# **DRIVE SHAFT COUPLINGS**

#### **FEATURES:**

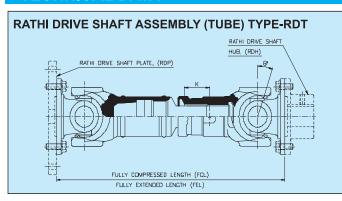
- High torsional strength
- Polyamide coated spline shafts for longer life
- Ground fillet radii to avoid stress concentration
- Vibration free performance
- Low Maintenance

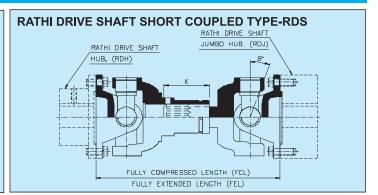


#### **APPLICATIONS:-**

Steel Plants & Rolling Mills, Textile, Paper & Printing Machinery, Cranes & Fire Fighting Pump drive, Vibrating screens, Cement Industries, Earth Moving Equipments, etc.

### **TECHNICAL DATA**

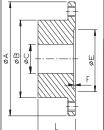




	Short	Flange	Flange	Angle	MODEL-RDT		MODEL-RDS	
Size	Duration Torque Nm	Hole Dia	PCD	B <sup>o</sup> (Max.)	SLIP Movement K	FCL-FEL	SLIP Movement K	FCL-FEL
1130	550	8.20	69.8	17	42.8	315-358	23.8	208-232
1310 ■	1085	10.50	79.3	25	50.8	335-385	49.2	281-330
1410 ■	2040	12.50	95.2	20	58	471-529	30	300-330
1510 ■	2712	12.85	120.6	20	63.5	418-481	50	270-320
1550 ■	3300	12.75	120.6	20	63.5	445-508	33	308-341
1610	4950	10.50	155.4	20	70	500-570	45	377-422
1710	6511	10.50	184	15	133	650-783	104	632-736

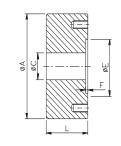
■ Rectangular Flange

## RATHI DRIVE SHAFT HUB (RDH)



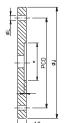
RDH Size	ØA	ØВ	Max. Bore ØC	ØE	F	L
1130	86	51	32	57.2	2.8	40
1310	102	57	40	60.4	1.7	45
1410	128	72	48	69.9	1.7	45
1510	146	94	65	95.3	2	60
1550	146	94	65	95.3	1.8	60
1610	176	115	80	168.3	1.8	70
1710	210	142	90	196.9	2.2	90

#### **RATHI DRIVE SHAFT JUMBO HUB (RDJ)**



RDJ Size	ØA	Max. Bore ØC	ØE	F	L
1130	86	55	57.2	2.8	40
1310	102	65	60.4	1.7	45
1410	128	80	69.9	1.7	45
1510	146	100	95.3	2	60
1550	146	100	95.3	1.8	60
1610	176	115	168.3	1.8	70
1710	210	135	196.9	2.2	90

## RATHI DRIVE SHAFT SAE PLATE (RDP)



RDP Size	Ø٦	No. of Holes	ØL	PCD
6 1/2"	8 1/2"	6	21/64"	7 7/8"
7 1/2"	9 1/2"	8	21/64"	8 3/4"
8"	10 3/8"	6	13/32"	9 5/8"
10"	12 3/8"	8	13/32"	11 5/8"
11 1/2"	13 7/8"	8	13/32"	13 1/8"
14	18 3/8"	8	17/32"	17 1/4"

\* Dimensions to suite respective Drive Shaft

Special high tensile self locking bolts will be supplied with Hub & SAE Plate.

4-HOLE FLANGE

4-HOLE RECT. FLANGE

SIZE 1130

SIZE 1310 TO 1550

SIZE 1610 & 1710

All Dimensions are in mm otherwise specified

#### **SELECTION DATA & APPLICATION GUIDELINES**

Power Source	F <sub>P</sub>
Electric Motor	1
Gasoline Engine	1.25
Diesel Engine	1.5

ODERATING ANGLES	Drive Shaft RPM	Max. Operating Angle	Drive Shaft RPM	Max. Operating Angle
OPERATING ANGLES For Two Joints Shafts	5000	3° 15'	3000	5° 50'
With Equal or	4500	3° 40'	2500	7° 0'
Intersecting Angles	4000	4° 15'	2000	8° 40'
	3500	5° 0'	1500	11° 30'

# Selection of DRIVE SHAFT is different from other type of couplings

1) Select the appropriate SERVICE FACTOR

from the table and graphs

a) Power Source : F<sub>p</sub>b) Operating Angle : F<sub>Δ</sub>

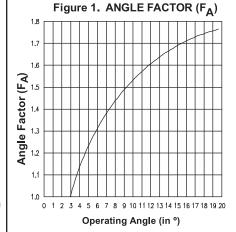
c) Life: FI

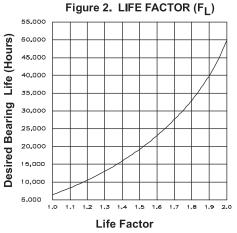
2) Calculate **Application (Operating)**Torque: T Nm

T =	Power kW x 1.34 x 7123	Nm
	RPM	

- 3) Calculate Design Torque = T x F<sub>P</sub> x F<sub>Δ</sub> x F<sub>I</sub> Nm
- 4) Refer short duration torque from Technical data. Select the drive shaft size based on Short Duration Torque
   = / > Design Torque
- 5) Select required **Mounting Options**: SAE Plate or Hubs.
- 6) Check for **bore** sizes.

While Ordering, Place order for Individual Part.





SIZE	SHORT DURATION TORQUE Nm	* MAX. RPM	TUBE DIA MM (INCH)	# TUBE LENGTH C-C INSTALLED @ MAX. RPM MM (INCH)
1130	550	2500	63.5 (2.5)	1778 (70)
1310	1085	6000	63.5 (2.5)	1092 (43)
1410	2040	5000	76.2 (3)	1295 (51)
1510	2712	5000	76.2 (3)	1295 (51)
1550	3300	5000	76.2 (3)	1295 (51)
1550	3300	5000	88.9 (3.5)	1397 (55)
1610	4950	5000	88.9 (3.5)	1473 (58)
1710	6511	4500	103.80 (4.08)	1505 (59)

<sup>\*</sup> Rating applies to universal joint

Note: Data provided above is for general guidelines. Please contact RATHI TRANSPOWER PVT. LTD. for specific requirement with complete design data.

- Higher sizes available on request.
- All Dimensions are in mm otherwise specified

In view of our constant endeavour to improve quality of our products, we reserve the right to alter or change specifications without prior notice. This document is the intellectual property of Rathi Transpower Pvt. Ltd. and subject to copyright.

Rathi	Trans	power	Pvt	Ltd

Rathi Chambers, 7, Deccan College Road, Pune 411 006.(INDIA)

Pune 411 006.(INDIA) Phone : 91-20-30517201 Fax : 91-20-30517212

E-mail : enquiry@rathigroup.com Website : www.rathicouplings.com Distributor

<sup>#</sup> Lengths shown are based on 0.66 of the calculated critical speed at max. rate RPM (as applied to industrial applications)