

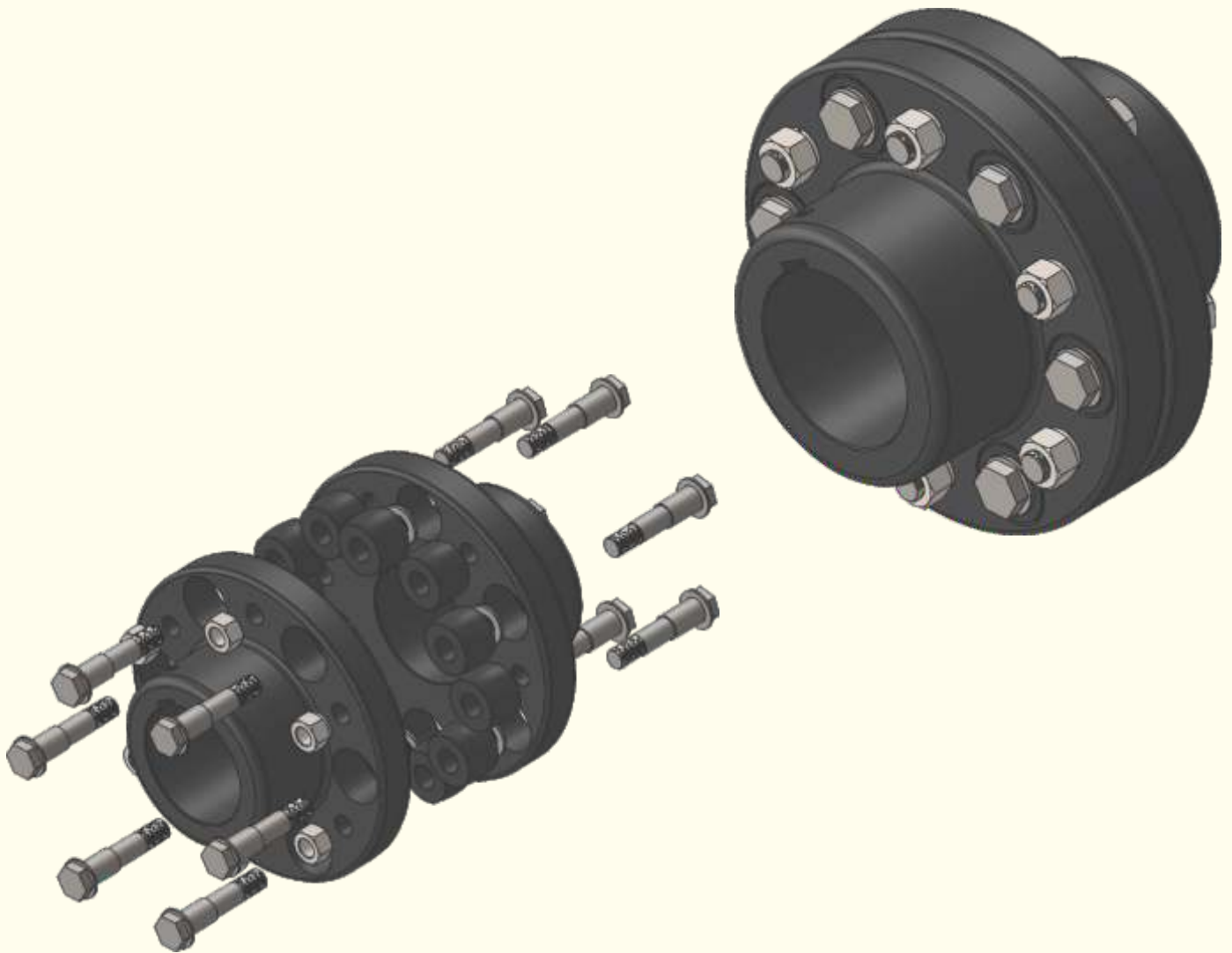
EF_BC Series



Bush Type Flexible Couplings



EF_BC Series
Bush Type Flexible Couplings





The function of a flexible coupling is to transmit torque from one shaft to another in cases where limited misalignment may occur and also to absorb shock loads.

The **EF_BC Bush Type Flexible Coupling** of the cushioned drive type transmits the torque through high tensile steel bolts between Driving & Driven Shafts. Polymer compounds are used to absorb shock loads, torsional vibrations and misalignments.

Simple and compact in construction, the coupling is capable of transmitting high torque at maximum speeds. The flanges are manufactured with Cast Iron grade 20 as per IS 210 for Light series & for Heavy series both in Cast Iron & Cast Steel.

This type of coupling permits drive in either direction and requires neither lubrication nor adjustment after fitting. The flexible barrel bushes are designed for long lasting performance against weathering conditions.

Machine which is to be coupled by flexible couplings should first be aligned with all possible accuracy. The capacity of the coupling will then deal with misalignments which occur by reason of temperature variations or heavy shaft loading. Setting of machine foundations or bearing wear will also cause extra loading to be imposed on the coupling. Any or all of these conditions can occur once the machines have been coupled.

Flanges are bored to suit requirements and are keywayed to British Standard Specification, unless otherwise stated. They can also be supplied with the listed minimum bore to permit machining on site. Power requirements for the standard couplings range from 1.0 kW to 13613 kW at 100 rpm. The size ranges from EFBC 00095 to EFBC 02000.

Coupling Selection:

Details required for coupling selection are:

1. Type of driven machine and operating hours per day.
2. Speed and power absorbed by driven machine (If absorbed power is not known, it is calculated based on power rating of the prime mover).
3. Diameter of shafts to be connected.

Procedure:

- a) **Service Factor:** Determine the required services factor from Table - 01
- b) **Design Power:** Multiply the normal running power by the service factor. This gives the Design power which is used as a basis for selecting the coupling.
- c) **Coupling Size:** Refer to Table -05, -06, -07 & from the appropriate speed, read across until a power greater than that required in step(b) is found. The size of coupling required is given at the head of that column.
- d) **Bore Size:** Check from dimension in Table -02, -03, -04 whether the chosen flanges can accommodate the required bores.



Table -01: Service Factors

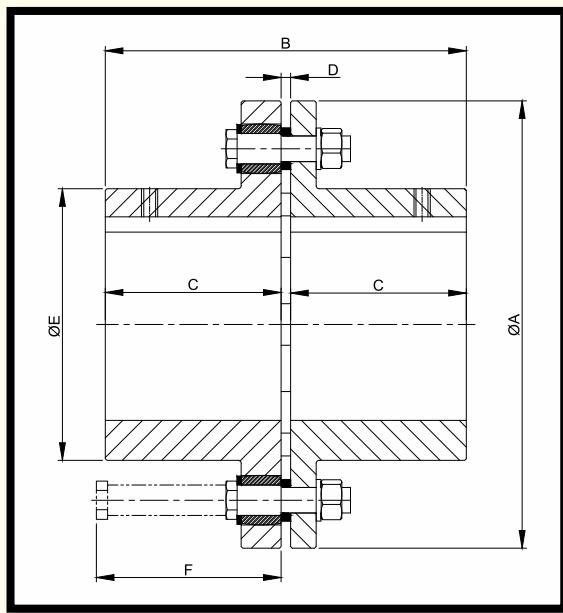
Driven Machine	Prime Mover				
	Electric Motor Steam Turbine Shafting	Steam Engine Water Turbine	IC Engine Multi-Cylinder	IC Engine Single-Cylinder Diesel Multi Cylinder	Diesel Engine Single Cylinder
Even Torque Machines: Smooth Loads, Generators, Centrifugal Pumps, Blowers, Small Fans, Line Shafting.	1.00	1.25	1.50	2.00	2.50
Machine Tools (light), Beaters, Exhausters, Wood-working Machines (light), Alternators, Welding Generators, Textile Machines.	1.25	1.50	1.75	2.25	2.75
Multi-Crank Compressors and Pumps, Generators (fluctuating loads), Rotary Dryers & Screens, Rotary Compressors, Planers, Wood-working Machines (heavy), Pulp Grinders, Shakers, Mine Fans.	1.50	1.75	2.00	2.75	3.00
Wire Mills, Cement Mills, Small Printing Presses.	1.75	2.00	2.25	3.00	3.25
Single Crank Compressors & Pumps, Hammers, Ball & Tube Mills, Rolling Mills (light), Shearing Machines, Punches, Rock & Stone Crushers, Brick Making and similar Machines, Printing Presses (large), Grinders, Pulverisors, Cranes & Winches, Mechanical Shovels & Dredges, Winding Gears and Drums.	2.00	2.25	2.50	3.25	3.50
Heavy Rolling Mill Drives, Continuous, Prolonged & Reversing Drives, Severe Traction and Haulage Loads.	2.25	2.50	2.75	3.50	3.75

Notes:

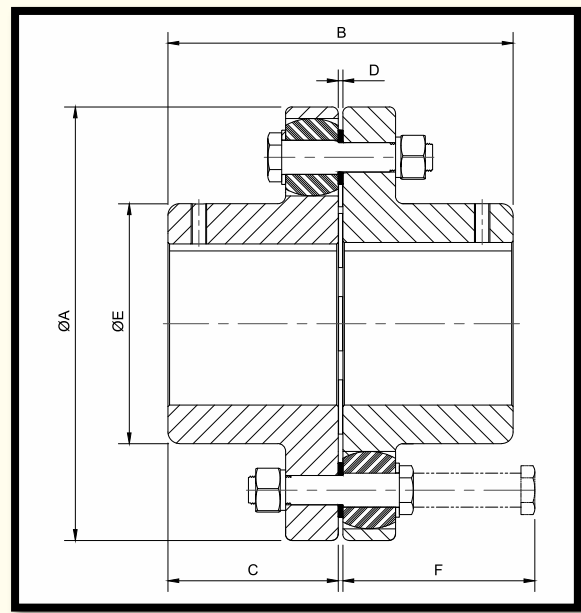
- All dimensions are in millimeters.
- Simple maintenance.
- No lubrication required.
- Accommodate larger bore diameters.
- Dampens the shock and vibration.
- It is recommended to use coupling guard for better safety.



EF_BC Series Bush Type Flexible Couplings



EFBC SIZE 00095-00400



EFBC SIZE 00430-00500

Table -02: Light series

Dimensions fo EFBC Light Series Cast Iron							All dimensions are in mm							
Coupling Size	Torque (Nm)	Max Speed (RPM)	Pilot Bore	Bore Dia		QTY N	A	B	C	D	E	F	Moment of Inertia (kg m2)	Weight in Kgs
				MIN	Max									
EFBC 00095	95	6000	10	12.7	32	3	95	79	38	3	46	63	0.0014	1.31
EFBC 00115	318	4900	10	12.7	42	3	115	99	48	3	58	72	0.0036	2.35
EFBC 00130	525	4400	13	16	50	4	130	103	50	3	73	72	0.0063	3.35
EFBC 00150	621	3800	13	16	60	5	150	103	50	3	87	72	0.011	4.5
EFBC 00178	830	3000	15	20	75	3	178	116	55	6	100	106	0.039	7.85
EFBC 00198	1248	3000	15	20	90	4	198	126	60	6	120	106	0.044	10.15
EFBC 00215	1662	2600	20	25	80	6	215	156	75	6	115	106	0.073	13.7
EFBC 00225	2359	2500	40	45	100	8	225	166	80	6	132	106	0.092	14.71
EFBC 00235	3069	2400	40	45	105	10	235	176	85	6	140	106	0.11	16.92
EFBC 00250	4000	2250	40	45	110	12	250	186	90	6	150	106	0.15	20.39
EFBC 00280	4552	2000	50	55	120	12	280	226	110	6	170	106	0.26	29.89
EFBC 00300	5300	1900	50	55	125	14	300	236	115	6	180	116	0.39	38.59
EFBC 00310	6099	1800	55	60	135	15	310	256	125	6	190	116	0.46	42.64
EFBC 00330	7500	1700	55	60	138	18	330	266	130	6	205	116	0.63	53.3
EFBC 00350	8900	1600	60	65	142	10	350	276	135	6	210	177	1.02	71.31
EFBC 00380	10500	1500	65	70	152	11	380	306	150	6	225	177	1.45	87.98
EFBC 00400	12051	1400	75	80	162	13	400	326	160	6	240	177	1.97	102.07
EFBC 00430	15000	1300	85	90	175	12	430	366	180	6	255	187	2.95	130.22
EFBC 00450	18602	1200	95	100	185	16	450	386	190	6	270	187	3.65	148.9
EFBC 00500	25802	1100	95	100	195	20	500	406	200	6	285	187	5.54	196.43

Note:

All dimensions are in mm.

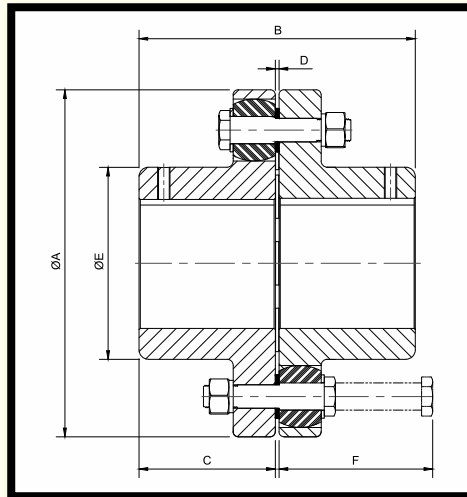
We also supply EFBC light series in Cast steel on requirement.

Weight and Moment of Inertia mentioned is for hubs with max. Bore for all sizes & series.

Vertical mounting is possible; please consult JK Fenner for details.



EF_BC Series Bush Type Flexible Couplings



EFBC SIZE 00560-02000

Table -03: Heavy series – Cast Iron

Dimensions for EFBC Heavy Series Cast Iron						All dimensions are in mm							
Coupling Size	Torque (Nm)	Max Speed (RPM)	Bore Dia		QTY N	A	B	C	D	E	F	Moment of Inertia (kg m2)	Weight in Kgs
			MIN	Max									
EFBCI 00560	39000	1450	100	200	12	560	446	220	6	310	285	10.15	284
EFBCI 00630	52000	1280	100	220	14	630	486	240	6	355	285	16.88	402
EFBCI 00660	68000	1200	110	230	14	660	506	250	6	375	290	20.77	460
EFBCI 00710	84000	1150	110	240	14	710	527	260	7	385	322	29.32	542
EFBCI 00800	110000	1000	125	260	16	800	587	290	7	420	322	48.41	722
EFBCI 00900	150000	900	140	290	16	900	647.5	320	7.5	465	361	91.43	1008
EFBCI 01000	195000	810	150	320	18	1000	707.5	350	7.5	515	361	134.1	1302
EFBCI 01120	270000	700	160	350	18	1120	768.5	380	8.5	560	392	226.9	1742
EFBCI 01250	345000	650	180	380	20	1250	848.5	420	8.5	610	392	359.6	2276
EFBCI 01400	530000	570	200	440	20	1400	969	480	9	700	479	687.3	3401
EFBCI 01600	750000	500	260	480	24	1600	1089	540	9	770	479	1191.6	4648
EFBCI 01800	975000	450	320	540	22	1800	1212	600	12	870	549	2201	6736
EFBCI 02000	1300000	400	380	600	26	2000	1332	660	12	960	549	3397.5	8648

Table -04: Heavy series – Cast Steel

Dimensions for EFBC Heavy Series Cast Steel						All dimensions are in mm							
Coupling Size	Torque (Nm)	Max Speed (RPM)	Bore Dia		QTY N	A	B	C	D	E	F	Moment of Inertia (kg m2)	Weight in Kgs
			MIN	Max									
EFBCS 00560	39000	2000	100	210	12	560	446	220	6	310	285	10.84	305
EFBCS 00630	52000	1800	100	235	14	630	486	240	6	355	285	18.07	432
EFBCS 00660	68000	1700	110	240	14	660	506	250	6	375	290	22.2	480
EFBCS 00710	84000	1600	110	250	14	710	527	260	7	385	322	31.4	568
EFBCS 00800	110000	1400	125	280	16	800	587	290	7	420	322	51.25	740
EFBCS 00900	150000	1250	140	310	16	900	647.5	320	7.5	465	361	96.6	1040
EFBCS 01000	195000	1100	150	340	18	1000	707.5	350	7.5	515	361	142.5	1344
EFBCS 01120	270000	1000	160	370	18	1120	768.5	380	8.5	560	392	241.6	1806
EFBCS 01250	345000	900	180	400	20	1250	848.5	420	8.5	610	392	383.5	2370
EFBCS 01400	530000	800	200	460	20	1400	969	480	9	700	479	733	3553
EFBCS 01600	750000	700	260	480	24	1600	1089	540	9	770	479	1268.5	4805
EFBCS 01800	975000	600	320	580	22	1800	1212	600	12	870	549	2343	6930
EFBCS 02000	1300000	550	380	640	26	2000	1332	660	12	960	549	3407	9050



EF_BC Series Bush Type Flexible Couplings



Table -05: Power Rating (kW)

a) Light Series

Speed (RPM)	EFBC 00095	EFBC 00115	EFBC 00130	EFBC 00150	EFBC 00178	EFBC 00198	EFBC 00215	EFBC 00225	EFBC 00235	EFBC 00250	EFBC 00280	EFBC 00300	EFBC 00310	EFBC 00330	EFBC 00350	EFBC 00380	EFBC 00400	EFBC 00430	EFBC 00450	EFBC 00500
100	1.0	3.3	5.5	6.5	8.7	13.1	17.4	24.7	32.1	41.9	47.7	55.5	63.9	78.5	93.2	109.9	126.2	157.1	194.8	270.2
200	2.0	6.7	11.0	13.0	17.4	26.1	34.8	49.4	64.3	83.8	95.3	111.0	127.7	157.1	186.4	219.9	252.4	314.1	389.6	540.4
300	3.0	10.0	16.5	19.5	26.1	39.2	52.2	74.1	96.4	125.7	143.0	166.5	191.6	235.6	279.6	329.8	378.6	471.2	584.4	810.5
400	4.0	13.3	22.0	26.0	34.8	52.3	69.6	98.8	128.5	167.5	190.7	222.0	255.5	314.1	372.8	439.8	504.8	628.3	779.1	1080.7
500	5.0	16.6	27.5	32.5	43.5	65.3	87.0	123.5	160.7	209.4	238.3	277.5	319.3	392.7	466.0	549.7	630.9	785.3	973.9	1350.9
600	6.0	20.0	33.0	39.0	52.1	78.4	104.4	148.2	192.8	251.3	286.0	333.0	383.2	471.2	559.2	659.7	757.1	942.4	1168.7	1621.1
800	8.0	26.6	44.0	52.0	69.5	104.5	139.2	197.6	257.1	335.1	381.3	444.0	510.9	628.3	745.5	879.6	1009.5	1256.5	1558.3	2161.4
1000	9.9	33.3	55.0	65.0	86.9	130.7	174.0	247.0	321.4	418.8	476.6	555.0	638.6	785.3	931.9	1099.5	1261.9	1570.7	1947.9	2701.8
1200	11.9	40.0	66.0	78.0	104.3	156.8	208.8	296.4	385.6	502.6	572.0	666.0	766.4	942.4	1118.3	1319.4	1514.3	1884.8	2337.4	
1400	13.9	46.6	77.0	91.0	121.7	183.0	243.6	345.8	449.9	586.4	667.3	777.0	894.1	1099.5	1304.7	1539.3	1766.6	2199.0		
1600	15.9	53.3	88.0	104.0	139.1	209.1	278.5	395.2	514.2	670.2	762.6	888.0	1021.8	1256.5	1491.1	1759.2				
1800	17.9	59.9	99.0	117.0	156.4	235.2	313.3	444.6	578.5	753.9	858.0	999.0	1149.5	1413.6						
2000	19.9	66.6	109.9	130.1	173.8	261.4	348.1	494.0	642.7	837.7	953.3	1109.9								
2200	21.9	73.3	120.9	143.1	191.2	287.5	382.9	543.4	707.0	921.5										
2400	23.9	79.9	131.9	156.1	208.6	313.6	417.7	592.8	771.3	1005.2										
2600	25.9	86.6	142.9	169.1	226.0	339.8	452.5													
2800	27.9	93.2	153.9	182.1	243.4	365.9														
3000	29.8	99.9	164.9	195.1	260.7	392.0														
3200	31.8	106.6	175.9	208.1																
3400	33.8	113.2	186.9	221.1																
3600	35.8	119.9	197.9	234.1																
3800	37.8	126.5	208.9	247.1																
4000	39.8	133.2	219.9																	
4500	44.8	149.8	247.4																	
5000	49.7	166.5																		
5500	54.7																			
6000	59.7																			

Max RPM	6000	4900	4400	3800	3000	3000	2600	2500	2400	2250	2000	1900	1800	1700	1600	1500	1400	1300	1200	1100
Max Torque Nm	95	318	525	621	830	1248	1662	2359	3069	4000	4552	5300	6099	7500	8900	10500	12051	15000	18602	25802



Table -06: Power Rating (kW)

b) Heavy Series – Cast Iron

Speed (RPM)	EFBCI 00560	EFBCI 00630	EFBCI 00660	EFBCI 00710	EFBCI 00800	EFBCI 00900	EFBCI 01000	EFBCI 01120	EFBCI 01250	EFBCI 01400	EFBCI 01600	EFBCI 01800	EFBCI 02000
100	408	545	712	880	1152	1571	2042	2827	3613	5550	7853	10209	13613
200	817	1089	1424	1759	2304	3141	4084	5654	7225	11099	15707	20419	27225
300	1225	1634	2136	2639	3455	4712	6126	8482	10838	16649	23560	30628	40838
400	1634	2178	2848	3518	4607	6283	8168	11309	14450	22199	31414	40838	54450
500	2042	2723	3560	4398	5759	7853	10209	14136	18063	27749	39267	51047	
600	2450	3267	4272	5277	6911	9424	12251	16963	21675	33298			
800	3267	4356	5696	7037	9215	12565	16335	22618					
1000	4084	5445	7120	8796	11518	15707							
1200	4901	6534	8545	10555									
1400	5717	7623											
1500	6126												
Max RPM	1450	1280	1200	1150	1000	900	810	700	650	570	500	450	400
Max Torque Nm	39000	52000	63000	84000	110000	150000	195000	270000	345000	530000	750000	975000	1300000

Table -07: Power Rating (kW)

c) Heavy Series – Cast Steel

Speed (RPM)	EFBCS 00560	EFBCS 00630	EFBCS 00660	EFBCS 00710	EFBCS 00800	EFBCS 00900	EFBCS 01000	EFBCS 01120	EFBCS 01250	EFBCS 01400	EFBCS 01600	EFBCS 01800	EFBCS 02000
100	408	545	712	880	1152	1571	2042	2827	3613	5550	7853	10209	13613
200	817	1089	1424	1759	2304	3141	4084	5654	7225	11099	15707	20419	27225
300	1225	1634	2136	2639	3455	4712	6126	8482	10838	16649	23560	30628	40838
400	1634	2178	2848	3518	4607	6283	8168	11309	14450	22199	31414	40838	54450
500	2042	2723	3560	4398	5759	7853	10209	14136	18063	27749	39267	51047	68063
600	2450	3267	4272	5277	6911	9424	12251	16963	21675	33298	47120	61257	81675
800	3267	4356	5696	7037	9215	12565	16335	22618	28901	44398	62827		
1000	4084	5445	7120	8796	11518	15707	20419	28272	36126				
1200	4901	6534	8545	10555	13822	18848	24503						
1400	5717	7623	9969	12314	16126								
1600	6534	8712	11393	14073									
1800	7351	9801	12817										
2000	8168												
Max RPM	2000	1800	1700	1600	1400	1250	1100	1000	900	800	700	600	550
Max Torque Nm	39000	52000	68000	84000	110000	150000	195000	270000	345000	530000	750000	975000	1300000



INSTALLATION AND MAINTENANCE:

1. Clean all the parts and assemble the coupling.
2. Check the key fit, refer the GA drawing and align the shaft allowing the gap between flanges as per catalogue.
3. Before start-up check the alignment, clearance gap and correct them if necessary.
4. During operation check periodically for running noise, vibrations, bearing wear which will cause extra load on coupling.
5. Maintain necessary stock of spares like pins, bushes, washers, etc. and change after wear to avoid severe damage.

PRODUCT RANGE



V Cool Pulley



Vibrator Motor



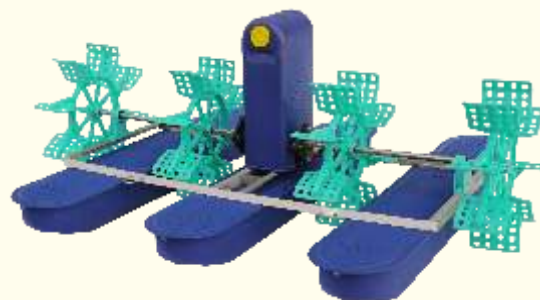
SMSR Plus Series



Tough nut Gear Boxes



Parallel Helical Geared Motor



Aerators

Notes

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Industrial Automation Product Range



POWERTRAN VFD



POWERTRAN VFD



eco POWERTRAN VFD



POWERTRAN PLCS



ULTIMATE ACCESS



POWERTRAN IPC



POWERTRAN XPANEL



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Kanpur:	1st Floor, 13/391, Civil Lines, Kanpur-208001. U.P. Mob: 09793999997
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Ludhiana:	Obero Towers, Building No. BXV/85, First Floor, G.T.Road, Miller Ganj, Ludhiana - 141 003. Ph: 0161-2410214.
Madurai:	117/6E, Madurai - Usilampatti Road, Meenakshipuram, Madurai - 625 016. Ph: 0452-2383920,
Navi Mumbai:	105, Gauri Complex, Sector-11, CBD-Belapur, Navi Mumbai-400 614. Ph: 022-27560985, 022-27580236,
New Delhi:	2nd Floor, Delite Theatre Building, Asaf Ali Road, New Delhi - 110002. Ph: 011-23243113, 23243153, 23243154,
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