



FLEXIBLE DRIVE COUPLING

MODEL: Hydax 19, 28, 38, 48, 55, 65

- Available in Six sizes to suit 1HP to 75HP.
- Flexible Drive Coupling consists of two gear hubs engaging in a sleeve of high grade plastic material.
- This material has superior strength and a wide operating temperature range.
- Couplings are easy to assemble and require no maintenance or lubrication and do not emit transmission noise.
- Gears in the crowned-tooth form permit axial and angular Misalignment.
- Available in non-corrosive options of Stainless Steel and Nylon materials also.

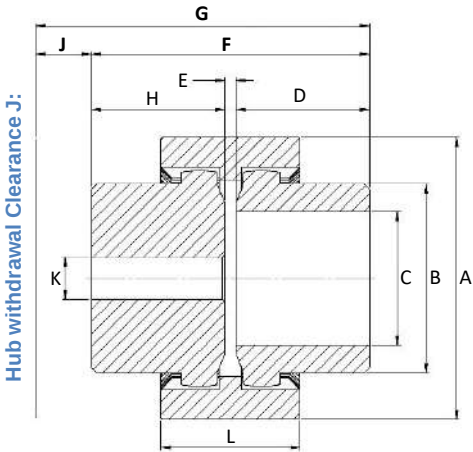
Custom Bore & Keyway as per requirements

ASSEMBLY PROCEDURE:

Maximum permissible angular misalignment is 1.5 degrees. Ensure that the coupling hubs easily fit on the shaft. Do not use undue force. Maintain gap between hubs as shown in sketch. Use grub screws to locate gear hubs on their respective shafts.

For shock load applications use the following formula:

Rating /100 RPM of coupling =  $\frac{\text{HP of application} \times 100 \times F}{\text{RPM of application}}$



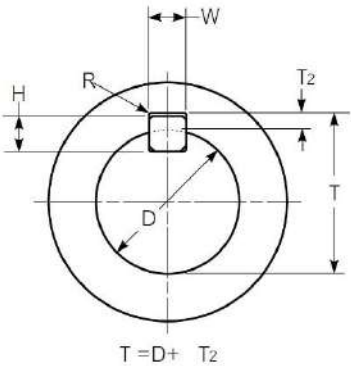
| Application  | Load Factor | Load Factor (F) |
|--------------|-------------|-----------------|
|              | El Motor    | IC Engines      |
| Uniform Load | 1           | 1.2             |
| Medium Shock | 1.25        | 1.5             |
| Heavy Shock  | 1.75        | 2.0             |

| Coupling size | Ø A | Ø B | Max. Ø C | D  | E | F   | G   | H  | J  | Min. Ø K | L  | Pilot Bore | No of teeth |
|---------------|-----|-----|----------|----|---|-----|-----|----|----|----------|----|------------|-------------|
| HYDAX - 19    | 48  | 30  | 19       | 25 | 4 | 54  | 70  | 25 | 16 | 7        | 37 | 7          | 24          |
| HYDAX - 28    | 66  | 44  | 28       | 38 | 4 | 80  | 100 | 38 | 20 | 12       | 46 | 12         | 34          |
| HYDAX - 38    | 83  | 56  | 38       | 38 | 4 | 80  | 104 | 38 | 24 | 12       | 48 | 12         | 44          |
| HYDAX - 48    | 100 | 68  | 48       | 48 | 4 | 100 | 122 | 48 | 22 | 15       | 50 | 15         | 50          |
| HYDAX - 55    | 124 | 82  | 55       | 60 | 4 | 124 | 148 | 60 | 24 | 15       | 64 | 15         | 48          |
| HYDAX - 65    | 140 | 96  | 65       | 70 | 4 | 144 | 176 | 70 | 32 | 15       | 72 | 15         | 54          |

Specification for HYDAX Flexible Drive Coupling:

| Coupling Size | Elec. Motor Frame Size | 3000 RPM |    | 1500 RPM |    | 1000 RPM |     | 750 RPM |     | Max. Torque at 1500 RPM |         | Max. RPM |
|---------------|------------------------|----------|----|----------|----|----------|-----|---------|-----|-------------------------|---------|----------|
|               |                        | kW       | Hp | kW       | Hp | kW       | Hp  | kW      | Hp  | Kg.M                    | Ft. Lbs |          |
| HYDAX 19      | 80                     | 2.2      | 2  | 1.5      | 1  | 1.1      | 1   | 0.75    | 1   | 0.5                     | 3.6     | 3000     |
|               | 90S, 90L               |          |    |          |    |          |     |         |     |                         |         |          |
| HYDAX 28      | 100L                   | 7.5      | 10 | 5.5      | 5  | 4.25     | 5   | 2.2     | 3   | 2.3                     | 16.6    | 3000     |
|               | 112 M                  |          |    |          |    |          |     |         |     |                         |         |          |
| HYDAX 38      | 132 S                  | 10       | 13 | 7.5      | 10 | 5.5      | 7.5 | 3       | 4.5 | 7                       | 4.9     | 3000     |
|               | 132 M                  |          |    |          |    |          |     |         |     |                         |         |          |
| HYDAX 48      | 160 ML                 | 22       | 30 | 18.5     | 25 | 15       | 20  | 11      | 15  | 14.4                    | 104     | 3000     |
|               | 180 ML                 |          |    |          |    |          |     |         |     |                         |         |          |
| HYDAX 65      | 200 L                  | 55       | 75 | 55       | 75 | 37       | 50  | 30      | 40  | 35.5                    | 256     | 3000     |
|               | 250 M                  |          |    |          |    |          |     |         |     |                         |         |          |

| Standard Metric Keys & Keyways for Metric Bores with One Key • Couplings |      |                  |            |                      |         |         |                       |     |                   |      |                                         |        |                      |                       |        |                   |       |
|--------------------------------------------------------------------------|------|------------------|------------|----------------------|---------|---------|-----------------------|-----|-------------------|------|-----------------------------------------|--------|----------------------|-----------------------|--------|-------------------|-------|
| Metric Key & Keyway Dimensions Per ISO/R773 – Js9 Width Tolerance        |      |                  |            |                      |         |         |                       |     |                   |      |                                         |        |                      |                       |        |                   |       |
| Key & Keyway Dimensions – Millimeters                                    |      |                  |            |                      |         |         |                       |     |                   |      | Coupling Hub Keyway Dimensions – Inches |        |                      |                       |        |                   |       |
| Shaft Diameter “D”                                                       |      | Key Size Nominal |            | Keyway Width Hub “W” |         |         | Keyway Depth Hub “T2” |     | Keyway Radius “R” |      | Shaft Diameter “D”                      |        | Keyway Width Hub “W” | Keyway Depth Hub “T2” |        | Keyway Radius “R” |       |
| Over                                                                     | Thru | Width “W”        | Height “H” | Nominal              | Min     | Max     | Min                   | Max | Min               | Max  | Over                                    | Thru   |                      | Min                   | Max    | Min               | Max   |
| 6                                                                        | 8    | 2                | 2          | 2                    | -0.0125 | +0.0125 | 1.0                   | 1.1 | 0.08              | 0.16 | 0.2362                                  | 0.3150 | 0.0783 /0.0792       | 0.0394                | 0.0433 | 0.004             | 0.006 |
| 8                                                                        | 10   | 3                | 3          | 3                    | -0.0125 | +0.0125 | 1.4                   | 1.5 | 0.08              | 0.16 | 0.3150                                  | 0.3937 | 0.1176 /0.1186       | 0.0551                | 0.0591 | 0.004             | 0.006 |
| 10                                                                       | 12   | 4                | 4          | 4                    | -0.0150 | +0.0150 | 1.8                   | 1.9 | 0.08              | 0.16 | 0.3937                                  | 0.4724 | 0.1569 /0.1581       | 0.0709                | 0.0748 | 0.004             | 0.006 |
| 12                                                                       | 17   | 5                | 5          | 5                    | -0.0150 | +0.0150 | 2.3                   | 2.4 | 0.16              | 0.25 | 0.4724                                  | 0.6693 | 0.1963 /0.1974       | 0.0906                | 0.0945 | 0.007             | 0.009 |
| 17                                                                       | 22   | 6                | 6          | 6                    | -0.0150 | +0.0150 | 2.8                   | 2.9 | 0.16              | 0.25 | 0.6693                                  | 0.8661 | 0.2357 /0.2368       | 0.1102                | 0.1142 | 0.007             | 0.009 |
| 22                                                                       | 30   | 8                | 7          | 8                    | -0.0180 | +0.0180 | 3.3                   | 3.5 | 0.16              | 0.25 | 0.8661                                  | 1.1811 | 0.3143 /0.3157       | 0.1299                | 0.1378 | 0.007             | 0.009 |
| 30                                                                       | 38   | 10               | 8          | 10                   | -0.0180 | +0.0180 | 3.3                   | 3.5 | 0.25              | 0.40 | 1.1811                                  | 1.4961 | 0.3930 /0.3944       | 0.1299                | 0.1378 | 0.010             | 0.015 |
| 38                                                                       | 44   | 12               | 8          | 12                   | -.0215  | +0.0215 | 3.3                   | 3.5 | 0.25              | 0.40 | 1.4961                                  | 1.7323 | 0.4716 /0.4733       | 0.1299                | 0.1378 | 0.010             | 0.015 |
| 44                                                                       | 50   | 14               | 9          | 14                   | -.0215  | +0.0215 | 3.8                   | 4.0 | 0.25              | 0.40 | 1.7323                                  | 1.9685 | 0.5503 /0.5520       | 0.1496                | 0.1575 | 0.010             | 0.015 |
| 50                                                                       | 58   | 16               | 10         | 16                   | -.0215  | +0.0215 | 4.3                   | 4.5 | 0.25              | 0.40 | 1.9685                                  | 2.2835 | 0.6291 /0.6308       | 0.1693                | 0.1772 | 0.010             | 0.015 |
| 58                                                                       | 65   | 18               | 11         | 18                   | -.0215  | +0.0215 | 4.4                   | 4.6 | 0.25              | 0.40 | 2.2835                                  | 2.5591 | 0.7078 /0.7095       | 0.1732                | 0.1811 | 0.010             | 0.015 |
| 65                                                                       | 75   | 20               | 12         | 20                   | -0.0260 | +0.0260 | 4.9                   | 5.1 | 0.40              | 0.60 | 2.5591                                  | 2.9528 | 0.7864 /0.7884       | 0.1929                | 0.2008 | 0.016             | 0.023 |



**Note:**

Please ensure that there is not more than a month's gap between purchase of the coupling sleeves and it's working application. If the storage time of the couplings exceeds a month, please cure it by placing the sleeves in hot water of about 80°C for at least 8 hours. Bigger size sleeves should be cured more often.