CONTENTS 目录

万向轴联器
Universal Joint Coupling

十字轴式万向轴联器是联轴器中最为常用的一种联轴器。其特点是角向补偿量大(β≤5°～45°)。结构紧凑，传动效率高。

在实际应用中根据所传递转矩大小分为重型、中型、轻型和小型。重型万向联轴器常用于冶金机械、重型机械、石油机械、工程机械、起重运输机械等；中型、轻型万向联轴器常用于汽车、机床等车辆和轻工机械等；小型万向联轴器主要用于传递运动。一般用于精密机械和控制机构。

几种大型十字万向联轴器主要区别在于轴承座和十字叉头的变化，形成不同结构形式；为保证主从端的同步性，实际应用中均采用双联式。双联的联结方式为：焊接连接法和法兰盘螺栓连接法。

SWC型整体叉头十字轴式万向联轴器(JB／T5513–91)
SWP型剖分轴承座十字轴式万向联轴器(JB／T3241—91)
SWZ型整体轴承座十字轴式万向联轴（JB／T3242–93)
WS，WSD小型双、单十字轴式万向联轴器(JB／T5901–91)
WSS小型伸缩十字轴式万向联轴器

Universal couplings with spider is one of the most general coupling in common use. (β ≤ 5° ～45°) It has big angular compensation ability, compact and reasonable configuration, high transmission efficiency.

In Practical application, according to the size of transfer torsion, it is divided into heavy, medium, light and small style scaly according to the torque magnitude transmitted in practical application. Heavy style is mainly used to metallurgy, heavy machinery, petroleum, engineering, hoisting and so on, Medium and light style are mainly used in auto car, machine too. and light machinery. Small style is mainly used in rolling part, for example, precision and control machine.

The main difference between the style of universal coupling are the change of axletree seat and spider with the different shape of frame. In order to guarantee the synchrony of principal and subordinate parts, it is mostly be adopted the pair type in practical application. The connection way of the pair are weld and flange bolt.

Whole fork universal couplings with spider(JB／T5513–91)
Part axletree universal couplings with spider(JB／T3241–91)
Whole axletree universal couplings with spider(JB／T3242–93)
Small style double, single universal couplings with Spider(JB／T5901—91) Small style flex universal couplings with spider

SWC型整体叉头十字轴式万向联轴器
SWC type whole fork universal couplings with spider

一 使用范围Scope of application

SWC万向联轴器，主要用于轧钢机械，起重机械及其他重型机械；

Universal Couplings with Spider is mainly used in rolling mill,hoisting and other heavy machinery.

联接两个不同轴线的传动轴系。

links two transmission shaft with different axis.

其回转直径为：φ58～φ620

gyration diameter：φ58～φ620

传递公称转矩为：0.15～1000kN·m

Nominal toraue：0.15～1000kN·m

轴线折角：≤25°

axes fold angle：≤25°

二 结构特点Constructional Feature

◇1、结构合理，使用安全可靠。采用整体式叉头，消除了螺栓压紧轴承座(盖)这一薄弱环节。完全避免了常见的螺栓松动或断裂造成的恶性破坏事件。使用寿命比其他型式联轴器提高30%一50%

Reasonable configuration，safety in use. Adopting whole fork, it avoids the weakness of the compaction to axletree seat from bolt，completely avoids the usual destroys from bolt loose and broken. The life of it is longer than others.

◇2、承载力高 Bearing heavier weight.

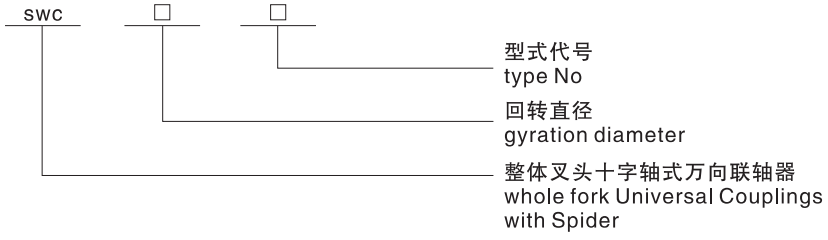
◇3、传动效率高达98．6%。用于大功率传动，节能显著，可降低电耗。

Transmission efficiency reach to 98．6．it is notability in large high power transmission ，which reduce electricity cost.

◇4、传动平稳，噪声低。一般噪声为30–40dB(A)。

Steadily transmission with low noise．Usual noise is 30–40 dB(A)。

◇万向联轴器型号按以下规定：
The type is according to below that



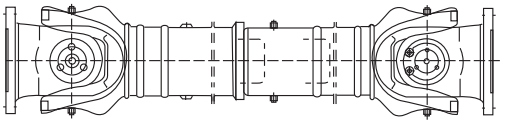
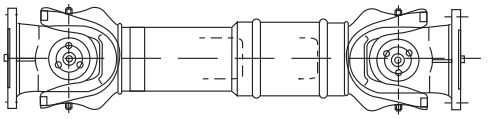
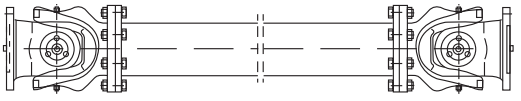
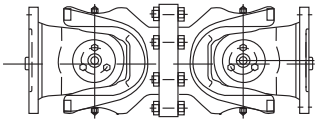
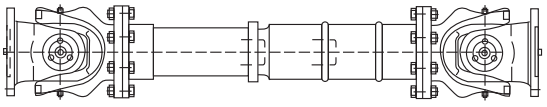
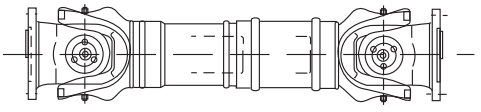
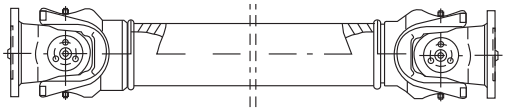
◇分类及具体尺寸和参数

SWC万向联轴器,主要用于轧钢机械，起重机械及其他重型机械；联接两个不同轴线的传动轴系。
其回转直径为 ϕ58–ϕ620mm，传递公称转矩为TN=0.15–1000KN.M，轴线折角 β ≤25°

◇TYPES AND DETAILS SIZE AND PARAMETER

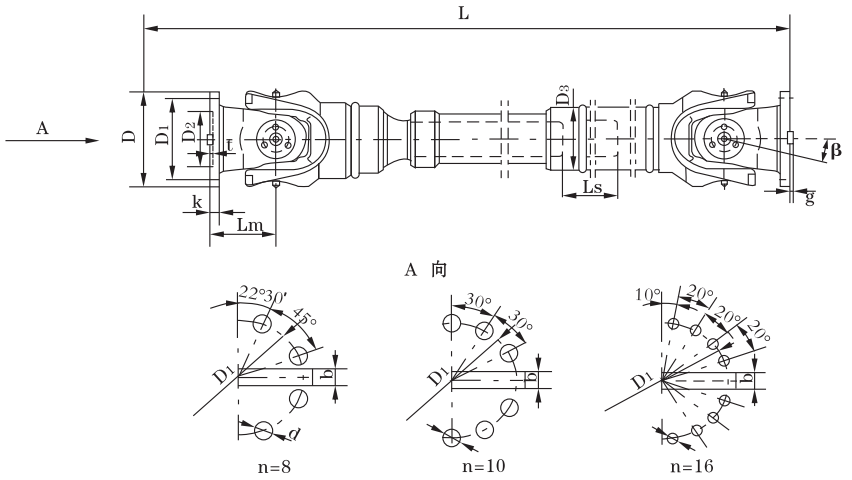
Universal Couplings with Spider is mainly used in rolling mill，hoisting and other heavy machinery.
links two transmission shaft with different axis. gyration diameter ϕ58–ϕ620mm. Nominal torqueTN=0.151000KN.M
axes fold angle β ≤25°

分类如下：

型号代号 type No	名　称 Name	图　示 Figure
C H	长伸缩焊接式 long flex welding type	
D H	短伸缩焊接式 short flex welding type	
W F	无伸缩法兰式 without flex flange type	
WD	无伸缩短式 short without flex type	
B F	标准伸缩法兰式 standard flex flange	
B H	标准伸缩焊接式 standard flex welding type	
WH	无伸缩焊接式 without flex welding type	

中间节部分有焊接和法兰两种联接方式，可根据用户需要而定。
There are welding and flange two types in the middle part，which can be ordered by customer.

SWC–CH长伸缩焊接式万向联轴器
SWC–CH Long flex welding type universal coupling

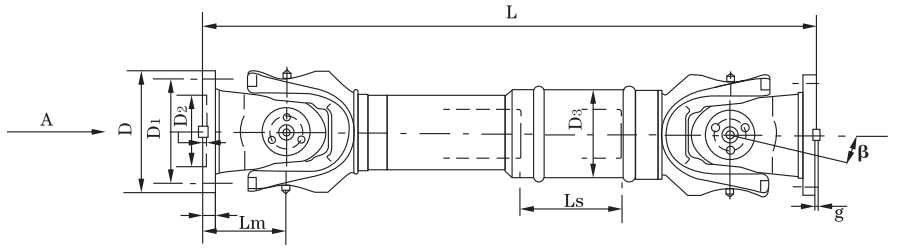


型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	轴线折角 Axes fold angle β (°)	疲劳转矩 Weary torque Tf KN·m	伸缩量 Flex quantity Ls mm	尺寸(mm) Size										转动惯量(I) Rotating inertia kg.m²		重量G(kg) Weight	
						Lmin	D1 (js11)	D2 (H7)	D3	Lm	n–d	k	t	b (h9)	g	Lmin	增长 Increase 100mm	Lmin	增长 Increase 100mm
SWCI80CHI	180	12.5	≤25	6.3	200	925	155	105	114	110	8–17	17	5	–	–	0.181	0.0070	74	2.8
SWCI80CH2					700	1425										0.216		104	
SWC225CH1	225	40	≤15	20	220	1020	196	135	152	120		20		32	9	0.561	0.0234	132	4.9
SWC225CH2					700	1500										0.674		182	
SWC250CH1	250	63		31.5	300	1215	218	150	168	140	8–19	25	6	40	12.5	1.016	0.0277	190	5.3
SWC250CH2					700	1615										1.127		235	
SWC285CH1	285	90		45	400	1475	245	170	194	160	8–21	27	7		15	2.156	0.0510	300	6.3
SWC285CH2					800	1875										2.360		358	
SWC315CHI	315	125		63	400	1600	280	185	219	180	10–23	32	8			3.812	0.0795	434	8.0
SWC315CH2					800	2000										4.150		514	
SWC350CH1	350	180		90	400	1715	310	210	267	194		35		50	16	7.663	0.2219	672	15.0
SWC350CH2					800	2115										8.551		823	
SWC390CH1	390	250		125	400	1845	345	235	267	215	10–25	40		70	18	12.730		817	
SWC390CH2					800	2245										13.617		964	
SWC440CH1	440	355		180	400	2110	390	255	325	260	16–28	42	10	80	20	22.540	0.4744	1312	21.7
SWC440CH2					800	2510										24.430		1537	
SWC490CH1	490	500		250	400	2220	435	275	325	270	16–31	47	12	90	22.5	33.970		1554	
SWC490CH2					800	2620										35.870		1779	
SWC550CH1	550	710		355	500	2585	492	320	426	305	16–31	50		100		72.790	1.3570	2585	34
SWC550CH2					1000	3085										79.570		3045	

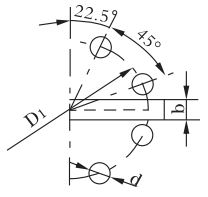
注：1、Tf–在交变负荷下按疲劳强度所允许的转矩。
2、Lmin–缩短后的最小长度。
3、L–安装长度，按需要确定。

Tf–Under the alternation load the torque which permits according to the fatigue strength
Lmin–The least length after cut
L–install length,which according to the requirement

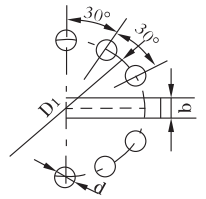
SWC–DH短伸缩焊接式万向联轴器
SWC–DH short flex welding type universal coupling



A 向



n=8



n=10

型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	轴线折角 Axes fold angle β (°)	疲劳转矩 Weary torque Tf KN·m	伸缩量 Flex quantity Ls mm	尺寸(mm) Size										转动惯量(I) Rotating inertia kg.m²		重量G(kg) Weight	
						Lmin	D1 (js11)	D2 (H7)	D3	Lm	n–d	k	t	b (h9)	g	Lmin	增长 Increase 100mm	Lmin	增长 Increase 100mm
SWCI80DHI	180	12.5	6.3	≤25	75	650	155	105	114	110	8–17	17	5	–	–	0.165	0.0070	58	2.8
SWCI80DH2					55	600										0.162		56	
SWCI80DH3					40	550										0.160		52	
SWC225DHI	225	40	20	≤15	85	710	196	135	152	120	8–17	20	5	32	9.0	0.415	0.0234	95	4.9
SWC225DH2					70	640										0.397		92	
SWC250DH1	250	63	31.5		100	795	218	150	168	140	8–19	25	6	40	12.5	0.900	0.0277	148	5.3
SWC250DH2					70	735										0.885		136	
SWC285DHI	285	90	45		120	950	245	170	194	160	8–21	27	7		15.0	1.876	0.0510	229	6.3
SWC285DH2					80	880										1.801		221	
SWC315DHI	315	125	63		130	1070	280	185	219	180	10–23	32	8			3.331	0.0795	346	8.0
SWC315DH2					90	980										3.163		334	
SWC350DHI	350	180	90		140	1170	310	210	267	194	10–23	35		50	16.0	6.215	0.2219	508	15.0
SWC350DH2					90	1070										5.824		485	
SWC390DH1	390	250	125		150	1300	345	235		215	10–25	40		70	18.0	11.125		655	
SWC390DH2					90	1200										10.763		600	

注：1、Tf–在交变负荷下按疲劳强度所允许的转矩。

2、Lmin–缩短后的最小长度。

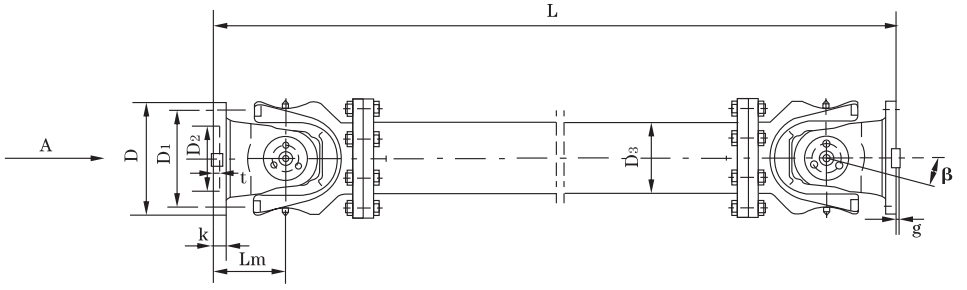
3、L–安装长度，按需要确定。

Tf–Under the alternation load the torque which permits according to the fatigue strength

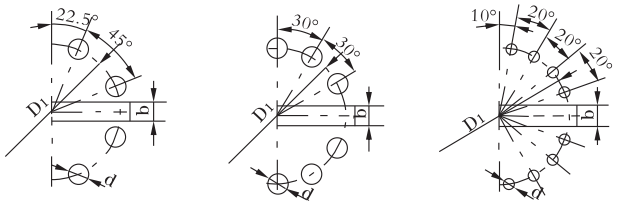
Lmin–The least length after cut

L–install length,which according to the requirement

SWC–WF无伸缩法兰式万向联轴器
SWC–WF Without flex flange type universal coupling



A 向

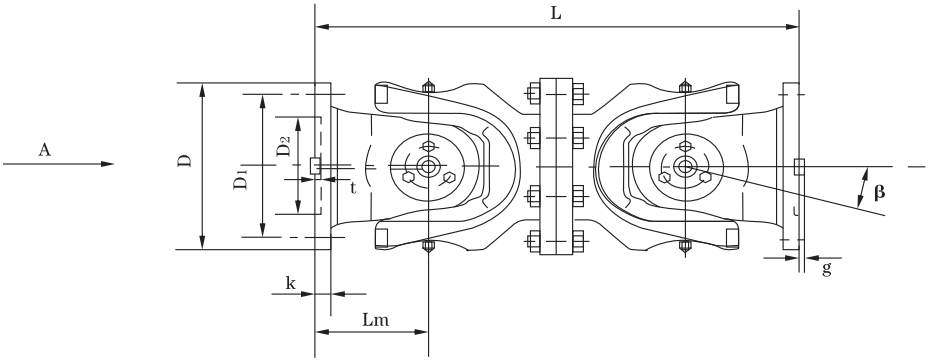


n=8　　n=10　　n=16

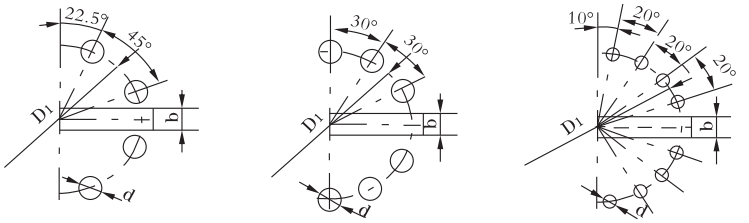
型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	轴线折角 Axes fold angle β (°)	疲劳转矩 Weary torque Tf Kn·m	尺寸(mm) Size										转动惯量(I) Rotating inertia kg.m²		重量G(kg) Weight	
					Lmin	D1 (js11)	D2 (H7)	D3	Lm	n–d	k	t	b (h9)	g	Lmin	增长 Increase 100mm	Lmin	增长 Increase 100mm
SWCI80WF	180	12.5	6.3	≤25	560	155	105	114	110	8–17	17	5	–	–	0.248	0.0070	58	2.8
SWC225WF	225	40	20		610	196	135	152	120	8–17	20	5	32	9.0	0.636	0.0234	93	4.9
SWC250WF	250	63	31.5		715	218	150	168	140	8–19	25	6	40	12.5	1.352	0.0277	143	5.3
SWC285WF	285	90	45		810	245	170	194	160	8–21	27	7	40	15.0	2.664	0.0510	220	6.3
SWC315WF	315	125	63		915	280	185	219	180	10–23	32	8	40	15.0	4.469	0.0795	300	8.0
SWC350WF	350	180	90	≤15	980	310	210	267	194	10–23	35	8	50	16.0	7.388	0.2219	412	15.0
SWC390WF	390	250	125		1100	345	235	267	215	10–25	40	8	70	18.0	13.184	0.2219	588	15.0
SWC440WF	440	355	180		1290	390	255	325	260	16–28	42	10	80	20.0	23.250	0.4744	880	21.7
SWC490WF	490	500	250		1360	435	275	325	270	16–31	47	12	90	22.5	40.750	0.4744	1173	21.7
SWC550WF	550	710	355		1510	492	320	426	305	16–31	50	12	100	22.5	68.480	1.3570	1663	34.0
SWC620WF	620	1000	500		1690	555	380	426	340	10–38	55	12	100	25.0	127.530	1.3570	2332	34.0

注：1、Tf–在交变负荷下按疲劳强度所允许的转矩。
2、L–安装长度，按需要确定。
Tf–Under the alternation load the torque which permits according to the fatigue strength
L–install length,which according to the requirement

SWC–WD无伸缩短式万向联轴器
short without flex flange type universal coupling



A 向

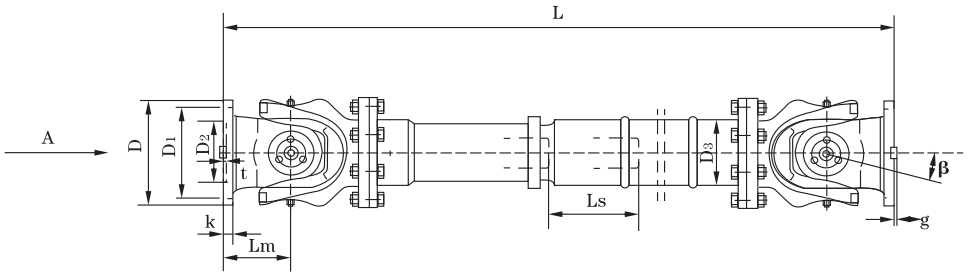


n=8　　n=10　　n=16

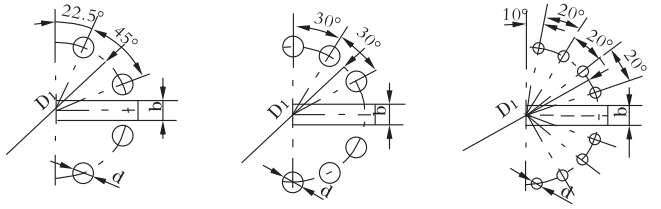
型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	轴线折角 Axes fold angle β (°)	疲劳转矩 Weary torque Tf Kn·m	尺寸(mm) Size									转动惯量(I) Rotating inertia kg.m²	重量G(Kg) Weight
					Lmin	D1 (js11)	D2 (H7)	Lm	n–d	k	t	b (h9)	g		
SWCI80WD	180	12.5	6.3	≤25	440	155	105	110	8–17	17	5	–	–	0.145	52
SWC225WD	225	40	20		480	196	135	120	8–17	20	5	32	9.0	0.355	82
SWC250WD	250	63	31.5		560	218	150	140	8–19	25	6	40	12.5	0.831	127
SWC285WD	285	90	45		640	245	170	160	8–21	27	7	40	15.0	1.715	189
SWC315WD	315	125	63		720	280	185	180	10–23	32	8	40	15.0	2.820	270
SWC350WD	350	180	90	≤15	776	310	210	194	10–23	35	8	50	16.0	4.791	370
SWC390WD	390	250	125		860	345	235	215	10–25	40	8	70	18.0	8.229	524
SWC440WD	440	355	180		1040	390	255	260	16–28	42	10	80	20.0	15.32	798
SWC490WD	490	500	250		1080	435	275	270	16–31	47	12	90	22.5	25.74	1055
SWC550WD	550	710	355		1220	492	320	305	16–31	50	12	100	22.5	46.78	1524
SWC620WD	620	1000	500		1360	555	380	340	10–38	55	12	100	25.0	83.76	2120

注：Tf–在交变负荷下按疲劳强度所允许的转矩。 Tf–Under the alternation load the torque which permits according to the fatigue strength

SWC–BF标准伸缩法兰式万向联轴器
SWC–BF standard flex flange type universal coupling



A 向



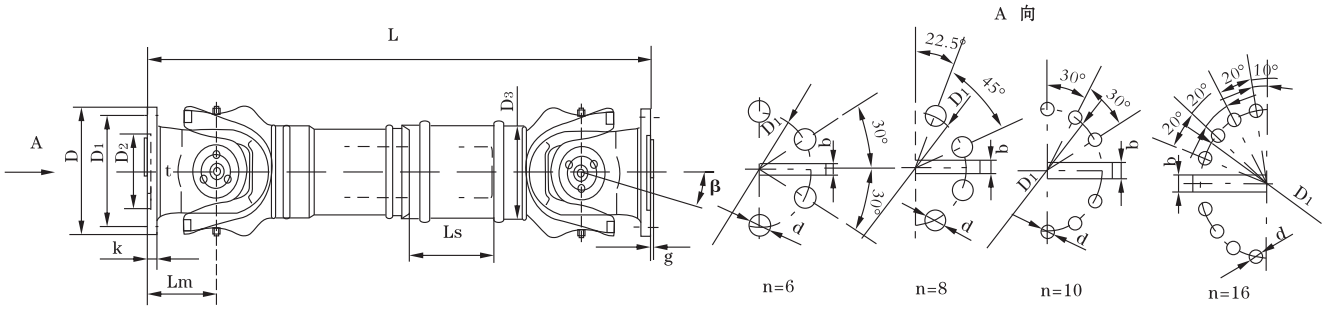
n=8　　n=10　　n=16

型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	轴线折角 Axes fold angle β (°)	疲劳转矩 Weary torque Tf KN·m	伸缩量 Flex quantity Ls mm	尺寸(mm) Size										转动惯量(I) Rotating inertia kg.m²		重量G(kg) Weight	
						Lmin	D1 (js11)	D2 (H7)	D3	Lm	n–d	k	t	b (h9)	g	Lmin	增长 Increase 100mm	Lmin	增长 Increase 100mm
SWCl80BF	180	12.5	6.3	≤25	100	810	155	105	114	110	8–17	17	5	–	–	0.267	0.0070	80	2.8
SWC225BF	225	40	20			920	196	135	152	120	8–17	20	5	32	9.0	0.788	0.0234	138	4.9
SWC250BF	250	63	31.5			1035	218	150	168	140	8–19	25	6	40	12.5	1.455	0.0277	196	5.3
SWC285BF	285	90	45		140	1190	245	170	194	160	8–21	27	7	40	15.0	2.873	0.0510	295	6.3
SWC315BF	315	125	63			1315	280	185	219	180	10–23	32	8	40	15.0	5.094	0.0795	428	8.0
SWC350BF	350	180	90	≤15	150	1410	310	210	267	194	10–23	35	8	50	16.0	9.195	0.2219	632	15.0
SWC390BF	390	250	125		170	1590	345	235	267	215	10–25	40	8	70	18.0	16.62	0.2219	817	15.0
SWC440BF	440	355	180		190	1875	390	255	325	260	16–28	42	10	80	20.0	28.24	0.4744	1290	21.7
SWC490BF	490	500	250		190	1985	435	275	325	270	16–31	47	12	90	22.5	46.33	0.4744	1631	21.7
SWC550BF	550	710	355		240	2300	492	320	426	305	16–31	50	12	100	22.5	86.98	1.3570	2567	34.0
SWC620BF	620	1000	500		240	2500	555	380	426	340	10–38	55	12	100	25.0	147.50	1.3570	3267	34.0

注：1、Tf–在交变负荷下按疲劳强度所允许的转矩。
2、L_{min}–缩短后的最小长度。
3、L–安装长度，按需要确定。

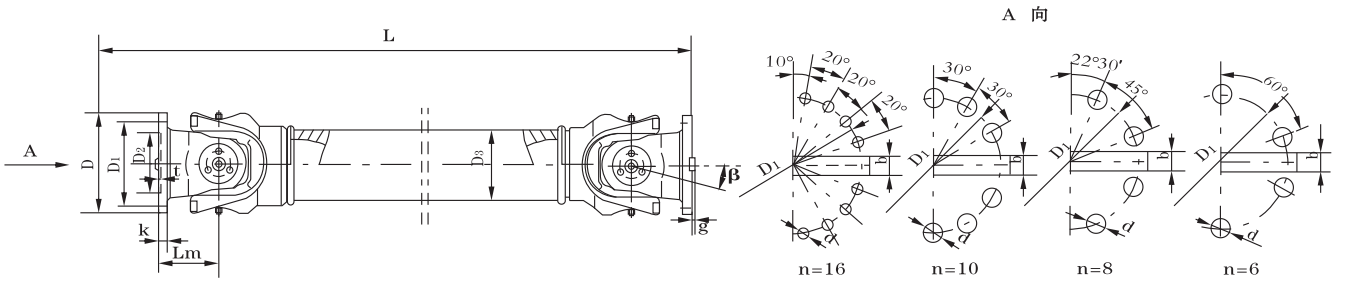
Tf–Under the alternation load the torque which permits according to the fatigue strength
L_{min}–The least length after cut
L–install length,which according to the requirement

SWC–BH标准伸缩焊接式万向联轴器
SWC–BH standard flex welding type universal coupling



型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	疲劳转矩 Weary torque Tf KN·m	伸缩量 Flex quantity Ls mm	轴线折角 Axes fold angle β (°)	尺寸(mm) Size										转动惯量(I) Rotating inertia kg.m²		重量G(kg) Weight	
						Lmin	D1 (js11)	D2 (H7)	D3	Lm	n–d	k	t	b (h9)	g	Lmin	增长 Increase 100mm	Lmin	增长 Increase 100mm
SWC58BH	58	0.15	0.075	35	≤35	325	47	30	38	35	4–5	3.5	1.5	–	–	–	–	2.2	0.26
SWC65BH	65	0.25	0.125	40	≤35	360	52	35	42	40	4–6	4.5	1.7	–	–	–	–	3.0	0.29
SWC75BH	75	0.4	0.2	40	≤35	395	62	42	50	45	6–6	5.5	2	–	–	–	–	5.0	0.35
SWC90BH	90	0.75	0.375	45	≤35	435	74.5	47	54	50	4–8	6	2.5	–	–	–	–	6.6	0.35
SWCI00BH	100	1.25	0.63	55	≤25	390	84	57	60	55	6–9	7	2.5	–	–	0.0044	0.00019	6.1	0.35
SWCI20BH	120	2.5	1.25	80	≤25	485	102	75	70	65	8–11	8	2.5	–	–	0.0109	0.00044	10.8	0.55
SWCI50BH	150	5	2.5	80	≤25	590	130	90	89	80	8–13	10	3	–	–	0.0423	0.00157	24.5	0.85
SWCI80BH	180	12.5	6.3	100	≤25	810	155	105	114	110	8–17	17	5	–	–	0.1750	0.00700	70	2.8
SWC200BH	200	35.5	18	120	≤15	900	170	120	140	120	8–17	18	5	28	8	0.3765	0.0716	110	3.5
SWC225BH	225	40	20	140	≤15	920	196	135	152	120	8–17	20	5	32	9.0	0.5380	0.0234	122	4.9
SWC250BH	250	63	31.5	140	≤15	1035	218	150	168	140	8–19	25	6	40	12.5	0.9660	0.0277	172	5.3
SWC285BH	285	90	45	140	≤15	1190	245	170	194	160	8–21	27	7	40	15.0	2.0110	0.0510	263	6.3
SWC315BH	315	125	63	140	≤15	1315	280	185	219	180	10–23	32	8	40	15.0	3.6050	0.0795	382	8.0
SWC350BH	350	180	90	150	≤15	1410	310	210	267	194	10–23	35	8	50	16.0	7.0530	0.2219	582	15.0
SWC390BH	390	250	125	170	≤15	1590	345	235	267	215	10–25	40	8	70	18.0	12.164	0.2219	738	15.0
SWC440BH	440	355	180	190	≤15	1875	390	255	325	260	16–28	42	10	80	20.0	21.420	0.4744	1190	21.7
SWC490BH	490	500	250	190	≤15	1985	435	275	325	270	16–31	47	12	90	22.5	32.860	0.4744	1452	21.7
SWC550BH	550	710	355	240	≤15	2300	492	320	426	305	16–31	50	12	100	22.5	68.920	1.3570	2380	34.0

SWC–WH无伸缩焊接式万向联轴器
SWC–WH without flex welding type universal coupling



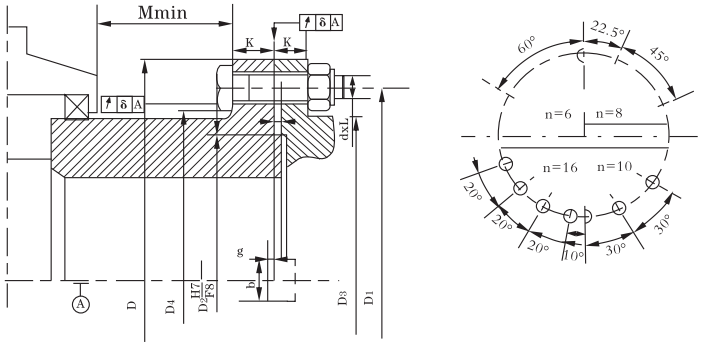
型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	疲劳转矩 Weary torque Tf Kn·m	轴线折角 Axes fold angle β (°)	尺寸(mm) Size										转动惯量(I) Rotating inertia kg.m²		重量G(kg) Weight	
					Lmin	D1 (js11)	D2 (H7)	D3	Lm	n–d	k	t	b (h9)	g	Lmin	增长 Increase 100mm	Lmin	增长 Increase 100mm
SWC58WH	58	0.15	0.075	≤35	280	47	30	38	35	4–5	3.5	1.5	–	–	–	–	1.9	0.26
SWC65WH	65	0.25	0.125	≤35	310	52	35	42	40	4–6	4.5	1.7	–	–	–	–	2.8	0.29
SWC75WH	75	0.4	0.2	≤35	340	62	42	50	45	6–6	5.5	2	–	–	–	–	4.6	0.35
SWC90WH	90	0.75	0.375	≤35	380	74.5	47	54	50	4–8	6	2.5	–	–	–	–	6.8	0.35
SWCl00WH	100	1.25	0.63	≤25	243	84	57	60	55	6–9	7	2.5	–	–	0.0039	0.00019	4.5	0.35
SWCl20WH	120	2.5	1.25	≤25	307	102	75	70	65	8–11	8	2.5	–	–	0.0096	0.00044	7.7	0.55
SWCl50WH	150	5	2.5	≤25	350	130	90	89	80	8–13	10	3	–	–	0.0371	0.00157	18	0.85
SWCl80WH	180	12.5	6.3	≤25	480	155	105	114	110	8–17	17	5	–	–	0.1500	0.00700	48	2.8
SWC200WH	200	35.5	18	≤15	520	170	120	140	120	8–17	18	5	28	8	0.2849	0.0116	70	3.5
SWC225WH	225	40	20	≤15	520	196	135	152	120	8–17	20	5	32	9.0	0.3650	0.0234	78	4.9
SWC250WH	250	63	31.5	≤15	620	218	150	168	140	8–19	25	6	40	12.5	0.8470	0.0277	124	5.3
SWC285WH	285	90	45	≤15	720	245	170	194	160	8–21	27	7	40	15.0	1.7560	0.0510	185	6.3
SWC315WH	315	125	63	≤15	805	280	185	219	180	10–23	32	8	40	15.0	2.8930	0.0795	262	8.0
SWC350WH	350	180	90	≤15	875	310	210	267	194	10–23	35	8	50	16.0	5.0130	0.2219	374	15.0
SWC390WH	390	250	125	≤15	955	345	235	267	215	10–25	40	8	70	18.0	8.4060	0.2219	506	15.0
SWC440WH	440	355	180	≤15	1155	390	255	325	260	16–28	42	10	80	20.0	15.790	0.4744	790	21.7
SWC490WH	490	500	250	≤15	1205	435	275	325	270	16–31	47	12	90	22.5	26.540	0.4744	1014	21.7
SWC550WH	550	710	355	≤15	1355	492	320	426	305	16–31	50	12	100	22.5	48.320	1.3570	1526	34.0

附录A Addenda A

◇SWC型万向联轴器的连接方法与尺寸

万向联轴器通过高强度螺栓及螺母把两端的法兰联接在其他相配件上。其相配件的联接尺寸及螺栓预紧力按下列图表的规定。联接螺栓只能从相配件的法兰侧装入，螺母由另一侧预紧，其螺栓的机械性能为10.9级，螺母的机械性能为10级。

Universal Couplings joints flanges on the two ends by the high strength bolt and the nut.the beginnings and ends flange joint onother fittings.It fittings joint size and bolt pre–tight strength according to the following graph stipulations.Joins the bolt only can load from the fitting flange side , the nut is pre–tight by another side,its bolt machine capability is 10.9 levels,the nut machine capability is 10 levels.



型号 Type	回转直径 Gyration diameter D mm	螺栓数 The bolt spec n	螺栓规格 The bolt amount d*L mm	预紧力矩 Pre–tight moment Ta N.m	D_1 (js11)	尺寸(mm) Size								
						D_2 (f8)	D_3	D_4 0 (–0.3)	K	b (js8)	g ($+0.5_0$)	t	δ	m min
SWC58	58	4	M5*12	7	47	30	38	38.2	3.5	–	–	1.5	0. 03	14
SWC65	65	4	M6*16	13	52	35	42	41	4.5	–	–	1.7		18
SWC75	75	6	M6*16	13	62	42	50	51	5.5	–	–	2.0		22
SWC90	90	4	M8*20	32	74.5	47	54	60.5	6		–	2.5		24
SWCI00	100	6	M8*25	32	84	57	63.5	70.5	7	–	–	2.3° $_{-0.2}$	0. 05	30.5
SWCI20	120	8	M10*30	64	102	75	76	84	8	–	–			36.8
SWCI50	150	8	M12*40	111	130	90	95	110.3	10	–	–			40.8
SWCI80	180	8	M16*60	270	155	105	128	130.5	17	–	–	4° $_{-0.2}$	0. 06	70.5
SWC200	200	8	M16*65	270	120	120	140	144	18	28	8.5			72.5
SWC225	225	8	M16*65	270	196	135	159	171	20	32	9.5			75.5
SWC250	250	8	M18*75	372	218	150	176	190	25	40	13.0	5° $_{-0.2}$		87.0
SWC285	285	8	M20*80	526	245	170	199	214	27	40	15.5	6° $_{-0.5}$		93.0
SWC315	315	10	M22*95	710	280	185	231	247	32	40	15.5	7° $_{-0.5}$		109.5
SWC350	350	10	M22*100	710	310	210	261	277	35	50	16.5			114.5
SWC390	390	10	M24*120	906	345	235	290	308	40	70	18.5			135.5
SWC440	440	16	M27*120	1340	390	255	325	347	42	80	20.5	9° $_{-0.5}$	0. 1	137.5
SWC490	490	16	M30*140	1820	435	275	360	387	47	90	23.0	11° $_{-0.5}$		159.5
SWC550	550	16	M30*140	1820	492	320	420	444	50	100	23.0			159.5
SWC620	620	10	M30*160	3170	555	380	468	498	55	100	25.5			183.0

附录B Addenda B

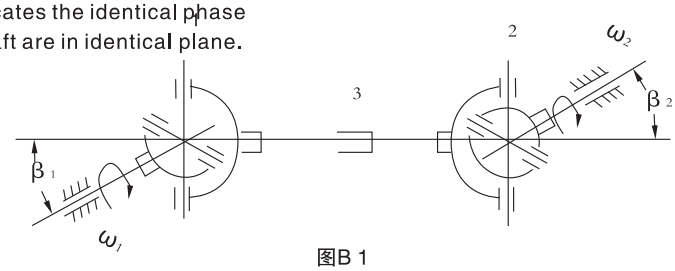
◇万向联轴器选用说明（参考件）

1、本标准规定的万向联轴器由两个万向节和一根中间轴所构成，如图B1。为使主、从动轴的角速度相等，即Ω1=ω2，须满足下列三个条件：

This standing Universal Coupling is made up of two universal joints and one middle countershaft,In order to cause the quality angular speed from the host to the moving axis,that must satisfy the following three conditions:

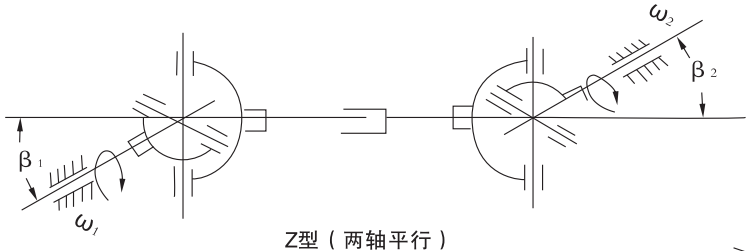
a、中间轴与主、从动轴间的节点倾角相等，即β1=β2；
b、中间轴两端的叉头位于同一相位；
c、主、从动轴与中间轴的中心线在同一平面内。

a. The note obliquity of middle countershaft，host and moving axis must be equal. β1=β2
b. The beginnings and ends jaw of middle countershaft locates the identical phase
c. Center line of host，moving axis and middle countershaft are in identical plane.

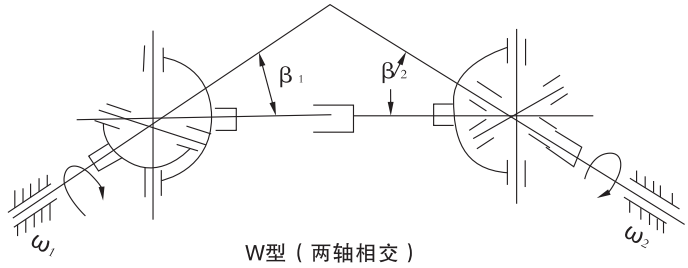


图B 1
1、2–万向节；3–中间轴

2、万向联轴器的安装型式按其轴线相互位置一般为Z型和W型，如图B2



Z型（两轴平行）



W型（两轴相交）

图 B2

3、万向联轴器应根据载荷特性、计算转矩、轴承寿命及工作转速选用。
Universal Coupling should according to the load characteristic，the computational torque，axletree life and the work rotational speed to selects

4、计算转矩由式（1）、式（2）和式（3）求出：

$$Tc=KT \quad \cdots\cdots (1)$$

$$T=9550\frac{Pw}{n} \quad \cdots\cdots (2)$$

$$T=7020\frac{PN}{n} \quad \cdots\cdots (3)$$

式中：T——理论转矩，N·m；　　T—theory torque
Tc——计算转矩，N·m；　　T_c—computational torque，
Pw——驱动功率，kW；　　P_w—drive power，kw
PN——驱动功率，马力，　　Pn—drive power，horsepower
n——工作转速 r／min；　　n—work speed
K——工作情况系数，见表B1。　　K—The working condition coefficient，Following shows B1

表B1 工作情况系数K

负荷性质 Tmpact load kind	设备名称 Name of Equipment	K	负荷性质 Impact load kind	设备名称 Name 0f Equipment	K
轻冲击负荷 light impact load	发电机electrical machine 离心泵centrifugal pump 通风机fanner 木工机床wood working machine 皮带运输机belt transport machine 造纸机paper machine	1.1~1.3	重冲击负荷 heavy impact load	压缩机(单缸) Compressor(simplex) 活塞泵piston pump(single plunger) (单柱塞)搅拌机mixer 压力机press machine 矫直机correct 起重机主传机straight machine,hoist 球磨机 crane main biography machine,ball	2~3
中冲击负荷 middle impact load	压缩机(多缸) compressor(multi–cylinders) 活塞泵(多柱塞) the piston pump(multi—plungers) 小型型钢轧机 small style steel rolling mill 连续线材轧机 continuously wire rolling mill 运输机械主传机 transportation machine main part	1.3~1.8	特重冲击负荷 special heavy impact load	起重机输助传动 Hoist crane transmission, 破碎机breaker 可逆工作辊道reversible oller belt 卷取机broken scale machine 破鳞机初轧机	3~5
重冲击负荷 heavy impact loa	船舶驱动 ships drive 运输辊道 transportation roller belt 连续管轧机 continuously canal rolling mill 连续工作辊道 continuously roller belt 中型型钢轧机 medium style steel rolling mill	2~3	极重冲击负荷 extremely heavy impact load	机架辊道 Machine roller belt 厚板剪切机 thick board cut machine	6~15

5、一般情况下按传递转矩和轴承寿命选择万向联轴器，但也可根据机械设备的具体使用要求，只校核强度或轴承寿命。

5. Under the common situation, we choose universal couple according to the transmission torque and axletree life, but also may act according to the concrete operation requirements of the mechanical device, only examines the intensity or axletree life.

5.1 强度校核
intensity examination

按式(4)进行强度校核
axletree life examination

$$T_c \leqslant T_n \text{或} T_c \leqslant T_f \text{或} T_c \leqslant T_p \quad \cdots\cdots\cdots\cdots\cdots\cdots (4)$$

式中：T_c——计算转矩，N·m；Computation torque,
Tn——公称转矩，N·m；Nominal torque
T_f——在交变负荷下按疲劳强度所允许的转矩N·m；
Under the alternation load the torque which permits according to the fatigue strength;
T_p——在脉动负荷下按疲劳强度所允许的转矩，N·m；
Under the pulse load the torque which permits according to the fatigue strength

$$T_p = 1.45 T_f$$

附录B 万向联轴器选用说明(参考件)
Addenda B selects explains Universal Coupling (reference)

5.2 轴承寿命校核

axletree life examination

按式(5)进行轴承寿命校核:

axletree life examination：

$$Ln=\frac{K_L}{K_1 n \beta T^{10/3}} X10^{10} \quad \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots (5)$$

式中：LN--使用寿命，h；

n--工作转速，r／min；

β--工作时的节点倾角,(°)；

T--理论转矩，KN·m；

K1--原动机系数；

电动机：$K_1=1$；

柴油机：$K_1=1.2$；

K_L--轴承容量系数，见表B2。

LN–Service life，

N--work speed.

β–Working point obliquity

T–theory torque

K1–original machine coefficient,

the electric motor：$k_1=1$

Diesel:$K_1=1.2$

K_L–axletree capability coefficient

表B2 轴承容量系数KL

型号 Type	K_L	型号 Type	K_L
SWCI00	0.26×10^{-3}	SWC315	108
SWCI20	0.92×10^{-3}	SWC350	370
SWCI50	0.18×10^{-1}	SWC390	1010
SWCI80	0. 66	SWC440	3010
SWC225	1. 99	SWC490	8.58×10^{3}
SWC250	9. 97	SWC550	23.68×10^{3}
SWC285	35. 9	SWC620	77.68×10^{3}

6、当水平、垂直面同时有节点倾角时，其合成节点倾角按式(6)计算：

when horizontal，vertical plane both have point obliquities，its synthesis point obliquities according to the following type to compute:

$$Tg\beta=\sqrt{tg^2\beta_1+tg^2\beta_2} \quad \cdots\cdots\cdots\cdots\cdots\cdots (6)$$

式中：β--合成节点倾角,(°)；β–point obliquities according;

β_1--水平面的节点倾角,(°)；β_1–point obliquities of horizontal plane;

β_2--垂直面的节点倾角,(°)。β_2–point obliquities of vertical plane;

7、万向联轴器除按转矩、寿命选择外，当回转直径小于(或等于)390mm时，还应按式(7)、式(8)校核最大转速。

Except that choose by the torque，the life，when the rotation diameter is smaller than(or is equal to)390MM，but also should examine greatest rotational speed.

$$N_{max}\leqslant(n\beta)\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots(7)$$

$$n_{max}\leqslant(nL)\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots(8)$$

式中：n_{max}--最大工作转速，r／min；

(nβ)--与工作倾角有关的最大许用转速，r／min；

(nL)--与工作长度有关的最大许用转速，r／min。

n_{max}–The highest work speed

(nβ)–the biggest allow rotate speed is related with the working obliquity。

(nL)–the biggest allow rotate speed is related with the working time

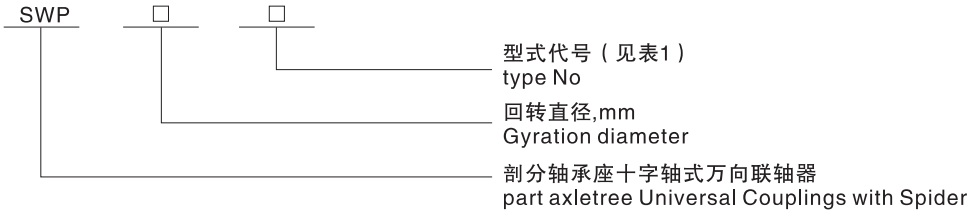
SWP型剖分轴承座十字轴式万向联轴器（JB/T3241–91）
SWP type part axletree Universal Couplings with Spider

SWP型剖分轴承座十字轴式万向联轴器，主要适用于轧制机械、起重运输机械以及其他重型机械，联接两个不同轴线的传动轴系。其回转直径为160～640mm；公称转矩为16～1250kN.m; 轴线折角A～F型≤10°，G型≤5°。

Part axletree Universal Couplings with Spider，is mainly used in rolling mill，hoisting and other heavy machinery，links two transmission shaft with different axis. It‘s gyration diameter 160～640，Nominal torque is 1 6–1250 kN. axes fold angleis A～F≤1 0°，G≤5°。

1、型式、基本参数与尺寸
types，basic parameters and size

1.1万向联轴器型号Type of Universal Couplings with Spider



1.2 标记示例

marking examples：

回转直径D=315mm，安装长度L=1800mm，E型有伸缩双法兰长型万向联轴器

SWP 315Ex1800联轴器 JB3241–91

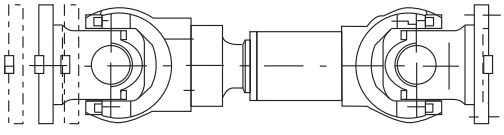
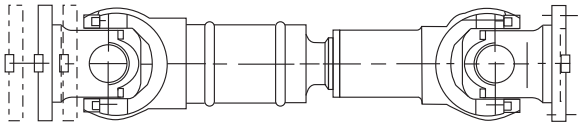
Gyration diameter D=315mm install length L=1800mm E type long flex double flange type

SWP 315Exl800 Couplings with Spider Jb3241–91

1.3 型式分为以下七种，见下表1。

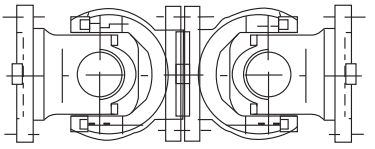
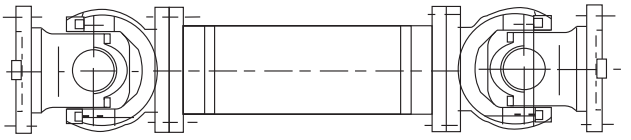
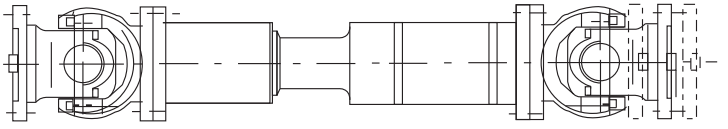
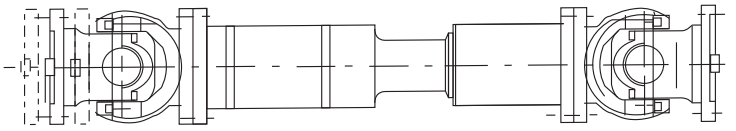
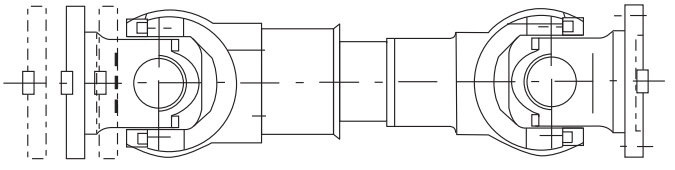
There are 7 types, see the below:

表1

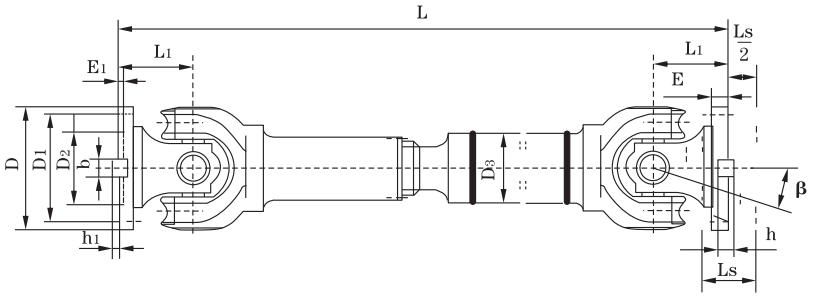
型号代号 type No	名称 Name	图示 Figure
A	有伸缩长型 Long flex type	
B	有伸缩短型 Short flex type	

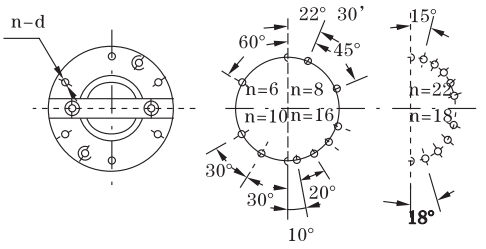
SWP型剖分轴承座十字轴式万向联轴器（JB/T3241–91）
SWP type part axletree Universal Couplings with Spider

表1续

型号代号 type No	名称 Name	图示 Figure
C	无伸缩短型 Short without flex type	
D	无伸缩长型 Long without flex type	
E	有伸缩 双法兰长型 long flex double flange type	
F	大伸缩长型 Long big flex type	
G	有伸缩超短型 Super short flex type	

SWP–A型–有伸缩长型万向联轴器
SWP–A type–Long flex type universal joint coupling



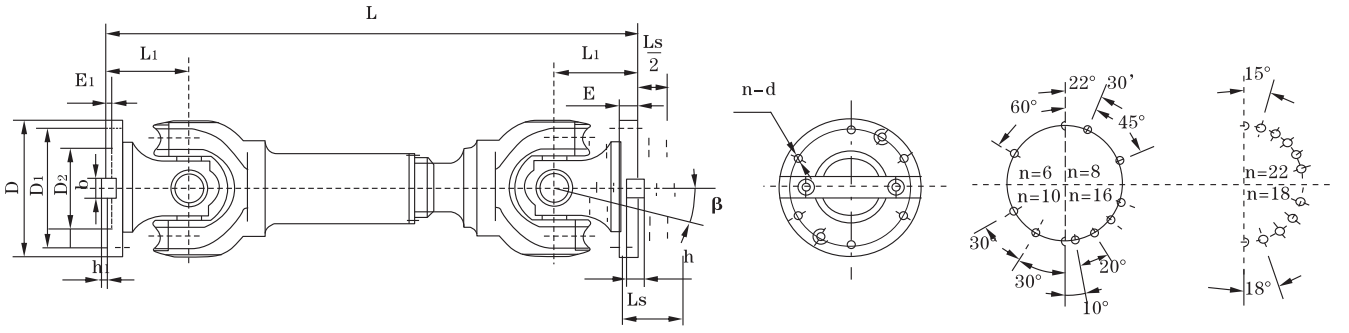


型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN.m	疲劳转矩 Weary torque Tf KN.m	伸缩量 Flex quantity Ls mm	轴线折角 Axes fold angle β	尺寸(mm) Size										转动惯量(I) Rotating inertia kg.m²		重量G(kg) Weight	
						Lmin	D1 (js11)	D2 (H7)	D3	E	E1	bXh	h1	L1	n–d	Lmin	增长 Increase 100mm	Lmin	增长 Increase 100mm
SWPI60A	160	16	8	50	≤10	660	140	95	114	15	4	20×12	6	85	6–13	0.13	0.0055	47	2.1
SWPI80A	180	20	10	60	≤10	752	155	105	121	15	4	24×14	7	95	6–15	0.22	0.0072	60	2.3
SWP200A	200	31.5	16	70	≤10	823	175	125	127	17	5	28×16	8	110	8–15	0.37	0.0114	81	3.4
SWP225A	225	40	20	76	≤10	933	196	135	152	20	5	32×18	9	130	8–17	0.63	0.0290	109	6.6
SWP250A	250	63	31.5	80	≤10	978	218	150	168	25	5	40×25	12.5	135	8–19	1.02	0.0407	147	7.3
SWP285A	285	90	45	100	≤10	1133	245	170	194	27	7	40×30	15	150	8–21	2.17	0.0702	241	9.4
SWP315A	315	140	63	110	≤10	1250	280	185	219	32	7	40×30	15	170	10–23	3.86	0.1144	322	12.0
SWP350A	350	180	90	120	≤10	1380	310	210	245	35	8	50×32	16	185	10–23	6.66	0.1663	428	13.6
SWP390A	390	250	112	120	≤10	1495	345	235	273	40	8	70×36	18	205	10–25	11.53	0.2695	566	18.0
SWP435A	435	355	160	150	≤10	1710	385	255	299	42	10	80X40	20	235	16–28	21.81	0.3645	932	20.0
SWP480A	480	450	224	170	≤10	1910	425	275	351	47	12	90×45	22.5	265	16–31	38.04	0.7028	1294	28.0
SWP550A	550	710	315	190	≤10	2135	492	320	402	50	12	100×45	22.5	290	16–31	61.28	1.1842	1744	35.7
SWP600A	600	1000	500	210	≤10	2580	544	380	450	55	15	90×55	27.5	360	22–34	98.63	1.7159	2330	40.5
SWP640A	640	1250	630	230	≤10	2685	575	385	480	60	15	100×60	30	385	18–38	167.67	2.3080	3153	48.3

注：标记示例：回转直径D=315mm，安装长度L=1800mm，A型有伸缩长型万向联轴器。
SWP31 5A×1 800联轴器

Note：marking examples: gyration diameter D=315mm, installment length L=1800mm, A type long flex universal coupling.
SWP315A×1800 coupling

SWP–B型–有伸缩短型万向联轴器
SWP–B type–Short flex type universal joint coupling

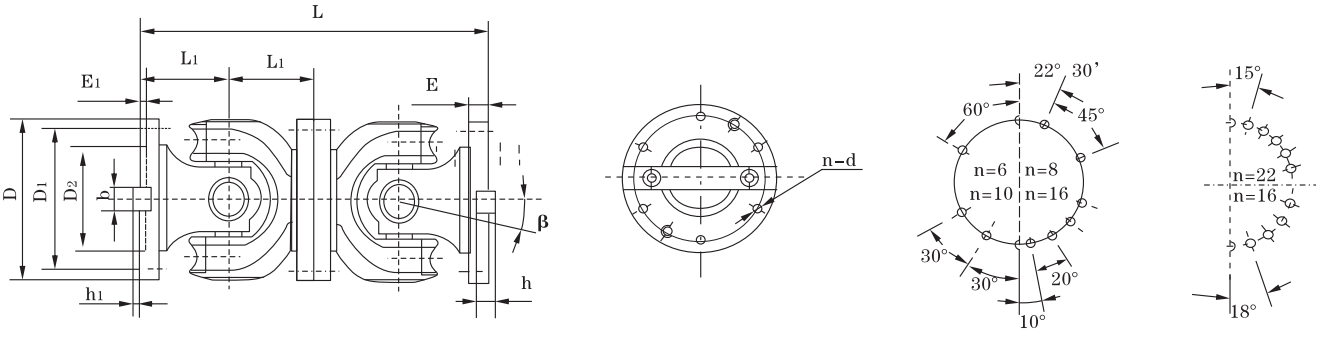


型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	疲劳转矩 Weary torque Tf KN·m	伸缩量 Flex quantity Ls mm	轴线折角 Axes fold angle β (°)	尺寸(mm) Size									转动惯量(I) Rotating inertia kg.m²	重量G(kg) Weight
						Lmin	D1 (js11)	D2 (H7)	E	E1	bXh	h1	L1	n–d	增长 Increase 100mm	增长 Increase 100mm
SWPI60B	160	16	8	50	≤10	585	140	95	15	4	20×12	6	85	6–13	0.14	44
SWPI80B	180	20	10	60	≤10	640	155	105	15	4	24×14	7	95	6–15	0.23	56
SWP200B	200	31.5	16	70	≤10	730	175	125	17	5	28×16	8	110	8–15	0.36	75
SWP225B	225	40	20	76	≤10	830	196	135	20	5	32×18	9	130	8–17	0.61	108
SWP250B	250	63	31.5	80	≤10	860	218	150	25	5	40×25	12.5	135	8–19	0.98	138
SWP285B	285	90	45	100	≤10	1000	245	170	27	7	40×30	15	150	8–21	2.12	229
SWP315B	315	140	63	110	≤10	1120	280	185	32	7	40×30	15	170	10–23	3.80	309
SWP350B	350	180	90	120	≤10	1230	310	210	35	8	50×32	16	185	10–23	6.60	408
SWP390B	390	250	112	120	≤10	1310	345	235	40	8	70×36	18	205	10–25	10.50	539
SWP435B	435	355	160	150	≤10	1555	385	255	42	10	80X40	20	235	16–28	22.39	903
SWP480B	480	450	224	170	≤10	1740	425	275	47	12	90×45	22.5	265	16–31	38.21	1243
SWP550B	550	710	315	190	≤10	1905	492	320	50	12	100×45	22.5	290	16–31	61.00	1643
SWP600B	600	1000	500	210	≤10	2600	544	380	55	15	90×55	27.5	360	22–34	99.13	2335
SWP640B	640	1250	630	230	≤10	2780	575	380	60	15	100×60	30	385	18–38	170.21	2720

注：标记示例：回转直径D=315mm，安装长度L=1120mm，B型有伸缩短型万向联轴器。
SWP315B×1120联轴器

Note：marking examples: gyration diameter D=315mm, installment lengthL=1120mm, B type short flex universal coupling.
SWP315B×1120 coupling

SWP–C型–无伸缩短型万向联轴器
SWP–C type–Short without flex type universal joint coupling

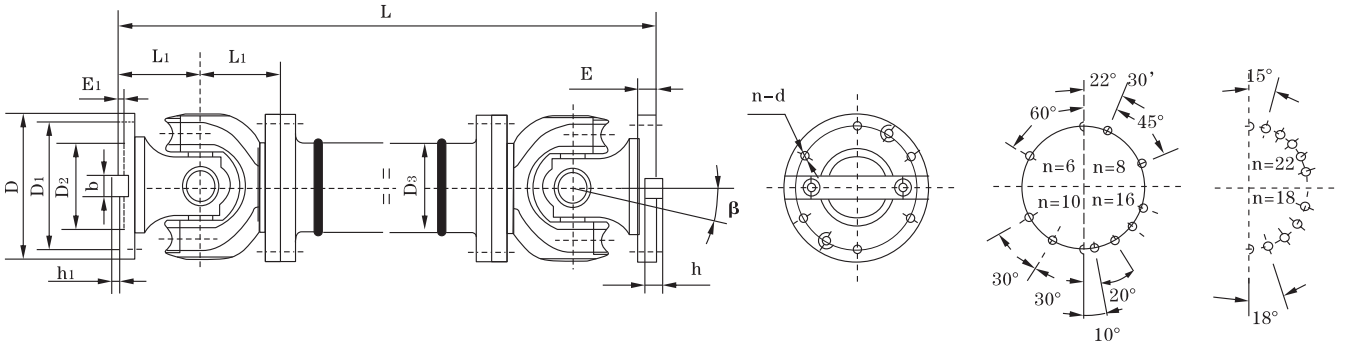


型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	疲劳转矩 Weary torque Tf Kn·m	轴线折角 Axes fold angle β (°)	尺 寸 (mm) Size									转动惯量 (I) Rotating inertia kg.m²	重量G (kg) Weight
					Lmin	D1 (js11)	D2 (H7)	E	E1	bXh	h1	L1	n–d	增长 Increase 100mm	增长 Increase 100mm
SWPI60C	160	16	8	≤10	340	140	95	15	4	20×12	6	85	6–13	0.11	31
SWPI80C	180	20	10	≤10	380	155	105	15	4	24×14	7	95	6–15	0.17	42
SWP200C	200	31.5	16	≤10	440	175	125	17	5	28×16	8	110	8–15	0.29	59
SWP225C	225	40	20	≤10	520	196	135	20	5	32×18	9	130	8–17	0.51	80
SWP250C	250	63	31.5	≤10	540	218	150	25	5	40×25	12.5	135	8–19	0.93	119
SWP285C	285	90	45	≤10	600	245	170	27	7	40×30	15	150	8–21	1.88	179
SWP315C	315	140	63	≤10	680	280	185	32	7	40×30	15	170	10–23	2.88	232
SWP350C	350	180	90	≤10	740	310	210	35	8	50×32	16	185	10–23	4.59	300
SWP390C	390	250	112	≤10	820	345	235	40	8	70×36	18	205	10–25	8.64	432
SWP430C	430	355	160	≤10	940	385	255	42	10	80X40	20	235	16–28	17.41	688
SWP480C	480	450	224	≤10	1060	425	275	47	12	90×45	22.5	265	16–31	28.25	904
SWP550C	550	710	315	≤10	1160	492	320	50	12	100×45	22.5	290	16–31	49.49	1309
SWP600C	600	1000	500	≤10	1440	544	380	55	15	90×55	27.5	360	22–34	87.17	1377
SWP640C	640	1250	630	≤10	1540	575	385	60	15	100×60	30	385	18–38	152.76	2635

注：标记示例：回转直径D=315mm，安装长度L=680mm，C型无伸缩短型万向联轴器。
SWP315C×680联轴器

Note: marking examples: gyration diameter D=315mm, installment length L=680mm, C type–Short without flex type.
SWP315Cx680 coupling

SWP–D型–无伸缩长型万向联轴器
SWP–D –Long without flex type universal joint coupling

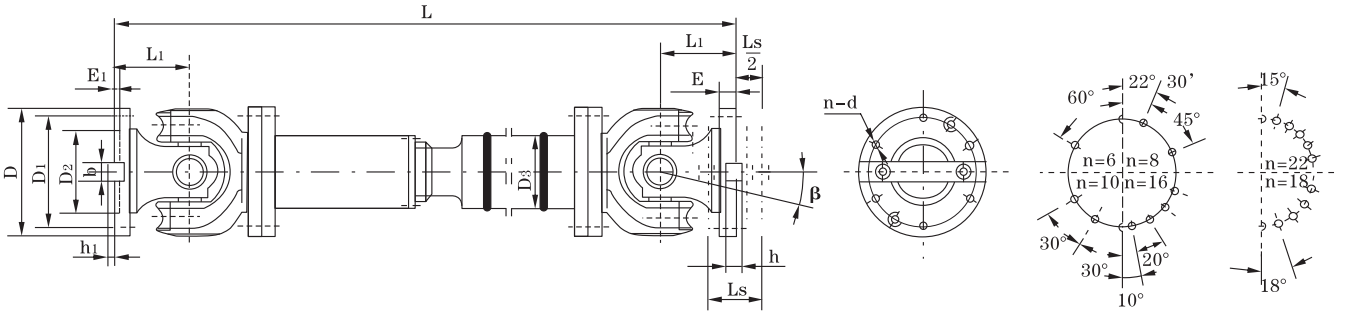


型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	疲劳转矩 Weary torque Tf Kn·m	轴线折角 Axes fold angle β (°)	尺寸(mm) Size										转动惯量(I) Rotating inertia kg.m²		重量G(kg) Weight	
					Lmin	D1 (js11)	D2 (H7)	D3	E	E1	bXh	h1	L1	n–d	Lmin	增长 Increase 100mm	Lmin	增长 Increase 100mm
SWPI60D	160	16	8	≤10	430	140	95	114	15	4	20×12	6	85	6–13	0.09	0.0059	35	2.1
SWPI80D	180	20	10	≤10	474	155	105	121	15	4	24×14	7	95	6–15	0.16	0.0072	47	2.3
SWP200D	200	31.5	16	≤10	544	175	125	127	17	5	28×16	8	110	8–15	0.28	0.0114	67	3.4
SWP225D	225	40	20	≤10	636	196	135	152	20	5	32×18	9	130	8–17	0.53	0.0290	94	6.6
SWP250D	250	63	31.5	≤10	690	218	150	168	25	5	40×25	12.5	135	8–19	0.91	0.0407	140	7.3
SWP285D	285	90	45	≤10	760	245	170	194	27	7	40×30	15	150	8–21	1.91	0.0702	206	9.4
SWP315D	315	140	63	≤10	860	280	185	219	32	7	40×30	15	170	10–23	3.39	0.1144	271	12.0
SWP350D	350	180	90	≤10	940	310	210	245	35	8	50×32	16	185	10–23	5.35	0.1663	355	13.6
SWP390D	390	250	112	≤10	1060	345	235	273	40	8	70×36	18	205	10–25	10.54	0.2695	501	18.0
SWP435D	435	355	160	≤10	1180	385	255	299	42	10	80X40	20	235	16–28	18.56	0.3645	825	20.0
SWP480D	480	450	224	≤10	1360	425	275	351	47	12	90×45	22.5	265	16–31	31.69	0.7028	1144	28.0
SWP550D	550	710	315	≤10	1460	492	320	402	50	12	100×45	22.5	290	16–31	51.45	1.1842	1589	35.7
SWP600D	600	1000	500	≤10	1840	544	380	450	55	15	90×55	27.5	360	22–34	83.53	1.7159	2243	40.5
SWP640D	640	1250	630	≤10	1980	575	385	480	60	15	100×60	30	385	18–38	135.60	2.3080	3140	48.3

注：标记示例：回转直径D=315mm，安装长L=900mm，D型无伸缩长型万向联轴器。
SWP315D×900联轴器

Note：marking examples: gyration diameter D=315mm, installment length L=900mm, D type–long without flex type.
SWP315D×900 coupling

SWP–E型–有伸缩双法兰长型万向联轴器
SWP–E type–Long flex double flange type universal joint coupling

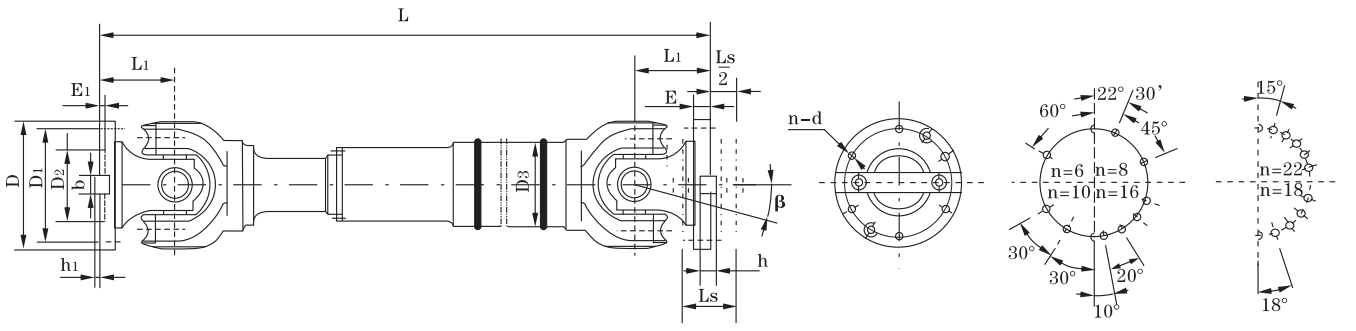


型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	疲劳转矩 Weary torque Tf KN·m	伸缩量 Flex quantity Ls mm	轴线折角 Axes fold angle β (°)	尺寸(mm) Size										转动惯量(I) Rotating inertia kg.m²		重量G(kg) Weight	
						Lmin	D1 (js11)	D2 (H7)	D3	E	E1	bXh	h1	L1	n–d	Lmin	增长 Increase 100mm	Lmin	增长 Increase 100mm
SWPI60E	160	16	8	50	≤10	715	140	95	114	15	4	20×12	6	85	6–13	0.15	0.0059	49	2.1
SWPI80E	180	20	10	60	≤10	800	155	105	121	15	4	24×14	7	95	6–15	0.25	0.0072	69	2.3
SWP200E	200	31.5	16	70	≤10	880	175	125	127	17	5	28×16	8	110	8–15	0.42	0.0114	81	3.4
SWP225E	225	40	20	76	≤10	1000	196	135	152	20	5	32×18	9	130	8–17	0.75	0.0290	108	6.6
SWP250E	250	63	31.5	80	≤10	1055	218	150	168	25	5	40×25	12.5	135	8–19	1.26	0.0407	179	7.3
SWP285E	285	90	45	100	≤10	1210	245	170	194	27	7	40×30	15	150	8–21	2.67	0.0702	285	9.4
SWP315E	315	140	63	110	≤10	1345	280	185	219	32	7	40×30	15	170	10–23	4.38	0.1144	375	12.0
SWP350E	350	180	90	120	≤10	1480	310	210	245	35	8	50×32	16	185	10–23	7.42	0.1663	488	13.6
SWP390E	390	250	112	120	≤10	1623	345	235	273	40	8	70×36	18	205	10–25	13.27	0.2695	662	18.0
SWP435E	435	355	160	150	≤10	1860	385	255	299	42	10	80X40	20	235	16–28	24.62	0.3645	1107	20.0
SWP480E	480	450	224	170	≤10	2122	425	275	351	47	12	90×45	22.5	265	16–31	42.81	0.7028	1302	28.0
SWP550E	550	710	315	190	≤10	2338	492	320	402	50	12	100×45	22.5	290	16–31	68.81	1.1842	2140	35.7
SWP600E	600	1000	500	210	≤10	2930	544	380	450	55	15	90×55	27.5	360	22–34	110.60	1.7159	2703	40.5
SWP640E	640	1250	630	230	≤10	3170	575	385	480	60	15	100×60	30	385	18–38	177.77	2.3080	3719	48.3

注：标记示例：回转直径D=315mm，安装长度L=1800mm，E型有伸缩双法兰长型万向联轴器。
SWP315E×1800联轴器

Note：marking examples: gyration diameter D=315mm, installment length L=1800mm, E type–long flex double flange type.
SWP315E×1800 coupling

SWP–F型–大伸缩长型万向联轴器
SWP–F type–Long big flex type universal joint coupling

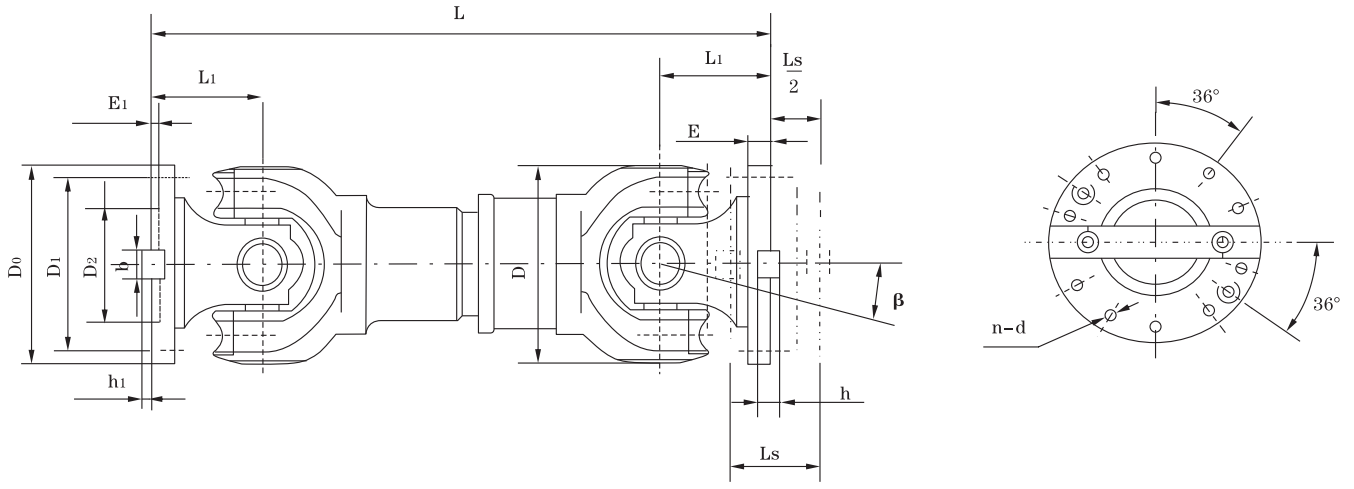


型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	疲劳转矩 Weary torque Tf KN·m	伸缩量 Flex quantity Ls mm	轴线折角 Axes fold angle β (°)	尺寸(mm) Size										转动惯量(I) Rotating inertia kg.m²		重量G(kg) Weight	
						Lmin	D1 (js11)	D2 (H7)	D3	E	E1	bXh	h1	L1	n–d	Lmin	增长 Increase 100mm	Lmin	增长 Increase 100mm
SWPI60F	160	16	8	150	≤10	770	140	95	114	15	4	20×12	6	85	6–13	0.14	0.0059	51	2.1
SWPI80F	180	20	10	170	≤10	830	155	105	121	15	4	24×12	7	95	6–15	0.23	0.0072	64	2.3
SWP200F	200	31.5	16	190	≤10	950	175	125	127	17	5	28×16	8	110	8–15	0.40	0.0114	88	3.4
SWP225F	225	40	20	210	≤10	1070	196	135	152	20	5	32×18	9	130	8–17	0.66	0.0290	120	6.6
SWP250F	250	63	31.5	220	≤10	1110	218	150	168	25	5	40×25	12.5	135	8–19	1.06	0.0407	158	7.3
SWP285F	285	90	45	240	≤10	1270	245	170	194	27	7	40×30	15	150	8–21	2.24	0.0702	255	9.4
SWP315F	315	140	63	270	≤10	1410	280	185	219	32	7	40×30	15	170	10–23	3.99	0.1144	344	12.0
SWP350F	350	180	90	290	≤10	1540	310	210	245	35	8	50×32	16	185	10–23	6.90	0.1663	460	13.6
SWP390F	390	250	112	315	≤10	1680	345	235	273	40	8	70×36	18	205	10–25	11.90	0.2695	600	18.0
SWP435F	435	355	160	335	≤10	1880	385	255	299	42	10	80×40	20	235	16–28	22.41	0.3645	985	20.0
SWP480F	480	450	224	350	≤10	2000	425	275	351	47	12	90×45	22.5	265	16–31	39.09	0.7028	1356	28.0
SWP550F	550	710	315	360	≤10	2230	492	320	402	50	12	100×45	22.5	290	16–31	62.12	1.1842	1785	35.7
SWP600F	600	1000	500	370	≤10	2800	544	380	450	55	15	90×55	27.5	360	22–34	100.48	1.7159	2403	40.5
SWP640F	640	1250	630	380	≤10	2920	575	385	480	60	15	100×60	30	385	18–38	168.28	2.3080	3207	48.3

注：标记示例：回转直径D=315mm，安装长度L=1600mm，F型大伸缩长型万向联轴器。
SWP315F×1600联轴器

Note：marking examples: gyration diameter D=315mm, installment length L=1600mm, F type–Long big flex type.
SWP315F×1600 coupling

SWP–G型–有伸缩超短型万向联轴器
SWP–G type–Super short flex type universal joint coupling



型号 Type	回转直径 Gyration diameter D mm	公称转矩 Nominal torque Tn KN·m	疲劳转矩 Weary torque Tf KN·m	伸缩量 Flex quantity Ls mm	轴线折角 Axes fold angle β (°)	尺寸(mm) Size										转动惯量(I) Rotating inertia kg.m²	重量G(kg) Weight
						Lmin	D0	D1 (js11)	D2 (H7)	E	E1	bXh	h1	L1	n–d	增长 Increase 100mm	增长 Increase 100mm
SWP225G	225	18	8	≤5	40	435	275	248	135	15	5	32×18	9	68	10–15	0.331	60
SWP250G	250	25	11.2	≤5	40	515	305	275	150	15	5	40×25	12.5	80	10–17	0.624	97
SWP285G	285	35.5	16	≤5	40	565	348	314	170	18	7	40×30	15	90	10–19	1.182	120
SWP315G	315	50	25	≤5	40	620	360	328	185	18	7	40×30	15	100	10–19	2.290	170
SWP350G	350	71	35.5	≤5	55	715	405	370	210	22	8	50×32	16	108	10–21	3.793	256

注：标记示例：回转直径D=315mm，安装长度L=620mm,G型有伸缩超短型万向联轴器。
SWP315Gx620联轴器

Note：marking examples: gyration diameter D=315mm, installment length L=620mm, G type–Short without flex type
SWP315GX620 coupling

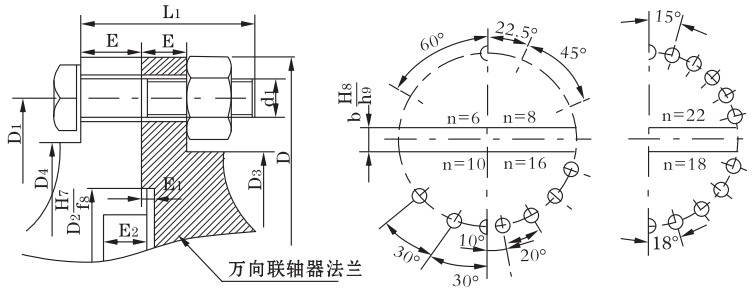
附录A Addenda A

◇SWP型万向联轴器的联接方法与尺寸

万向联轴器是用高强度螺栓及自锁螺母把两端的法兰联接在其它机械构件上的。其转矩是通过法兰端面键及法兰间的摩擦力来传递的。有关联接尺寸及螺栓预紧力矩按下图表规定。

螺栓只能从与联轴器相配的法兰侧放入，螺母由万向联轴器的法兰侧拧紧。其螺栓的机械性能应符合GB3098.1中10.9级，螺母的机械性能应符合GB3098.4中10级的规定。

The beginnings and ends flange are joined by the high strength bolt and the self–locking nut to others machine parts. Its torque is transmitted by the friction force between the flange end surface key and the flange. of . The related joint size and the bolt pre–tight moment of force see the below chart. the beginnings and ends flange are joined by the high strength bolt and the self–locking nut to others machine parts . It fitting joint size and bolt pre–tight strength according to the following graph 8 stipulations. Joins the bolt only can load from the fitting flange side, the nut is pre–tight by another side, its bolt machine capability is 10.9 levels, the nut machine capability is 10 levels.



型号 Type	回转直径 Gyration diameter D mm	螺栓数 The bolt spec n	螺栓规格 The bolt amount d1xL1 mm	预紧力矩 pre–tight moment Ma N.m	尺寸（mm） Size							
					D_1 (js11)	D_2 (f8)	D_3	D_4	E	E_1	E_2	b (H8)
SWPI60□	160	6	M12×1.5×50	110	140	95	118	121	15	3.5	12	20
SWPI80□	180	6	M14×1.5×50	180	155	105	128	133	15	3.5	13	24
SWP200□	200	8	M14×1.5×55	180	175	125	146	153	17	4.5	15	28
SWP225□	225	8	M16×1.5×65	275	196	135	162	171	20	4.5	16	32
SWP250□	250	8	M18×1.5×75	400	218	150	180	190	25	4.5	20	40
SWP285□	285	8	M20×1.5×85	570	248	170	205	214	27	6.0	23	40
SWP315□	315	10	M22×1.5×95	735	280	185	235	245	32	6.0	23	40
SWP350□	350	10	M22×1.5×100	735	310	210	260	280	35	7.0	25	50
SWP390□	390	10	M24×2×110	912	345	235	290	308	40	7.0	28	70
SWP435□	435	16	M27×2×120	1340	385	255	325	342	42	9.0	32	80
SWP480□	480	16	M30×2×130	1820	425	275	370	377	47	11	36	90
SWP550□	550	16	M30×2×140	1820	492	320	435	444	50	11	36	100
SWP600□	600	22	M33×2×150	2440	544	380	480	492	55	13	43	90
SWP640□	640	18	M36×3×165	3170	575	385	505	518	60	13	45	100

注：□表示A、B、C、D、E、F、 G中任意一个型式。 □show anyone type of A、B、C、D、E、F、G.

◇1、本标准的万向联轴器是由两个单万向联轴器(1和2)和一根中间轴(3）所组成的双万向联轴器，如图B1。要使主动轴、从动轴角速度相等，即$\omega_1=\omega_2$，必须满足以下三个条件：

a. 中间轴与主动轴、从动轴间的折角相等，即$\beta_1=\beta_2$；

b. 中间轴两端的叉头在同一平面内；

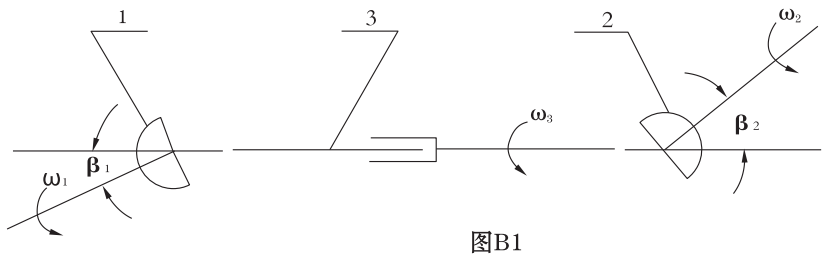
c. 中间轴与主动轴、从动轴的轴线在同一平面内。

1.This standard Universal Couplings is made up of two single universal joints and one middle countershaft，which called double universal couplings.In order to cause the equality anguiar speed from the host to the moving axis，that must satisfy the following three conditions：

a. the fold angle of middle countershaft，host and moving axis must be equal.

b. the beginnings and ends jaw of middle countershaft locates the identical plane.

c. center line of host,moving axis and middle countershaft are in identical Plane.、



图B1

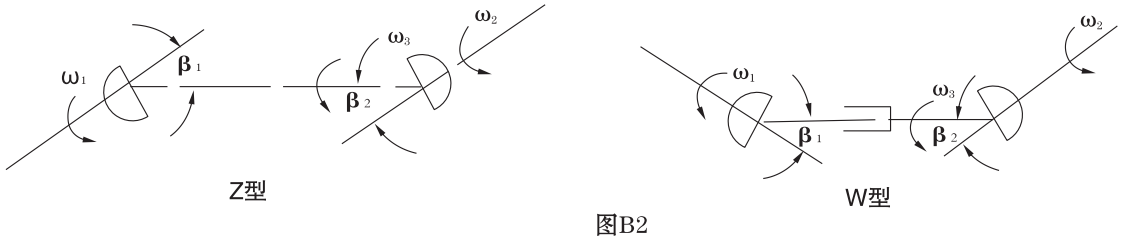
◇2、万向联轴器的布置分为平面系统和空间系统。

The arrangement of Universal Coupling divides into the plane system and space system

2.1平面系布置:中间轴与主动轴、从动轴的三轴线在同一平面内(即满足1c)的系统称为平面系统。按其轴线组成的形状分为Z型和W型，见图B2。

The arrangement of Universal Coupling divides into the plane system and space system.

The plane arrangement：centre line of host,moving axis and middle countershaft are in identical plane，which is called the plane system. The shape composes which according to its spool thread divides into Z and W.



图B2

平面系Z型和W型的布置若满足1a及1b条件，则为等角速度传动，否则为不等角速度传动。平面系不等角速度传动的主动轴与从动轴的角位移差计算的基本公式如下:

If the arrangement of Z and W type plane is meet the requirement of 1Q,which is the equal angular speed transmission，otherwise for unequal angular speed transmission. The angle displacement error of host and moving axis for unequal angular speed transmission can be calculated by the fundamental formula as follows:

$$\varphi=\mathrm{Arctg}\left(\frac{\beta_1^2}{4}\mathrm{Sin}2\varphi_1-\frac{\beta_2^2}{4}\mathrm{Sin}2\varphi_1\right)\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots(1)$$

式中:

φ–主动轴的角位移量,(°)；

The angle displacement error of moving axis

β_1–中间轴轴线与主动轴轴线的折角，rad；

the fold angle from centre lines of middle countershaft and host axis.

β_2–中间轴轴线与从动轴轴线的折角，rad。

当$\varphi\approx45°$时，φ值为最大。

the fold angle from centre lines of middle countershaft and moving axis.

附录B 选用说明（参考件）
Addenda B choice (reference cases)

◇2、万向联轴器的布置分为平面系统和空间系统。

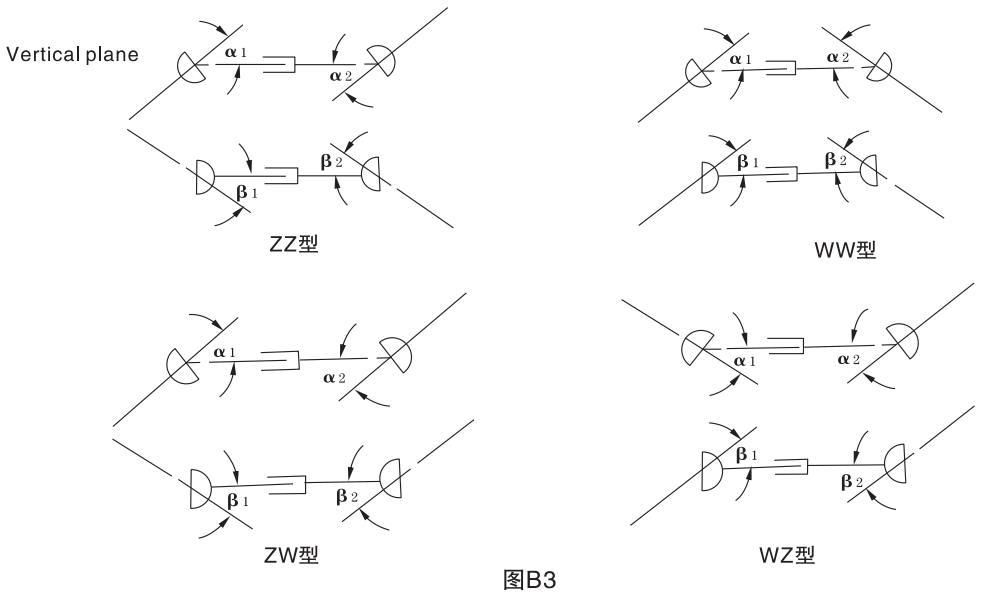
The arrangement of Universal Coupling divides into the plane system and space system

2.1平面系布置：中间轴与主动轴、从动轴的三轴线在同一平面内（即满足1c）的系统,称为空间系统。按在垂直投影面及水平投影上的轴线形状组成以下四种形式，见表B1、图B3。

Centre line of host,moving axis and middle countershaft are not in identical plane,(which is can not meet the requirement IQ)which is called the space system.

表B 1

	空间系统 space system			
垂直面 Vertical plane	Z	Z	W	W
水平面 Horizontal plane	Z	W	Z	W



图B3

空间系均为不等角速传动。其主动轴与从动轴间的角位移差计算的基本公式如下：

The space system are the unequal angular speed transmission.The angle displacement error of host and moving axis can be calculated by the fundamental formula as follows:

$$\varphi = \mathrm{Arctg}\left[\frac{\gamma_1^2}{4}\mathrm{Sin}2\varphi_1 - \frac{\gamma_2^2}{4}\mathrm{Sin}2(\varphi_1+\phi)\right] \quad \cdots\cdots\cdots\cdots\cdots\cdots (2)$$

式中：φ_1–主动轴的角位移量，（°）

The fold angle from centre lines of middle countershaft and host axis.

ν_1–中间轴轴线与主动轴轴线的空间折角，rad;

The space fold angle from centre lines of middle countershaft and host axis.

ν_2–中间轴轴线与从动轴轴线的空间折角，rad;

The space fold angle from centre lines of middle countershaft and moving axis.

Φ–两空间折角所在的两个平面的交角对于选定坐标轴的相位差角，（°）。

The phase angle of two spaces fold angle are at two plane,whose cross angle,regarding designation coordinate angle.

$$\mathrm{tg}\gamma_1 = \sqrt{\mathrm{tg}^2\alpha_1 + \mathrm{tg}^2\beta_1} \quad \cdots\cdots\cdots\cdots\cdots\cdots (3)$$

$$\mathrm{tg}\gamma_2 = \sqrt{\mathrm{tg}^2\alpha_2 + \mathrm{tg}^2\beta_2} \quad \cdots\cdots\cdots\cdots\cdots\cdots (4)$$

式中：a_1、β_1–为单万向联轴器1在垂直投影面和水平投影面的折角，(°)；
a_2、β_2–为单万向联轴器2在垂直投影面和水平投影面的折角，(°)。
β1–The fold angle of the vertical Proiecting Plane and the horlzontal Projecting Plane
β2–The fold angle of the vertical Projecting Plane and the horlzontal Projecting Plane

$$\Phi=90° \pm \Phi$$

式中：ϕ–为两空间折角所在的两个平面的交角，称为移置转角，(°)。
对于图B3的ZZ、WW型 ϕ=ϕ1–ϕ2
The two planes cross angle for the two space fold angle is called the transpose corner

对于图B3的ZW、WZ型 ϕ=180° –ϕ1–ϕ2
±––其中“–”是对于两根(组)万向联轴器，其中旋转方向相反的那根而言。
Is regarding two Universal Couplings，transmission orientation opposite that says

$$tg\phi_1=\frac{tga_1}{tg\ \beta_1} \cdots\cdots\cdots\cdots (5)$$

$$tg\phi_2=\frac{tga_2}{tg\beta_2} \cdots\cdots\cdots\cdots (6)$$

式中：ϕ_1、ϕ_2–为两空间折角所在的两个平面对于水平投影面的交角，称为移置角，(°)。
Φ当2 1为下式之值时， 值为最大
The fold angle of two planes angle is at which for two spaces regarding horizontal projecting plane，is called the transpose angle.

$$2\varphi 1=arctg(\frac{\gamma_1^2/\gamma_2^2+\cos 2\phi}{\sin 2\phi}) \cdots\cdots\cdots\cdots (7)$$

◇3、万向联轴器布置型式的调整：

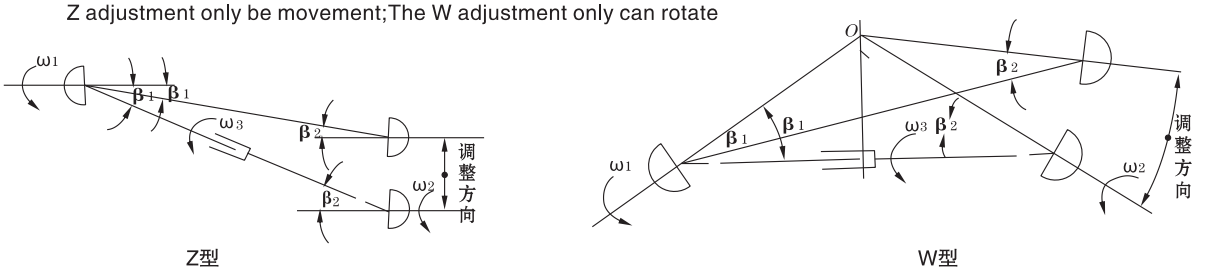
The adjustment of arrangement type：

万向联轴器在工作过程中,各轴线位置的变化称为布置型式的调整。
万向联轴器布置型式是根据机构的传动特点而选定的。其折角(β)的大小，既要考虑传动能力(计算转矩Tc)的影响，又要使其主、从动轴间产生的角位移差( )越小越好。因此，万向联轴器布置型式的调整，以不影响其原来各轴线折角的比例关系为原则。
Z型的调整只能移动;W型的调整只能转动，见图B4。

In the work process , various spool threads position change is called the adjustment of arrangement type. The choose of the arrangement type is based on patterns of transmission characteristics. It size of fold angle，both must consider the ability of transmision(computation torque influence)，and make the less of the angle displacement error caused between its host，movingaxis.

Therefore，the adjustment of arrangement type must according to the principle of non affect the proportion relations of orginal various fold angle from axes.

Z adjustment only be movement;The W adjustment only can rotate



图B4

◇4、万向联轴器的选用

The choose of transfer torsion

4.1 按传递转矩计算:

Calculate by the transfer torsion

$$T_C=TK_nK_hK_\beta K_a \leqslant T_n \cdots\cdots\cdots\cdots (8)$$

$$或T_C \leqslant T_1 \cdots\cdots\cdots\cdots (9)$$

附录B 选用说明（参考件）
Addenda B choice (reference cases)

式中：T_c–万向联轴器的计算转矩，N·m；

T–万向联轴器的理论转矩，N·m；

T_n–万向联轴器的公称转矩，N·m；按标准规定选取。他是在给定条件下的理论计算数值，即联轴器转速n≈10r/min，轴承寿命L_h=5000h，轴线折角β=3°，以及负荷平稳下的数值；

T_f–万向联轴器的疲劳转矩，N·m；按标准规定选取。当在交变负荷作用时，按T_f选用万向联轴器；

K_n–万向联轴器的转速系数，由图B5查取，

K_h–万向联轴器的轴承寿命系数，

K_β–万向联轴器的两轴线折角系数，

K_a–负荷性质(即工作条件)系数。

T_c–computation torque,

T–theory torque, nominal torque, According to standard and prescribe to selection. He is in assigns under the condition the theoretical calculation value, namely coupling rotational speed n≈10r／min, axletree life Lh=5000h, axes fold angle b=3°, as well as load steady under value;

T_f–universal coupling the weary torque, N.m; According to standard and prescribe to selectionwhen alternation load, according to the Tf to choose

K_n–universal coupling rotate speed coefficient, from Figure B5

K_h–Universal coupling axletree life coefficient

K_β–two axes fold angle coefflcient from Figure B7

K_a–load character I(working conditions)coefficient, Table B2 to the investigation.

表B2　负荷性质系数load character coefficient

工作机构负荷性质 work organization load character	K_a
负荷均匀，工作平稳 load equality，work steady	1.0
负荷不均匀，中等冲击 load medium impact，medium impact	11～1.3
较大冲击负荷和频繁正反转 bigger impact load and frequent positive and negative rotate	3～1.5
特大冲击负荷和频繁正反转 special big impact load and frequent positive and negative rotate	>1.5

4.2 对于转速高、折角大或其长度超出标准规定的万向联轴器，除按4.1进行计算外，还必须验算其灵活转动的可能性以及临界转数。灵活转动的可能性用nβ表示，一般情况下：

4.2 The rotational speed high，fold angle large or exceed standards in length universal coupling，applying 4.1 calculated，must also checked their flexibility and the possibility and critical revolution. The possibility of flexible beta that，under ordinary circumstances:

$$n\beta < 18000 \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots (10)$$

式中：n–万向联轴器的转速，r／min；

n–Type：Universal Coupling rotational speed;

β–万向联轴器的轴线折角,（°）。

β–UniVersal Coupling axes fold angle.

◇5、万向联轴器传动效果的考虑

5.1由于万向联轴器是用于联接不在同一轴线上的两轴，所以采用的布置型式应使主、从动轴的角位移差越小越好。当φmax≠0时，一般都要考虑其传动效果对机械的影响：如两根(组)传动轴瞬时速度差或附加转矩变化对机械的影响，重载或惯性较大的机械，由于万向联轴器布置产生的惯性附加转矩应不大于工作转矩的30%等等。

As universal coupiing is for the connectivity of two axis which are not in the same axis，two axes，the patterns should be used to make up angular displacement smaller and better of the host and moving axle. When phi≠0，generally must consider its transmission，which effects machinery influence：If two(group)drive axis instantaneous velocity difference or attachment torque change to machinery influence;Heavy load or inertia bigger machinery，because the arrangement of the universal coupling accused the inertia attachment torque should not be bigger than the work torque 30%and so on.

5.2 惯性附加转矩的计算

如果万向联轴的布置不能满足（1a，1b，1c）等速三条件时，其瞬时角速度在每一转中出现两个极大值和两个极小值。然而主动轴是以等速转动，从动轴后面的运动部分有很大的转动惯量，亦趋向等速运动，而万向联轴器主、从动轴间的角位移差就是由整个传动系的变形和间隙来补偿。假定全部角位移差都由万向联轴器扭转变形来补偿，这个扭转变形的转矩称为万向联轴器的惯性附加转矩，其大小取决于角位移差和万向联轴器的扭转刚度。

5.2 Inertia attachments torque computation

if the arrangement of universal coupling can not satisfy(1a,1b,1c)constant speed three conditions,its instantaneous angular speed appears two maximum values and two minimums in each revolution.However host axis is by the constant speed rotation,moving parts behind the host axis has very big moment of inertia,also tends to constant speed rotation,but displacement difference of host and moving axis is compensated by entire transmission system distortion and gap.Supposes completely displacement difference is compensated by torsions distortion,the torque is called inertia attachment torque of universal coupling,its size is decided to displacement difference and torsion hardness.

$$T_{\varphi max}=T_{\varphi 1}\varphi_{max}<0.3T \quad \cdots\cdots\cdots\cdots\cdots\cdots\cdots\cdots (11)$$

式中：$T_{\varphi 1}$–万向联轴器每扭一分角度所需转距(N·m／1′)，图B8为万向联轴器在中等长度时$T_{\varphi 1}$之值(SWP600、SWP640可不考虑)。

φ_{Max}–为万向联轴器产生的最大角位移差(′)，按式(1)、(2)计算。

φ_{Max}–the largest displacement difference

注：以转矩选用万向联轴器时，要把$T_{\varphi max}$考虑在内。即

Note：choose the universal coupling by torque, T must be in consideration. Namely

$$(T_c+T_{\varphi max})\leqslant T_n$$

WS型&WSD型十字轴式万向联轴器（JB/T5901–91）
WS–and WSD–Cross axle universal coupling basic parameters and size

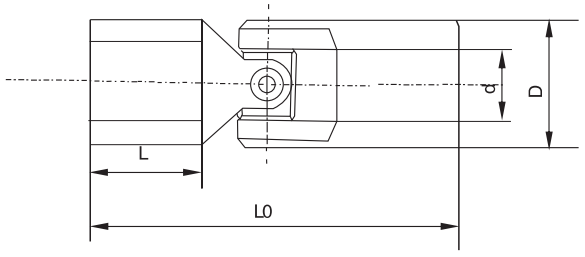
适用范围

WS型WSD型十字轴式万向联轴器适用于联接两轴线夹角β≤45°的转动系，其传递公称转矩11.2～1120N.m。

apply scope

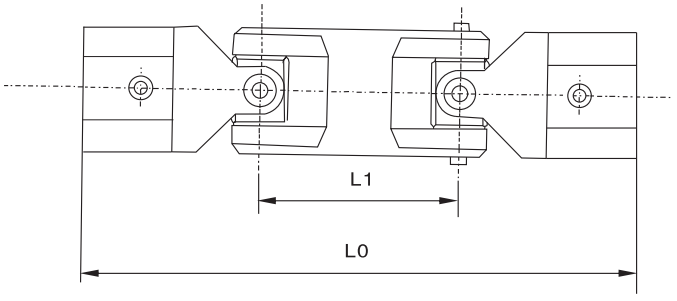
WS–and WSD–Cross axle universal coupling is suit for rotating system which the two axis angle β≤45，Nominal torque11.2～1120N.m

WSD



WSD型单十字轴式万向联轴器
WSD–Cross axle universal coupling basic parameters and size

WS



WS型双十字轴式万向联轴器
WS Cross axle universal coupling basic parameters and size

WS型&WSD型十字轴式万向联轴器（JB/T5901–91）
WS–and WSD–Cross axle universal coupling basic parameters and size

型号 Type	公称转矩 Nominal torque Tn KN.m	d H7	D	L_0 WSD型 Y型	L_0 WSD型 J_1型	L_0 WS型 Y型	L_0 WS型 J_1型	L Y型	L J_1型	L_2	重量G（kg） Weight WSD型 Y型	重量G WSD型 J_1型	重量G WS型 Y型	重量G WS型 J_1型	转动惯量（I） Rotating inertia $kg.m^2$ WSD型 Y型	转动惯量 WSD型 J_1型	转动惯量 WS型 Y型	转动惯量 WS型 J_1型
WS1 WSD1	11. 2	8	16	60	–	80	–	20	–	20	0.23	–	0.32	–	0.06	–	0.08	–
		9		66	60	86	80					0.20		0.29		0.05		0.07
		10						25										
WS2 WSD2	22. 4	10	20	70	64	96	90	25	22	26	0.64	0.57	0.93	0.88	0.10	0.09	0.15	0.15
		11		84	74	110	100	32										
		12																
WS3 WSD3	45	12	25	90	80	122	112	32	27	32	1.45	1.30	2.10	1.95	0.17	0.15	0.24	0.22
		14																
WS4 WSD4	71	16	32	116	82	154	130	42	30	38	5.92	4.86	8.56	0.48	0.39	0.32	0.56	0.49
		18																
WS5 WSD5	140	19	40	144	116	192	164	52	38	48	16.3	12.9	24.0	20.6	0.72	0.59	1.04	0.91
		20																
		22																
WS6 WSD6	280	24	50	152	124	210	182	52	38	58	45.7	36.7	68.9	59.7	1.28	1.03	1.89	1.64
		25		172	136	330	194	62	44									
		28																
WS7 WSD7	560	30	60	226	182	296	252	82	60	70	148	117	207	177	2.82	2.31	3.90	3.38
		32																
		35																
WS8 WSD8	1120	38	75	240	196	332	288	112	84	92	396	338	585	525	5.03	4.41	7.25	6.63
		40		300	244	392	336											
		42																

注①表中联轴器重量、转动惯量是近似值。

②当轴线夹角β≠0时，联轴器的许用转矩[T]=Tncos β。

③中间轴尺寸L2可根据需要选取。

④标记示例:

例1：WS4双十字轴式万向联轴器，两端均为圆柱孔

主动端：Y型轴孔，d=16mm，D=32mm

从动端：J_1型轴孔，d=18mm，D=32mm

WS4联轴器 $\frac{Y16}{J_1 18}$ x32

Note：①one table coupling weight，rotating inertia is approximation.

②When the axis angle beta 20 alone，the allowable torque of coupling

③size of middle axle，L2 selected on the basis of need.

④marking examples：

Cases：WS4 double universal coupling，there are both columns hole

host ending：Y type axle hole，d=16mm，D=32mm

moving ending J1，d=18mm，D=32mm

WS4coupling $\frac{Y16}{J_1 18}$ x32

附录
Addenda

◇ 附录A　Addenda A

要保证旋转运动的等角速和主、从动轴之间保持同步转动，应选用双十字轴式万向联轴器或两个单十字轴式万向联轴器组合在一起使用、并满足以下三个条件：

a. 中间轴与主动轴、从动轴间的夹角相等，即β1=β2；

b. 中间轴两端的叉头的对称面在同一平面内；

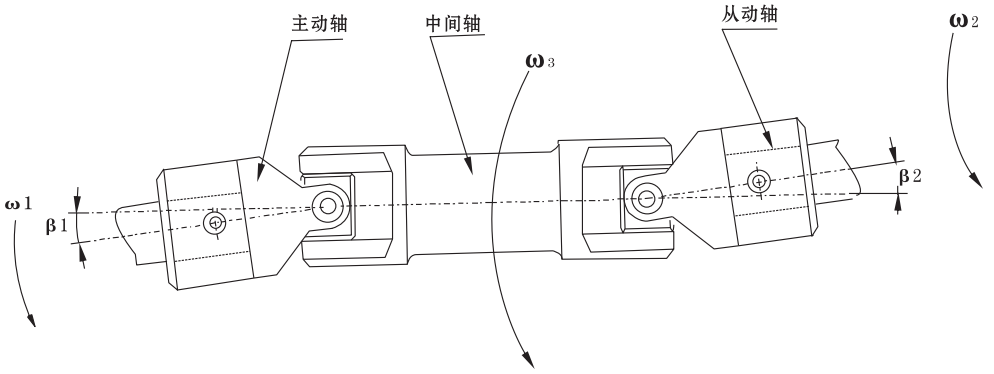
c. 中间轴与主动轴、从动轴三轴线在同一平面内，见图A1。

To ensure synchronous rotation of angle speed of rotary movement，host and moving axis should choose the universal coupling. coupling or two single universal coupling combinations used together，and meet the following three conditions；

a、the angle of middle axis，host and moving axis must be equal.

b、symmetry plane of the beginnings and ends jaw of middle axis is in one plane

c、axes of host，moving axis and middle axis a re in identical plane

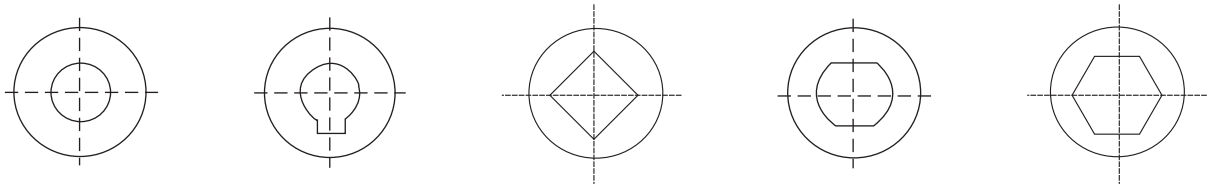


图A1　主、从动端在同一平面的示意图
sketch map of host and moving ending are in one plane

◇ 附录B　Appendix B

联轴器轴孔形式(参考件)
Connect axis of coupling is square and hexagon shape hole(reference cases)

四六方孔形见图
square and hexagon
shape hole see figure



WSS小型伸缩十字轴式万向联轴器基本参数和主要尺寸
WSS small style flex universal couplings with spider basic parameters and size

WSS

产品特点：

1、适用于各种通用机械场合，最高转速可达1000转/分

2、连接更大的轴间距

3、每节最大转动角度为45度

4、有单节型和双节型

5、可带快速锁紧型

6、成品孔公差为H7，另可根据要求开键槽，六角孔和方孔

Characteristics:

1.Applicable to all kinds of general mechanical situation, Maximum rotate speed may reach 4000 r/min

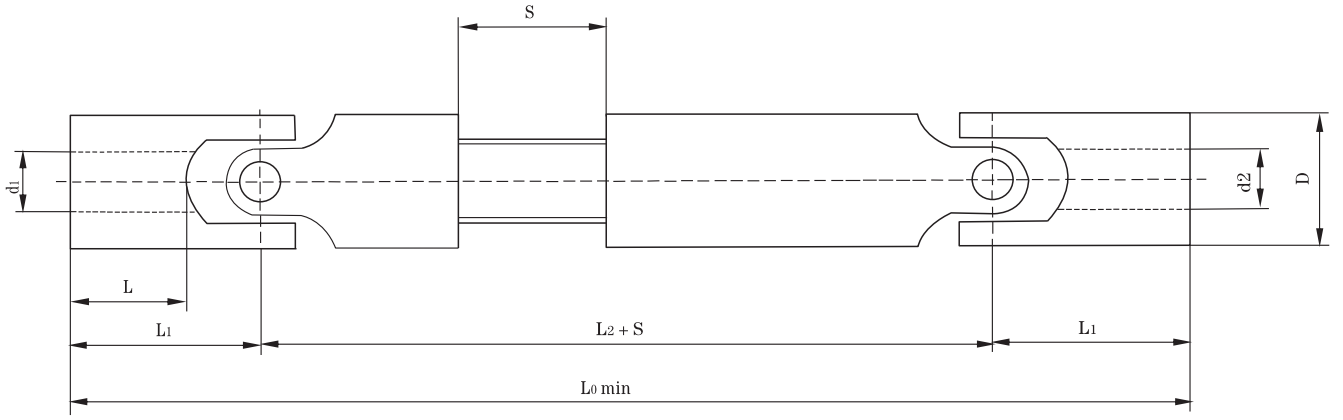
2.Connects a bigger distance between shafts

3.Each point of the largest rotation angle can be 45°

4.Have single–jointed type and bimodal type

5.Fast locking is available

6.The hole of the Finished product tolerance is H7 according to. Spline, Hexagonal and Square holes are available as long as you request



尺寸Size / 型号Type	公称转矩 Nominal torque Tn N.m	D	dmax	L0max	L	L1	L2	S
WSS2	22.4	20	12	176	22	32	112	30
WSS3	45	25	14	200	27	40	120	30
WSS4	71	32	18	243	30	46	151	35
WSS5	140	40	22	287	38	58	171	43
WSS6	280	50	28	337	44	69	199	50
WSS7	560	60	35	428	60	91	246	65
WSS8	1120	75	42	556	84	122	312	90

注：不同于表内轴孔连接尺寸，可按用户要求生产。

Note：the link size，which is different with the list, can be produced by the order of customer.