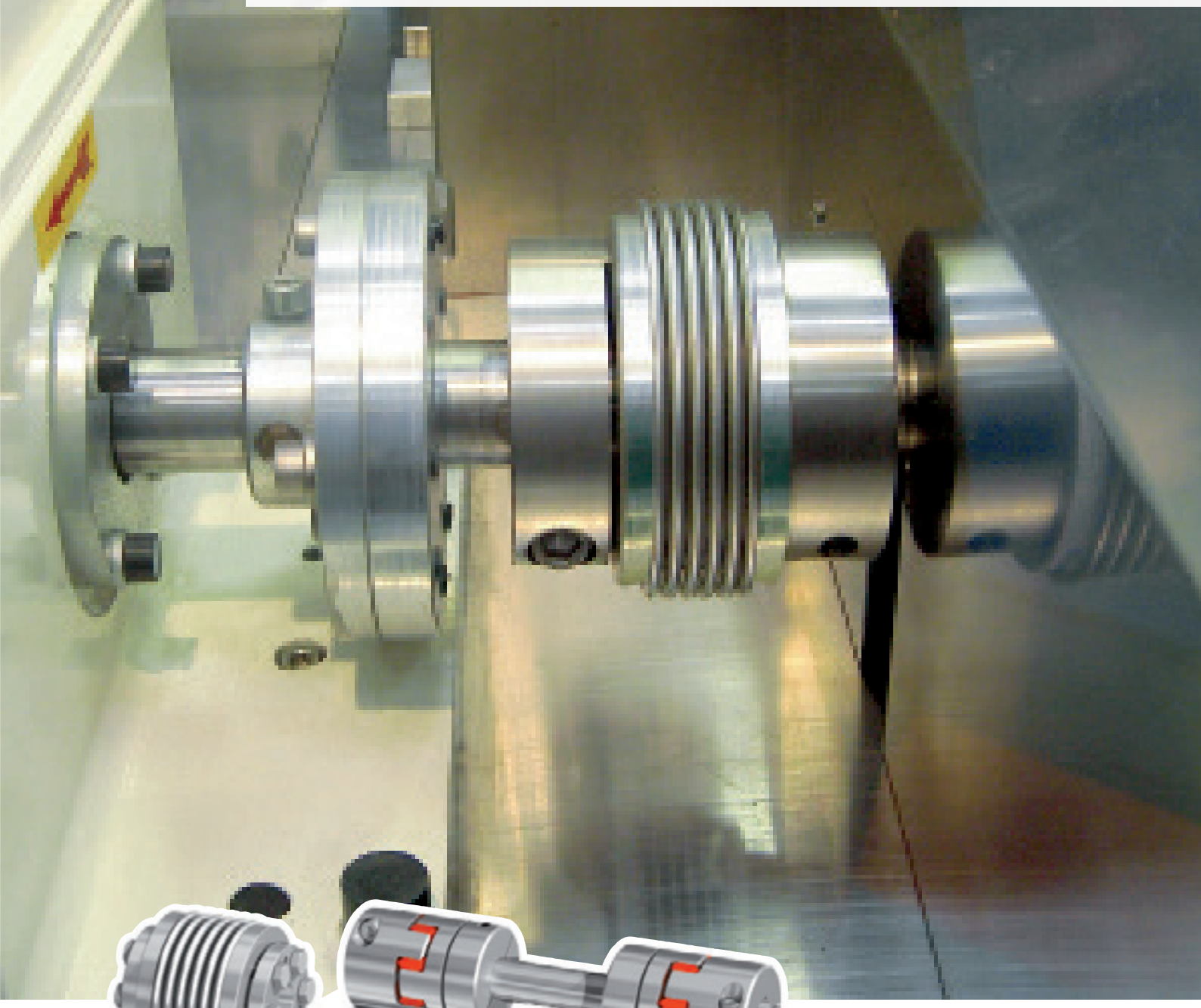
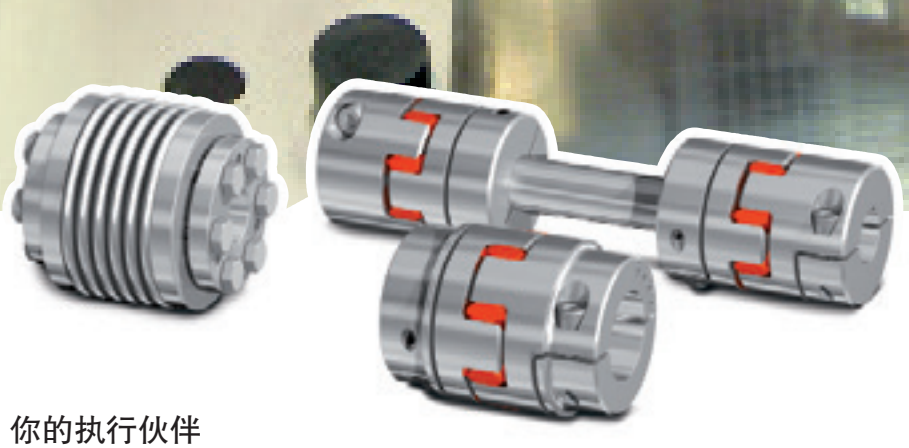
ZH|EN
09|2011

金属波纹管 & 梅花形弹性联轴器，线型联轴器

Metal Bellows & Servo-Insert Couplings, Line Shafts





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全球化运作

A Global Presence For You

RINGFEDER POWER TRANSMISSION GMBH（德国灵飞达传动有限公司）于1922年在德国科雷菲尔德创立，制造和推广摩擦弹簧。今天,我们已经将产品线扩展至顶级传动产品和减震产品。创新的理念使我们与众不同，让我们有能力不断为客户开发先进而经济的解决方案。



The RINGFEDER POWER TRANSMISSION GMBH was founded in 1922 in Krefeld, Germany to fabricate and promote Friction Spring technology. Today we have expanded our offerings to top power transmission and damping products. Innovative thinking sets us apart and allows us to develop progressive and economical solutions to support our customers.

特殊的应用要求特殊的解决方案

丰富的 RINGFEDER POWER TRANSMISSION（灵飞达传动）产品系列能够满足大多数领域的应用。我们不仅销售产品，更是通过理解客户的每一项要求（诸如，部件受力状态，安装拆卸的便利性，以及生产成本的降低），以我们的创新科技，助您实施高效和技术成熟的解决方案。

Special applications require special solutions

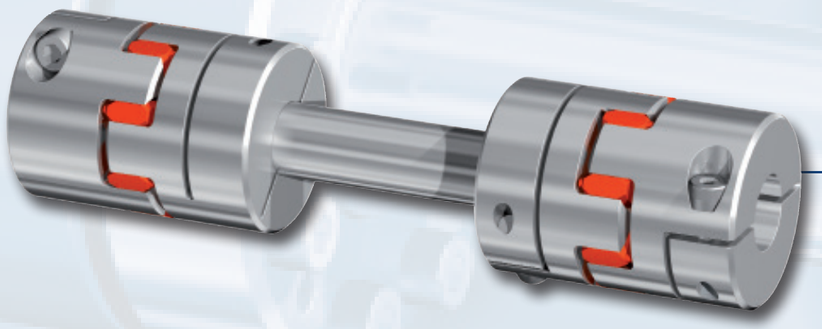
Our extensive range of RINGFEDER POWER TRANSMISSION products can be applied to solve most applications. We don´t just sell, but by understanding the individual requirements of our customers (e.g. loads on the components, easy installation/removal capability and reduction of production costs) assist you in every step with innovative engineering to plan efficient and technically mature solutions.





金属波纹管联轴器
Metal Bellows Couplings

梅花形弹性联轴器
Servo-Insert Couplings



线型联轴器
Line Shafts

德国灵飞达传动
RINGFEDER POWER TRANSMISSION

CAD - Daten erhältlich / *CAD data available:*
www.ringfeder.com

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All technical details and information are non-binding and cannot be used as a basis for legal claims. The user is obligated to determine whether the represented products meet his requirements. We reserve the right at all times to carry out modifications in the interests of technical progress. Upon the issue of this catalogue all previous brochures and questionnaires on the products displayed are no longer valid.

金属波纹管联轴器基本信息

无空回金属波纹管联轴器

金属波纹管联轴器特性:

- 无空回扭矩传递
- 高扭转刚度, 转动角度精确
- 扭转刚度各异
- 无空回轴连接
- 不锈钢材质的金属波纹管
- 组装安全，操作简单
- 可补偿径向，轴向和角度误差
- 零磨损，免维护，无停工期
- 工作温度范围–30° C 到 + 100° C
- 额定转矩0,1–5000Nm

Characteristics of Metal Bellows Couplings:

- *Backlash-free transmission of torque*
- *High torsional stiffness, precision of transmission of rotational angle*
- *Different torsional stiffness*
- *Backlash-free shaft connection*
- *Metal bellows made of stainless steel*
- *Simple and safe assembly*
- *Compensation of radial, axial and angular misalignment*
- *Free of wear, maintenance-free, no downtimes*
- *Not sensitive to temperatures between -30°C and + 100°C,*
- *Nominal torques between 0,1 – 5000 Nm*

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Premium Metal Bellows Couplings with 20% higher torques!

Vorteile

- 每个产品均具有个体标识，100%经过检验且可追溯
- 在相同的尺寸下，具有更高的扭矩
- 结构紧凑
- 孔径范围宽广
- 客户特定的解决方案
- 更高的安全使用性， 不会出现错误的螺栓拧紧力矩

Advantages

- *100% inspection and traceability through individual marking*
- *Higher torques at same dimensions*
- *Compact design*
- *Extended bore ranges*
- *Customer-specific solutions*
- *Higher safety in application, e.g. no wrong screw tightening torques*

Metal Bellows Couplings Basics

Backlash-free Metal Bellows Couplings

无空回金属波纹管联轴器运用在轴与轴之间以精确角度进行扭矩或转动传输的机械工程领域。

Backlash-free Metal Bellows Couplings are used in the sector of mechanical engineering, where a torque or a rotary motion has to be transmitted from shaft to shaft in highest accuracy of angle.

- 轴向驱动泵和垂直驱动泵
- 高动态门式驱动装置
- 轴升装置
- 线性装置
- 包装机
- 机床
- 专用机

- *Pumps with axial and vertical drives*
- *High dynamic portal drives*
- *Spindle lifting units*
- *Linear units*
- *Packaging machines*
- *Machine tools*
- *Special machines*

系列 · *Series*
EKN

微型金属波纹管联轴器（含径向定位螺钉）

Miniature Metal Bellows Coupling with radial set screws

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系列 · *Series*
DKN

微型金属波纹管联轴器 (含夹紧轮毂)

Miniature Metal Bellows Coupling with clamping hubs

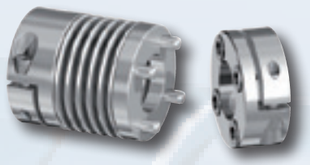
页 / *Page* 12

系列 · *Series*
DKN/S

微型金属波纹管联轴器（含夹紧轮毂和扩张型钳夹）

Miniature Metal Bellows Coupling with clamping hubs and expanding clamps

页 / *Page* 14



系列 · *Series*
PKN

金属波纹管联轴器（含插件式夹紧轮毂）

Metal Bellows Coupling with pluggable clamping hub

页 / *Page* 16

系列 · *Series*
AKN

短型金属波纹管联轴器（含夹紧轮毂，高扭转刚度）

Metal Bellows Coupling with clamping hubs, short length and higher torsional stiffness

页 / *Page* 18

系列 · *Series*
AKN-H

短型金属波纹管联轴器（含分体式夹紧轮毂，高扭转刚度）

Metal Bellows coupling with clamping hubs, short length and higher torsional stiffness in split hub design

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金属波纹管联轴器概览 · *Overview Metal Bellows Couplings*

系列 · *Series*
AKD

金属波纹管联轴器 (含夹紧轮毂)

Metal Bellows Coupling with clamping hubs

页 / *Page* 22

系列 · *Series*
AKD-H

金属波纹管联轴器（含分体式夹紧轮毂）

Metal Bellows Coupling with clamping hubs in split hub design

页 / *Page* 24

系列 · *Series*
AK

金属波纹管联轴器 (内含锥形轮毂)

Metal Bellows Coupling with inner conical hub

页 / *Page* 26

系列 · *Series*
CKN

凸缘金属波纹管联轴器

Metal Bellows Coupling with flange

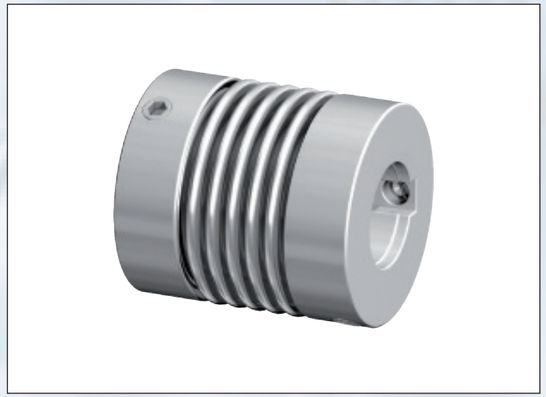
页 / *Page* 28

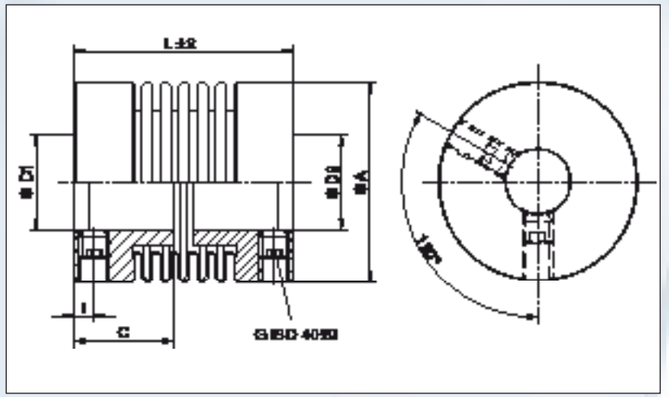
/ CAD data available:
www.ringfeder.com

系列 · *Series* EKN

尺寸规格 · *Dimensions*

L = 总长度 / *Total length*
øA = 外径 / *Outer diameter*
øD1 = 内径（一端的孔径）/*Bore diameter*
øD2 = 内径（另一端的孔径）/*Bore diameter*
C = 轴孔引导长度 / *Guided length shaft bore*
I = 基本尺寸 / *Basic dimension*
G = 夹紧螺钉 / *Clamping screws*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN} = 额定转矩 / *Nominal torque*
M_A = 螺钉的拧紧力矩 / *Tightening torque of screws*
Cy_{dyn} = 动态扭转刚度 / *Torsional stiffness*
Cr = 径向弹性刚度 / *Radial spring stiffness*
Ca = 轴向弹性刚度 / *Axial spring stiffness*
n_{max} = 转速最大值 / *Max. rotational speed*
ΔKa = 允许轴向偏差最大值 / *Max. approved misalignment axial*
ΔKw = 允许角偏差最大值 / *Max. approved misalignment angular*
ΔKr = 允许径向偏差最大值 / *Max. approved misalignment radial*
J = 转动惯量 / *Moment of inertia*

尺寸规格 · *Dimensions*

技术参数 · *Technical Data*

尺寸 *Size*	L ±2	Ø A	Ø D1/ Ø D2 Ohne Passfedernut *Without Keyway*	Ø D1/ Ø D2 Mit Passfedernut *With Keyway*	C	I	G	尺寸 *Size*	T_{KN}	M_A	Cy_{dyn}	Cr	Ca	n_{max}	Δ Ka	Δ Kw	Δ Kr	重量 *Weight*	J
	mm	mm	mm	mm	mm	mm	mm		Nm	Nm	Nm/rad	N/mm		min^{-1}	± mm	Grad/*degree*	mm	g	g cm^2
4	20/23/26	16	3-9	6-8	6	2	M3	4	0,5	0,5	250/190/150	128/54/26	18/13/11	15000	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	5/6/7	2
9	21/25/28	16	3-9	6-8	6	2	M3	9	1,1	0,5	500/380/300	187/82/42	36/27/22	15000	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	6/7/8	2/2,3/2,6
15	25/30	20	3-12	6-10	10	3	2xM4	15	1,75	1,5	750/700	139/81	23/12	15000	0,25/0,4	1,2/2	0,1/0,15	12/14	7,5/8
20	26/32/36	25	3-16	6-14	11	2	2xM3	20	2,4	1,5	1500/1300/1000	147/96/46	18/14/9	15000	0,3/0,4/0,5	1,2/2/2	0,1/0,2/0,25	16/18/20	14/16/17
45	39/48	33	6-22	6-16	16	4	2xM6	45	5,5	3	6500/4000	444/108	47/29	15000	0,3/0,5	1,2/2	0,1/0,2	48/52	68/73
100	44/54	40	6-28	6-25	20	4	2xM6	100	12	3	8100/6700	361/193	46/34	15000	0,4/0,5	1,2/2	0,15/0,25	48/58	200/220

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

特性

- 金属波纹管为不锈钢，轮毂为铝
- 轴配合公差g6或h7
- 接触面应清洁无油脂
- 可选键槽DIN6885–1

依照指示，则可以安全传递技术参数表格中的扭矩。

Characteristics

- *Metal bellows made of stainless steel, hubs made of aluminum*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed

订购实例 / *Ordering example:* EKN

系列 / *Series* 尺寸 / *Size*	长度 / *Length*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
EKN 20	26	6	10	*

* 键槽 · *Keyway*

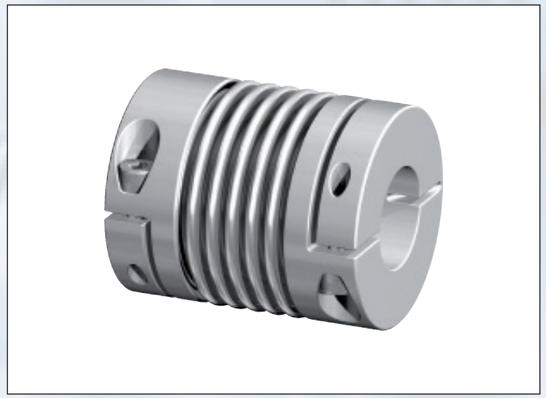
孔径 / 扭矩 · *Bore range / Torque values*

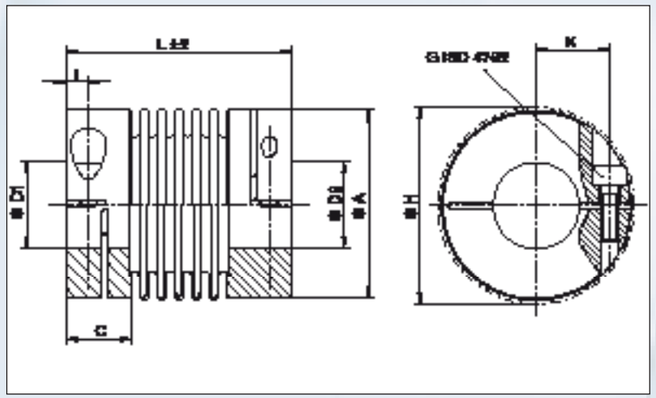
尺寸 *Size*	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8	Ø 9	Ø 10	Ø 11	Ø 12	Ø 13	Ø 14	Ø 15	Ø 16	Ø 17	Ø 18	Ø 20	Ø 22	Ø 24	Ø 26	Ø 28
4	0,5	0,5	0,5	0,5	0,5	0,5	0,5														
9	0,7	0,9	1,1	1,1	1,1	1,1	1,1														
15	1,75	1,75	1,75	1,75	1,75	1,75	1,75	1,75	1,75	1,75											
20	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4							
45				5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5			
100				7,3	8,5	9,7	11	12	12	12	12	12	12	12	12	12	12	12	12	12	12

系列 · *Series* DKN

尺寸规格 · *Dimensions*

L	=	总长度 / *Total length*
øA	=	外径 / *Outer diameter*
øH	=	留隙直径 / *Clearance diameter*
øD1	=	内径（一端的孔径）/ *Bore diameter*
øD2	=	内径（另一端的孔径）/ *Bore diameter*
C	=	轴孔引导长度 / *Guided length shaft bore*
K	=	基本尺寸 / *Basic dimension*
I	=	基本尺寸 / *Basic dimension*
G	=	夹紧螺钉 / *Clamping screws*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN}	=	额定转矩 / *Nominal torque*
M_A	=	螺钉的拧紧力矩 / *Tightening torque of screws*
Cy_{dyn}	=	动态扭转刚度 / *Torsional stiffness*
Cr	=	径向弹性刚度 / *Radial spring stiffness*
Ca	=	轴向弹性刚度 / *Axial spring stiffness*
n_{max}	=	转速最大值 / *Max. rotational speed*
ΔKa	=	允许轴向偏差最大值 / *Max. approved misalignment axial*
ΔKw	=	允许角偏差最大值 / *Max. approved misalignment angular*
ΔKr	=	允许径向偏差最大值 / *Max. approved misalignment radial*
J	=	转动惯量 / *Moment of inertia*

尺寸规格 · *Dimensions*

技术参数 · *Technical Data*

尺寸 *Size*	L ±2	Ø A	Ø H	Ø D1 / Ø D2	C	K	I	G	尺寸 *Size*	T_{KN}	M_A	Cy_{dyn}	Cr	Ca	n_{max}	Δ Ka	Δ Kw	Δ Kr	重量 *Weight*	J
	mm	mm	mm	mm	mm	mm	mm			Nm	Nm	Nm/rad	N/mm		min^{-1}	± mm	Grad/*degree*	mm	g	g cm^2
4	21/24/28	16	18	3-8	7	5	2	M2	4	0,5	0,3	250/190/150	128/54/26	18/13/11	15000	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	5/6/7	2,6
9	23/26/30	16	18	3-8	7	5	2	M2	9	1,1	0,3	500/380/300	187/82/42	36/27/22	15000	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	6/7/8	2,6/2,9/3,2
15	26/30	20	21	3-10	9	7	3	M2,5	15	1,75	0,8	750/700	139/81	23/12	15000	0,25/0,4	1,2/2	0,1/0,15	12/14	11/12
20	32/38/42	25	27	3-14	11	9	4	M3	20	2,4	1,5	1500/1300/1000	147/96/46	18/14/9	15000	0,3/0,4/0,5	1,2/2/2	0,1/0,2/0,25	20/22/24	25/27/28
45	41/50	33	34	5-17	13	12	5	M4	45	5,5	3	6500/4000	444/108	47/29	15000	0,3/0,5	1,2/2	0,1/0,2	58/62	98/103
100	47/57	40	42	5-24	14	16	5	M4	100	12	3	8100/6700	361/193	46/34	15000	0,4/0,5	1,2/2	0,15/0,25	60/70	231/250

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

特性

- 金属波纹管为不锈钢，轮毂为铝
- 轴配合公差g6或h7
- 接触面应清洁无油脂
- 可选键槽DIN6885-1
- 可选不锈钢特殊设计

依照指示，则可以安全传递技术参数表格中的扭矩。

Characteristics

- *Metal bellows made of stainless steel, hubs made of aluminum*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*
- *Optional special design in stainless steel*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed.

订购实例 / *Ordering example:* DKN

系列 / *Series* 尺寸 / *Size*	长度 / *Length*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
DKN 20	**42**	**6**	**10**	*

* 键槽或不锈钢 · *Keyway or Stainless steel*

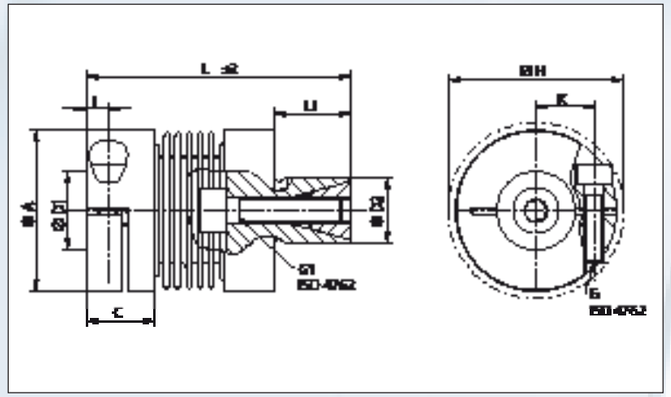
孔径 / 扭矩 · *Bore range / Torque values*

尺寸 *Size*	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8	Ø 9	Ø 10	Ø 11	Ø 12	Ø 13	Ø 14	Ø 15	Ø 16	Ø 17	Ø 18	Ø 19	Ø 20	Ø 21	Ø 22	Ø 24
4	0,5	0,5	0,5	0,5	0,5	0,5															
9	0,5	0,5	0,5	0,5	0,5	0,5															
15	1,5	1,75	1,75	1,75	1,75	1,75	1,75	1,75													
20	1,7	2,3	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4									
45			5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5						
100			7	8	9	10,5	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

系列 · *Series* DKN/S

尺寸规格 · *Dimensions*

L	=	总长度 / *Total length*
C	=	轴孔引导长度 / *Guided length shaft bore*
L1	=	基本尺寸 / *Basic dimension*
øA	=	外径 / *Outer diameter*
øH	=	留隙直径 / *Clearance diameter*
øD1	=	内径（一端的孔径）/ *Bore diameter*
øD2 f7	=	钳位直径（另一端的轴径）/ *Clamp diameter*
K	=	基本尺寸 / *Basic dimension*
I	=	基本尺寸 / *Basic dimension*
G	=	夹紧螺钉 / *Clamping screws*
G1	=	夹紧螺钉 / *Clamping screw*



剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN}	=	额定转矩 / *Nominal torque*
M_A	=	螺钉的拧紧力矩 / *Tightening torque of screws*
Cy_{dyn}	=	动态扭转刚度 / *Torsional stiffness*
Cr	=	径向弹性刚度 / *Radial spring stiffness*
Ca	=	轴向弹性刚度 / *Axial spring stiffness*
n_{max}	=	转速最大值 / *Max. rotational speed*
ΔKa	=	允许轴向偏差最大值 / *Max. approved misalignment axial*
ΔKw	=	允许角偏差最大值 / *Max. approved misalignment angular*
ΔKr	=	允许径向偏差最大值 / *Max. approved misalignment radial*
J	=	转动惯量 / *Moment of inertia*

尺寸规格 · *Dimensions*

尺寸 *Size*	L ±2	C	L1	Ø A	Ø H	ØD1	ØD2	K	I	G	G1
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
4	29/31/35	7	8	16	18	3-8	8	5	2	M2	M3
9	30/33/37	7	8	16	18	3-8	8	5	2	M2	M3
15	37/41	9	12	20	21	3-10	10	7	3	M2,5	M4
20	41/47/51	11	12	25	27	3-14	10	9	4	M3	M4
45	52/61	13	16	33	34	5-17	14	12	5	M4	M5
100	61/71	14	20	40	42	5-24	16	16	5	M4	M6

技术参数 · *Technical Data*

尺寸 *Size*	T_{KN}	M_A	M_{A1}	Cy_{dyn}	Cr	Ca	n_{max}	Δ Ka	Δ Kw	Δ Kr	重量 *Weight*	J
	Nm	Nm	Nm	Nm/rad	N/mm		min^{-1}	± mm	Grad/*degree*	mm	g	g cm^2
4	0,5	0,3	1,8	250/190/150	128/54/26	18/13/11	15000	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	7/8/9	3
9	1,1	0,3	1,8	500/380/300	187/82/42	36/27/22	15000	0,2/0,3/0,4	1,2/2/2	0,1/0,15/0,2	9/10/10	3
15	1,75	0,8	3	750/700	139/81	23/12	15000	0,25/0,4	1,2/2	0,1/0,15	16/17	11/12
20	2,4	1,5	3	1500/1300/1000	147/96/46	18/14/9	15000	0,3/0,4/0,5	1,2/2/2	0,1/0,2/0,25	24/27/28	21/23/25
45	5,5	3	4	6500/4000	444/108	47/29	15000	0,3/0,5	1,2/2	0,1/0,2	64/70	80/86
100	12	3	6	8100/6700	361/193	46/34	15000	0,4/0,5	1,2/2	0,15/0,25	70/87	229/256

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

特性

- 金属波纹管为不锈钢，轮毂为铝
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽DIN6885–1
- 可选不锈钢特殊设计
- 推荐孔配合公差H7

依照指示，则可以安全传递技术参数表格中的扭矩。

Characteristics

- *Metal bellows made of stainless steel, hubs made of aluminum*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*
- *Optional special design in stainless steel*
- *For the bore tolerances we recommend fit tolerance H7*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed.

订购实例 / *Ordering example:* DKN/S

系列 / *Series* 尺寸 / *Size*	长度 / Length	Bohrungs-/ *Bore-* Ø D1	更多细节 / *Further details**
DKN/S 20	41	6	*

* 键槽或不锈钢 · *Keyway or Stainless steel*

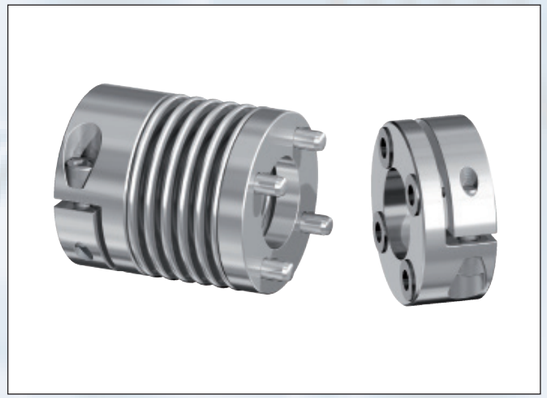
孔径 / 扭矩 · *Bore range / Torque values*

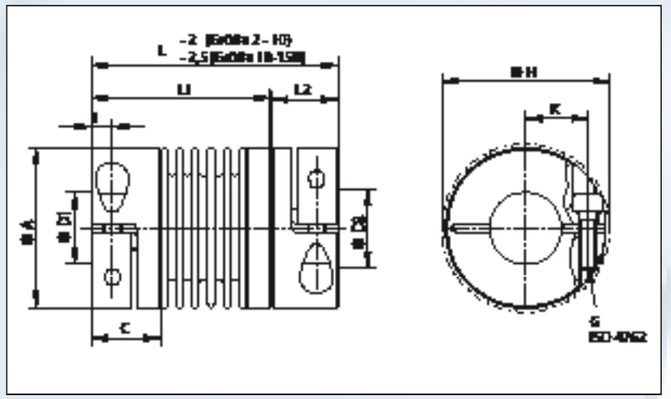
尺寸 *Size*	Ø 3	Ø 4	Ø 5	Ø 6	Ø 7	Ø 8	Ø 9	Ø 10	Ø 11	Ø 12	Ø 13	Ø 14	Ø 15	Ø 16	Ø 17	Ø 18	Ø 19	Ø 20	Ø 21	Ø 22	Ø 24
4	0,5	0,5	0,5	0,5	0,5	0,5															
9	0,5	0,5	0,5	0,5	0,5	0,5															
15	1,5	1,75	1,75	1,75	1,75	1,75	1,75	1,75													
20	1,7	2,3	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4	2,4									
45			5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5	5,5						
100			7	8	9	10,5	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

系列 · *Series* PKN

尺寸规格 · *Dimensions*

L	=	总长度 / *Total length*
L1	=	基本尺寸 / *Basic dimension*
L2	=	基本尺寸 / *Basic dimensiona*
øA	=	外径 / *Outer diameter*
øH	=	留隙直径 / *Clearance diameter*
øD1	=	内径（一端的孔径）/ *Bore diameter*
øD2	=	内径（另一端的孔径）/ *Bore diameter*
C	=	轴孔引导长度 / *Guided length shaft bore*
K	=	基本尺寸 / *Basic dimension*
I	=	基本尺寸 / *Basic dimension*
G	=	夹紧螺钉 / *Clamping screws*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN}	=	额定转矩 / *Nominal torque*
M_A	=	螺钉的拧紧力矩 / *Tightening torque of screws*
Cy_{dyn}	=	动态扭转刚度 / *Torsional stiffness*
Cr	=	径向弹性刚度 / *Radial spring stiffness*
Ca	=	轴向弹性刚度 / *Axial spring stiffness*
n_{max}	=	转速最大值 / *Max. rotational speed*
ΔKa	=	允许轴向偏差最大值 / *Max. approved misalignment axial*
ΔKw	=	允许角偏差最大值 / *Max. approved misalignment angular*
ΔKr	=	允许径向偏差最大值 / *Max. approved misalignment radial*
J	=	转动惯量 / *Moment of inertia*

尺寸规格 · *Dimensions*

尺寸 *Size*	L -2/-2,5	L1	L2	Ø A	Ø H	ØD1	ØD2	C	K	I	G
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
2	39	26	11,5	25	28	3-14	3-9,5	11	9	4	M3
4,5	47,5	33	13	33	35	6-17	6-16	13	12	5	M4
10	53,5	39	13	40	42	6-24	6-22	14	16	5	M4
18	70,5	50	18,5	45	48	8-26	8-22	20	18	6	M5
30	72	48	22	55	56	10-30	10-28	25	20	8	M6
60	88,5	57	29	66	67	10-35	14-30	29	24	10	M8
80	102,5	67	33	80	85	14-42	14-42	34	28	12	M10
150	102,5	67	33	80	85	14-42	14-42	34	28	12	M10

技术参数 · *Technical Data*

尺寸 *Size*	T_{KN}	M_A	Cy_{dyn}	Cr	Ca	n_{max}	Δ Ka	Δ Kw	Δ Kr	重量 *Weight*	J
	Nm	Nm	Nm/rad	N/mm		min^{-1}	± mm	Grad/*degree*	mm	kg	10^{-3} kg m^2
2	2,4	1,5	1,5	147	18	22900	0,4	1,2	0,2	0,032	0,02
4,5	5,5	3	6,5	444	47	17600	0,3	1,2	0,1	0,066	0,03
10	12	3	8	361	46	14100	0,4	1,2	0,15	0,092	0,04
18	22	6	8	50	200	12700	0,5	1,5	0,2	0,164	0,054
30	36	12	35	50	720	10200	0,4	1	0,1	0,28	0,123
60	75	30	75	90	1100	8600	0,4	1	0,1	0,494	0,325
80	95	60	130	80	1200	6800	0,4	1	0,2	0,855	0,884
150	180	85	150	150	2000	6800	0,4	1	0,2	0,855	0,884

转动惯量和重量（质量）由最大孔径而定。

Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

特性

- 金属波纹管为不锈钢，轮毂为铝
- 轴配合公差g6或H7
- 接触面清洁无油脂
- 可选键槽DIN6885–1
- 可选不锈钢特殊设计

依照指示，则可以安全传递技术参数表格中的扭矩。

Characteristics

- *Metal bellows made of stainless steel, hubs made of aluminum*
- *The shaft tolerance should be within the fit tolerance “g6” or “h7”*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*
- *Optional special design in stainless steel*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed.

订购实例 / *Ordering example:* PKN

系列 / *Series* 尺寸 / *Size*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
PKN 150	30	35	*

* 键槽或不锈钢 · *Keyway or Stainless steel*

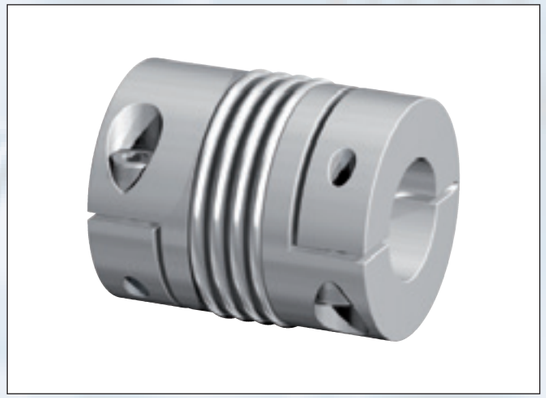
孔径 / 扭矩 · *Bore range / Torque values*

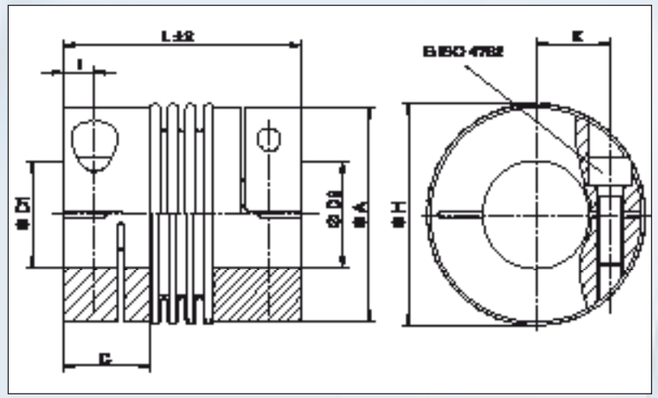
尺寸 *Size*	Ø 3	Ø 4	Ø 5	Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 15	Ø 18	Ø 20	Ø 22	Ø 25	Ø 28	Ø 30	Ø 32	Ø 35	Ø 36	Ø 38	Ø 40	Ø 42
2	1,7	2,3	2,4	2,4	2,4																
4,5			5,5	5,5	5,5	5,5	5,5	5,5													
10				8	11	12	12	12	12	12	12										
18						18	22	22	22	22	22	22									
30						36	36	36	36	36	36	36	36	36							
60								75	75	75	75	75	75	75	75						
80								95	95	95	95	95	95	95	95	95	95	95	95	95	95
150								180	180	180	180	180	180	180	180	180	180	180	180	180	180

系列 · *Series* AKN

尺寸规格 · *Dimensions*

L	=	总长度 / *Total length*
øA	=	外径 / *Outer diameter*
øH	=	留隙直径 / *Clearance diameter*
øD1	=	内径（一端的孔径）/ *Bore diameter*
øD2	=	内径（另一端的孔径）/ *Bore diameter*
C	=	轴孔引导长度 / *Guided length shaft bore*
K	=	基本尺寸 / *Basic dimension*
I	=	基本尺寸 / *Basic dimension*
G	=	夹紧螺钉 / *Clamping screws*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN}	=	额定转矩 / *Nominal torque*
M_A	=	螺钉的拧紧力矩 / *Tightening torque of screws*
Cy_{dyn}	=	动态扭转刚度 / *Torsional stiffness*
Cr	=	径向弹性刚度 / *Radial spring stiffness*
Ca	=	轴向弹性刚度 / *Axial spring stiffness*
n_{max}	=	转速最大值 / *Max. rotational speed*
ΔKa	=	允许轴向偏差最大值 / *Max. approved misalignment axial*
ΔKw	=	允许角偏差最大值 / *Max. approved misalignment angular*
ΔKr	=	允许径向偏差最大值 / *Max. approved misalignment radial*
J	=	转动惯量 / *Moment of inertia*

尺寸规格 · *Dimensions*

技术参数 · *Technical Data*

尺寸 *Size*	L ±2	Ø A	Ø H	Ø D1 / Ø D2	C	K	I	G
	mm	mm	mm	mm	mm	mm	mm	mm
18	63	45	48	8-26	20	18	6	M5
30	65	55	56	10-30	25	20	8	M6
60	78	64	67	12-35	29	24	10	M8
80	90	80	84	14-42	33	28	12	M10
150	90	80	84	14-42	33	28	12	M10
200	99	90	93	22-46	38	31	13	M12
300	104	110	110	24-60	38	39	13	M12
500	111	119	122	35-64	41	43	15	M14

尺寸 *Size*	T_{KN}	M_A	Cy_{dyn}	Cr	Ca	n_{max}	Δ Ka	Δ Kw	Δ Kr	重量 *Weight*	J
	Nm	Nm	10^3 Nm/rad	N/mm		min^{-1}	± mm	Grad/*degree*	mm	kg	10^{-3} kg m²
18	22	6	8	200	50	12700	0,5	1,5	0,2	0,133	0,05
30	36	12	35	720	50	10200	0,4	1	0,1	0,245	0,11
60	75	30	75	1100	90	8600	0,4	1	0,1	0,406	0,29
80	95	60	130	1200	80	6800	0,4	1	0,2	0,742	0,87
150	180	85	150	2000	150	6800	0,4	1	0,2	0,742	0,87
200	240	100	170	2500	150	6300	0,4	1	0,2	1,054	1,44
300	360	120	500	6300	280	5900	0,4	1	0,2	1,434	3
500	600	190	680	8800	100	4900	0,5	1	0,2	1,949	4,7

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

特性

- 金属波纹管为不锈钢，轮毂为铝
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽尺寸DIN6885–1
- 可选不锈钢特殊设计

依照指示，则可以安全传递技术参数表格中的扭矩。

Characteristics

- *Metal bellows made of stainless steel, hubs made of aluminum*
- *The shaft tolerance should be within the fit tolerance “g6” or “h7”*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*
- *Optional special design in stainless steel*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed.

订购实例 / *Ordering example:* AKN

系列 / *Series* 尺寸 / *Size*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
AKN 150	**30**	**35**	*

* 键槽或不锈钢 · *Keyway or Stainless steel*

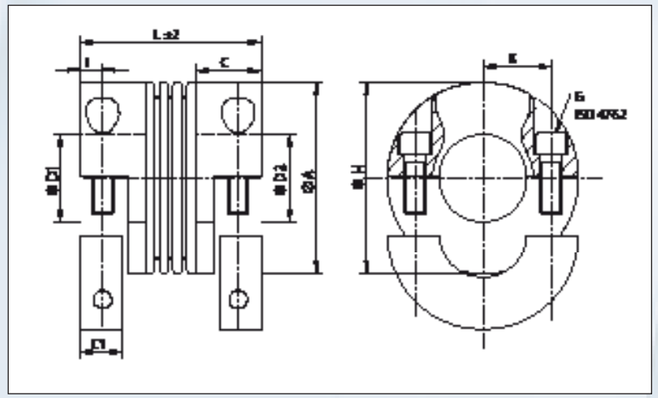
孔径 / 扭矩 · *Bore range / Torque values*

尺寸 *Size*	Ø 8	Ø 9	Ø 10	Ø 11	Ø 12	Ø 13	Ø 15	Ø 16	Ø 18	Ø 20	Ø 22	Ø 25	Ø 28	Ø 30	Ø 35	Ø 40	Ø 45	Ø 50	Ø 55	Ø 60	Ø 64
18	18	20	22	22	22	22	22	22	22	22	22	22									
30			36	36	36	36	36	36	36	36	36	36	36	36							
60					75	75	75	75	75	75	75	75	75	75	75						
80							95	95	95	95	95	95	95	95	95	95					
150							180	180	180	180	180	180	180	180	180	180					
200											240	240	240	240	240	240	240				
300												360	360	360	360	360	360	360	360	360	
500															600	600	600	600	600	600	600

系列 · *Series* AKN-H

尺寸规格 · *Dimensions*

L = 总长度 / *Total length*
øA = 外径 / *Outer diameter*
øH = 留隙直径 / *Clearance diameter*
øD1 = 内径（一端的孔径）/ *Bore diameter*
øD2 = 内径（另一端的孔径）/ *Bore diameter*
C = 轴孔引导长度 / *Guided length shaft bore*
C1 = 夹紧长度 / *Clamping length*
K = 基本尺寸 / *Basic dimension*
I = 基本尺寸 / *Basic dimension*
G = 夹紧螺钉 / *Clamping screws*



剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN} = 额定转矩 / *Nominal torque*
M_A = 螺钉的拧紧力矩 / *Tightening torque of screws*
Cy_{dyn} = 动态扭转刚度 / *Torsional stiffness*
Cr = 径向弹性刚度 / *Radial spring stiffness*
Ca = 轴向弹性刚度 / *Axial spring stiffness*
n_{max} = 转速最大值 / *Max. rotational speed*
ΔKa = 允许轴向偏差最大值 / *Max. approved misalignment axial*
ΔKw = 允许角偏差最大值 / *Max. approved misalignment angular*
ΔKr = 允许径向偏差最大值 / *Max. approved misalignment radial*
J = 转动惯量 / *Moment of inertia*

尺寸规格 · *Dimensions*

技术参数 · *Technical Data*

尺寸 *Size*	L ±2	Ø A	Ø H	Ø D1 / Ø D2	C	C_1	K	I	G	尺寸 *Size*	T_{KN}	M_A	Cy_{dyn}	Cr	Ca	n_{max}	Δ Ka	Δ Kw	Δ Kr	重量 *Weight*	J
	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	Nm	10^3 Nm/rad	N/mm		min^{-1}	± mm	Grad/*degree*	mm	kg	10^{-3} kg m²
18	63	45	48	8-26	20	11	18	6	M5	18	22	6	8	200	50	12700	0,5	1,5	0,2	0,15	0,05
30	65	55	56	10-30	25	15	20	8	M6	30	36	12	35	720	50	10200	0,4	1	0,1	0,25	0,11
60	78	64	67	12-35	29	19	24	10	M8	60	75	30	75	1100	90	8600	0,4	1	0,1	0,42	0,29
80	90	80	84	14-42	33	21	28	12	M10	80	95	60	130	1200	80	6800	0,4	1	0,2	0,77	0,87
150	90	80	84	14-42	33	21	28	12	M10	150	180	85	150	2000	150	6800	0,4	1	0,2	0,77	0,87
200	99	90	93	22-46	38	24	31	13	M12	200	240	100	170	2500	150	6300	0,4	1	0,2	1,11	1,44
300	104	110	110	24-60	38	24	39	13	M12	300	360	120	500	6300	280	5900	0,4	1	0,2	1,50	3
500	111	119	122	35-64	41	27,5	43	15	M14	500	600	190	680	8800	100	4900	0,5	1	0,2	2,00	4,7

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

特性

- 金属波纹管为不锈钢，轮毂为铝
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽DIN6885–1
- 可选不锈钢特殊设计

依照指示，则可以安全传递技术参数表格中的扭矩。

Characteristics

- *Metal bellows made of stainless steel, hubs made of aluminum*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*
- *Optional special design in stainless steel*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed.

订购实例 / *Ordering example:* AKN-H

系列 / *Series* 尺寸 / *Size*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
AKN-H 150	32	42	*

* 键槽或不锈钢 · *Keyway or Stainless steel*

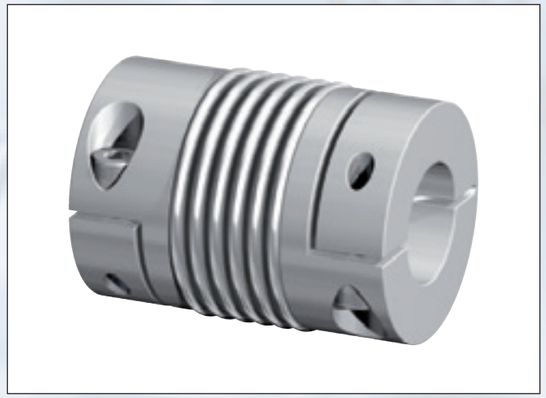
孔径 / 扭矩 · *Bore range / Torque values*

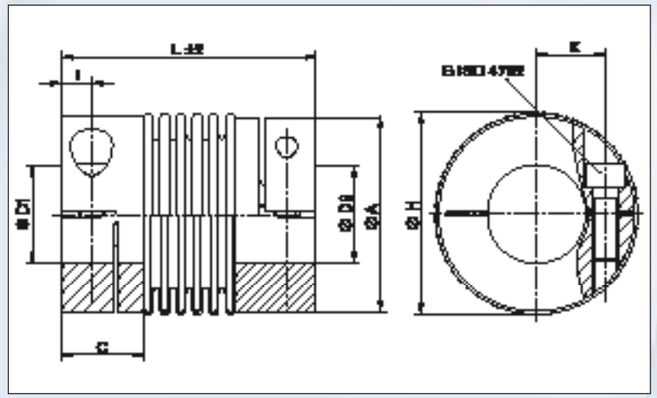
尺寸 *Size*	Ø 8	Ø 9	Ø 10	Ø 11	Ø 12	Ø 14	Ø 15	Ø 18	Ø 20	Ø 22	Ø 24	Ø 25	Ø 28	Ø 30	Ø 35	Ø 40	Ø 45	Ø 50	Ø 55	Ø 60	Ø 64
18	13,6	15,3	17	18,7	20,4	22	22	22	22	22	22	22									
30			28	30	33	36	36	36	36	36	36	36	36	36							
60					62	73	75	75	75	75	75	75	75	75	75						
80						95	95	95	95	95	95	95	95	95	95	95					
150						167	180	180	180	180	180	180	180	180	180	180					
200										240	240	240	240	240	240	240	240				
300											342	360	360	360	360	360	360	360	360	360	
500															600	600	600	600	600	600	600

系列 · *Series* AKD

尺寸规格 · *Dimensions*

L = 总长度 / *Total length*
øA = 整个联轴器的外径 / *Outer diameter total coupling*
øH = 留隙直径 / *Clearance diameter*
øD1 = 内径（一端的孔径）/ *Bore diameter*
øD2 = 内径（另一端的孔径）/ *Bore diameter*
C = 轴孔引导长度 / *Guided length shaft bore*
K = 基本尺寸 / *Basic dimension*
I = 基本尺寸 / *Basic dimension*
G = 夹紧螺钉 / *Clamping screws*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN} = 额定转矩 / *Nominal torque*
M_A = 螺钉的拧紧力矩 / *Tightening torque of screws*
Cy_{dyn} = 动态扭转刚度 / *Torsional stiffness*
Cr = 径向弹性刚度 / *Radial spring stiffness*
Ca = 轴向弹性刚度 / *Axial spring stiffness*
n_{max} = 转速最大值 / *Max. rotational speed*
ΔKa = 允许轴向偏差最大值 / *Max. approved misalignment axial*
ΔKw = 允许角偏差最大值 / *Max. approved misalignment angular*
ΔKr = 允许径向偏差最大值 / *Max. approved misalignment radial*
J = 转动惯量 / *Moment of inertia*

尺寸规格 · *Dimensions*

技术参数 · *Technical Data*

尺寸 *Size*	L ±2	Ø A	Ø H	Ø D1 / Ø D2	C	K	I	G
	mm	mm	mm	mm	mm	mm	mm	mm
18	71	45	47	8-26	20	18	6	M5
30	73	55	56	10-30	25	20	8	M6
60	89	64	67	12-35	29	24	10	M8
80	103	80	84	14-42	34	28	12	M10
150	103	80	84	14-42	34	28	12	M10
200	113	90	93	22-46	38	31	13	M12
300	115	110	110	24-60	38	39	13	M12
500	122	119	122	35-64	41	43	15	M14
800	140	132	139	40-75	45	48	17	2 x M16

尺寸 *Size*	T_{KN}	M_A	Cy_{dyn}	Cr	Ca	n_{max}	Δ Ka	Δ Kw	Δ Kr	重量 *Weight*	J
	Nm	Nm	10^3 Nm/rad	N/mm		min^{-1}	± mm	Grad/*degree*	mm	kg	10^{-3} kg m²
18	22	6	6	85	40	12700	0,5	1,5	0,2	0,143	0,06
30	36	12	25	220	30	10200	0,5	1,5	0,2	0,263	0,1
60	75	30	50	330	55	8600	0,5	1,5	0,2	0,434	0,3
80	95	60	75	400	55	6800	0,5	1,5	0,2	0,792	0,9
150	180	85	100	600	85	6800	0,5	1,5	0,2	0,792	0,9
200	240	100	120	450	85	6300	0,5	1,5	0,2	1,117	1,5
300	360	120	280	1500	150	5900	0,5	1,5	0,2	1,495	3,2
500	600	190	310	1000	85	4900	1	1,5	0,2	2,038	4,9
800	800	250	780	6200	100	5000	3,5	1,5	0,35	6,06	17,5

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

特性

- 金属波纹管为不锈钢，轮毂为铝/尺寸规格800及以上的轮毂为钢
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽DIN6885–1
- 可选不锈钢特殊设计
- 其它尺寸规格可以定制

Characteristics

- *Metal bellows made of stainless steel, hubs made of aluminum/ hubs from size 800 made of steel*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*
- *Optional special design in stainless steel*
- *Other sizes available on request*

订购实例 / *Ordering example:* AKD

系列 / *Series* 尺寸 / *Size*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
AKD 150	30	35	*

* 键槽或不锈钢 · *Keyway or Stainless steel*

依照指示，则可以安全传递技术参数表格中的扭矩。

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed.

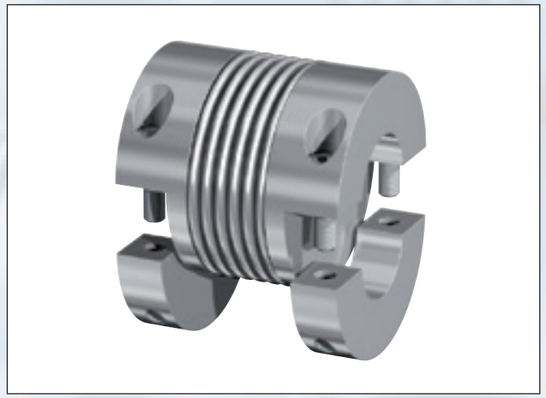
孔径 / 扭矩 · *Bore range / Torque values*

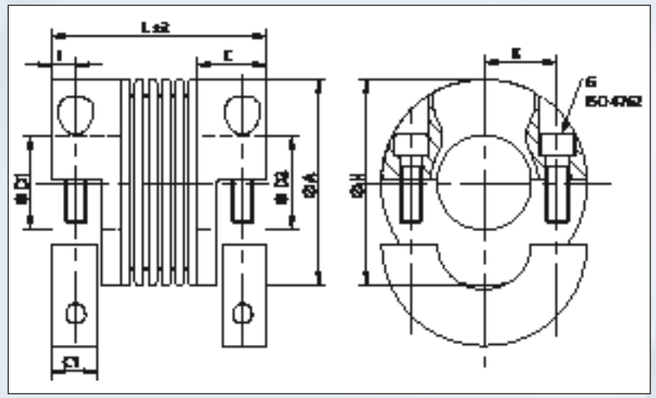
尺寸 *Size*	Ø 8	Ø 9	Ø 10	Ø 11	Ø 12	Ø 14	Ø 15	Ø 16	Ø 18	Ø 20	Ø 25	Ø 30	Ø 35	Ø 40	Ø 45	Ø 50	Ø 55	Ø 60	Ø 65	Ø 70	Ø 75
18	18	20	22	22	22	22	22	22	22	22	22										
30			36	36	36	36	36	36	36	36	36	36									
60					75	75	75	75	75	75	75	75	75								
80							95	95	95	95	95	95	95	95							
150							180	180	180	180	180	180	180	180							
200											240	240	240	240	240						
300											360	360	360	360	360	360	360	360			
500													600	600	600	600	600	600	600		
800														800	800	800	800	800	800	800	800

系列 · *Series* AKD-H

尺寸规格 · *Dimensions*

L = 总长度 / *Total length*
øA = 整个联轴器的外径 / *Outer diameter total coupling*
øH = 留隙直径 / *Clearance diameter*
øD1 = 内径（一端的孔径）/ *Bore diameter*
øD2 = 内径（另一端的孔径）/ *Bore diameter*
C = 轴孔引导长度 / *Guided length shaft bore*
C1 = 夹紧长度 / *Clamping length*
K = 基本尺寸 / *Basic dimension*
I = 基本尺寸 / *Basic dimension*
G = 夹紧螺钉 / *Clamping screws*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN} = 额定转矩 / *Nominal torque*
M_A = 螺钉的拧紧力矩 / *Tightening torque of screws*
Cy_{dyn} = 动态扭转刚度 / *Torsional stiffness*
Cr = 径向弹性刚度 / *Radial spring stiffness*
Ca = 轴向弹性刚度 / *Axial spring stiffness*
n_{max} = 转速最大值 / *Max. rotational speed*
ΔKa = 允许轴向偏差最大值 / *Max. approved misalignment axial*
ΔKw = 允许角偏差最大值 / *Max. approved misalignment angular*
ΔKr = 允许径向偏差最大值 / *Max. approved misalignment radial*
J = 转动惯量 / *Moment of inertia*

尺寸规格 · *Dimensions*

尺寸 *Size*	L ±2	Ø A	Ø H	Ø D1 / Ø D2	C	C1	K	I	G
	mm	mm	mm	mm	mm	mm	mm	mm	mm
18	71	45	47	8-26	20	11	18	6	M5
30	73	55	56	10-30	25	15	20	8	M6
60	89	64	67	12-35	29	19	24	10	M8
80	103	80	84	14-42	34	21	28	12	M10
150	103	80	84	14-42	34	21	28	12	M10
200	113	90	93	22-46	38	24	31	13	M12
300	115	110	110	24-60	38	24	39	13	M12
500	122	119	122	35-64	41	27,5	43	15	M14
800	140	132	139	40-75	45	34	48	17	M16

技术参数 · *Technical Data*

尺寸 *Size*	T_{KN}	M_A	Cy_{dyn}	Cr	Ca	n_{max}	Δ Ka	Δ Kw	Δ Kr	重量 *Weight*	J
	Nm	Nm	10^3 Nm/rad	N/mm		min^{-1}	± mm	Grad/*degree*	mm	kg	10^{-3} kg m^2
18	22	6	6	85	40	12700	0,5	1,5	0,2	0,16	0,06
30	36	12	25	220	30	10200	0,5	1,5	0,2	0,268	0,1
60	75	30	50	330	55	8600	0,5	1,5	0,2	0,448	0,3
80	95	60	75	400	55	6800	0,5	1,5	0,2	0,82	0,9
150	180	85	100	600	85	6800	0,5	1,5	0,2	0,82	0,9
200	240	100	120	450	85	6300	0,5	1,5	0,2	1,173	1,5
300	360	120	280	1500	150	5900	0,5	1,5	0,2	1,561	3,2
500	600	190	310	1000	85	4900	1	1,5	0,2	2,089	4,9
800	800	250	780	6200	100	5000	3,5	1,5	0,35	6,06	17,5

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

特性

- 金属波纹管为不锈钢，轮毂为铝/尺寸规格800及以上的轮毂为钢
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽DIN6885–1
- 可选不锈钢特殊设计
- 其它尺寸规格可以定制

Characteristics

- *Metal bellows made of stainless steel, hubs made of aluminum/ hubs from size 800 made of steel*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*
- *Optional special design in stainless steel*
- *Other sizes available on request*

订购实例 / *Ordering example:* AKD-H

系列 / *Series* 尺寸 / *Size*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
AKD-H 150	30	35	*

* 键槽或不锈钢 · *Keyway or Stainless steel*

依照指示，则可以安全传递技术参数表格中的扭矩。

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed.

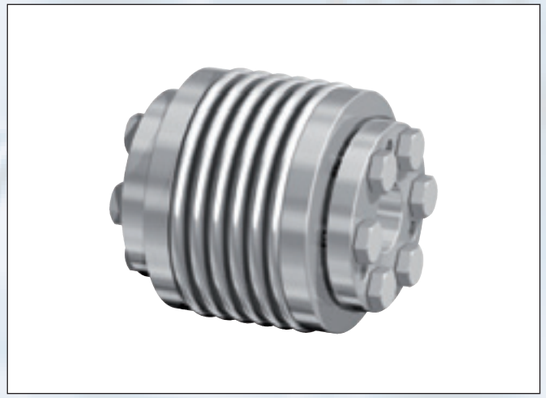
孔径 / 扭矩 · *Bore range / Torque values*

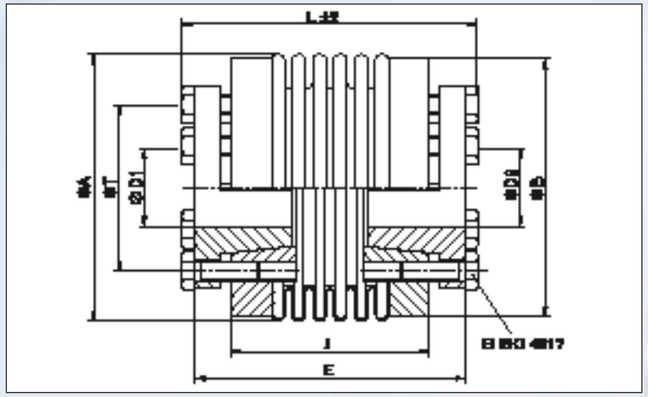
尺寸 *Size*	Ø 8	Ø 9	Ø 10	Ø 11	Ø 12	Ø 14	Ø 15	Ø 18	Ø 20	Ø 24	Ø 25	Ø 30	Ø 35	Ø 40	Ø 45	Ø 50	Ø 55	Ø 60	Ø 65	Ø 70	Ø 75
18	14	15	17	19	20	22	22	22	22	22	22										
30			28	30	33	36	36	36	36	36	36	36									
60					62	73	75	75	75	75	75	75	75								
80						95	95	95	95	95	95	95	95	95							
150						167	180	180	180	180	180	180	180	180							
200										240	240	240	240	240	240						
300										342	360	360	360	360	360	360	360	360			
500													600	600	600	600	600	600	600		
800														800	800	800	800	800	800	800	800

系列 · *Series* AK

尺寸规格 · *Dimensions*

L	=	总长度 / *Total length*
øA	=	整个联轴器的外径 / *Outer diameter total coupling*
øB	=	轮毂的外径 / *Outer diameter Hub*
øT	=	节圆直径 / *Pitch circle diameter*
øD1	=	内径（一端的孔径）/ *Bore diameter*
øD2	=	内径（另一端的孔径）/ *Bore diameter*
E	=	基本尺寸 / *Basic dimension*
J	=	基本尺寸 / *Basic dimension*
G	=	螺钉 / *Screws*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN}	=	额定转矩 / *Nominal torque*
M_A	=	螺钉的拧紧力矩 / *Tightening torque of screws*
Cy_{dyn}	=	动态扭转刚度 / *Torsional stiffness*
Cr	=	径向弹性刚度 / *Radial spring stiffness*
Ca	=	轴向弹性刚度 / *Axial spring stiffness*
n_{max}	=	转速最大值 / *Max. rotational speed*
ΔKa	=	允许轴向偏差最大值 / *Max. approved misalignment axial*
ΔKw	=	允许角偏差最大值 / *Max. approved misalignment angular*
ΔKr	=	允许径向偏差最大值 / *Max. approved misalignment radial*
J	=	转动惯量 / *Moment of inertia*

尺寸规格 · *Dimensions*

技术参数 · *Technical Data*

尺寸 *Size*	L ±2	Ø A	ØB	Ø T	Ø D1 / Ø D2	E	J	G		尺寸 *Size*	T_{KN}	M_A	Cy_{dyn}	Cr	Ca	n_{max}	Δ Ka	Δ Kw	Δ Kr	重量 *Weight*	J
	mm	mm	mm	mm	mm	mm	mm	mm			Nm	Nm	10^3 Nm/rad	N/mm		min^{-1}	± mm	Grad/*degree*	mm	kg	10^{-3} kg m²
30	52/60	56	55	31	9-20	45/53	30/38	6xM4		30	36	3	35/25	720/220	50/30	11000	0,4/0,5	1/1,5	0,1/0,2	0,281	0,15
60	63/73	66	64	37	12-25	55/65	35/46	6xM6		60	72	8,5	75/50	1100/330	90/55	9100	0,4/0,5	1/1,5	0,1/0,2	0,482	0,24
80	79/91	82	80	51	15-35	72/83	49/61	6xM6		80	96	10	130/75	1200/400	80/55	7000	0,4/0,5	1/1,5	0,2/0,2	0,846	0,65
150	79/91	82	80	51	15-35	72/84	49/61	6xM6		150	180	14	150/100	2000/600	150/85	7000	0,4/0,5	1/1,5	0,2/0,2	0,846	0,65
200	80/93	90	90	51/56	15-42	72/85	50/63	6xM6		200	240	14	170/120	2500/450	150/85	6700	0,4/0,5	1/1,5	0,2/0,2	1,005	0,87
300	93/104	110	110	62/75	15-50	80/93	56/67	6xM8		300	360	18	500/280	6300/1500	280/150	5200	0,4/0,5	1/1,5	0,2/0,2	1,915	2,33
500	102/113	122	119	75/80	24-55	94/105	61/72	6xM8		500	600	26	680/310	8800/1000	100/85	4600	0,5/1	1/1,5	0,2/0,2	2,448	5,73
800	170	157	140	92/100	30-70	150	110	6xM16		800	800	50	760	510	190	3700	1	1,5	0,2	9,978	26,1
1400	170	157	140	92/100	35-70	150	110	6xM16		1400	1400	80	1300	710	280	3700	1	1,5	0,2	9,202	26,1
3000	191	199	180	100/115	50-80	176	136	6xM12		3000	3000	120	2800	8060	880	2800	1	1,5	0,2	14,57	86,83
5000	199	250	230	100/125	60-90	179	139	6xM16		5000	5000	210	4800	9190	737	2800	1	1,5	0,2	24,3	170,3

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

特性

- 金属波纹管为不锈钢，锥形轴衬为钢
- 500及以下规格的轮毂为铝，800到5000的轮毂为钢
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选不锈钢特殊设计

依照指示，则可以安全传递技术参数表格中的扭矩。

Characteristics

- *Metal bellows made of stainless steel, conical bushings made of steel*
- *Hubs up to size 500 made of aluminum, sizes 800 – 5000 hubs made of steel*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *The contact surfaces have to be free from oil and grease*
- *Optional special design in stainless steel*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed.

订购实例 / *Ordering example:* AK

系列 / *Series* 尺寸 / *Size*	长度 / *Length*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
AK 150	**79**	**30**	**35**	*

* 不锈钢 · *Stainless steel*

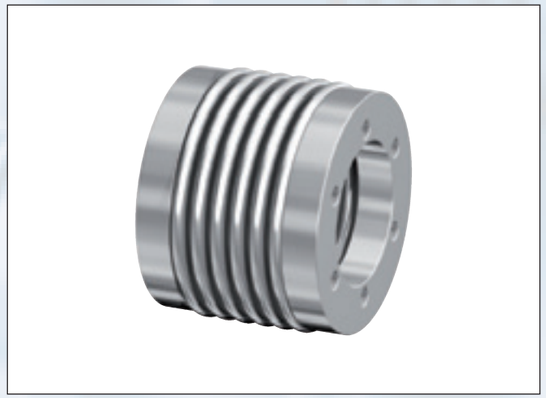
孔径 / 扭矩 · *Bore range / Torque values*

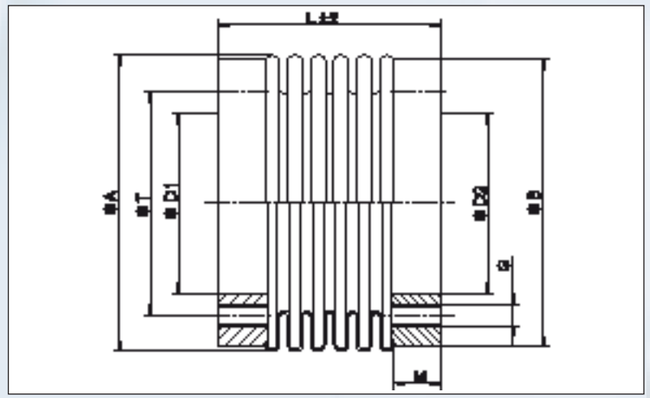
尺寸 / *Size*	Ø 9	Ø 10	Ø 12	Ø 14	Ø 15	Ø 18	Ø 20	Ø 25	Ø 30	Ø 35	Ø 40	Ø 45	Ø 50	Ø 55	Ø 60	Ø 65	Ø 70	Ø 75	Ø 80	Ø 85	Ø 90
30	36	36	36	36	36	36	36														
60			72	72	72	72	72	72													
80					96	96	96	96	96	96											
150					180	180	180	180	180	180											
200					240	240	240	240	240	240	240										
300					290	350	360	360	360	360	360	360	360								
500								600	600	600	600	600	600	600							
800									800	800	800	800	800	800	800	800	800				
1400										1400	1400	1400	1400	1400	1400	1400	1400				
3000													3000	3000	3000	3000	3000	3000	3000		
5000															5000	5000	5000	5000	5000	5000	5000

系列 · *Series* CKN

尺寸规格 · *Dimensions*

L	=	总长度 / *Total length*
øA	=	整个联轴器的外径 / *Outer diameter total coupling*
øB	=	轮毂的外径 / *Outer diameter Hub*
øT	=	节圆直径 / *Pitch circle diameter*
øD1	=	内径（一端的孔径）/ *Bore diameter*
øD2	=	内径（另一端的孔径）/ *Bore diameter*
øT	=	节圆直径 / *Pitch circle diameter*
M	=	螺钉旋入深度最大值 / *Max. screw-in depth*
G	=	固定钻孔 / *Fixing bore*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN}	=	额定转矩 / *Nominal torque*
M_A	=	螺钉的拧紧力矩 / *Tightening torque of screws*
Cy_{dyn}	=	动态扭转刚度 / *Torsional stiffness*
Cr	=	径向弹性刚度 / *Radial spring stiffness*
Ca	=	轴向弹性刚度 / *Axial spring stiffness*
n_{max}	=	转速最大值 / *Max. rotational speed*
ΔKa	=	允许轴向偏差最大值 / *Max. approved misalignment axial*
ΔKw	=	允许角偏差最大值 / *Max. approved misalignment angular*
ΔKr	=	允许径向偏差最大值 / *Max. approved misalignment radial*
J	=	转动惯量 / *Moment of inertia*

尺寸规格 · *Dimensions*

技术参数 · *Technical Data*

尺寸 *Size*	L ±2	Ø A	Ø B	ØT	Ø D1 ; Ø D2	M	G	尺寸 *Size*	T_{KN}	M_A	Cy_{dyn}	Cr	Ca	n_{max}	Δ Ka	Δ Kw	Δ Kr	重量 *Weight*	J
	mm	mm	mm	mm	mm	mm	mm		Nm	Nm	10^3 Nm/rad	N/mm		min^{-1}	± mm	Grad/*degree*	mm	kg	10^{-3} kg m²
18	36/44	46	46	31	22	6	6xM5	18	22	5,9	8/6	200/85	50/40	13900	0,5	1,5	0,2	0,063	0,05
30	30/38	56	55	37	28	7	6xM5	30	36	5,9	35/25	720/220	50/30	11000	0,4/0,5	1/1,5	0,1/0,2	0,117	0,09
60	41/51	66	64	46	38	10	6xM6	60	75	10	75/50	1100/330	90/55	9000	0,4/0,5	1/1,5	0,1/0,2	0,192	0,16
80	52/62	82	80	62	50	13	6xM6	80	96	10	130/75	1200/400	80/55	7100	0,4/0,5	1/1,5	0,2/0,2	0,356	0,43
150	52/62	82	80	62	50	13	6xM6	150	180	15	150/100	2000/600	150/85	7100	0,4/0,5	1/1,5	0,2/0,2	0,356	0,43
200	51/63	90	90	62	50	13	6xM6	200	240	18	170/120	2500/450	150/85	6600	0,4/0,5	1/1,5	0,2/0,2	0,477	0,8
300	55/66	110	109	80	65	13	6xM8	300	360	25	500/280	6300/1500	280/150	5200	0,4/0,5	1/1,5	0,2/0,2	0,591	1,7
500	61/72	122	119	94	70	16	6xM8	500	600	36	680/310	8800/1000	100/85	4600	0,5/1	1/1,5	0,2/0,2	0,876	2,3
800	130	157	152	110	85	18	6xM16	800	800	210	760	510	190	3700	1	1,5	0,2	3,737	11
1400	130	157	152	110	85	18	6xM16	1400	1400	210	1300	710	280	3700	1	1,5	0,2	3,728	11
3000	135	157	152	110	85	22	6xM16	3000	3000	365	2800	2950	310	3700	1	1,5	0,2	3,895	11
5000	145	208	208	130	100	25	6xM16	5000	5000	365**	4800	4920	510	3000	1	1,5	0,2	11,285	35

特性

- 金属波纹管为不锈钢
- 500及以下的轮毂为铝，800–5000的轮毂为钢
- 接触面清洁无油脂
- 可选不锈钢特殊设计

依照指示，则可以安全传递技术参数表格中的扭矩。

Characteristics

- *Metal bellows made of stainless steel*
- *Hubs up to size 500 made of aluminum, sizes 800 – 5000 hubs made of steel*
- *The contact surfaces have to be free from oil and grease*
- *Optional special design in stainless steel*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed.

螺钉数量应该根据宁静力矩来选择
Screw quality should be selected according to the tightening torque

**接触面清洁无油脂
***The contact surfaces have to be free from oil and grease*

订购实例 / *Ordering example:* CKN

系列 / *Series* 尺寸 / *Size*	长度 / *Length*	更多细节 / *Further details**
CKN 150	**52**	*

* 不锈钢 · *Stainless steel*

设计 / 计算示例

设计 / 产品信息

无空回、刚性扭转金属波纹管联轴器，到货即可安装。金属波纹管为不锈钢材质，其它部件为铝或钢，有些部件还具有环保型防护涂层。轴配合公差为g6或h7。联轴器轮毂和轴之间的功率损失是由接触面间的挤压和摩擦引起的。必须特别注意定位螺钉的拧紧力矩和接触面的状态。接触面必须清洁无油脂，轴表面粗糙度Rtmax16um。联轴器键槽可选。只有依照给定的指示，才能确保可传递的扭矩。否则均不接受退货。

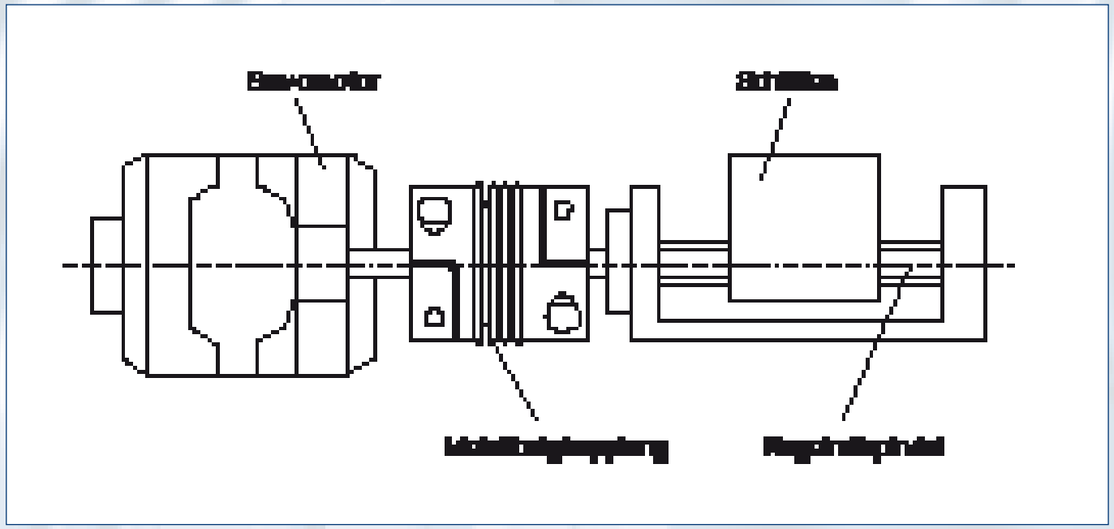
尺寸规格按照扭矩来标注

金属波纹管联轴器通常根据额定转矩（技术参数列表上的转矩所示）来设计。必须保证额定转矩总是高于恒定的传动转矩。这通常应用在伺服马达上，其在正反向的加速力矩都超过了公称力矩。为有效使用由高动态驱动安装的金属波纹管联轴器，下面的标注值经实践证明可靠有效。

K=1,5为匀速运动
K=2为非匀速运动
K=2,5–4为冲击运动
对于工具制造机械内的伺服驱动，可用参照值K=1,5–2。

为您设计金属波纹管联轴器，我们倍感荣幸！
愿我们的经验和技能助您一臂之力！
欢迎来电详询！

$$T_{KN} \geq K \times T_{AS} \times \frac{J_{Masch}}{J_{Mot} + J_{Masch}} = [Nm]$$



Design / Sample Calculation

Design/Product information

Backlash-free, torsionally stiff metal bellows couplings are ready to install when delivered. The metal bellows are made of stainless steel, all other parts are made of aluminium or steel and partly have environmental friendly protective coating. The shaft tolerance should be within the fit tolerance "g6" or "h7". The power transmission between the coupling hub and the shaft is generated by compression and friction between the contact surfaces. Special attention must be paid to the tightening torque of the retaining screws as well as the perfect condition of the surfaces. The contact surfaces must be free of oil and grease and have a roughness depth of $R_{tmax.}$ 16µ for the shaft. Versions with keyway are available. The torques indicated can be guaranteed only in compliance with all given advice. Otherwise cut backs have to be accepted.

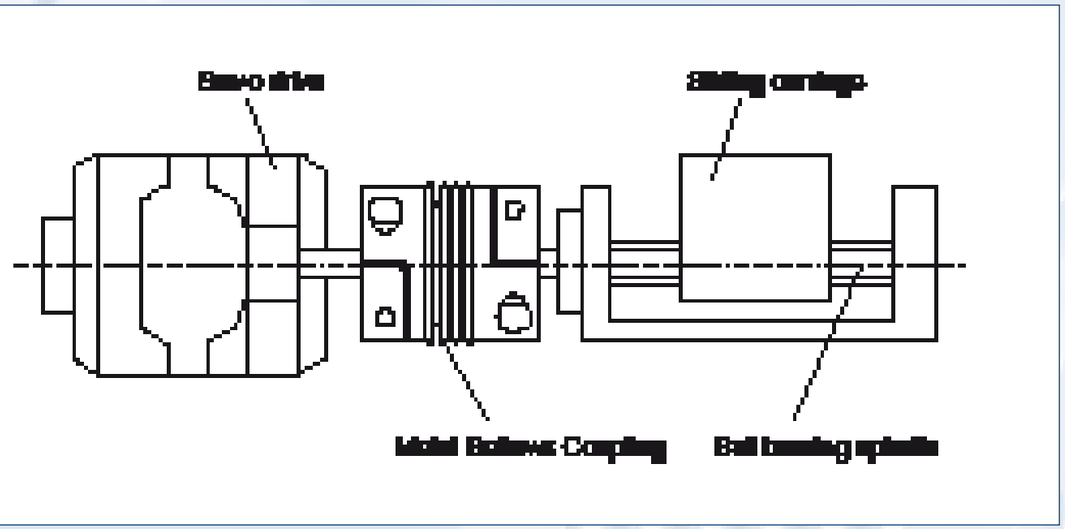
Dimensioning in accordance with the torque

Metal Bellows Couplings are generally designed according to the nominal torque, stated in the list of technical data as T_{KN}. The nominal torque must always be higher than the constantly transmitted torque. This generally applies to the use of servo motors, whose acceleration moment in both positive and negative directions exceeds the nominal moment. For the use of Metal Bellows Couplings which are fitted in controlled, high dynamic drives, the following dimensioning values have proven to be reliable in practice:

K = 1,5 for evenly shaped movements
K = 2 for unevenly shaped movements
K = 2,5 – 4 for jerky movements
For servo drives within tool making machines, the values for K= 1,5 – 2 should be used.

We would be pleased to design your metal bellows coupling for you. Feel free to use our experience and know-how for your success. Give us a call!

$$T_{KN} \geq K \times T_{AS} \times \frac{J_{Masch}}{J_{Mot} + J_{Masch}} = [Nm]$$



设计中动态扭转刚度的考虑

尽管金属波纹管联轴器无空回，且有扭转刚性，但仍不可忽视它们连接着两个旋转质量。在不利情况下，联轴器会像扭转弹簧一样具有高扭转刚度。传动中的调节振荡和电机电枢电流的谐波振荡绝对不能在机械共振频率范围之内。实际上，共振频率“fres”必须高达驱动器励磁频率的两倍。

动态扭转刚度CTdyn的选取，应保证在大多数的应用中不会产生寄生振荡。各级扭转刚度均可作为标准版提供。

为您设计金属波纹管联轴器，我们倍感荣幸！愿我们的经验和技能助您一臂之力！欢迎来电详询！

机床传动领域内金属波纹管联轴器的计算应用

伺服马达的驱动相关数据 / FT 5104: 最大扭矩 T_{AS} = 160 Nm, 转动惯量 $J_{Mot} = 18{,}3 \times 10^{-3}$ Kgm²)

机床输出数据: 滚珠丝杆和滑轨的转动惯量: $J_{Masch} = 17 \times 10^{-3}$ Kgm²)

金属波纹管联轴器的低转动惯量忽略不计。K=负荷系数，传动的冲击因数 K=2;

$$f_{res} = \frac{1}{2P}\sqrt{C_{Tdyn} \times \frac{J_{Mot} + J_{Masch}}{J_{Mot} \times J_{Masch}}} = [Hz]$$

按扭矩设计:

选择联轴器:
AKD 200, T_{KN} = 240 Nm, C_{Tdyn} =120 x 10^3 Nm/rad

由于200 Nm#3>154 Nm，金属波纹管联轴器尺寸规格满足要求。

$$T_{KN} \geq K \times T_{AS} \times \frac{J_{Masch}}{J_{Mot} + J_{Masch}} = 2 \times 160 \text{ Nm} \times \frac{17 \times 10^{-3} \text{ Kgm}^2}{(18{,}3 + 17) \times 10^{-3} \text{ Kgm}^2} = 154 \text{ Nm}$$

按共振频率设计：

共振频率的算术计算值明显高于预期值。大多数数控机床的共振频率介于150到350Hz之间。
Diese liegt bei den meisten gängigen Antrieben, z.B. an NC-Werkzeugmaschinen zwischen 150 und 350 Hz.

$$f_{res} = \frac{1}{2\square}\sqrt{C_{Tdyn} \times \frac{J_{Mot} + J_{Masch}}{J_{Mot} \times J_{Masch}}} = \frac{1}{2P} \times \sqrt{120000 \text{ Nm/rad} \times \frac{0{,}0183 + 0{,}017 \text{ Kgm}^2}{0{,}0183 \times 0{,}017 \text{ Kgm}^2}} = 587 \text{ Hz}$$

Design in consideration of dynamic torsional stiffness

Although metal bellows couplings are backlash-free and torsion-rigid, it should not be ignored that they link two rotating masses. In adverse cases the coupling can be act like torsion springs with high stiffness. The regulating oscillation of the drives and the harmonic oscillation in the armature current of the motor therefore must never be within the range of the mechanical resonance frequency. In practise the resonance frequency "f_{res}" must be twice as high as the excitation frequency of the drive.

The dynamic torsional stiffness C_{Tdyn} was selected so that it would not be within the range of parasitic oscillation of most applications. Various levels of torsional stiffness are available as standard versions.

We would be pleased to design your metal bellows couplings for you. Feel free to use our experience and know-how for your success. Give us a call !

Calculation for the application of a metal bellows coupling in a machine tool drive

Drive related data for servo motor/FT 5104: *Peak torque T_{AS} = 160 Nm, Moment of inertia $J_{Mot} = 18{,}3 \times 10^{-3}$ Kgm²*

Output data for machine tool: *Moment of inertia of ball screw and slide: $J_{Masch} = 17 \times 10^{-3}$ Kgm²*

The low moment of inertia for the metal bellows coupling is disregared. K = Load factor, impulse factor selected for this drive K = 2 ;

$$f_{res} = \frac{1}{2P}\sqrt{C_{Tdyn} \times \frac{J_{Mot} + J_{Masch}}{J_{Mot} \times J_{Masch}}} = [Hz]$$

Design according to torque:

Coupling selection:
AKD 200, T_{KN} = 240 Nm, C_{Tdyn} = 120 x 10^3 Nm/rad

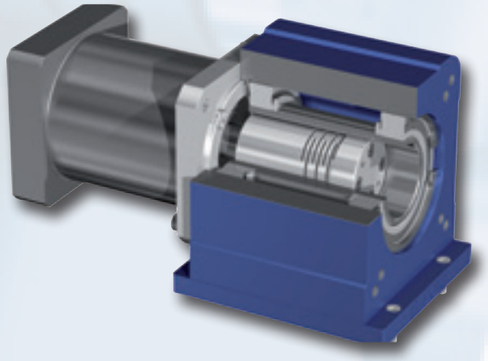
The metal bellows coupling is dimensioned sufficient, since 240 Nm > 154 Nm

$$T_{KN} \geq K \times T_{AS} \times \frac{J_{Masch}}{J_{Mot} + J_{Masch}} = 2 \times 160 \text{ Nm} \times \frac{17 \times 10^{-3} \text{ Kgm}^{-2}}{(18.3 + 17) \times 10^{-3} \text{ Kgm}^{-2}} = 154 \text{ Nm}$$

Design according the resonance frequency:

The arithmetic calculation is clearly higher than the expected resonance frequency.
Usualy for the most established nc-machine tools this value is between 150 to 350 Hz.

$$f_{res} = \frac{1}{2P}\sqrt{C_{Tdyn} \times \frac{J_{Mot} + J_{Masch}}{J_{Mot} \times J_{Masch}}} = \frac{1}{2P} \times \sqrt{120000 \text{ Nm/rad} \times \frac{0.0183 + 0.017 \text{ Kgm}^2}{0.0183 \times 0.017 \text{ Kgm}^2}} = 587 \text{ Hz}$$



无空回补偿式联轴器ICL系列

客户： 线性装置制造商
应用领域： 空心轴直接传动

任务：
之前使用金属波纹管联轴器作为联接件，需要扩展出一个圆顶状的安装空间。如果不使用补偿式联轴器元件，而是使用胀套联接，则产生的轴向误差和径向误差会导致轴承负载增加，进而损坏。

固威解决方案：
把胀套和联轴器结合起来使用，可以节省直接空心轴传动的安装空间。金属波纹管联轴器可补偿径向和轴向误差，并减少轴承负载。因为传动轴和支撑性空心轴直接连接，所以减少了众多的部件及与之相关的误差源。
联轴器是预先装配好的，因此安装联轴器最省时。优化初始负载的位置可以减轻滚珠轴承负载。

未来应用领域：

- 自动化工业
- 线性装置
- 辅助传动
- 物料搬运技术
- 机器人技术

Backlash free compensating coupling Series ICL

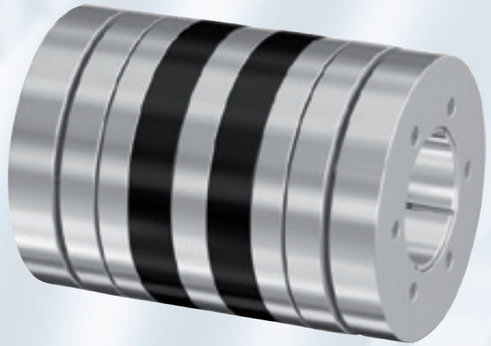
Customer: *Linear units manufacturer*
Field of application: *Direct drive of mounted hollow shafts*

Task:
The previous construction using metal bellows couplings as a connecting element required an extended installation space in the shape of a mounting dome. By setting aside compensating coupling elements and assembly by using a locking assembly connection axial misalignments (heat development) and radial shaft misalignments cause increased bearing load and therefore bearing damages.

The GERWAH solution:
The combination of a locking assembly connection with a shaft coupling allows the space saving assembly of the drive directly at the hollow shaft. A metal bellows balances radial and axial misalignments and reduces the bearing load. Numerous components and their related misalignment sources can be dropped due to the direct connection of the drive shaft and the supported hollow shaft.
The installation of the coupling is possible with a minimal expenditure of time as it is mounted pre-assembled. Optimizing the initial load position relieves the ball bearings.

Further fields of application:

- ***Automation industry***
- ***Linear units***
- ***Attachment drives***
- ***Materials handling technology***
- ***Robotics***



无空回补偿式联轴器SMC系列

客户： 机床制造商
应用领域： 高转速的主轴驱动，钻铣机械

问题：
先前插接式联轴器，扭转刚度有限。推进式行星轮在操作过程中承受负荷，经常会出现磨损问题。结果便导致了过早磨损。

我们的解决方案：
应用金属联轴器时，可以在轴上固定单侧或双侧法兰结构。

整个金属联轴器组合件都是具有高动态响应且抗扭转的元件。因此，它可以实现高转速传动， 并且振动引起的不平衡度最小、负载最低。

应用：
开发的此种联轴器可运用于加工中心的主轴传动，转速范围为每分钟12.000转至15.000转。

由于结构特殊，可以实现高转速无振动的传动。因此，故障率和维护周期可明显减少。

Backlash free compensating coupling Series SMC

Customer: *Machine tool manufacturer*
Field of application: *Main spindle drive with high rotational speeds, machines for drilling and milling*

Difficulty:
Previous pluggable couplings feature a limited torsional stiffness. By using a PU-spider often wear problems occur due to the loads during operation. The result is a premature wear.

Our solution:
Application of an all metal coupling, alternatively fixed by an one-sided or double-sided flange construction onto the shafts.

The all metal coupling package was developed as a high dynamic, torsion proof coupling element. Thereby high rotational speeds can be transmitted with an minimal unbalance and min. loading by vibration.

The application:
The developed coupling is used at a main spindle drive inside a machining centre within a rotational-speed range of 12.000 – 15.000 rpm.

Due to the special construction highest rotational speeds can be transmitted without vibrations. Therefore the failure rate and the maintenance intervals can be reduced decisively.

梅花形弹性联轴器基本信息 · *Servo-Insert Couplings Basics*

无空回梅花形弹性联轴器

无空回梅花形弹性联轴器运用于有减震和可插式联接需求的机械工程领域。

特征：

- 无空回
- 插接式连接
- 减振
- 扭矩0,5–650 Nm
- 可补偿径向，轴向和角度误差
- 电气隔离

常见的应用：

- 编码器
- 精确驱动系统
- 进给传动装置
- 磨削和铣削主轴
- 机床
- 包装机
- 机器人技术
- 连续生产线
- 多轴床头
- 木材加工设备
- 纺织机械
- 传输设备
- 直线运动
- 测量设备和控制技术
- 试验装置

Backlash-free Servo-Insert Couplings

Backlash-free Servo Insert Couplings are used in mechanical engineering, where shock absorption is requested and pluggable coupling solutions are applied.

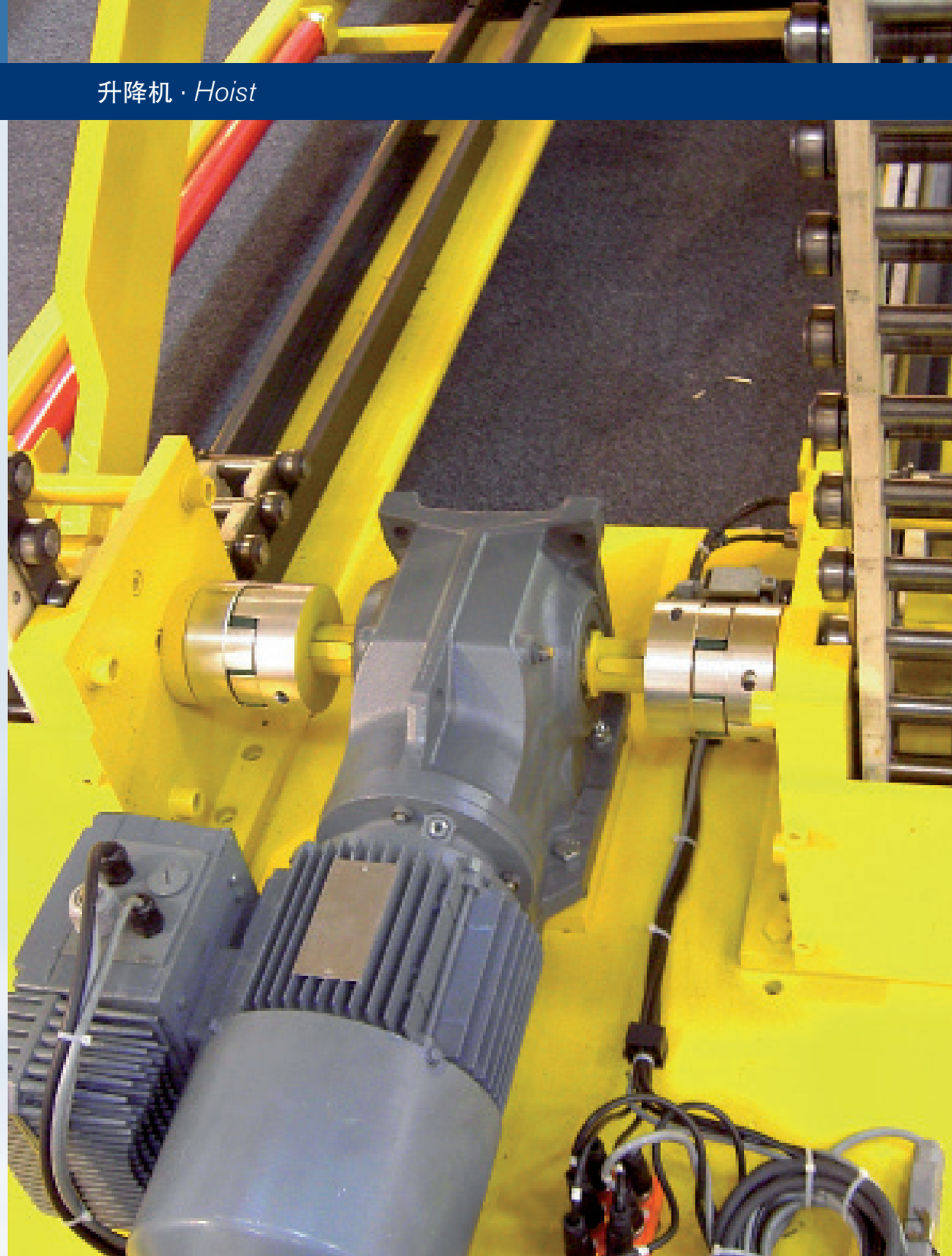
Special Features

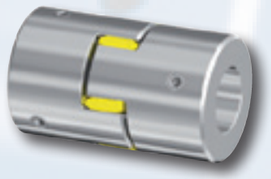
- ***Backlash free***
- ***Pluggable***
- ***Vibration damping***
- ***Torques from 0,5 - 650 Nm***
- ***Compensation of radial, axial and angular misalignment***
- ***Electrically isolating***

Common Applications:

- ***Encoder***
- ***Precision drives***
- ***Feed drives***
- ***Grinding and milling spindles***
- ***Machine tools***
- ***Packing machines***
- ***Robotics***
- ***Transfer lines***
- ***Multi-spindle heads***
- ***Wood processing equipment***
- ***Textile machinery***
- ***Conveying equipment***
- ***Linear motion***
- ***Measuring equipment and control technology***
- ***Test rigs***

升降机 · *Hoist*



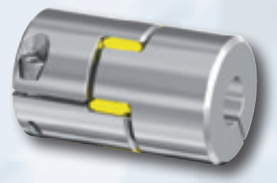


系列 · *Series*
EK/GS

微型梅花形弹性联轴器（含定位螺钉式轮毂）

Miniature Servo-Insert Coupling with set screw style hubs

页 / *Page* **40**

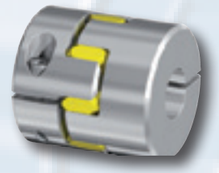


系列 · *Series*
DK/GS

微型梅花形弹性联轴器（含夹紧式轮毂和单插槽）

Miniature Servo-Insert Coupling with clamping style hubs and single slit

页 / *Page* **42**

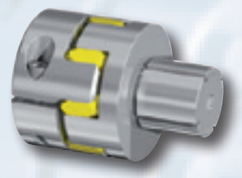


系列 · *Series*
BK/GS

梅花型联轴器（含短尺寸且单插槽的夹紧毂）

Servo-insert Couplings with clamping hubs, short length and single slit

页 / *Page* **44**



系列 · *Series*
BK/GS-S

梅花型联轴器（含夹紧毂和扩展钳）

Servo-insert Couplings with clamping hubs and expanding clamps

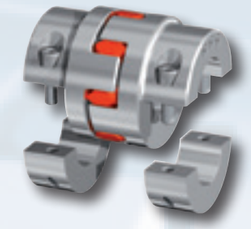
页 / *Page* **46**

系列 · *Series*
ADS/R

梅花形弹性联轴器（含夹紧式轮毂和双插槽）

Servo-insert Coupling with clamping hubs and dual slits

页 / *Page* **48**



系列 · *Series*
ADS/R-H

梅花型联轴器（含分体式夹紧毂）

Servo-insert Coupling with clamping hubs in split hub design

页 / *Page* **50**

系列 · *Series*
ASS/A

梅花形弹性联轴器（含外锥体）

Servo-Insert Coupling with outer cone

页 / *Page* **52**

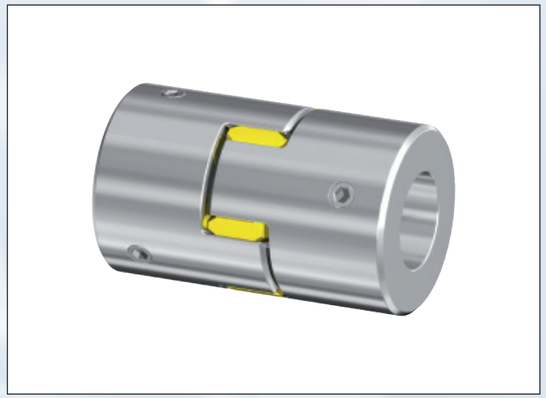
CAD - Daten erhältlich / *CAD data available:* **www.ringfeder.com**

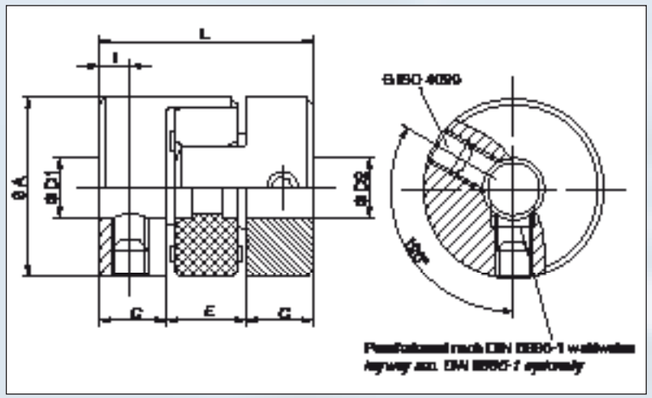
无空回梅花形弹性联轴器
Backlash-free Servo-Insert Couplings

系列 · *Series* EK/GS

尺寸规格 · *Dimensions*

L = 总长度 / *Total length*
øA = 外径 / *Outer diameter*
E = 弹性星形轮的安装尺寸 / *Mounting dimension for elastomeric spider*
øD1 = 内径（一端的孔径）/ *Bore diameter*
øD2 = 内径（另一端的孔径）/ *Bore diameter*
C = 轴孔引导长度 / *Guided length shaft bore*
I = 基本尺寸 / *Basic dimension*
G = 固定螺钉 / *Clamping screws*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN} = 额定转矩 / *Nominal torque*
M_A = 螺钉的拧紧力矩 / *Tightening torque of screws*
n_{max} = 转速最大值 / *Max. rotational speed*
J = 转动惯量 / *Moment of inertia*

尺寸规格 / *Dimensions*

尺寸 *Size*	L	ø A	E	ø D1/ ø D2 Ohne Passfedernut *Without Keyway*	ø D1/ ø D2 Mit Passfedernut *With Keyway*	C	I	G
	mm	mm	mm	mm	mm	mm	mm	mm
5	15	10	5	2-5	-	5	2,5	1xM3
7	22	14	8	3-8	6-8	7	2,5	1xM3
9	30	20	10	3-12	6-10	10	5	2xM4
14	35	30	13	4-16	6-16	11	5	2xM6
19	66	40	16	6-24	6-24	25	10	2xM6
24	78	55	18	8-35	8-35	30	10	2xM6

技术参数 / *Technical Data*

T_{KN}	M_A	n_{max}	J	重量 *Weight*
Nm	Nm	min^{-1}	10^{-6} Kgm^2	g
0,5	1,3	47500	0,034	5
1,2	1,3	34000	0,196	9
3	3	24000	1,08	17
7,5	6	16000	5,7	41
10	6	12000	36	138
35	6	8500	162	282

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

孔径 / 扭矩 · *Bore range / Torque values*

尺寸 *Size*	ø 3	ø 4	ø 5	ø 6	ø 7	ø 8	ø 9	ø 10	ø 11	ø 12	ø 13	ø 14	ø 15	ø 16	ø 17	ø 18	ø 20	ø 22	ø 24	ø 24	ø 28
5	0,5	0,5	0,5																		
7	1,2	1,2	1,2	1,2	1,2	1,2															
9	3	3	3	3	3	3	3	3	3	3											
14	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5							
19				10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
24						20	22	24	26	29	31	34	35	35	35	35	35	35	35	35	35

联轴器孔径范围D1/D2和对应的可传动扭矩值(Nm)
Bore range D1/D2 and corresponding transmissible torque values (Nm) of the coupling

订购实例 / *Ordering example:* EK/GS

系列 / *Series* 尺寸 / *Size*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
EK/GS 14	10	14	*

* 键槽 · *Keyway*

特性

- 毂材质为铝
- 标准的弹性星轮为92A（黄色）
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽DIN6885–1

依照指示，可传递技术参数表格中的所示扭矩值。

Characteristics

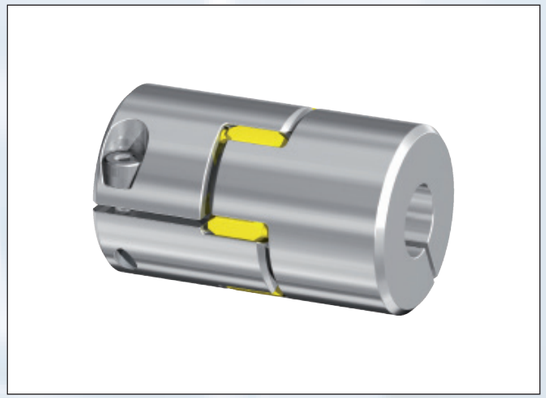
- *Hubs made of aluminum*
- *Standard Elastomeric Spider with 92° A (yellow spider)*
- *The shaft tolerance should be within the fit tolerance “g6” or “h7”*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*

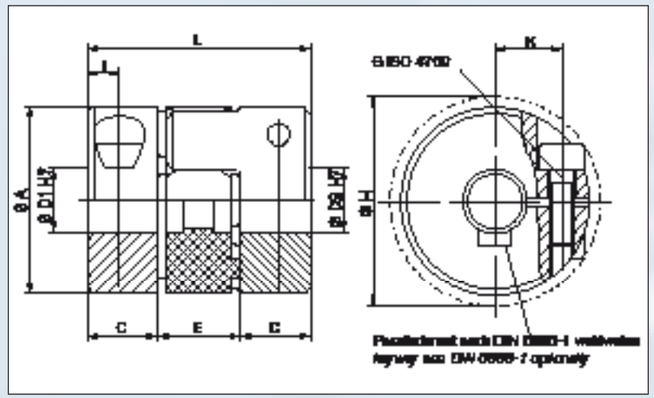
The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed

系列 · *Series* DK/GS

尺寸规格 · *Dimensions*

- **L** = 总长度 / *Total length*
- **øA** = 外径 / *Outer diameter*
- **K** = 基本尺寸 / *Basic dimension*
- **øH** = 留隙直径 / *Clearance diameter*
- **E** = 弹性星形轮的安装尺寸 / *Mounting dimension for elastomeric spider*
- **øD1** = 内径（一端的孔径）/ *Bore diameter*
- **øD2** = 内径（另一端的孔径）/ *Bore diameter*
- **C** = 轴孔引导长度 / *Guided length shaft bore*
- **I** = 基本尺寸 / *Basic dimension*
- **G** = 螺钉 / *Screw*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

- T_{KN} = 额定转矩 / *Nominal torque*
- M_A = 螺钉的拧紧力矩 / *Tightening torque of screws*
- n_{max} = 转速最大值 / *Max. rotational speed*
- J = 转动惯量 / *Moment of inertia*

尺寸规格 / *Dimensions*

尺寸 *Size*	L	ø A	K	ø H	E	ø D1/ ø D2 Ohne Passfedernut *Without Keyway*	ø D1/ ø D2 Mit Passfedernut *With Keyway*	C	I	G
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
5	15	10	3,2	11,5	5	2-4	-	5	2,5	M1,6
7	22	14	5	16,5	8	3-7	6-7	7	3,5	M2
9	30	20	7,3	23,5	10	3-11	6-11	10	5	M2,5

技术参数 / *Technical Data*

T_{KN}	M_A	n_{max}	J	重量 *Weight*
Nm	Nm	min^{-1}	10^{-6} Kgm²	g
0,5	0,25	38000	0,034	5
1,2	0,35	27000	0,196	9
3	0,75	19000	1,08	15

孔径 / 扭矩 · *Bore range / Torque values*

尺寸 *Size*	ø 2	ø 3	ø 4	ø 5	ø 6	ø 7	ø 8	ø 9	ø 10	ø 11
5	0,5	0,5	0,5							
7		0,8	1,1	1,2	1,2	1,2				
9		1,5	2	2,5	2,9	3	3	3	3	3,0

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

联轴器孔径范围D1/D2和对应的可传动扭矩值(Nm)
Bore range D1/D2 and corresponding transmissible torque values (Nm) of the coupling

订购实例 / *Ordering example:* DK/GS

系列 / *Series* 尺寸 / *Size*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
DK/GS 9	4	10	*

* 键槽 · *Keyway*

特性

- 毂的材质为铝
- 标准弹性星轮为92A（黄色）
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽DIN6885–1

依照指示，可传递技术参数表格中的所示扭矩值。

Characteristics

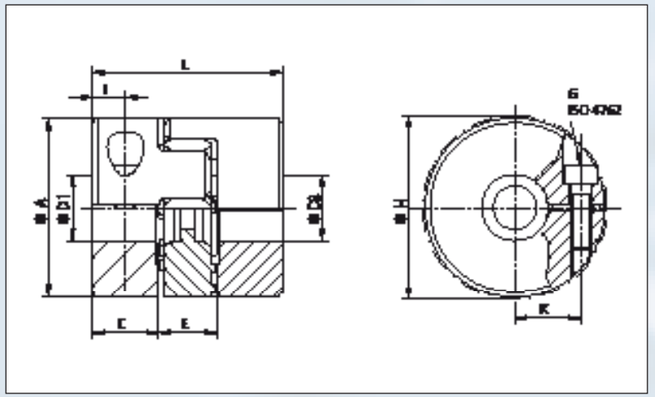
- *Hubs made of aluminum*
- *Standard Elastomeric Spider with 92° A (yellow spider)*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed

系列 · *Series* BK/GS

尺寸规格 · *Dimensions*

L = 总长度 / *Total length*
øA = 外径 / *Outer diameter*
K = 基本尺寸 / *Basic dimension*
øH = 留隙直径 / *Clearance diameter*
E = 弹性星形轮的安装尺寸 / *Mounting dimension for elastomeric spider*
øD1 = 内径（一端的孔径）/ *Bore diameter*
øD2 = 内径（另一端的孔径）/ *Bore diameter*
C = 轴孔引导长度 / *Guided length shaft bore*
I = 基本尺寸 / *Basic dimension*
G = 螺钉 / *Screw*



剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN} = 额定转矩 / *Nominal torque*
M_A = 螺钉的拧紧力矩 / *Tightening torque of screws*
n_{max} = 转速最大值 / *Max. rotational speed*
J = 转动惯量 / *Moment of inertia*

尺寸规格 / *Dimensions*

尺寸 *Size*	L	Ø A	K	Ø H	E	Ø D1/ Ø D2	C	I	G
	mm	mm	mm	mm	mm	mm	mm	mm	mm
7	20	14	5	16,5	8	3 - 7	6	3	M2
9	26	19,5	7,5	23	10	4 - 11	8	4	M2,5
14	32	29,5	10,5	33	13	5 - 15	9,5	5	M4
19	50	39,5	15	43	16	8 - 22	17	6	M5
24	58	54,5	20	56	18	10 - 31	20	10	M6
28	62	64,5	23,5	67	19	14 - 35	21,5	11	M8
38	85	79,5	30	88	23	15 - 46	31	13	M10
42	102	94,5	35	95	26	20 - 56	38	14	M10

技术参数 / *Technical Data*

T_{KN}	M_A	n_{max}	J	重量 *Weight*
			10^{-3}	
Nm	Nm	min^{-1}	Kgm^2	kg
1,2	0,35	27000	0,0001	0,006
3	0,75	19000	0,0002	0,019
12,5	5	13000	0,006	0,049
17	10	10000	0,029	0,12
60	18	7000	0,121	0,28
160	43	6000	0,236	0,355
325	84	5000	0,797	0,85
450	84	4000	1,779	1,5

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

订购实例 / *Ordering example:* BK/GS

系列 / *Series* 尺寸 / *Size*	Bohrungs-/*Bore-* Ø D1	Bohrungs-/*Bore-* Ø D2	更多细节 / *Further details**
BK/GS 42	20	44	*

* 键槽或不锈钢 · *Keyway or Stainless steel*

孔径 / 扭矩 · *Bore range / Torque values*

尺寸 *Size*	Ø 3	Ø 4	Ø 5	Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 15	Ø 18	Ø 20	Ø 25	Ø 26	Ø 28	Ø 30	Ø 35	Ø 40	Ø 45	Ø 50	Ø 55	Ø 56
7	0,7	0,9	1,1	1,2																	
9		1,7	2,1	2,4	3,0	3,0															
14			9	10,6	12,5	12,5	12,5	12,5	12,5												
19					17	17	17	17	17	17	17										
24						43,9	51,8	60	60	60	60	60	60	60	60						
28								113	120	141	155	160	160	160	160	160					
38									191	226	248	302	312	325	325	325	325	325			
42											250	305	316	337	358	409	450	450	450	450	450

联轴器孔径范围D1/D2和对应的可传动扭矩值(Nm)
Bore range D1/D2 and corresponding transmissible torque values (Nm) of the coupling

特性

- 毂的材质为铝
- 尺寸规格7到9的弹性星轮为92A（黄色）
- 尺寸规格14到42的弹性星轮为98A（红色）
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽DIN6885–01

依照指示，可传递技术参数表格中的所示扭矩值。

Characteristics

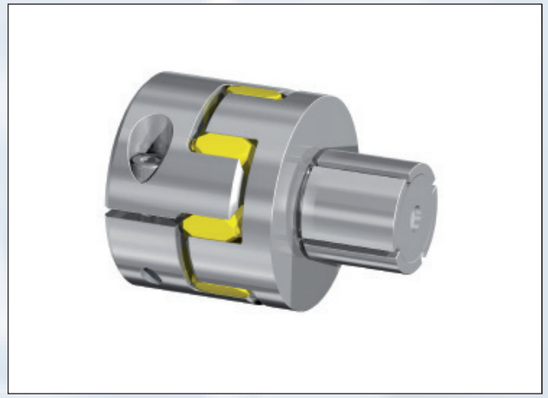
- *Hubs made of aluminum*
- *Elastomeric Spider sizes 7 and 9 with 92° A (yellow spider)*
- *Elastomeric Spider sizes 14 and 42 with 98° A (red spider)*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*

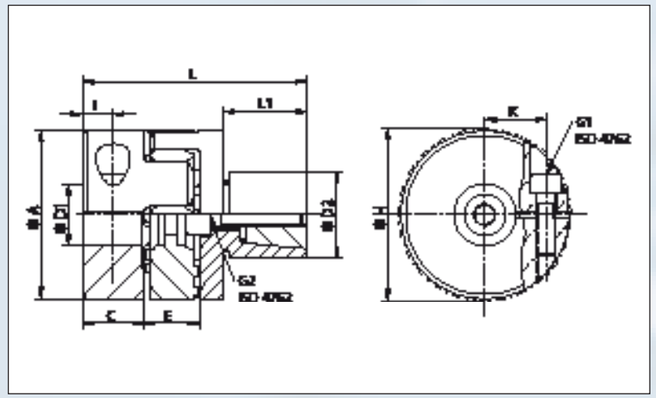
The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed

系列 · *Series* BK/GS-S

尺寸规格 · *Dimensions*

L	=	总长度 / *Total length*
øA	=	外径 / *Outer diameter*
K	=	基本尺寸 / *Basic dimension*
øH	=	留隙直径 / *Clearance diameter*
E	=	弹性星形轮的安装尺寸 / *Mounting dimension for elastomeric spider*
L1	=	基本尺寸 / *Basic dimension*
øD1	=	内径（一端的孔径）/ *Bore diameter*
øD2	=	外径（另一端的轴径）/ *Bore diameter*
C	=	轴孔引导长度 / *Guided length shaft bore*
I	=	基本尺寸 / *Basic dimension*
G1	=	螺钉 / *Screw*
G2	=	螺钉 / *Screw*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN}	=	额定转矩 / *Nominal torque*
M_A	=	螺钉的拧紧力矩 / *Tightening torque of screws*
n_{max}	=	转速最大值 / *Max. rotational speed*
J	=	转动惯量 / *Moment of inertia*

尺寸规格 / *Dimensions*

尺寸 *Size*	L	Ø A	K	Ø H	E	L1	Ø D1	Ø D2	C	I	G1	G2
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
9	34	19,5	7,3	22,5	10	12	4 - 11	10 - 15	8	4	M2,5	M4
14	48	29,5	10,5	33	13	20	5 - 15	13 - 25	9,5	5	M4	M5
19	65	39,5	15	43	16	25	8 - 22	14 - 30	17	6	M5	M6
24	73	54,5	20	56	18	27	10 - 31	23 - 36	20	10	M6	M8
28	83	64,5	23,5	67	19	32	14 - 35	26 - 42	21,5	11	M8	M10

技术参数 / *Technical Data*

T_{KN}	M_{A1}	M_{A2}	n_{max}	J	重量 *Weight*
Nm	Nm		min^{-1}	10^{-3} Kgm^2	kg
3	0,75	4	19000	0,002	0,04
12,5	5	9	13000	0,011	0,11
17	10	12	10000	0,045	0,26
60	18	32	7000	0,164	0,51
160	43	60	6000	0,373	0,83

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

订购实例 / *Ordering example:* BK/GS-S

系列 / *Series* 尺寸 / *Size*	Bohrungs-/ *Bore-* Ø D1	Spreizdorn-/ *Expanding mandrel-* Ø D2	更多细节 / *Further details**
BK/GS-S 24	**25**	**28**	*

* 键槽 · *Keyway*

孔径 / 扭矩 · *Bore range / Torque values*

尺寸 *Size*	Ø 3	Ø 4	Ø 5	Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 15	Ø 18	Ø 20	Ø 25	Ø 26	Ø 28	Ø 30	Ø 35	Ø 40	Ø 45	Ø 55	Ø 56
9		1,7	2,1	2,4	3	3														
14			9	11	12,5	12,5	12,5	12,5	12,5											
19					17	17	17	17	17	17	17									
24						44	52	60	60	60	60	60	60	60	60					
28								113	120	141	155	160	160	160	160	160				

联轴器孔径范围D1/D2和对应的可传动扭矩值(Nm)
Bore range D1/D2 and corresponding transmissible torque values (Nm) of the coupling

特性

- 毂的材质为铝
- 膨胀心轴及内层的材质为钢
- 尺寸规格7到9的弹性星轮为92A（黄色）
- 尺寸规格14–42的弹性心轴为98A（红色）
- 轴配合公差为g6或h7
- 推荐孔的配合公差为H7
- 接触面清洁无油脂
- 可选键槽DIN6885–01

依照指示，可传递技术参数表格中的所示扭矩值。

Characteristics

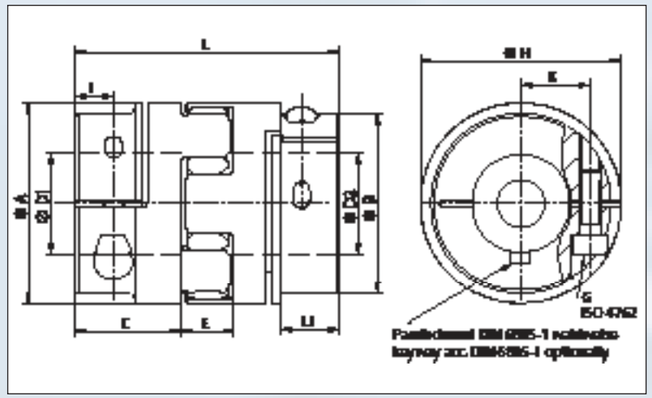
- *Hubs made of aluminum*
- *Expanding mandrel and inner cone made of steel*
- *Elastomeric Spider sizes 7 and 9 with 92° A (yellow spider)*
- *Elastomeric Spider sizes 14 and 42 with 98° A (red spider)*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *For the bore tolerances we recommend fit tolerance H7*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed

系列 · *Series* ADS/R

尺寸规格 · *Dimensions*

L = 总长度 / *Total length*
L1 = 基本尺寸 / *Basic dimension*
øB = 折合直径（规格42，48）/ *Reduced diameter (size 42, 48)*
K = 基本尺寸 / *Basic dimension*
øA = 外径 / *Outer diameter*
øH = 留隙直径 / *Clearance diameter*
E = 弹性星形轮的安装尺寸 / *Mounting dimension for elastomeric spider*
øD1 = 内径（一端的孔径）/ *Bore diameter*
øD2 = 内径（另一端的孔径）/ *Bore diameter*
C = 轴孔引导长度 / *Guided length shaft bore*
I = 基本尺寸 / *Basic dimension*
G = 螺钉 / *Screw*



剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN} = 额定转矩 / *Nominal torque*
M_A = 螺钉的拧紧力矩 / *Tightening torque of screws*
n_{max} = 转速最大值 / *Max. rotational speed*
J = 转动惯量 / *Moment of inertia*

尺寸规格 / *Dimensions*

尺寸 *Size*	L	L1	Ø B	K	Ø A	Ø H	E	Ø D1 / Ø D2	C	I	G
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
14	35	-	-	11	30	32,2	13	5-16	11	5	M3
19	66	-	-	14,5	40	46	16	6-20	25	12	M6
24	78	-	-	20	55	57	18	10-32	30	10,5	M6
28	90	-	-	24,5	65	71	20	10-38	35	11,5	M8
38	114	-	-	30	80	83	24	12-48	45	15,5	M8
42	126	28	85	32,5	95	91	26	14-54	50	18	M10
48	140	32	95	37	105	106	28	15-60	56	21	M12
55	160	-	-	45	120	120	30	35-74	65	26	M12
65	185	-	-	50	135	135	35	35-80	75	28	M12
75	210	-	-	60	160	160	40	30-95	85	36	M16

技术参数 / *Technical Data*

T_{KN}	M_A	n_{max}	J	重量 *Weight*
Nm	Nm	min^{-1}	10^{-3} Kgm^2	kg
12,5	2	13000	0,006	0,042
17	11	10000	0,036	0,158
60	15	7000	0,15	0,304
160	32	6000	0,33	0,505
325	38	5000	0,96	0,934
450	84	4000	4,92	3,8
525	145	3600	8,26	4,9
685	145	3150	19,15	10,2
940	145	2800	30,72	13,7
1920	295	2350	66,68	21,34

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

订购实例 / *Ordering example:* ADS/R

系列 / *Series* 尺寸 / *Size*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
ADS/R 42	20	25	*

* 键槽 · *Keyway*

孔径 / 扭矩 · *Bore range / Torque values*

尺寸 *Size*	Ø 5	Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 25	Ø 30	Ø 35	Ø 40	Ø 45	Ø 50	Ø 55	Ø 60	Ø 65	Ø 70	Ø 80	Ø 90	Ø 95
14	4,8	6,0	7,7	9,4	11	12,5	12,5														
19		16	17	17	17	17	17	17													
24				37	43	50	56	60	60	60											
28				61	72	83	94	114	138	160	160										
38					87	100	113	138	168	197	225	251	277								
42						174	197	242	296	348	398	450	450								
48							276	343	424	502	525	525	525	525	525						
55											630	685	685	685	685	685	685	685			
65											634	714	791	866	940	940	940	940	940		
75											998	1125	1250	1370	1489	1604	1718	1830	1920	1920	1920

联轴器孔径范围D1/D2和对应的可传动扭矩值(Nm)
Bore range D1/D2 and corresponding transmissible torque values (Nm) of the coupling

特性

- 毂的材质为铝，规格55及以上为钢
- 规格19及以下为单槽，规格24及以上为双槽
- 弹性星轮为98A（红色），从规格65起为95A
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽设计DIN6885–01

依照指示，可安全传递技术参数表格中的所示扭矩值。

Characteristics

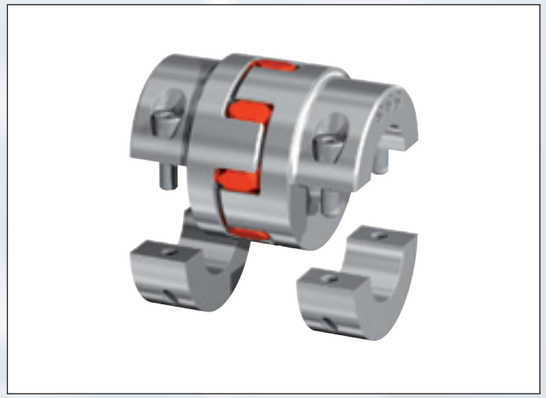
- *Hubs made of aluminum. from size 55 made of steel*
- *Hubs up to size 19 simple slit, from size 24 double slit*
- *Standard Elastomeric Spider with 98° A (red spider), from size 65 with 95° A*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*

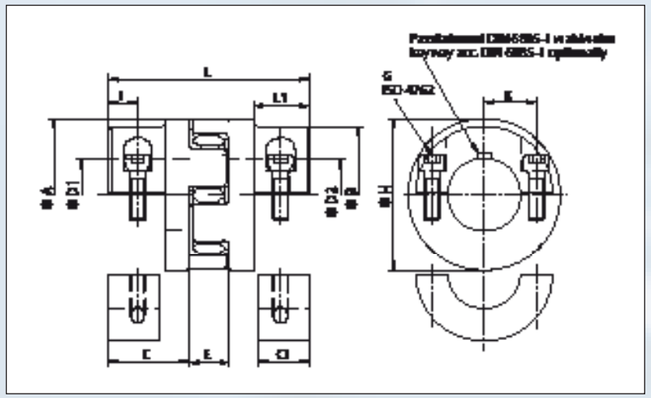
The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed

系列 · *Series* ADS/R-H

尺寸规格 · *Dimensions*

L = 总长度 / *Total length*
øB = Absatzdurchmesser (bei Größe 42, 48)/ *Reduced diameter (size 42, 48)*
L1 = 基本尺寸 / *Basic dimension*
K = 基本尺寸 / *Basic dimension*
øA = 外径 / *Outer diameter*
øH = 留隙直径 / *Clearance diameter*
E = 弹性星形轮的安装尺寸 / *Mounting dimension for elastomeric spider*
øD1 = 内径（一端的孔径）/ *Bore diameter*
øD2 = 内径（另一端的孔径）/ *Bore diameter*
C = 轴孔引导长度 / *Guided length shaft bore*
C1 = 夹紧长度 / *Clamping length*
I = 基本尺寸 / *Basic dimension*
G = 螺钉 / *Screw*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN} = 额定转矩 / *Nominal torque*
M_A = 螺钉的拧紧力矩 / *Tightening torque of screws*
n_{max} = 转速最大值 / *Max. rotational speed*
J = 转动惯量 / *Moment of inertia*

尺寸规格 / *Dimensions*

尺寸 *Size*	L	Ø B	L1	K	Ø A	Ø H	E	Ø D1 / Ø D2	C	C1	I	G
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
14	35	-	-	11	30	32,5	13	5-16	11	8	5	M3
19	66	-	-	14,5	40	46	16	6-20	25	12	7	M6
24	78	-	-	20	55	57	18	10-32	30	19	10,5	M6
28	90	-	-	24,5	65	71	20	10-38	35	21,5	11,5	M8
38	114	-	-	30	80	83	24	12-48	45	31	15,5	M8
42	126	85	28	32,5	95	91	26	14-54	50	32	18	M10
48	140	95	32	36	105	106	28	15-60	56	38	21	M12
55	160	-	-	45	120	120	30	35-74	65	-	26	M12
65	185	-	-	50	135	135	35	35-80	75	-	28	M12
75	210	-	-	60	160	160	40	30-95	85	-	36	M16

技术参数 / *Technical Data*

T_{KN}	M_A	n_{max}	J	重量 *Weight*
			10^{-3}	
Nm	Nm	min^{-1}	Kgm^2	kg
12,5	2	13000	0,006	0,042
17	11	10000	0,036	0,158
60	15	7000	0,15	0,304
160	32	6000	0,33	0,505
325	38	5000	0,96	0,934
450	84	4000	4,92	3,8
525	145	3600	8,26	4,9
685	145	3150	19,15	10,2
940	145	2800	30,72	13,7
1920	295	2350	66,68	21,34

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

订购实例 / *Ordering example:* ADS/R-H

系列 / *Series* 尺寸 / *Size*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
ADS/R-H 42	40	44	*

* 键槽 · *Keyway*

孔径 / 扭矩 · *Bore range / Torque values*

尺寸 *Size*	Ø 5	Ø 6	Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 25	Ø 30	Ø 35	Ø 40	Ø 45	Ø 50	Ø 55	Ø 60	Ø 65	Ø 70	Ø 80	Ø 90	Ø 95
14	3,7	4,4	5,9	7,4	8,8	10,3	11,8														
19		13	17	17	17	17	17	17													
24				29	34	40	46	57	60	60											
28				46	55	65	74	92	116	139	162										
38					66	77	88	110	137	165	192	219	247								
42						139	159	198	248	298	347	397	446								
48							233	292	364	437	510	525	525	525	525						
55											510	583	656	685	685	685	685	685			
65											510	583	656	728	801	874	940	940	940		
75											783	895	1007	1119	1231	1343	1455	1567	1790	1920	1920

联轴器孔径范围D1/D2和对应的可传动扭矩值(Nm)
Bore range D1/D2 and corresponding transmissible torque values (Nm) of the coupling

特性

- 毂的材质为铝，规格55及以上为钢
- 弹性星轮为98A（红色），规格65及以上为95A
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽DIN6885–01

依照指示，可安全传递技术参数表格中的所示扭矩值。

Characteristics

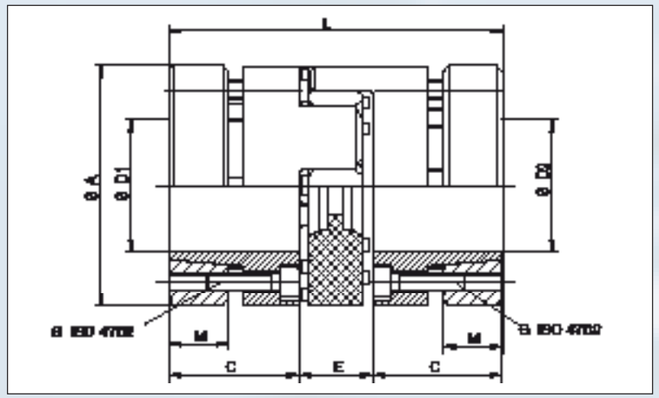
- *Hubs made of aluminum, from size 55 made of steel*
- *Standard Elastomeric Spider with 98° A (red spider), from size 65 with 95° A*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed

系列 · *Series* ASS/A

尺寸规格 · *Dimensions*

L = 总长度 / *Total length*
M = 基本尺寸 / *Basic dimension*
øA = 外径 / *Outer diameter*
E = 弹性星形轮的安装尺寸 / *Mounting dimension for elastomeric spider*
øD1 = 内径（一端的孔径）/ *Bore diameter*
øD2 = 内径（另一端的孔径）/ *Bore diameter*
C = 轴孔引导长度 / *Guided length shaft bore*
G = 螺钉 / *Screw*



剖面图 / ***Sectional view***

技术参数 · *Technical Data*

T_{KN} = 额定转矩 / *Nominal torque*
M_A = 螺钉的拧紧力矩 / *Tightening torque of screws*
n_{max} = 转速最大值 / *Max. rotational speed*
J = 转动惯量 / *Moment of inertia*

尺寸规格 / *Dimensions*

尺寸 *Size*	L	M	Ø A	E	Ø D1 / Ø D2	C	G
	mm	mm	mm	mm	mm	mm	mm
14	50	8	32	13	6-14	18,5	M3
19	66	10	40	16	8-20	25	M4
24	78	13	55	18	11-25	30	M5
28	90	16	65	20	15-36	35	M5
38	114	22	80	24	20-41	45	M6
42	134	25	95	26	25-50	50	M8
48	140	28	105	28	28-55	56	M10

技术参数 / *Technical Data*

T_{KN}	M_A	n_{max}	J	重量 *Weight*
Nm	Nm	min^{-1}	10^{-3} Kgm²	kg
12,5	1,8	25400	0,014	0,118
17	3	19000	0,063	0,238
60	6	13800	0,26	0,574
160	6	11700	0,63	0,807
325	10	9550	1,96	1,736
450	35	8050	6,43	4,322
525	69	7200	10,54	5,673

转动惯量和重量（质量）由最大孔径而定。
Moment of inertia and weight (mass) are calculated with reference to the largest bore size.

订购实例 / *Ordering example:* ASS/A

系列 / *Series* 尺寸 / *Size*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
ASS/A 42	32	41	*

* 不同的星轮肖氏硬度 · *Different Spider Shore hardness*

孔径 / 扭矩 · *Bore range / Torque values*

尺寸 *Size*	Ø 6	Ø 10	Ø 11	Ø 13	Ø 14	Ø 15	Ø 17	Ø 19	Ø 20	Ø 24	Ø 25	Ø 27	Ø 30	Ø 32	Ø 36	Ø 38	Ø 42	Ø 44	Ø 48	Ø 50	Ø 55
14	3,6	9	12,5	12,5	12,5																
19		17	17	17	17	17	17	17	17												
24			22	37	46	56	60	60	60	60	60										
28						56	68	114	134	160	160	160	160	160	160						
38									134	230	261	325	325	325	325	325					
42											260	329	450	450	450	450	450	450	450	450	
48												326	450	525	525	525	525	525	525	525	525

联轴器孔径范围D1/D2和对应的可传动扭矩值(Nm)
Bore range D1/D2 and corresponding transmissible torque values (Nm) of the coupling

特性

- 规格38及以下的毂材质为铝，42及以上的材质为钢
- 标准的弹性星轮98A（红色）
- 同心度最优
- 安装简单
- 轴配合公差g6或h7
- 接触面清洁无油脂

依照指示，可安全传递技术参数表格中的扭矩值。

Characteristics

- *Hubs up to size 38 made of aluminum, from size 42 made of steel*
- *Standard Elastomeric Spider with 98° A (red spider)*
- *Optimal concentricity*
- *Easy to install*
- *The shaft tolerance should be within the fit tolerance "g6" or "h7"*
- *The contact surfaces have to be free from oil and grease*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed

无空回梅花形弹性联轴器 技术说明

不同色码的星轮具有不同的肖氏硬度。通过合理选择星轮，联轴器就能很好的应用于具有扭转刚度和振动的特殊传动领域中。

联轴器设计相关术语

预压：
弹性预压因星形轮的肖氏硬度，联轴器的尺寸大小及加工公差而各异。通过预压，轴向插入力可实现由轻（轻推配合扭转柔性的星轮）到重（高预压配合扭转刚性星轮）。

联轴器额定转矩：
考虑到诸如环境温度和扭转刚度等操作因素，在整个转速范围内可以连续地传递扭矩。

联轴器最大扭矩：
考虑到诸如温度、扭转刚度和冲击载荷等因素，在联轴器的整个使用寿命周期中，最大峰值载荷传递1x10 5次，交变载荷可传递5x10 4次。

Backlash-free Servo-insert Coupling Technical Description

The couplings can be fine tuned to the specific application requirements in terms of torsional stiffness and vibration behaviour by selecting from various colour coded elastomeric spiders having different grades of shore hardness.

Technical terms for the coupling design

Pre-Compression:
The elastic pre-compression varies in dependence from the shore hardness of spiders, the size of the coupling and the machining tolerances. From this the axial insertion force results : From light (as a push fit with torsionally soft spider) to heavy (with high pre-compression with torsionally stiff spider)

T_{kN} – Nominal torque of coupling (Nm):
Continuous torque which can be transmitted throughout the entire speed range, taking into consideration operational factors such as ambient temperatures and torsional stiffness.

T_{kmax} – Maximum torque of coupling (Nm):
Torque to be transmitted 1 x 10^5 time as a peak load or 5 x 10^4 times as an alternating load during the entire life of the coupling taking into consideration factors such as temperatures, torsional stiffness and shock loading.

Zahnkranz Bezeichn. Härte (Shore) *Spider durometer (shore hardness)*	Kennzeichnung Farbe *colour*	Werkstoff *Material*	zul. Temperaturbereich °C *Allowable temperarure range °C*		lieferbar für Größe *Available for Size*	典型应用 *Typical applications*
			Dauertemperatur *continous temperature*	max. Temp. Kurzzeitig *max. temp. short term*		
80 SH A	blau	Polyurethan *polyurethane*	-50 bis +80	-60 bis +120	5-19	电子测量系统驱动器；预压缩时无回空 *Drives in electronic measuring systems; backlash free when pre compressed*
92 SH A	gelb	Polyurethan *polyurethane*	-40 bis +90	-50 bis +120	5-48	主轴驱动，预压缩时无回空 *Main spindle drives, backlash free when pre-compressed*
*95/98 SH A	rot	Polyurethan *polyurethane*	-30 bis +90	-40 bis +120	5-75	定位驱动器，预压缩时无回空 *Positioning drives, backlash free when pre-compressed*
64 SH D-H	grün	Hytrel *hytrel*	-50 bis +120	-60 bis +150	7-38	机床主轴，控制装置，进给装置，行星齿轮传动设备，重负载，扭力刚性，高温环境，防水 *Machine tool spindles, control drives, lead units, planetary gearboxes, Heavy loads, torsionally stiff, high ambient temperature, water proof*
64 SH D	grün	Polyurethan *polyurethane*	-20 bis +110	-30 bis +120	42-75	

* Ab Größe 65 ≙ 95 SH A / *From size 65 ≙ 95° A*

星形轮技术信息 / *Technical Information Spiders*

Größe *Size*	Zahnkranz *Spider*	Shoreskala Shore scale	Max. Drehzahl (min^{-1}) für Größe *Max. speed (min^{-1}) for Size*			Drehmoment (Nm) *torque (Nm)*		statische Drehfedersteife *static torsional stiffness* (Nm/rad)	dynamische Drehfedersteife *dynamic torsional stiffness* (Nm/rad)[1)]	Radialfedersteife *radial stiffness* (Nm/mm)
			DK/GS ADS/R BK/GS	EK/GS	ASS/A	T_{kN}	T_{kmax}			
5	80	A	38000	47500		0,3	0,6	3,2	10	82
	92	A				0,5	1,0	5,2	16	154
	98	A				0,9	1,7	8,3	25	296
7	80	A	27000	34000		0,7	1,4	8,6	26	114
	92	A				1,2	2,4	14,3	43	219
	98	A				2,0	4,0	23	69	421
	64	D-H				2,4	4,8	34	103	630
9	80	A	19000	24000		1,8	3,6	17	52	125
	92	A				3	6	31	95	262
	98	A				5	10	51	155	518
	64	D-H				6	12	74	224	769
14	80	A	13000	16000	25400	4	8	60	180	153
	92	A				7,5	15	115	344	336
	98	A				12,5	25	172	513	654
	64	D-H				16	32	234	702	856
19	80	A	10000	12000	19000	5	10	340	1030	582
	92	A				10	20	570	1720	1120
	98	A				17	34	860	2580	2010
	64	D-H				21	42	1240	3720	2930
24	92	A	7000	8500	13800	35	70	1430	4296	1480
	98	A				60	120	2060	6189	2560
	64	D-H				75	150	2980	8934	3696
28	92	A	6000		11700	95	190	2290	6876	1780
	98	A				160	320	3440	10314	3200
	64	D-H				200	400	4350	13050	4348
38	92	A	5000		9550	190	380	4580	13752	2350
	98	A				325	650	7160	21486	4400
	64	D-H				405	810	10540	31620	6474
42	92	A	4000		8050	265	530	6300	2430	2430
	98	A				450	900	19200	5570	5570
	64	D				560	1120	27580	7170	7270
48	92	A	3600		7200	310	620	7850	2580	2580
	98	A				525	1050	22370	5930	5930
	64	D				655	1310	36200	8274	8274
55	92	A	3150			410	820	15482	21375	2980
	98	A				685	1370	42117	61550	6686
	64	D				825	1650	105730	130200	9248
65	95	A	2800			940	1880	485200	71660	6418
	64	D				825	1650	118510	189189	8870
75	95	A	2350			1920	3840	79150	150450	8650
	64	D				2400	4800	182320	316377	11923

线型联轴器基本信息

无空回线型联轴器系列

扭转刚性和弹性线型联轴器应用于具有最高角度精确性的扭矩和旋转运动的传递，或者需要连接的传动轴之间具有相当大的距离。线型联轴器的应用几乎涵盖了所有的技术领域，在这些领域中机械动力传动和刚度十分重要：

扭转弹性线型联轴器（含弹性星轮）

- 完全无空回
- 安装长度可达4米
- 可补偿轴向，径向和角度误差
- 经济实惠，组装简单
- 免维护
- 中间钢段和铝管长度灵活多变
- 无空回弹性星形轮
- 卓越的扭矩传动和误差补偿
- 高传动精确度
- 工作温度范围–30° 到 + 120° 或–22 F 到 + 248 F

扭转刚性线型联轴器（含金属波纹管）

- 完全无空回
- 安装长度可达4米
- 可补偿轴向，径向和角度误差
- 铝轻量构造尺寸可达200
- 可选碳纤维合成材料管
- 免维护，无磨损
- 各种套管均可用
- 特种不锈钢波纹管
- 卓越的动力传输
- 高扭转刚度和误差补偿
- 优化的转动惯量
- 附加平衡孔实现较佳同心度
- 工作温度范围–30° 到 + 100° 或–22 F 到 + 212 F
- 高精度的旋转角

Line Shafts Basics

Backlash-free Line Shafts Series

Torsionally stiff and flexible line shafts are used in applications where torque and rotational motion combined with the highest possible angular precision should be transmitted or considerable distances between shafts need to be bridged. The application range of line shafts covers almost all technical areas, where mechanical power transmission and stiffness are important:

Torsionally flexible line shafts with elastomeric spider

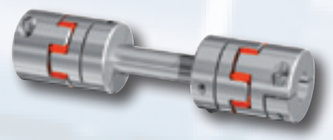
- ***Absolutely backlash-free***
- ***Installation length up to 4 m possible***
- ***Compensation of axial, radial and angular misalignment***
- ***Cost-effective, simple assembly***
- ***Maintenance free***
- ***Variable length of the intermediate (or line) steel or aluminium tube***
- ***Backlash free elastomeric spider***
- ***Excellent transmission of torque and compensation of misalignment***
- ***High transmission accuracy***
- ***Temperature range -30° to +120° C / -22 F to +248 F***

Torsionally stiff line shafts with metal bellows

- ***Absolutely backlash-free***
- ***Installation length up to 4 m possible***
- ***Compensation of axial, radial and angular misalignment***
- ***Aluminium lightweight construction up to size 200***
- ***Optional with CFK-tube***
- ***Maintenance free, no wear***
- ***Universal joint tube version available***
- ***Special stainless steel bellows***
- ***Excellent power transmission***
- ***High torsional stiffness and misalignment compensation***
- ***Optimal moment of inertia***
- ***Additional balancing holes for better concentricity***
- ***Temperature range -30° to +100° C / -22 F to +212 F.***
- ***High precision of rotation angle***

Verpackungsmaschine · *Packaging Machine*

线型联轴器概览 · *Overview Line Shafts*



系列 · *Series*
ADS/R-ZW

梅花形弹性联轴器（含夹紧毂）

Servo-Insert Coupling with clamping style hubs

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系列 · *Series*
ADS/R-H-ZW

梅花形弹性联轴器（含半壳结构的夹紧毂）

Servo-Insert Coupling with clamping style hubs in half shell construction

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系列 · *Series*
AKN-ZW

金属波纹管联轴器（含凸缘结构的夹紧毂）

Metal Bellows Coupling with clamping style hubs in flange construction

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系列 · *Series*
AKN/H-ZW

金属波纹管联轴器（含分体式的夹紧毂）

Metal Bellows coupling with clamping hubs in split hub design

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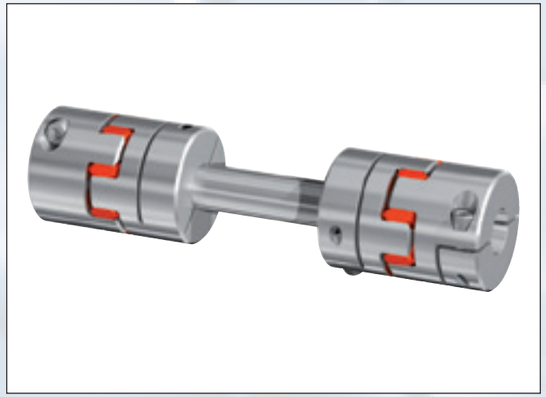
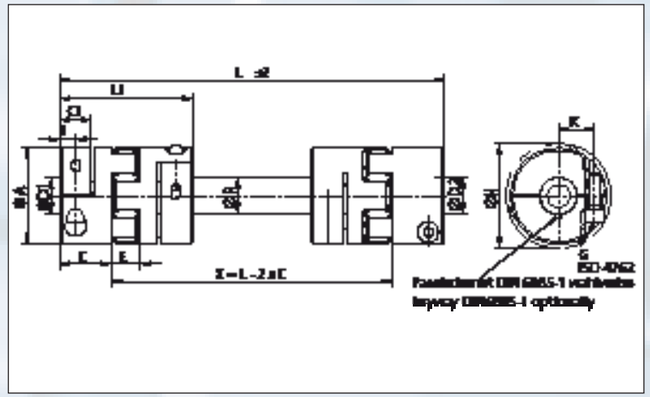
系列 · *Series* ADS/R-ZW

尺寸规格 · *Dimensions*

L	=	总长度 / *Total length*
L1	=	联轴器长度 / *Length coupling*
K	=	基本尺寸 / *Basic dimension*
øA	=	外径 / *Outer diameter*
øH	=	留隙直径 / *Clearance diameter*
E	=	弹性星形轮的安装尺寸 / *Mounting dimension for elastomeric spider*
øR	=	管径 / *Tube diameter*
øD1	=	内径（一端的孔径）/ *Bore diameter*
øD2	=	内径（另一端的孔径）/ *Bore diameter*
C	=	轴孔引导长度 / *Guided length shaft bore*
C1	=	夹紧长度 / *Clamping length*
I	=	基本尺寸 / *Basic dimension*
G	=	螺钉 / *Screw*
X	=	轴连接距离 / *Distance shafts*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

C	=	扭转刚度（管）/ *Torsional stiffness (tube)*
T_{KN}	=	额定转矩 / *Nominal torque*
M_A	=	螺钉的拧紧力矩 / *Tightening torque of screws*
n_{max}	=	转速最大值 / *Max. rotational speed*

尺寸规格 · *Dimensions*

尺寸 *Size*	L ±2 mm	L1 mm	K mm	Ø A mm	Ø H mm	E mm	Ø R mm	Ø D1 / Ø D2 mm	C mm	C1 mm	I mm	G mm
14	80 - 2000	35	11	30	33	13	16	5-16	11	11	5	M3
19	135 - 2000	66	14,5	40	46	16	20	6-20	25	25	12	M6
24	160 - 2000	78	20	55	57	18	25	10-32	30	19	10,5	M6
28	185 - 2000	90	24,5	65	71	20	30	10-38	35	21,5	11,5	M8
38	230 - 2000	114	30	80	83	24	40	12-48	45	31	15,5	M8
42	255 - 2000	126	32,5	95	91	26	40	14-54	50	32	18	M10
48	290 - 2000	140	36	105	104,5	28	50	15-60	56	38	21	M12

技术参数 · *Technical Data*

尺寸 *Size*	C pro m Nm/rad	T_{KN} Nm	M_A Nm	n_{max} min^{-1}
14	470	12,5	2	1500
19	930	17	11	1500
24	2540	60	15	1500
28	5410	160	32	1500
38	15250	325	38	1500
42	15250	450	84	1500
48	42050	525	145	1500

特性

- 毂的材质为铝
- 规格19及以下为单槽，24及以上为双槽
- 精密空心轴材质为钢
- 标准弹性星轮为98A（红色）
- 防错设计
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽DIN6885–01

依照指示，可安全传递技术参数表格中的扭矩值。

Characteristics

- *Hubs made of aluminum*
- *Hubs up to size 19 simple slit, from size 24 double slit*
- *Precision hollow shaft made of steel*
- *Standard Elastomeric Spider with 98° A (red spider)*
- *Fail-safe design*
- *The shaft tolerance should be within the fit tolerance “g6” or “h7”*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed

订购实例 / *Ordering example:* ADS/R-ZW

系列 / *Series* 尺寸 / *Size*	总长度 *Total length*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
ADS/R-ZW 14	250	10	14	*

* 键槽 · *Keyway*

孔径 / 扭矩 · *Bore range / Torque values*

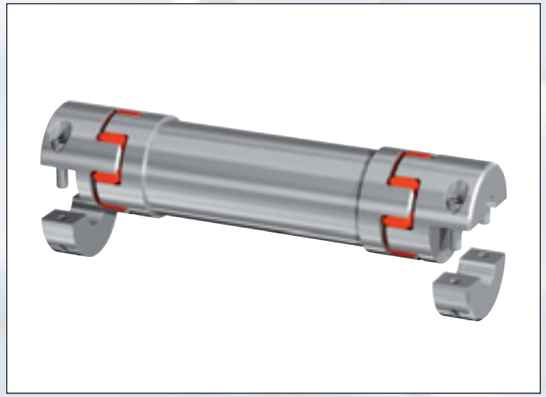
尺寸 *Size*	Ø 5	Ø 6	Ø 8	Ø 9	Ø 10	Ø 12	Ø 14	Ø 15	Ø 16	Ø 18	Ø 20	Ø 22	Ø 24	Ø 25	Ø 30	Ø 35	Ø 40	Ø 45	Ø 50	Ø 55	Ø 58
14	4,8	6,0	7,7	8,6	9,4	11,0	12,5	12,5	12,5												
19		16	17	17	17	17	17	17	17	17	17										
24					37	43	50	53	56	60	60	60	60	60	60						
28					61	72	83	88	94	104	114	124	134	138	160	160					
38						87	100	107	113	126	138	151	163	168	197	225	251	277			
42							174	186	197	220	242	264	285	296	348	398	450	450			
48									276	309	343	376	408	424	502	525	525	525	525	525	525

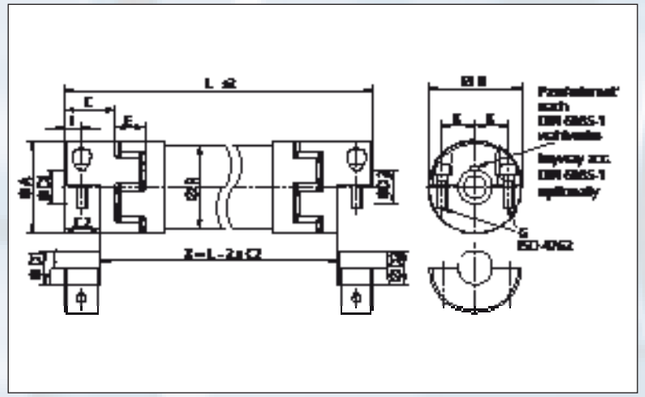
联轴器孔径范围D1/D2和对应的可传动扭矩值(Nm)
Bore range D1/D2 and corresponding transmissible torque values (Nm) of the coupling

系列 · *Series* ADS/R-H-ZW

尺寸规格 · *Dimensions*

L	=	总长度 / *Total length*
E	=	弹性星形轮的安装尺寸 / *Mounting dimension for elastomeric spider*
øA	=	外径 / *Outer diameter*
K	=	基本尺寸 / *Basic dimension*
øR	=	管径 / *Tube diameter*
øD1	=	内径（一端的孔径）/ *Bore diameter*
øD2	=	内径（另一端的孔径）/ *Bore diameter*
C	=	轴孔引导长度 / *Guided length shaft bore*
C2	=	基本尺寸 / *Basic dimension*
I	=	基本尺寸 / *Basic dimension*
G	=	螺钉 / *Screws*
øH	=	留隙直径 / *Clearance diameter*
X	=	轴连接距离 / *Distance shafts*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

M_A	=	螺钉的拧紧力矩 / *Tightening torque of screws*
C	=	扭转刚度（管）/ *Torsional stiffness (tube)*
T_{KN}	=	额定转矩 / *Nominal torque*
n_{max}	=	转速最大值 / *Max. rotational speed*

尺寸规格 · *Dimensions*

尺寸 *Size*	L ±2	Ø E	Ø A	K	Ø R	Ø D1 / Ø D2	C	C2	I	G	Ø H
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
14	85 - 3000	13	30	11	30	5-16	11	9	5	M3	33
19	135 - 3000	16	40	14,5	40	6-20	25	13,5	7	M6	46
24	165 - 3000	18	55	20	50	10-32	30	21	10,5	M6	57
28	205 - 3000	20	65	24,5	62	10-38	35	23,5	11	M8	71
38	250 - 3000	24	80	30	75	12-48	45	33	15,5	M8	83
42	265 - 3000	26	95	32,5	90	14-54	50	35	18	M10	91
48	285 - 3000	28	105	37	106	15-60	56	41	21	M12	104,5

技术参数 · *Technical Data*

尺寸 *Size*	M_A	C pro m	T_{KN}	n_{max}
	Nm	Nm/ rad	Nm	min^{-1}
14	2	1526	12,5	1500
19	11	4006	17	1500
24	15	9781	60	1500
28	32	22600	160	1500
38	38	47169	325	1500
42	84	75797	450	1500
48	145	160700	525	1500

特性

- 毂的材质为铝
- 标准弹性星轮为98A（红色）
- 精密空心轴材质为铝
- 防错设计
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽DIN6885–01

依照指示，可安全传递技术参数表格中的所示扭矩值。

Characteristics

- *Hubs made of aluminum*
- *Standard Elastomeric Spider with 98° A (red spider)*
- *Precision line shaft made of aluminum*
- *Fail-safe design*
- *The shaft tolerance should be within the fit tolerance “g6” or “h7”*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed

订购实例 / *Ordering example:* ADS/R-H-ZW

系列 / *Series* 尺寸 / *Size*	总长度 *Total length*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
ADS/R-H-ZW 14	200	10	14	*

* 键槽 · *Keyway*

孔径 / 扭矩 · *Bore range / Torque values*

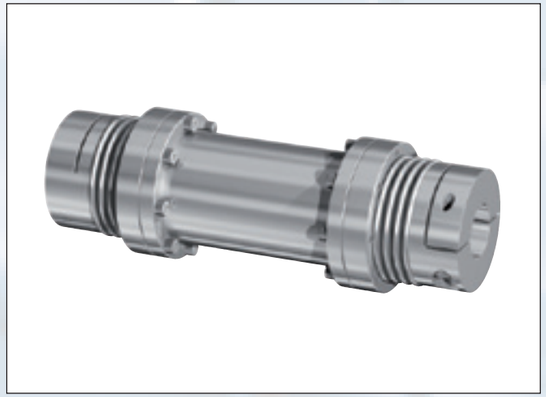
尺寸 *Size*	Ø 5	Ø 6	Ø 8	Ø 9	Ø 10	Ø 12	Ø 14	Ø 15	Ø 16	Ø 18	Ø 20	Ø 22	Ø 24	Ø 25	Ø 30	Ø 35	Ø 40	Ø 45	Ø 50	Ø 55	Ø 58
14	3,7	4,4	5,9	6,6	7,4	8,8	10,3	11,1	11,8												
19		12,6	17	17	17	17	17	17	17	17	17										
24					29	34	40	43	46	51	57	60	60	60	60						
28					46	55	65	69	74	83	92	102	111	116	139	162					
38						66	77	82	88	99	110	121	132	137	165	192	219	247			
42							139	149	159	179	198	218	238	248	298	347	397	446			
48									233	262	292	321	350	364	437	510	525	525	525	525	525

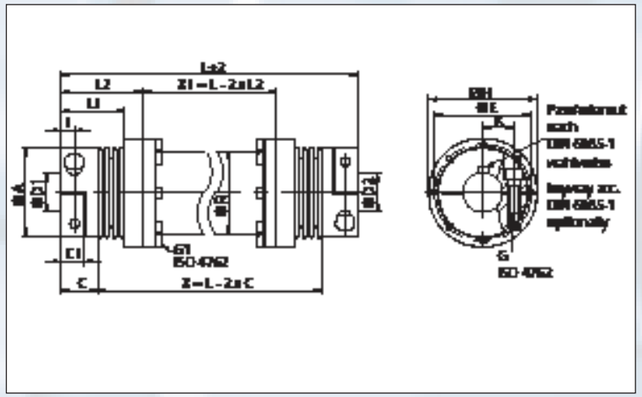
联轴器孔径范围D1/D2和对应的可传动扭矩值(Nm)
Bore range D1/D2 and corresponding transmissible torque values (Nm) of the coupling

系列 · *Series* AKN-ZW

尺寸规格 · *Dimensions*

L	=	总长度 / *Total length*
øE	=	节圆直径 / *Pitch circle diameter*
øA	=	外径 / *Outer diameter*
L2	=	基本尺寸 / *Basic dimension*
K	=	基本尺寸 / *Basic dimension*
øR	=	管径 / *Tube diameter*
øD1	=	内径（一端的孔径）/ *Bore diameter*
øD2	=	内径（另一端的孔径）/ *Bore diameter*
C	=	轴最大长度 / *Max. shaft rack length*
C1	=	夹紧长度 / *Clamping length*
I	=	基本尺寸 / *Basic dimension*
L1	=	基本尺寸 / *Basic dimension*
G	=	螺钉 / *Screw*
G1	=	螺钉1 / *Screws*
øH	=	留隙直径 / *Clearance diameter*
X	=	轴连接距离 / *Distance shafts*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

M_A	=	螺钉的拧紧力矩 / *Tightening torque of screws*
C	=	扭转刚度（管）/ *Torsional stiffness (tube)*
T_{KN}	=	额定转矩 / *Nominal torque*
n_{max}	=	转速最大值 / *Max. rotational speed*

尺寸规格 · *Dimensions*

尺寸 *Size*	L ±2	Ø E	Ø A	L2	K	Ø R	Ø D1/Ø D2 Ohne Passfedernut *Without Keyway*	Ø D1/Ø D2 Mit Passfedernut *With Keyway*	C	C1	I	L1	G	G1	Ø H
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
18	140 - 3000	45	45	52	17,5	40	8-25	8-22	20	11	6	43,5	M5	4xM4	58
30	145 - 3000	62	55	52	20	50	10-25	10-22	24,5	15	8	40,5	M6	6xM4	70
60	190 - 3000	72	64	62,5	24	62	12-35	12-29	29	19	10	49,5	M8	6xM5	80
150	210 - 3000	88	80	85	28	75	14-40	14-36	33	21	12	57	M10	8xM6	98
200	220 - 3000	100	90	78,5	31	90	22-44	22-38	37,5	24	13	62	M12	8xM6	112
300	230 - 3000	120	110	82	39	106	24-48	24-42	37,5	24	13	66	M12	8xM8	135
500	250 - 3000	132	119	88	43	114	35-62	35-54	41	28	15	70	M14	8xM8	148

技术参数 · *Technical Data*

尺寸 *Size*	M_A (G)	M_A (G1)	C pro m	T_{KN}	n_{max}
	Nm	Nm	Nm/ rad	Nm	min^{-1}
18	6	3	4006	22	1500
30	12	4	9781	36	1500
60	30	7	22600	75	1500
150	85	10	47169	180	1500
200	100	12	75797	240	1500
300	120	30	160700	360	1500
500	190	30	240740	600	1500

特性

- 金属波纹管材质为不锈钢，毂材质为铝
- 精密中间轴材质为铝
- 中间轴材质可选碳纤维复合材料
- 无空回，扭转刚性
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 可选键槽DIN6885–1

依照指示，可安全传递技术参数表格中的扭矩值。

Characteristics

- *Metal bellows made of stainless steel, hubs made of aluminum*
- *Precision line shaft made of aluminum*
- *Optional line shaft made of CFK*
- *Backlash-free and torsionally rigid*
- *The shaft tolerance should be within the fit tolerance “g6” or “h7”*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed

订购实例 / *Ordering example:* AKN-ZW

系列 / *Series* 尺寸 / *Size*	总长度 *Total length*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
AKN-ZW 18	**500**	**10**	**25**	*

* 键槽或不锈钢 · *Keyway or Stainless steel*

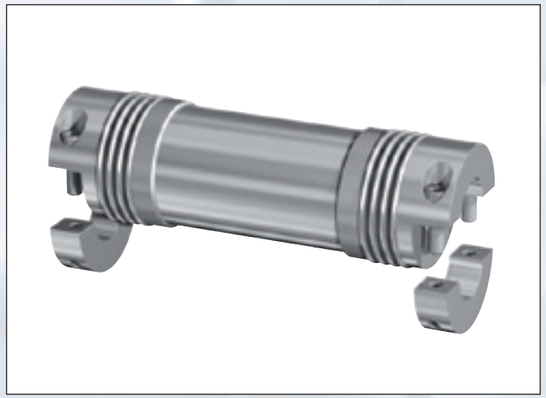
孔径 / 扭矩 · *Bore range / Torque values*

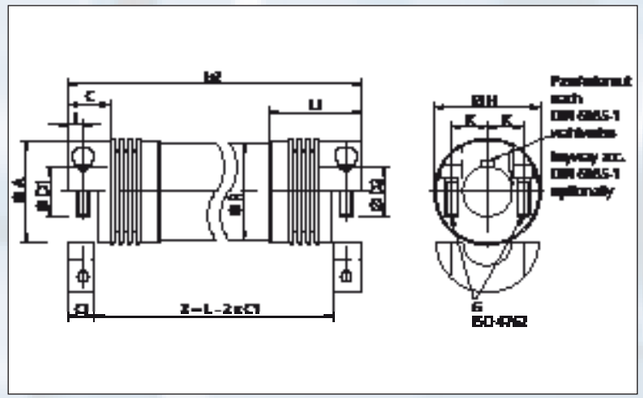
尺寸 *Size*	Ø 8	Ø 9	Ø 10	Ø 11	Ø 12	Ø 13	Ø 15	Ø 16	Ø 18	Ø 20	Ø 22	Ø 25	Ø 28	Ø 30	Ø 35	Ø 40	Ø 45	Ø 50	Ø 55	Ø 60	Ø 64
18	18	20	22	22	22	22	22	22	22	22	22	22									
30			36	36	36	36	36	36	36	36	36	36	36	36							
60					75	75	75	75	75	75	75	75	75	75	75						
150							180	180	180	180	180	180	180	180	180	180					
200											240	240	240	240	240	240	240				
300												360	360	360	360	360	360	360	360	360	
500															600	600	600	600	600	600	600

系列 · *Series* AKN/H-ZW

尺寸规格 · *Dimensions*

L	=	总长度 / *Total length*
øA	=	外径 / *Outer diameter*
K	=	基本尺寸 / *Basic dimension*
øR	=	管径 / *Tube diameter*
øD1	=	内径（一端的孔径）/ *Bore diameter*
øD2	=	内径（另一端的孔径）/ *Bore diameter*
C	=	轴最大长度 / *Max. shaft rack length*
C1	=	夹紧长度 / *Clamping length*
I	=	基本尺寸 / *Basic dimension*
L1	=	基本尺寸 / *Basic dimension*
G	=	螺钉 / *Screw*
øH	=	留隙直径 / *Clearance diameter*
X	=	轴连接距离 / *Distance shafts*





剖面图 / ***Sectional view***

技术参数 · *Technical Data*

M_A	=	螺钉的拧紧力矩 / *Tightening torque of screws*
C	=	扭转刚度（管）/ *Torsional stiffness (tube)*
T_{KN}	=	额定转矩 / *Nominal torque*
n_{max}	=	转速最大值 / *Max. rotational speed*

尺寸规格 · *Dimensions*

尺寸 *Size*	L ±2 mm	Ø A mm	K mm	Ø R mm	Ø D1/Ø D2 Ohne Passfedernut *Without Keyway* mm	Ø D1/Ø D2 Mit Passfedernut *With Keyway* mm	C mm	C1 mm	I mm	L1	G mm	Ø H mm
18	132 - 3000	45	17,5	40	8-25	8-22	20	11	6	53	M5	47,5
30	130 - 3000	55	20	50	10-25	10-22	24,5	15	8	52	M6	56
60	165 - 3000	64	23,5	62	12-35	12-29	29	19	10	64	M8	66,5
150	196 - 3000	80	28	75	14-40	14-36	33	21	12	72	M10	84
200	218 - 3000	90	31	90	22-44	22-38	37,5	24	13	80	M12	92
300	220 - 3000	110	39	106	24-48	24-42	37,5	24	13	83	M12	110
500	250 - 3000	119	43	114	35-62	35-54	41	27,5	15	90	M14	122

技术参数 · *Technical Data*

尺寸 *Size*	M_A Nm	C pro m Nm/ rad	T_{KN} Nm	n_{max} min^{-1}
18	6	4006	22	1500
30	12	9781	36	1500
60	30	22600	75	1500
150	85	47169	180	1500
200	100	75797	240	1500
300	120	160700	360	1500
500	190	240740	600	1500

特性

- 金属波纹管材质为不锈钢，毂的材质为铝
- 精密中间轴材质为铝
- 中间轴可选碳纤维复合材料
- 无空回，扭转刚性
- 轴配合公差g6或h7
- 接触面清洁无油脂
- 键槽可选DIN6885–1

依照指示，可安全传递技术参数表格中的扭矩值。

Characteristics

- *Metal bellows made of stainless steel, hubs made of aluminum*
- *Precision line shaft made of aluminum*
- *Optional line shaft made of CFK*
- *Backlash-free and torsionally rigid*
- *The shaft tolerance should be within the fit tolerance “g6” or “h7”*
- *The contact surfaces have to be free from oil and grease*
- *Optional designs with keyways DIN 6885-1*

The torque values shown in the technical data tables can only be safely transmitted, if all instructions are followed

订购实例 / *Ordering example:* AKN/H-ZW

系列 / *Series* 尺寸 / *Size*	总长度 *Total length*	Bohrungs-/ *Bore-* Ø D1	Bohrungs-/ *Bore-* Ø D2	更多细节 / *Further details**
AKN/H-ZW 18	**500**	**10**	**25**	*

* 键槽或不锈钢 · *Keyway or Stainless steel*

孔径 / 扭矩 · *Bore range / Torque values*

尺寸 *Size*	Ø 8	Ø 9	Ø 10	Ø 11	Ø 12	Ø 14	Ø 15	Ø 18	Ø 20	Ø 22	Ø 24	Ø 25	Ø 28	Ø 30	Ø 35	Ø 40	Ø 45	Ø 50	Ø 55	Ø 60	Ø 64
18	13,6	15,3	17	18,7	20,4	22	22	22	22	22	22	22									
30			28	30	33	36	36	36	36	36	36	36	36	36							
60					62	73	75	75	75	75	75	75	75	75	75						
150						167	180	180	180	180	180	180	180	180	180	180					
200										240	240	240	240	240	240	240					
300											342	360	360	360	360	360	360	360	360	360	
500															600	600	600	600	600	600	600

组装

确保轴端洁净，检查轮毂钻孔和容差。将轴端插入金属波纹管联轴器的轮毂之内。完成轴向安装尺寸的检验后，拧紧并稳固螺丝。务必保持螺丝的拧紧力矩和规定的最大偏差在规定范围之内（参照技术参数列表）。

拆卸

松开无空回的轴毂联接后，就可断开传动，移除金属波纹管联轴器。拧开六角凹头螺钉，就可以压出AK系列的锥形轴衬。

定位

如果几种偏差同时出现，虽不会达到最大值，但必须进行调整。所有实际偏差额不得超过100%（最大值的百分比）。下列图表说明了如何调整。定位越精准，在操作过程中才能更有效地处理附加偏差。这样有利于提高耐用性，减少噪音，保证传动的精确度。

请联系我们获取详细组装说明。

Assembly

Clean and degrease shaft ends and bores in hubs and check the tolerances. Insert both shaft ends into the hubs of the Metal Bellows Coupling. Firmly tighten the screws after examining the axial installation dimensions. The tightening torque of the screws and the maximum approved misalignment should not be exceeded (refer to the list of technical data).

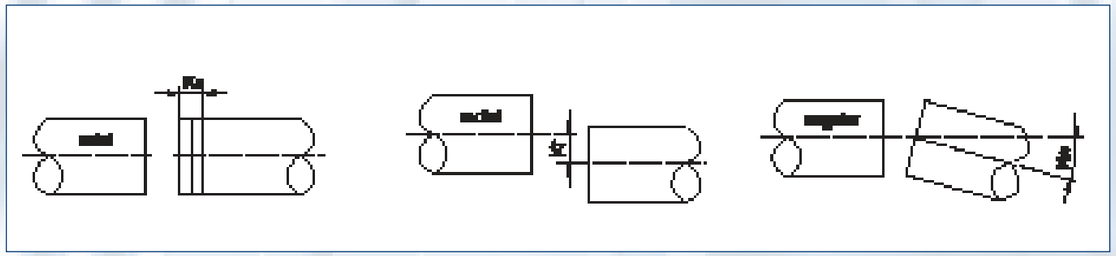
Disassembling

After loosening the backlash-free shaft hub connections, the drive can be pulled apart and the metal bellows coupling can be removed. Conical bushings of series AK are forced off with a hexagonal socket screw.

Alignment

If several types of misalignment occur simultaneously, none of them must reach the maximal value but must be adjusted. The sum of all actual misalignments must not exceed 100 % (percentage of the maximum value). The diagram below shows how to adjust. The more precise the alignment, the more reserves are available to handle additional misalignments during the operation. This will have an advantageous effect on the durability, quietness and the accuracy of transmission.

Please ask for our detailed assembly instructions.



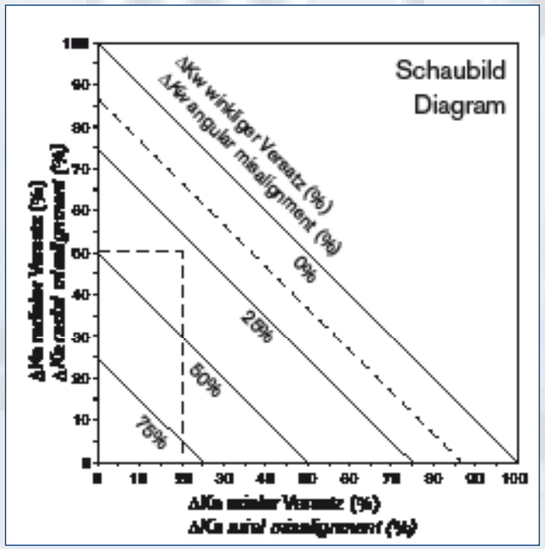
应用:

务必安装波纹管联轴器CKN80/62。下列偏差值源自安装工况：
ΔKr = 0,1 mm
ΔKa = 0,1 mm
ΔKw = 0,2°
这些偏差值对CKN80/62来说是否可以接受?

挑选:
偏差许可值为：（CKN系列一览表）：
ΔKrn = 0,2 mm
ΔKan = 0,5 mm
ΔKwn = 1,5°
径向偏差 ΔKr=0,1mm约为最大许可值的50%。
偏差值 ΔKa=0,1mm约为最大轴向偏差许可值的20%。
角偏差 ΔKw=0,2° 约为许可值的13%。

图表说明:
输入图表右边（虚线部分）的计算值。不同偏差值的组合都位于许可范围之内。

实验公式说明:
50% + 20% + 13% < 100%.
联轴器可进行安装。



Application:

A bellows coupling CKN 80/62 has to be installed. The following misalignment values result from the installation situation:
ΔKr = 0,1 mm
ΔKa = 0,1 mm
ΔKw = 0,2°
Are the misalignment values for the CKN 80/62 w acceptable?

Selection:
The tolerable misalignment values are: (cp. data sheet Series CKN):
ΔKrn = 0,2 mm
ΔKan = 0,5 mm
ΔKwn = 1,5°
The reached radial misalignment ΔKr = 0,1 mm corresponds to 50% of the max. tolerable value.
The value ΔKa = 0,1 mm corresponds to 20% of the max. tolerable axial misalignment.
The angular misalignment with ΔKw = 0,2° corresponds to 13% of the overall view.

Interpretation by means of the diagram:
Enter the calculated values in the diagram on the right side (dashed line). The combination of the different misalignment values is within the tolerable area.

Interpretation by means of the empirical formula:
50% + 20% + 13% < 100%.
The coupling can be installed.

经验公式 ***Empirical formula***:

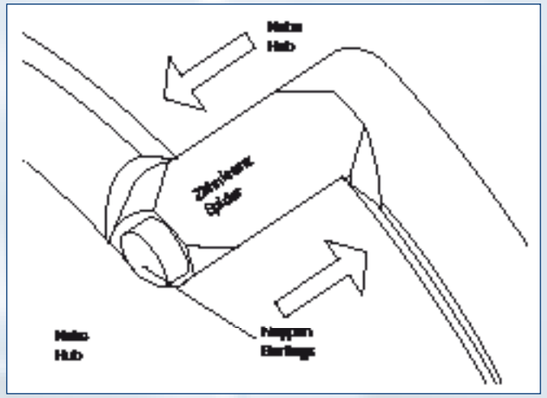
$$\frac{DK_r}{DK_{rm}} \times 100\,\% + \frac{DK_a}{DK_{an}} \times 100\,\% + \frac{DK_w}{DK_{wn}} \times 100\,\% < 100\,\%$$

组装

轴的表面和毂的内孔去油去污。轴配合公差应为g6或h7。

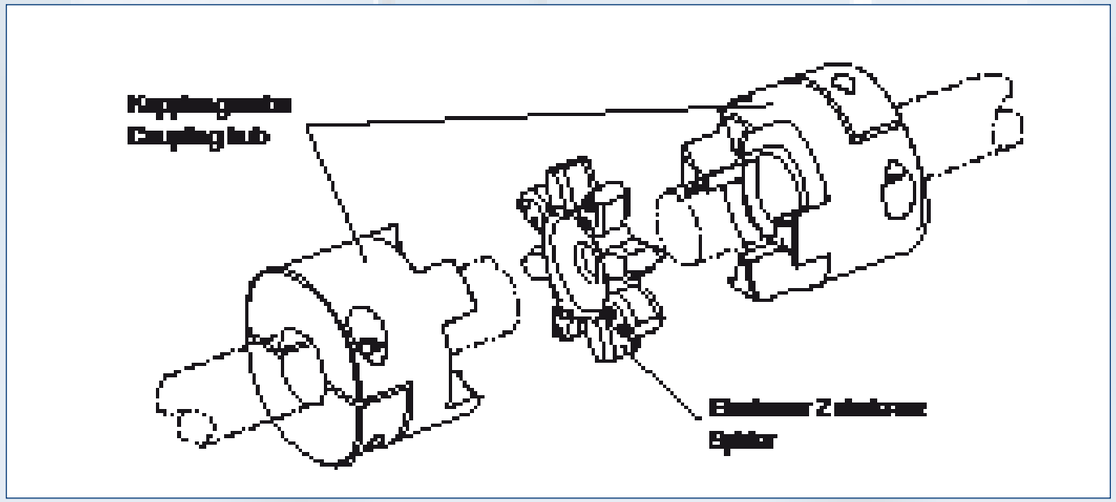
Assembly

Clean and degrease both shaft surface and hub bores. The shaft tolerance should be within the fit tolerance “g6” or “h7”.



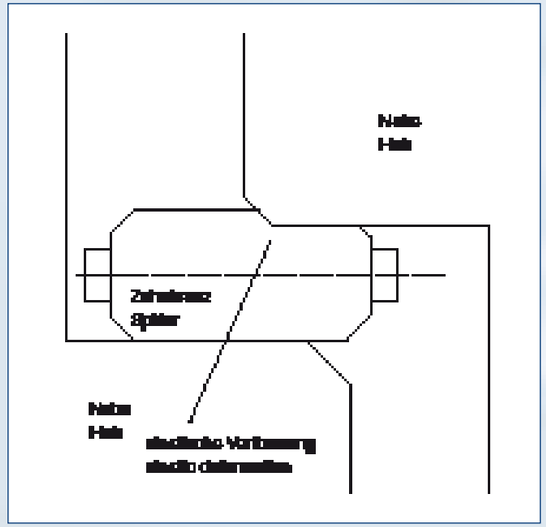
把一个联轴器毂滑动到轴端并检查轴向尺寸，然后用螺钉锁紧。正确的螺钉拧紧的扳手力矩，请参照技术参数列表。

Slide a coupling hub onto each shaft end and tighten the screws after checking the axial dimensions. Refer to the list of technical data to get the correct wrench torque for the screws.



用力将弹性星轮压入两个毂中的一个。为使组装简单，可涂抹凡士林等与推进装置相容的油脂。星轮的棱和联轴器毂的卡爪都具有倒角，这样可以使安装更容易，必要时实现傻瓜式安装。星轮上的凸节在棱的侧向交替分布，从而使组装容易，避免装配的太紧。现在推入第二个毂，并始终保持一定的间隙，这样弹性星轮就不会在轴向上压得过紧。因此，可保证更长的耐久性和电气隔离。

Firmly press the elastomer spider into one of the two hubs. A PU compatible grease such as Vaseline may be applied to ease assembly. The edges of the spider and the jaws of the coupling hubs are both chamfered for an easier or – if applicable - blind assembly The burlings sidewise alternate on the edges, ease the assembly and prevent from an too tight installation. Now push in the second hub. Always keep within the clearance, so that the elastomer spider will not be tensed up axial. Therefore a longer durability and electrical isolation will be guaranteed.

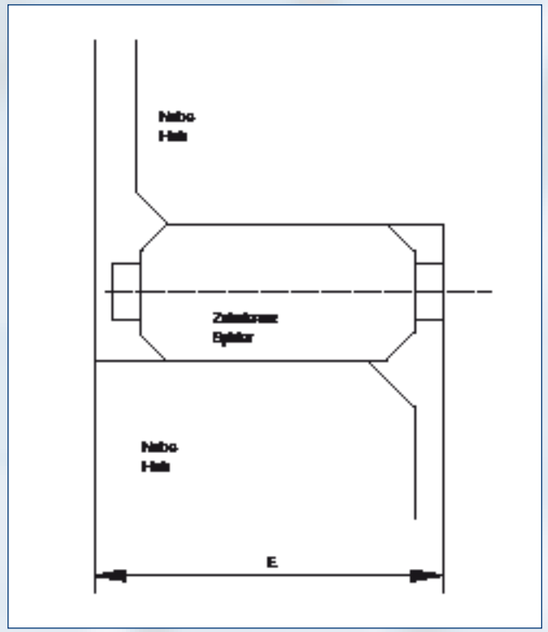


重要说明：高动态领域的应用

在高动态领域（频繁加速和反向旋转）或高冲击载荷（印刷机和碎纸机）情况下，我们建议您在固威技术团队的支持下，选择合适的联轴器和规格尺寸。

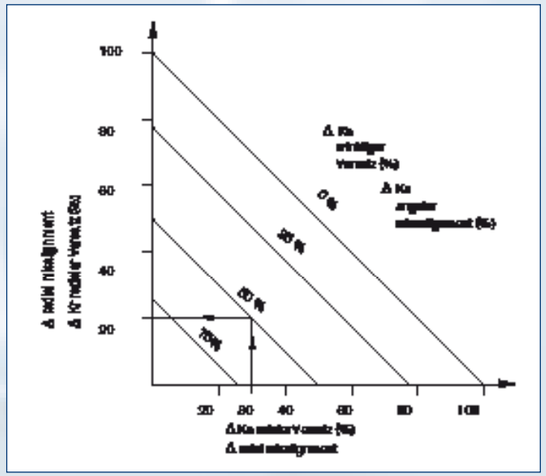
IMPORTANT: For application with high dynamics

For application with high dynamics (frequent acceleration and reversion of rotating) or high impact load (applications like presses and shredder) we recommend to use the support of the GERWAH team in doing the dimensioning and choosing the appropriated coupling.



定位

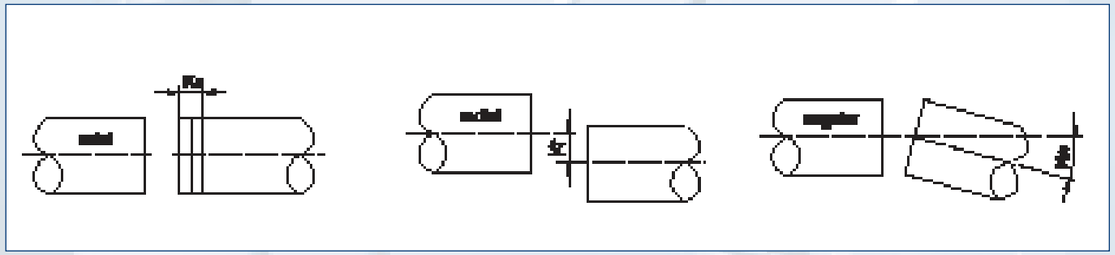
下列图表表示三类偏差。组装好的联轴器需进行定位。初始定位越精准，联轴器在操作过程中才能更好地处理附加偏差。这样有利于提高耐用性，减少噪音。如果三种偏差同时出现，虽不会达到最大允许值，但必须进行调整。所有实际偏差额以最大允许值的百分比来表示，不得超过100%。右边的图表说明了调整方案。



Alignment

The picture below shows the three types of misalignment. The mounted coupling needs to be aligned. The more accurate the initial alignment, the better the coupling can absorb additional misalignments during operation. Durability and quietness are favourably influenced. If all three types of misalignment occur simultaneously, each type must not reach the maximum allowable value, but have to be adjusted.

The total amount of the actual misalignment types, expressed as a percentage of the maximum allowable value, must not exceed 100%. The diagram on the right side shows such an adjustment.



拆卸

卸下发动机上的固定螺钉。拉出驱动装置，包括梅花形弹性联轴器部件。即可安装一个有不同肖氏硬度的新星形轮。放松无空回轴连接轮毂后，轮毂即可拆卸下来。

请联系我们获取详细说明书。

Removal

Remove the fastening screws, e.g. on the motor. Pull the drive unit, including the Servo Insert Coupling apart. A new spider or a spider with a different shore hardness can now be installed. After loosening the backlash-free shaft-hub-connection the hubs can be disassembled.

Please ask for a detailed instruction sheet.

星形轮技术信息
Technical Information Spiders

尺寸 *Size*	Zahnkranz *Spider*	Shoreskala Shore scale	Verlagerung *Misalignments* axial Ka[1)] mm	radial Kr mm	winklig Kw *angular Kw* grad
5	80	A	+0,4 bis -0,2	0,12	1,1°
	92	A		0,06	1,0°
	98	A		0,04	0,9°
7	80	A	+0,6 bis -0,3	0,15	1,1°
	92	A		0,10	1,0°
	98	A		0,06	0,9°
	64	D		0,04	0,8°
9	80	A	+0,8 bis -0,4	0,19	1,1°
	92	A		0,13	1,0°
	98	A		0,08	0,9°
	64	D		0,05	0,8°
14	80	A	+1,0 bis -0,5	0,21	1,1°
	92	A		0,15	1,0°
	98	A		0,09	0,9°
	64	D		0,06	0,8°
19	80	A	+1,2 bis -0,5	0,15	1,1°
	92	A		0,10	1,0°
	98	A		0,06	0,9°
	64	D		0,04	0,8°
24	92	A	+1,4 bis -0,5	0,14	1,0°
	98	A		0,10	0,9°
	64	D		0,07	0,8°
28	92	A	+1,5 bis -0,7	0,15	1,0°
	98	A		0,11	0,9°
	64	D		0,08	0,8°
38	92	A	+1,8 bis -0,7	0,17	1,0°
	98	A		0,12	0,9°
	64	D		0,09	0,8°
42	92	A	+2,0 bis -1,0	0,19	1,0°
	98	A		0,14	0,9°
	64	D		0,10	0,8°
48	92	A	+2,1 bis -1,0	0,23	1,0°
	98	A		0,16	0,9°
	64	D		0,11	0,8°

[1)] Die Ka-Werte sind zum Längenmaß L des Typs zu addieren

[1)] The Ka-values have to be added to the lenght of the size

固威线型联轴器 · 组装说明

轴连接定位

下列图表表示几类偏差。进行组装之前需调整联轴器。初始定位越精准，在操作过程中轴连接才能更好地利用附加偏差。这样有利于提高线型联轴器的耐用性，减少驱动器的噪音。
若三种偏差同时出现，虽不会达到最大允许值，但必须协调一致。固威能助您正确调整所有相关偏差。

安装：

Die Klemmnaben auf die gereinigten und entfetteten Wellen schieben (oder bei Halbschalenvariante aufsetzen).

Nach Überprüfung der axialen Einbaumaße die Schrauben mit dem im Katalog angegebenen Schraubenanzugsmoment (Ma) anziehen.

请保持轴连接的尺寸距离X。

Alignment of the shafts:

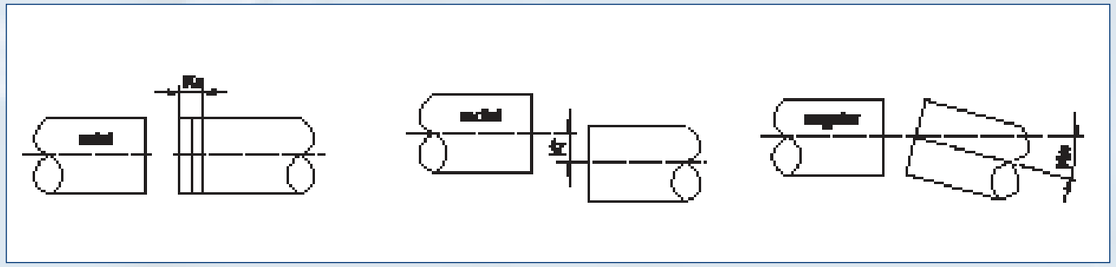
The picture shows the several types of misalignment. It is necessary to adjust the shafts before assembly. The more accurate the initial alignment, the better the shaft can absorb additional misalignments during operation. Durability of the line shafts and quietness of the drive are favourably influenced.
In case all three types of misalignment occur simultaneously, each type must not reach the maximum allowable value, but have to be aligned. GERWAH can assist you with the correct adjustment of the combined misalignment.

Installation:

Slide the clamping hubs on the clean and degreased shafts.

After checking the axial dimensions tighten the screws according the technical data (Ma) for wrench torque listed in the catalog.

The dimension on the shaft distance X should be kept.



GERWAH Line Shafts · Assembly Instructions

拆卸：

卸下轮毂的固定螺钉。必要时，推出的螺纹可用于卸载非空回动力轴连接。为防轮毂连接不自动脱落，可用橡胶锤轻轻卸载连接。

请联系我们获取详细组装说明，也可登陆网站www.gerwah.com搜索相关信息。

Removal:

Remove the locking screws of the hubs. If necessary, the push-off threads can be used to remove the backlash-free line shaft connections. In case the hub connection doesn't come off autonomously, the connection can be removed by lightly applying a rubber hammer.

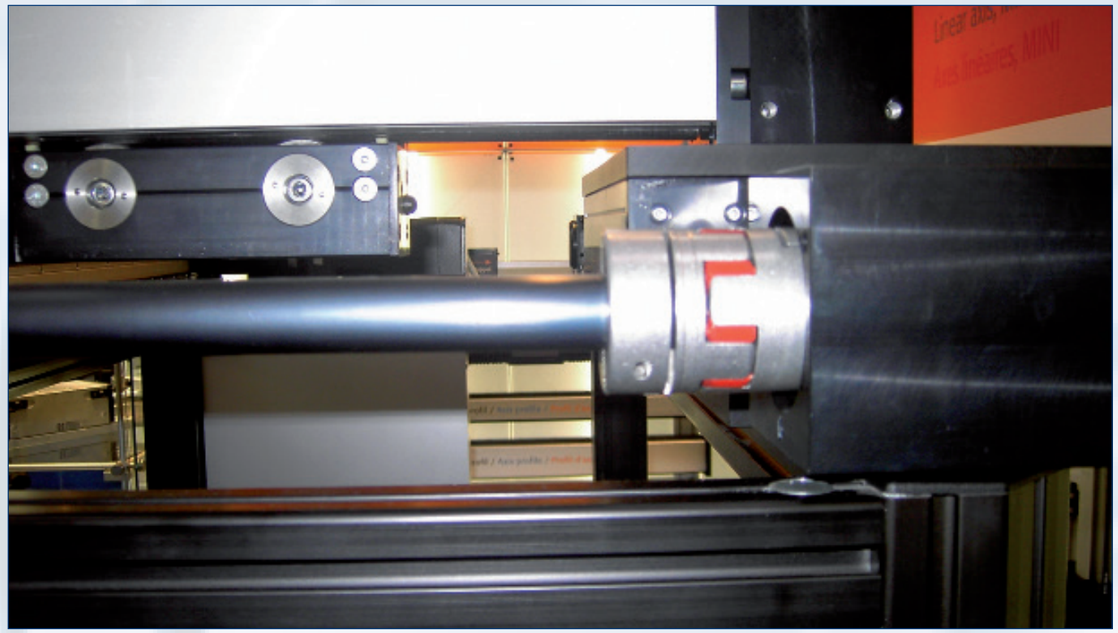
Please ask for detailed assembly instructions or find information on www.gerwah.com!

Verlagerungen Elastomer Zwischenwellen
Misalignments Servo Insert Line Shafts

Größe *Size*	Verlagerungen *shifting*		
	mm radial* Δ Kr	mm axial Δ Ka	Grad winklig *angular* Δ Kw
14	5 mm pro m	± 1 mm	1,5°
19	5 mm pro m	± 1 mm	1,5°
24	5 mm pro m	± 1 mm	1,5°
28	5 mm pro m	± 1 mm	1,5°
38	5 mm pro m	± 1 mm	1,5°
42	5 mm pro m	± 1 mm	1,5°
48	5 mm pro m	± 1 mm	1,5°

径向或平行偏差取决于轴管长度。

Radial/parallel misalignment depends on the length of the tube.



传真咨询联轴器 · *Fax Inquiry Couplings*

请在本页上说明您所需的固威联轴器应用，我们将为您提供我们的解决方案。请发送本页至：
On this page please explain the planned application of a GERWAH coupling and we will propose our solution. Please send this page to:

RINGFEDER POWER TRANSMISSION GMBH **FAX: +49 (0) 6078 9385-100**

1. 应用 / *Application*

联轴器的计划用途（机器，机器组或工厂）： / *Planned use of the coupling (machine, machine group or plant):*

2. 连接形式（请勾选） / *Type of attachment (please tick/check)*

☐ 夹紧式轮毂 / *Clamping hub* ☐ 锥形轮毂 / *Cone hub* ☐ 扩张型轮毂 / *Expanding hub* ☐ 附有定位螺钉的轮毂 *Hub with set screw*

☐ 凸缘架 / *Flange mount* ☐ 外锥体 / *Outer cone* ☐ 发那科公司 / ☐ 根据客户要求 *acc. customer request*

3. 尺寸规格 / *Dimensions*

☐ 长度(毫米) / *Length* (mm) ☐ 孔径D1 (毫米) / *Bore* D_1 (mm) ☐ 键槽 / *Keyway*

☐ 外直径(毫米) / *Outer diameter* (mm) ☐ 孔径D2 (毫米) / *Bore* D_2 (mm) ☐ 键槽 / *Keyway*

4. 轴偏差 / *Shaft Misalignment*

☐ 轴向(毫米)/*Axial (mm)* ☐ 径向(毫米) / *Radial (mm)* ☐ 角度(度) / *Angular (degree)*

5. 传动参数 / *Drive*

传动功率 / *Drive power* **P =** ☐ **kW**

输入转速 / *Input speed* **n =** ☐ **1/min**

额定传动扭矩 *Nominal torque of the drive* **Mt_{nom} =** ☐ **Nm**

最大传动扭矩 *Peak torque of the drive* **Mt_{max} =** ☐ **Nm**

6. 质量惯性矩 / *Mass moment of inertia*

驱动端 / *On the drive side* **JA =** ☐ **Nm** 被驱动端 / *On the driven side* **J_L =** ☐ **Nm**

7. 环境影响 / *Environmental influences*

联轴器温度 *Temperature in the area of the coupling* **Temp =** ☐ **°C**

特殊材料（如，不锈钢） *Special materials (e.g. stainless steel)*

是否对负荷端有其他影响呢? ☐ 没有 / *No* ☐ 轻度 / *Slight* ☐ 中等 / *Medium* ☐ 严重 / *Heavy*
Are there any impacts on the load side?
其他特殊影响有 / *Other, special influences*

8. 预计需求 / *Estimated demand*

9. 目标价格 / *Target Price*

☐ 系列 / *Series* ☐ 项目 / *Project* ☐ 维修 / *Repair* ☐ 数量/p.a. / *Number of items/p.a.* 单价 / Each

请发送至/ *Please send your offer to:*

公司名称 / *Company* 联系人 / *Attention*

地址 / *Address*

电话 / Phone 传真 / Fax

电子邮件 / *E-mail*

传真咨询线型联轴器 · *Fax Inquiry Line-Shafts*

请在本页上说明您所需的固威线型联轴器应用，我们将为您提供我们的解决方案。请发送本页至：
On this page please explain the planned application of a GERWAH line shaft and we will propose our solution. Please send this page to:

RINGFEDER POWER TRANSMISSION GMBH **FAX: +49 (0) 6078 9385-100**

1. 应用 / *Application*

联轴器的计划用途（机器、机器组或工厂）： / *Planned use of the coupling (machine, machine group or plant):*

2. 连接形式（请勾选） / *Type of attachment (please tick/check)*

☐ 夹紧式轮毂 / *Clamping hub* ☐ 锥形轮毂 / *Cone hub* ☐ 凸缘架 / *Flange mount* ☐ 附有半壳的轮毂 *Hub with halfshell*

☐ 外锥体 / *outer cone* ☐ 根据客户要求 / Acc. customer request

3. 尺寸规格 / *Dimensions*

☐ 总长度 (毫米) / *Total length* (mm) ☐ 孔径D1 (毫米) / *Bore* D_1 (mm) ☐ 键槽 / *Keyway*

☐ / *Dimension shafts distance* (mm) ☐ 孔径D2 (毫米) / *Bore* D_2 (mm) ☐ 键槽 / *Keyway*

4. 轴偏差 / *Shaft Displacement*

☐ 轴向(毫米) / *Axial (mm)* ☐ 径向(毫米) / *Radial (mm)* ☐ 角度(度) / *Angular (degree)*

5. 传动参数 / *Drive*

传动功率 / *Drive power* **P =** ☐ **kW**

输入转速 / *Input speed* **n =** ☐ **1/min**

额定传动扭矩 *Nominal torque of the drive* **Mt_{nom} =** ☐ **Nm**

最大传动扭矩 *Peak torque of the drive* **Mt_{max} =** ☐ **Nm**

6. 质量惯性矩 / *Mass moment of inertia*

驱动端 / *On the drive side* **JA =** ☐ **Nm** 被驱动端 / *On the driven side* **J_L =** ☐ **Nm**

7. 环境影响 / *Environmental Influences*

联轴器温度 *Temperature in the area of the coupling* **Temp =** ☐ **°C**

特殊材料（如，不锈钢） *Special materials (e.g. stainless steel)*

是否对负荷端有其他影响呢? ☐ 没有 / *No* ☐ 轻度 / *Slight* ☐ 中等 / *Medium* ☐ 严重 / *Heavy*
Are there any impacts on the load side?
其他特殊影响有 / *Other, special influences*

8. 预计需求 / *Estimated demand*

9. 目标价格 / *Target Price*

☐ 系列 / *Series* ☐ 项目 / *Project* ☐ 维修 / *Repair* ☐ 数量/p.a. / *Number of items/p.a.* 单价 / Each

请发送至 / *Please send your offer to:*

公司名称 / *Company* 联系人 / *Attention*

地址 / *Address*

电话 / Phone 传真 / Fax

电子邮件 / *E-mail*

备注 · *Notes*

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Locking Assemblies


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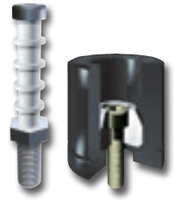
智能锁
Smart-Lock-Set

减震技术
Damping Technology


摩擦弹簧
Friction Springs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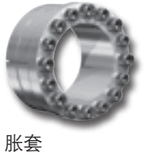
Shaft Couplings


胀套
Locking Assemblies


法兰式联轴器
Flange Couplings

GERWAH

联轴器
Couplings


磁性联轴器
Magnetic Couplings

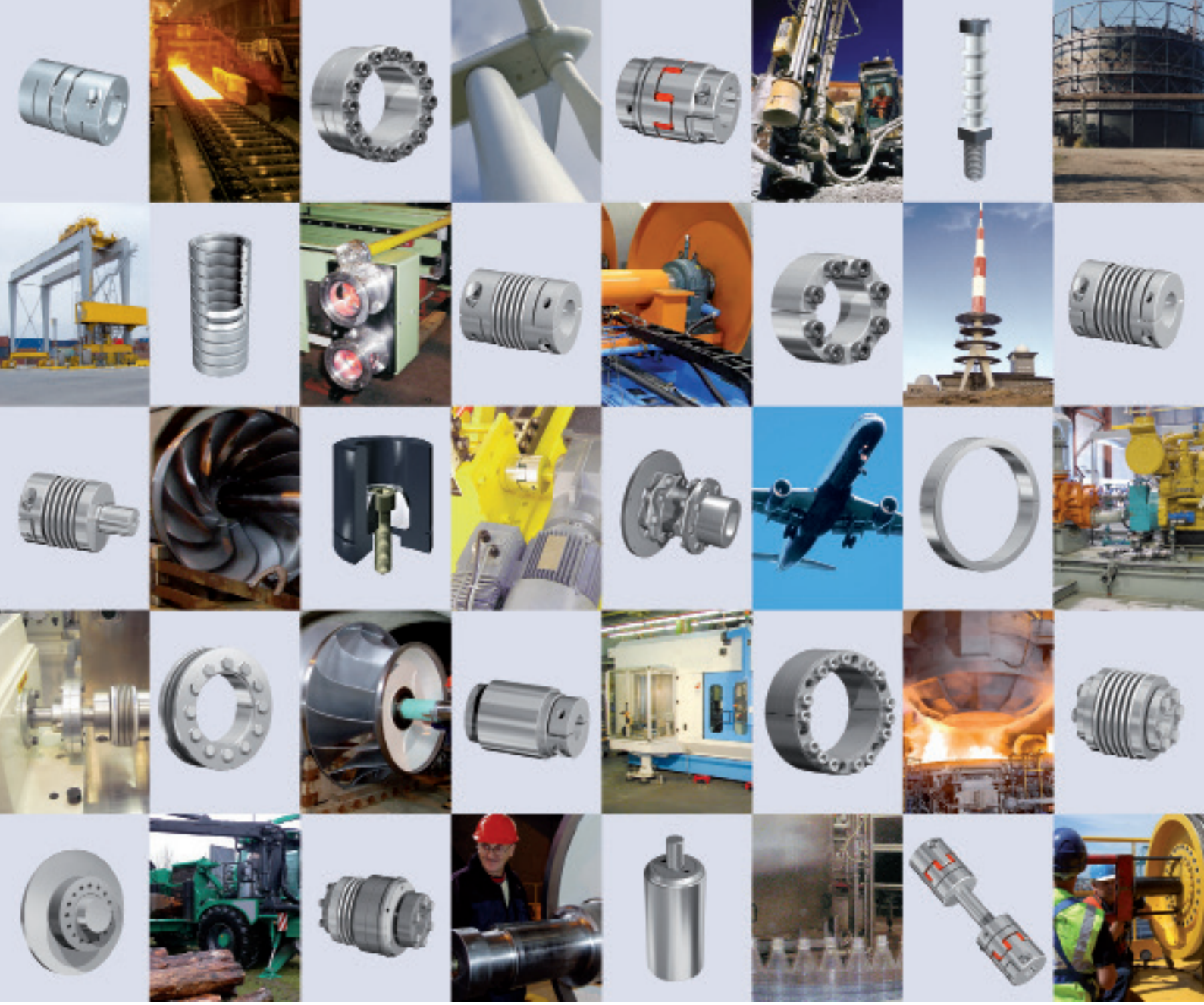

金属波纹管联轴器
Metal Bellows Couplings


梅花形弹性联轴器
Servo-Insert Couplings


扭转刚性膜片式联轴器
torsionally rigid Disc Couplings


安全联轴器
Safety Couplings


线型联轴器
Line Shafts



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