



DISC-O-FLEX
COUPLINGS



Lovejoy Disc-O-Flex couplings are fully metallic couplings, consisting of two hubs, one centre spacer member, two sets of stainless steel rivetted element blades bolted together with high tensile bolts. Replacement of rivetted discpack 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.
- 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.

Lovejoy Disc-O-Flex couplings are available in RLM, REM series.

TYPE - RLM

- Rivetted discpack for better performance
- Suitable for power transmission in drives in hazardous areas.

TYPE - REM

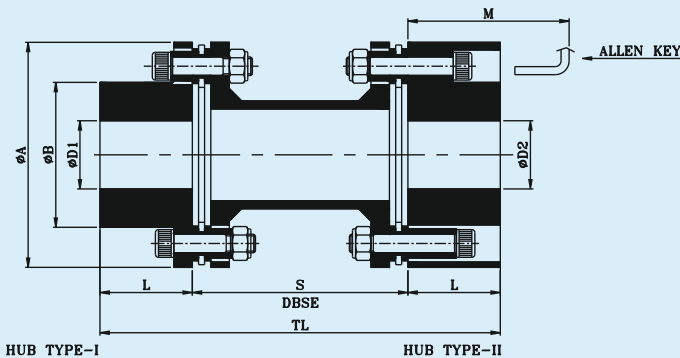
- Rivetted discpack for better performance
- Suitable for power transmission in drives in hazardous areas.
- Specially suitable for petrochemical & fertilizer industries.
- API-610 / API-671 compliance available on request.
- Coupling with antify spacer.

SELECTION PROCEDURE

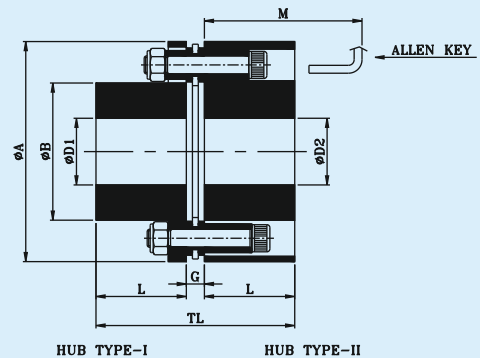
- 1) Select an appropriate **SERVICE FACTOR** from table given below.
- 2) Multiply the rated running power by the service factor. This gives **DESIGN POWER** at rated speed (rpm). Now convert this to design power at 100 rpm. This is used as a basis for coupling selection.
- 3) Refer to the rating column and read until the power greater than or equal to the design power at 100 rpm is found. The size of the Disc-O-Flex coupling is given in the corresponding first column.
- 4) Select either standard type I or type II hubs to suit shaft sizes. Select either Type III or Type IV hub in type REM for larger bore sizes.
- 5) Specify the distance between shaft ends (DBSE).

SERVICE FACTORS

Duty	Prime Mover		
	Electric Motor Steam or Gas Turbine	Steam Engine or Water Turbine	Gas or Oil Engine
Constant Torque e.g. centrifugal pumps, compressor, light conveyors, alternators & light fans.	1.0	1.5	3.0
Slight Torque Fluctuations e.g. machine tools, screw compressors, screw pumps, liquid ring compressors & rotary dryers.	1.5	2.0	3.0
Substantial Torque Fluctuations e.g. reciprocating pumps, low viscosity mixers, cranes & winches.	2.0	2.5	4.0
Exceptionally High Torque Fluctuations e.g. rotary presses, reciprocating compressors, high viscosity mixers & marine propellers.	3.0	3.5	5.0



TYPE - RLM



TYPE - RLMK

TECHNICAL DATA RLM

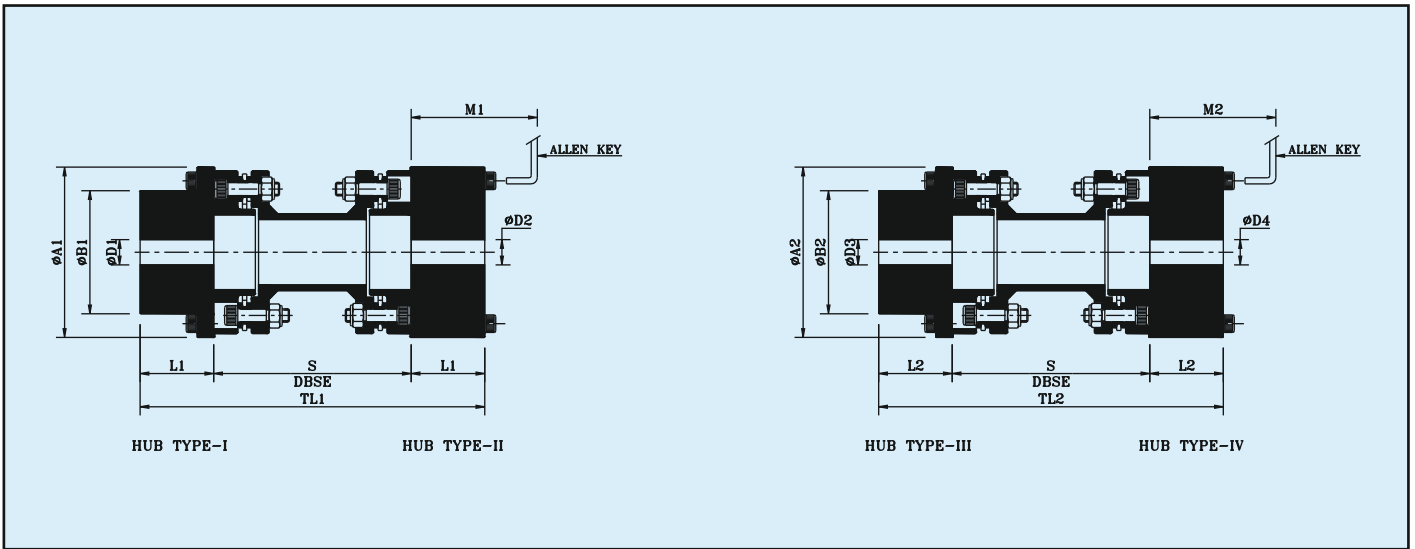
Coup. Size	kW at 100 rpm	Torque Nm	Max. Speed RPM	Bore			Min. DBSE 'S'	ØA	ØB	L	STD DBSE 'S'	TL (STD DBSE)	M2	Weight in Kg Approx.		M.I. (MR2) in Kg. m ² Approx		Tors. Stiff. MNm/rad Approx.
				Min. ØD1 & ØD2	Max. ØD1 Type I	Max. ØD2 Type II								Min. DBSE 'S'	Per Mtr. Extra 'S'	Min. DBSE 'S'	Per Mtr. Extra 'S'	
10	1.0	96	7500	10	22	25	54	63	30	100, 140	160, 200	75	1.3	2.3	0.0006	0.0004	0.021	
35	2.4	232	7000	12	30	38	54	82	40	100	180, 220, 260	85	2.3	3.2	0.0021	0.0011	0.047	
95	6.5	618	6000	17	40	50	66	102	45	140,	190, 230, 270	95	4.7	6.0	0.0062	0.0017	0.100	
170	12.6	1204	5200	17	52	70	78	128	55	180	210, 250, 290	110	8.0	7.0	0.0180	0.0047	0.222	
220	20	1912	4800	22	65	80	88	146	60		220, 260, 300	120	11.4	8.4	0.0350	0.0088	0.381	
400	36.3	3463	4400	27	80	100	102	176	70	140, 180	280, 320	140	19.5	13.1	0.0850	0.021	0.773	
520	58.5	5583	4200	32	90	115	114	197	90	140, 180,	320, 360, 430	175	29.3	21.7	0.1678	0.056	0.962	
1000	74.2	7084	4000	42	105	130	132	225	95	250	330, 370, 440	185	42.1	21.7	0.3098	0.056	1.529	
1300	108.7	10383	3800	47	115	140	144	250	105	180,	390, 460, 510	195	61.0	27.1	0.5328	0.067	1.892	
2000	152.2	14536	3700	52	120	155	168	275	115	250	410, 480, 530	215	81.7	42.8	0.8610	0.167	2.454	
2500	196	18714	3600	62	135	165	170	300	130	300	440, 510, 560	235	106.9	42.8	1.3580	0.167	3.783	

TECHNICAL DATA - RLMK

Coup. Size	kW at 100 rpm	Torque Nm	Max. Speed RPM	Bore			ØA	ØB	L	DBSE 'G'	TL (STD DBSE)	M	Weight in Kg Approx.	M.I. (MR2) in Kg. m ² Approx	Tors. Stiff. MNm/rad Approx.	Max. Mis-alignment	
				Min. ØD1 & ØD2	Max. ØD1 Type I	Max. ØD2 Type II										Axial (mm)	Angular / disc pack (Deg)
10	1.00	96	7500	10	22	25	63	35	30	6.5	66.5	75	0.9	0.00047	0.041	±1	0.75°
35	2.40	232	7000	12	30	38	82	45	40	6.5	86.5	85	1.8	0.0017	0.093		
95	6.5	618	6000	17	40	50	102	57	45	8	98	95	3.2	0.0082	0.248		
170	12.6	1204	5200	17	52	70	128	77	55	9.5	119.5	110	5.8	0.0143	0.529		
220	20	1912	4800	22	65	80	146	94	60	12	132	120	8.5	0.0263	0.895		
400	36.3	3463	4400	27	80	100	176	115	70	13	153	140	14.0	0.0640	1.665	±2	REQUEST
520	58.5	5583	4200	32	90	115	197	132	90	14.4	194.5	175	22.2	0.1320	2.393		
1000	74.2	7084	4000	42	105	130	225	147	95	16.2	206.1	185	30.5	0.2311	3.490		
1300	108.7	10383	3800	47	115	140	250	162	105	19.5	229.4	195	42.7	0.3945			
2000	152.2	14536	3700	52	120	155	275	178	115	21.5	251.5	215	57.3	0.6350			
2500	196	18714	3600	62	135	165	300	190	130	23.5	283.6	235	76.1	1.0050			

Notes

- All dimensions are in mm, unless otherwise specified.
- For vertical installation contact RATHI.
- Special DBSE available on request.
- Please specify type of hubs (I/I, I/II, II/II)
- Weight, M.I. & stiffness are at max. bores with min. std DBSE & with I/II hub combination.
- Available for non-sparking applications on request.
- Coupling with sizes higher than 2500 available on request.
- 'M' is for hub type II only.
- MAX. MIS-ALIGNMENTS ARE AS FOLLOWS. For RLM couplings.
 AXIAL : FOR SIZE 10 TO 400 : ±1MM & FOR SIZE 520 TO 2500 : ±2MM
 ANGULAR / DISC PACK : 0.75°
 RADIAL / PARALLEL : 0.013 MM
- For RLMK series, hub combinations of I/I & I/II are only available.
- For RLMK couplings, parallel misalignment is zero.



TECHNICAL DATA

Coup. Size	kW at 100 rpm	Torque Nm	Max. Speed RPM	Bore												STD DBSE	TL1 (STD DBSE)	TL2 (STD DBSE)	M1	M2	Weight in Kg Approx.		M.I. (MR2) in Kg. m ² Approx.		Tors. Stiff. MNm/rad Approx.			
				Min.				Max.				Min. DBSE 'S'	A1	A2	B1						B2	L1	L2	Min. DBSE 'S'		Per Mtr. Extra 'S'	Min. DBSE 'S'	Per Mtr. Extra 'S'
				D1 & D2 (Type I/II)	D3 & D4 (Type I/II)	D1 (Type I)	D2 (Type II)	D3 (Type III)	D4 (Type IV)																			
8	1.00	96	7500	8	10	24	42	38	48	80	69	90	40	55	30	40	100	160, 200, 240	180, 220, 260	80	90	2	1.32	0.0012	0.0002	0.018		
25	2.40	232	7000	10	15	38	48	48	72	89	90	108	55	70	40	45	140, 180	180, 220, 260	190, 230, 270	90	105	4	2.29	0.0039	0.0006	0.043		
65	6.5	618	6000	15	20	48	72	65	92	103	108	135	70	86	45	55	140	230, 270, 340	260, 290, 360	105	120	9	3.19	0.0094	0.0011	0.100		
125	12.6	1204	5200	20	25	65	92	80	102	128	135	152	86	108	55	60	180, 250	250, 290, 360	260, 300, 370	120	125	16	4.74	0.0283	0.0034	0.232		
165	20.0	1912	4800	25	30	80	102	90	120	148	152	182	108	130	60	70	180	300, 370	320, 390	125	135	22	8.38	0.0604	0.0088	0.395		
370	36.3	3463	4400	30	45	90	120	108	140	161	182	197	130	158	70	90		250	320, 390	360, 430	135	155	33	13.08	0.1410	0.0213	0.749	
390	58.5	5583	4200	45	55	108	140	127	155	175	197	225	158	181	90	95	250	360, 430	370, 440	155	160	49	21.72	0.3650	0.0561	1.239		
790	74.2	7084	4000	55	65	127	155	140	178	180	225	250	181	206	95	105		370, 440	390, 460	160	170	61	21.72	0.4181	0.0561	1.649		
1025	108.7	10383	3800	65	70	140	178	155	192	194	250	275	206	223	105	115	250	460	480	170	190	83	27.06	0.7067	0.0670	2.179		
1425	152.2	14536	3700	70	75	155	192	170	212	213	275	300	223	248	115	130		480	510	190	215	105	42.79	1.1340	0.1666	3.350		
1880	196.0	18714	3600	75	80	170	212	190	255	225	300	375	248	280	130	145	510	540	215	245	136	42.79	1.7740	0.1666	4.271			

Notes

- * All dimensions are in mm. Unless otherwise specified.
- * For vertical installation contact RATHI.
- * Non Standard DBSE available on request.
- * Please specify type of hubs (I/I, I/II, II/II, III/III, III/IV, IV/IV)
- * Weight, M.I. & stiffness are at max. bores with min. std DBSE with one I/II hub combination.
- * Available for non-sparking applications on request.
- * Min. Bores specified are for hub type I/II, for hub type III/IV consult manufacturer.
- * Coupling with taper bush also available on request.
- * Coupling with sizes higher than 1880 available on request.
- * M1 is applicable for hub type II. M2 is applicable for hub type IV.
- * MAX. MIS-ALIGNMENTS ARE AS FOLLOWS
AXIAL : FOR SIZE 8 TO 370 : ±1MM & FOR SIZE 390 TO 1880 : ±2MM
ANGULAR / DISC PACK : 0.75°
RADIAL / PARALLEL : 0.013 MM

- 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)

Distributor



79/1, APS Complex, Iduvampalayam Road,
Periyandipalayam Tiruppur-641687, India
Mobile: 90477 77573, Tel : 0421 4955647
Email: sales@kbandtraders.com.
Web: www.kbandtraders.com