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金属挠性联轴器

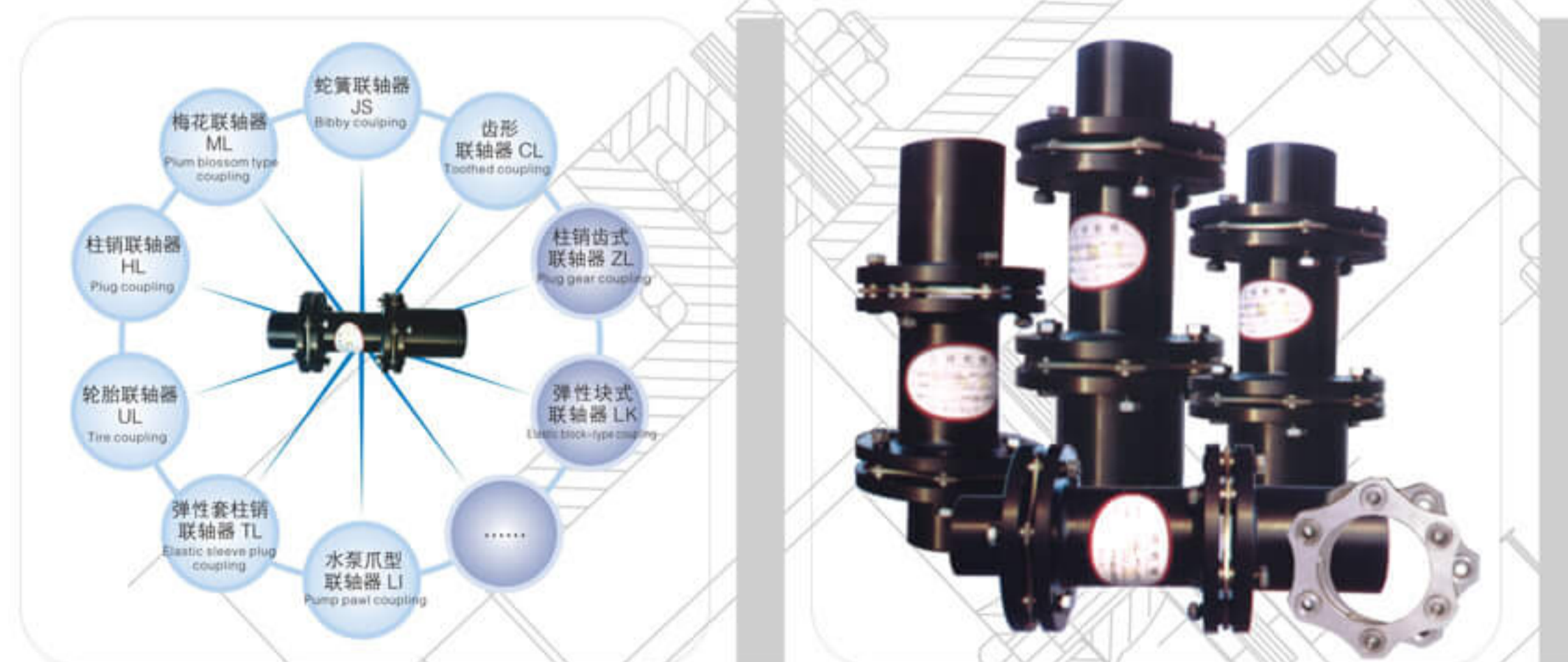
►Metallic Flexible Coupling

金属挠性联轴器是一种以挠性元件来传递扭矩的传动装置，具有耐热、耐腐蚀、无需润滑，使用寿命长，可吸收轴向偏差、降低安装要求、缓和冲击、减轻振动、避免发生危险性破坏等优点。若在不特定的工况条件下，它可全部取代其它各种形式的联轴器，几乎可用于所有的动力传递中。随着我国工业技术、自动控制技术的飞速发展，对联轴器提出了愈来愈高的要求，而金属挠性联轴器在机械性能，易用性、节能环保等方面具备的超凡性能，使其也越来越受到广大用户的赞赏与认同。

我厂在吸收国外先进技术、生产工艺的基础上，结合我国市场，领先开发生产了多种金属挠性联轴器，填补了多项国内空白。现产品已远销到伊朗，年产量超过20万套，转速已达18000转，功率达1万千瓦，最大传递扭矩可达百万Nm，广泛应用于石化设备、轧钢设备、水泵、风机、水泥机械、矿山机械、造纸机械、制药机械、电力机械等设备。

The metallic flexible coupling is a drive unit which uses the flexible element to transfer the torque. The coupling has heat-resisting, corrosion-resisting, lubrication-free, long service life, absorbing shaft deviation, reducing installing requirement. Relaxing impact, lightening vibration, avoiding dangerous breakage occurrence etc advantages. Under uncertain operating conditions, it can whole replace other couplings with any forms. It can be almost used in all power transmission. Along with rapid development of the industrial technique and automatic control technique in our country, higher and higher requirement for the coupling have been put forward. The metallic flexible coupling has superior performances on the aspects such as mechanical property, easy to use, power-saving, environmental protection etc. These make the coupling to obtain appreciation and approval from the vast users.

On the basis of absorbing foreign advanced techniques and production technologies, combining the market in our country, our factory has been the first one to develop various metallic flexible coupling and to fill many domestic gaps. The products have been already sold to Iran. The annual yield has exceeded 200,000 sets, the speed has reached 18000 RPM, the power has reached 10000 KW, the max. transfer torque can reach 1,000,000 Nm. The products are widely used in petrochemical equipment, steel rolling equipment, pump, fan, cement machinery, mining machinery, paper-making machinery, pharmaceutical machinery, electric power machinery etc equipment.



金属挠性联轴器

► Metallic Flexible Coupling

它的优点突出表现在
Its advantages are mainly presented on

■ 强度高，承载能力大

With high strength and large bearing capacity

最大传递扭矩高达500万Nm，可用于超大型设备，如轧钢、冶铁、水泥等机械设备。
The max transfer torque can reach 5,000,000 Nm. It can be used for super large equipment, such as steel rolling, iron smelting, cement etc mechanical equipment.

■ 质量小，精度高

With small mass and high precision.

结构紧凑，设计合理，功率、质量比大，动平衡性能好，可用于上万转/分的高精尖设备，如远洋、航空、航天，石油化工等设备。
The compact structure, reasonable design, large power/mass ratio, and good dynamic balancing property can make the coupling to be used in hi-tech equipment with speed over 10000 RPM, such as oceangoing, aviation, spaceflight, petrochemical etc equipment.

■ 联接可靠，反应灵敏

With reliable connection and sensitive response

螺栓联接为铰制孔紧配合联接，无间隙。联轴器动平衡精度高，正反转无空点，可用于信号传递及数控设备。
The bolt connection is a reaming hole close fit connection without clearance. The dynamic balancing precision of the coupling is high, there are no empty spots when the coupling rotates clockwise or anticlockwise. The product can be used for signal transmission and digital control equipment.

■ 多种选择，适应性强

With many choices and strong adaptability

有电绝缘、抗腐蚀、背齿保安等多种选择。耐高温，温度高达350摄氏度仍能正常运转。
There are electric insulation, anti-corrosion, back fear security etc many choices. The product can be high temperature-resisting, the coupling can still run while the temperature reaches as high as 350°C.

■ 保护系统，一劳永逸

With protection system and once for all

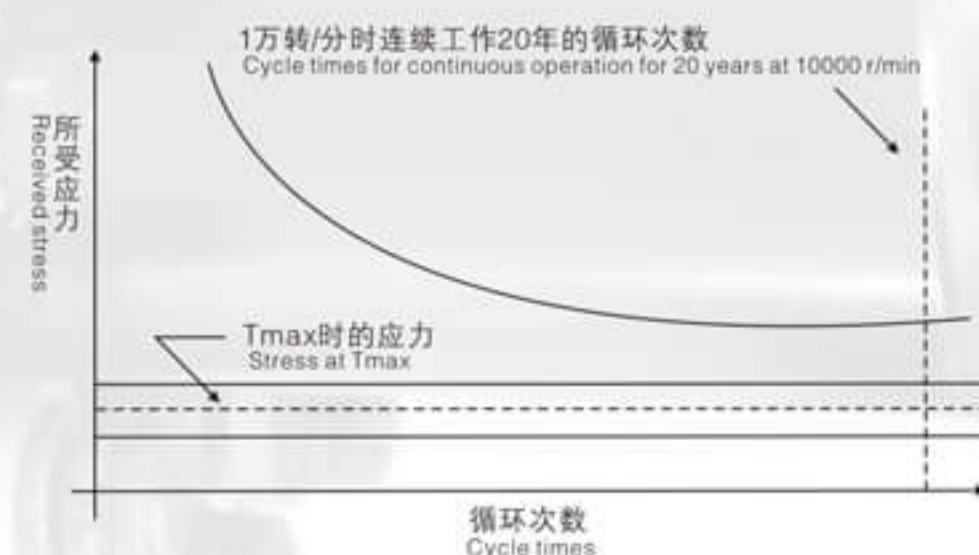
抗冲击、减振能力强、附加弯矩小，可延长机组使用寿命；在精确安装和系统稳定情况下，可长期连续运转，实现永久寿命，见寿命曲线图。
The anti-impact, strong vibration-reducing capacity and small additional bending moment, can extend the service life of the unit. Under precise installation and system stabilization condition, the coupling can continuously run for a long period to realize everlasting life. See the life curve diagram.

■ 节能环保，效率高

With energy saving and high efficiency

与齿形联轴器相比，减振性能好，无噪声，可有效节约电能，减少噪声危害。装拆方便，可为企业节省大量维护润滑费用，大幅度提高工作效率。

Compared with the toothed coupling, the vibration reducing property is better and there is no noise, these can effectively save power energy and reduce the noise harmfulness. The easily-mounting and dismounting can save a lot of maintenance expenses for the enterprise and can improve the work efficiency with a big margin.

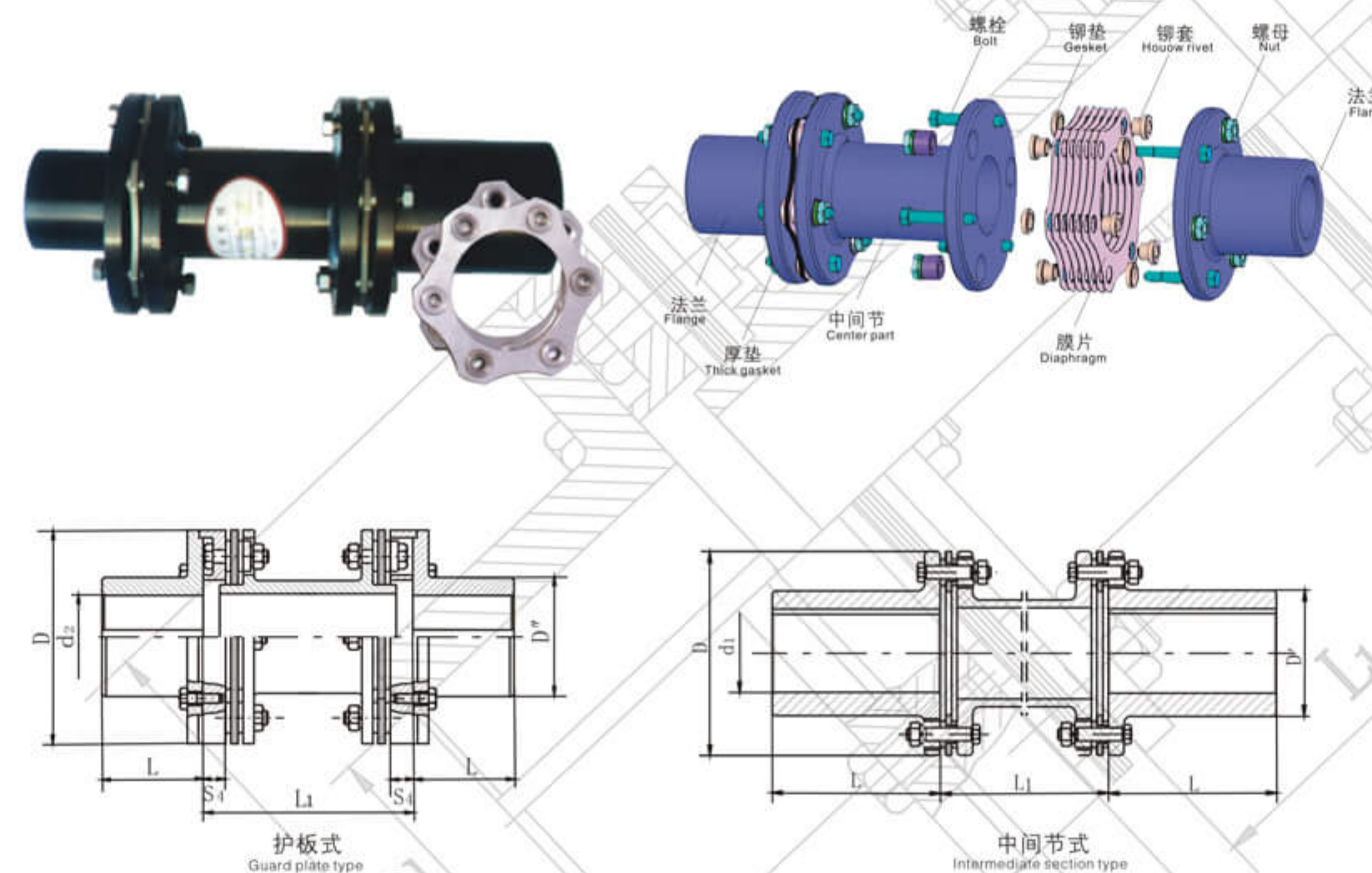


JM系列膜片联轴器

► Series JM Diaphragm Coupling

JM型膜片联轴器是最具代表性的金属挠性联轴器，它在各种机械设备上都可以采用。其膜片采用0.3~2mm厚的特殊高强度不锈钢薄板制成组件，上面有4~16个铰制孔，用螺栓分别与主、从动法兰联结。运行中膜片受拉、压、扭应力。这种联轴器制造成本低，传递扭矩范围大，力学性能好，装拆方便，对安装精度要求不高，它集中体现了挠性联轴器的优点，可广泛应用于各个领域，适应多种工况条件，例如泵、风机、轧机、造纸机械、电力机械、水泥机械、船舶工业、航空航天等。由于其减振性能好、传动平稳，在各种行业的应用中，得到普遍的赞同和采用，尤其是在造纸行业中，它能使您生产出的纸张更加平整、光滑、质量大幅度提高，使您能够始终领先一步，同时也是发电厂、石化厂、水泥厂、轧钢厂、矿山等进行技术改造、替代进口、节能降耗的最佳选择。

Series JM diaphragm coupling is a metallic flexible coupling which has representativeness. It can be adopted in various mechanical equipments. The diaphragm adopts 0.3-2mm sheet stainless steel with high strength to fabricate the assembly through riveting, on which there are 4-16 reaming holes, using bolts to connect the driving flange and the driven flange respectively. During running the diaphragm bears pulling, pressing and twisting stresses. The fabrication cost of this coupling is low, the transfer torque range is large, the mechanic property is good, mounting and dismounting are convenient, the requirement for mounting accuracy is not high, these embody the advantages of the flexible coupling. It can be widely used for various fields and is adaptable for many operating conditions, such as pump, fan, rolling mill, paper-making machinery, electric power machinery, cement machinery, shipping industry, aviation and spaceflight etc. Because its vibration-reducing property is good, the transmission is smooth, it has won common praise and adoption, especially in the papermaking industry, it can make you produce the paper to be flatter and smoother. The quality is improved by a great margin. It can make you locate at the leading position. At the same time the product is also the optimum selection for technical transformation, replacing imported product and saving energy to reduce loss in electric generating plant, petrochemical plant, cement factory, rolling steel plant and mine etc.



参数表
Parameter Table

型号 Model JM	额定扭矩 Rated torque Nm	瞬时扭矩 Instantaneous torque Nm	最高许用转速 Max allowable speed RPM	标准外型联接尺寸 Standard overall connection dimension							许用偏差 Allowable deviation			动力学特性 Dynamic characteristic		重量 Weight Kg	每增加100mm重量(kg) Weight	
				D mm	d ₁ max mm	d ₂ max mm	D ₁ max mm	D ₂ max mm	L mm	L ₁ mm	S ₁ mm	角向 Angular (度) degree	径向 Radial mm/mm	轴向 Axial mm	转动惯量 Rotary inertia Kg.m ²			扭转刚度 Torsional rigidity kgm/rad
90	170	272	12700	90	32	48	50	68	82	>50	9	1/2	0.0087	1.4	0.003	0.2X10 ⁶	3.1	0.3
100	320	512	11000	104	38	55	60	80	82	>57	10.5		0.0087	1.5	0.005	0.25X10 ⁶	4.6	0.45
120	400	640	9200	124	42	60	64	100	112	>63	10.5		0.0087	1.7	0.014	0.34X10 ⁶	7.6	0.68
140	700	1120	8100	140	60	65	88	104	112	>65	12	1/3	0.0056	2.1	0.027	0.85X10 ⁶	11.5	0.94
170	1000	1600	6700	170	75	85	108	118	142	>72	14		0.0056	2.5	0.072	1.29X10 ⁶	19.9	1.32
200	2500	4000	5700	200	85	100	124	145	172	>80	16		0.0056	2.8	0.148	1.79X10 ⁶	30.9	1.64
240	4000	6400	4700	240	120	130	166	175	212	>95	17		0.0056	3.2	0.468	3.47X10 ⁶	62.5	1.73
260	6300	10080	4400	260	130	140	174	210	212	>109	21		0.0056	4	0.694	3.97X10 ⁶	73.8	2.61
290	10000	16000	3900	290	140	160	190	246	252	>120	22	1/4	0.0046	4.7	1.034	4.66X10 ⁶	91.6	4.02
330	16000	25600	3400	330	170	190	224	280	252	>136	23		0.0046	5	2.33	13X10 ⁶	151	4.96
380	25000	40000	2900	380	200	230	265	320	302	>148	25		0.0046	5.8	4.703	19.8X10 ⁶	232	6.61
420	40000	64000	2700	420	220	250	290	352	352	>159	27		0.0046	6.2	7.498	21.37X10 ⁶	311	9.03
460	63000	100800	2490	460	240	270	318	368	352	>175	28		0.0046	7	11.548	24.26X10 ⁶	389	12.18
500	80000	128000	2290	500	280	300	366	440	410	>183	30	1/5	0.0046	8.5	18.718	32.77X10 ⁶	539	16.44
560	140000	224000	2000	560	300	320	370	512	410	306	32		0.0046	9.1	31	39.43X10 ⁶	705	17
600	170000	272000	1800	600	320	370	380	532	410	352	33		0.0029	9.3	42	47.9X10 ⁶	804	19
650	220000	352000	1700	650	355	400	418	552	470	366	35		0.0029	9.5	64	57.3X10 ⁶	1058	25
710	250000	400000	1600	710	390	440	450	570	470	376	37		0.0029	9.8	96	67.1X10 ⁶	1313	31
750	350000	560000	1500	750	400	470	459	600	470	403	39	1/5	0.0029	10.5	125	75.6X10 ⁶	1537	41
830	500000	800000	1380	830	460	520	522	680	550	439	41		0.0029	11.5	210	77.7X10 ⁶	2148	46
880	630000	1008000	1300	880	500	560	568	720	550	447	43		0.0029	11.8	268	89.1X10 ⁶	2571	85
930	800000	1280000	1230	930	530	590	606	780	650	474	44		0.0029	12.1	367	99.6X10 ⁶	3234	97
1030	1000000	1600000	1110	1030	560	620	930	820	650	500	45		0.0029	12.5	443		3942	106
1080	1250000	2000000	1060	1080	600	660	990	880	650	520	46	1/5	0.0029	13	555		4451	124
1160	1600000	2560000	980	1160	640	730	1095	920	650	580	46		0.0029	13.5	777		5335	144
1290	2000000	3200000	880	1290	680	830	1245	990	800	640	48		0.0029	14.8	1315		7408	167
1410	2800000	4480000	810	1410	730	900	1350	1090	800	700	48		0.0029	15.5	1876		8835	197

注: 轴向不对中能力指的是0.45倍最大转速下的轴向调整能力。
The axial misalignment capacity means the axial adjustment capacity at 0.45 times of the maximum speed.

HS高速膜片联轴器

HS High Speed Diaphragm Coupling

HS高速膜片联轴器, 其挠性元件采用AISI301或高镍合金钢, 抗拉强度达到150-170kgf, 按每分钟1万转计算, 其疲劳寿命可达20年, 其它部件采用AIS4140或相当的高强度轻质合金, 因此, 该联轴器具有重量轻, 轴向刚度、扭转强度等力学性能优良, 可保护机组输出轴, 延长机组使用寿命等显著特点。

For the HS high speed diaphragm coupling, the flexible elements adopt AISI 301 or high nickel alloy steel, the tensile strength reaches as high as 150-170 kgf. Computing on 10000 RPM, the fatigue life can reach 20 years. The other components adopt AIS 4140 or equivalent high strength light alloy. Therefore, this coupling has light weight, superior axial rigidity and torsional strength etc mechanic properties. It has the outstanding features such as protecting the unit output shaft, extending the unit service life etc.



适用范围 Scope of application

适用于电机(齿轮增速)、汽轮机、燃气轮机、膨胀机、旋转发动机、鼓风机、发电机、试验机、高速泵等高速机组特别适用于离心机、透平压缩机、船舶推进器等动力传递。

It is suitable for the motor (gear speed-increasing) steam turbine, gas turbine, expander, rotary motor, blower, electric generator, tester, high speed pump etc high speed unit, especially suitable for the power transmission of the centrifuger, turbo compressor, shipping propeller etc.

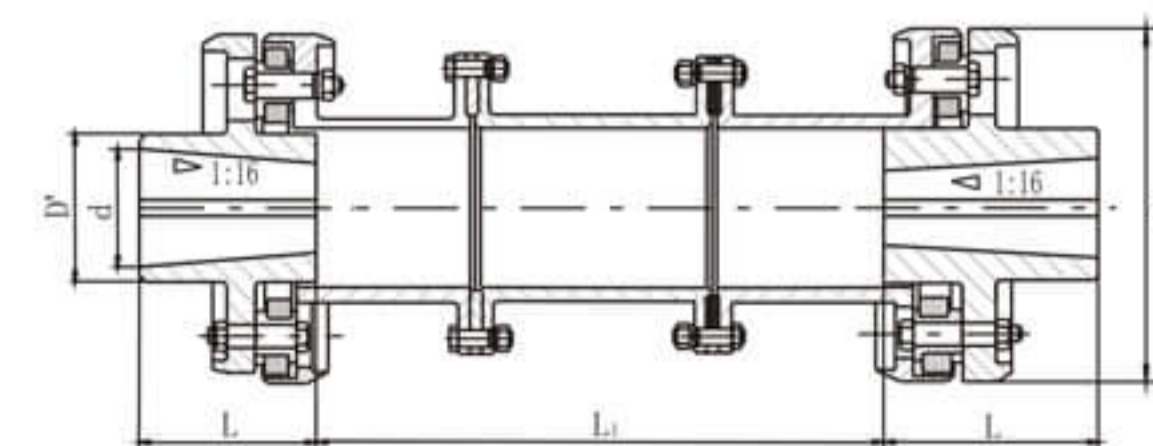
设计与开发 Design & Development

我厂在普通型高速膜片联轴器的基础上, 结合现场实际应用, 相继设计开发了防护型和护齿多节型高速膜片联轴器, 经多年实际应用检验, 现场反映非常好, 是高速膜片联轴器最可信赖的选择。

On the basis of the ordinary type high speed diaphragm coupling, combining the site application practice, our factory has designed and developed the protective type and guard tooth multi-joint type high speed diaphragm coupling one after another. Through actual application examination over years, the site reflection is good. It is the most reliable choice of the high speed diaphragm coupling.

结构与特点 Structural Features:

- 轴法兰与中间体法兰为互相搭接的爪状结构, 可有效防止碎片飞出, 并可在膜片意外损坏时仍能进行传动。
- 挠性件外面光滑的圆周面, 有效地降低了高速旋转下的风阻。
- 中间体夹有若干层不锈钢薄片, 可调节轴向间隙。
- The shaft flange and the intermediate flange are the mutually lapping pawl structure. It can effectively prevent the broken pieces from flying out, and can urgently transfer the torque.
- The outside smooth circumferential face of the flexible element has effectively reduced wind drag at high speed rotation.
- The intermediate has several layers of stainless steel sheet, which can adjust the axial clearance.



扭转刚度: 中间体可以加长以满足使用要求, 改变后的扭转刚度可求出:

$$\frac{1}{T} = \frac{1}{T_c} + \frac{1}{TE}$$

T=改变后的扭转刚度 Tc=表中标准长度的扭转刚度
TE=扭转刚度/单位长中间体 L=中间体加长量

横向临界转速: 可将膜片弹性连接简化为这种通过膜片组中心的销连接, 从而求得联轴器的临界转速。表中每个型号联轴器的临界转速均不小于1.5倍的MAX.RPM, 三环的设计准则是工作转速小于临界转速的二分之一, 当工作转速接近MAX.RPM时, 表中的尺寸将适当调整提高临界转速。

轴向临界转速: 联轴器轴向临界转速较高, 是工作转速的数倍, 所以选用时不必考虑。

轴向反力、附加弯矩: 三环联轴器因机组轴位移, 角度不对中产生的轴向反力和对轴的附加弯矩很小, 对机组几乎无影响, 可不考虑。

Torsional rigidity: The intermediate can be lengthened so as to meet the use requirement. The torsional rigidity after change can be calculated $1/T=1/T_c+1/TE$.

T=Torsional rigidity after change
Tc=Torsional rigidity for the standard length in the table
TE=Torsional rigidity/unit length intermediate
L=Intermediate lengthened amount

Lateral critical speed: The diaphragm elastic connection can be simplified as pin connection which passes through the center of the diaphragm assembly so as to obtain the critical speed of the coupling. The critical speed for each model coupling in the table is not smaller than 1.5 times of the max. speed (RPM). The design criterion of the Tricircle Company is that the operating speed is smaller than a half of the critical speed. When the operation speed is near the max speed (RPM), the dimension in the table will be suitably adjusted so as to raise the critical speed.

Lateral critical speed: The coupling lateral critical speed is higher, which is several times of the operating speed, so it is not necessary to consider the critical speed while selecting and using.

Axial opposite force, additional bending moment: The axial opposite force and additional bending moment against the shaft generated due to the shaft displacement and the angular misalignment of the unit produced by the Tricircle Company are very smaller, which have almost no influence, so they can not be considered.

参数表
Parameter Table

型号 Model HS	额定值 Rated value K·Kw rpm	最高 转速 Max. speed rpm	外型尺寸 Overall dimension					许用偏差 Allowable deviation		轴向 Axial mm	转动惯量 Rotary inertia Kg.m ²	联轴器重量 (Kg) coupling weight	
			D mm	L mm	dmin mm	D'max mm	L1min mm	角向 Angular (度) degree	径向 Radial mm/mm			L1min 重量 weight	L1每增加 100mm 重量 weight
HS6-100	0.07	33500	124	112	40	61	78	1/2	0.0087	1.5	0.0122	7.65	0.654
HS6-180	0.13	24500	140	112	55	84	79	1/2	0.0056	1.9	0.0253	11.7	1.146
HS6-340	0.25	24500	170	142	70	105	87			2.3	0.0758	19.4	1.421
HS6-690	0.5	21500	200	172	80	124	94			2.6	0.1729	31.57	1.755
HS6-1060	0.75	18500	240	212	105	160	115			3	0.4571	60	2.3
HS6-1850	1.35	16000	266	212	115	172	131			3.8	0.6198	75.47	2.895
HS6-2400	1.75	13500	285	252	128	192	141			4.4	0.9732	104.6	3.354
HS6-3600	2.65	11500	300	252	132	197	159			4.8	1.3375	122.3	3.7
HS8-320	0.245	26500	150	142	60	94	81			2	0.0453	14.56	1.235
HS8-520	0.39	23000	180	142	73	110	89			2.5	0.1158	24.02	5.67
HS8-1050	0.675	18000	220	172	90	135	100			2.8	0.2245	41.11	2.032
HS8-1500	1.15	17000	252	212	110	168	120	3.2	0.557	64.63	2.6		
HS8-2250	1.9	14500	292	252	130	195	135	1/4	0.0056	4.6	0.8195	111.24	3.124
HS8-3900	2.9	11500	330	252	145	220	164			5	2.023	152.1	4.461
HS8-5500	4.15	10500	342	252	150	224	176			5.2	2.4305	170	5.67



JMB 系列膜片联轴器

Series JMB Diaphragm coupling

它的突出特点:

Its outstanding features:

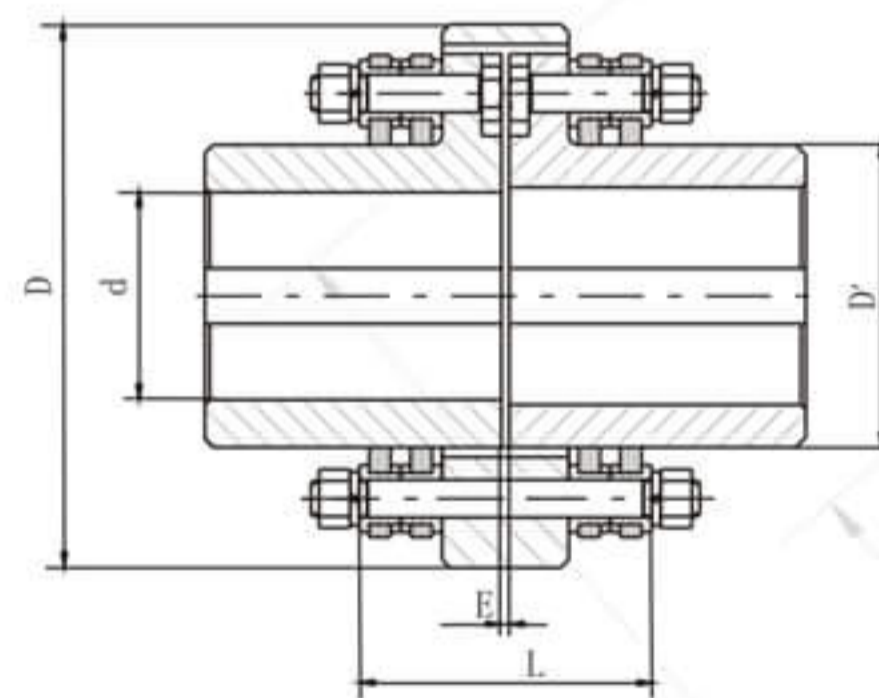
- 双膜片小轴向对轮型联轴器是我厂开发的专利产品, 专利号为ZL.99 2 46247.9。
- 结构紧凑, 调节能力、抗冲击和减振等性能较单膜片对轮型提高35%~40%。
- 在膜片意外损坏的情况下, 梅花形法兰仍可继续传递扭矩, 安全性能好。
- 安装拆卸方便, 无需移动电机或减速机。
- Double-diaphragm and small axial opposite wheel type coupling is the patent product developed by our factory, the patent No. ZL.99 2 46247.9.
- With compact structure, the adjustment capacity, anti-impact and vibration-absorbing etc properties will be higher by 35%-40% than those of single diaphragm opposite wheel type.
- Under unexpected diaphragm breakage conditions, the plum blossom shape flange can still transfer the torque, the safety property is good.
- Mounting and dismantling are convenient, it does not need to remove the motor or speed-reducer.

适用范围

Scope of application

可广泛用于电厂、石化厂、钢铁厂、矿山机械、水泥机械等行业的设备中, 特别适用于矿井风机、提绳机等对安全系数要求较高的场所。

It can be widely used in the electric generating plant, petrochemical plant, steelworks, mine machinery, cement machinery etc industrial equipment, especially it is suitable for the mine fan, rope lifter locations where the safety coefficient requirement is higher.



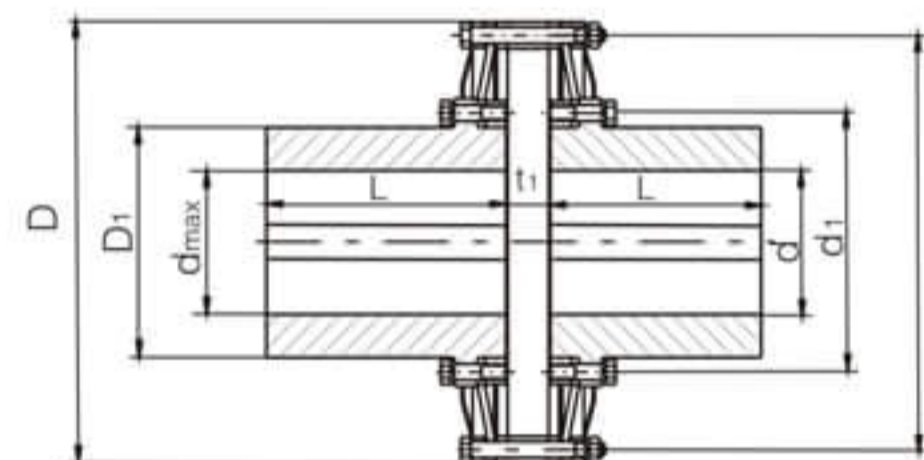


ZM系列膜片联轴器

► Series ZM Diaphragm Coupling

ZM型膜片联轴器是我厂的专利产品,专利号为:ZL 99 2 46246.0。该产品具有结构简单、制造容易、成本低廉等优点,是替代弹性柱销联轴器,梅花弹性联轴器,橡胶块联轴器等轴头间距较短的联轴器的理想产品,可广泛应用于石化、冶金、矿山、电力等的传动设备中。

Model ZM diaphragm coupling is the patent product manufactured by our factory, the patent No. ZL 99 2 46246. 0. The product has many advantages like simple structure, easy to manufacture and cheaper piece, etc. It is an ideal product to replace the plug coupling, plum blossom elastic coupling, and rubber block coupling etc which shaft head spacing is shorter. It can be widely used in the transmission equipment for petrol chemical, metallurgical, mire, and electric power, etc.



参数表
Parameter Table

型号 Model ZM	额定转矩 Rated torque (Nm)	许用转速 Allowable speed (RPM)	D (mm)	D1 (mm)	dmax (mm)	L (mm)	d1 (mm)	d2 (mm)	t1 (mm)
170	630	4300	170	105	70	142	117	159	14
200	1000	4000	200	127	80	172	139	189	14
240	2500	4000	240	140	90	172	157	225	15
260	4000	3200	260	150	100	212	166	245	15
290	6300	2850	290	180	120	212	195	275	22
330	10000	2450	330	195	130	252	228	312	23
380	16000	2300	380	240	160	302	258	362	25
420	25000	2150	420	270	180	302	298	392	27
500	63000	1700	500	300	200	352	330	470	30
560	80000	1600	560	330	220	352	370	520	35
620	100000	1400	620	360	240	410	402	578	50
720	160000	1200	720	420	280	470	462	678	50
770	250000	1100	770	450	300	470	496	724	50
820	315000	1050	820	510	340	550	560	770	60
935	630000	715	935	570	380	650	620	885	60

型号 Model JMB	额定转矩 Rated torque Nm	最高许用 转速瞬时 Max allowable speed RPM	标准外型联接尺寸 Standard overall connection dimension					许用偏差 Dynamic characteristic			动力学 特性 Dynamic chara- -cteristic 转动惯量 Rotary Inertia Kg.m ²	重量 Weight Kg
			D mm	dmax mm	D'max mm	Lmin mm	E mm	角向(度) Angular (degree)	径向 Radial mm/mm	轴向 Axial mm		
170	630	5360	178	60	100	93	1/3	0.0056	2.5	0.06	17.03	
200	1000	4540	210	75	112	95			2.8	0.11	20.89	
240	2500	3760	254	82	132	125			3.2	0.31	39.83	
260	4000	3480	275	86	140	149			4	0.5	50.75	
290	6300	3180	300	90	144	162.2			4.7	0.82	63.47	
330	10000	2800	340	115	190	177	1/4	0.0046	5	1.73	106.09	
380	16000	2450	390	125	200	177			5.8	2.77	144.99	
420	25000	2220	430	156	250	185			6.2	4.86	201.3	
460	40000	2000	475	165	264	205			7	7.76	275.69	
500	63000	1850	515	200	320	201			8.5	12.35	392.34	
560	80000	1660	560	240	368	205	1/5	0.0029	9.1	24.8	532.57	
710	160000	1320	720	260	390	284			9.8	76.67	1103.91	
830	350000	1130	840	300	450	300			11.5	164	1789.15	
930	600000	1000	940	330	495	320			12.1	317	2515.97	
1080	1000000	870	1090	420	630	345			13	451	4157.97	

注: 1.轴向往对中能力指的是0.45倍最大转速下的轴向调整能力。
1.The axial misalignment capacity means the axial adjustment capacity at 0.45 times of the maximum speed.
2.当值须改变时,请与我厂而另行确定。
2.If the E value needs to be change,please contact my factory and go another assurance.

JN系列膜片联轴器

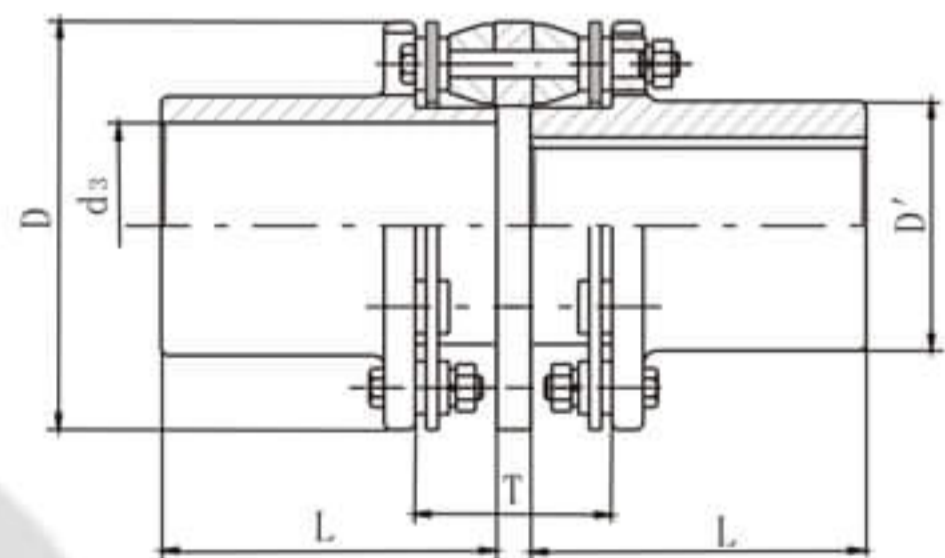
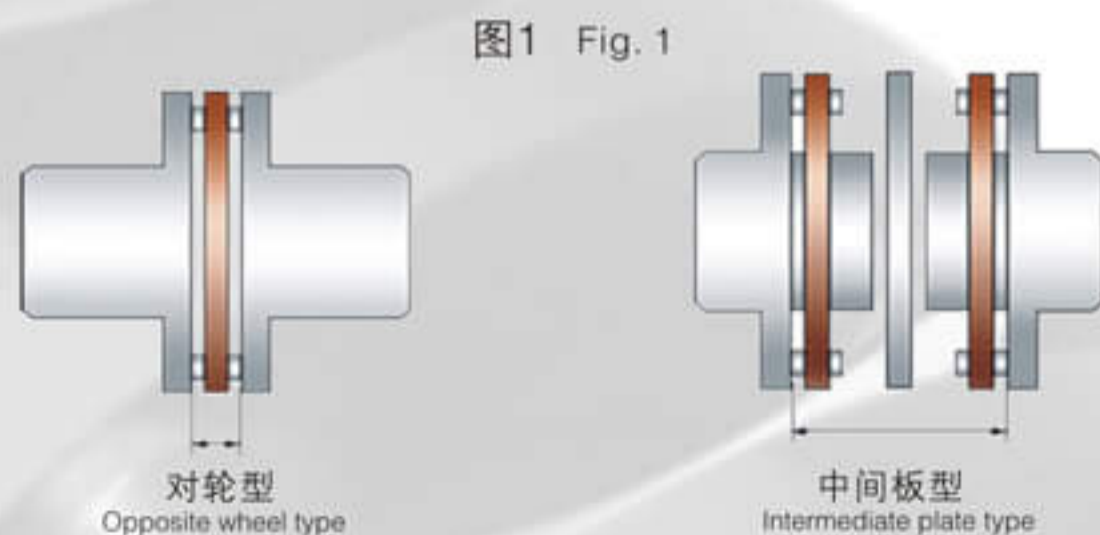
► Series JN Diaphragm Coupling

JN系列膜片联轴器是在JM系列后的一种结构变形。它扩大了JM系列的应用场合,使得在轴头间距较短的情况下,一样能够享受到JM系列膜片联轴器的安装方便、调节能力强和传动平稳的优良特性。它可广泛取代弹性柱销联轴器、弹性套柱销联轴器、梅花弹性联轴器等噪音大、易损坏的老式联轴器,而且JN系列膜片联轴器还有重心靠近机组支撑、附加弯矩小,对转子动力性能影响小等特点,所以特别适用于透平压缩机等高速轻载机组。

Series JN diaphragm coupling is a structural variety of the series JM. It enlarges the application fields of series JM. Under shorter shaft head spacing conditions, series JN can have the superior features such as easy to mounting, strong adjustment capacity, and smooth transmission etc of series JM diaphragm coupling. It can widely replace the elastic plug coupling, elastic sleeve plug coupling, plum blossom elastic coupling, these old fashion couplings have big noise and are easy to damage. The series JN diaphragm coupling has also the features such as the gravity center near the unit support, small additional bending moment, smaller influence on the rotor dynamic property etc, therefore it is especially suitable for high speed light load unit such as turbo compressor.



它的结构特点如下图:
For its structural features, see below diagram.

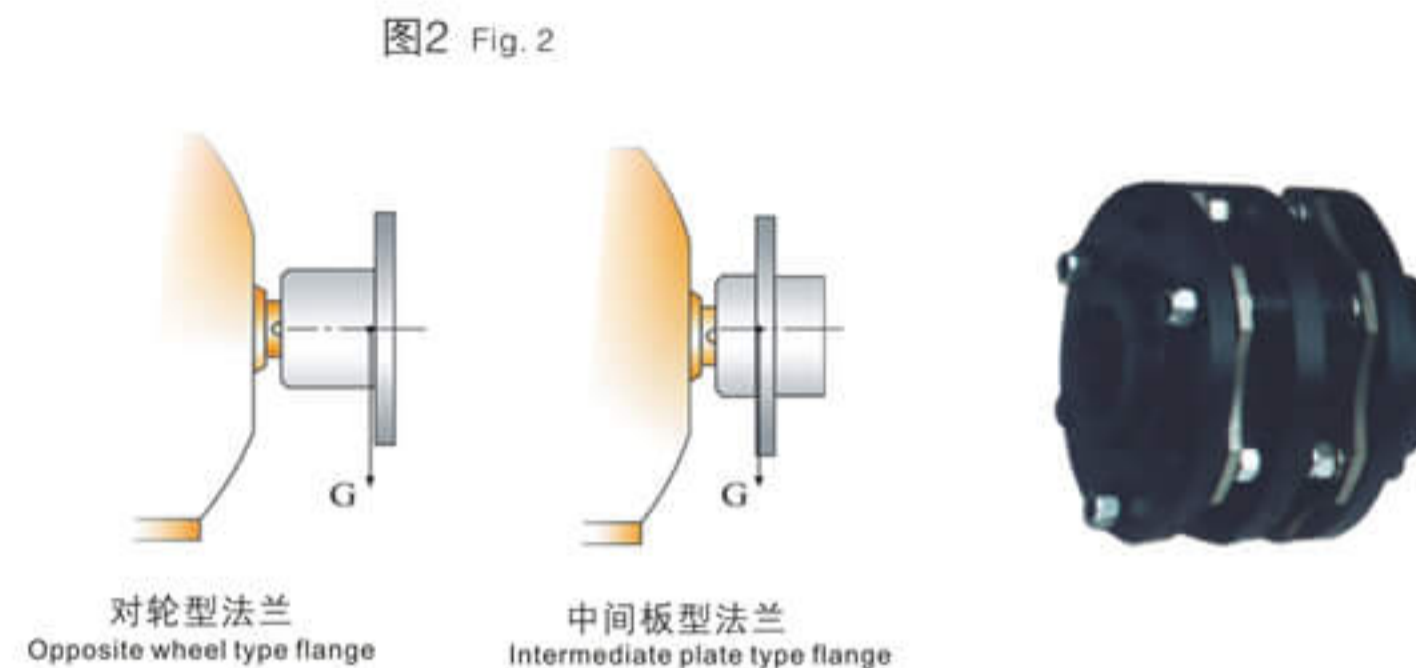


中间板型膜片联轴器较对轮型可以较大地提高联轴器的径向调节能力,降低安装精度,挠性更强,减振效果更好。

The intermediate plate type diaphragm coupling can greater improve the radial adjustment capacity of the coupling, reduce installation accuracy, the flexibility is stronger, vibration-reducing effect is much better compared to the opposite wheel type coupling.

由图2可以看出,中间板型联轴器的法兰重心较对轮型更加靠近轴的支撑,附加弯矩更小,可以更有效地减少附加弯矩对轴承产生的影响。

Viewing from the figure2, the flange gravity center of the intermediate plate type coupling is nearer the shaft support, and has more smaller additional bending moment, therefore it can more effectively reduce the influence of the additional bending moment on the shaft and on the bearings, compared to the opposite wheel type coupling.



参数表 Parameter Table

型号 Model JN	额定扭矩 Rated torque Nm	最高许用 转速 Max allowable speed RPM	标准外型联接尺寸 Standard overall connection dimension					许用偏差 Allowable deviation			动力学特性 Dynamic characteristic		重量 Weight Kg
			D mm	d3max mm	D'max mm	L mm	T mm	角向 Angular (度) (degree)	径向 Radial mm/mm	轴向 Axial mm	转动惯量 Rotary inertia N.m/rad	扭转刚度 Torsional rigidity Kg.m²	
100	320	11000	104	28	60	35	62.5	1/2	0.0087	1.5	0.0041	0.2X10 ⁶	3.3
120	400	9200	124	32	64	62	70.2		0.0087	1.7	0.0094	0.25X10 ⁶	5.4
140	700	8100	140	55	88	82	69	1/3	0.0056	2.1	0.0126	0.34X10 ⁶	6.2
170	1000	6700	170	70	108	112	82		0.0056	2.5	0.0499	0.85X10 ⁶	15.8
200	2500	5700	200	80	124	142	96		0.0056	2.8	0.1051	1.29X10 ⁶	24.7
240	4000	4700	240	105	166	172	104		0.0056	3.2	0.2787	1.79X10 ⁶	42.9
260	6300	4400	260	110	174	212	119		0.0056	4	0.4532	3.47X10 ⁶	57.4
290	10000	3900	290	140	190	212	124.6		0.0056	4.7	0.644	3.97X10 ⁶	63.2
330	16000	3400	330	150	224	252	143	1/4	0.0046	5	1.5072	4.66X10 ⁶	113.6
380	25000	2900	380	180	265	252	160		0.0046	5.8	2.982	13X10 ⁶	167
420	40000	2700	420	200	290	302	166		0.0046	6.2	4.8767	19.8X10 ⁶	228.6
460	63000	2490	460	220	318	352	191		0.0046	7	7.3935	21.37X10 ⁶	281.5
500	80000	2290	500	250	366	410	195		0.0046	8.5	10.9671	24.26X10 ⁶	354.1

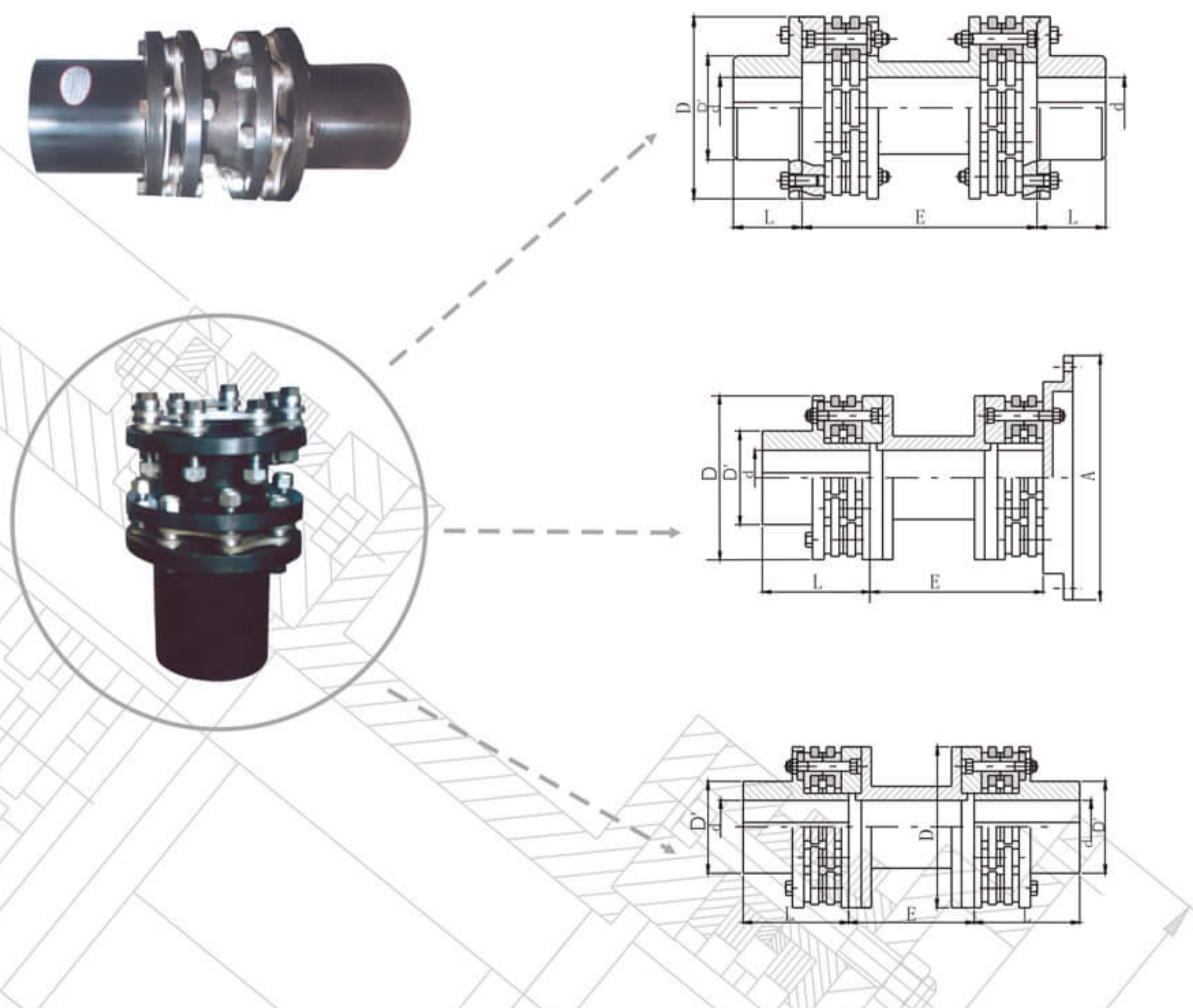
注:
Note: 轴向不对中能力指的是0.45倍最大转速下的轴向调整能力。
The axial misalignment capacity means the axial adjustment capacity at 0.45 times of the max speed.

SM系列膜片联轴器

► Series SM Diaphragm Coupling

SM膜片联轴器是采用德国技术生产的又一种金属挠性联轴器，它采用独立的链板联结而成的挠性组件，链板为2-8mm的高强度合金钢板。有利于安装和更换，性能和使用范围与JM系列膜片联轴器基本相同，它在矿山、水泥机械、钢铁、风机、水泵等领域得到了广泛的应用。

Series SM diaphragm coupling is another metallic flexible coupling which adopts German production technique. It uses the flexible elements that are connected through independent chain plates. The chain plate is 2-8mm high strength alloy steel plate. The installation and replacement are convenient. The performance and use range are basically as same as Series JM diaphragm coupling. It has obtained wide application in fields like mine, cement machinery, iron & steel, fan and pump, etc.



参数表
Parameter Table

型号 Model SM	额定扭矩 Rated torque Nm	西德型号 German model RT	最高许用 Max speed RPM	外型尺寸 Overall dimension							许用偏差 Allowable deviation			转动惯量 Rotary inertia Kg·m ²	重量 Weight Kg
				d(mm) 正常 Normal	d _{max} (mm) 最大 Max	D mm	D' mm	A mm	L mm	E mm	角向 Angular (度) (degree)	径向 Radial mm/mm	轴向 Axial mm		
90	200	20	12000	14	32	90	46	145	60	100	1/4	1.3	2.5	1.6×10 ⁻³	2.2
130	320	32	9000	19	48	130	73	190	70	107		1.5	2.9	1.1×10 ⁻²	7.5
170	1000	100	8000	22	60	170	90	225	80	114		2.5	3.0	5×10 ⁻²	19
190	1600	160	6800	27	65	190	100	250	90	122		2.5	3.5	7.6×10 ⁻²	23
210	2000	200	6600	29	70	210	100	265	95	142		3.0	4.0	1.2×10 ⁻¹	31
230	2500	251	5600	34	75	230	125	300	110	150		3.0	2.0	2.1×10 ⁻¹	45
240	3200	321	5200	39	85	240	140	315	110	170		3.0	2.0	3.4×10 ⁻¹	65
270	4000	401	4800	44	95	270	155	340	125	184		4.0	3.0	5.6×10 ⁻¹	85
230	5000	501	4400	46	105	300	165	365	130	196		4.0	4.0	9.6×10 ⁻¹	105
330	6300	601	4000	54	120	325	185	390	130	206		5.0	5.6	1.62	132
350	8000	801	3700	59	130	350	210	430	145	210		5.0	6.0	1.9	150
370	10000 10000	1000 1001	3400	64	140	370	215 225	450	145 155	228		5.0	6.6	2.6	180
390	12500	1251	3200	69	150	395	230	470	170	248		5.0	6.0	3.1	215
410	16000	1601	2900	74	160	415	255	495	190	258		6.0	6.0	4.3	265
450	20000 20000	2000 2001	2700	79	180	450	260	530	175 195	274	6.5	8.0	6.4	315	
470	25000	2501	2500	84	190	470	280	565	220	282	7.0		9.3	380	
500	32000	3201	2300	89	200	500	305	595	255	300	7.0		1.7×10	490	
550	40000 40000	4000 4001	2100	94	210	550	210 275	665	310 340	320	7.5		3.4×10	870	
590	50000 50000	5000 5001	1950	99	230	590	230 305	705	332 370	330	8.0		4.9×10	1250	
650	63000	6001	1800	109	260	650	420	770	310	360	8.5		9.4×10	1650	
690	80000 80000	8000 8001	1650	119	280 290	690	315 450	810	210 300	390	9.0		1.5×10 ²	2050	
750	100000	10000	1500	129	300	750	480	900	375	450	10.0		10.0	2.1×10 ²	2510
810	125000	12501	1400	139	550	810	560	990	375	480	7.0		2.8×10 ²	3200	
880	160000	16001	1300	159	590	880	650	1060	395	495	7.5		3.1×10 ²	3600	
975	200000	20001	1200	199	630	975	680	1150	450	495	8.0	14.0	3.8×10 ²	4100	

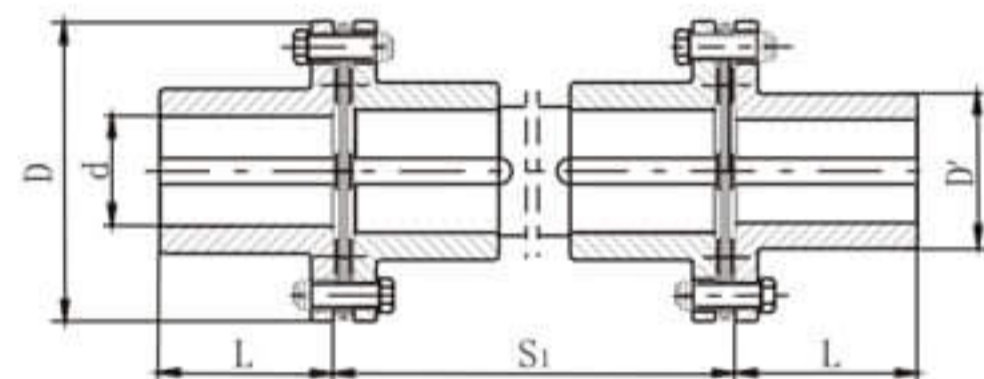
注: 表中 d、E、L 尺寸供参考，可由用户自行确定，键槽型式由用户确定。不对中补偿量是0.45倍最大转速下的值。
The dimension d, E, L in the table for reference. They can be determined by the user itself. The key way type is determined by the user.
The misalignment offset is 0.45 times of the value at max speed.

重型弹性膜片联轴器

► Heavy-duty Elastic Diaphragm Coupling

SHM型重型膜片联轴器是我厂在SM型膜片联轴器的基础上针对水泥、矿山领域开发的一种重型机械用膜片联轴器，采用整体式膜片，具有承载能力强、附加弯矩小、安全可靠、安装和更换方便等优点，可广泛应用于水泥机械、矿山机械、轧钢机械等重型机械领域。

Model SHM heavy-duty diaphragm coupling is a diaphragm coupling used in the heavy-duty machinery developed by our factory aimed at cement, mine field on the basis of Model SM diaphragm coupling. It adopts integral type diaphragm and has many advantages like strong bearing capacity, small additional bending moment, safety and reliability, easy mounting and replacing, etc. The product can be widely used in such heavy-duty machinery fields as cement machinery, mine machinery, steel-rolling machinery, etc.



参数表
Parameter Table

型号 Model SHM	额定扭矩 Rated torque Nm	最高许用转速 Max allowable speed RPM	标准外型联接尺寸 Standard overall connection dimension					许用偏差 Allowable deviation			转动惯量 Rotary inertia Kg·m ²	重量 Weight Kg	每增加 100mm 重量(kg) Weight
			D mm	dmax mm	D'max mm	L mm	S _i min mm	角向 (度) Angular (degree)	径向 mm/mm	轴向 mm			
90	100	12700	90	32	50	82	170	1/3	0.0056	1.1	0.004	3.7	0.23
100	170	11000	100	38	60	82	170			1.4	0.005	5.4	0.31
120	320	9200	124	42	64	112	218			1.7	0.018	9.3	0.42
140	400	8100	140	60	88	112	218			2.1	0.035	14.4	0.78
170	700	6700	170	75	108	142	264			2.5	0.089	25.7	1.06
200	1000	5700	200	85	124	172	314			2.8	0.47	89.9	1.44
240	2500	4700	240	120	166	212	384			3.2	0.565	93.1	2.66
260	4000	4400	260	130	174	212	384			4	0.844	101	3.63
290	6300	3900	285	140	190	252	454			4.7	1.305	139	4.92
330	10000	3400	330	170	224	252	454			5	2.9	216	6.69
380	16000	2900	380	200	265	302	534	5.8	5.7	337	9.15		
420	25000	2700	420	220	292	352	534	6.2	9.2	450	12.33		
460	40000	2490	460	240	318	352	534	7	14.2	574	16.86		
500	63000	2290	500	280	366	410	710	8.5	22.9	883	22.83		
560	84000	2000	560	300	370	410	710	9.1	32.5	1105	27.65		
600	140000	1800	600	320	380	410	710	9.3	44.3	1263	32.09		
650	145000	1700	650	355	418	470	810	9.6	66.9	1714	39.79		
710	220000	1600	710	390	450	470	810	10.2	101	2100	47.98		
750	250000	1500	750	400	459	470	810	11.3	130	2427	57.21		
830	350000	1380	830	460	522	550	950	12.1	219	3469	71.6		
880	500000	1300	880	500	568	550	950	12.7	285	3984	84.66		
930	630000	1230	930	530	606	650	1130	12.7	393	5197	96.78		
1030	800000	1100	1030	560	930	650	1130	12.9	514	6076	105.95		
1080	1000000	1060	1080	600	990	650	1130	13	646	6919	124.24		
1160	1250000	980	1160	640	1080	650	1130	14.8	898	8134	144.17		
1290	1600000	880	1290	680	1245	800	1410	15	1519	11674	167.29		
1410	2000000	810	1410	730	1350	800	1410	18	2189	13823	197.22		

PM系列膜片联轴器

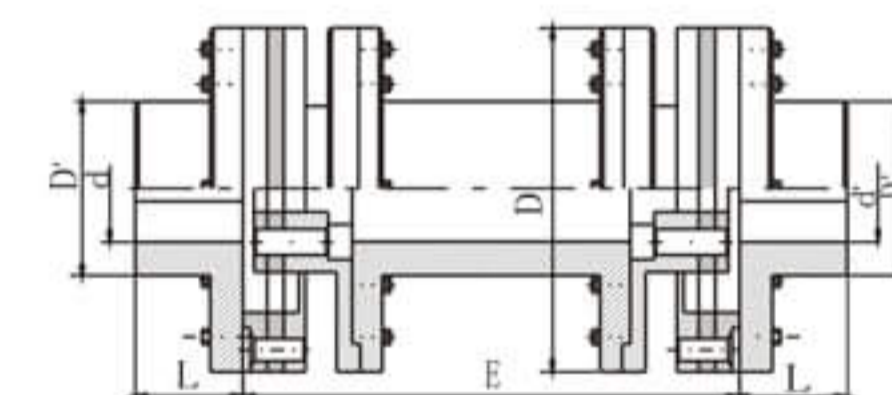
► Series PM Diaphragm Coupling

PM系列膜片联轴器是参考吸收丹麦技术设计生产的，它是用薄板铆结或用螺栓联结而成，薄板经过予应力处理或予变形处理，增加了挠性。其内外缘周边有螺栓孔，用螺栓分别与主、从动法兰联结。

此种联轴器传递扭矩范围宽，最大可达400万Nm，传递动力距离长，最长可达15m中间无支撑。中间体采用薄壁管加工，具有重量轻，不变形，旋转性能好，可以吸收振动，减少冲击等优点，在载荷波动大时选用效果好，适用于大型回转窑、冷却塔、风机、轧机等。

Series PM diaphragm coupling is designed and manufactured through referring and digesting Danish technique. It is formed through sheet riveting or through bolt connection. The sheet increases the flexibility through pre-stress treatment or pre-deformation treatment. There are boltholes on inner and outer edge circumference. Use bolts to connect the drive flange and driven flange respectively.

The transfer torque range of this coupling is wide, the max value can reach 4,000,000 Nm, the transfer power distance is long, and the max length can reach 15m without intermediate support. The intermediate adopts thin wall tubing for processing, having light weight, no deformation, good rotary performance, absorbing vibration and reducing impact, etc. When it is used at a great load fluctuation condition, the effect is better. It is suitable for large revolving kiln, cooling tower, fan, rolling mill, etc.



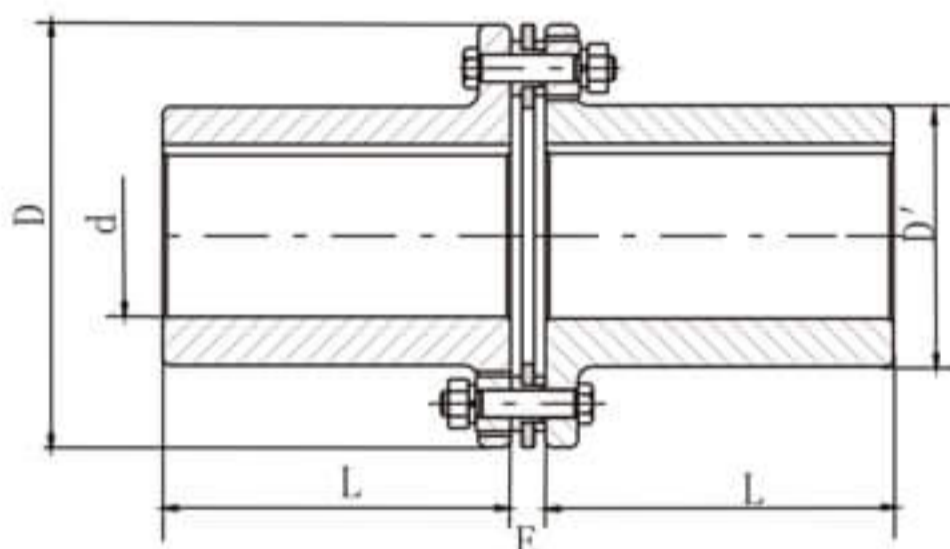
法兰中间节型
Flange intermediate joint type

参数表
Parameter Table

型号 Model PM	额定扭矩 Rated torque Nm	最高转速 Max speed RPM	标准外型联接尺寸 Standard overall connection dimension					许用偏差 Allowable deviation			动力学特性 Dynamic characteristic		重量 Weight Kg
			D mm	dmax mm	D' mm	L mm	E mm	角向(度) Angular(degree)	径向 mm/mm	轴向 mm	转动惯量 Rotary inertia Kg·m ²		
260	1000	4200	260	110	150	150	250	1/3	0.059	2.8	0.34	58	
300	2500	3800	300	130	190					3	0.56	75	
370	4000	3000	370	170	260	180	330	1/4	0.0046	3.4	1.7	180	
420	6300	2700	420	185	278					3.8	3	210	
460	8000	2400	460	200	300	210	400	1/4	0.0046	4.1	5.3	261	
560	10000	2000	560	240	380					5.1	17	509	
650	25000	1700	650	260	410	350	520	1/5	0.0035	5.7	36	1215	
700	40000	1600	700	300	475					6.2	1.1X10 ²	1950	
810	65000	1400	810	350	560	400	600	1/5	0.0035	7.1	2.1X10 ²	2850	
930	100000	1200	930	400	650					8.3	3.7X10 ²	3500	
1010	125000	1100	1010	430	688	500	750	1/5	0.0035	9.8	8.3X10 ²	4500	
1210	160000	900	1210	510	810					11	11X10 ²	5200	
1300	250000	800	1300	550	880	660	950	1/5	0.0035	13.6	27X10 ²	7000	
1410	400000	800	1410	600	1056					16.7	59X10 ²	8100	

JT系列膜片联轴器

► Series JT Diaphragm Coupling



参数表
Parameter Table

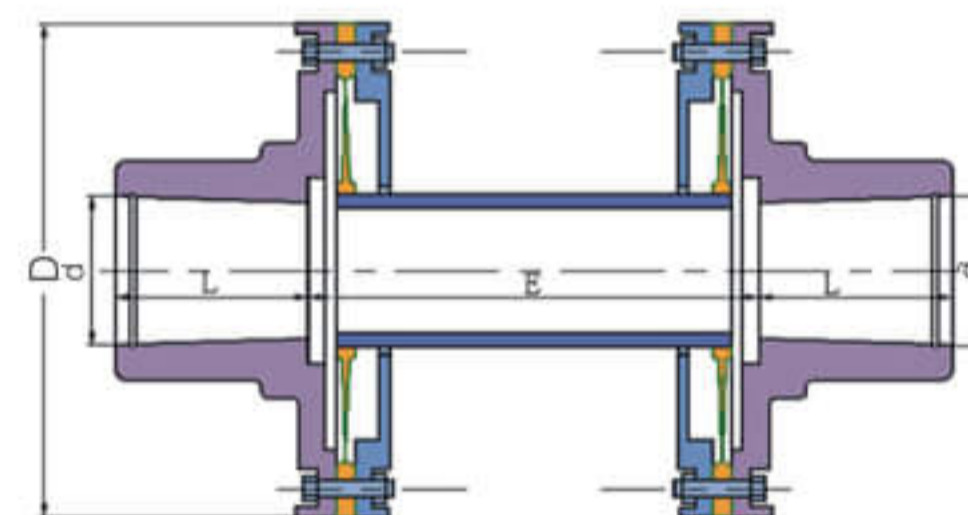
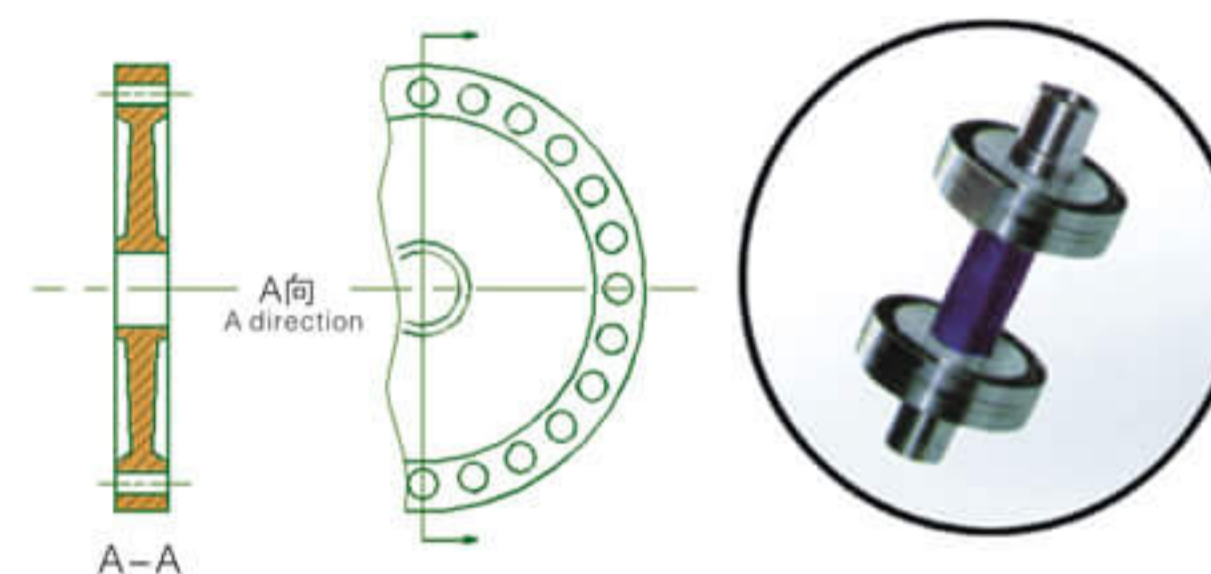
型号 Model JT	额定扭矩 Rated torque Nm	瞬时扭矩 Instantaneous torque Nm	最高许用转速 Max allowable speed RPM	标准外型联接尺寸 Standard overall connection dimension					许用偏差 Allowable deviation			动力学特性 Dynamic characteristic		重量 Weight Kg
				D mm	dmax mm	D'max mm	L mm	E mm	角向 Angular (度) (degree)	径向 Radial mm/mm	轴向 Axial mm	转动惯量 Rotary inertia Kg.m ²	扭转刚度 Torsional rigidity N.m/rad	
90	170	272	12700	90	32	50	82	9	1/2	0.0087	1.4	0.0015	0.2X10 ⁶	2.16
100	320	512	11000	104	38	60	82	10.5		0.0087	1.5	0.0031	0.25X10 ⁶	3.2
120	400	640	9200	124	42	64	112	10.5		0.0087	1.7	0.0068	0.34X10 ⁶	5.1
140	700	1120	8100	140	60	88	112	12	1/3	0.0056	2.1	0.01586	0.85X10 ⁶	8.5
170	1000	1600	6700	170	75	108	142	14		0.0056	2.5	0.0422	1.29X10 ⁶	15.1
200	2500	4000	5700	200	85	124	172	16		0.0056	2.8	0.0875	1.79X10 ⁶	23.8
240	4000	6400	4700	240	120	166	212	17	1/4	0.0056	3.2	0.2945	3.47X10 ⁶	48.8
260	6300	10080	4400	260	130	174	212	21		0.0056	4	0.3745	3.97X10 ⁶	54.1
290	10000	16000	3900	290	140	190	252	22		0.0056	4.7	0.6028	4.66X10 ⁶	67.3
330	16000	25600	3400	330	170	224	252	23	1/5	0.0046	5	1.3297	13X10 ⁶	112.5
380	25000	40000	2900	380	200	265	302	25		0.0046	5.8	2.6187	19.8X10 ⁶	176.9
420	40000	64000	2700	420	220	290	352	27		0.0046	6.2	4.5859	21.37X10 ⁶	238.7
460	63000	100800	2490	460	240	318	352	28	1/5	0.0046	7	6.8228	24.26X10 ⁶	291.5
500	80000	128000	2290	500	280	366	410	30		0.0046	8.5	12.3122	32.77X10 ⁶	429.5
560	140000	224000	2000	560	300	370	410	32		0.0046	9.1	25	39.43X10 ⁶	563
600	170000	272000	1800	600	320	380	410	33	1/5	0.0029	9.3	35	47.9X10 ⁶	642
650	220000	352000	1700	650	355	418	470	35		0.0029	9.5	52	57.3X10 ⁶	850
710	250000	400000	1600	710	390	450	470	37		0.0029	9.8	77	67.1X10 ⁶	1033
750	350000	560000	1500	750	400	459	470	39	1/5	0.0029	10.5	96	75.6X10 ⁶	1159
830	500000	800000	1380	830	460	522	550	41		0.0029	11.5	164	77.7X10 ⁶	1641
880	630000	1008000	1300	880	500	568	550	43		0.0029	11.8	230	89.1X10 ⁶	1898
930	800000	1280000	1230	930	530	606	650	44	1/5	0.0029	12.1	317	99.6X10 ⁶	2430
1030	1000000	1600000	1110	1030	560	660	650	45		0.0029	12.5	363		2960
1080	1250000	2000000	1060	1080	600	690	650	46		0.0029	13	451		3284
1160	1600000	2560000	980	1160	640	750	650	46	1/5	0.0029	13.5	627		3866
1290	2000000	3200000	880	1290	680	840	800	48		0.0029	14.8	1084		5522
1410	2800000	4480000	810	1410	730	900	800	48		0.0029	15.5	1549		6432

DM系列圆盘联轴器

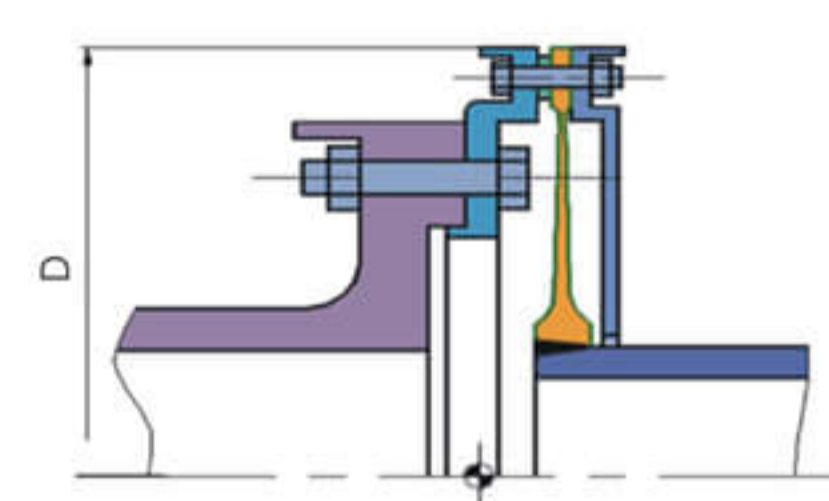
► Series Disc Coupling

DM系列圆盘联轴器，采用世界先进的航空航天技术生产。膜片采用真空冶炼的超强度合金钢，电子束焊接新工艺制造，使联轴器在同样外径下具有传递功率大、重量轻、挠性大、各种力学性能优良等优点。其中挠性体与法兰为铰制孔紧配合，动平衡性能好，易于拆装，安全系数大，工作寿命长，使金属挠性联轴器达到了完美的程度，可广泛应用于大扭矩，高转速的重要机组。

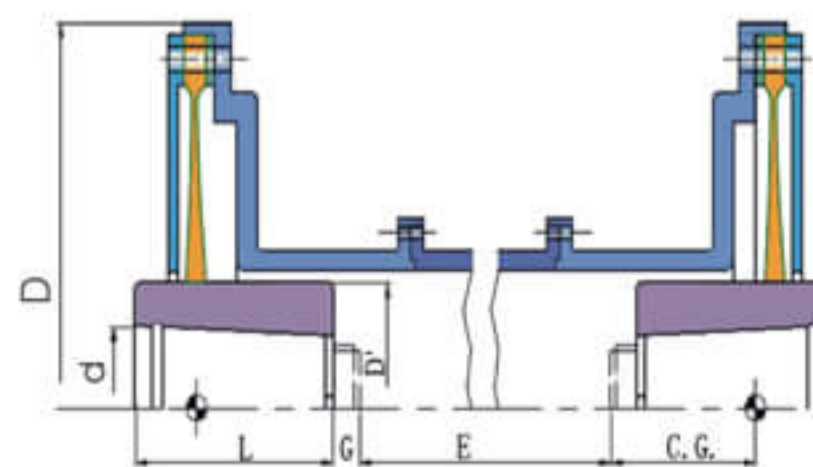
Series DM disc coupling adopts advanced aviation and space flight technique in the world for production. The diaphragm adopts vacuum smelted ultrastrength alloy steel and electronic beam welding new technology for manufacture. It makes the coupling to have advantages like larger transmission power, lightweight, big flexibility, superior various mechanic properties, etc while it has the same outside diameter. The flexible body and the flange are reaming hole close fit. The good dynamic balancing performance, easy to mount and dismount, greater safety coefficient and long service life make the metallic flexible coupling to reach a perfect degree. It can be widely used for important unit with big torque and high speed.



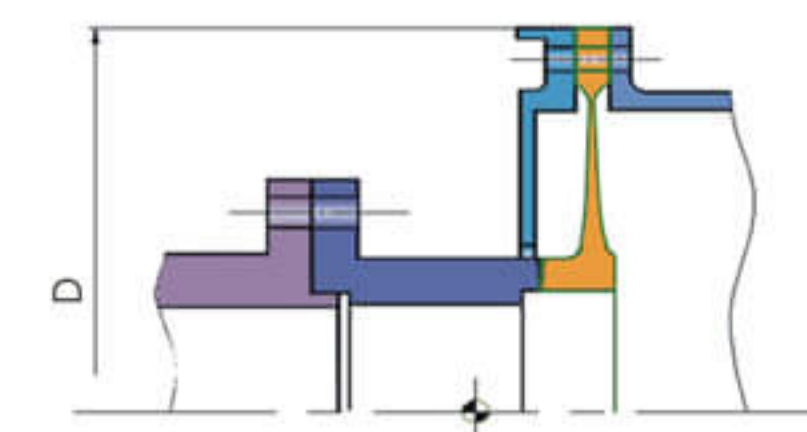
普通型
Ordinary type



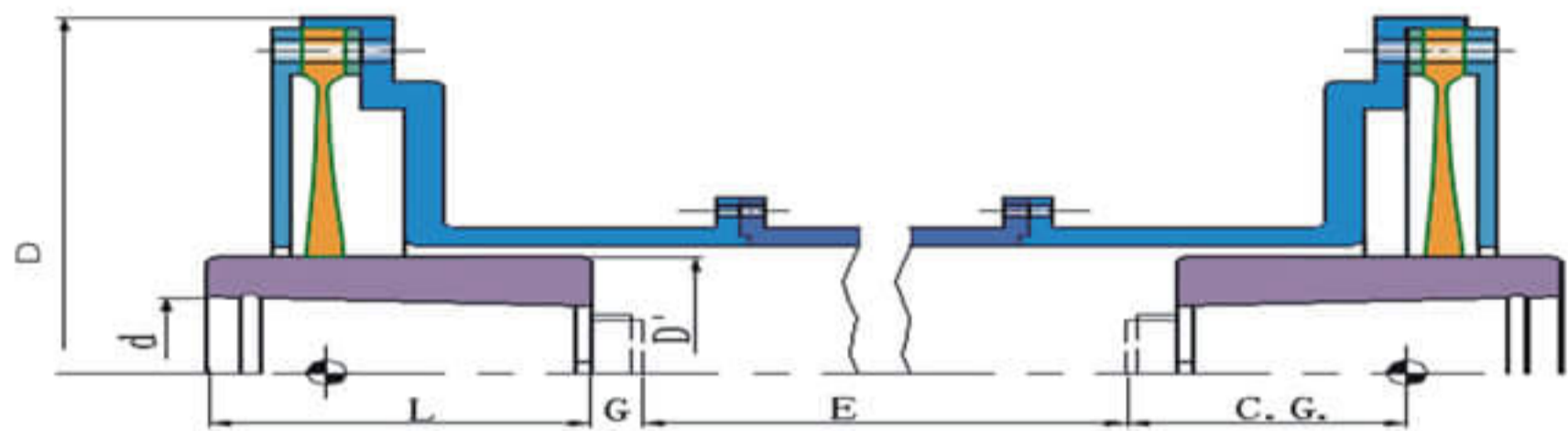
其它型 I
Other type I



双挠性盘型
Double flexible disc type



其它型 II
Other type II



参数表
Parameter Table

型号 Model DM	Kw rpm	额定扭矩 Rated torque Nm	最高转速 Max speed RPM	外型尺寸 Overall dimension					许用偏差 Allowable deviation			转动惯量 Rotary inertia Kg.m ²	重量 weight Kg	
				D mm	E _{min} mm	D' mm	d _{max} mm	L mm	重心 the center of gravity	角向(度) Angular (degree)	径向(mm/mm) Radial			轴向(mm) Axial
315	0.10	950	32400	150	83	100	60	80	23.6	1/3	0.0058	1.09	0.21	4.4
415	0.13	1175	37400	170	85	120	75	100	30	1/4	0.0044	0.91	0.49	7.0
317	0.22	2000	27700	170	85	120	75	100	30	1/3	0.0058	1.24	0.49	7.0
417	0.26	2435	32000	170	85	120	75	100	30	1/4	0.0044	1.04	0.49	7.0
517	0.33	3173	35800	230	86	175	110	140	80	1/5	0.0035	0.91	0.79	38
323	0.44	4200	23100	230	86	175	110	140	80	1/3	0.0058	1.93	0.79	38
423	0.59	5600	26700	230	86	175	110	140	80	1/4	0.0044	1.49	0.79	38
523	0.74	7000	26900	230	86	175	110	140	80	1/5	0.0035	1.27	0.79	38
327	0.83	7900	20000	270	88	228	150	180	84.6	1/3	0.0058	2.03	1.2	49.9
427	1.12	10680	23200	270	88	228	150	180	84.6	1/4	0.0044	1.72	1.2	49.9
527	1.39	13300	25900	270	88	228	150	180	84.6	1/5	0.0035	1.44	1.2	49.9
333	1.52	14520	17500	330	92	250	160	220	49	1/3	0.0058	2.81	2	22.3
433	2.00	19400	20200	330	92	250	160	220	49	1/4	0.0044	2.46	2	22.3
533	2.56	24400	22600	330	92	250	160	220	49	1/5	0.0035	1.90	2	22.3
337	2.3	21000	16000	370	102	300	200	250	106.7	1/3	0.0058	3.04	3.5	93
437	3.04	28900	18500	370	102	300	200	250	106.7	1/4	0.0044	2.54	3.5	93
537	3.8	36000	20700	370	102	300	200	250	106.7	1/5	0.0035	2.10	3.5	93
342	3.6	34500	14400	420	105	307	220	260	103	1/3	0.0058	3.32	4.1	98
442	4.8	46000	16600	420	105	307	220	260	103	1/4	0.0044	2.84	4.1	98
542	6.1	57600	18600	420	105	307	220	260	103	1/5	0.0035	2.43	4.1	98
642	7.1	69000	19600	470	106	342	228	280	106.4	1/6	0.0027	2.0	9.1	166
347	4.9	46000	13500	470	106	342	228	280	106.4	1/3	0.0058	4.54	9.1	166
447	6.4	60000	15600	470	106	342	228	280	106.4	1/4	0.0044	3.55	9.1	166
547	8.15	77490	17400	470	106	342	228	280	106.4	1/5	0.0035	3.02	9.1	166
647	9.79	93000	15100	560	110	400	260	320	16.8	1/6	0.0027	2.6	19.5	257
356	9.5	90600	11600	560	110	400	260	320	16.8	1/3	0.0058	5.81	19.5	257
456	12.79	120900	13400	560	110	400	260	320	16.8	1/4	0.0044	4.77	19.5	257
556	15.89	151000	15000	560	110	400	260	320	16.8	1/5	0.0035	3.91	19.5	257
656	18.72	177800	13200	660	116	458	300	370	19.4	1/6	0.0027	3.4	46	436
366	15.5	148570	10400	660	116	458	300	370	19.4	1/3	0.0058	6.42	46	436
466	20.7	197000	12000	660	116	458	300	370	19.4	1/4	0.0044	5.28	46	436
566	25.93	246000	13400	660	116	458	300	370	19.4	1/5	0.0035	4.44	46	436
666	30.99	294500	10100	660	116	458	300	370	19.4	1/6	0.0027	4.0	46	436

MB系列薄板联轴器

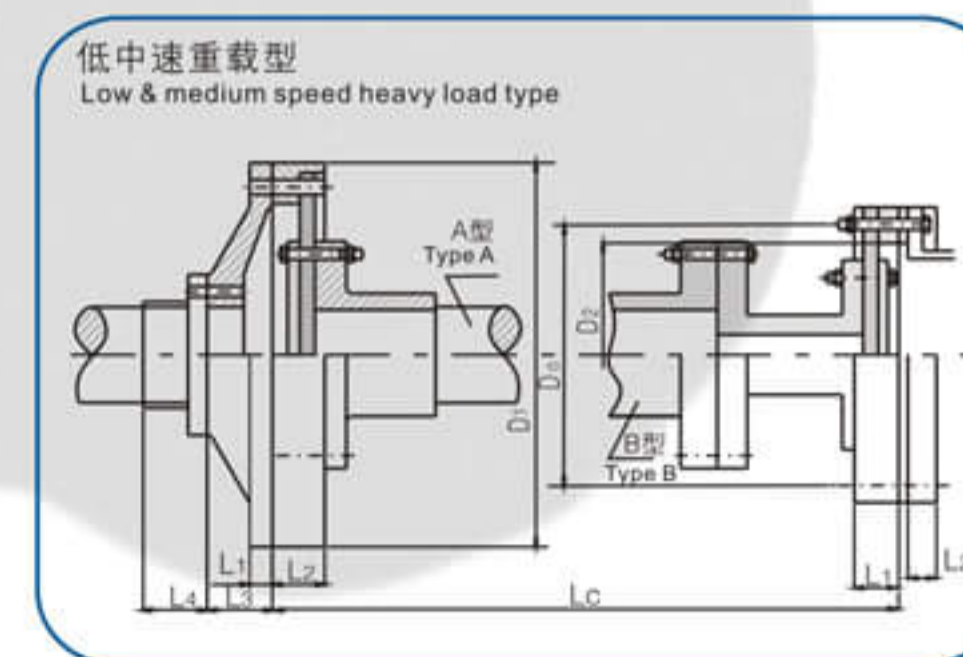
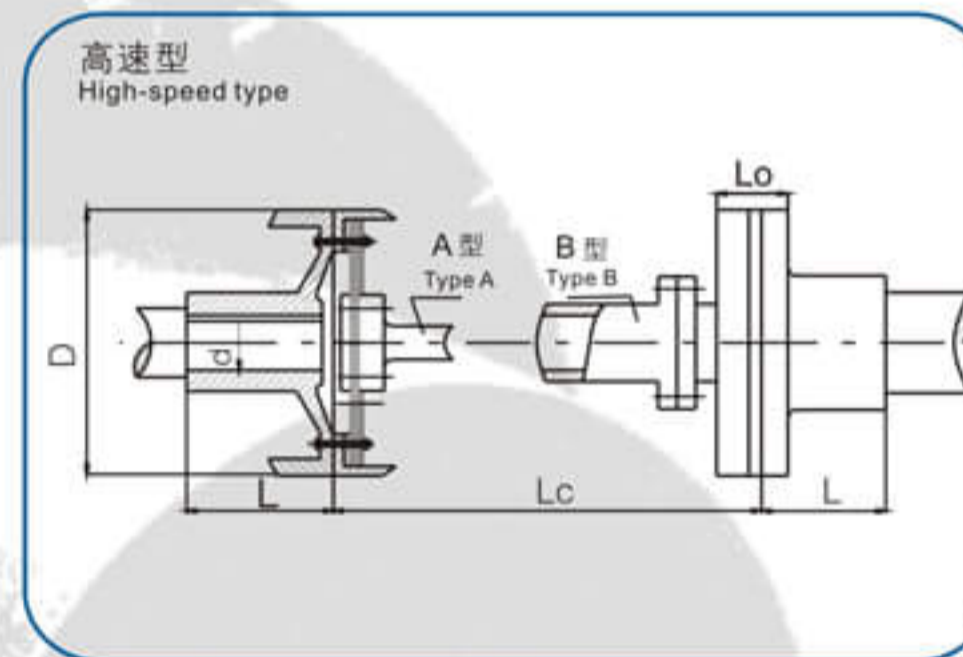
Series MB Sheet Coupling

MB系列薄板联轴器是吸收丹麦史密斯公司的技术生产的一种弹性多层薄板联轴器，除具有其它金属挠性联轴器的优点外，还有以下突出优点：安装简便无需铰制孔螺栓，能更好地吸收（如人字齿轴）产生的窜动，不产生惯性“背隙”冲击，也无往复摆动撞击，对采用双传动的主机，能平衡两路传动轴的扭矩，调合两路转差率的同步运转，其分为MBH中、高速与MBL低速重载系列两种。适用于水泥机械、矿山机械、冶炼、重型机械等设备。



Series MB coupling is an elastic multi-layer sheet coupling produced by our factory through digesting Danish Smith Company's technique. In addition to the advantages of other metallic flexible couplings, it has below outstanding advantages: mounting is simple and convenient, needing no reaming hole bolts, it can better absorb the displacement generated by the double helical tooth shaft, it does not generate inertia "back gap" impact, it has no reciprocating swing impact. For the drive machine adopting double transmission shafts and harmonize the synchronous running of the two slip frequencies, which are divided into MBH medium and high-speed series and MBL low speed heavy load series. The product is suitable for equipments like cement machinery, mine machinery, smelting, heavy-duty machinery, etc.

变形结构 Deformed structure



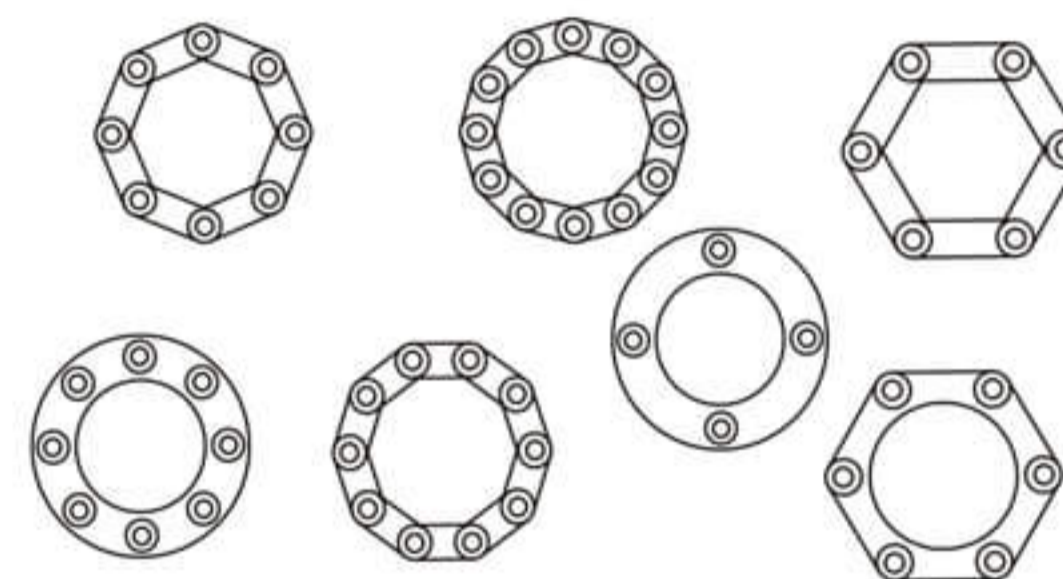
参数表
Parameter Table

型号 Model MBH	Pc/nc kw/r	最高转速 rpm Max speed		dmax mm	D mm	Lc		L Max mm	Lo mm	转动惯量 Rotary Inertia Kg·m ²	重量 Weight Kg	Lc 重量 (Kg/m) Lc weight	
		铁 Iron	钢 Steel			min mm	max mm					A型 Type A	B型 Type B
250	0.08	2900	3850	100	250	280	1500	160	50	2.7	40	12.5	5.87
300	0.18	2410	3210		300	280		1500	160	50	6.3	65	22.2
360	0.24	2000	2680	135	360	400	2000	205	55	14	100	26	12.14
400	0.33	1800	2410		400	400		2000	205	58	20	120	34.7
440	0.39	1640	2180	165	440	400	2500	265	60	28	140	39.5	17.3
490	0.54	1470	1960		490	400		2500	265	67	43	180	49.9
540	0.66	1330	1770	200	540	440	3000	320	76	70	230	55.6	26.1
590	0.98	1220	1630		590	440		3000	320	78	107	290	74.6
635	1.30	1130	1510	225	635	440	3500	360	80	145	350	88.8	35.3
675	1.82	1070	1420		675	500		3500	360	84	203	420	112.5
710	2.20	1020	1350	255	710	565	3800	410	87	300	570	129.6	58
770	2.82	940	1250		770	565		3800	410	90	446	710	148
830	3.30	870	1160	295	830	615	4000	475	94	580	860	158	74.5
880	4.19	820	1090		880	615		4000	475	100	845	1030	200
935	4.80	770	1030	325	935	650	4500	520	109	1140	1230	219	95.5
985	6.25	730	980		985	650		4500	520	110	1476	1450	259
1030	7.40	700	930	365	1030	700	5000	585	110	1900	1686	312	136.3
1090	9.15	660	880		1090	735		5000	585	112	2456	1950	326
1150	10.89	630	830	405	1169	770	5500	650	114	3250	2320	370	163.3
1210	12.50	590	790		1210	800		5500	650	115	3650	2730	450
1260	14.85	570	760	445	1260	850	5000	710	118	5080	3020	484	206
1330	17.90	550	740		1330	900		5000	710	120	6300	3360	519

型号 Model MBL	Pc/nc kw/r	D1 mm	D2 mm	Do mm	X/φd mm	L1 mm	L2 min mm	重量 Weight Kg	Lc 重量 (Kg/m) Lc weight		注明 Remarks
									A型 Type A	B型 Type B	
1500	39.5	1600	1400	1500	60/33	95	45	2228	650	347	(1) 联轴器总长及轴型 (A或B型) 由客户选定, 轴较长宜用 B 型 (轻 50%-60%), 减速机侧按轴伸配制 (L3 ≤ 320mm), L4 按轴伸配。 (2) Lc 确定后, 其计算重量 Wetc=Wet+LcWet (s)+接轴盘重量。 (3) X 为一端法兰螺栓孔总数 (两端相同), 其中含两个定位铰孔 (中d+2), 所有螺栓附随联轴器供货。 (4) 调整垫环片 (沿周三等分) 总厚 Smax=6x2mm, 其中 3x2 为设定的调节量。 (5) 许用转速 Ncmax=120r/min, 一般多用于 ≤ 25r/min 的球磨机。 (1)The total length of coupling and the shaft type (Type A or Type B) are selected by the user. The longer shaft shall suitably use Type B (the weight is lightened by 50%-60%). If the shaft disc is connected at the speed reducer side, it shall be matched according to the shaft extension. (When L3 ≤ 320 mm, L4 will be matched according to the shaft extension.) (2)After Lc is determined, computed weight Wetc=LcWet (s)+connected shaft disc weight. (3)X is total number of the bolt holes on one end flange (the both ends are the same), in which there are two locating match-reaming holes (intermediate d+2), and all bolts will be supplied with the coupling. (4)The total thickness of the adjustment ring spacer (three equal spacing along circumference) Smax=6x2 mm, in which 3x2 is the set adjustment amount. (5)Allowable speed Ncmax=120r/min, it is mainly used for the ball mill with speed ≤ 25r/min.
1520	62.6	1630	1430	1520	64/33	100	45	2670	890	450	
1800A	74.6	1910	1700	1800	72/36	110	50	3292	986	496	
1800B	93.2							3616	1140	540	
1900A	102.2	2010	1800	1900	78/36	120	55	4002	1222	570	
1900B	113.3							4234	1305	607	
2100A	128.3	2210	2000	2100	84/36	125	60	4906	1420	654	
2100B	141.7							5052	1512	695	
2400A	158.1	2500	2300	2400	96/36	140	65	5922	1626	718	
2400B	179							6112	1760	833	
2560A	197.6	2660	2460	2560	108/36	130	60	6764	1887	792	
2560B	221.5							6968	2037	919	
2740A	247.6	2840	2640	2740	116/36	140	65	7640	2182	988	
2740B	276.7							8330	2360	1006	
3000A	308.7	3100	2900	3000	128/36	145	65	9388	2564	1070	
3000B	346							10070	2766	1109	
3000C	387	3110	2890	3000	116/39	145	65	10584	2977	1178	
3310A	432.5	3420	3200	3310	128/39	150	65	12930	3195	1265	
3310B	484							13470	3428	1350	
3520	542	3640	3400	3520	16/142	165	65	15582	3700	1437	

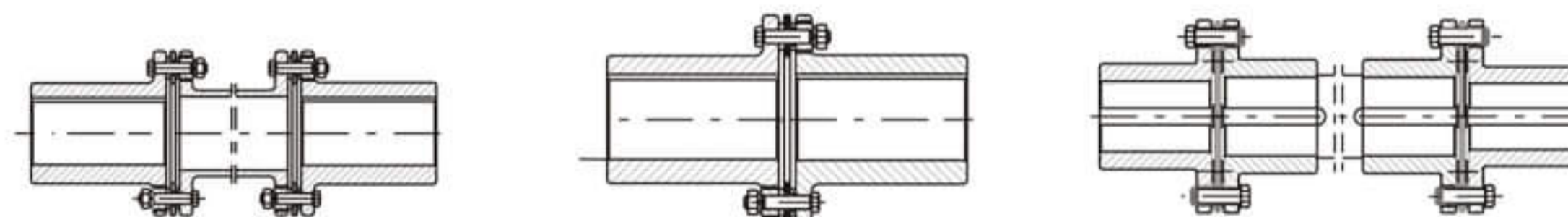
膜片样式

Diaphragm Style



安装样式

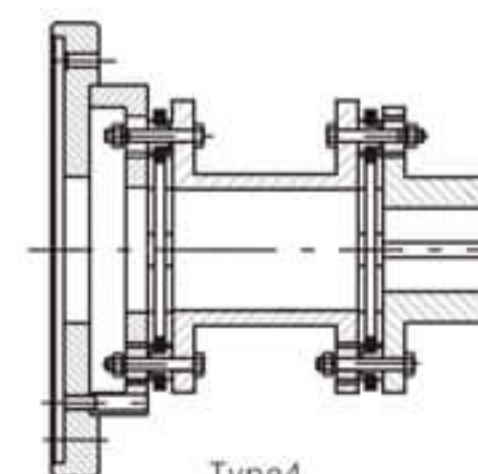
Installation style



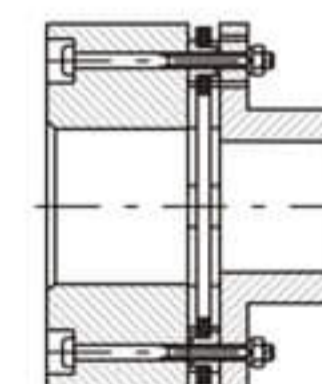
Type1

Type2

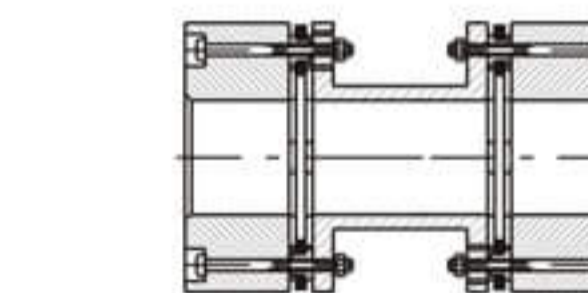
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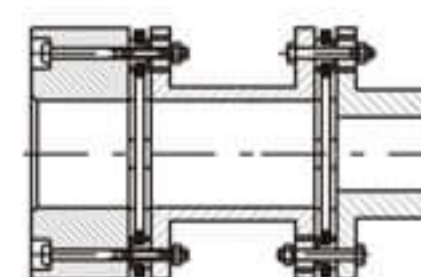
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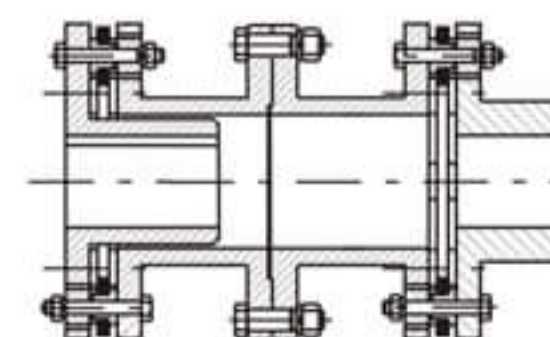
Type5



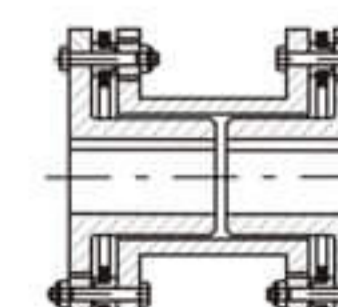
Type6



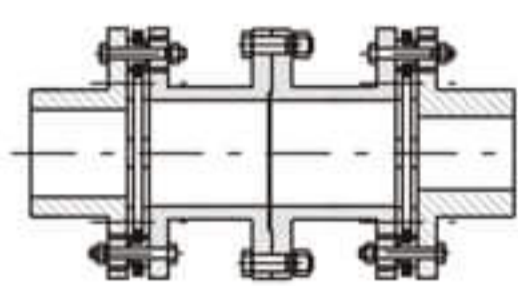
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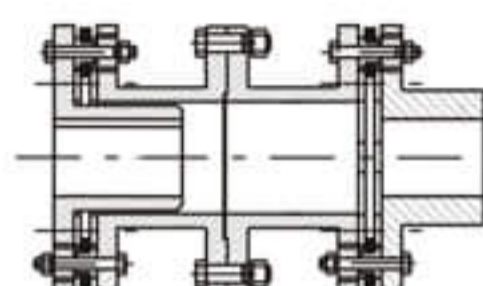
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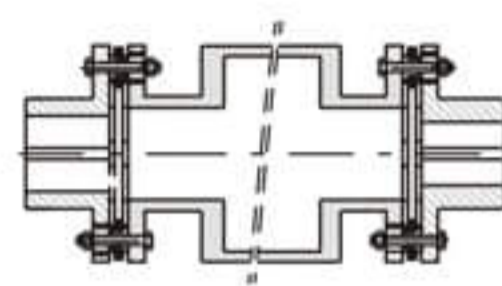
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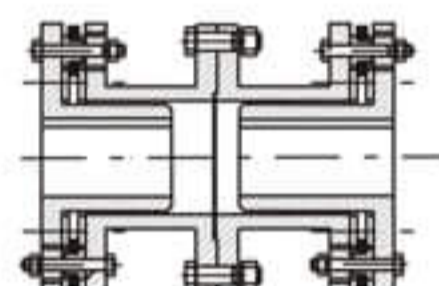
Type10



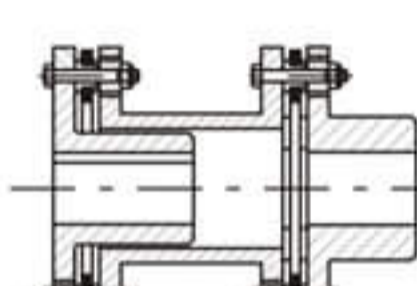
Type11



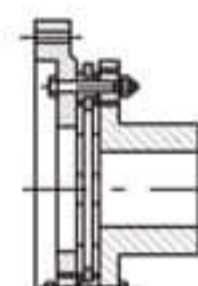
Type12



Type13



Type14



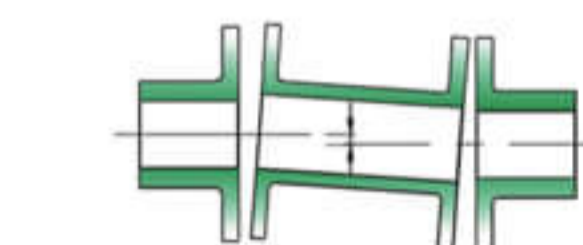
Type15

联轴器的选型

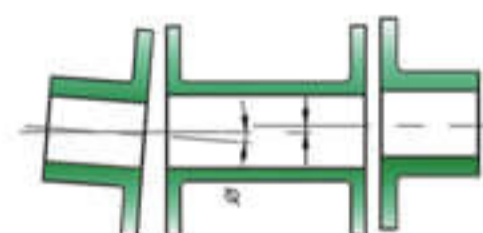
► Model Selection of Coupling

膜片的弹性可以吸收下列五种偏差

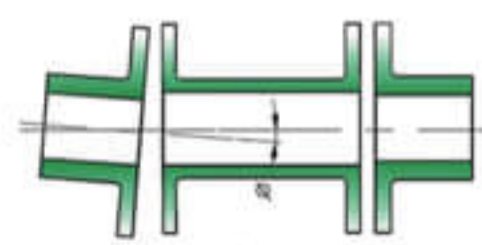
The elasticity of the diaphragm can absorb below 5 deviations



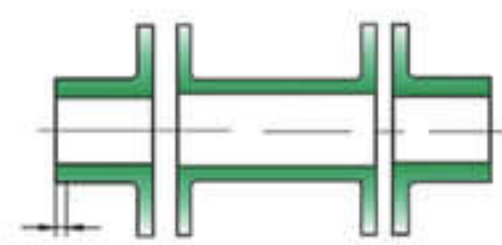
平行不对中
Parallel misalignment



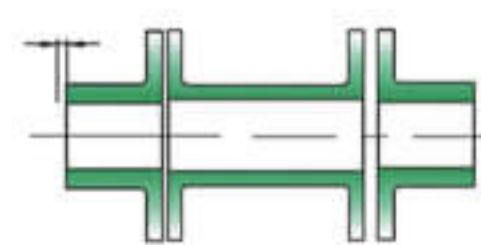
平行+角度不对中
Parallel + angular misalignment



角度不对中
Angular misalignment



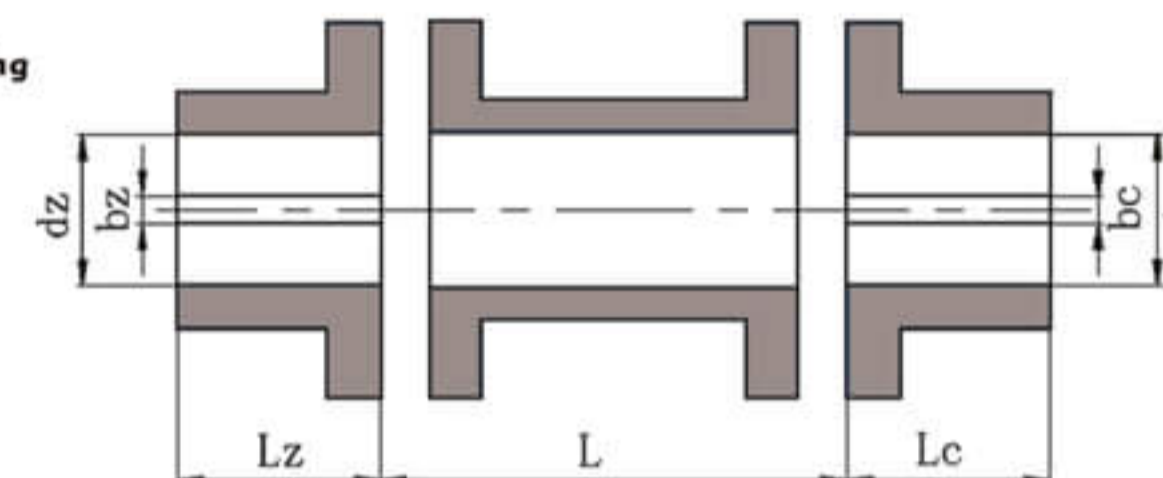
轴向拉伸
Axial tension



轴向压缩
Axial compression

联轴器的选型

Model Selection of Coupling



根据实际需要确定下列数据

Determine below data based on actual need

P --- 主动机最大功率 (KW)	N --- 工作转速 (RPM)
dz --- 主动机轴径 (mm)	dc --- 从动机轴径 (mm)
bz --- 主动端键槽型式及尺寸	bc --- 从动端键槽型式及尺寸
Lz --- 主动端轴伸长度 (mm)	Lc --- 从动端轴伸长度 (mm)
L --- 主、从动机轴头间距 (mm)	

P --- Max. power of the driving machine (KW)	N --- Operating speed (RPM)
dz --- Shaft diameter of the driving machine (mm)	dc --- Shaft diameter of the driven machine (mm)
bz --- the model of key and dimension at the driving machine	bc --- the model of key and dimension driven machine
Lz --- the shaft dimension of driving machine (mm)	Lc --- the shaft dimension of driven machine (mm)
L --- Spacing between the shaft heads of driving and driven machines (mm)	

计算额定扭矩

Computing rated torque

$$T_e = 9550 \frac{K \cdot P}{N}$$

式中: T_e 额定扭矩 Nm K 工况系数
 P 主动机功率 KW N 工作转速 RPM

In it: T_e --- Rated torques Nm K --- Operating condition
 P --- Power of the driving machine KW N --- Working speed RPM

确定联轴器形式

Determine the coupling type

根据额定扭矩在表中查出联轴器的外径及确定联轴器的结构形式, 有无特殊要求, 如: (一)、电绝缘形式, 根据API671标准设计。当电机与齿轮箱或石油气压缩机相连时, 为避免感应放电及齿面电蚀, 应采用此种形式, 以保护齿面或防止引爆石油气压缩机。(二)、背齿保安型。在膜片护板上加上齿轮, 当膜片失效或损坏后, 联轴器变为齿轮啮合传动、仍可保证设备继续安全运转。(三)、抗腐蚀型。根据用户所提出的抗腐蚀等级, 我厂用不锈钢或其它耐腐蚀材料为您生产制造符合要求的联轴器。(四)、是否需要过载保护。我厂为您提供各种结构过载保护型式, 有轴承配合剪切销式、液力过载保护等形式。

Based on the rated torque, find out the outside diameter of the coupling in the table and determine the structural type of the coupling and any special requirements. (I) If electric insulation type is adopted, it will be designed based on API 671 standard. When the motor is connected with the gear box or the petroleum gas compressor, this type will be adopted so as to avoid induction discharging and the gear face electric corrosion to protect the gear face or to prevent petroleum gas compressor from detonating. (II) If back gear security type is adopted, the gear is added to the diaphragm guarding plate. After the diaphragm is failure or damaged, the coupling becomes tooth engagement drive, it can still assure the equipment to operate safety. (III) If anticorrosion type is adopted, based on the anticorrosion class put forward by the user, our factory uses stainless steel or other corrosion-resisting material to manufacture the coupling that meets the requirements for you. (IV) If an overload protection is needed. Our factory can provide various structural overload protection types for you, and they have bearing fitting shearing pin type, hydraulic overload protection, etc.

联轴器应用是否为立式应用

If the coupling application is vertical application

如联轴器主从动轴垂直地面, 联轴器中间节挠性体需加入弹性支撑, 选用时应加以说明。
 If the drive and driven shafts of the coupling is perpendicular to the ground, the intermediate section flexible body of the coupling needs to add an elastic support. It shall be explained while selecting.

许用偏差校核

Allowable deviation check

横向临界转速校核及校核其它动力学特性。查出许用偏差与实际需要偏差进行比较，检验横向临界转速及其它动力学特性，如不能满足要求，请与我厂联系，以便为您设计特殊要求的联轴器。

Carry out lateral critical speed check and other dynamics characteristics. Find out allowable deviation and compare to actual demand deviation. Examine the lateral critical speed and other dynamics characteristics. If they cannot meet the requirements, contact our factory so as to design a coupling with special requirements for you.

提出订货型号

Put forward ordering model

$$\text{联轴器型号} \frac{dz \times Lz \times bz}{dc \times Lc \times bc} \times L$$

例如：

主动机电机功率75KW，转速为：2950rpm；
 主动机轴为J1型B型键， $d = \phi 65$ ， $Lz = 107$ ， $bz = 18$ ；
 从动机轴为Z型C型键， $d = \phi 28$ ， $Lc = 44$ ， $bc = 8$ ；
 轴头间距为 $L = 120$ mm，工况系数 $k = 1$ ；
 则可计算出： $T_e = 9550 \cdot K \cdot P / N = 9550 \cdot 1 \cdot 75 / 2950 = 242.8 \text{ Nm}$
 根据额定扭矩计算值从参数表查出外径为140mm，参看最大许用轴径是

否允许则选定联轴器型号为：JM170 $\frac{J1B65 \times 107 \times 18}{ZC28 \times 44 \times 8} \times 120$

For example: Motor power of driving machine is 75 KW, speed 2950rpm;
 Shaft of driving machine is Model J1 type B key, $d = \phi 65$, $Lz = 107$, $bz = 18$;
 Shaft of driven machine is Model Z type C key, $d = \phi 28$, $Lc = 44$; $bc = 8$;
 Shaft head spacing is $L = 120$ mm, operating condition is $k = 1$;
 Compute: $T_e = 9550 \cdot K \cdot P / N = 9550 \cdot 1 \cdot 75 / 2950 = 242.8 \text{ Nm}$
 Based on rated torque computed value, find out the outside diameter is 140 mm from the parameter table and see if the max allowable shaft diameter allows. Select the coupling model is JM 170 and put forward ordering model (JM170 J1B65 $\times 107 \times 18 / ZC28 \times 44 \times 8$) $\times 120$

安装使用

Installation and operation

首先根据所选联轴器的型号及参数表中允许的偏差值，调节联轴器的轴向、径向、角向误差到允许范围内，然后进行组装、联结、试车运转即可。

First, adjust the axial, angular errors of the coupling to reach permitted ranges based on the model of selected coupling and the deviation value permitted in the parameter table, then carry out assembling, connecting and test running.

工况系数表
Operating Condition Table

扭矩类型 Torque kind	从动机 Driven machine	驱动机 Driver		
		电机、蒸汽机 Motor steam engine	汽轮机、水轮机 Steam turbine, water turbine	内燃机 Internal combustion engine
扭矩恒定 Constant torque	泵、风机、轻型皮带运输机等 Pump, fan and light-duty belt conveyer, etc	1.0	1.5	3.0
轻微波动 Slightly fluctuated torque	车床、鼓风机、透平压缩机、回转式高速机器等 Lathe, blower, turbo compressor and swing high speed machine, etc	1.5	2.0	3.0
较大波动 More greater fluctuated torque	往复式机器、水泥搅拌机、起重机器、发电机等 Reciprocating machine, cement mixer, lifting machine and electric generator, etc	2.0	2.5	4.0
冲击载荷 Impact load torque	冲床、轧钢机、重型往复机器、切断机、连铸机等 Punch, rolling mill, heavy-duty reciprocating machine, cutting machine and continuous casting machine, etc	3.0	3.5	5.0



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日新月异的科技
 变幻莫测的世界
 三环工业持续创新的孜孜追求
 畅导技术
 以创新科技
 为客户创造价值