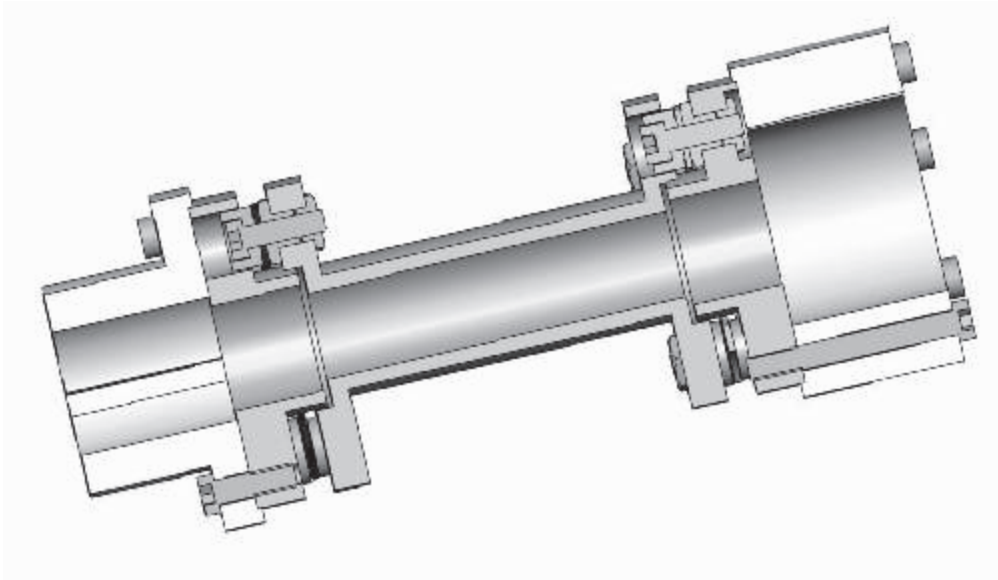


Rathi Disc-O-Flex couplings are fully metallic couplings, consisting of two hubs, one centre spacer member, two sets of stainless steel element blades bolted together with high tensile bolts. Replacement of element blades is easy, simple and is possible without disturbing drive or driven equipment.



## ***FEATURES***

- High power-to-weight ratio.
- No wearing parts, no lubrication required.
- Easy installation with 'Drop Out' spacer.
- Accommodates angular, parallel and axial misalignments.
- Non stainless steel parts coated with a durable anticorrosive coating.
- High temperature application.
- Replaceable element blades with adapter.
- Visual inspection possible without disassembling equipment.
- Inherently balanced.
- High torsional rigidity with low axial stiffness.
- Special options including spacer lengths, modified hubs, special materials are available.
- Floating shaft / cooling tower couplings are available.
- Backlash free.
- High speed capability.
- Dynamic balancing to customer specifications.
- Machined to high precision standards.
- Lightweight couplings.
- Specially suitable for Petrochemical & Fertilizer Industries.
- API 610 & API 671 compliance available on request.
- Coupling with anti-fly features.

### Selection Procedure:

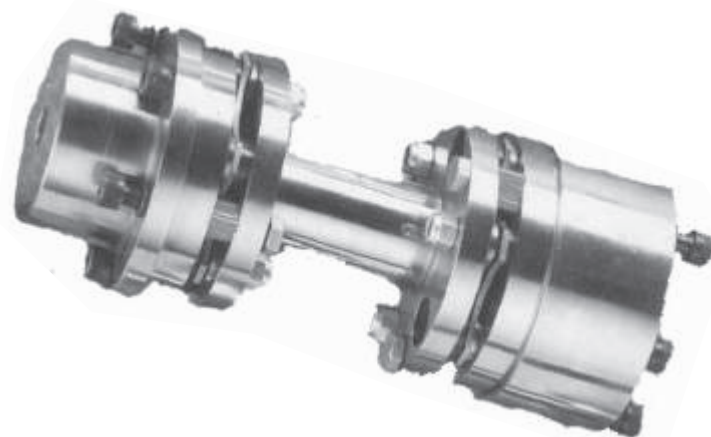
- 1 Select an appropriate SERVICE FACTOR from table given below.
- 2 Multiply the rated running power by the service factor. This gives DESIGN POWER at rated speed (rpm).
- 3 Now convert this to design power at 1000 rpm. This is used as a basis for coupling selection.
- 4 Refer to the rating column and read until the power greater than or equal to the design power at 1000 rpm is found. The size of the coupling is given in the corresponding first column.
- 5 Select either standard type I or type II hubs to suit shaft sizes.
- 6 Specify the distance between shaft ends (DBSE)

### Service Factor :

Suggested service factors for electric motor, steam turbine, and gas turbine drivers are given below:

Duty		Service Factor
Constant Torque	Centrifugal Pump, Centrifugal Compressor Axial Compressor Centrifugal Blower	1.0*
Slight Torque Fluctuation	Screw Compressor Gear, Lobe and Vane Pumps Forced Draft Fan Medium Duty Mixer Lobe Blower	1.5
Substantial Torque Fluctuation	Reciprocating Pumps, Heavy Duty Mixers Induced Draft Fans	2.0

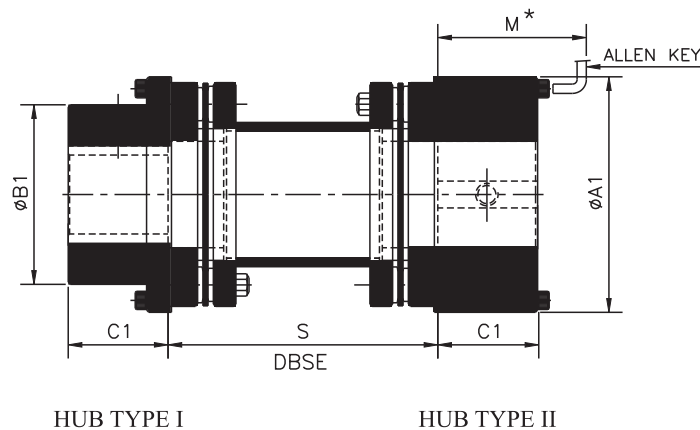
\* Use a minimum service factor of 1.25 on electric motor drives through a gearbox.



### RSK TECHNICAL DATA

Coupling Size	Rating kW at 1000 rpm	Max. Continuous Torque Nm	Peak Overload Torque Nm	Max. rpm	Weight Transmission Unit		Weight Unbored Hubs - Kg	
					Std.	Extra DBSE kg/m	Hub I	Hub II
13	13	124	310	25500	1.5	3.1	1.0	1.9
33	33	315	790	20000	3.0	5.0	1.4	3.1
75	75	716	1790	16500	5.6	6.5	3.6	5.8
135	135	1289	3220	14400	9.3	10.5	5.9	8.7
230	230	2196	5490	12000	14.0	13.0	9.0	14.0
350	350	3342	8360	10500	18.7	22.0	16.4	-
500	500	4775	11940	9500	25.6	22.0	21.0	-
740	740	7066	17670	8000	34.2	27.5	30.0	-
930	930	8881	22200	7000	44.0	40.0	38.0	-
1400	1400	13369	33400	6000	54.0	40.0	52.1	-

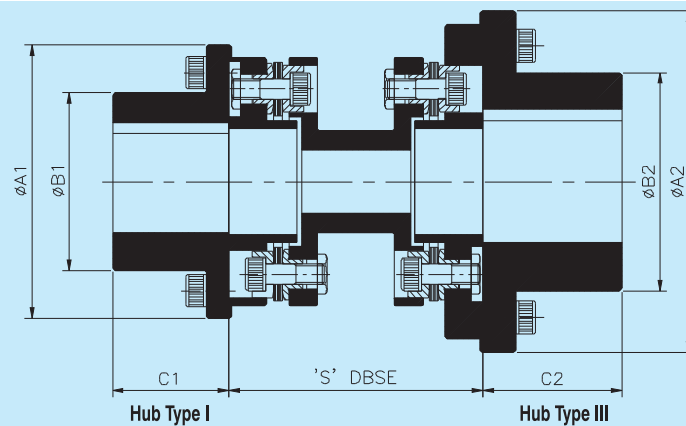
- Note that for the complete coupling, weights of two appropriate hubs plus a transmission unit are required.



### TECHNICAL DATA

Coupling Size	Max. Bore		DBSE 'S min'	Std. DBSE 'S'	C1	ØA1	ØB1	M *
	Type I	Type II						
13	36	51	75	100	40	86	54	90
33	46	70	90	140	45	105	69	105
75	65	90	107	180	55	130	90	120
135	80	102	127	250	62	152	112	127
230	90	121	133		70	179	131	135
350	115	-	139		90	197	163	-
500	127	-	141		95	222	181	-
740	140	-	143		107	247	206	-
930	155	-	155		115	272	223	-
1400	172	-	175		130	297	248	-

- Notes:-**
- Non Standard DBSE available on request.
  - Available for non-sparking application on request.
  - Please specify type of Hub.
  - \* 'M' is only for hub type II.
  - For vertical installation contact RATHI.



### RSK TECHNICAL DATA

Coupling Size	Rating kW at 1000 rpm	Max. Continuous Torque Nm	Peak Overload Torque Nm	Max. rpm	Max. Bore		Min. DBSE 'S'	ØA1	ØA2	ØB1	ØB2	C1	C2	Std. DBSE	Wt. Transmission Unit Kg.		Wt. Unbored Hubs Kg.	
					Type I	Type III									STD.	Extra DBSE kg/m	Hub I	Hub III
13	13	124	310	25500	36	46	75	86	105	54	69	40	45	100	1.5	3.1	1.0	1.4
33	33	315	790	20000	46	65	90	105	130	69	90	45	55	140	3.0	5.0	1.4	3.6
														180				
														140				
75	75	716	1790	16500	65	80	107	130	152	90	112	55	62	140	5.6	6.5	3.6	5.9
135	135	1289	3220	14400	80	90	127	152	179	112	131	62	70	180	9.3	10.5	5.9	9.0
														250				
														180				
230	230	2196	5490	12000	90	115	133	179	197	131	163	70	90	250	14.0	13.0	9.0	16.4
350	350	3342	8360	10500	115	127	139	197	222	163	181	90	95	180	18.7	22.0	16.4	21.0
500	500	4775	11940	9500	127	140	141	222	247	181	206	95	107	180	25.6	22.0	21.0	30.0
740	740	7066	17670	8000	140	155	143	247	272	206	223	107	115	180	34.2	27.5	30.0	38.0
930	930	8881	22200	7000	155	172	155	272	297	223	248	115	130	180	44.0	40.0	38.0	52.1
1400	1400	13369	33400	6000	172	190	175	297	375	248	280	130	145	250	54.0	40.0	52.1	80.5

### Coupling Alignment

Correct installation and alignment of couplings is essential for reliable machinery performance.

#### RSK MISALIGNMENT

Coupling Size	Max. Axial Misalignment *		Max. Parallel Misalignment **	
	+/- mm.	Equivalent Thrust kN	mm	Restoring Moment Nm
13	1.00	210	0.30	4.1
33	1.25	280	0.36	6.1
75	1.50	360	0.45	8.8
135	2.00	560	0.55	11.8
230	2.50	740	0.60	14.7
350	2.75	780	0.64	34.3
500	3.25	1080	0.65	40.7
740	3.75	1270	0.68	47.6
930	4.25	1470	0.72	53.9
1400	5.00	2700	0.83	61.3

#### NOTES:

- \* Meets NEMA end float specification without modification.
- \*\* Values based on angular deflection of  $\frac{1}{2}^\circ$  per end and minimum DBSE. Greater misalignment accommodation is possible by increasing dimension S.

- All dimensions are in mm unless 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 Transpower Pvt Ltd

Gaia Apex, S. No. 33/2D, Viman Nagar  
Pune 411 014.(INDIA)  
Phone : 91-20-30517201  
Fax : 91-20-30517212  
E-mail : enquiry@rathigroup.com  
Website : www.rathicouplings.com