radicon

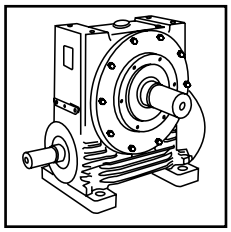
with you at every turn

Elflex Flexible Couplings

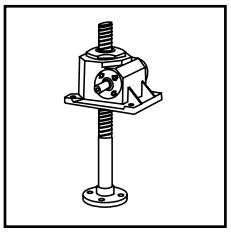
Flexible Couplings
CEF-2.00GB0312

PRODUCTS IN THE RANGE

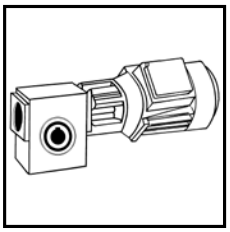
Serving an entire spectrum of mechanical drive applications from food, energy, mining and metal; to automotive, aerospace and marine propulsion, we are here to make a positive difference to the supply of drive solutions.



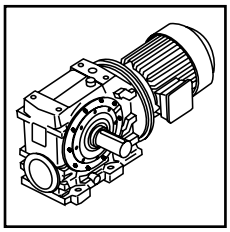
Series A
Worm Gear units and geared motors in single & double reduction types



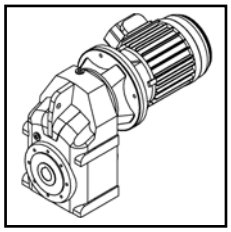
Series BD
Screwjack worm gear unit



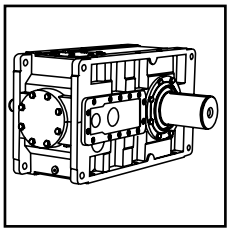
Series BS
Worm gear unit



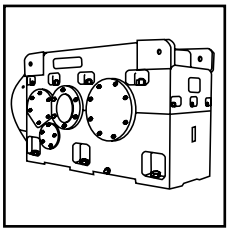
Series C
Right angle drive helical worm geared motors & reducers



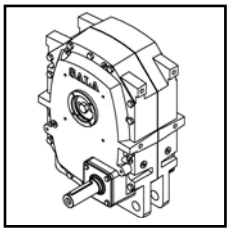
Series F
Parallel angle helical bevel helical geared motors & reducers



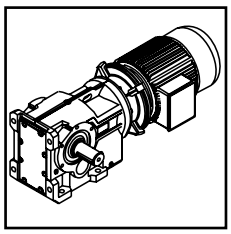
Series G
Helical parallel shaft & bevel helical right angle drive gear units



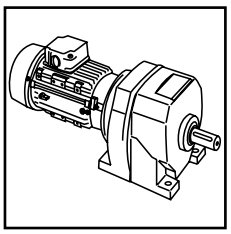
Series H
Large helical parallel shaft & bevel helical right angle drive units



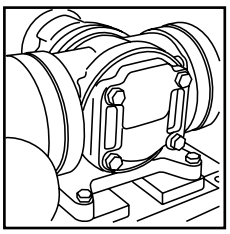
Series J
Shaft mounted helical speed reducers



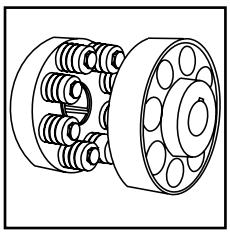
Series K
Right angle helical bevel helical geared motors & reducers



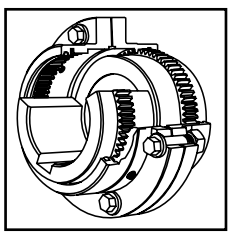
Series M
In-line helical geared motors & reducers



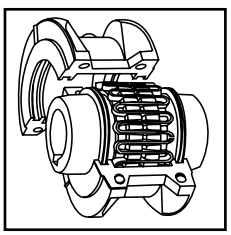
Roloid Gear Pump
Lubrication and fluid transportation pump



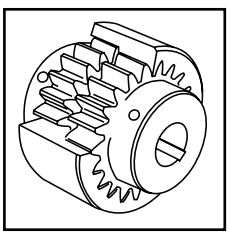
Series X
Cone Ring
Pin and bush elastomer coupling



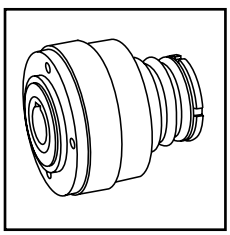
Series X
Gear
Torsionally rigid, high torque coupling



Series X
Grid
Double flexing steel grid coupling



Series X
Nylicon
Gear coupling with nylon sleeve



Series X
Torque Limiter
Overload protection device

We offer a wide range of repair services and many years experience of repairing demanding and highly critical transmissions in numerous industries.

We can create custom engineered transmission solutions of any size and configuration.

INTRODUCTION

Flexible couplings transmit torque from one shaft to another and are particularly useful in cases where a limited amount of misalignment of the shaft is unavoidable.

Elflex flexible couplings are cushioned drive type couplings, that transmit the torque through rubber bushes which have an excellent capacity to absorb shocks. The flanges are cast iron and are suitable for speeds up to the maximum limits as mentioned below.

ELFLEX FLEXIBLE COUPLINGS

Permits drive in either direction.

Lubrication not required.

No adjustment after fitting.

Barrel shaped bushes ensure effective shocks and vibration absorption.

Low maintenance.

Facility to dismantle machines simply by removing bolts and rubber bushes.

The composition of the rubber bushes is unaffected by water, dust and atmospheric conditions.

Elflex flexible couplings are suitable for driving all classes of machinery.

The couplings work within the permissible limits of misalignment as per **IS: 2693 and BS : 3170.**

Flanges are bored to suit the requirement (see table for maximum bore) and keyways are to **DIN-6885, PART-1;** unless otherwise specified. Couplings can also be supplied with the minimum/pilot bore conditions to permit machining at site.

SERVICE FACTOR TABLE			
Driven Machines	Service Factor		
	Type of driving unit		
	Electric motor or Steam Turbine	Steam engine or Water turbine	Gas or Oil engines
Even torque machines, smooth loads, centrifugal pumps, generators, line shafting, textile machines, screens, evaporators, etc.	1	1.25	2
Balancers, liner sets, machine tools, reeders, beaters, agitators, rotary dryers, light fan drives, blowers, stackers, rubber mixers, conveyors, intermittent loads, etc.	1.1	1.35	2.4
Heavy fan and blower drives, mine fans, cement mills, vacuum pumps, disintegrators, winders, wood working machines, copper and brass rolling mills, etc.	1.3	1.6	2.6
Calenders, compressors, paper drying, cylinders, cranes and hoists, planning machines, three-throw pumps, elevators, etc.	1.5	1.8	3
Tube and rolling mills, crushers, grinders, punch and shears, ball mills, pulverizers, double drum winders, dredgers, reversing and ship propulsion, etc.	2.2	2.4	3.4

SELECTION FOR ELFLEX- FLEXIBLE COUPLING

Obtain Shaft Sizes. Compare shaft sizes of driving and driven equipment with listed bores of desired coupling to determine "Tentative" coupling size.

Compute effective kW/rpm OR hp/rpm OR Torque to be transmitted, select a service factor from above table,

Determine kW/rpm

$$\text{kW/rpm (effective)} = \frac{\text{kW TRANSMITTED X SERVICE FACTOR}}{\text{rpm}}$$

OR determine Torque (daNm)

$$\text{Torque (effective)} = \frac{955 \times \text{kW TRANSMITTED} \times \text{SERVICE FACTOR}}{\text{rpm}}$$

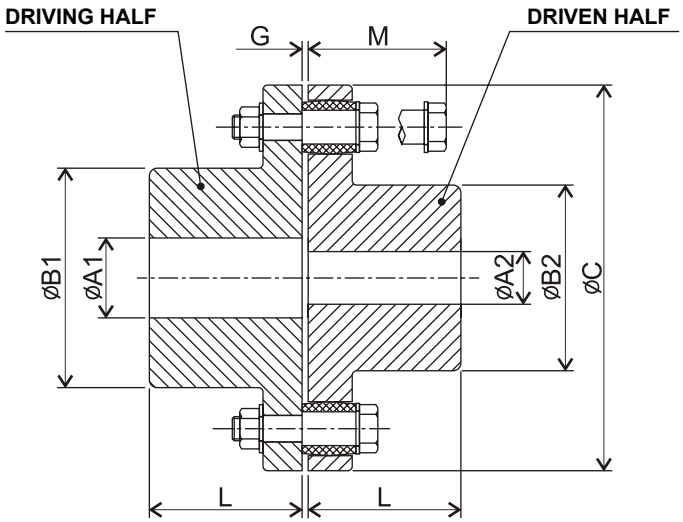
Confirm tentative coupling size or increase to a size which has a rating equal to or greater than the value computed above.

Check Maximum Speed of Application. Refer to maximum speed ratings. These speeds are given only as a guide since the maximum speed depends on the system characteristics.

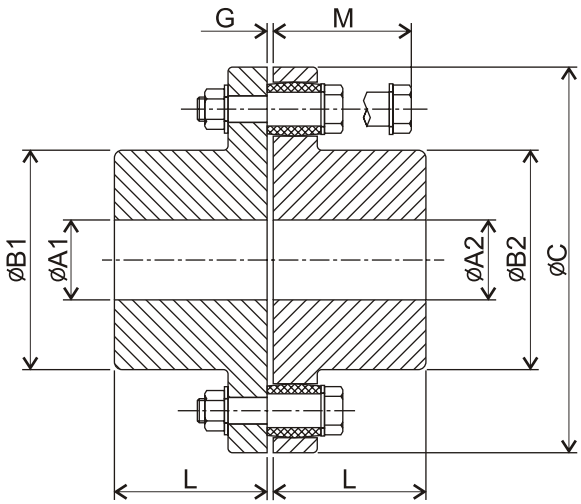
Check Space Limitations. Dimensions of the selected coupling should be compared with space provided in the application to assure proper clearances. Shaft extensions (should be greater than the hub length of the coupling), separation and clearances to align the coupling as well as for removal of pins should also be checked.

THE ELFLEX RANGE

FEATURES
Compact design.
Low inertia.
High torque to weight ratio.
Low torque to bore ratio.
Hexagonal headed pins for easy dismantling with standard tools.



UP TO SIZE EFC - 14



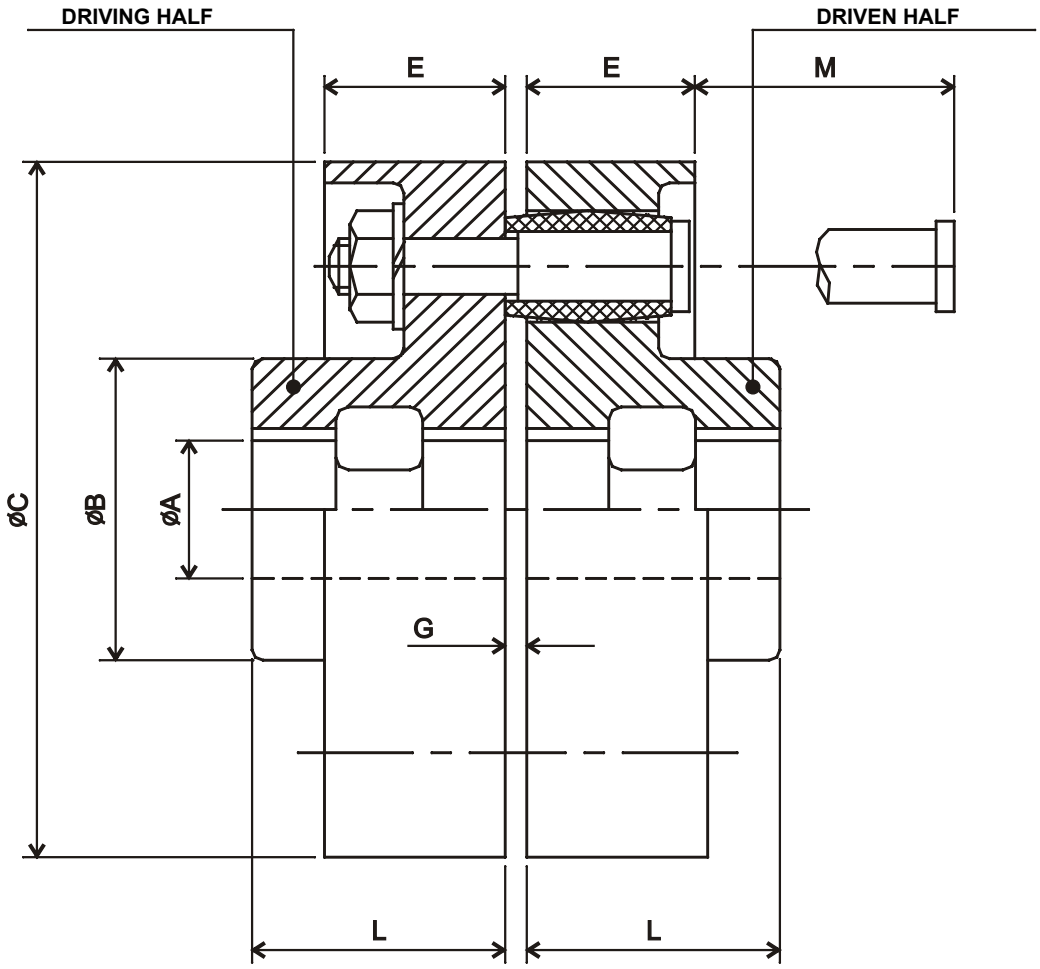
FROM SIZE EFC - 15 TO 17

TECHNICAL DETAILS																
SIZE	RATINGS kW/rpm	TORQUE daNm	PILOT BORE	MIN. BORE	MAX. BORE ØA1	MAX. BORE ØA2	ØC	ØB1	ØB2	L	G	M	NO. OF PINS	APP. WEIGHT (kg)	GD² (kg.m²)	MAX. SPEED (rpm)
EFC-01	0.007	7	12	16	32	28	85	48	42	32	3	50	4	1.5	0.004	7860
EFC-02	0.01	10.8	12	16	38	32	105	60	48	38	3	52	4	2.5	0.01	6360
EFC-03	0.022	21	12	16	42	40	112	63	60	42	3	52	5	3	0.014	5960
EFC-04	0.034	33	16	20	48	45	127	72	63	48	3	64	6	4.75	0.028	5260
EFC-05	0.056	53	16	20	55	50	144	82	75	55	3	64	8	7	0.048	4635
EFC-06	0.066	63.5	16	20	60	55	162	90	82	60	3	74	6	9.5	0.087	4120
EFC-07	0.091	87	16	20	70	65	180	105	98	70	3	74	8	12	0.143	3710
EFC-08	0.171	164	16	20	85	75	220	127	112	85	5	100	6	24	0.413	3035
EFC-09	0.214	205	16	20	95	85	240	140	128	95	5	100	8	31	0.612	2780
EFC-10	0.321	306	40	45	105	100	270	157	150	105	5	100	10	40	1.03	2475
EFC-11	0.383	365	40	45	110	105	285	162	155	110	5	126	8	50	1.54	2345
EFC-12	0.476	455	40	45	120	115	320	182	170	125	5	126	10	70	2.51	2085
EFC-13	0.638	609	40	45	130	125	340	196	185	140	6	152	8	92	3.9	1965
EFC-14	0.933	891	40	45	140	135	360	205	200	150	6	152	10	110	5	1855
EFC-15	1.262	1204	55	60	160	160	410	235	235	170	6	152	12	153	8.9	1630
EFC-16	1.948	1859	55	60	175	175	450	255	255	185	6	187	8	210	15.2	1480
EFC-17	2.835	2706	55	60	195	195	500	290	290	205	6	187	10	280	24.5	1335

ALL DIMENSIONS ARE IN mm.
WEIGHT AND MOMENT OF INERTIA BASED ON PILOT BORE CONDITION
CONTINUOUS TORQUE RATING SUBJECT TO ACCURATE ALIGNMENT OF CONNECTING SHAFTS.

In accordance with our established policy to constantly improve our products, the specifications contained herein are subject to change without notice.

HIGHER SIZE FC - SERIES



TECHNICAL DETAILS														
SIZE	RATINGS kW/rpm	TORQUE daNm	BORE (ØA) Min	BORE (ØA) Max	ØB	ØC	L	E	M	G	NO. OF PINS	APP. WEIGHT (kg)	GD² (kg.m²)	MAX. SPEED (rpm)
FC 630	3.35	3200	120	220	360	630	260	120	110	12+5	14	410	66	1050
FC 710	4.7	4500	120	240	390	710	280	135	130	12+5	18	560	114	940
FC 800	6.35	6100	120	260	430	800	300	135	130	12+5	18	750	187	850
FC 900	8.95	8600	140	290	480	900	320	152	150	12+5	12	990	308	750
FC 1000	12.68	12200	180	320	540	1000	350	152	150	14+6	16	1300	474	670
FC 1120	17.16	16500	230	350	590	1120	380	170	170	14+6	16	1700	824	600
FC 1250	23.88	23000	240	380	640	1250	420	170	170	14+6	20	2150	1272	530
FC 1400	33.58	32000	360	420	720	1400	460	195	190	14+6	14	3050	2213	480
FC 1600	44.77	43000	280	460	750	1600	500	195	190	14+6	20	3950	4163	430

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WEIGHT AND MOMENT OF INERTIA BASED ON PILOT BORE CONDITION
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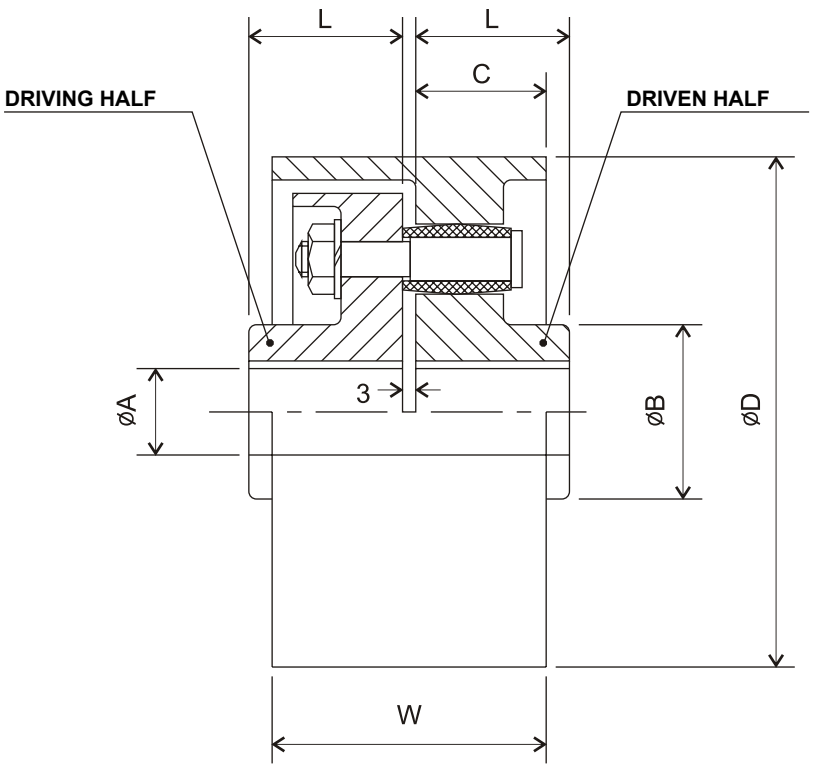
PIN - BUSH TYPE
FLEXIBLE BRAKE COUPLING



TECHNICAL DETAILS												
SIZE	RATINGS	NOMINAL TORQUE daNm	BORE (ØA)		ØB	C	L	BRAKE DRUM	APP. WEIGHT (kg)	Approx weight (kg)	GD² (kg.m²)	MAX. SPEED (rpm)
	kW/rpm		Min	Max				ØD	W			
FBC 100	0.012	12	16	25	40	40	32	100	75	3	0.015	5730
FBC 150	0.021	20	16	32	54	43	42	150	85	8	0.09	3830
FBC 160	0.022	22	16	32	54	43	42	160	85	9	0.13	3600
FBC 200	0.067	64	16	55	92	46	60	200	95	17	0.32	2870
FBC 250	0.093	90	16	60	105	60	75	250	120	25	1	2300
FBC 300	0.26	250	16	85	140	75	95	300	160	58	2.5	1910
FBC 315	0.313	300	16	85	140	75	95	315	160	62	2.85	1820
FBC 400	0.372	356	45	115	190.5	100	120.7	400	180	128	9.94	1440
FBC 450	0.47	450	45	115	190.5	100	120.7	450	200	165	15.4	1270
FBC 500	1.029	983	45	135	235	112.5	146	500	225	244	27.5	1150

ALL DIMENSIONS ARE IN mm.
WEIGHT AND MOMENT OF INERTIA BASED ON PILOT BORE CONDITION
CONTINUOUS TORQUE RATING SUBJECT TO ACCURATE ALIGNMENT OF CONNECTING SHAFTS.

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