

Solutions for Fluid Technology



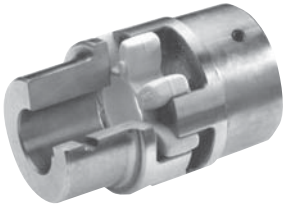
SOFTEX® 弹性联轴器 和 无齿隙联轴器

SOFTEX® ELASTIC AND NO BACKLASH SHAFT COUPLINGS

SOFTEX® 弹性联轴器

SOFTEX® 标准弹性联轴器

SOFTEX®-STANDARD COUPLINGS



- 扭向弹性, 免维护
- 降低振动
- 轴向可插拔
- 全面加工处理 – 优异的动态性能
- 结构紧凑, 转动惯量小
- 轴套材质: 铝合金, 铸铁(EN-GJL-250), 球墨铸铁(EN-GJS-400-15), 烧结钢和钢质
- 不同硬度的弹性体可供选择
- 孔径有圆柱形(公制/英制), 锥度或按照DIN SAE标准的花键可供选择
- **Atex** 认证
- Torsionally flexible, maintenance-free
- Vibration reducing
- Axially pluggable
- Machined all over – good dynamic properties
- Compact design / low flywheel effects
- Available hub materials: Aluminium, cast iron (EN-GJL-250), spheroidal cast iron (EN-GJS-400-15), sintered steel and steel
- Different elastomer hardness of the gear rings
- Bore diameter cylindrical (metric/inch), available tapered or splined acc. to DIN SAE standard
- **Atex approval**

SOFTEX®-TL 带锥形胀套的联轴器

SOFTEX®-TL WITH TAPER BUSH



- 适用于机械工程领域的所有驱动应用
- 驱动轴连接/轴套连接的锁紧摩擦力可调
- 分别由TL1/1, TL2/2, TL1/2类型联轴器可选
- TL 2 联轴器轴套轴向可拆解
- 有各种标准锥度胀套
- For all driving applications concerning mechanical engineering
- Friction-locked solvable shafts/hub connections
- Coupling types TL 1/1; TL 2/2 and TL 1/2 possible
- Coupling hubs TL 2 axially separable
- Application with all standard taper bushes

SOFTEX® ELASTIC COUPLINGS

SOFTEX®-FA 带法兰联轴器

SOFTEX®-FA FLANGE COUPLINGS



- 法兰轴套适合重型机械
- 所有轴套的法兰侧均未加工, 可按装配需求完成加工
- 两个法兰轴套可以组合, 或者 FA法兰轴套与标准 Softex®轴套组合
- 材质: 铸铁 (EN-GJL-250)
- Flange hubs for heavy machinery
- All sizes are unmachined on the flange side and available ready for assembly
- 2 flanges can be combined or FA flange with standard Softex® hub
- Material: Cast Iron (EN-GJL-250)

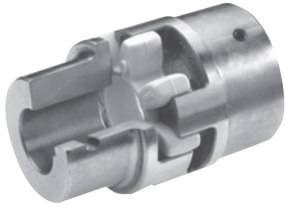
SOFTEX®-ES 无齿隙联轴器

SOFTEX®-ES NO BACKLASH COUPLINGS



- 预紧力下无齿隙轴连接
- 材质: 铝制轴套
- 不同弹性体硬度可供选择
- 三个简易万向爪
- 轴向可插拔 – 装配简单, 耗时少
- 尺寸小, 转动惯量小
- 免维护
- 方便目测
- 可配所有常用孔径
- 成品孔径满足ISO标准H7级公差 (夹紧轴套 F7) 孔径 ≥ 6 以上的键槽满足DIN6885 P.1-JS9标准
- Under initial tension no backlash shaft connection
- Material: Hubs made of aluminium
- Different elastomer hardness of the gear rings
- Triple simple cardanic coupling
- Axially pluggable – simple blind mounting, no time-consuming screwings
- Small structural dimensions – low flywheel effects
- Maintenance-free
- Simple optical test
- Available for all usual shaft dimensions
- Finish bores acc. to ISO limit and fit H7 (clamp hub F7) keyway from ≥ 6 acc. to DIN 6885 P.1-JS9

SOFTEX® 标准联轴器 (弹性联轴器)

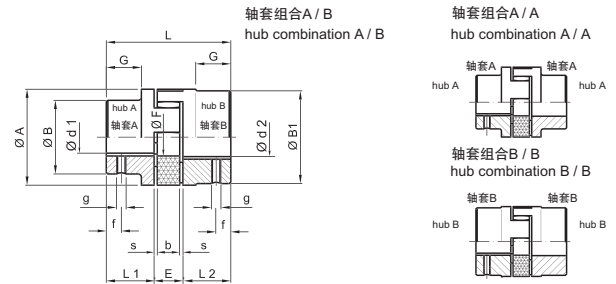


产品描述

- 扭向弹性, 免维护
- 降低振动
- 轴向可插拔
- 全面加工 - 良好的动态特性
- 结构紧凑 / 转动惯量小

材质: 压铸铝

SOFTEX® STANDARD COUPLINGS (ELASTIC COUPLINGS)



PRODUCT DESCRIPTION

- Torsionally flexible, maintenance-free
- Vibration reducing
- Axially pluggable
- Machined all over – good dynamic properties
- Compact design / low flywheel effects

MATERIAL: DIE CAST ALUMINIUM

	轴套 A / HUB A			轴套 A / HUB B			尺寸 / DIMENSIONS mm														可加长轴套B的最大长度 EXTENDED B-HUBS max. mm	重量 ² WEIGHT kg 组合 A/B COMBINATION A/B
产品代码 SIZE	预制孔直径 PREBORE d1	成孔直径 ¹⁾ PREBORE d1		预制孔直径 PREBORE d2	成孔直径 ¹⁾ FINISH BORE d2		A	B	B ₁	L	L ₁ + L ₂	E	s	b	G	F	g	f				
	min	max		min	max																	
19/24 铝质 Aluminium	6	6	19	18	20	24	40	31	38	66	25	16	2	12	20	18	M5	10	-	0,11		
24/30 铝质 Aluminium	6	8	24	22	25	30	55	39	48	78	30	18	2	14	24	27	M5	10	50	0,24		
28/38 铝质 Aluminium	9	10	28	26	30	38	65	46	61	90	35	20	2,5	15	28	30	M6	15	60	0,42		
38/45 铝质 Aluminium	12	14	38	36	40	45	80	64	75	114	45	24	3	18	37	38	M8	15	-	0,86		

材质: GG = 铸铁 (DIN EN 1561/1563)

S = 烧结钢 ST = 钢质

MATERIAL: GG = CAST IRON (DIN EN 1561/1563)

S = SINTERED STEEL ST = STEEL

	轴套 A / HUB A		轴套 A / HUB B		尺寸 / DIMENSIONS mm														可加长轴套B的最大长度 EXTENDED B-HUBS max. mm	重量 WEIGHT kg 组合 A/B COMBINATION A/B
产品代码 SIZE	预制孔直径 PREBORE d1	成孔直径 ¹⁾ PREBORE d1	预制孔直径 PREBORE d2	成孔直径 ¹⁾ FINISHBORE d2	A	B	B ₁	L	L ₁ + L ₂	E	s	b	G	F	g	f				
	min	max		min	max															
14/16 S	-	-	-	-	4	16	30	-	30	35	11	13	1,5	10	-	8	M4	5	-	0,14
19/24 S	-	-	-	-	6	24	40	-	40	66	25	16	2	12	-	18	M5	10	40	0,34
24/30 S	-	-	-	-	8	32	55	-	55	78	30	18	2	14	-	27	M5	10	50	0,90
28/38 S	-	-	-	-	10	38	65	-	65	90	35	20	2,5	15	-	30	M6	15	60	1,5
38/45 GG	-	14	38	-	40	45	80	66	78	114	45	24	3	18	37	38	M8	15	70	2,35
42/55 GG	-	16	42	-	45	55	95	75	93	126	50	26	3	20	40	46	M8	20	75	3,55
48/60 GG	-	19	48	-	50	60	105	85	103	140	56	28	3,5	21	45	51	M8	20	80	4,85
55/70 GG	-	22	55	53	60	70	120	98	118	160	65	30	4	22	52	60	M10	20	90	7,4
65/75 GG	-	25	65	60	70	75	135	115	133	185	75	35	4,5	26	61	68	M10	20	100	10,8
75/90 GG	-	30	75	73	80	90	160	135	158	210	85	40	5	30	69	80	M10	25	110	17,7
90/100 GG	-	-	-	-	45	100	200	-	170	245	100	45	5,5	34	81	100	M10	25	-	29,6
100/110 ST	-	-	-	-	45	110	225	-	180	270	110	50	6	38	89	113	M12	30	-	39,0
110/125 ST	-	-	-	-	60	125	255	-	200	295	120	55	6,5	42	96	127	M16	35	-	55,0
125/145 ST	-	-	-	-	60	145	290	-	230	340	140	60	7	46	112	147	M16	40	-	77,0

1) 成品孔径满足ISO标准H7级公差, 键槽满足DIN6885 P.1-JS9标准, 锥孔见第6页

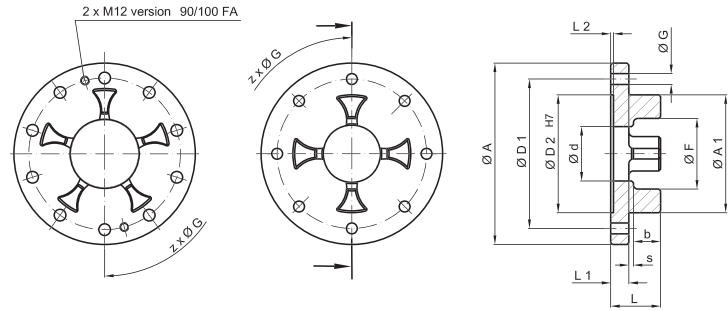
2) 所标重量是指材质为铸铝/铸铁, 且孔径d1为最大值, 不带键槽

1) Finish bores acc. to ISO- standard H 7, keyway acc. to DIN 6885, sheet 1-JS9, taper bores page 6.

2) Weights refer to materials aluminium/GG with d₁ max. without keyway.

SOFTEX®-FA 法兰型弹性联轴器

SOFTEX®-FA ELASTIC FLANGE COUPLINGS



产品描述

- 法兰轴套适用于重型机械
- 所有轴套的法兰侧均未加工, 可按装配需求完成加工
- 两个法兰型轴套可以组合, 或者FA法兰与标准 SOFTEX® 轴套组合
- 材质: 铸铁 (EN- GJL-250)

PRODUCT DESCRIPTION

- Flange hubs for heavy machinery
- All sizes are unmachined on the flange side and available ready for assembly
- 2 flanges can be combined or FA flange with standard SOFTEX® hub
- Material: Cast Iron (EN-GJL-250)

产品代码 SIZE	尺寸 DIMENSIONS mm													
	A	A ₁	L	L ₁	s	b	F	I ₂	D ₁	D ₂	d	G	Z 数量 QUANTITY	重量 ¹⁾ WEIGHT ¹⁾ kg
28/38 FA	100	65	27,5	10	2,5	15	39	1,5	80	65	30	7	6	0,55
38/45 FA	115	80	31	10	3	18	48	1,5	95	80	38	7	6	0,75
42/55 FA	140	95	35	12	3	20	57	2	115	95	46	9	6	1,35
48/60 FA	150	105	36,5	12	3,5	21	63	2	125	105	51	9	8	1,55
55/70 FA	175	120	42	16	4	22	74	2	145	120	60	11	8	2,70
65/75 FA	190	135	46,5	16	4,5	26	83	2	160	135	68	11	10	3,30
75/90 FA	215	160	54	19	5	30	98	2,5	185	160	80	14	10	4,90
90/100 FA	260	200	59,5	20	5,5	34	122	3	225	200	100	14	12	6,70

1) 重量是指 铸铁材质

1) | Weights refer to material GG.

法兰轴套

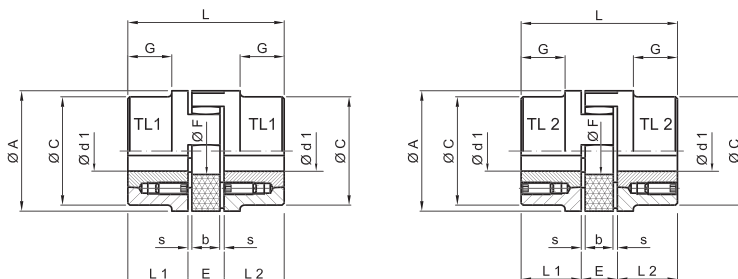
关于标准轴套的组合, 请参考第3页表格, 有关技术参数请参考第6页和第7页. 所有规格产品也可以根据要求提供半成品.

FLANGE HUBS

Please consult the table on page 3 for combinable standard hubs and pages 6 and 7 for all technical data. All sizes also available unmachined without dimensions D1-D2-12-G.

SOFTEX®-TL 带锥形胀套的弹性联轴器

SOFTEX®-TL ELASTIC COUPLINGS WITH TAPER BUSH



产品描述

- 适用于机械工程领域的所有传动应用
- 驱动轴/轴套连接锁紧力矩可调
- 联轴器的类型有 TL 1/1; TL 2/2 und TL 1/2 möglich
- 适用于所有标准锥形胀套
- 材质: 联轴器轴套为铸铁(EN-GJL-250), 锥形胀套为钢质

PRODUCT DESCRIPTION

- For all driving applications concerning mechanical engineering
- Friction-locked solvable shafts/hub connections
- Coupling types TL 1/1; TL 2/2 and TL 1/2 possible
- Application with all standard taper bushes
- Material: Coupling hub cast iron (EN-GJL-250), taper bush steel

产品代码 SIZE	锥形胀套 TAPER-BUSH	尺寸 DIMENSIONS mm									重量 - 最大孔径- WEIGHT AT MAX. BORE Ø	角动量 - 最大孔径- ANGULAR MOMEN- TUM AT MAX. BORE Ø	锥形胀套的紧固螺栓 FIXING SCREW FOR TAPER-BUSH			
		A	C	L	L ₁ L ₂	E	s	b	G	F			口径 SIZE INCH	长度 LENGTH mm	数量 QUANT.	扭矩 TORQUE Nm
28/38	1108	65	65	66	23	20	2,5	15	-	30	1,0	0,0007	1/4"	13	2	5,6
38/45	1108	80	78	70	23	24	3	18	15	38	2,7	0,0030	1/4"	13	2	5,6
42/55	1610	95	93	78	26	26	3	20	16	46	3,0	0,0036	3/8"	16	2	20
48/60	1615	105	103	106	39	28	3,5	21	28	51	4,8	0,0080	3/8"	16	2	20
55/70	2012	120	118	96	33	30	4	22	20	60	4,9	0,0120	7/16"	22	2	31
65/75	2012	135	115	101	33	35	4,5	26	19	68	6,9	0,0140	7/16"	22	2	31
75/90	1) 2517	160	158	144	52	40	5	30	36	80	14,5	0,0650	1/2"	25	2	50
	2) 3020												5/8"	32		90

1) 只适用于 TL 1

2) 只适用于 TL 2

1) only available for TL 1 2) only available for TL 2

锥形胀套代码 SIZE OF TAPER BUSH	可提供的成品孔径D1; 公差配合H7级 - 键槽依据标准 DIN 6885 BL 1* BORE DIMENSIONS AVAILABLE d1; LIMIT AN FIT H7 - KEYWAY ACC. TO DIN 6885 P.1*																	
1108	9	10	11	12	14	16	18	19	20	22	24	25	28*					
1610	14	16	18	19	20	22	24	25	28	30	32	35	38	40	42*			
1615	14	16	18	19	20	22	24	25	28	30	32	35	38	40	42*			
2012	14	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50
2517	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55

*带键槽的孔(平槽)依据标准DIN6885第3页

*Bore with keyway (flat type) acc. to DIN 6885 page 3

订货示例

ORDER EXAMPLE

联轴器代码 SIZE OF COUPLING	弹性体硬度 (肖氏) HARDNESS OF SPIDER SHORE A	轴套 HUB	成孔孔径 FINISH BORE	轴套 HUB	成孔孔径 FINISH BORE
SOFTEX*42/55	92°	TL 1	Ø 28	TL 1	Ø 38

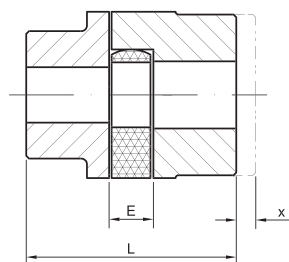
联轴器类型, 适合所有材料 COUPLING TYPES FOR ALL MATERIALS	扭矩/TORQUE Nm			扭矩/TORQUE Nm			扭矩/TORQUE Nm			扭矩/TORQUE Nm			MAX. 转速! SPEED 1 / MIN AT V / AT V	
	聚氨酯弹性体 POLYURETHANE SPIDER 肖氏硬度 80° / 80° Shore A 蓝色 / colour: blue			聚氨酯弹性体 POLYURETHANE SPIDER 肖氏硬度 92° / 92° Shore A 白色 / colour: white			聚氨酯弹性体 POLYURETHANE SPIDER 肖氏硬度 98° / 肖氏硬度 95° / 98° Shore A / 95° Shore A 红色 / colour: red			聚氨酯弹性体 POLYURETHANE SPIDER 肖氏硬度 64° / 64° Shore D 绿色 / colour: green				
	额定扭矩 CONT. T _{KN}	最大扭矩 TK _{MAX.}	交变扭矩 ALTER- NATING T _{KW}	额定扭矩 CONT. T _{KN}	最大扭矩 TK _{MAX.}	交变扭矩 ALTER- NATING T _{KW}	额定扭矩 CONT. T _{KN}	最大扭矩 TK _{MAX.}	交变扭矩 ALTER- NATING T _{KW}	额定扭矩 CONT. T _{KN}	最大扭矩 TK _{MAX.}	交变扭矩 ALTER- NATING T _{KW}		
14/16	4	8	1	7,5	15	2	12,5	25	3,3	-	-	-	19000	-
19/24	4,9	9,7	1,3	10	20	2,6	17	34	4,4	-	-	-	14000	19000
24/30	17	34	4,4	35	70	9	60	120	16	75	150	20	10600	14000
28/38	46	92	12	95	190	25	160	320	42	200	400	52	8500	11800
38/45	93	186	24	190	380	49	325	650	85	405	810	105	7100	9500
42/55	130	260	34	265	530	69	450	900	120	560	1120	145	6000	8000
48/60	150	300	39	310	620	81	525	1050	137	655	1310	170	5600	7100
55/70	180	360	47	410	820	93	685	1370	163	750	1500	195	4750	6300
65/75	205	410	53	625	1250	111	940	1880	169	800	1600	208	4250	5600
75/90	475	950	124	1280	2560	254	1920	3840	390	1830	3660	476	3550	4750
90/100	1175	2350	306	2400	4800	624	3600	7200	963	4500	9000	1170	2800	3750
100/110	-	-	-	-	-	-	4950	9900	1287	-	-	-	2500	3350
110/125	-	-	-	-	-	-	7200	14400	1560	-	-	-	2240	3000
125/145	-	-	-	-	-	-	7500	15000	1950	-	-	-	2000	2650

1) 当圆周速度超过 $V = 30 \text{ m/s}$,
建议采用球墨铸铁或钢制联轴器轴套并做动平衡

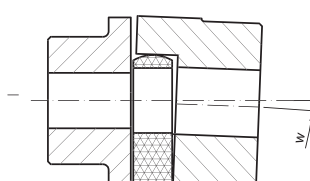
1) For peripheral speeds exceeding $V = 30 \text{ m/s}$ dynamically balanced hubs
made of GGG or steel instead of GG hubs are required.

偏差值

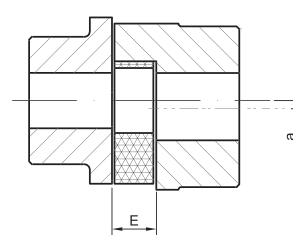
MISALIGNMENT VALUES



轴向偏差
Axial displacement



角向偏差
Angular displacement or



径向偏差
Radial displacement

联轴器代码 SIZE	E	最大轴向偏差* MAX. AXIAL DISPLACEMENT* mm x	最大角向偏差 MAX. ANGULAR DISPLACEMENT w 1500 1/min or	最大径向偏差 MAX. RADIAL DISPLACEMENT 1500 1/min, mm a
14/16	13	1,0	0,9°	0,17
19/24	16	1,2	0,9°	0,2
24/30	18	1,4	0,9°	0,22
28/38	20	1,5	0,9°	0,25
38/45	24	1,8	1°	0,28
42/55	26	2,0	1°	0,32
48/60	28	2,1	1,1°	0,36
55/70	30	2,2	1,1°	0,38
65/75	35	2,6	1,2°	0,42
75/90	40	3,0	1,2°	0,48
90/100	45	3,4	1,2°	0,50
100/110	50	3,8	1,2°	0,52
110/125	55	4,2	1,3°	0,55
125/145	60	4,6	1,3°	0,60

* 角向偏差的情形下, 因素“E”和“L”是对应最大值
当安装联轴器时, 要注意准确调整尺寸“E”, 以保证联轴器的轴向柔性. 两
连接轴的准确同轴对心会大大提高联轴器的稳定性. 偏差值取决于扭矩
和速度等.

* In case of axial misalignment the factors “E” and “L” are the max. values.
When mounting the coupling, dimension “E” must be observed exactly in order
to keep the coupling axially flexible. The stability of the coupling will be incre-
ased by careful alignment of the shafts. The displacement values depend on
torque speed and performance.

工况类型 系数

SERVICE FACTOR K1 FOR OPERATING TYPE

工况类型 OPERATING TYPE	被驱动设备 / 示例 DRIVEN MACHINE/EXAMPLES	设备的发动机 PRIME MOTOR				
		电动机 E-MOTOR	柴油机 / 汽油机 (缸式) DIESEL- / PETROL ENGINES (CYLINDERS)			
			≥4	3	2	1
a	单一工况, 轻负载 液泵, 离心泵, 轻型发电机, 传动设备, 通风机, 输送设备 Uniform operation, with small masses to be accelerated Hydraulic and centrifugal pumps, light generators, transmissions, ventilators, transfer equipments	1,0 - 1,25	1,2 - 1,5	1,5 - 1,7	1,7 - 2,0	2,4 - 2,7
b	单一工况, 中等负载 金属板输送设备, 木工机械, 纺织机械, 研磨机, 搅拌机 Uniform operation, with medium masses to be accelerated Sheet metal banding machines, wood working machines, textile machines, mills, mixers	1,6 - 1,8	1,7 - 2,0	2,0 - 2,3	2,3 - 2,5	2,8 - 3,0
c	非规律性工况, 中等负载 转炉, 印刷和上色机械, 发电机, 粉碎机, 卷板机, 纺纱机, 粘度流体泵 With medium masses to be accelerated and irregular operation Rotating ovens, printing and colouring machines, generators, shredders, winders, spinning machines, pumps for viscous fluids	1,8 - 1,9	2,0 - 2,0	2,3 - 2,5	2,5 - 2,7	2,9 - 3,1
d	非规律性工况, 有冲击, 中等负载 混凝土搅拌设备, 冲击锤, 缆车, 造纸机械, 压缩机和叶片泵, 卷扬机, 离心设备 With medium masses to be accelerated, irregular operation and shocks Concrete mixers, drop hammers, cable cars, paper mills, compression and propeller pumps, rope winders, centrifuges	1,8 - 2,0	2,2 - 2,5	2,5 - 2,7	2,7 - 3,0	3,1 - 3,4
e	非规律性工况, 有重冲击, 大负载 挖掘机, 锤式粉碎机, 柱塞泵, 压铸机, 镗孔机, 剪板机, 锻压机, 冲压设备 Large masses to be accelerated, irregular operation and heavy shocks Excavators, hammer mills, piston pumps, presses, rotary boring machines, shears, forge presses, stamping presses	2,1 - 2,3	2,5 - 2,7	2,7 - 3,0	3,2 - 3,4	3,5 - 3,8
f	非规律性工况, 有重冲击, 非常大负载 柱塞式压缩机, 恒速泵, 重型轧机, 制砖机, 碎石机 Very large masses to be accelerated, irregular operation and very heavy shocks Piston type compressors and pumps without speed variatons, heavy roll sets, welding machines, brick preses, stone crushers	2,5 - 3,1	3,0 - 3,3	3,3 - 3,6	3,7 - 4,0	4,1 - 4,5

安全系数K2与运行时间 (小时/天) SAFETY FACTOR K2 FOR OPERATION PERIOD (HOURS/DAY)				
超过 more than	-	2	12	
最大值 up to	2	12	24	
安全系数 K2 Factor K2	0,9	1	1,1	

安全系数K3与 每小时启动次数 SAFETY FACTOR K3 FOR STARTS PER HOUR					
超过 more than	-	10	40	125	500
最大值 up to	10	40	125	500	-
工况类型 a-c Operating type a-c	1	1,05	1,3	1,45	1,6
工况类型 d-f Operating type d-f	1	1,05	1,1	1,15	1,5

标志 DESIGNATION	定义 DEFINITION				
启动因素 SZ STARTING FACTOR SZ	本因素考虑了每小时启动频率Z所引起的额外负载 The factor which takes into account the additional loading caused by the frequency Z of starts per hour	z	100	200	400
		Sz	1	1,2	1,4
温度因素 ST TEMPERATURE FACTOR ST	本因素考虑了温度的影响所导致的弹性橡胶材料的稳定性下降 The factor which considers the decrease of stability of the elastic rubber material in accordance to the thermal influence	T (°C) T (°C)	对于聚氨酯 (PUR)的St St for Polyurethan (PUR)		
		-25° < +30° < +30° < +40° < +40° < +60° < +60° < +80° < +80° < +110° < +110°	1 1,2 1,4 1,6		
冲击因素 S _A /S _L SHOCK FACTOR S _A /S _L	轻微启动冲击 1,5	中等启动冲击 1,8	大强度启动冲击 2,2		
	Slight starting shock 1,5	Medium starting shocks 1,8	Heavy starting shocks 2,2		

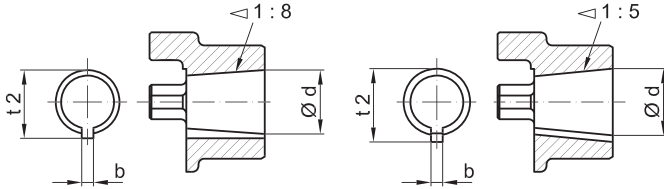
SOFTEX® 弹性体工作条件 OPERATING CONDITIONS FOR SOFTEX®-SPIDERS	标准弹性体 (聚氨酯) STANDARD SPIDER (POLYURETHANE)			特制弹性体 (热塑性弹性体) SPECIAL SPIDER (HYTREL)
弹性体硬度和颜色 HARDNESS OF SPIDER AND COLOUR	肖氏硬度80° 蓝色 80° Shore (A) Blue	肖氏硬度92° 白色 92° Shore (A) White	肖氏硬度95°/98° 红色 95°/98° Shore (A) Red	肖氏硬度64° 绿色 64° Shore (D) Green
允许持续工作温度范围 PERMISSIBLE DURABLE TEMPERATURE-RANGE	-50°C 最大值 +80° C -50° C up to +80° C	-40°C 最大值 +90° C -40° C up to +90° C	-30°C 最大值 +90° C -30° C up to +90° C	-50°C 最大值 +110° C -50° C up to +110° C
允许短暂峰值温度范围 PERMISSIBLE SHORT TERM TEMPERATURE PEAKS	-60°C 最大值 +80° C -60° C up to +80° C	-50°C 最大值 +120° C -50° C up to +120° C	-40°C 最大值 +120° C -40° C up to +120° C	-60°C 最大值 +150° C -60° C up to +150° C
减震 DAMPING	很好 Very good	好 Good	一般 Medium	低 Low
弹性 ELASTICITY	软 Soft	一般 Medium	硬 Hard	很硬 Very hard
耐磨性 ABRASION RESISTANCE	很好 Very good	很好 Very good	好 Good	好 Good
耐久性 DURABILITY	非常好 excellent	很好 Very good	很好 Very good	很好 Very good
DDDD TYPICAL APPLICATIONS	普通驱动, 又可能共振 Normal drives also resonance speed possibility	普通驱动 Normal drives	普通驱动, 高性能 High performance with high performance	高性能, 小扭转角 High performance with small torsional angle

联轴器选择

可能的最大扭矩TN作为选型基础
样本扭矩需要考虑所有安全系数

$$T_N = T_{KN} \times K1 \times K2 \times K3$$

孔代码



锥孔/TAPER 1:8

代码 CODE	孔径尺寸 BORE DETAILS			
	ds+0,05	b+0,05	t ₂ +0,1	L
... N/1	9,7	2,4	10,7	16,5
... 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	17,2	3,2	18,3	24
... N/2a	17,2	4	19,0	24
... N/2b	17,2	3	18,4	24
... N/3	22	4	23,5	28
... N/4	25,4	4,78	27,8	36
... N/4b	25,4	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	6,35	35,5	44
... N/5a	33	7	35,5	44
... N/6	43,05	7,95	46,5	51
... N/6a	41,15	8	44,2	42,5

锥孔/TAPER 1:5

代码 CODE	孔径尺寸 BORE DETAILS			
	ds+0,05	b js 9	t ₂ +0,1	L
... A 10	9,85	2	10,85	11,5
... B 17	16,85	3	18,65	18,5
... C 20	19,85	4	22,05	21,5
... Cs 22	21,95	3	23,75	21,5
... D 25	24,85	5	27,75	26,5
... E 30	29,85	6	32,45	31,5
... F 35	34,85	6	37,45	36,5
... G 40	39,85	6	42,45	41,5

联轴器的尺寸代码应该排在整个产品代码之前, 比如

24/30 N/2a

根据DIN和SAE标准的花键, 以及英制孔, 请索要单独技术资料.

This size of coupling should be inserted before the code: e.g.

24/30 N/2a

For splines acc. to DIN and SAE as well as for inch bores please ask for separate list.

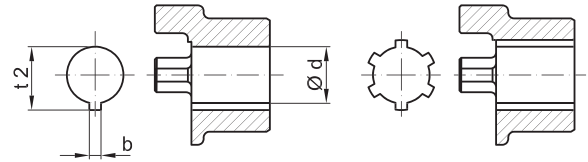
COUPLING SELECTION

The largest possible torque TN should be used as a basis.

The catalogue torque has to be multiplied with all safety factors.

$$T_N = T_{KN} \times K1 \times K2 \times K3$$

BORE CODES



英制孔/INCH BORES

代码 CODE	公制尺寸 METRIC mm			英制尺寸 INCH	
	ds	b+0,05	t ₂ +0,1	ds	b
DNB	11,11 M7	2,4	12,5	7/16	3/32
V	11,11 + 0,03	3,2	12,6	7/16	1/8
Ta	12,7 + 0,03	3,2	14,3	1/2	1/8
E	15,87 + 0,03	3,2	17,5	5/8	1/8
Ed	15,87 + 0,03	4,75	18,1	5/8	3/16
ES	15,88 + 0,03	4,0	17,7	5/8	5/32
Ad	19,02 + 0,03	3,2	20,7	3/4	1/8
A	19,05 + 0,03	4,78	21,3	3/4	3/16
Gs	22,22 + 0,03	4,78	24,4	7/8	3/16
G	22,22 + 0,03	4,75	24,7	7/8	3/16
F	22,22 + 0,03	6,35	25,2	7/8	1/4
B	25,37 + 0,03	4,78	27,8	1	3/16
Bs	25,38 + 0,03	6,37	28,3	1	1/4
HS	25,4 + 0,03	6,35	28,7	1	1/4
SB	28,58 + 0,03	6,35	31,5	1 1/8	1/4
Sd	28,58 + 0,03	7,93	32,1	1 1/8	5/16
Js	31,75 + 0,03	6,35	34,6	1 1/4	1/4
J	31,75 + 0,03	7,93	34,4	1 1/4	5/16
K	31,75 M7	7,93	35,5	1 1/4	5/16
KS	31,75 + 0,03	7,93	36,6	1 1/4	5/16
M	34,92 + 0,03	7,93	38,6	1 3/8	5/16
CB	36,5 + 0,03	9,55	38,6	1 7/16	3/8
C	38,07 + 0,03	9,55	42,5	1 1/2	3/8
N	41,25 + 0,03	9,55	45,6	1 5/8	3/8
L	44,45 K7	11,11	49,4	1 3/4	7/16
NM	47,625 + 0,03	12,73	53,5	1 7/8	1/2
DS	50,77 + 0,03	12,73	56,4	2	1/2
P	53,95 + 0,03	12,73	59,6	2 1/8	1/2
U	57,1 + 0,03	12,73	62,9	2 1/4	1/2
UB	60,3 + 0,03	15,87	67,6	2 3/8	5/8
W	69,85 M7	15,875	77,3	2 3/4	5/8
WA	73,0 + 0,03	19,05	82,9	2 7/8	3/4
WD	85,725 M7	22,225	95,8	3 3/8	7/8
WE	88,9 + 0,03	22,225	98,6	3 5/8	7/8
WF	92,075 M7	22,225	101,9	3 5/8	7/8

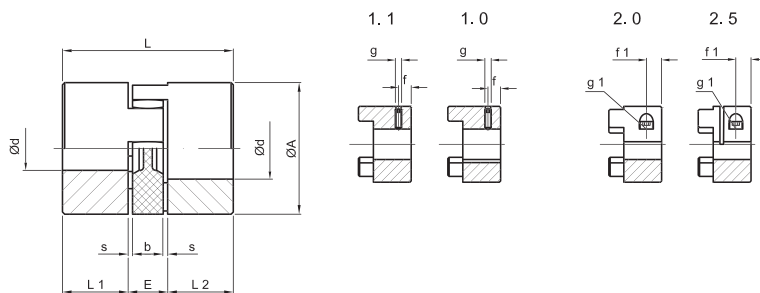
基本圆孔、锥形孔对照表

BASIC PROGRAMME METRIC AND CONICAL (TAPER) BORES ELASTIC COUPLINGS

SOFTEX® 代码 / SIZE 材质 / MATERIAL		锥形孔 / TAPER 1:5				锥形孔 / TAPER 1:8				英制孔 / INCH BORES																		
		A 10	B17	C20	D25	N/1	N1d	N/2	N/2a	N/3	A	Bs	C	Ed	Es	F	G	K	L	M	N	NM	P	Sb	Sd	Ta	WA	WD
19/24	Alu-D	•				•	•				•			•			•									•		
	S	•				•	•				•						•											
24/30	Alu-D	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•							•				
	S		•	•	•			•	•	•	•						•											
28/38	Alu-D		•	•	•			•	•	•	•	•	•	•	•	•	•	•						•		•		
	S		•	•	•			•	•	•	•	•	•			•	•	•		•								
38/45	Alu-D		•		•			•	•	•	•	•				•	•	•										
	GG		•		•			•	•	•	•		•			•	•	•		•	•		•					
42/55	GG		•		•			•	•	•		•	•			•	•	•	•		•		•					
48/60	GG												•			•		•		•	•	•	•					
55/70	GG												•					•	•			•						
65/75	GG												•					•	•				•				•	
75/90	GG																									•	•	

SOFTEX® 代码 / SIZE 材质 / MATERIAL		轴套 / HUB	成品孔按照ISO标准H7级公差, 键槽按照DIN6885-1标准 FINISH BORES ACC. ISO-STANDARD H7, KEYWAY ACC. DIN 6885, SHEET 1																																			
			6	8	9	10	11	12	14	15	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	65	70	75	80	85	90	95	100	
19/24	AIWD	A	•	•	•	•	•	•	•	•	•	•	•																									
		B													•	•	•																					
	S	B				•	•	•	•	•	•	•	•	•	•	•	•																					
24/30	AIWD	A				•	•	•	•	•	•	•	•	•	•	•																						
		B												•			•	•	•																			
	S	B				•	•	•	•	•	•	•	•	•	•	•	•	•	•																			
28/38	AIWD	A						•	•	•	•	•	•	•	•	•	•																					
		B																	•	•	•	•	•															
	S	B								•	•	•	•	•	•	•	•	•	•	•	•	•	•	•														
38/45	AIWD	A											•	•	•	•	•	•	•	•	•	•																
		B																						•	•	•												
	GG	A										•	•	•	•	•	•	•	•	•	•	•																
42/55	GG	B																						•	•	•	•	•										
		B																						•	•	•	•	•	•									
	GG	A																	•	•	•	•	•	•	•	•	•											
B																																						
48/60	GG	A																	•	•	•	•	•	•	•	•												
		B																																				
55/70	GG	A																																				
		B																																				
65/75	GG	A																								•	•	•	•	•	•							
		B																																				
75/90	GG	A																																				
		B																																				
90/100	GG	A/B																																				

• 标准长度 / Standard length ■ 轴套B加长型 / B-hub extended



产品描述

- 预紧力下无齿隙的轴连接
- 材质: 铝质轴套
- 三个结构简单的万向爪
- 轴向可插拔 – 便于装配, 无须耗时
- 结构紧凑 – 转动惯量小
- 扭向柔性, 免维护
- 方便目测
- 不同硬度的弹性体可选
- 适合所有常用轴的尺寸
- 成孔依据ISO标准H7级公差 (夹紧轴套F7级) 孔径 $\varnothing 6$ 以上的键槽依据标准DIN 6885 P.1-JS9

PRODUCT DESCRIPTION

- Under initial tension no backlash shaft connection
- Material: Hubs made of aluminium
- Triple simple cardanic coupling
- Axially pluggable – simple blind mounting, no time-consuming screwings
- Small structural dimensions – low flywheel effects
- Torsionally flexible, maintenance-free
- Simple optical test
- Different elastomer hardness of the gear rings
- Available for all usual shaft dimensions
- Finish bores acc. to ISO limit and fit H7 (clamp hub F7) keyway from $\varnothing 6$ acc. to DIN 6885 P.1-JS9

SOFTEX® ES 联轴器代码 SIZE	孔径未加工 UNBORED	成孔孔径* FINISH BORES*				尺寸 DIMENSIONS mm								紧固螺栓 CLAMPING SCREW		
			轴套类型 HUB TYPE													
		d _{min}	1,0 d _{max}	1,1 d _{max}	2,0/2,5 d _{max}	A	L	L ₁ L ₂	E	b	s	(1,0) (1,1) g	f	(2,0) (2,5) g _i	f _i	T _A [Nm]
材质 - 铝质 / MAT. - ALUMINIUM																
9	x	4	9	11	11	20	30	10	10	8	1,0	M4	5	M2,5	5,0	0,76
14	x	4	15	16	16	30	35	11	13	10	1,5	M4	5	M3	5,0	1,34
19/24	x	6	24	24	20	40	66	25	16	12	2,0	M5	10	M6	12,0	10,5
24/30	x	10	30	30	28	55	78	30	18	14	2,0	M5	10	M6	10,5	10,5
28/38	x	10	38	38	38	65	90	35	20	15	2,5	M8	15	M8	11,5	25,0
38/45	x	15	45	45	45	80	114	45	24	18	3,0	M8	15	M8	15,5	49,0

* 可按要求提供特殊孔

* Special bores on request

夹紧式轴套(2.0/2.5) 各孔径 $\varnothing D$ 所对应可传递的扭矩大小 (NM)

BORE RANGE $\varnothing d$ CORRESPONDING TRANSFERABLE TORQUES (NM) OF THE CLAMPING HUB (2.0/2.5)

SOFTEX® ES	8	9	10	11	14	15	16	19	20	24	25	28	30	32	35	38	40	42	45
9	2,5	2,6	2,7	2,8															
14	5,1	5,3	5,5	5,6	8,1	6,3	6,5												
19/24	25	26	27	27	29	30	31	32	34										
24/30			34	35	36	38	39	19	41	43	45	46							
28/38					80	81	81	85	87	91	92	97	99	102	105	109			

轴套型号1.0和1.1的成孔公差为H7级, 型号2.0和2.5的成孔公差为F7级. 键槽依据标准DIN 6885P.1-JS9

Finish bores hub types 1.0 and 1.1 limit and fit H7, types 2.0 and 2.5 limit and fit F7 Keyway acc. to DIN 6885, Page 1, Tol. JS 9

SOFTEX® ES 代码 SIZE	弹性体硬度 SPIDER SHORE°	扭矩 / TORQUE Nm			最高转速 MAX. SPEED 1/MIN V=30 m/s	静刚度 STATIC E LONGATION PER UNIT FORCE Nm/rad	允许偏差 ADMISSIBLE MISALIGNMENT n=1500 1/min			径向伸长 RADIAL ELONGATION PER UNIT FORCE Cr, N/mm	重量 WEIGHT kg	角动量 ANGULAR MOMENTUM kg/cm²
		TK _{SP}	TK _N	TK _{MAX}			轴向 Δka mm	径向 Δkr mm	角向 angular Δkw, Grad			
9	64D	0,45	6	12	28000	74	0,8	0,05	0,9	739	0,015	0,01
	92A		3	6		32		0,15	1,0	260	0,015	0,01
	98A (Standard)		5	10		51		0,09	0,9	520	0,015	0,01
14	64D	1	16	32	13000	234	1,0	0,06	0,8	856	0,06	0,06
	92A		7,5	15		114		0,15	1,0	335	0,06	0,06
	98A (Standard)		12,5	25		172		0,09	0,9	605	0,06	0,06
19/24	64D	2,5	21	42	10000	1240	1,2	0,04	0,8	2830	0,13	0,37
	92A		10	20		570		0,10	1,0	1120	0,13	0,37
	98A (Standard)		17	34		855		0,07	0,9	2010	0,13	0,37
24/30	64D	-	75	150	7000	2980	1,4	0,07	0,8	3696	0,28	1,35
	92A		35	70		1430		0,14	1,0	1780	0,28	1,35
	98A (Standard)		60	120		2060		0,10	0,9	2565	0,28	1,35
28/38	64D	-	200	400	6000	4350	1,5	0,09	0,8	4348	0,46	3,10
	92A		95	190		2292		0,15	1,0	1785	0,46	3,10
	98A (Standard)		160	320		3440		0,11	0,9	3200	0,46	3,10
38/45	64D	-	405	810	5000	10540	1,8	0,09	0,8	6474	0,90	9,62
	92A		190	650		4584		0,17	1,0	2350	0,90	9,62
	98A (Standard)		325	380		7160		0,12	0,9	4400	0,90	9,62

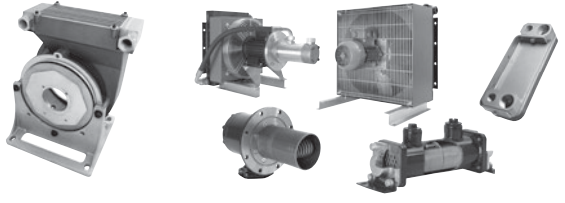
- 如较高转速, 建议轴套动平衡
- 长度L随着参数Δka的增加而增加
- 所列偏差数值均为相近值
- 如角向偏差和径向偏差同时存在, 上述参数应按比例取值
- 表中所列的值适合于工作温度T=+30°C. 如工作温度升高时, 允许的扭矩以及最大径向, 角向偏差值都需考虑一个温度因数ST

- In case of higher speeds a dynamic balancing of the hubs is required.
- The length dimension L is increased by the indicated Δka values.
- The specified misalignment values are general approximate values.
- In case of current angular and radial misalignment the indicated values can only be utilized proportionately.
- The table values are valid for an operating temperature T=+30°C. In case of a temperature increase the admissible torques and the max. admissible radial and angular misalignment values must be multiplied by the temperature factor St.

温度 TEMPERATURE	- 25 < + 30°C	+ 30 < + 40°C	+ 40 < + 60°C	+ 60 < + 80°C
因素 ST FACTOR ST	1,0	0,8	0,7	0,6

产品

DELIVERY PROGRAMME

铝制油箱 Oil tanks made of aluminium	
清洗端盖和附件 液位计和温度计 Cleaning covers and further tank accessories Level- and temperature indicators	
油箱加热器 Tank heaters	
钟罩和附件 Bellhousings and accessories	
带冷却器的钟罩 各类换热器 DOC® 钎焊板式换热器 Bellhousing with oil-cooler Heat exchangers DOC® Brazed plate heat exchanger	
SOFTEX® 弹性 和 无齿隙联轴器 SOFTEX® elastic and no backlash shaft couplings	
STAREX® 齿面联轴器 STAREX® flexible couplings	
内燃机联轴器 Diesel engine couplings	