

The RFC coupling is a general purpose flexible coupling available in eight different sizes in taper bore, pilot bore or finished bore.

Easy installation

Alignment is quickly achieved by simply placing a straight edge across the outside diameter of the hubs. No special tools are needed, only a hexagon wrench for the locking of the taper bush.

Accommodates Misalignment

The RFC coupling compensates for axial, parallel & angular misalignments.

Extra protection Against Failure

The Inter-linking hubs act as an additional safeguard, though the flexible element fails, the drive will be maintained by the interaction of the jaws which are an integral part of the coupling hubs. The hubs are made of C. I.. Jaws are unmachined.

Interchangeable

The RFC coupling is compatible with leading makes of couplings.

Elastomeric spider is of Nitrile rubber having shore hardness of 80°, suitable for temperatures from -40° C to + 100° C.

TABLE 1. SERVICE FACTORS

| Applications with excessive shocks, vibrations and torque fluctuations (compressors, engine, centrifugal pumps blowers, fans, generators, conveyors etc.) | Type of Driving Unit | | | | | |
|---|-----------------------------------|----------|------------|--|----------|------------|
| | Electric Motors Steam Turbines | | | Internal Combustion Engines Steam Engines Water Turbines | | |
| | Hours Per Day Duty | | | Hours Per Day Duty | | |
| CLASS OF DRIVEN MACHINE | Upto 8 | To 16 | Over 16 | Upto 8 | To 16 | Over 16 |
| Uniformly Driven Machines | 1.00 | 1.12 | 1.25 | 1.25 | 1.40 | 1.60 |
| Machines Driven With Moderate Shocks. | 1.60 | 1.80 | 2.00 | 2.00 | 2.24 | 2.50 |
| Machines Driven With Heavy Shocks. | 2.50 | 2.80 | 3.12 | 3.12 | 3.55 | 4.00 |

TABLE 2. POWER RATING (kW)

| Speed rpm | Coupling Size | | | | | | | |
|--------------|---------------|-------|--------|--------|--------|--------|--------|--------|
| | RFC 7 | RFC 9 | RFC 11 | RFC 13 | RFC 15 | RFC 18 | RFC 23 | RFC 28 |
| 100 | 0.33 | 0.84 | 1.68 | 3.30 | 6.28 | 9.95 | 20.90 | 33.00 |
| 1500 | 4.95 | 12.55 | 25.15 | 49.50 | 94.00 | 149.00 | 313.50 | 495.00 |
| 3000 | 9.90 | 25.10 | 50.30 | 99.00 | 188.00 | 298.00 | — | — |

Note : Power rating can be increased by using 92° shore hardness spider, please consult manufacturer for the same.

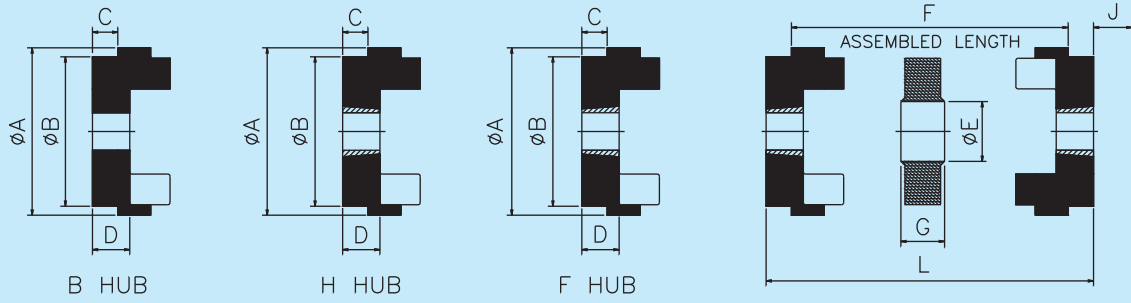


TABLE 3. DIMENSIONS DATA (mm)

| Size | F / H Hub | | | | B Hub | | | | ø A | ø B | ø E | F | G | L | | | J | |
|---------|-----------|--------|-----|------|-------|------|-----|------|-----|-----|-----|-----|-------|------|-------|-------|-------|----|
| | Bush Size | # Bore | | C | D | Bore | | C | | | | | | D | L1 | L2 | | L3 |
| | | Max | Min | | | Max | Min | | | | | | | | | | | |
| RFC 7 | 1008 | 25 | 10 | 19 | 24.0 | 32 | 10 | 21 | 26 | 69 | 60 | 31 | 28 | 17.5 | 66 | 68 | 70 | 29 |
| RFC 9 | 1108 | 28 | 10 | 18 | 24.0 | 42 | 10 | 26 | 32 | 85 | 65 | 32 | 34.5 | 22.5 | 70.5 | 78.5 | 86.5 | 29 |
| RFC 11 | 1610 | 42 | 14 | 19 | 27.0 | 55 | 10 | 37 | 45 | 112 | 100 | 45 | 45 | 29 | 83 | 101 | 119 | 38 |
| RFC 13 | 1610 | 42 | 14 | 17.5 | 26.5 | 60 | 20 | 46 | 55 | 130 | 105 | 50 | 54 | 36 | 89 | 117.5 | 146 | 38 |
| RFC 15 | 2012 | 50 | 14 | 24 | 34.0 | 70 | 20 | 50 | 60 | 150 | 115 | 62 | 60 | 40 | 108 | 134 | 160 | 42 |
| RFC 18 | 2517 | 60 | 16 | 35 | 47.0 | 80 | 30 | 58 | 70 | 180 | 125 | 77 | 73 | 49 | 143 | 166 | 189 | 48 |
| RFC 23 | 3020 | 75 | 24 | 39.5 | 52.5 | 100 | 40 | 77 | 90 | 225 | 155 | 99 | 84.5 | 58.5 | 163.5 | 201 | 238.5 | 55 |
| RFC 28 | 3535 | 90 | 35 | 74.0 | 90.5 | 115 | 50 | 88.5 | 105 | 275 | 185 | 118 | 107.5 | 74.5 | 255.5 | 270 | 284.5 | 67 |
| RFC 28A | 3525 | *100 | 35 | 50.0 | 66.5 | 125 | 50 | 88.5 | 105 | 275 | 206 | 118 | 107.5 | 74.5 | 207.5 | 246 | 284.5 | 67 |

For detail information about Taper Bush bore, please refer Taper Bush catalogue.

* Std. Max. Bore - 90 mm, with Shallow Key - 100 mm



NOTES : L1 = Length with assembly combinations FF,HH,FH. J = Wrench clearance required to tighten and loosen the bush on the shaft.
 L2 = Length with assembly combinations FB,HB.
 L3 = Length with assembly combinations BB. Bore tolerance is H7 unless otherwise specified.

TABLE 4. TECHNICAL DATA

| Size | Maximum Speed rpm | Torque Rating (Nm) | | Moment of Inertia WR ² (kgm ²) | Torsional Stiffness (Nm / degree) | Maximum Misalignment | | Weight (kg) |
|------------|-------------------|--------------------|---------|---|-----------------------------------|----------------------|-------|-------------|
| | | Normal | Maximum | | | Parallel | Axial | |
| RFC 7 | 9100 | 31.5 | 72 | 0.00085 | 10.2 | 0.3 | +0.20 | 1.00 |
| RFC 9 | 7400 | 80 | 180 | 0.00115 | 25.5 | 0.3 | +0.49 | 1.17 |
| RFC 11 | 5630 | 160 | 360 | 0.00400 | 48 | 0.3 | +0.61 | 5.00 |
| RFC 13 | 4850 | 315 | 720 | 0.00780 | 84 | 0.4 | +0.79 | 5.46 |
| RFC 15 | 4200 | 600 | 1500 | 0.01810 | 176 | 0.4 | +0.92 | 7.11 |
| RFC 18 | 3500 | 950 | 2350 | 0.04340 | 240 | 0.4 | +1.09 | 16.60 |
| RFC 23 | 2800 | 2000 | 5000 | 0.12068 | 336 | 0.5 | +1.32 | 26.00 |
| RFC 28/28A | 2300 | 3150 | 7200 | 0.44653 | 960 | 0.5 | +1.70 | 50.00 |

- Weight & M.I. are for Coupling with mid-range bore taper bushes.
- For speeds below 100 rpm & intermediate speeds use normal torque ratings.
- The maximum angular misalignment is 1°
- All dimensions are in mm unless otherwise specified.
- For vertical installation contact RATHI.

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