 85 | 5,000 | 0.0660 | 241 | 61 | 12 | 74 | 168 | 134 | 196 |
| D-50 | 88.20 | 90 | 4,200 | 0.0900 | 279 | 69 | 12 | 86 | 207 | 150 | 224 |
| D-60 | 144.00 | 105 | 3,800 | 0.1480 | 318 | 80 | 11 | 99 | 222 | 171 | 259 |
| D-70 | 254.00 | 120 | 3,600 | 0.2620 | 356 | 85 | 18 | 109 | 235 | 189 | 281 |
| D-80 | 455.00 | 155 | 2,000 | 0.4670 | 406 | 114 | 17 | 149 | 286 | 245 | 377 |
| D-100 | 980.00 | 171 | 1,900 | 1.0000 | 533 | 140 | 44 | 95 | 359 | 324 | 375 |
| D-120 | 1,961.00 | 190 | 1,800 | 2.0000 | 635 | 152 | 57 | 124 | 448 | 362 | 429 |

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# MAX DYNAMIC® Standard Coupling with Compression Bushed Hubs

*Finer Power Transmissions™*

"Why compete against your supplier when you can be our partner"



QD

TAPER-LOCK (D3-D80 Drawing only)
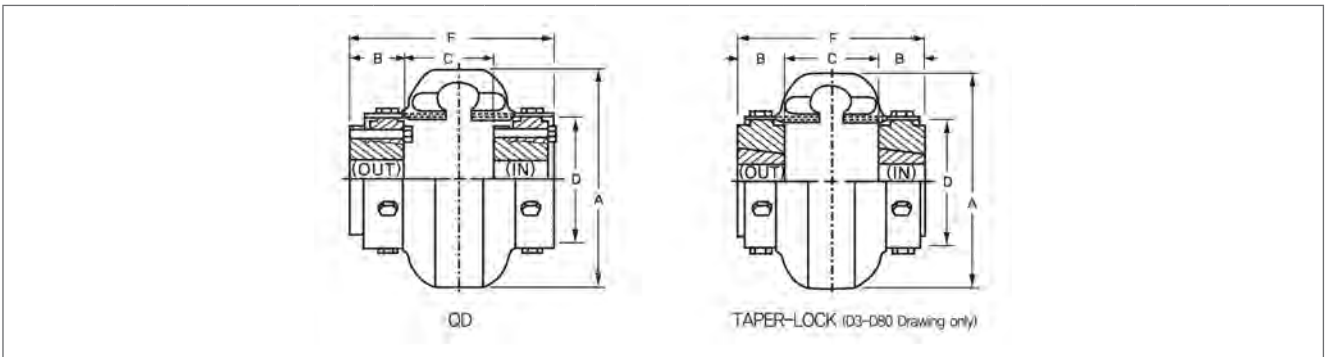
## Specification Data with Taper-Lock Hubs

| Max Dynamic Coupling No. | Taper Lock Bush No. | Torque (kgf.m) | Max. Bore (mm) | Max. rpm | Power Rating (kw/rpm) | Dimensions (mm) | | | | | | Weight (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | A | B | C | D | E | F | |
| | | | | | | Out Dia | Hub Length | In | Hub Dia | Total Length | | |
| D-3 | 1008 | 4.2 | 25 | 7,500 | 0.0043 | 102 | 22 | 43.0 | 59 | 87 | | 0.82 |
| D-4 | 1008 | 6.4 | 25 | 7,500 | 0.0066 | 116 | 22 | 43.0 | 66 | 87 | | 1.18 |
| D-5 | 1108 | 11.0 | 28 | 7,500 | 0.0110 | 137 | 22 | 56.0 | 80 | 100 | | 1.81 |
| D-10 | 1610 | 16.7 | 35 | 7,500 | 0.0170 | 162 | 25 | 52.0 | 93 | 103 | | 2.72 |
| D-20 | 1610 | 26.7 | 42 | 6,600 | 0.0270 | 184 | 25 | 63.5 | 114 | 114 | | 4.08 |
| D-30 | 2012 | 42.1 | 50 | 5,800 | 0.0430 | 210 | 32 | 65.0 | 138 | 129 | | 6.17 |
| D-40 | 2517 | 63.4 | 65 | 5,000 | 0.0660 | 241 | 44 | 60.0 | 168 | 149 | | 9.89 |
| D-50 | 2517 | 88.2 | 65 | 4,200 | 0.0900 | 279 | 44 | 76.0 | 207 | 165 | | 14.29 |
| D-60 | 3020 | 144.0 | 75 | 3,800 | 0.1480 | 318 | 51 | 84.0 | 222 | 186 | | 21.14 |
| D-70 | 3535 | 254.0 | 100 | 3,600 | 0.2620 | 356 | 89 | 60.0 | 235 | 238 | | 30.25 |
| D-80 | 4040 | 455.0 | 100 | 2,000 | 0.4670 | 406 | 102 | 95.0 | 286 | 298 | | 37.19 |
| | | | | | | | | In | Out | | In | Out | |
| D-100 | 4545 | 980.0 | 110 | 1,900 | 1.0000 | 533 | 114 | 38 | 152 | 359 | 267 | 381 | 113.40 |
| D-120 | 5050 | 1,961.0 | 125 | 1,800 | 2.0000 | 635 | 127 | 51 | 181 | 448 | 305 | 435 | 185.07 |

**Finer Power Transmissions™**

# MAX DYNAMIC® Spacer Coupling



| Max Dynamic Coupling No. | Torque (kgf.m) | Max. Bore (mm) | Max. rpm | Power Rating (kw/rpm) | Dimensions (mm) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | A | B | C | | D | E | F |
| | | | | | Out Dia | Hub Length | Min. Shaft Spacing | Max. Shaft Spacing | Hub Dia | Total Length | |
| | | | | | | | | | | In | Out |
| DS-2 | 2.20 | 28 | 7,500 | 0.0023 | 89 | 24 | 91 | 100 | 47 | 146 | 149 |
| DS-3 | 4.20 | 34 | 7,500 | 0.0043 | 102 | 37 | 85 | 140 | 59 | 184 | 216 |
| DS-4 | 6.40 | 42 | 7,500 | 0.0066 | 116 | 37 | 85 | 140 | 66 | 184 | 216 |
| DS-5 | 11.00 | 48 | 7,500 | 0.0110 | 137 | 45 | 89 | 140 | 80 | 184 | 228 |
| DS-10 | 16.70 | 55 | 7,500 | 0.0170 | 162 | 45 | 89 | 140 | 93 | 184 | 228 |
| DS-20 | 26.70 | 60 | 4,800 | 0.0270 | 184 | 50 | 67 | 180 | 114 | 238 | 280 |
| DS-30 | 42.10 | 75 | 4,200 | 0.0430 | 210 | 56 | 54 | 180 | 138 | 238 | 293 |
| DS-40 | 63.40 | 85 | 3,600 | 0.0660 | 241 | 61 | 41 | 180 | 168 | 238 | 307 |
| DS-50 | 88.20 | 90 | 3,100 | 0.0900 | 279 | 69 | 28 | 180 | 207 | 238 | 319 |
| DS-60 | 144.00 | 105 | 2,800 | 0.1480 | 318 | 80 | 66 | 250 | 222 | 318 | 415 |
| DS-70 | 254.00 | 120 | 2,600 | 0.2620 | 356 | 85 | 59 | 250 | 235 | 318 | 421 |
| DS-80 | 455.00 | 155 | 1,800 | 0.4670 | 406 | 114 | 37 | 250 | 286 | 318 | 478 |

## Recommended Capscrew

| Size | Torque (kgf.m) |
|---|---|
| D-2 | |
| D-3 | |
| D-4 | 2.3 |
| D-5 | |
| D-10 | |
| D-20 | |
| D-30 | 4.1 |
| D-40 | |
| D-50 | |
| D-60 | |
| D-70 | 10.2 |
| D-80 | |
| D-100 | 37.7 |
| D-120 | |

**NOTE**

1. A bolt having the highest tension shall be used
2. Locktite as adhesive shall be used
3. Never use a bolt more than twice

# MAX DYNAMIC® Coupling

## The tolerance of installation
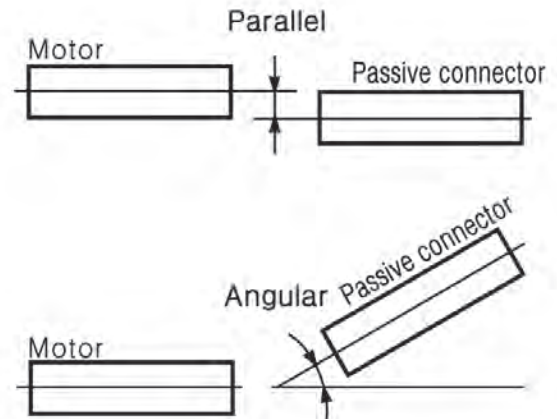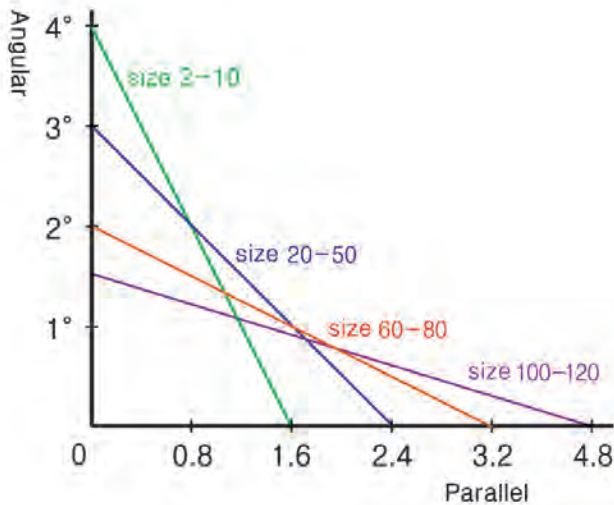


## The method of assembly
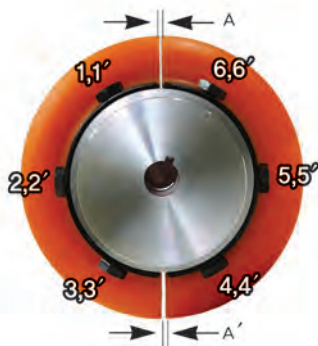


| | |
|---|---|
| 1. Adjust the face of A and A' at same space | 1. Adjust the face of A and A' at same space |
| 2. Adjust Hub's Minimum space | 2. Adjust Hub's Minimum space |
| 3. Assemble the bolts in the order of 2-2', 5-5', 3-3', 4-4', 6-6', 1-1' | 3. Assemble the bolts in the order of 2-2', 7-7', 3-3', 6-6', 1-1', 4-4', 8-8', 5-5' |
| 4. Assemble the bolts in the middle part of the edge | 4. Assemble the bolts in the middle part of the edge |

# MAX DYNAMIC® Coupling

## Service (safety) factors for each running parts

| General Application | Service Factor | Industry Application | Service Factor |
|---|---|---|---|
| Agitator | 1.5 | Aggregate Processing Cement | 2.0~3.0 |
| Blower | 1.0~1.5 | Brewery and Distilling | 1.0~2.0 |
| Compressor | 1.0~2.0 | Food Industry | 1.0~2.0 |
| Conveyor | 1.25~1.5 | Lumber Industry | 1.5~2.5 |
| Cranes and Hoist | 2.0~2.5 | Power Industry | 1.0~2.5 |
| Elevators | 1.0~2.0 | Pulp and Paper Mills | 1.0~3.5 |
| Fans | 1.0~2.0 | Rubber Industry | 1.0~3.0 |
| Generators | 1.0~2.5 | Steel Industry | 2.0~4.5 |
| Pumps | 1.0~1.5 | Textile | 1.0~2.0 |

## Service/Safety Factor

| | Running Status | Service Factor |
|---|---|---|
| 1 | For being continuous running and light load weight | 1.0 |
| 2 | For being the various change of the rotary power | 1.5 |
| 3 | For being various and frequent variation on the turning force | 2.0 |
| 4 | For being the variation of the rotary power accompaning impact | 2.5 |
| 5 | For being high impact load-weight accompanying slight retro-rotation | 3.0 |
| 6 | For being frequent retro-rotation accompanying high impact | consult |

# Rigid Coupling

Rigid Couplings are used in situations where shaft alignment is essential. A misaligned coupling can cause damage and downtime. When properly fitted this torsionally rigid coupling helps prevent any such event. Finer Rigid Couplings are Taper Lock ready and available in a range of sizes to accommodate almost any shaft size.

Rigid Couplings consist of 2 flanges, available in internal and external entry (H & F). This gives two possible coupling assemblies HF and FF. When connecting horizontal shafts, choose the most convenient method. When connecting vertical shafts use assembly FF only.
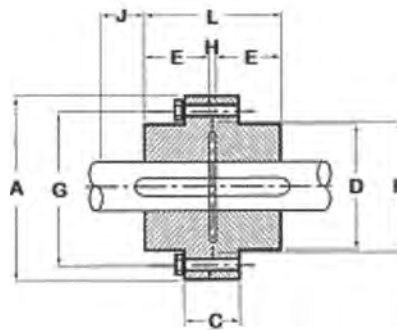
| Coupling | Bush | Max. Bore | | A | C | D | E | F nom | G nom | H+ | J* | L | Kg |
| | | Metric | Inch | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RM12 | 1210 | 32 | 1 1/4 | 118 | 35 | 83 | 26 | 76 | 102 | 7 | 38 | 57 | 3.5 |
| RM16 | 1615 | 42 | 1 5/8 | 127 | 43 | 80 | 38 | 89 | 105 | 7 | 38 | 83 | 4.5 |
| RM25 | 2517 | 65 | 2 1/2 | 178 | 51 | 123 | 45 | 127 | 149 | 7 | 48 | 97 | 11 |
| RM30 | 3030 | 75 | 3 | 216 | 65 | 146 | 76 | 152 | 181 | 7 | 54 | 169 | 23 |
| RM35 | 3535 | 90 | 3 1/2 | 248 | 75 | 178 | 89 | 178 | 213 | 7 | 67 | 185 | 38 |
| RM40 | 4040 | 100 | 4 | 298 | 76 | 210 | 102 | 216 | 257 | 7 | 79 | 210 | 64 |
| RM45 | 4545 | 110 | 4 1/2 | 330 | 86 | 230 | 114 | 241 | 286 | 7 | 89 | 235 | 88 |
| RM50 | 5050 | 125 | 5 | 362 | 92 | 266 | 127 | 267 | 314 | 7 | 92 | 260 | 155 |

* is the wrench clearance to allow for tightening and loosening the bush on the shaft.

+ is the distance between shaft ends.

Coupling weights calculated including average sized TL Bush.

Every effort has been taken to ensure that the data listed in this catalogue is correct. Finer Power Transmissions P/L will not accept liability for any damage. or loss caused as a result of the data in this catalogue.

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# Spacer Coupling

**Finer Power Transmissions**™

"Australia's Only Genuine Wholesaler"

The Spacer Coupling is used to extend the distance of a shaft. Designed in conjunction with the Tyre Coupling specifications, it can be used in combination with other couplings in the Finer Power Transmission range.

As the Spacer Coupling is Taper Locked, a large range of shaft sizes can be easily accommodated.
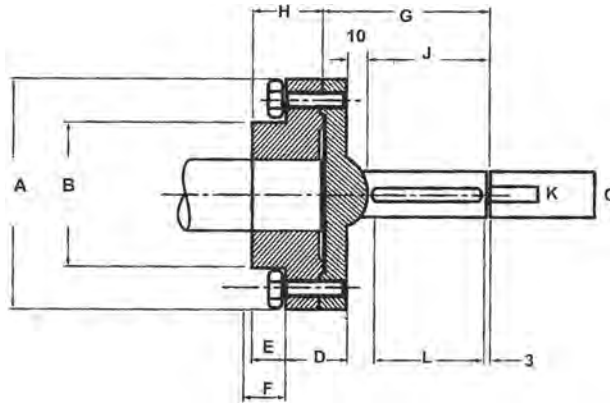
## Spacer Coupling

| Size | Bush | A | B | C | D | E | F | G | H | J | K | L | Kg |
|------|------|-----|-----|----|----|----|----|-----|----|-----|----|----|-------|
| SM16-140 | 1615 | 127 | 80 | 32 | 33 | 20 | 25 | 131 | 41 | 109 | 10 | 65 | 4.0 |
| SM25-140 | 2517 | 178 | 127 | 48 | 38 | 23 | 27 | 131 | 48 | 108 | 14 | 72 | 8.9 |
| SM25-180 | 2517 | 178 | 127 | 48 | 38 | 23 | 27 | 171 | 48 | 148 | 14 | 78 | 9.1 |
| SM30-180 | 3030 | 216 | 146 | 60 | 49 | 47 | 34 | 171 | 79 | 144 | 18 | 80 | 18.70 |
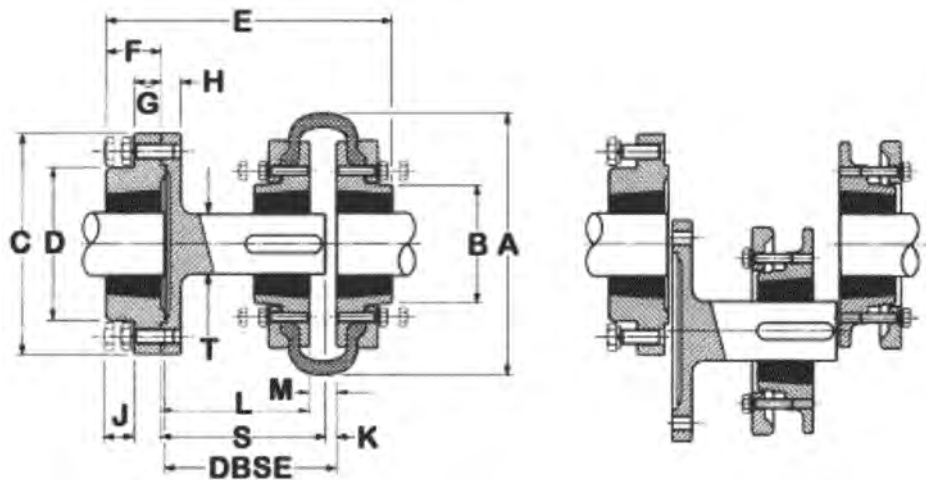
## Spacer Coupling with Tyre Coupling

| Size | Tyre Couple | Spacer Distance | Spacer Bush | Tyre Bush | A | B | C | D | E | F | G | H | J | K | L | M | S | T |
|------|-------------|-----------------|-------------|-----------|-----|-----|-----|-----|-----|----|----|----|----|---|-----|----|-----|----|
| SM16-140 | T40 | 140 | 1615 | 1008 | 104 | 82 | 127 | 80 | 200 | 38 | 18 | 15 | 14 | 9 | 126 | 22 | 94 | 32 |
| | T50 | | | 1210 | 133 | 79 | | | 213 | | | | | | 125 | 25 | 134 | |
| | T60 | | | 1610 | 165 | 70 | | | 214 | | | | | | 118 | 27 | 134 | |
| SM25-140 | T80 | 140 | 2517 | 2517 | 211 | 95 | 178 | 123 | 233 | 45 | 22 | 16 | 14 | 9 | 116 | 25 | 134 | 48 |
| | T90 | | | 2517 | 235 | 108 | | | 233 | | | | | | 116 | 27 | 134 | |
| SM25-180 | T80 | 180 | 2517 | 2517 | 211 | 95 | 178 | 123 | 273 | 45 | 22 | 16 | 14 | 9 | 158 | 25 | 174 | 48 |
| | T90 | | | 2517 | 235 | 108 | | | 273 | | | | | | 156 | 27 | 174 | |
| SM30-180 | T100 | 180 | 3030 | 3020 | 254 | 120 | 216 | 146 | 310 | 76 | 29 | 20 | 17 | 9 | 156 | 25 | 174 | 60 |
| | T110 | | | 3020 | 279 | 134 | | | 310 | | | | | | 158 | 27 | 174 | |

# KCP Gear Coupling

KCP Gear Coupling follows the international standards of AGMA and JIS, which easily allows to replace with major industrial products. Our Gear coupling compensate angular misalignment, parallel misalignment and end float. The fully crowned hub teeth provide minimum loading stress, and ensure longer life.

## 1. Characteristic

1. High torque, small size, long life and very little loss of transmitting power.

2. The concave-convex flange design allows easy assembly and the high quality gasket prevent leakage of lubricant.

3. Gear Coupling permits parallel, angular misalignments and end floating by crown gear teeth.

■ **Parallel Misalignment**
The driving and driven shafts are not parallel to each other, but not on the same straight line.

■ **Anglular Misalignment**
The driving and driven shafts installed with an limited angle.

■ **End Floating**
The driving and driven shafts slide sliqhtly along with the gear teeth.

■ **Composite Misalignment**
Most of cases, above 3 misalignments appear with mixed in general use.
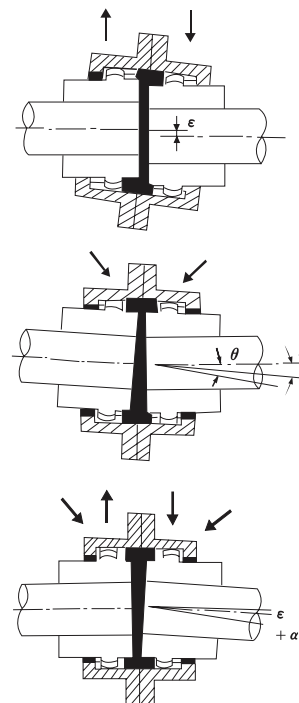
# KCP Gear Coupling

## Allowable Misalignment

| Size S | 10G | 15G | 20G | 25G | 30G | 35G | 40G | 45G | 50G | 55G | 60G | 70G | 80G | 90G | 100G | 110G | 120G |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ε(mm) | 1.2 | 1.3 | 1.7 | 2.1 | 2.4 | 2.9 | 3.2 | 3.6 | 4.1 | 4.5 | 5.0 | 5.9 | 6.7 | 7.4 | 8.2 | 12.7 | 12.7 |
| $\theta°(\alpha)$ | 3(1.5) | 3(1.5) | 3(1.5) | 3(1.5) | 3(1.5) | 3(1.5) | 3(1.5) | 3(1.5) | 3(1.5) | 3(1.5) | 3(1.5) | 2(1) | 2(1) | 2(1) | 2(1) | 2(1) | 2(1) |

■ Data subject to double engagement couplings.

5. The coupling made of S45C has a good endurance to high speed and peak load.
   Consult us for special materials, if required.
6. Customer's requirements of special design can be acceptable.

# 2. Structure
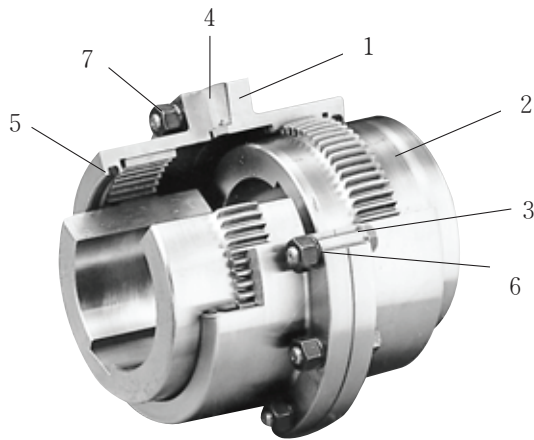


1. Internal Gear(Flanged Sleeve)
2. Crown Gear(Crown Gear Hub)
3. Reamer Bolt or AGMA Bolt
4. Gasket
5. O-ring
6. Spring Washer
7. Hex. Bolt & Nut.

■ The crowned hub teeth provide larger contact area and decrease the stress.

# 3. Application

1. Heavy load, but compact design coupling.
2. Highs speed up to 5,000rpm(Depending on size, refer to the data)
3. Low speed, but high starting torque.
4. End float application.
5. Spacer required, due to longer distance between shaft ends.
6. Low load and light weight application is not recommendable.

## 4. Standard Material

| INTERNAL GEAR | CROWN GEAR | FLANGE | Bolt | O-Ring |
|---|---|---|---|---|
| SM 45C-N | | | SM 45C-H | NBR |

- Special material and/or specil treatment is required under the unusual application environments, such as high speed, high or low temperature, chemical corrosiveness, maximum load stress.
- Under the heavy load, high speed and corrosive environment, special materials shall be required.

## 5. Selection method of size

### 1. Selection

① Using the following formula, obtain Design Torque required.

$$T = 97,400 \frac{kw}{N} \times S.F \text{ 또는 } T = 71,620 \frac{HP}{N} \times S.F$$

| | | |
|---|---|---|
| T | = | Design torque(kg·cm) |
| kw | = | Power(kw) |
| HP | = | Power(HP) |
| N | = | Working revolution (rpm) |
| S·F | = | Recommended Service Factor |

② Select the size with the same or greater value at the Basic Torque column, Refer to the maximum speed allowed to the size selected size, and then compare the shaft diameters of the application with the max. bore dia of the selected size. lf the coupling bore is not suitable, select the next larger coupling size.

### 2. Special requirements.

① At the application of the Sliding Gear Coupling (type KGH) that endfloat movement occurs more than 5 times per hour, add 0.5 to the listed value of service factor
② At the applications such as continuous reverse revolutions, intermit operation, often peak load and high inertia required system, multiply 1.5 to the Design Torque calculated.
③ ln the type of KGES-R and KGFS-O, the thickness and length of intermediate shaft must be determined according to our company's material specifications,consult with our Engineer.
④ Selecting the size of types  KGDBW and KGSBW : apply brake power, if exceeds the prime mover power.

## 3. Example

Select Gear Coupling to connect 450HP 1,170rpm electric motor with reducer.
Motor shaft diameter is $80\phi$ mm, Reducer shaft diameter is $90\phi$ mm, Max. parallel alignment is 1.5mm

① Select type KGDE for higher valued application of parallel misalignment.
② Service factor is 2.0
③ Use the normal formula

$$HP/100rpm = \frac{450 \times 100 \times 2.0}{1.170} = 76.9$$

Size KGDE25 is selected with rating of 90 HP per 100rpm. To apply larger shaft dia $90\phi$ mm, finally KGDE 30 is selected.

## 6. Designation

**KCP —— 15 KGD**

Type of Gear Coupling

Size No.

KCP COUPLINGS
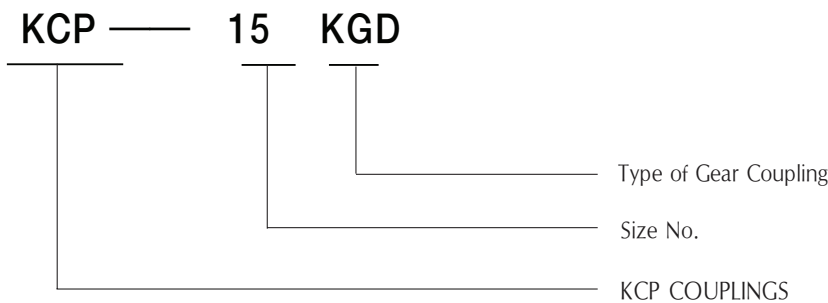
- ■ KGD : Double Engagement Coupling
- ■ KGDL : Double Engagement Large Coupling
- ■ KGS : Single Engagment Coupling
- ■ KGSL : Single Engagment Large Coupling
- ■ KGDS : Spacer Coupling - Double Engagment
- ■ KGH10 : Double Engagmen - Horizontal Sliding Coupling
- ■ KGH20 : Single Engagmen - Horizontal Sliding Coupling

**KCP —— 250 KSS**

Type of Gear Coupling

Size No.

(KCP COUPLINGS
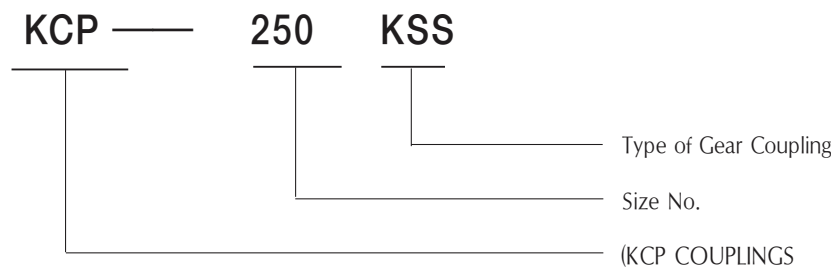
- ■ KSS : Double Engament Coupling
- ■ KSE : Single Engagement Coupling
- ■ KCC : Double Engagement Coupling - Large type
- ■ KCE : Single Engagment Coupling - Large type

# KCP Gear Coupling

## 7. Instruction for Installation

### 1. Small Size(up to size 60)

Hub bore and keyway must be machined accurately. During the key-fit to the shaft and the hub, be careful with the oil leakage.

① Clean all parts, Grease the crowned gear teeth and O-Ring.
  Put O-Ring onto the shafts.
② Place the flanged sleeves on the shafts and mount the hubs.
③ Using a spacer bar, make the gap between the hubs equal to the normal gap specified.
④ Align the shaft with a strait bar by checking every 90° degree, referring to the table 3.  Make it sure with a dial gauge not to exceed the offset limit.
⑤ Insert gasket between the flanged sleeves and fasten the bolts, positioning the lube plugo at 90°
⑥ Fill grease until overflowing at the open opposite Lub plug hole.
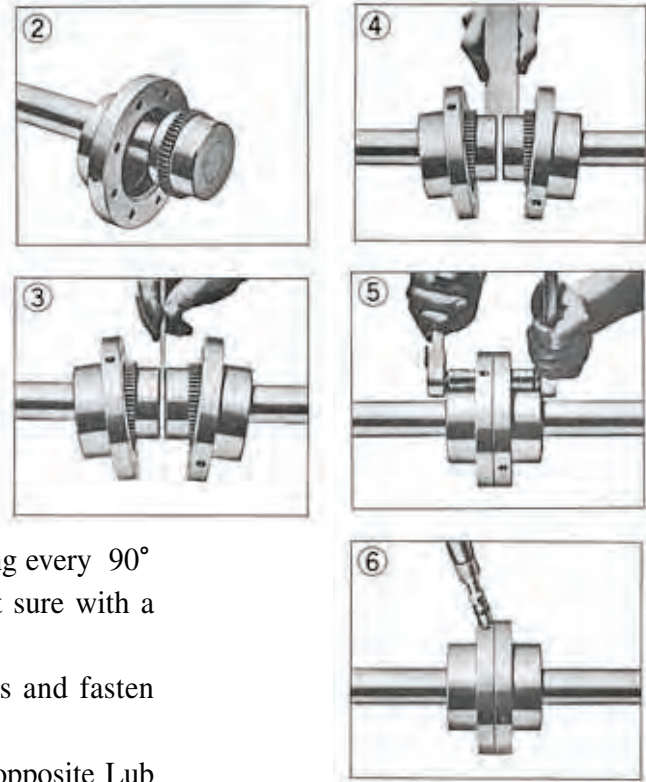
## Fig. 3 Operating Limits of misalignment (mm)                    Table 3

| Size | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 70 | 80 | 90 | 100 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Angular degree | 0.125 | 0.125 | 0.25 | 0.25 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 |
| Gap | 3 | 3 | 3 | 4.5 | 4.5 | 6 | 6 | 8 | 8 | 8 | 8 | 9.5 | 10 | 13 | 13 |
| Flange Bolt Torque(kg·cm) | 96 | 320 | 480 | 960 | 960 | 1,650 | 1,650 | 1,650 | 2,070 | 2,070 | 2,070 | 2,980 | | | |

■ The life of coupling is reduced by excess of the OFFSET limit.

## 2. Large Size (over size 70)

Hub bore and Keyway must be machined accurately.
During the Key-Fit work, be careful Internal Gear not to make oil leakage.

① Clean all parts. Pack with grease and seals with grease before assembly.

② Place the side covers with sealing gaskets on the shafts before mounting the crown gears. Mount crown gears on their respective shafts. Mount Internal Gears with side cover gaskets.

③ Use a spacer bar equal into the gap. The difference in minimum and maximum measurements should not exceed the angular limit specified in table 3.

④ Align with a straightedge, rests squarelly at every 90° as shown in photo Check with feelers. The tolerance should not exceed the offset limit specified in Table 3.

⑤ Insert gasket between flanges. Position Internal Gears with lube holes at about 90° and then fasten the bolt&nuts.

⑥ Remove all lube plugs and fill recommended grease into the coupling until excess flow through the opposite lub plug hole. And screw down plugs.
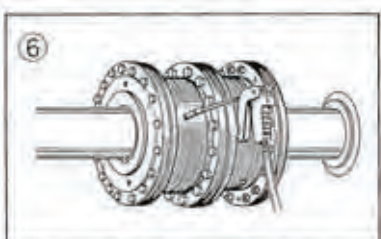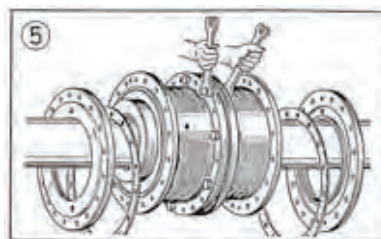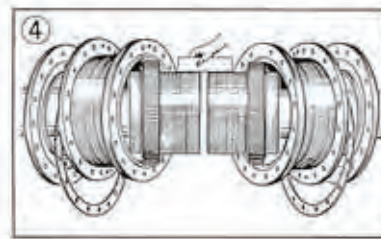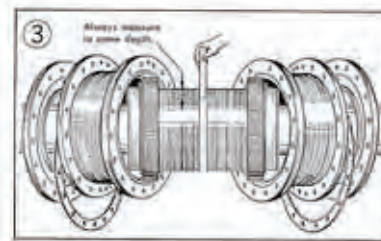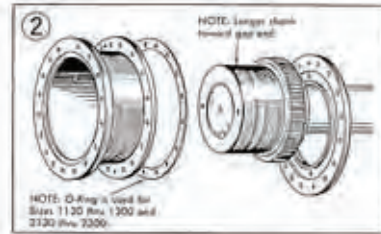
## 8. Selection of Puller Holes
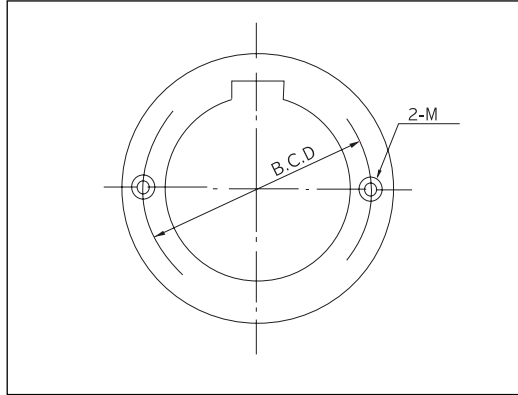


표4          Table4

| Size | BCD | Tap Size |
|------|-----|----------|
| 20KG | 89 | M8 |
| 25KG | 112 | M10 |
| 30KG | 128 | M10 |
| 35KG | 152 | M12 |
| 40KG | 181 | M16 |
| 45KG | 200 | M16 |
| 50KG | 216 | M20 |
| 55KG | 238 | M20 |
| 60KG | 268 | M20 |
| 70KG | 305 | M24 |
| 80KG | 318 | M24 |
| 90KG | 356 | M30 |
| 100KG | 394 | M30 |
| 110KG | 426 | M30 |
| 120KG | 498 | M30 |

## 9. Lubrication and Handling

Information of the adequate lubricant for good performance and long life.
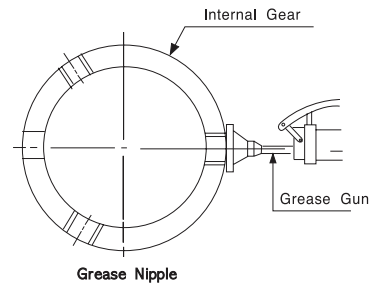


### 1. Lubricant

① Grease the Internal gear teeth and crown gear teeth, and fill enough lubricant Grease.

② Lub weight - Refer to "Dimensions Table" on page30.

③ Supplement and Replacement;

   Add grease every moth or every 240~250 hours operating.

   Renew all the contaminated grease every 3 months or every 4,000 hours operationg

④ Selection

   Allowable temperature of grease is from -17℃ to 70℃. Refer to the table 6 that shows the coupling RPM allowed for the listed grease.

### Table 5

| Company \ Oil | Grease # 1 | Grease # 0 |
|---------------|------------|------------|
| Gulf Oil Corp. | Gulfcrown Grease EP #1 | Gulfcrown Grease EP #0 |
| Shell Oil Corp. | Alvania Grease EP #1 | Alvania Grease EP-RO |
| Texaco Inc. | Multifak EP - 1 | Multifak EP - O |
| Mobil Oil Corp. | Mobilux EP - 1 | Mobilux EP - O |

■ NOTE : Lubricants listed in this manual are typical products.

Every effort has been taken to ensure that the data listed in this catalogue is correct. Finer Power Transmissions P/L will not accept liability for any damage. or loss caused as a result of the data in this catalogue.

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# KCP Gear Coupling

## 2. Lubricant Filling
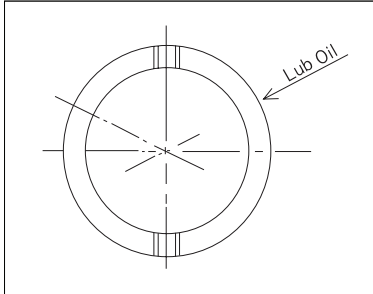


① Place the Lub plug holes × 2EA horizontal level. Fill up Lubricant until it overflows from the opposite hole.

② Supplement every month, or 240-250 hours operating.

③ Replacement completely all the contaminated lubricant, every 3 months or every 4,000 hours operating.

## 3. Selection of Lubricant

### Table 6

| Cmopany | | | Shell | Mobil | Michang | Buhmwoo | Gulf | Fujikosan Nipponkoju | Houghton | Hanil | | Caltex |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CST 40℃ | CST 40℃ | | omala 68 | Mobilgear 626 | Pio Gear EP 68 | Buhmwoo Gearlube BG-68 | Gulf EP Lubricant R 68 | Hirax ME GO 300 | MP Gear Oil 68 | Nico Gear SP 68 | Daphne CE compound 68C | Meropa Lubricant 68 |
| 68 | 315 | | | | | | | | | | | |
| 100 | 465 | | omala 68 | | Pio Gear EP 68 | Buhmwoo Gearlube BG-100 | Gulf EP Lubricant HD 100 | Hirax ME GO 500 | MP Gear Oil 100 | Nico Gear SP 100 | Daphne CE compound 100S | Meropa Lubricant 100 |
| 150 | 700 | | omala 150 | Mobilgear 629 | Pio Gear EP 150 | Buhmwoo Gearlube BG-150 | Gulf EP Lubricant R150, HD150 | Hirax ME GO 700 | MP Gear Oil 150 | Nico Gear SP 150 | Daphne CE compound 150S | Meropa Lubricant 150, Synthetic Gear Lube |
| 150 | 700 | | omala 220 | Mobilgear 630 | Pio Gear EP 220 | Buhmwoo Gearlube BG-220 | Gulf EP Lubricant R220, HD220 | Hirax ME GO 1000 | MP Gear Oil 220 | Nico Gear SP 220 | Daphne CE compound 220S | Meropa Lubricant 220 |
| 320 | 1500 | | omala 320 | Mobilgear 632 | Pio Gear EP 320 | Buhmwoo Gearlube BG-320 | Gulf EP Lubricant R320, HD320 | Hirax ME GO 1500 | MP Gear Oil 320 | Nico Gear SP 320 | Daphne CE compound 320S | Meropa Lubricant 320 |

■ Aboves are sample products.

# KCP Gear Coupling

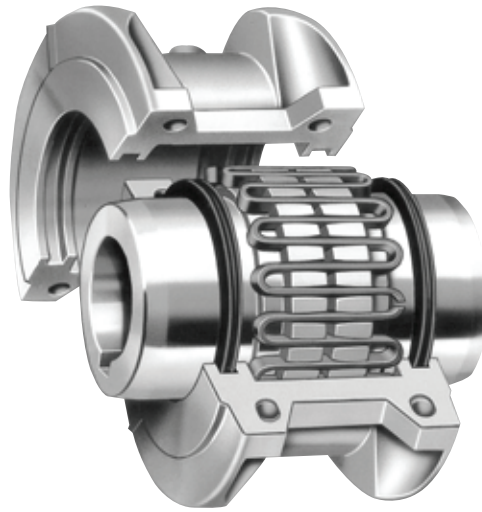## Type G20, (Double Gear) Gear Coupling - AGMA Type
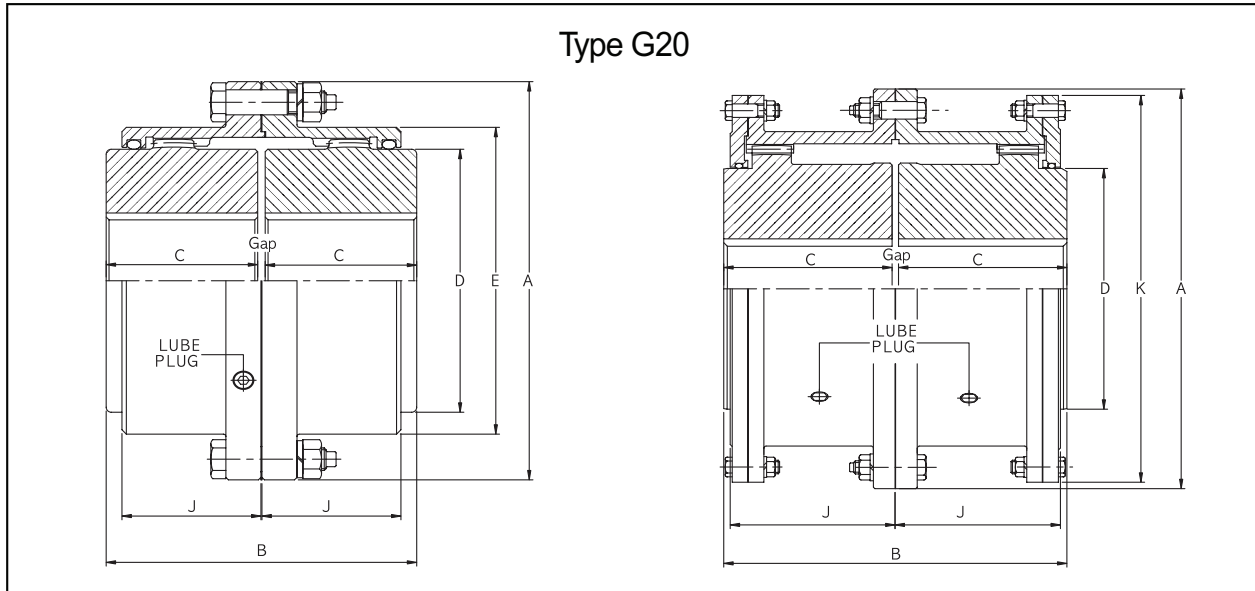


Type G20

| Size | Type G20 Standard Flanged Sleeve | | | | | | | Dimension(inch) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | HP per 100 rpm | Torque Rating (lb-in) | Allow Speed rpm | Max bore da | Min bore da | Cplg Wt(lb) G20 | Lube wf lb | A | B | C | D | E | J | Gap |
| 1010G | 16 | 10,080 | 8,000 | 1,875 | 50 | 10 | .09 | 4.56 | 3.50 | 1.69 | 2.70 | 3.30 | 1.53 | .125 |
| 1015G | 33 | 20,790 | 6,500 | 2,375 | 75 | 20 | .16 | 6.00 | 4.00 | 1.94 | 3.40 | 4.14 | 1.88 | .125 |
| 1020G | 60 | 37,800 | 5,600 | 2,875 | 1.00 | 35 | .25 | 7.00 | 5.00 | 2.44 | 4.14 | 4.98 | 2.34 | .125 |
| 1025G | 105 | 66,150 | 5,000 | 3,625 | 1.25 | 65 | .50 | 8.38 | 6.25 | 3.03 | 5.14 | 6.10 | 2.82 | .188 |
| 1030G | 170 | 107,100 | 4,400 | 4,125 | 1.50 | 95 | .80 | 9.44 | 7.37 | 3.59 | 6.00 | 7.10 | 3.30 | .188 |
| 1035G | 260 | 163,800 | 3,900 | 4,875 | 2.00 | 150 | 1.20 | 11.00 | 8.63 | 4.19 | 7.00 | 8.32 | 3.84 | .250 |
| 1040G | 430 | 270,900 | 3,600 | 5,750 | 2.50 | 215 | 2.00 | 12.50 | 9.75 | 4.75 | 8.25 | 9.66 | 4.38 | .250 |
| 1045G | 590 | 371,700 | 3,200 | 6,750 | 3.00 | 300 | 2.30 | 13.62 | 10.93 | 5.31 | 9.25 | 10.79 | 4.84 | .312 |
| 1050G | 795 | 500,900 | 2,900 | 7,375 | 3.50 | 420 | 3.90 | 15.31 | 12.37 | 6.03 | 10.00 | 12.04 | 5.54 | .312 |
| 1055G | 1,040 | 655,200 | 2,650 | 8,250 | 4.00 | 550 | 4.90 | 16.75 | 13.56 | 6.62 | 11.00 | 13.16 | 6.22 | .312 |
| 1060G | 1,270 | 800,100 | 2,450 | 9,125 | 4.50 | 675 | 7.00 | 18.00 | 15.13 | 7.41 | 12.00 | 14.41 | 6.66 | .312 |
| 1070G | 1,900 | 1,197,000 | 2,150 | 10,875 | 5.00 | 1070 | 9.60 | 20.75 | 17.75 | 8.69 | 14.00 | 16.73 | 7.70 | .375 |

| Size | Type G20 Standard Flanged Sleeve | | | | | | | Dimension(inch) | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Torque Rating lb-in(millions) 1000 Series | Torque Rating lb-in(millions) 2000 Series | Allow Speed rpm | Max bore da | Min bore da | Cplg Wt(lb) G20 | Lube wf lb | A | B | C | D | J | K | Gap |
| 1080G | 1,506 | 2,070 | 1,750 | 10.50 | 4.000 | 1150 | 21 | 23.25 | 20.02 | 9.82 | 14.00 | 9.56 | 22.50 | .375 |
| 1090G | 1,997 | 2,791 | 1,550' | 11.25 | 4.500 | 2170 | 27 | 26.00 | 22.26 | 10.88 | 15.50 | 10.44 | 25.25 | .500 |
| 1100G | 2,747 | 3,919 | 1,450' | 12.75 | 5.000 | 2870 | 33 | 28.00 | 24.50 | 12.00 | 17.50 | 11.56 | 27.50 | .500 |
| 1110G | 3,654 | 5,393 | 1,330 | 14.00 | 5.500 | 3700 | 39 | 30.50 | 26.74 | 13.12 | 19.50 | 12.69 | 29.50 | .500 |
| 1120G | 4,914 | 6,880 | 1,200 | 15.25 | 6.000 | 4660 | 46 | 33.00 | 28.26 | 13.88 | 21.50 | 13.44 | 32.50 | .500 |

Most sizes are kept in srock, for availabilty please contact your Finer representative.

Every effort has been taken to ensure that the data listed in this catalogue is correct. Finer Power Transmissions P/L will not accept liability for any damage. or loss caused as a result of the data in this catalogue.

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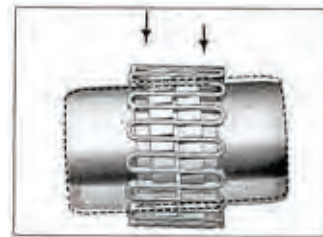
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# KCP Grid Coupling



## 1. Characteristic & Merits

You can get more favorable convinience and cost down by using KCP Taper Grid Steel Flexible Couplings.

### ■ PARALLEL MISALIGNMENT

The movement of the grid in the lubricated grooves accommodates parallel missalignment and permits full functioning of the grid-groove action in damping out shock and vibration.



### ■ ANGULAR MISALIGNMENT

Under angular misalignment, the grid-groove design permits a rocking and sliding action of the lubricated grid and hubs without any loss of power through the resilient grid.
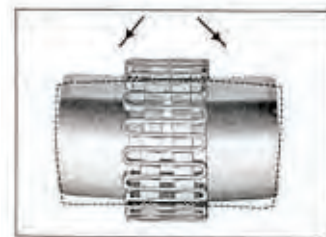


### ■ END FLOAT

Unrestrained end float of driving and driven members is permitted because the grid slides freely in the lubricated grooves.

### ■ TORSIONAL FLEXIBILITY

Torsional flexibility is the advantage of KCP Taper Grid Couplings, providing flexible accommodation to changing load conditions.
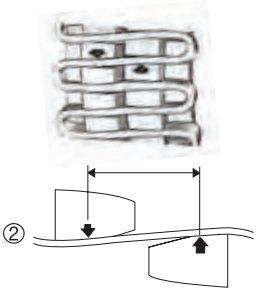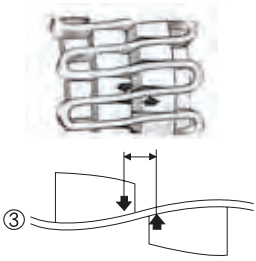


**KCP** 7
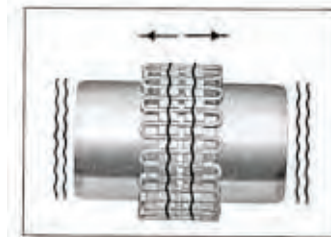
# KCP Grid Coupling
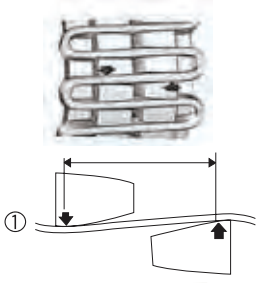
## ① Grid in Light Load

The grid bears near the outer edges of the hub teeth. The long span between the points of contact remains flexible under load variations.
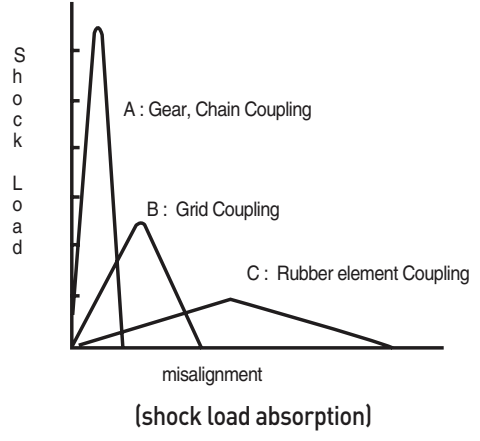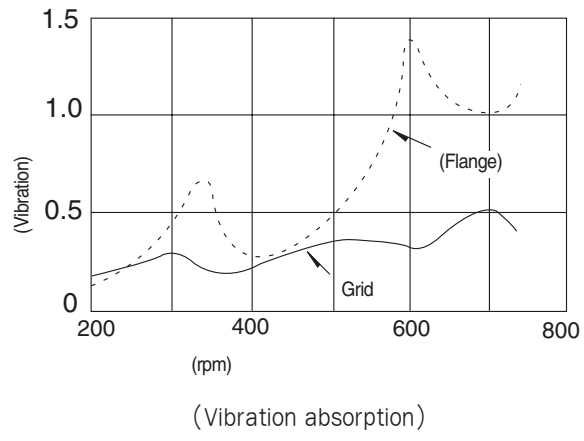
## ② Grid in Normal Load

As the load increases, the distance between the contact points on the hub teeth is shortened, but a free span still remains flexible for shock loads.

## ③ Grid in Shock Loads

The coupling is flexible within its rated power capactity. Under extreme overloads, the grid bears and transmits full load on the hub teeth directly.
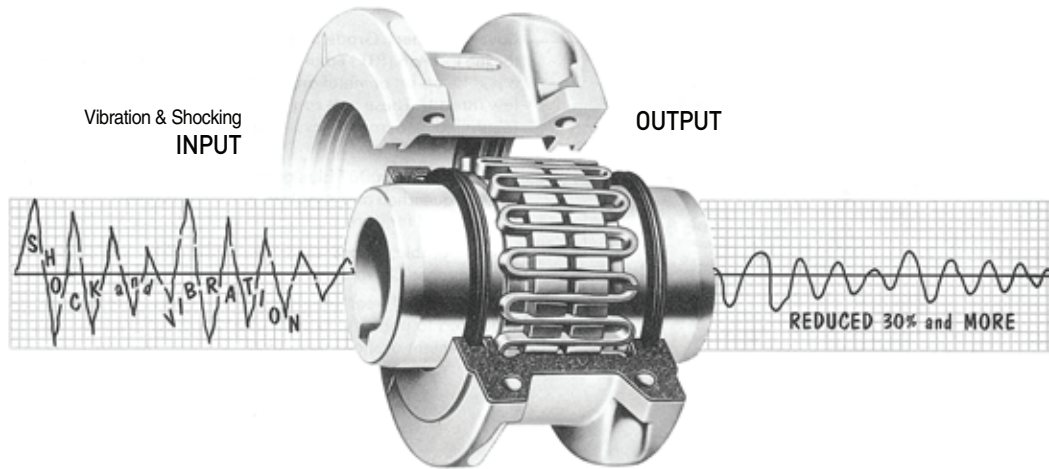
**KCP Taper Grid coupling creates the excellent performance as shown below.**

(Vibration)

1.5
1.0
0.5
0

(Flange)

Grid

200    400    600    800
(rpm)

（Vibration absorption）

Shock Load

A : Gear, Chain Coupling

B : Grid Coupling

C : Rubber element Coupling

misalignment

(shock load absorption)

# KCP Grid Coupling

## The absorption of mechanical vibration of Taper Grid coupling

Vibration & Shocking
INPUT

OUTPUT

REDUCED 30% and MORE

### MERITS

1. When overload occurs, grid breaks and prevents breaking shaft or machinery parts conneted.
2. When the parallel misaignment is too severe, the relating machine is protected by the virtue of shearing Grid on Tooth.
3. The life of parts(Mechanical Seal and Bearing, etc) can be extended as twice or more.
4, Quick installation and easy maintenance reduce labor cost and down-time cost.
5. KCP Grid coupling is interchangeable with international major brands.
6. It always transimits the power fully(100%) in low noise.
7. You can use it at cheaper maintenance cost by changing damaged parts only.

## 2. Application

Pin-Bush Flange coupling and Chain Couplings have usually been used, but now using the KCP TAPER GRID COUPLINGS, you will get many benefits .

1. When required to reduce vibration and shock load.
2. When required adequate power transmission under line misalignment.
3. When required adequate power transmission under angular misaligment.
4. When required adequate power transmission under end floating.
5. When required to prevent breaking of the machinery parts under over load.
6. When reverse revolution is required.
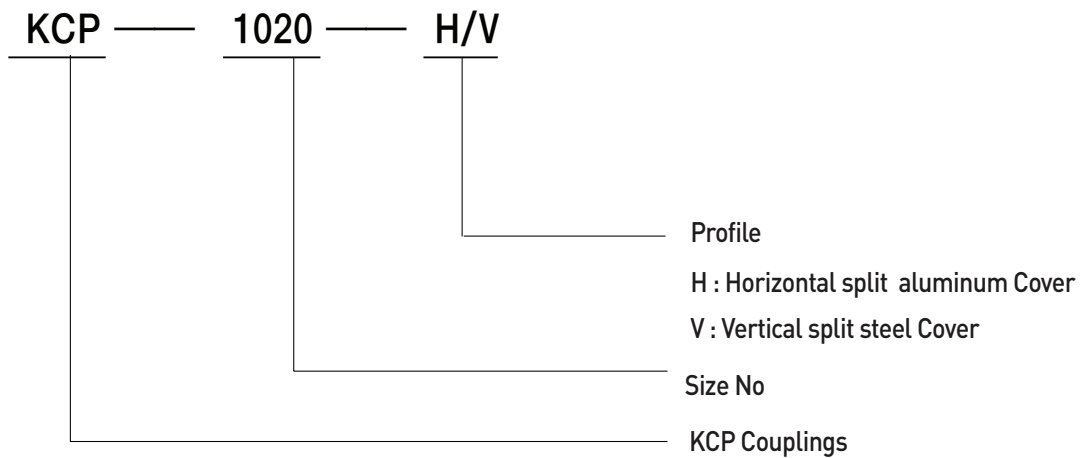7. When required smooth starting.

# KCP Grid Coupling

## 3. Structure
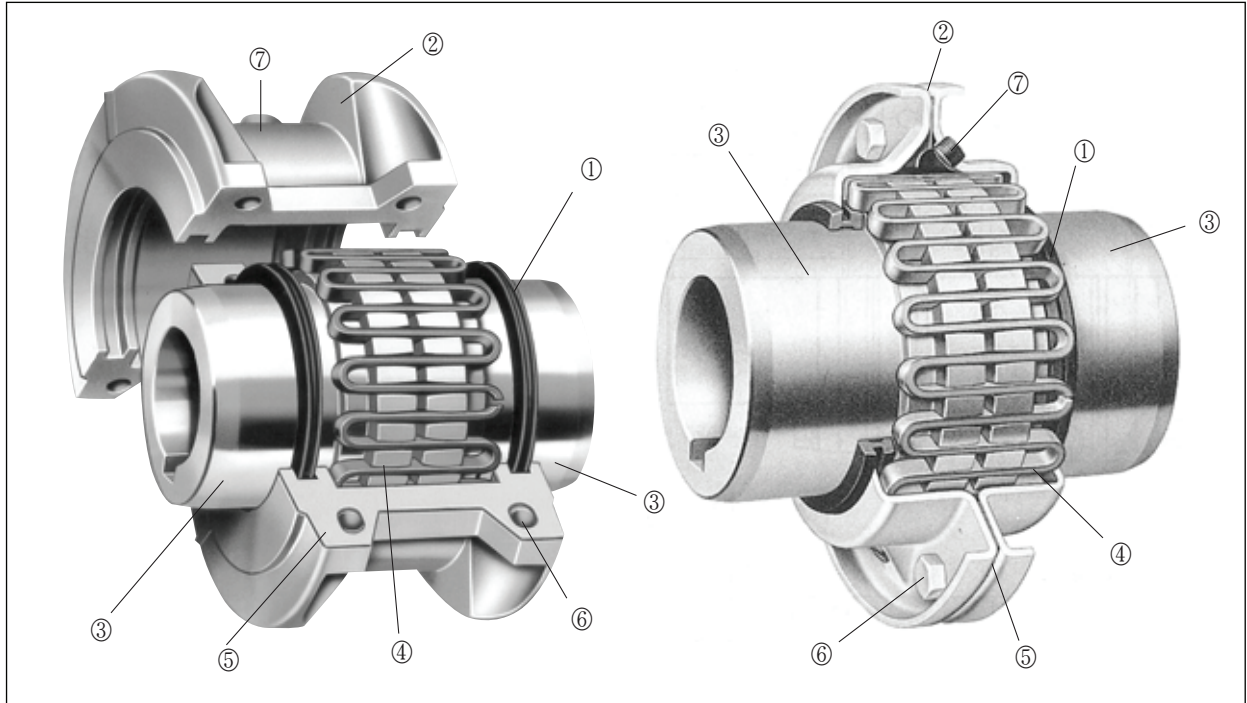


| Part | 1. Oil Seal | 4. Grid |
|------|-------------|---------|
| | 2. H-Cover | 5. Gasket |
| | V-Cover | 6. Bolt |
| | 3. Hub | 7. Lub Plug |

## 4. Designation

KCP —— 1020 —— H/V

Profile

H : Horizontal split aluminum Cover

V : Vertical split steel Cover

Size No

KCP Couplings

KSAS : Full spacer type(Horizontal split cover)

KSFS : Half spacer type(Horizontal split cover)

KSBW : Brake wheel type(Horizontal split cover)

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# KCP Grid Coupling

# 5. Selection method of size

## 1. Selection method of size

① By using the following formula, obtain Design Torque required.

$$T = 97,400 \frac{kw}{N} \times S.F \qquad T = 71,620 \frac{HP}{N} \times S.F$$

| | | |
|---|---|---|
| T | = | Design torque(kg · cm) |
| kw | = | Power(kw) |
| HP | = | Power(HP) |
| N | = | Working revolution(rpm) |
| S·F | = | Recommended service factor. |

② Select the size with the same or with the greater value at the Basic Torque column, Refer to the maxmun shaft diamers of the size selected, and then compare the shaft diameters of the application with the max. bore dia of the size selected. lf the coupling bore is not suitable, select the larger size coupling.

③ Special requirements

A. on calculating the torque required, use the lowest operating speed(N) of the application

B. If there are reverse motions repeated or frequent irregular load changes, take service factor twice.

## 2. Example

When you select a COUPLING to connect 30HP, 1,750rm motor and rotary type pump. Motor shaft dia is 48㎜ and pump's 52㎜.

① service factor of pump is 1.8.

$$\text{Torque}(kg \cdot cm) = \frac{30 \times 71.620 \times 1.8}{1.750} = 2.210$$

② Normal transmitting power is 30HP.

The coupling size 1040 accepts the calculated torque 2210㎏ · ㎝. And then compare the application shaft diameter sizes(52mm) to the maximum bore of the selected coupling size 1040(43Φmm).
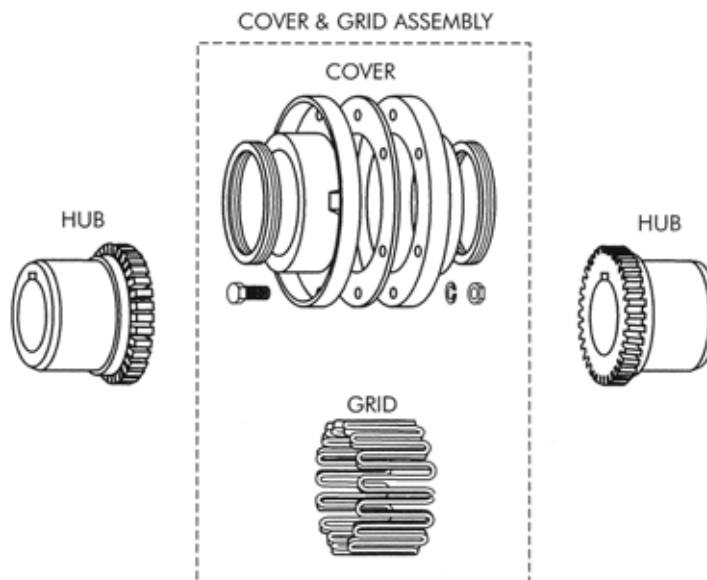You will select the coupling size 1060 accepting upto 55mm shaft dia meter. The size also accept the application motor speed 1750 rpm. Either H or V cover is available. Finally, the coupling size 1060 is selecred.
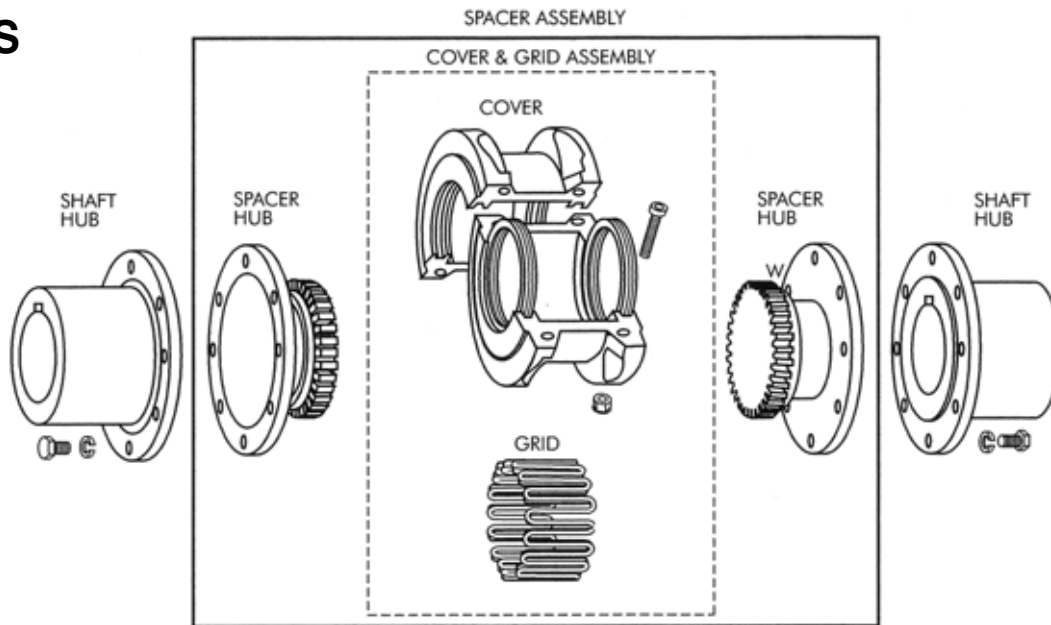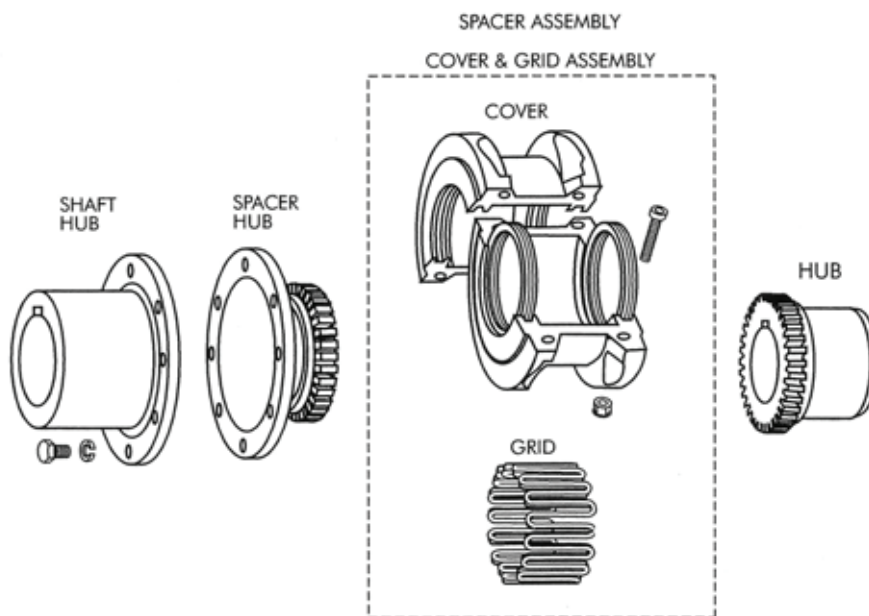
# KCP Grid Coupling

## 6. Installation

### Type H
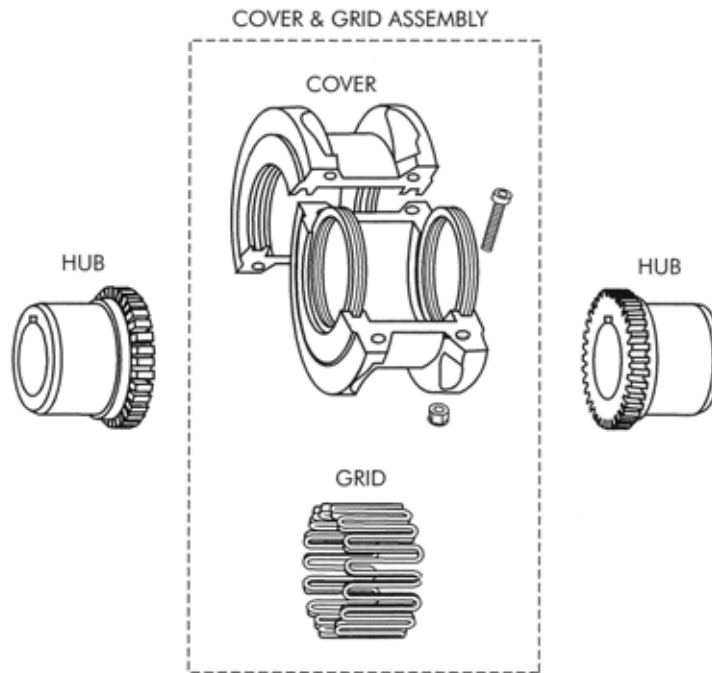


### Type V

# 7. Installation

## KSAS



## KSFS

# KCP Grid Coupling

fig. 3 misalignment capacity

(Unit : mm)

| Size | Recommended installation | | Operating | | Normal gap ±10% |
|------|------------------------|---------------------|------------------------|----------------------|-----------------|
|      | Parallel offset p | Angular(1/16°) X - Y | Parallel offset p | Angular(1/4°) X - Y |  |
| 1020 | 0.15 | 0.08 | 0.3 | 0.25 | 3 |
| 1030 | 0.15 | 0.08 | 0.3 | 0.30 | 3 |
| 1040 | 0.15 | 0.08 | 0.3 | 0.33 | 3 |
| 1050 | 0.20 | 0.10 | 0.4 | 0.41 | 3 |
| 1060 | 0.20 | 0.13 | 0.4 | 0.46 | 3 |
| 1070 | 0.20 | 0.13 | 0.4 | 0.51 | 3 |
| 1080 | 0.20 | 0.15 | 0.4 | 0.61 | 3 |
| 1090 | 0.20 | 0.18 | 0.4 | 0.71 | 3 |
| 1100 | 0.25 | 0.20 | 0.5 | 0.84 | 5 |
| 1110 | 0.25 | 0.23 | 0.5 | 0.91 | 5 |
| 1120 | 0.28 | 0.25 | 0.56 | 1.02 | 6 |
| 1130 | 0.28 | 0.30 | 0.56 | 1.19 | 6 |
| 1140 | 0.28 | 0.33 | 0.56 | 1.35 | 6 |
| 1150 | 0.30 | 0.41 | 0.6 | 1.57 | 6 |
| 1160 | 0.30 | 0.46 | 0.6 | 1.78 | 6 |
| 1170 | 0.30 | 0.51 | 0.6 | 2.01 | 6 |
| 1180 | 0.38 | 0.56 | 0.76 | 2.26 | 6 |
| 1190 | 0.38 | 0.61 | 0.76 | 2.46 | 6 |
| 1200 | 0.38 | 0.69 | 0.76 | 2.72 | 6 |

Parallel Misalignment

Angular Misalignment

GAP
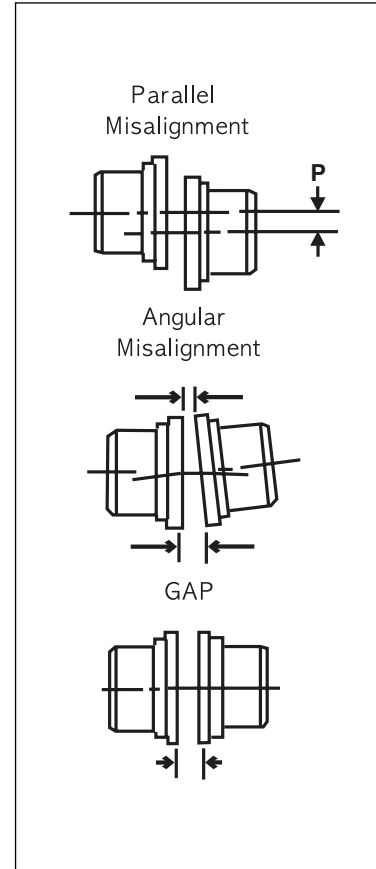
The life of coupling is reduced by excess of the limit.

# 8. Specification of Puller Holes)
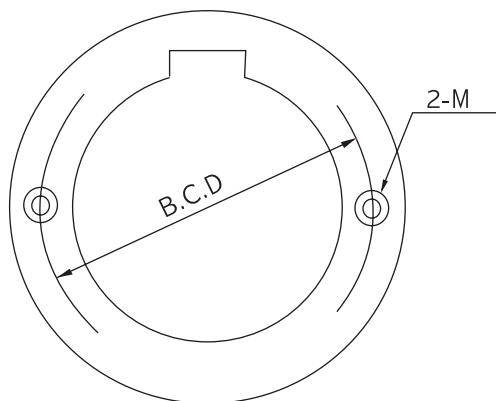
| CPLG Size | B.C.D. (mm) | Bolt Size |
|-----------|-------------|-----------|
| 1070 | 74 | M8 |
| 1080 | 89.5 | M8 |
| 1090 | 106 | M10 |
| 1100 | 121.5 | M10 |
| 1110 | 136.5 | M10 |
| 1120 | 150.5 | M12 |
| 1130 | 185 | M16 |
| 1140 | 205 | M16 |

| CPLG Size | B.C.D. (mm) | Bolt Size |
|-----------|-------------|-----------|
| 1150 | 227.5 | M20 |
| 1160 | 260 | M20 |
| 1170 | 306 | M24 |
| 1180 | 341 | M30 |
| 1190 | 373 | M30 |
| 1200 | 414 | M30 |
| 1210 | 540 | M30 |
| 1220 | 570 | M30 |

NB. Finer Power stocks up to 1150

# 9. Lubrication and Handing

Choose high qualty lubricant for KCP Taper Grid Couplings for good performance and long life.

## 1. Grease Lubrication

Grease on the grid & hub teeth before assembling covers.
Fill up grease through the lub plug of the assembled coupling.

## 2. Supplement

Every three month Every 240~250 hours operating, you should add grease.

## 3. Replacement

Every 3 months, or every 4,000 hours operating you should replace all the  deteriorated grease.

## 4. Selection

Choose grease according to the ambient temperature range in table 5.
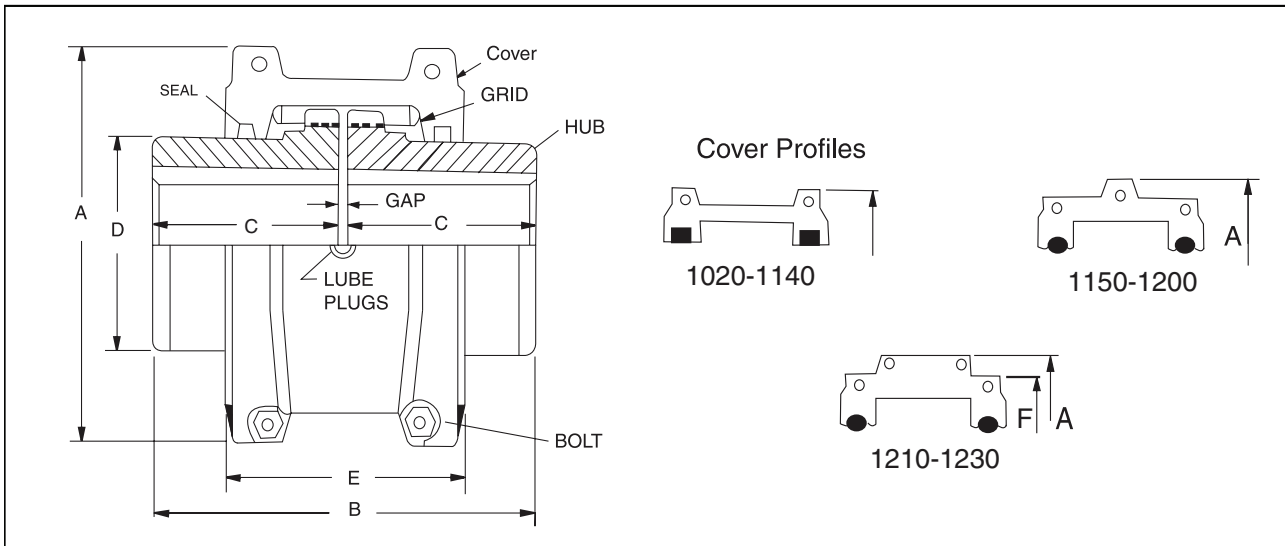
## ■ Common Industrial Lubricants(NYGL Grade #2)　　　　　　　Table5

| Manufacture | Ambient Temperature Range: | |
| --- | --- | --- |
| | 0°F to 150°F<br>(-18°C to 66°C) | -30°F to 100°F<br>(-34°C to 38°C) |
| Amoco Oil Co.<br>Atlantic Richfield co.<br>Chevron U.S.A Inc.<br>Cities Service Co.<br>Conoco Inc.<br>Exxon Company, USA<br>Gulf Oil Corp.<br>E.F.Houghton & Co.<br>Impenrial Oil Ltd.<br>Keystone Div.(Pennwalt)<br>Mobil Oil Corp.<br>Phillips Petroleum Co.<br>Shell Oil Co.<br>Standard Oil Co.(OH)<br>Sun Oil Company<br>Texaco Lubricants<br>Union Oil Co.(CA)<br>Valvoline Oil Co. | Amolith Grease #2<br>Litholene HEP 2<br>Chevron Dura-Lith EP-2<br>Citgo HEP-2<br>EP Conolith #2<br>Ronex MP<br>Gulfcrown Grease #2<br>Cosmolube #2<br>Esso MP Grease H<br>#81 Light<br>Mobilux EP111<br>IB & RB grease<br>Alvania Grease #2<br>Factran #2<br>Prestige 42<br>Starplex HD 2<br>Union Undoba #2<br>Val-Lith EP #2 | Amolith Grease #2<br>Litholene HEP 2<br>Chevron Dura-Lith EP-2<br>Citgo HEP-2<br>EP Conolith #2<br>Ronex MP<br>Gulfcrown Grease #2<br>Cosmolube #1<br>Lotemp EP<br>#84 Light<br>Mobilux #1<br>Philube IB & RB grease<br>Alvania Grease #2<br>Factran #2<br>Prestige 42<br>Multifac EP2<br>Union Undoba #2<br>Val-Lith EP #2 |

■ Note: For feed processing in dustry, check with lube manufacture for approved lubricants.

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# KCP Grid Coupling

COUPLINGS

## 10. Dimensions

### Type H (Horizontal Split Aluminium Cover)



Cover Profiles

1020-1140

1150-1200

1210-1230

| Size | HP Per 100 rpm | Max. Speed (rpm) | Basic Torque (kg·cm) | Bore Dia (mm) | | Dimension (mm) | | | | | Gap (mm) | | | Cplg Wt(kg) | Lube Wt (kg) | Size |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | | | | Max. | Min. | A | B | C | D | E | Min. | Normal | Max. | | | |
| 1020H | 0.68 | 4,500 | 486 | 30 | 12 | 101.6 | 98.0 | 47.5 | 39.7 | 66.5 | 1.5 | 3 | 4.5 | 1.9 | 0.03 | 1020 |
| 1030H | 1.93 | 4,500 | 1,383 | 35 | 12 | 110.0 | 98.0 | 47.5 | 49.2 | 68.3 | 1.5 | 3 | 4.5 | 2.6 | 0.03 | 1030 |
| 1040H | 3.22 | 4,500 | 2,304 | 43 | 12 | 117.5 | 104.6 | 50.8 | 57.1 | 70.0 | 1.5 | 3 | 4.5 | 3.4 | 0.05 | 1040 |
| 1050H | 5.63 | 4,500 | 4,033 | 50 | 12 | 138.0 | 123.6 | 60.3 | 66.7 | 79.5 | 1.5 | 3 | 4.5 | 5.4 | 0.05 | 1050 |
| 1060H | 8.85 | 4,350 | 6,337 | 55 | 19 | 150.5 | 130.0 | 63.5 | 76.2 | 92.0 | 1.5 | 3 | 4.5 | 7.3 | 0.09 | 1060 |
| 1070H | 13 | 4,125 | 9,217 | 65 | 19 | 161.9 | 155.4 | 76.2 | 87.3 | 95.0 | 1.5 | 3 | 4.5 | 10 | 0.11 | 1070 |
| 1080H | 27 | 3,600 | 19,010 | 78 | 27.0 | 194.0 | 180.8 | 88.9 | 104.8 | 116.0 | 1.5 | 3 | 4.5 | 18 | 0.17 | 1080 |
| 1090H | 48 | 3,600 | 34,564 | 95 | 27.0 | 213.0 | 199.8 | 98.4 | 123.8 | 122.0 | 1.5 | 3 | 6 | 25 | 0.25 | 1090 |
| 1100H | 81 | 2,400 | 58,183 | 107 | 41 | 250.0 | 245.7 | 120.6 | 142.0 | 155.5 | 1.5 | 3 | 6 | 42 | 0.43 | 1100 |
| 1110H | 121 | 2,250 | 86,411 | 117 | 41 | 270.0 | 258.5 | 127.0 | 160.3 | 161.5 | 1.5 | 4.5 | 9.5 | 54 | 0.51 | 1110 |
| 1120H | 177 | 2,025 | 126,736 | 136 | 60 | 308.0 | 304.4 | 149.2 | 179.4 | 191.5 | 1.5 | 4.5 | 9.5 | 81 | 0.73 | 1120 |
| 1130H | 257 | 1,800 | 184,343 | 165 | 67 | 346.0 | 329.8 | 161.9 | 217.5 | 195.0 | 1.5 | 6 | 12.5 | 121 | 0.91 | 1130 |
| 1140H | 370 | 1,650 | 264,993 | 184 | 67 | 384.0 | 371.6 | 182.8 | 254.0 | 201.0 | 1.5 | 6 | 12.5 | 178 | 1.13 | 1140 |
| 1150H | 515 | 1,500 | 368,686 | 203 | 108 | 453.1 | 371.8 | 182.9 | 269.2 | 271.3 | 1.5 | 6 | 12.5 | 234 | 1.95 | 1150 |
| 1160H | 724 | 1,350 | 518,465 | 228 | 120.7 | 501.4 | 402.2 | 198.1 | 304.8 | 278.9 | 1.5 | 6 | 12.5 | 317 | 2.81 | 1160 |
| 1170H | 965 | 1,225 | 691,286 | 279 | 133.4 | 566.4 | 437.8 | 215.9 | 355.6 | 304.3 | 1.5 | 6 | 12.5 | 448 | 3.49 | 1170 |
| 1180H | 1,338 | 1,100 | 958,584 | 311 | 152.4 | 629.9 | 483.6 | 238.8 | 393.7 | 321.1 | 1.5 | 6 | 12.5 | 619 | 3.76 | 1180 |
| 1190H | 1,770 | 1,050 | 1,267,358 | 339 | 152.4 | 675.6 | 524.2 | 259.1 | 436.9 | 325.1 | 1.5 | 6 | 12.5 | 776 | 4.40 | 1190 |
| 1200H | 2,413 | 900 | 1,728,216 | 361 | 177.8 | 756.9 | 564.8 | 279.4 | 497.8 | 355.6 | 1.5 | 6 | 12.5 | 1,057 | 5.62 | 1200 |
| 1210H | 3,230 | 820 | 2,304,288 | 366 | 177.8 | 844.5 | 622.3 | 304.8 | 533.4 | 431.8 | 3.0 | 13 | 24.0 | 1,424 | 10.50 | 1210 |
| 1220H | 4,350 | 730 | 3,110,788 | 411 | 203.2 | 820.7 | 622.9 | 325.0 | 571.5 | 490.2 | 3.0 | 13 | 24.0 | 1,784 | 16.05 | 1220 |
| 1230H | 5,640 | 680 | 4,438,775 | 450 | 250.0 | 1,003.3 | 703.8 | 345.4 | 609.6 | 546.1 | 3.0 | 13 | 24.0 | 2,267 | 24.00 | 1230 |

■ Coupling weight, with unbored hub assembly.

NB. Finer Power stocks up to 1150

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# KCP Grid Coupling

## Type V (Vertical Split Steel Cover)
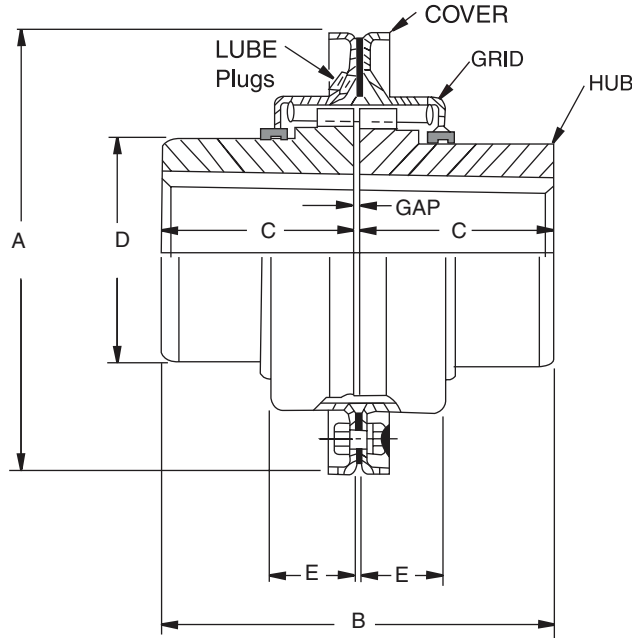


| Size | HP Per 100 rpm | Max. Speed (rpm) | Basic Torque (kg·cm) | Bore Dia (mm) | | Dimensions(mm) | | | | | Gap(mm) | | | Cplg Wt(kg) | Lub Wt (kg) | Size |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Max. | Min. | A | B | C | D | E | Min. | Normal | Max. | | | |
| 1020 | 0.68 | 6,000 | 486 | 30 | 12.7 | 111.1 | 98.0 | 47.5 | 39.7 | 24.2 | 1.5 | 3 | 4.5 | 2.0 | 0.03 | 1020 |
| 1030 | 1.93 | 6,000 | 1,383 | 36 | 12.7 | 120.7 | 98.0 | 47.5 | 49.2 | 25.0 | 1.5 | 3 | 4.5 | 2.6 | 0.03 | 1030 |
| 1040 | 3.22 | 6,000 | 2,304 | 44 | 12.7 | 128.5 | 104.6 | 50.8 | 57.1 | 25.7 | 1.5 | 3 | 4.5 | 3.4 | 0.05 | 1040 |
| 1050 | 5.63 | 6,000 | 4,033 | 50 | 12.7 | 147.6 | 123.6 | 60.3 | 66.7 | 31.2 | 1.5 | 3 | 4.5 | 5.4 | 0.05 | 1050 |
| 1060 | 8.85 | 6,000 | 6,337 | 57 | 19.1 | 162.0 | 130.0 | 63.5 | 76.2 | 32.2 | 1.5 | 3 | 4.5 | 7.3 | 0.09 | 1060 |
| 1070 | 13 | 5,500 | 9,217 | 65 | 19.1 | 173.0 | 155.4 | 76.2 | 87.3 | 33.7 | 1.5 | 3 | 4.5 | 10.4 | 0.11 | 1070 |
| 1080 | 27 | 4,750 | 19,010 | 79 | 27.0 | 200.0 | 180.8 | 88.9 | 104.8 | 44.2 | 1.5 | 3 | 4.5 | 17.7 | 0.17 | 1080 |
| 1090 | 48 | 4,000 | 34,564 | 95 | 27.0 | 231.8 | 199.8 | 98.4 | 123.8 | 47.7 | 1.5 | 3 | 6 | 25.4 | 0.25 | 1090 |
| 1100 | 81 | 3,250 | 58,183 | 107 | 41.3 | 266.7 | 245.7 | 120.6 | 142.0 | 60.0 | 1.5 | 3 | 6 | 42.2 | 0.43 | 1100 |
| 1110 | 121 | 3,000 | 86,411 | 117 | 41.3 | 285.8 | 258.5 | 127.0 | 160.3 | 64.2 | 1.5 | 4.5 | 12.5 | 54.4 | 0.51 | 1110 |
| 1120 | 177 | 2,700 | 126,736 | 136 | 60.3 | 319.0 | 304.4 | 149.2 | 179.4 | 73.4 | 1.5 | 4.5 | 12.5 | 81.6 | 0.73 | 1120 |
| 1130 | 257 | 2,400 | 184,343 | 165 | 66.7 | 377.8 | 329.8 | 161.9 | 217.5 | 75.1 | 1.5 | 6 | 12.5 | 122.5 | 0.91 | 1130 |
| 1140 | 370 | 2,200 | 264,993 | 184 | 66.7 | 416.0 | 371.6 | 182.8 | 254.0 | 78.2 | 1.5 | 6 | 12.5 | 180.1 | 1.13 | 1140 |
| 1150 | 515 | 2,000 | 368,686 | 203 | 108.0 | 476.3 | 371.8 | 182.9 | 269.2 | 106.9 | 1.5 | 6 | 12.5 | 230.0 | 1.95 | 1150 |
| 1160 | 724 | 1,750 | 518,465 | 228 | 120.7 | 533.4 | 402.2 | 198.1 | 304.8 | 114.3 | 1.5 | 6 | 12.5 | 321.1 | 2.81 | 1160 |
| 1170 | 965 | 1,600 | 691,286 | 279 | 133.4 | 584.2 | 437.8 | 215.9 | 355.6 | 119.4 | 1.5 | 6 | 12.5 | 448.2 | 3.49 | 1170 |
| 1180 | 1,338 | 1,400 | 958,584 | 311 | 152.4 | 630.0 | 483.6 | 238.8 | 393.7 | 130.0 | 1.5 | 6 | 12.5 | 591.0 | 3.76 | 1180 |
| 1190 | 1,770 | 1,300 | 1,267,358 | 339 | 152.4 | 685.0 | 524.2 | 259.1 | 436.9 | 135.0 | 1.5 | 6 | 12.5 | 761.0 | 4.40 | 1190 |
| 1200 | 2,413 | 1,100 | 1,728,216 | 361 | 177.8 | 737.0 | 564.8 | 279.4 | 497.8 | 145.0 | 1.5 | 6 | 12.5 | 1.021.0 | 5.62 | 1200 |

■ Coupling weight without Bore machining.