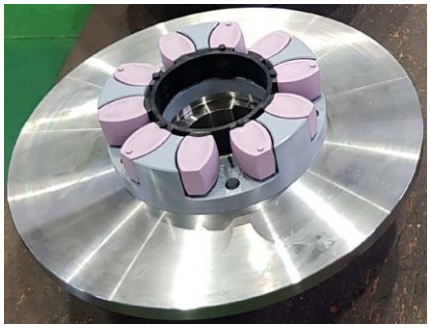
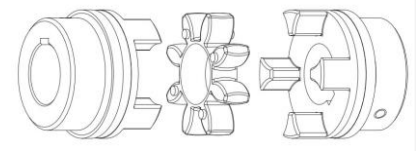
FCD – Flexible Coupling with Disc

FCD Flexible Coupling is used to transmit power (torque) from one shaft to another via elastic intermediate ring, compensating for minor amounts of misalignment. It provides protective functions such as vibration dampening or noise reduction. Supplied with Disc and brake system, they allow for safe stopping of a drive.



Flexible Coupling with Disc can be used in a wide variety of machines, from general industrial drives to high speed applications with high dynamic loads. They are designed with small dimensions, low weight and low mass moments of inertia yet transmitting high torques.



Applications:

- Ship to shore cranes
- Automated stacking cranes
- Wide Span Cranes
- Gantry Cranes
- Crane Systems/Winches
- Conveyor Belts
- Steelworks
- Material transport

Features and Benefits

- Five parts design allows for replacement of the elastic intermediate ring or the brake disc without moving any equipment
- The jaws, holding the spider insert are subject to pressure only (min bending stress), which allows the teeth to accept higher loads
- Spider type, intermediate ring is resistant to scientifically higher temperatures and has considerably longer service life
- Continuous temperature: -50 °C to +120 °C
- Max temperature short time: -50 °C to +150 °C
- Improved dumping of vibrations
- Large selection of coupling sizes and brake discs available

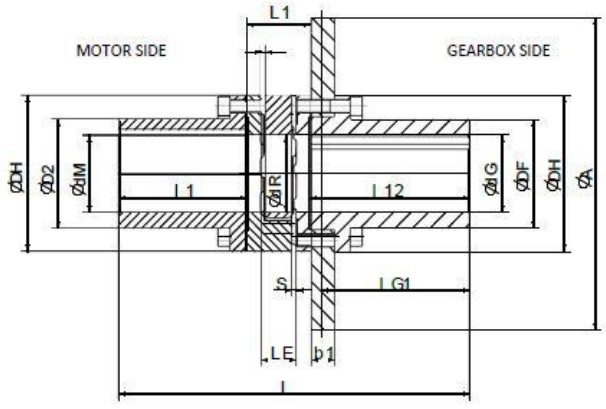
FCD – Flexible Coupling with spider insert and Disc

STANDARD FEATURES

- Significantly longer service life
- Very good temperature resistance
- Spider insert with 98 Shore A hardness
- Transmission of high torques with average dumping
- Compact diameters

AVAILABLE OPTIONS

- Dynamically balanced according to ISO 1940 Grade: G 2.5; G 6.3
- Coupling hubs finish bore and keyway acc. to DIN 6885
- Coupling hubs pilot bore
- Gear side and motor side hubs in custom lengths
- Various brake disc thicknesses available



Coupling Size		FCD-R65	FCD-R75	FCD-R90	FCD-R100	FCD-R110	FCD-R125	FCD-R140	FCD-R160
T_{kn}	Nm	940	1920	3600	4950	7200	10000	12800	19200
T_{kmax}	Nm	1880	3840	7200	9900	14400	20000	25600	38400
n_{max}	rpm	3450	3250	3000	2800	2600	2250	1800	1500
ØdG/ØdM pilot bore	mm	28	28	38	48	48	58	58	78
max. bore	mm	65	75	100	110	125	145	165	190
ØDH	mm	135	160	200	225	255	290	320	370
ØD2	mm	94	108	142	158	178	206	235	270
ØDF	mm	92	108	140	158	176	206	235	270
ØdR	mm	68	80	100	113	127	147	165	190
l1	mm	113.5	133	165.5	155	203.5	200.5	247	229
l12	mm	166	166.5	206.5	206.5	212.0	212.0	252.5	252.5
lG1	mm	150	150	190	190	195	195	235	235
L1	mm	65	75	82	97	103	116	128	146
L	mm	344.5	374.5	454	458.5	518.5	528.5	627.5	627.5
LE	mm	35	40	45	50	55	60	65	75
S	mm	4.5	5	5.5	6	6.5	7	7.5	9
Cylinder bolt	Qty.	12xM10x30	15xM12x40	15xM16x40	15xM16x50	15xM20x50	15xM20x60	15xM20x60	15xM24x70
DIN912-12.9		12xM10x60	15xM12x70	15xM16x70	15xM16x80	15xM20x80	15xM20x90	15xM20x90	15xM24x100
Ma	Nm	83	120	295	295	580	580	580	1000
ØAxb1 brake disc		* Design, weight m, moment of inertia J							
Ø315x30	kg	30,7							
	kgm²	0,254							
Ø355x30	kg	38							
	kgm²	0,393							
Ø400x30	kg	42,3	50.5	64.4					
	kgm²	0,616	0.627	0,759					
Ø450x30	kg	50,1	58.3	72					
	kgm²	0,969	0.978	1.104					
Ø500x30	kg		67.1	80.8	94.3	113.4			
	kgm²		1.472	1.595	1.773	1.97			
Ø560x30	kg		78.9	92.6	106.1	124.9	150.5		
	kgm²		2.297	2.417	2.6	2.776	3.268		
Ø630x30	kg			108	121.5	140.3	165.9	208.2	
	kgm²			3.774	3.968	4.127	4.622	5.411	
Ø710x30	kg			127.8	141.3	160.1	185.5	228	281
	kgm²			5.992	6.18	6.32	6.842	7.62	9.434
Ø800x30	kg					185.3	210.9	253.2	306.2
	kgm²					9.909	10.412	11.193	13.02

Models with holding capacities calculated with friction factor 0.4
All dimensions (mm) and capacities (Nm) subject to change without notification.