



EPTDA
Member

TÜV
CERT
DIN EN ISO 9001:2000
Zertifikat-Nr. 71100 E251

SPIDEX® – 曲爪弹性联轴器

SPIDEX® – the elastic coupling

- 扭转弹性
- 吸收振动
- 可盲装
- 失效保护
- 免维护
- 轴套材料:
铸铝 (Al), 铸铁 (GG/GGG),
粉末冶金 (Si), 钢 (St)

- Torsional elasticity
- Dampening
- Blind assembly
- Safe against break-down
- No maintenance
- Hub material:
Aluminium (Al), Cast Iron (GG/GGG),
Sintered Steel (Si), Steel (St)

技术说明 Technical description

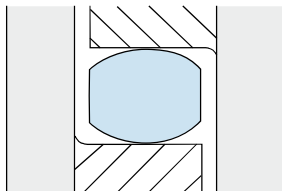
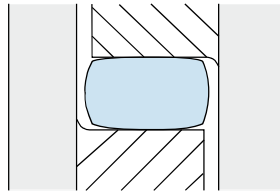


图 1
无载荷的聚氨酯-齿
Fig. 1
Unloaded Polyurethane-tooth

图 2
有载荷的聚氨酯-齿
Fig. 2
Loaded Polyurethane-tooth



弹性联轴器通过短暂存储弹性部分的冲击能量，从而减少间歇的短周期扭转冲击。任何程度的不均匀运动和载荷传递因此而减少。弹性联轴器能抑制物体共振，因此有助于减少噪音。弹性SPIDEX®联轴器传递扭矩并有失效保护功能。鼓形齿面弹性体，见图1，允许补偿径向和角向位移的两个连接轴。它由热塑性聚氨酯基甲酸酯组成，是专门用于压力承载，具有高耐磨性和弹性，并具有良好的阻尼特性，耐油，油脂，许多溶剂，大气影响和臭氧，以及在热带条件良好的耐水解特性。

工作温度在-40°C至+100°C之间。短暂温度最高容许至+120°C。

弹性体的标准硬度是92° Shore A。低扭矩的弹性体硬度是80° Shore A，高扭矩的弹性体硬度是95°至98° Shore A。从图1和图2中，可以看到鼓形齿面承载能量越大变形也越大。鼓形齿扭转刚度CT值随扭转角度的增大而增大。因此，联轴器在小负载条件是相对较软的，随着扭矩的增大，会变得越来越硬。这就形成一条扭转曲线，见图3。动态扭转曲线可忽略。

图3所示的阻尼能量将吸收扭矩冲击，见图4。

SPIDEX®联轴器的连续扭转特性能抑制共振，临界共振速度取决于扭转刚度CT(见图5)。

连续曲线主要避免联轴器的应力集中。此外，弹性体扭转刚度CT可以通过选择适当的肖氏硬度材料来改变。较大的肖氏硬度能调高共振速度，而较低的肖氏硬度能将共振速度调到一个较低的范围。如果有疑问，我们建议通过驱动端和被驱动端的转动惯量来计算系统参数。

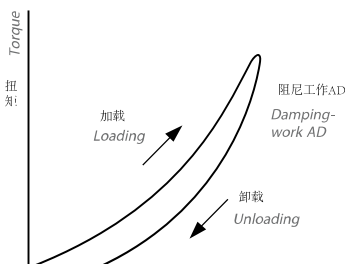


图 3
受滞后影响，带阻尼的连续扭转特性。
Fig. 3
Progressive torsional characteristic with damping, effected by hysteresis

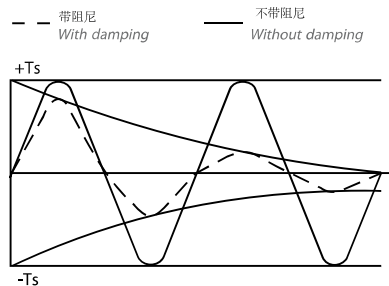


图 4
带阻尼和不带阻尼的扭矩冲击
Fig. 4
Torque shock with and without damping

联轴器装配:
2个轴套带弹性体
Coupling assembled:
Two hubs with elastic spider



Elastic couplings reduce intermittent short period torsional shocks, by briefly storing elastically part of this shock energy. Any degree of uneven movement and load transference is consequently reduced. Elastic couplings restrain body resonance, and therefore contribute to noise reduction. The elastic SPIDEX®-coupling transmits the torque safe against break-down. The convex generated profiled tooth crown, see fig. 1, allows compensation of radial and angular displacements of the two connected shafts. It consists of a thermoplastic Polyurethane elastomer, which is exclusively pressure loaded and designed for high abrasion resistance and elasticity, and to have good damping characteristics, and to be resistant to oils, greases, many solvents, atmospheric effects and ozone, as well as good resistance to hydrolysis in tropical conditions.

The operating temperatures are between -40 °C and +100 °C. Short temperature peaks up to +120 °C are admissible.

The standard hardness of the spider is 92° Shore A. For low torques a spider of 80° Shore A, can be used and for higher torques a spider of 95° to 98° Shore A, can be used. From figures 1 and 2, it can be seen that the convex rim of the tooth takes higher proportion of deformation-energy, the more deformation increases. The value of the torsional stiffness CT of the tooth crown increases with the torsional angle ϕ . Consequently, the coupling is relatively soft under small load conditions and becomes harder and harder as the torque increases. This causes a progressive torsion curve, as shown in fig. 3. The dynamic torsion curve has an insignificantly steeper course.

The damping energy shown in fig. 3 results in the damping of torque shocks as shown in fig. 4.

Special advantage of the progressive torsion characteristic is in the resonance suppression achieved by the SPIDEX®-coupling, as the critical resonance speed depends on the torsional stiffness CT (see fig. 5).

The progressive curve therefore mainly protects the coupling against inadmissible overstressing. Furthermore, the torsional stiffness CT of the spider can be influenced by the choice of an appropriate Shore hardness material. A larger Shore hardness moves the resonance speed higher, and a lower Shore hardness moves resonance speed into a lower range. If in doubt, we recommend a calculation of the system parameters by using the moments of inertia of the driving and driven sides.

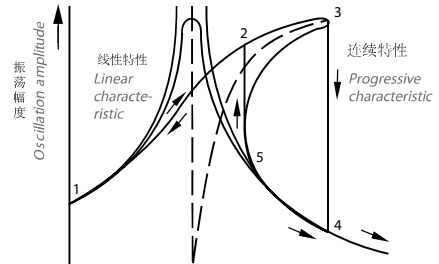


图 5
线性和连续增加扭转特性的弹性联轴器的共振抑制。
Fig. 5
Resonance suppression of elastic couplings with linear and progressively increasing torsional characteristic

轴套类型 *Model type of hub*

KL		ST	A 38/45 .		A35 x 31	L = 70	SO
标准轴套 Standard	-					加长轴套 Extended hub length	
加紧式轴套 Clamping hub	KL					- 标准长度 Standard	
						70 见第6页 See page 6	
轴套材料 Material of hub			规格/轴套设计 Size/Design of hub		开孔种类 Example finish bores		非标 Special machining
铸铝 / Aluminium	ALU		A轴套 / Hub A	A15	A14/16	Ung. 盲孔 / Unbored	- 标准 Standard
粉末冶金 / Sintered steel	SI			A19	A19/24	Vorg. 预留孔 / Prebored	
铸铁 / Cast iron	GG			A24	A24/32	38H7 ISO-标准 H7 **	
球墨铸铁 / SG	GGG			A28	A28/38	B17 锥孔 / Tapered *	
钢 / Steel	ST			A38	A38/45	F 英制孔 / Inch bored	
				A42	A42/55	*** ** SAE 16/32Z13 SAE	花键孔 Splines
				A48	A48/60	*** A35x31 DIN 5482	
				A55	A55/70	*** N30x2x14x9G DIN 5480	
				A65	A65/75		
				A75	A75/90		
				A90	A90/100		
				A100	A100/110		
				A110	A110/125		
				A125	A125/145		

*见第 10页 / See page 10

** 见第 11页 / See page 11

*** 见第 12页 / See page 12

*见第 10 页 / See page 10

** 见第 11 页 / See page 11

*** 见第 12 页 / See page 12

法兰类型 *Model type of flange*

GGG	A 38 . FLANSCH	F
法兰材料 Material of flange		法兰设计 Design of flange
球铁 GGG40	GGG	- 盲孔 Unbored
		F 穿孔 Through holes
		BF 螺纹孔 hreaded holes
		CFA 液压泵厂商LINDE 专用 Designed for hydraulic pumps manufacturer LINDE
		CFB
		CFD

选型步骤

步骤 1: 计算应用扭矩:

$$T_{KN} [Nm] = \frac{P[kW] \times 9550}{U/min [1/min]}$$

步骤 2: 从第5页的表中计算出应用服务系数。总的服务系数(K):

$$K = K1 * K2 * K3 *$$

步骤 3: 计算应用的设计扭矩(ΔT_{Kmax})。

$$\text{设计扭矩 } (\Delta T_{Kmax}) = \text{额定扭矩 } (T_{KN}) \times \text{服务系数 } (K).$$

步骤 4: 在第7页的弹性体性能表中, 根据应用的减振要求, 选出对应硬度的弹性体。

步骤 5: 在 T_{KN} 和 T_{Kmax} 列中, 找出大于设计扭矩 ΔT_{Kmax} 的对应型号。

步骤 6: 根据扭矩选出的型号, 还需根据第8页上的表格检查联轴器开孔能力。

步骤 7: 根据联轴器的外形尺寸, 检查是否满足其应用的安装空间。

定义

T_{KN}	联轴器额定扭矩
T_{Kmax}	联轴器最大扭矩
$P [kW]$	功率
$U/min [1/min]$	转速
Nm	牛顿米
ΔT_{Kmax}	最大应用扭矩
T_{KW}	交变应用载荷 (DIN 740 第2部分)
K	应用服务系数

Selection process for sizing determination

Step 1: Determine the nominal torque of your application:

$$T_{KN} [Nm] = \frac{P[kW] \times 9550}{U/min [1/min]}$$

Step 2: Calculate your Application Service Factor using the charts on page 5. The total Service Factor (K) will be:

$$K = K1 * K2 * K3 *$$

Step 3: Calculate the design torque (ΔT_{Kmax}) of your application.

$$\text{Design torque } (\Delta T_{Kmax}) = \text{Nominal torque } (T_{KN}) \times \text{service factor } (K).$$

Step 4: Using the Elastomer performance data charts on page 7 select the urethane shore hardness which best corresponds to your relative damping needs in the application.

Step 5: Next find the columns listing T_{KN} and T_{Kmax} values listed in Nm and compare them against the ΔT_{Kmax} figure for your application. Make sure that the spider/coupling size values are larger than the application values.

Step 6: Once the size is selected using the torque values, check the table on page 8 to make sure the bore size needed will fit in the coupling.

Step 7: Double check the overall dimensions of the coupling to ensure that it will fit in the space allowed for the coupling in the application.

Definition of terms

T_{KN}	Rated coupling torque
T_{Kmax}	Maximum torque of the coupling
$P [kW]$	Power in kilowatts
$U/min [1/min]$	Revolutions per minute
Nm	Newton meters
ΔT_{Kmax}	Maximum torque of the application
T_{KW}	Varying load of an application in kilowatts (DIN 740 part 2)
K	Application Service Factor

应用服务系数 *Application service factors*

K1

	应用服务系数 K1
均匀运行 驱动小颗粒的物质。液压和离心泵、小型发电机、鼓风机、风扇、通风机、皮带/螺旋输送机。	1.0
均匀运行 驱动中等颗粒的物质。板料折弯机、木工机械、粉碎机、磨机、纺织机械、搅拌机。	1.2
非均匀运行 驱动中等颗粒的物质。旋转烤箱、印刷机、发电机、碎纸机、绕线机、纺纱机、粘性液体泵。	1.3
非均匀运行 和冲击，驱动中等颗粒的物质。混凝土搅拌机、落锤、缆车、造纸厂、压缩泵、桨叶泵、绕绳机、离心机。	1.4
非均匀运行 和重载冲击，驱动大颗粒的物质。挖掘机、轧机、活塞泵、压机、旋转钻孔机、剪切机、锻造压机、石头破碎机。	1.6
非均匀运行 和严重重载冲击，驱动巨大颗粒的物质。恒速活塞式压缩机和泵、重载卷扬机、焊接机、制砖机、石头破碎机。	1.8

K1

	Application service factor K1
Uniform operation with small masses to be accelerated. Hydraulic and centrifugal pumps, light generators, blowers, fans, ventilators, belt/screw conveyors.	1.0
Uniform operation with medium masses to be accelerated. Sheet metal bending machines, wood working machines, mills, textile machines, mixers.	1.2
Irregular operation with medium masses to be accelerated. Rotating ovens, printing presses, generators, shredders, winders, spinning machines, pumps for viscous fluids.	1.3
Irregular operation and shocks, with medium masses to be accelerated. Concrete mixers, drop hammers, cable cars, paper mills, compression pumps, propeller pumps, rope winders, centrifuges.	1.4
Irregular operation and heavy shocks, with large masses to be accelerated. Excavators, hammer mills, piston pumps, presses, rotary boring machines, shears, forge presses, stone crushers.	1.6
Irregular operation and very heavy shocks, with very large masses to be accelerated. Piston type compressors and pumps without speed variations, heavy roll sets, welding machines, brick presses, stone crushers.	1.8

K2 – 启动频率系数

每小时启动次数	100	200	400	800
服务系数 K2	1.0	1.2	1.4	1.6

K2 – for starts per hour

Starts per hour	100	200	400	800
Service factor K2	1.0	1.2	1.4	1.6

K3 – 环境温度系数

环境温度	-30 至 +30 °C	+40 °C	+60 °C	+80 °C
服务系数 K3	1.0	1.2	1.4	1.8

K3 – for ambient temperature

Ambient temperature	-30 to +30 °C	+40 °C	+60 °C	+80 °C
Service factor K3	1.0	1.2	1.4	1.8

SPIDEX®-IEC 标准电机联轴器, 弹性体 92° Shore A

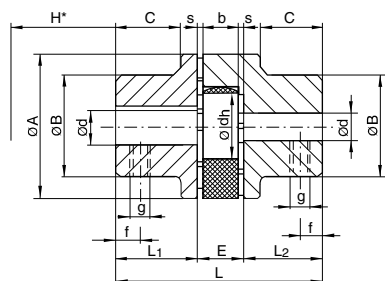
SPIDEX®-Couplings for IEC-standard motors, spider 92° Shore A

电机 规格 Motor size	轴径 Shaft D x l [mm]		n = 750 [1/min] 功率 P Power P		规格 Size	T _k max [Nm]	n = 1000 [1/min] 功率 P Power P		规格 Size	T _k max [Nm]	n = 1500 [1/min] 功率 P Power P		规格 Size	T _k max [Nm]	n = 3000 [1/min] 功率 P Power P		规格 Size	T _k max [Nm]
	= 1500 [1/min]	= 3000 [1/min]	kW	T _{AN} [Nm]			kW	T _{AN} [Nm]			kW	T _{AN} [Nm]			kW	T _{AN} [Nm]		
56	9 x 20		–	–	14/16	15	–	–	14/16	15	0.06	0.4	14/16	15	0.09	0.3	14/16	15
					15				15		0.09	0.6	15		0.12	0.4	15	
63	11 x 23		–	–			–	–			0.12	0.9			0.18	0.6		
							–				0.18	1.2			0.25	0.9		
71	14 x 30		–	–			–	–			0.25	1.8			0.37	1.3		
											0.37	2.5			0.55	1.9		
80	19 x 40		–	–	19/24	20	0.37	3.7	19/24	20	0.55	3.7	19/24	20	0.75	2.5	19/24	20
							0.55	5.5			0.75	5.0			1.1	3.7		
90 S	24 x 50		–	–			0.75	7.9			1.1	7.5			1.5	4.9		
90 L			–	–			1.1	11			1.5	10			2.2	7.4		
100 L	28 x 60		0.75	11	24/32	70	1.5	15	24/32	70	2.2	15	24/32	70	3	9.8	24/32	70
			1.1	16							3	20						
112 M			1.5	21			2.2	22			4	27			4	13		
132 S	38 x 80		2.2	29	28/38	190	3	30	28/38	190	5.5	36	28/38	190	5.5	18	28/38	190
															7.5	25		
132 M			3	40			4	39			7.5	49						
							5.5	55										
160 M	42 x 110		4	54	38/45	380	7.5	74	38/45	380	11	72	38/45	380	11	35	38/45	380
			5.5	74											15	49		
160 L			7.5	100			11	108			15	98			18.5	60		
180 M	48 x 110				42/55	530			42/55	530	18.5	121	42/55	530	22	72	42/55	530
180 L			11	147			15	147			22	144						
200 L	55 x 110		15	196			18.5	185			30	195			30	97		
							22	215							37	117		
225 S	60 x 140	55 x 110	18.5	245	48/60	620			48/60	620	37	245	48/60	620				
225 M			22	294			30	292			45	294			45	146		
250 M	65 x 140	60 x 140	30	390	65/75	1250	37	361	55/70	820	55	357	55/70	820	55	176	48/60	620
280 S	75 x 140	65 x 140	37	490			45	440	65/75	1250	75	487	65/75	1250	75	245	55/70	820
280 M			45	585			55	536			90	584			90	294		
315 S	80 x 170		55	715	75/90	2560	75	730	75/90	2560	110	714	75/90	2560	110	350		
315 M			75	970	90/100	4800	90	876			132	857			132	420	65/75	1250
315 L			90	1170			110	1070	90/100	4800	160	1030	90/100	4800	160	513		
			110	1420			132	1280			200	1290			200	641		
355 L	95 x 170	75 x 140	132	1710			160	1550			250	1610			250	801	75/90	2560
			160	2070	100/110	6600	200	1930			315	2020			315	1010		
			200	2580			250	2420										
									100/110	6600							90/100	4800
400 L	100 x 210	80 x 170	250	3230	110/125	9600	315	3040					100/110	6600	355	1140		
												2280						
												2560						

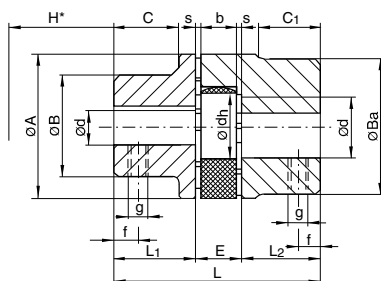
联轴器的选型是根据一般运行的情况。对于其它情况，请告之服务系数。

Coupling selection made for normal operation. For other conditions please notify the safety factors.

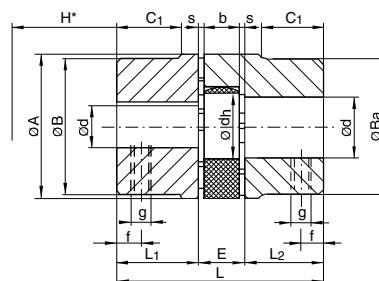
SPIDEX® - 联轴器尺寸 *Dimensions SPIDEX®-Couplings*



组合轴套 A/A Hub combination A/A



组合轴套 A/B Hub combination A/B



组合轴套 B/B Hub combination B/B

SPIDEX® 类型 Type	孔径 Bores				尺寸 [mm] Dimensions [mm]																	重量 Weight [kg]	特殊 轴套 长度 Special hub length [mm]
	成品孔径 Finish bores																						
	轴套 A Hub A		轴套 B Hub B		L1 +																		
	min	max	min	max	A	B	Ba	L	L2	E	s	b	C	C1	dh	g	f	H*					
材料 Material: 铸铝 Die cast aluminium																							
A15	–	–	4	15	26	–	26	28	10	8	1	6	–	–	12	M5	5	8	0.025	–			
A19/24	6	19	19	24	40	32	39	66	25	16	2	12	20	21	18	M5	10	14	0.13	55			
A24/32	8	24	16	32	55	40	53	78	30	18	2	14	24	26	27	M5	10	16	0.26	60			
A28/38	10	28	28	38	65	48	63	90	35	20	2.5	15	28	29	30	M6	15	18	0.46	60			
A38/45	14	38	38	45	80	66	79	114	45	24	3	18	37	39	38	M8	15	19	0.90	70			
材料: 铸铁 (GG), 球墨铸铁 (GGG), 钢 (St), 粉末冶金 (Si) Material: Cast iron (GG), SG iron (GGG), Steel (St), Sintered steel (Si)																							
A14/16 Sint	–	–	4	16	30	–	30	35	11	13	1.5	10	–	–	10	M4	5	12	0.14	18.5			
A19/24 GG/St/Si	6	19	12	24	40	32	39	66	25	16	2	12	20	21	18	M5	10	14	0.35	55			
A24/32 GG/St/Si	10	24	14	32	55	40	52	78	30	18	2	14	24	26	27	M5	10	16	1.0	60			
A28/38 GG/St/Si	12	28	28	38	65	48	62	90	35	20	2.5	15	28	29	30	M6	15	18	1.6	80			
A38/45 GG/GGG/St/Si	14	38	38	45	80	66	77	114	45	24	3	18	37	37	38	M8	15	19	2.3	110			
A42/55 GG/GGG/St	19	42	42	55	95	75	94	126	50	26	3	20	40	40	46	M8	20	21	3.6	110			
A48/60 GG/GGG/St	19	48	48	60	105	85	102	140	56	28	3.5	21	45	45	51	M8	20	22	4.8	110			
A55/70 GG/GGG/St	19	55	55	70	120	98	118	160	65	30	4	22	52	52	60	M10	20	23	7.4	140			
A65/75 GG/GGG/St	22	65	65	75	135	115	132	185	75	35	4.5	26	61	59	68	M10	20	27	10.9	140			
A75/90 GG/GGG/St	30	75	75	90	160	135	158	210	85	40	5	30	69	65	80	M10	25	31	17.7	195			
A90/100 GG/GGG/St	40	90	90	100	200	160	180	245	100	45	5.5	34	81	81	100	M10	25	35	29.5	140/210			
A100/110 GG/GGG/St	–	–	55	110	225	–	200	270	110	50	6	38	–	89	113	M16	30	39	43.5	–			
A110/125 GG/GGG/St	–	–	65	125	255	–	230	295	120	55	6.5	42	–	96	127	M16	35	43	63	–			
A125/145 GG/GGG/St	–	–	65	145	290	–	265	340	140	60	7	46	–	112	147	M16	40	47	95	–			

H*是在径向方向进行拆卸弹性体的最小尺寸要求。成品孔径按ISO标准H7,键槽按DIN-6885,表1(J59)。重量和转动惯量是对应铝/铸铁/球墨铸铁在最大孔径和没有键槽时的值。

H* is the minimum dimension required for the disassembly of the aggregates in the radial direction. Finish bores acc. to ISO standard H7, keyway acc. to DIN 6885, sheet 1 (J59). Weight and moment of inertia in relation to the materials Al/GG/GGG with max. diameter without keyway.

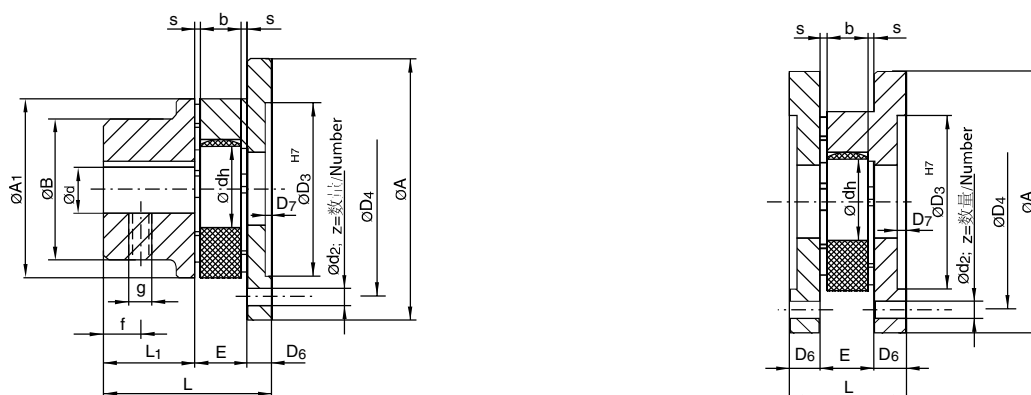
标准程序: A轴套和B轴套, 铸铁 „GG“, 粉末冶金 „Si“, 球墨铸铁 „GGG“, 钢 „St“, 粉末冶金 „Si“, A轴套, 按定制系列 140/160/180

Standard program: A-hub and B-hub in cast iron „GG“, B-hub in spheroidal iron „GGG“, steel „St“, sintered steel „Si“, A-hub available as special design Series 140/160/180 on request

转动惯量 J [kgm²] (标准轴套, 最大开孔, 不带键槽)

Moment of inertia J [kgm²] (Standard hub with max. diameter of boring without keyway)

联轴器部件 材料 Part of coupling Material	联轴器规格 Coupling size															
		14/16	15	19/24	24/32	28/38	38/45	42/55	48/60	55/70	65/75	75/90	90/100	100/110	110/125	125/145
轴套 A Hub A	Al	—	—	0.000010	0.00004	0.00010	0.00035	—	—	—	—	—	—	—	—	—
	GG/GGG/St	—	—	0.000050	0.00025	0.00040	0.00010	0.0020	0.0030	0.0060	0.0125	0.025	0.069	—	—	—
轴套 B Hub B	Al	—	0.000004	0.000020	0.00009	0.00020	0.00045	—	—	—	—	—	—	—	—	—
	GG/GGG/St	0.00002	—	0.000050	0.00020	0.00070	0.00100	0.0030	0.0050	0.0100	0.0183	0.041	0.09	0.154	0.091	0.575
弹性体 Spider	Pu	—	—	0.000003	0.00001	0.00002	0.00005	0.0001	0.0002	0.0003	0.0005	0.002	0.004	0.007	0.015	0.025

SPIDEX® - 法兰联轴器尺寸 *Dimensions SPIDEX®-Flange Couplings*F系列 *Series F*

SPIDEX® 型号 Type	成品孔径 ¹⁾ Finishbores ¹⁾		尺寸 <i>Dimensions</i> [mm]																重量 Weight	转动 惯量 ²⁾ Moment of inertia ²⁾	
			A	A1	B	L1	L	E	s	b	dh	g	f	D6	D7	d2 DIN 69	z 数量 Number	D3			D4
F 28	10	28	100	65	65	35	65	20	2.5	15	30	M8	15	10	1.5	7	6	65	80	1.18	0.0012
F 38	14	38	115	80	66	45	79	24	3	18	38	M8	15	10	1.5	7	6	80	95	1.87	0.0023
F 42	19	42	140	95	75	50	88	26	3	20	46	M8	20	12	2	9	6	95	115	3.06	0.0054
F 48	19	48	150	105	85	56	96	28	3.5	21	51	M8	20	12	2	9	8	105	125	3.88	0.0080
F 55	19	55	175	120	98	65	111	30	4	22	60	M10	20	16	2	11	8	120	145	6.21	0.0178
F 65	22	65	190	135	115	75	126	35	4.5	26	68	M10	20	16	2	11	10	135	160	8.63	0.0293
F 75	30	75	215	160	135	85	144	40	5	30	80	M10	25	19	2.5	14	10	160	185	13.2	0.0595
F 90	40	90	260	200	160	100	165	45	5.5	34	100	M12	30	20	3	14	12	200	225	22.0	0.1443

4) 如需更大孔径，请选择B轴套。 4) If larger bore diameters required you have to use hub type B.

FF系列 *Series FF*

SPIDEX® 型号 Type	尺寸 Dimensions [mm]												重量 Weight	转动 惯量 ²⁾ Moment of inertia ²⁾
	A	L	E	s	b	dh	D6	D7	d2 DIN 69 ³⁾	z 数量 Number	D3	D4	[kg]	J [kgm ²]
FF 28	100	40	20	2.5	15	30	10	1.5	7	6	65	80	1.19	0.0015
FF 38	115	44	24	3	18	38	10	1.5	7	6	80	95	1.66	0.0028
FF 42	140	50	26	3	20	46	12	2	9	6	95	115	2.91	0.0072
FF 48	150	52	28	3.5	21	51	12	2	9	8	105	125	3.35	0.0092
FF 55	175	62	30	4	22	60	16	2	11	8	120	145	5.78	0.023
FF 65	190	67	35	4.5	26	68	16	2	11	10	135	160	7.13	0.034
FF 75	215	78	40	5	30	80	19	2.5	14	10	160	185	10.5	0.065
FF 90	260	85	45	5.5	34	100	20	3	14	12	200	225	16.5	0.15

1) 成品孔径按ISO标准H7，键槽按DIN 6885，表1 (JS9)。

2) 重量和转动惯量是所对应材料GG/GGG在最大开孔，不带键槽下的值。

3) 可能是螺纹孔，这时型号改为BF和BFF。

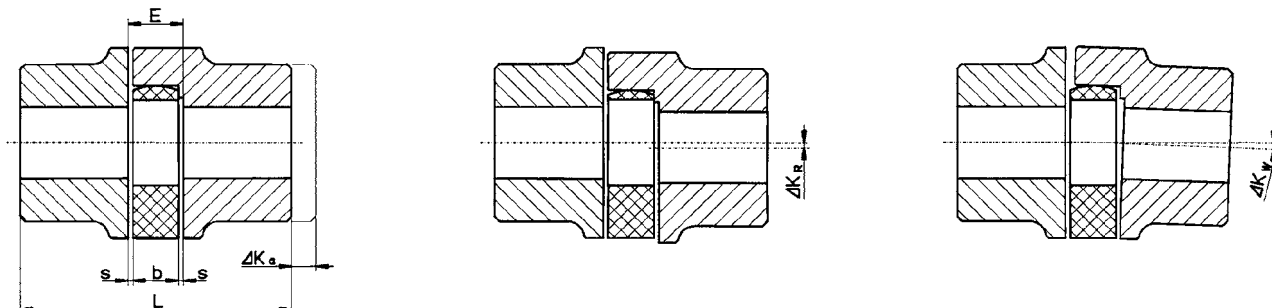
1) Finish bores acc. to ISO-standard H7, keyway acc. to DIN 6885, sheet 1 (JS9).

2) Weight and moment of inertia in relation to the materials GG/GGG with max. diameter without keyway.

3) Even threaded holes instead of through holes may be obtained, the flange sign changed into „BF“ resp. „BFF“.

80°, 92°, 95°, 98° Shore A 弹性体的最大允许偏差值

Max. permissible displacement values for spiders 80°, 92°, 95°, 98° Shore A



SPIDEX® 型号 Type	尺寸 <i>Dimensions</i> [mm]				轴向偏差 <i>Axial displace</i> ΔKa [mm]	径向偏差 <i>Radial displace</i> ΔKr [mm]				角度偏差 <i>Angular displace</i> ΔKw [°]			
						转速 <i>Rotation</i> n[1/min]				转速 <i>Rotation</i> n[1/min]			
	L	E	b	s		750	1000	1500	3000	750	1000	1500	3000
A14	35	13	10	1.5	1.0	0.22	0.20	0.16	0.11	1.3	1.3	1.2	1.1
A15	28	8	6	1	1.0	0.22	0.20	0.16	0.11	1.3	1.3	1.2	1.1
A19	66	16	12	2.0	1.2	0.27	0.24	0.20	0.13	1.3	1.3	1.2	1.1
A24	78	18	14	2.0	1.4	0.30	0.27	0.22	0.15	1.1	1.0	0.9	0.8
A28	90	20	15	2.5	1.5	0.34	0.30	0.25	0.17	1.1	1.0	0.9	0.8
A38	114	24	18	3.0	1.8	0.38	0.35	0.28	0.19	1.1	1.1	1.0	0.8
A42	126	26	20	3.0	2.0	0.43	0.38	0.32	0.21	1.1	1.1	1.0	0.8
A48	140	28	21	3.5	2.1	0.50	0.44	0.36	0.25	1.2	1.2	1.1	0.9
A55	160	30	22	4.0	2.2	0.54	0.46	0.38	0.26	1.2	1.2	1.1	1.0
A65	185	35	26	4.5	2.6	0.56	0.50	0.42	0.28	1.2	1.2	1.2	1.0
A75	210	40	30	5.0	3.0	0.65	0.58	0.48	0.32	1.3	1.2	1.2	1.0
A90	245	45	34	5.5	3.4	0.68	0.60	0.50	0.34	1.3	1.3	1.2	1.1
A100	270	50	38	6.0	3.8	0.71	0.64	0.52	0.36	1.3	1.3	1.2	1.1
A110	295	55	42	6.5	4.2	0.75	0.67	0.55	0.38	1.3	1.3	1.3	1.1
A125	340	60	46	7.0	4.6	0.80	0.70	0.60	–	1.3	1.3	1.3	–

- 1) L尺寸根据 ΔKa值延长。
- 2) 以上偏差值只是一般指导。
- 3) 当同时都有角度和径向偏差时，可使用对应的数值。
- 4) 以上数值是在温度 T = +30°C 条件下的。如果温度增加，需将许用径向和角度偏差乘以温度系数 St。

- 1) The dimension L extends acc. to the mentioned ΔKa-values.
- 2) The above mentioned displacement values are general guidelines.
- 3) In case of angular and radial displacements at the same time you can use the values only proportionally.
- 4) The values are valid for an operating temperature of T = +30°C. If the temperature increases, you have to multiply the permissible radial and angular displacement values with the temperature factor St.

温度 T Temperature T	-25 < +30 °C	+30 < +40 °C	+40 < +60 °C	+60 < +80 °C
系数 St Factor St	1.0	0.8	0.7	0.6

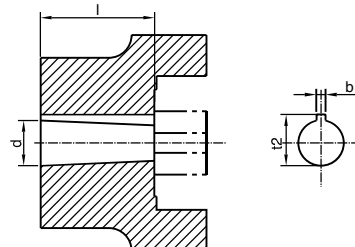
注意对中延长联轴器的寿命
注意: 公布安装指导

Careful alignment will extend the coupling life
Caution: Notify the assembly instruction

锥孔 Taper bores

代码 Code	锥度 1:8 Taper 1:8			
	ø d	b	t2	l
...N/1	9.75	2.4	10.7	17
...N/1c	11.6	3	12.9	16.5
...N/1e	13	2.4	13.8	21
...N/1d	14	3	15.5	17.5
...N/1b	14.3	3.2	15.7	19.5
...N/2	17.28	3.2	18.2	24
...N/2a	17.28	4	18.9	24
...N/3	22	4	23.4	28
...N/4	25.46	4.78	27.8	36
...N/4b	25.46	5	28.2	36
...N/4a	27	4.78	28.8	32.5
...N/4g	28.45	6	29.3	38.5
...N/5	33.17	6.38	35.4	44
...N/5a	33.17	7	35.4	44
...N/6	43.05	7.95	46.5	51
...N/6a	41.15	8	44.2	42.5

代码 Code	锥度 1:5 Taper 1:5			
	ø d	b	t2	l
A10	9.85	2	10.9	11.5
B17	16.85	3	18.9	18.5
C20	19.85	4	22.0	21.5
Cs22	21.95	3	23.8	21.5
D25	24.85	5	27.9	26.5
E30	29.85	6	32.5	31.5
F35	34.85	6	37.5	36.5
G40	39.85	6	45.5	41.5



标准公制孔径 *Standard metric bores*

[illegible]

型号 Type	轴套 Hub	材料 Material	成品孔径根据ISO标准H7，键槽根据DIN 6885，表1 (JS9) Finish bores acc. to ISO-Standard H7, keyway acc. To DIN 6885, sheet 1 (JS9)																								
			20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	63	65	70	75	80	85	90	100	110
A55	A	GG							x	x	x	x	x	x	x	x											
A55/70	B																	x		x	x						
A55/70	L=140																	x		x							
A65	A	GG								x	x	x	x	x	x	x	x			x							
A65/75	B																				x	x					
A65/75	L=140																					x					
A75	A	GG									x	x	x	x	x	x	x	x	x	x	x						
A75/90	B																						x	x	x		
A90	A	GG														x	x	x	x	x	x	x	x	x			
A90/100	B																									x	
A100/110	B	GG																					x		x	x	x

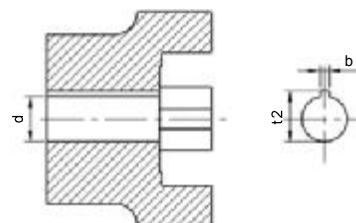
标准英制孔径 *Standard inch bores*

型号 Type	轴套 Hub	材料 Material	V	TA	DNC	S	E	ES	ED	DNH	Ad	AS	A	G	F	B	Bs	H	Hs	Sb	Sd	Js	K	M	C	N	L	KS	NM	D	P	W
A19	A	Al	x	x	x				x	x	x	x	x																			
A19/24	B													x		x																
A19	A	GG	x	x				x	x	x			x																			
A19/24	B													x	x																	
A24	A	Al		x	x	x	x	x	x	x	x	x	x	x	x																	
A24/32	B															x	x		x	x				x								
A24	A	GG		x		x		x	x	x	x	x	x	x	x																	
A24/32	B																x			x			x	x								
A28	A	Al		x				x		x			x	x	x		x															
A28/38	B																															
A28	A	GG								x			x	x	x		x															
A28/38	B																															
A38	A	Al						x	x			x	x	x	x		x															
A38/45	B																															
A38	A	GG												x	x		x															
A38/45	B																															
A42	A	GG												x	x		x															
A42/55	B																															
A48	A	GG												x	x																	
A48/60	B																															

型号 Type	轴套 Hub	材料 Material	G	F	K	M	C	N	L	NM	DS	D	P	W	WN	WA	WK
A55	A	GG	x	x	x	x	x	x	x	x							
A55/70	B												x	x			
A65	A	GG			x	x	x	x	x			x		x			
A65/75	B														x		
A75	A	GG			x		x		x		x	x		x			
A75/90	B															x	
A90	A	GG							x		x	x					x

英制孔径尺寸 *Dimensions inch bores*

代码 Code	ø d [mm]	键槽 Keyway b [mm]	t2 [mm]	代码 Code	ø d [mm]	键槽 Keyway b [mm]	t2 [mm]	代码 Code	ø d [mm]	键槽 Keyway b [mm]	t2 [mm]
V	11.11 H7	3.18	12.34	G	22.22	4.75	24.7	C	38.07	9.55	43
TA	12.7	3.17	14.3	F	22.22	6.35	25.2	N	41.29	9.55	46.1
DNC	13.45 H7	3.17	14.9	B	25.37	4.78	27.8	L	44.45	11.11	49.5
S	15.87	3.97	17.9	BS	25.38	6.37	28.3	NM	47.625	12.73	53.4
E	15.87	3.17	17.5	H	25.4	4.78	27.8	DS	50.77	12.73	56.4
ES	15.88	4	17.7	SB	28.6	6.35	32.1	D	50.8	12.73	55.1
ED	15.89	4.75	18.3	SD	28.58	7.93	32.1	P	53.95	12.73	59.6
DNH	17.465	4.75	19.6	JS	31.75	6.35	34.62	W	60.37	15.87	68.8
Ad	19.02	3.17	20.7	K	31.75 K7	7.93	35.5	WN	73.025	19.05	83
AS	19.02	4.78	21.3	KS	31.75	7.93	36.6	WA	85.78	22.22	97.3
A	19.05	4.78	21.3	M	34.94	7.93	39	WK	92.08	22.22	103.3



可选购的花键孔径 *Available splines*

花键 DIN 5480 Spline DIN 5480	花键 DIN 5482 Spline DIN 5482	花键 SAE Spline SAE
N 20 x 1.25 x 14 x 9 G	A 17 x 14	16/32 x 9 J 498 B
N 25 x 1.25 x 18 x 9 G	A 28 x 25	16/32 x 11 J 498 B
N 30 x 2 x 14 x 9 G	A 30 x 27	16/32 x 13 J 498 B
N 35 x 2 x 16 x 9 G	A 35 x 31	16/32 x 15 J 498 B
N 40 x 2 x 18 x 9 H	A 40 x 36	16/32 x 21 J 498 B
N 45 x 2 x 21 x 9 G	A 45 x 41	16/32 x 23 J 498 B
N 50 x 2 x 24 x 9 G	A 48 x 44	16/32 x 27 J 498 B
N 55 x 2 x 26 x 9 G	A 50 x 45	12/24 x 14 J 498 B
N 60 x 2 x 28 x 9 G	A 58 x 53	12/24 x 17 J 498 B
N 70 x 3 x 22 x 9 G	A 70 x 64	8/16 x 13 J 498 B
N 80 x 3 x 25 x 9 G		13/4 x 6 J 498 B
N 90 x 3 x 28 x 9 G		

建议：带花键孔的轴套采用夹紧式轴套！
也可选配带固定螺钉。
Coupling-hubs with spline are recommended as clamping-hub! Available also with set screw.