CURVE-FLEX COUPLINGS
TYPE RRJ

SPIDER

Blue (RAL - 5015)
Hardness HTR 55 D
Temperature - 120°C

Gray (RAL - 7000)
Hardness HTR 92 A
Temperature - 120°C

Light Ivory (RAL - 1015)
Hardness HTR 65 D
Temperature - 120°C

Selection Procedure:

1. Determine Application Nominal Torque (Nm)
   Tnom (Nm) = (kw x 9550/rpm)

2. Calculate application service factor using following charts - Total service factor (SF) will be SF = SF1 x SF2 x SF3

3. Calculate Application Maximum Torque (Tmax)
Tmax = Tnom X SF (Nm)

4. Select the proper spider showing Tnom greater than application nominal torque. Then select spider showing Tmax greater than application maximum torque. Select the higher of two.

5. Ensure that application rpm and max. bore requirements are less than or equal to selected coupling max. rpm and max. bore size otherwise select next size coupling.

For SF1, SF2, SF3 refer chart.

SF1 - Application Service Factor

Driven Machine / Example	Electric Motors	Prime Motor	
		4 Cylinder or more	Less than 4 Cylinder
a. Uniform operation, no shocks.	1.5	2.0	2.5
b. Irregular operation, light shocks.	2.0	2.5	3.0
C. Irregular operation, medium shocks.	2.5	3.0	3.5
D. Irregular operation, heavy shocks.	3.0	3.5	4.0

SF2 - Application Service Factor for Temperature

Temperature Range °C	< 30°C	30°C - 70°C	> 70°C
SF2	1.0	1.5	2.0

SF3 - Application Service Factor for starting frequency

Starting frequency cycles / hour	< 100	100 - 500	> 500
SF3	1.0	1.5	2.0

MISALIGNMENT DATA

Size	19	24	28	38	42	48	55	65	75	90
Maximum axial displacement (mm)	1.6	1.8	2.0	2.2	2.3	3.0	3.0	3.5	3.5	4.5
Maximum radial misalignment (mm)	0.15	0.20	0.20	0.25	0.30	0.35	0.35	0.40	0.45	0.50
Maximum angular misalignment (Deg.)	0.80	0.80	0.80	0.90	0.90	1.0	1.0	1.0	1.1	1.1

ORDER SEQUENCE	Coupling Size	Hub Type (Driver / Driven)	Finish Bore (Driver / Driven)	Spider Type	Hub Material
Example	RRJ-55	I / II	40 / 60	Spider Colour	CI

- Coupling with Blue Spider is supplied if not specified.
- All dimensions are in mm unless otherwise specified.

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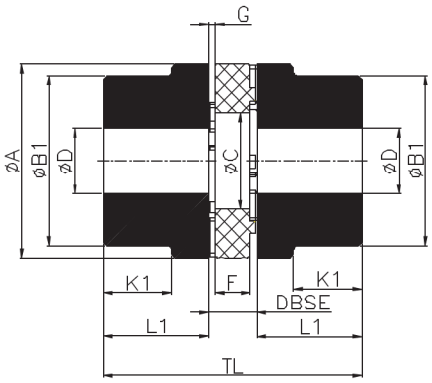
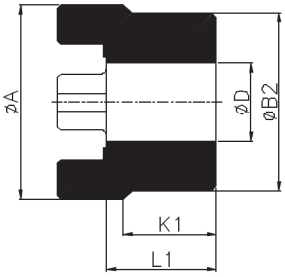
TYPE RRJ

- Allover machining - Inherently balanced
- No Lubrication, Maintenance free - Long life
- Compact design, High power to weight ratio
- Fail safe - Will perform even if spider fails
- Vibrations Damping, torsionally flexible
- Axial plug-in, easy to assemble

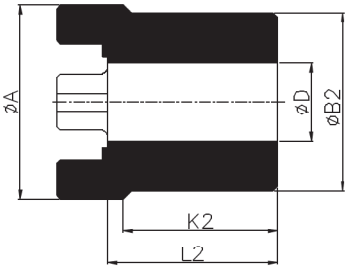
RRJ Coupling



HUB TYPE I



HUB TYPE II



HUB TYPE III

TECHNICAL DATA

RRJ - ALUMINIMUM (AL)

Coupling Size *	Hub Type	kW @ 100 rpm			Torque Nm			Max. Speed RPM	Bore - Ø D			DIMENSIONS (mm)											# Assembly	
		Gray	Blue	Light Ivory	Gray	Blue	Light Ivory		PB	Min.	Max.	ØA	ØB1	ØB2	ØC	DBSE min.	F	L1	L2	G	TL	K1	K2	Weight (Kg.)	M.I. ($Kg.m^2$)
19	I	0.1	0.18	0.22	10	18	21	14000	-	6	19	41	32	-	18	16	12	25	-	2	66	20	-	0.11	2.3×10^{-5}
	II									19	24		-	41										0.14	4.3×10^{-5}
24	I	0.35	0.65	0.80	33	62	76	10600		9		56	40	-	27	18	14	30	-	2	78	24	-	0.24	9×10^{-5}
	II									22	28		-	56										0.34	19×10^{-5}
28	I	0.95	1.75	2.07	91	167	198	8500		10		66	48	-	30	20	15	35	-	2.5	90	28	-	0.39	$20X 10^{-5}$
	II									28	38		-	66										0.54	42×10^{-5}
RRJ- CAST IRON (CI)																									
38	I	1.9	3.47	4.21	182	332	402	7100	10	12	40	80	66	-	38	24	18	45	-	3	114	37	-	2.00	1.85×10^{-3}
	II										48		-	78										2.40	2.45×10^{-3}
	III																	-	70		164	-	62	3.60	3.72×10^{-3}
42	I	2.65	4.99	5.86	253	477	560	6000	12	14	45	95	75	-	46	26	20	50	-	3	126	40	-	3.20	4.1×10^{-3}
	II										55		-	94										3.80	5.9×10^{-3}
	III																	-	75		176	-	65	5.50	8.54×10^{-3}
48	I	3.1	5.49	6.98	296	525	667	5600	13	15	52	105	85	-	51	28	21	56	-	3.5	140	45	-	4.96	7.4×10^{-3}
	II										62		-	104										5.45	9.9×10^{-3}
	III																	-	80		188	-	69	7.51	13.6×10^{-3}
55	I	4.1	7.27	8.73	392	694	834	4750	18	20	60	120	98	-	60	30	22	65	-	4	160	52	-	6.60	12.3×10^{-3}
	II										74		-	118										7.50	17.3×10^{-3}
	III																	-	90		210	-	77	10.20	$23.7X 10^{-3}$
65	I	6.25	10.19	12.09	597	973	1155	4250	20	22	70	135	115	-	68	35	26	75	-	4.5	185	61	-	10.10	24.5×10^{-3}
	II										80		-	133										11.50	27.8×10^{-3}
	III																	-	100		235	-	86	15.00	36.3×10^{-3}
75	I	12.8	20.73	24.91	1223	1980	2380	3550	28	30		160	135	-	80	40	30	85	-	5	210	69	-	16.00	54×10^{-3}
	II										95		-	158										18.20	61.4×10^{-3}
	III																	-	110		260	-	84	21.20	71.5×10^{-3}
90	I	24	36.89	47.25	2293	3523	4514	2800	38	40	97	200	160	-	100	45	34	100	-	5.5	245	81	-	27.50	138×10^{-3}
	II										110		-	198										36.30	182×10^{-3}
	III																	-	125		295	-	106	44.80	225×10^{-3}

Weight & Moment of Inertia (M.I.) of coupling assembly refer to maximum finish bore without keyway.

* Alternative hub material available on request - Steel (Sizes 19 to 90) , S. G. Iron (Sizes 38 to 90).

All Dimensions are in mm.

For vertical installation contact Rathi.

Consult RATHI for Max Bore with Square Key.