

Cross section of KTR products

Couplings

Torque Limiters

Clamping Elements

Hydraulic Components

Hydraulic Brakes

Torque measuring shafts

Made for Motion





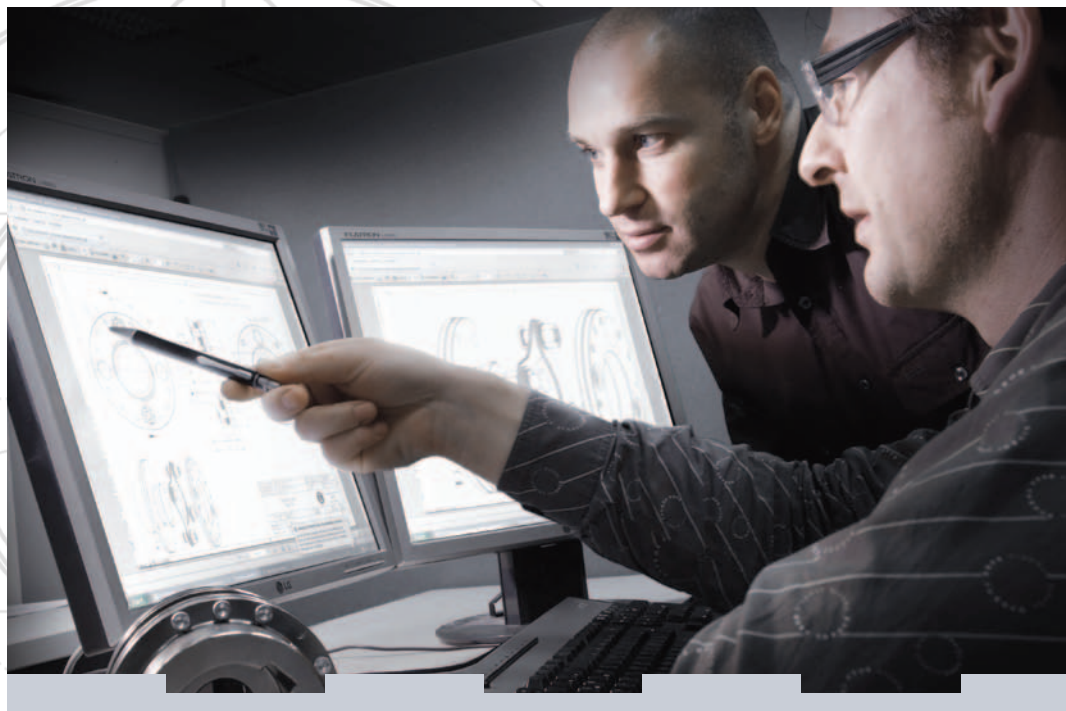
We move the world: KTR

Competence meets creativity

As a leading manufacturer of high-quality drive and brake components as well as hydraulic components, KTR supplies mechanical couplings, clamping sets, torque limiters, measuring systems, hydraulic components and high-power brakes all over the world. With more than 50 years experience in power transmission we are trendsetters in the development of coupling technology and offer customised solutions to all industries. The KTR trademark characterises quality and innovation, speed, reliability, flexibility and a close working relationship with customers.

Having started with the curved-tooth gear coupling BoWex® and the torsionally flexible jaw coupling ROTEX®, KTR has built up an extensive product portfolio covering torques from 0,1 up to 1.000.000 Nm. The production by KTR's in-house, up-to-date machinery ensures that the couplings are made to the utmost accuracy. The couplings having a unit weight of up to 2 tons or more. Flexible automation ensures a quick and low-cost production even if the product has to be customised to meet customers individual specifications. KTR produce several million couplings a year.

Even though KTR's standard product portfolio is quite extensive, it only represents a fraction of the different options available. KTR is not only a subcontractor but also a solution provider. The knowledge gained from thousands of applications in the field allows us to find optimum, low-cost solutions for customised applications. We will consult you during the planning stage providing drawings and prototypes or arranging for local discussions if required. Every year KTR produces more than 10.000 new products ordered by customers. This trend increases year on year. This leads to many special products becoming standard items: We permanently give vital ideas to the Power Transmission technology – in cooperation with our customers.



Accuracy meets speed

KTR products are evidence of well-designed, quality components resulting in improved characteristics of the drive or brake system and as a consequence, a longer service life of machines. It is our aim to continually improve the quality of our products and services. We can analyse the stiffness of components by utilising FEM (Finite Element Method) systems and we can also perform torsional vibration calculations for entire drive systems. In our in-house Research and Development Centre we test our products on accurate test benches in realistic operating conditions. Our main objective is to provide you with the uppermost satisfaction.

Our technical sales engineers and our well-trained sales staff will be pleased to give you advice. KTR provides you with extensive services online, too: At www.ktr.com you can request information, including our product catalogue, 3D-CAD-models and assembly instructions. For standard applications you can select your drive component from of more than 3.500 standard products. Having selected which one is the right component for your application by using our online calculation program, you are now in a position to order the products by contacting your nearest KTR company. Alternatively our KTR Shop is open 24 hours a day.

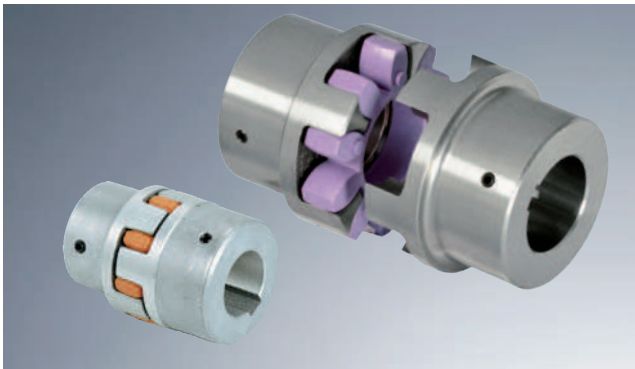
Our latest scheduling system SAP ERP ensures an optimum networking with our customers and allows for a quick and reliable delivery service. A selection of 3.500 couplings and hydraulic components are permanently available from stock. For orders placed by 2:00 pm we guarantee the despatch of orders the same day! In the KTR Logistics Centre the overall flow of goods is supervised by radio-controlled barcode scanning. Leading distribution partners ensure delivery on time. Our tracking and tracing system allows you to follow the progress of your order at all times. KTR supplies to every location in the world.

For further details about us and our products: www.ktr.com



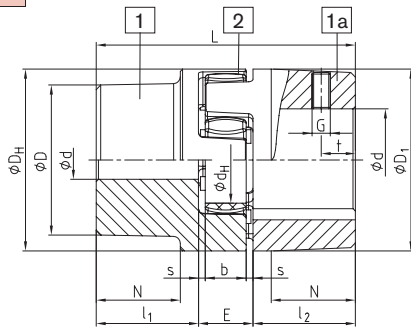
ROTEX® Torsionally flexible coupling	5-9
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POLY Torsionally flexible, not fail-safe coupling	14-15
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Shaft coupling type No. 001 - casted materials -

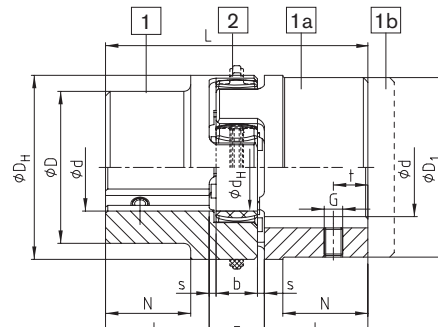


- Torsionally flexible, maintenance-free
- Damping vibrations
- Axial plug-in, Fail-safe
- Machined alloy – good dynamic properties
- Compact design/low flywheel effect
- Finish bore acc. to ISO fit H7, feather keyway acc. to DIN 6885 sheet 1 - JS9
- Approved according to EC Standard 94/9/EC (except for aluminium AL-D)
- Mounting instructions at www.ktr.com

Components



AL-D (thread opposite to the keyway)



GJL / GJS (thread on the keyway)

ROTEX® Aluminium diecast (AL-D)

Size	Component	Spider (part 2) ¹⁾ Rated torque [Nm]			Finish bore d (min-max)	Dimensions [mm]											
		92 Sh-A	98 Sh-A	64 Sh-D		General										Thread for setscrew	
						L	l ₁ ; l ₂	E	b	s	D _H	d _H	D ₁ D ₁	N	G	t	TA [Nm]
14 ²⁾	1a	7,5	12,5	—	6-16	35	11	13	10	1,5	30	10	30	—	M4	5	1,5
	1				6-19								32				
19	1a	10	17	—	19-24	66	25	16	12	2	41	18	41	20	M5	10	2
	1				9-24								40				
24	1a	35	60	—	22-28	78	30	18	14	2	56	27	56	24	M5	10	2
	1				10-28								48				
28	1a	95	160	—	28-38	90	35	20	15	2,5	66	30	66	28	M8	15	10
	1																

ROTEX® Cast iron (GJL)

Size	Component	Spider (part 2) ¹⁾ Rated torque [Nm]			Finish bore d (min-max)	Dimensions [mm]											
		L	l ₁ ; l ₂	E		b	s	D _H	d _H	D ₁ D ₁	N	G	t	TA [Nm]			
38	1				12-40								66	37			
	1a	190	325	405	38-48	114	45	24	18	3	80	38	78		M8	15	10
	1b				12-48	164	70						62				
42	1				14-45								75	40			
	1a	265	450	560	42-55	126	50	26	20	3	95	46	94	M8	20	10	
	1b				14-55	176	75						65				
48	1				15-52								85	45			
	1a	310	525	655	48-62	140	56	28	21	3,5	105	51	104	M8	20	10	
	1b				15-62	188	80						69				
55	1				20-60								98	52	M10	20	17
	1a	410	685	825	55-74	160	65	30	22	4	120	60	118				
65	1	625	940	1175	22-70	185	75	35	26	4,5	135	68	115	61	M10	20	17
75	1	1280	1920	2400	30-80	210	85	40	30	5	160	80	135	69	M10	25	17
90	1	2400	3600	4500	40-97	245	100	45	34	5,5	200	100	160	81	M12	30	40

ROTEX® Nodular iron (GJS)

Size	Component	Spider (part 2) ¹⁾ Rated torque [Nm]			Finish bore d (min-max)	Dimensions [mm]											
		L	l ₁ ; l ₂	E		b	s	D _H	d _H	D ₁ D ₁	N	G	t	TA [Nm]			
100	1	3300	4950	6185	50-115	270	110	50	38	6	225	113	180	89	M12	30	40
110	1	4800	7200	9000	60-125	295	120	55	42	6,5	255	127	200	96	M16	35	80
125	1	6650	10000	12500	60-145	340	140	60	46	7	290	147	230	112	M16	40	80
140	1	8550	12800	16000	60-160	375	155	65	50	7,5	320	165	255	124	M20	45	140
160	1	12800	19200	24000	80-185	425	175	75	57	9	370	190	290	140	M20	50	140
180	1	18650	28000	35000	85-200	475	195	85	64	10,5	420	220	325	156	M20	50	140

■ = If no material is mentioned in the order, the material is stipulated with the calculation/order.

¹⁾ Maximum torque of the coupling T_{Kmax} = rated torque of the coupling T_{KNom} x 2. For selection see company catalogue.

²⁾ Material AL-H.

Ordering example:








ROTEX® 38	GJL	92 Sh-A	1a	Ø 45	1	Ø 25
Coupling size	Material	Spider hardness	Component	Finish bore	Component	Finish bore

ROTEX® spiders – new spider material T-PUR®



We have developed a new standard material for our spiders. The upgraded polyurethane material, T-PUR®, is significantly more temperature-resistant and has a longer service life than the previous polyurethane material. From the visual point of view we have characterized T-PUR® by the colours orange (92 Shore-A), purple (98 Shore-A) and pale green (64 Shore-D).


Summary of spiders

Summary of spiders					
Colour	Description of Shore hardness	Material	Perm. temperature range (°C)		Properties
			Perm. temperature	Short-term temp.	
	92 Sh-A (T-PUR®)	T-PUR®	-50 °C to 120 °C	-50 °C to 150 °C	<ul style="list-style-type: none"> – significantly higher service life expectancy – very good temperature resistance – improved vibration damping – good damping, average flexibility
	98 Sh-A (T-PUR®)	T-PUR®	-50 °C to 120 °C	-50 °C to 150 °C	<ul style="list-style-type: none"> – significantly higher service life expectancy – very good temperature resistance – improved vibration damping – transmission of high torques with average damping
	64 Sh-D (T-PUR®)	T-PUR®	-50 °C to 120 °C	-50 °C to 150 °C	<ul style="list-style-type: none"> – significantly higher service life expectancy – very good temperature resistance – improved vibration damping – transmission of very high torques with low damping
	92 Sh-A	Polyurethane (PUR)	-40 °C to 90 °C	-50 °C to 120 °C	– good damping, average flexibility
	98 Sh-A	Polyurethane (PUR)	-30 °C to 90 °C	-40 °C to 120 °C	– transmission of high torques with average damping
	PA ¹⁾	Polyamide	-20 °C to 130 °C ¹⁾	-30 °C to 150 °C ¹⁾	<ul style="list-style-type: none"> – small twisting angle and high torsion spring stiffness – transmission of very high torques with very low damping – very good to good resistance to chemicals ¹⁾ – high restoring forces with displacements
	PEEK	Polyetheretherketon	up to +180 °C (ATEX up to +160 °C)	up to +250 °C	<ul style="list-style-type: none"> – small twisting angle and high torsion spring stiffness – transmission of very high torques with very low damping – resistant to high temperatures – good resistance to chemicals – resistant to hydrolysis – high restoring forces with displacements

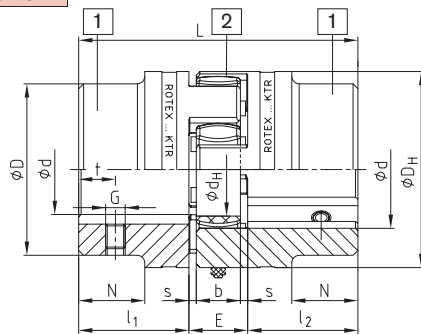
¹⁾ different properties depending on compound

Shaft coupling type No. 001 - material steel -

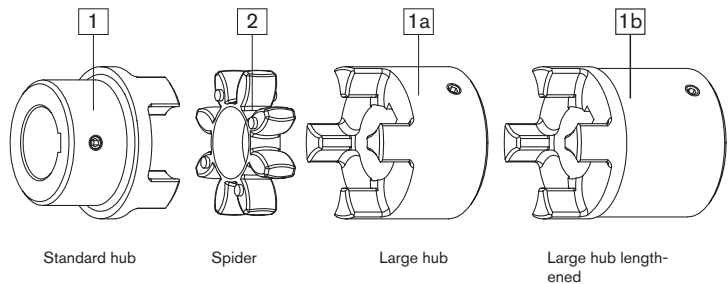


- Hubs made of steel, specifically suitable for drive elements subject to high loads, e. g. steel mills, elevator drives, spline hubs, etc.
- Torsionally flexible, maintenance-free, damping vibrations
- Axial plug-in, Fail-safe
- Machined allover – good dynamic properties
- Compact design/low flywheel effect
- Finish bore acc. to ISO fit H7, feather keyway acc. to DIN 6885 sheet 1 - JS9
-  Approved according to EC Standard 94/9/EC
- Mounting instructions at www.ktr.com

Components



Steel (thread on the keyway)



ROTEX® Steel (St)																	
Size	Component	Spider (part 2) rated torque [Nm]			Finish bore d (min-max)	Dimensions [mm]											
						General											Thread for setscrew
		92 Sh-A	98 Sh-A	64 Sh-D		L	$l_1; l_2$	E	b	s	D_H	d_H	D	N	G	t	T_A [Nm]
14	1a	7,5	12,5	16	0-16	35	11	13	10	1,5	30	10	30	—	M4	5	1,5
	50					18,5											
19	1a	10	17	21	0-25	66	25	16	12	2	40	18	40	—	M5	10	2
	90					37											
24	1a	35	60	75	0-35	78	30	18	14	2	55	27	55	—	M5	10	2
	118					50											
28	1a	95	160	200	0-40	90	35	20	15	2,5	65	30	65	—	M8	15	10
	140					60											
38	1	190	325	405	0-48	114	45	24	18	3	80	38	70	27	M8	15	10
	164					70	80						—				
42	1	265	450	560	0-55	126	50	26	20	3	95	46	85	28	M8	20	10
	176					75	95						—				
48	1	310	525	655	0-62	140	56	28	21	3,5	105	51	95	32	M8	20	10
	188					80	105						—				
55	1	410	685	825	0-74	160	65	30	22	4	120	60	110	37	M10	20	17
	210					90	120						—				
65	1	625	940	1175	0-80	185	75	35	26	4,5	135	68	115	47	M10	20	17
	235					100	135						—				
75	1	1280	1920	2400	0-95	210	85	40	30	5	160	80	135	53	M10	25	17
	260					110	160						—				
90	1	2400	3600	4500	0-110	245	100	45	34	5,5	200	100	160	62	M12	30	40
	295					125	200						—				

ROTEX® Powder metal steel																	
Size	Component	Spider (part 2) ¹⁾ rated torque [Nm]		Finish bore d	Dimensions [mm]												
					General											Thread for setscrew	
		92 Sh-A	98 Sh-A		L	$l_1; l_2$	E	b	s	D_H	d_H	D	N	G	T_A [Nm]		
14	1a	7,5	12,5	unbored, 8, 10, 11, 12, 14, 15, 16	35	11	13	10	1,5	30	10	30	-	M4	5	1,5	
19	1a	10	17	unbored, 14, 16, 19, 20, 22, 24	66	25	16	12	2	40	18	40	-	M5	10	2	

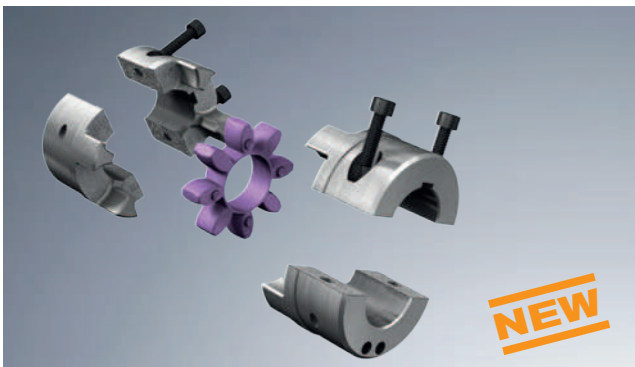
¹⁾ If no material is mentioned in the order, the material is stipulated with the calculation/order.
¹⁾ Maximum torque of the coupling T_{Kmax} = rated torque of the coupling T_{KNem} x 2. For selection see company catalogue.

ROTEX® 19 – 48 auch in Edelstahl ab Lager lieferbar

- ROTEX® 19, 28 and 42 – hub material X10CrNiS 18-9 material number 1.4305 (V2A) DIN 17440
- ROTEX® 24, 38 and 48 – hub material X6CrNiMoTi17-12-2 material number 1.4571 (V4A) DIN 17440

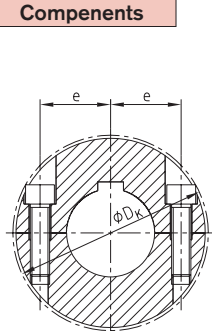
Ordering example:	ROTEX® 38	St	92 Sh-A	1a – Ø 45		1 – Ø 25	
	Coupling size	Material	Spider hardness	Component	Finish bore	Component	Finish bore

Drop-out center design coupling type S-H with SPLIT hubs

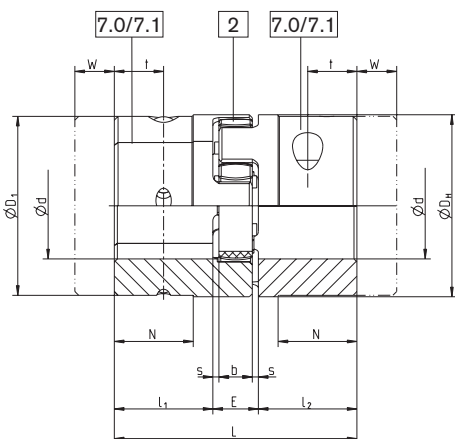


- Type S-H with SPLIT hubs
- Easy assembly/disassembly by means of 4-off screws
- Centering of both halves of the hubs through the fracture surface
- There is no need to displace the power packs for assembly
- Material cast iron
- Torsionally flexible and maintenance-free
- Specifically suitable for tight mounting spaces
- Finish bore according to ISO tolerance H7, feather keyway acc. to DIN 6885 sheet1 - JS9
- Approved according to EC standard 94/9/EC (type 7.0 SPLIT hubs without feather key according to category 3)

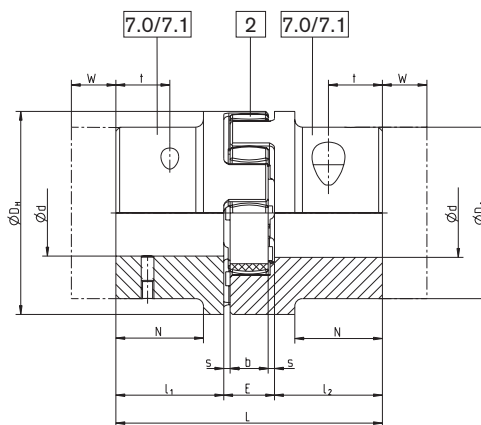
Components



Type S-H

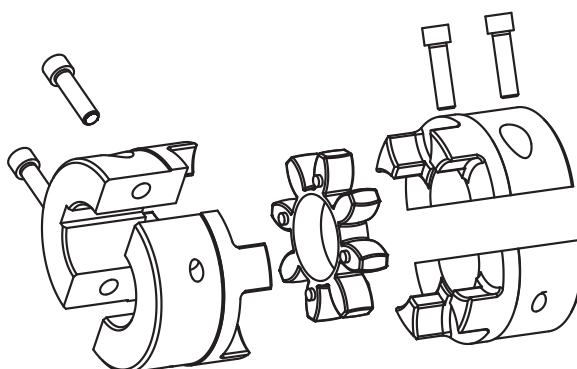


Size 38 - 55



Size 65 - 90

ROTEX® Type S-H																	
Size	Finish bore ϕd [mm]		Dimensions [mm]													Cap screws to DIN EN ISO 4762	
	minimum	maximum	L	$l_1; l_2$	E	b	s	D_{H1}	D_1	D_k	N	W	e	t	Mxl	Tightening torque T_A [Nm]	
38	24	45	114	45	24	18	3	80	78	83,5	37	21	3	22,5	M8x30	35	
42	24	55	126	50	26	20	3	95	94	97	40	23	3	25	M10x30	69	
48	24	55	140	56	28	21	3,5	105	104	108,5	45	24,5	3,5	28	M12x35	120	
55	24	65	160	65	30	22	4	120	118	122	52	26	4	32,5	M12x40	120	
65 ¹⁾	40	70	185	75	35	26	4,5	135	115	132,5	61	30,5	4,5	37,5	M12x40	120	
75 ¹⁾	40	80	210	85	40	30	5	160	135	158	69	35	5	42,5	M16x50	295	
90 ¹⁾	40	90	245	100	45	34	5,5	200	160	197	81	39,5	5,5	50	M20x60	580	



7.0= SPLIT hub without feather key
7.1= SPLIT hub with feather key

¹⁾ sizes on request

Ordering example:	ROTEX® 38	S-H	98 Sh-A	7.1	ϕ 38	7.1	ϕ 30
	Coupling size	Type	Spider hardness	Hub design	Finish bore	Hub design	Finish bore

Clamping ring hubs



- Torsionally flexible shaft coupling with integrated clamping system
- Smooth running, application up to a peripheral speed of 0 m/s
- For high friction torques (please consider the selection with application in explosive areas)
- Easy to assemble due to internal clamping screws
- Finish bore up to Ø 50 mm acc. to ISO fit H7, from Ø 55 mm acc. to ISO fit G7
- Approved according to EC standard 94/9/EC

Double cardanic shaft coupling type DKM



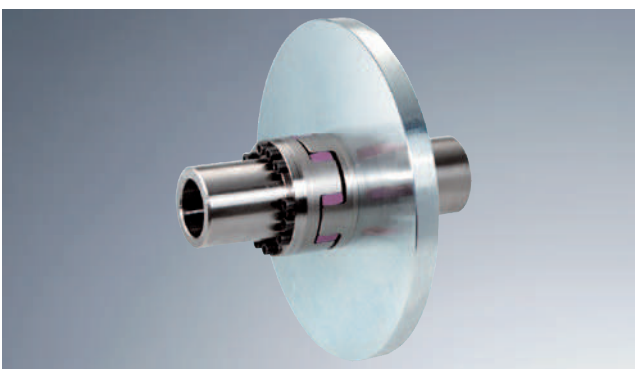
- For big shaft displacements, 3-parted, double-cardanic
- Reduced vibration and noise
- The double-cardanic design allows for big shaft displacements with low restoring forces
- Increase of the overall service life of all adjacent components (bearings, seals etc.)
- Approved acc. to EC Standard 94/9/EC
- Mounting instructions at www.ktr.com
- Double-cardanic couplings without bearing require a protection for coupling

Double cardanic shaft coupling type ZS-DKM-H



- Standard spacers up to 250 mm shaft distance dimension – from stock
- Assembly/disassembly by means of 4 screws only
- Compensates for high shaft displacements due to double-cardanic design
- Remains torsionally symmetric in case of shaft displacements
- Damping vibrations/reducing noise
- Low restoring forces → Increase of the overall service life of all adjacent components (bearing, seals, etc.)
- Approved according to EC standard 94/9/EC (type 7.6 marked at stock, type 7.5 shell clamping hub without feather key according to category 3)

Type AFN-SB special with brake disk



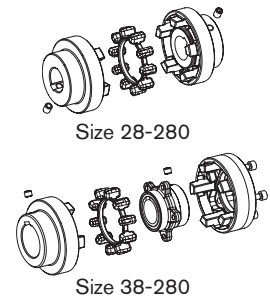
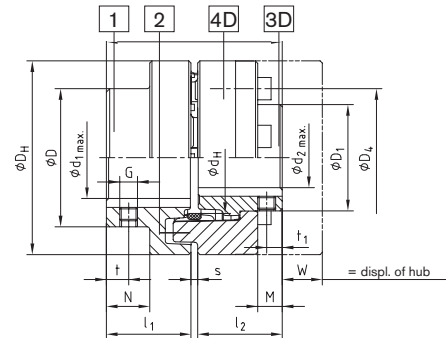
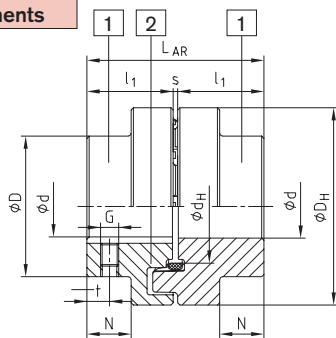
- Shaft coupling AFN-SB special with disk brake for braking calipers
- Brake disk and spider can be replaced while being assembled
- The disk brake has to be placed onto the shaft end with the biggest mass moment of inertia
- The maximum braking torque must not exceed the maximum torque of the coupling
- Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9.
- Mounting instructions at www.ktr.com

Type AR and ADR (3 pieces)



- Torsionally flexible, reduces vibrations
- Elastomer ring can be replaced while being mounted (ADR)
- Fail-safe
- Short design (ADR)
- Maintenance-free
- Very short design
- Axial plug-in
- According to DIN 740
- Approved according to EC standard 94/9/EC
- Detailed mounting instructions and further information available at www.ktr.com

Components



Elastomer ring (up to size 180: NBR 78 Sh-A; from size 200: T-PUR® 84 Sh-A)

POLY-NORM® Type AR/ADR

Size	Elastomer ring (part 2) ¹⁾ torque [Nm]		Max. finish bore ϕd		Dimensions [mm]										
	T_{KN}	T_{Kmax}	d/d ₁	d2	L_{AR}/L_{ADR}	l_1/l_2	s	D_H	M	d_H	W	G	t	t_1	T_A
28	40	80	30	-	59	28	3	69	-	36,5	-	M5	7	-	-
32	60	120	35	-	68	32	4	78	-	41,5	-	M8	7	-	-
38	90	180	40	34	80	38	4	87	11,0	50	12	M8	10	7	10
42	150	300	45	38	88	42	4	96	12,0	55,5	16	M8	10	7	10
48	220	440	50	44	101	48	5	106	13,7	64	16	M8	15	7	10
55	300	600	60	50	115	55	5	118	18,7	73	15	M8	14	14	10
60	410	820	65	56	125	60	5	129	22,2	81	14	M8	15	15	10
65	550	1100	70	60	135	65	5	140	26,7	86	11	M10	20	20	17
75	850	1700	80	68	155	75	5	158	27,8	100	16	M10	20	20	17
85	1350	2700	90	78	175	85	5	182	33,7	116	18	M10	25	25	17
90	2000	4000	95	85	185	90	5	200	31,5	128	26	M12	25	25	40
100	2900	5800	110	95	206	100	6	224	37,5	143	28	M12	25	25	40
110	3900	7800	50-120	105	226	110	6	250	39,5	158	30	M16	30	30	80
125	5500	11000	55-140	115	256	125	6	280	48,0	178	35	M16	35	35	80
140	7200	14400	65-155	55-135	286	140	6	315	47,0	216	59	M20	35	35	140
160	10000	20000	75-175	65-155	326	160	6	350	65,0	246	43	M20	45	45	140
180	13400	26800	75-200	65-175	366	180	6	400	79,0	290	33	M20	50	50	140
NEW 200	19000	38000	85-200	200	408	200	8	450	95,0	-	7	M24	50	50	240
NEW 220	30000	60000	95-220	220	448	220	8	500	103	-	8	M24	50	50	240
NEW 240	43000	86000	105-240	240	488	240	8	550	119	-	1	M24	50	50	240
NEW 260	55000	110000	115-260	260	530	260	10	650	109	-	34	M24	60	60	240
NEW 280	67000	134000	125-280	280	570	280	10	700	109	-	29	M24	60	60	240

¹⁾ Standard material Perbunan (NBR) 78 Shore-A, size 140-280 double tooth elastomers, Bore H7 with keyway DIN 6885 sheet 1 [JS9] and thread for setscrews on the feather keyway.

POLY-NORM® Bauart ADR – Classification of cap screws DIN EN ISO 4762–12.9

Size	M x l [mm]	Number z	Pitch z x angle	D ₄ [mm]	T _A [Nm] ³⁾	Size	M x l [mm]	Number z	Pitch z x angle	D ₄ [mm]	T _A [Nm] ³⁾
38	M6x16	5	5x72	62	10	110	M16x40	8	8x45	183	210
42	M8x16	5	5x72	69	25	125	M20x40	8	8x45	202	410
48	M8x20	6	6x60	78	25	140	M20x50	8	8x45	237	410
55	M8x20	6	6x60	88	25	160	M20x55	9	9x40	267	410
60	M8x20	6	6x60	98	25	180	M20x60	10	10x36	304	410
65	M10x20	6	6x60	104	49	200	M20x60	10	10x36	342	580
75	M10x25	6	6x60	120	49	220	M24x70	10	10x36	378	1000
85	M12x25	6	6x60	138	86	240	M27x70	10	10x36	412	1500
90	M16x30	6	6x60	149	210	260	M30x90	10	10x36	480	2000
100	M16x30	6	6x60	163	210	280	M30x90	10	10x36	520	2000

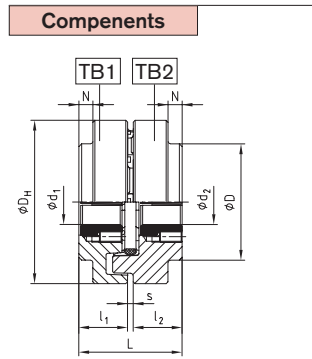
³⁾ Screw tightening torques acc. to 8.8

Ordering example:	POLY-NORM® 65	ADR	d ₁ =Ø55	d ₂ =Ø60
	Coupling size	Type	Finish bore	Finish bore d

POLY-NORM®

Torsionally flexible coupling

Miscellaneous types



POLY-NORM® for taper clamping bush															
Size	Taper clamping bush	Dimensions [mm]		Fastening screws ¹⁾ for taper clamping bush				Size	Taper clamping bush	Dimensions [mm]		Fastening screws ¹⁾ for taper clamping bush			
		max. d ₁ ; d ₂	l ₁ ; l ₂	Size [Inch]	Length [mm]	SW [mm]	T _A [Nm]			max. d ₁ ; d ₂	l ₁ ; l ₂	Size [Inch]	Length [mm]	SW [mm]	T _A [Nm]
32	1108	25	25,5	1/4"	13	3	5,7	75	2517	60	52,5	1/2"	25	6	49
42	1210	32	31,0	3/8"	16	5	20	85	2517	60	46,5	1/2"	25	6	49
48	1610	40	30,0	3/16"	16	5	20	90	3030	75	82	5/8"	32	8	90
	1615	40	42,5	3/8"	16	5	20	90	3020	75	52,0	5/8"	32	8	92
60	2012	50	38,5	7/16"	22	6	31	100	3535	90	98,0	1/2"	38	10	115
65	2517	60	62,5	1/2"	25	6	49	125	4040	100	111,5	5/8"	45	12	172

¹⁾ 2 fastening screws except for 3535/4040 3 fixing screws.
Coupling design TB1 Cam-sided screwing - TB2 Collar-sided screwing
Combination possible! Please order our separate data sheet M407045.

Type BTA and SBA with brake drum/brake disk for brake stop



- Shaft coupling POLY-NORM® ADR-BTA with brake drum to be mounted to external drum brakes with double shoes according to DIN 15431/15435
- Shaft coupling POLY-NORM® ADR-SBA with disk for braking calipers
- Each coupling type to be combined with various sizes of brake drum disks
- The brake drum or brake disk has to be placed onto the shaft end with the biggest mass moment of inertia
- Finish bore according to ISO tolerance H7, feather key according to DIN 6885 sheet 1 - JS9


Type ADR-SB with brake disk for brake stop



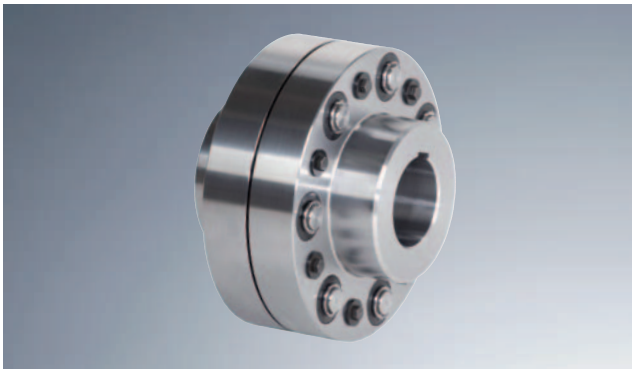
- Shaft coupling POLY-NORM® ADR-SB with disk for brake callipers
- Each coupling type to be combined with various diameters of brake disks
- Elastomer ring, driving flange and brake disk can be replaced while being assembled
- The brake disk has to be placed onto the shaft end with the biggest mass moment of inertia
- Finish bore according to ISO tolerance H7, feather key according to DIN 6885 sheet 1 - JS9


Type AZR



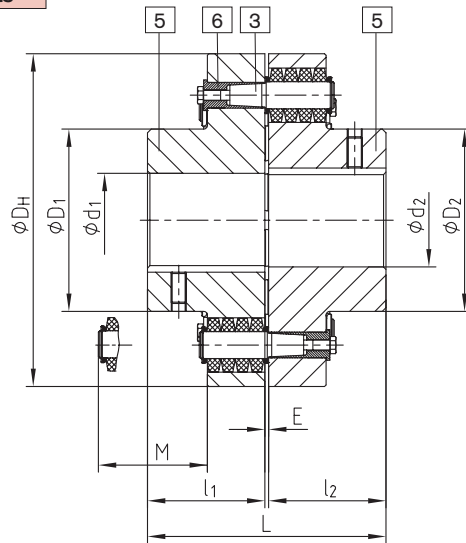
- Bridging large shaft gaps with (standard) spacers
- Allows to replace the elastomer with no need to disassemble the driving and driven machine
- No movement of driver and driven components is necessary for disassembly of pump thrust bearing
- Customized types available (AZVR)
-  Approved according to EC standard 94/9/EC
- Detailed mounting instructions and further information available at www.ktr.com

Bauart KX-D – Werkstoff Stahl / GJL

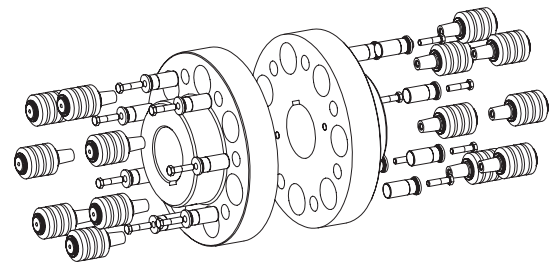


- Damping vibrations, short design
- Radial assembly/disassembly
- Axial plug-in, Fail-safe
- All-over machining → good dynamic properties
- Nabenwerkstoff GJL
- Hub material steel, specifically suitable for drive elements subject to high loads or high circumferential speeds
- Pins are arranged alternately
- Increase of transmittable torque by up to 40 % compared to REVOLLEX® KX
- -Schutz beurteilt und bestätigt nach EG-Richtlinie 94/9/EG

Components



Hub material GJL available in sizes 105 - 370
Größen 105 - 330 erhältlich
Nabenwerkstoff Stahl in den
Größen 75 - 650 erhältlich



Components
Type KX-D
5 = Hub part 5
3 = Pins complete
6 = KX-D sleeve (hardened and corrosion-resistant)

REVOLLEX® KX-D Steel - GJL

Size	Torque ¹⁾ [Nm]		Max. speed [rpm]	Finish bore [min. - max.] d ₁ ; d ₂	Dimensions [mm]					
	T _{KN}	TKmax.			L	l ₁ ; l ₂	E	D _H	D ₁ ; D ₂	M*
KX-D 75	3800	7600	4500	0-90	193	95	3	255	136	76
KX-D 85	5000	10000	4175	0-100	213	105	3	274	152	76
KX-D 95	6600	13200	3825	0-110	227	112	3	298	168	76
KX-D 105	8650	17300	3475	0-120	237	117	3	330	180	76
KX-D 120	14110	28220	3100	0-140	270	132	6	370	206	100
KX-D 135	18690	37380	2725	70-160	300	147	6	419	230	100
KX-D 150	23100	46200	2500	82-185	336	165	6	457	256	100
KX-D 170	36900	73800	2150	95-220	382	188	6	533	292	130
KX-D 190	48210	96420	1900	110-245	428	211	6	597	330	130
KX-D 215	61900	123800	1725	125-275	480	237	6	660	368	130
KX-D 240	92030	184060	1550	140-310	534	264	6	737	407	170
KX-D 265	121900	243800	1375	160-350	590	292	6	826	457	170
KX-D 280	158800	317600	1225	180-385	628	311	6	927	508	170
KX-D 305	191060	382120	1150	180-405	654	324	6	991	533	170
KX-D 330	251200	502400	1075	200-435	666	330	6	1067	572	170
KX-D 355	299100	598200	975	225-465	718	356	6	1156	610	170
KX-D 370	377800	755600	900	225-550	770	382	6	1250	720	170
KX-D 470	510000	1020000	870	240-470 ⁴⁾	969 ⁴⁾	480 ⁴⁾	9	1340	705 ⁴⁾	220
KX-D 520	715000	1430000	760	240-520 ⁴⁾	1089 ⁴⁾	540 ⁴⁾	9	1540	780 ⁴⁾	220
KX-D 590	950000	1900000	680	260-590 ⁴⁾	1212 ⁴⁾	600 ⁴⁾	12	1735	885 ⁴⁾	220
KX-D 650	1220000	2440000	610	280-650 ⁴⁾	1332 ⁴⁾	660 ⁴⁾	12	1935	975 ⁴⁾	220

* Drop-out center dimension required

Standard material NBR 80 Shore A

²⁾ Higher speeds on request

⁴⁾ Variable according to customer's requests

Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9.

Kupplung auf Wunsch dynamisch gewuchtet (Halbkeilwuchtung G6,3; Drehzahl nach Kundenvorgabe). Für Umfangsgeschwindigkeiten über 30 m/s dyn. Auswuchten empfehlenswert.

Ordering example:

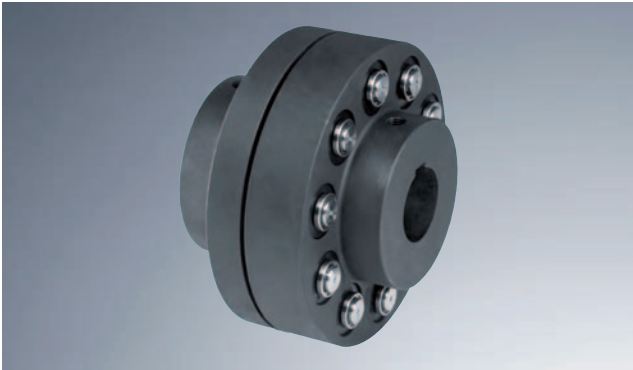
REVOLLEX® KX-D 170	Steel	Ø120	Ø150
Size and type of coupling	Material	Finish bore	Finish bore


REVOLEX® KX

Torsionally flexible pin & bush coupling

Miscellaneous types


Type KX – casted material –



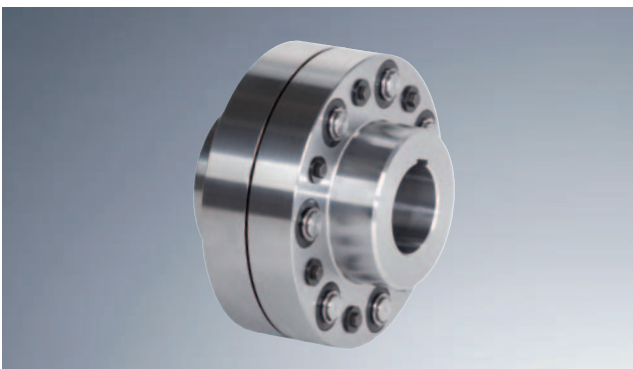
- Damping vibrations, short design
- Radial assembly/disassembly
- Axial plug-in, Fail-safe
- All-over machining → good dynamic properties
- Protected surfaces
- Standard hub material GJL (GJS or steel available on request)
-  Approved according to EC standard 94/9/EC


Type KX-D – casted material –



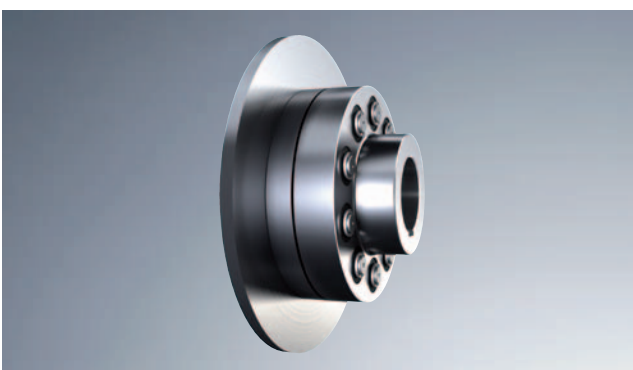
- Damping vibrations, short design
- Radial assembly/disassembly
- Axial plug-in, Fail-safe
- All-over machining → good dynamic properties
- Standard hub material GJL (GJS on request)
- Pins are arranged alternately
- Increase of transmittable torque by up to 40 % compared to REVOLEX® KX
-  Approved according to EC standard 94/9/EC

Type KX-D – material steel



- Damping vibrations, short design
- Radial assembly/disassembly
- Axial plug-in, Fail-safe
- All-over machining → good dynamic properties
- Hub material steel, specifically suitable for drive elements subject to high loads or high circumferential speeds
- Pins are arranged alternately
- Increase of transmittable torque by up to 40 % compared to REVOLEX® KX
-  Approved according to EC standard 94/9/EC

Type KX and KX-D with disk brake



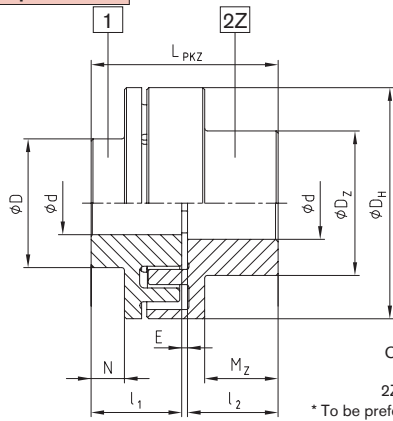
- Shaft coupling with disk brake
- The maximum braking torque must not exceed the maximum torque of the coupling
- The brake disk has to be placed onto the shaft end with the biggest mass moment of inertia
- Radial assembly/disassembly
- Axial plug-in, Fail-safe
- Pins can be replaced while being assembled
- All-over machining → good dynamic properties
- Einsatz z. B. an Großventilatoren, Turbinenantrieben, Bandantrieben, etc.

Type PKZ (2 pieces) and PKD (3 pieces)



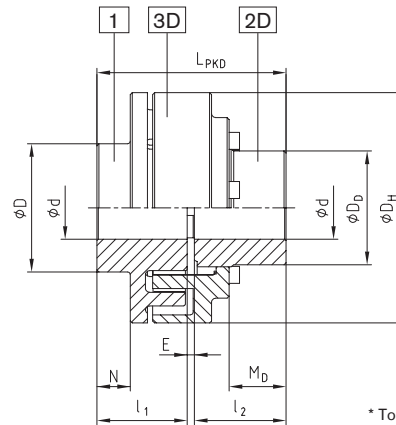
- Torsionally flexible, maintenance-free
- Damping vibrations
- Shear type
- Axial plug-in
- Short overall length / minimum distance between shafts
- In type PKD the elastomer elements can be replaced while being assembled
- Approved according to EC standard 94/9/EC
- Detailed mounting instructions and further information available at www.ktr.com

Components



Components: Type PKZ (Z)
1 = Cam section (GJL)
2Z = Pocket section * (GJL)
* To be preferably used on driving side

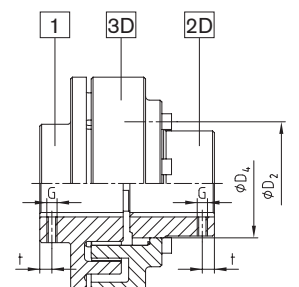
Type PKZ (Z) – (Size 8 to 30)



Components type PKD (D)
1 = Cam section * (GJL)
2D = Flange hub (GJS/steel)
3D = Cam ring (GJL)
* To be preferably used on driving side

Type PKD (D) – (Size 15 to 40)

POLY PKZ and PKD																					
Size	Rated torque- ¹⁾ T_{KN} [Nm]	Max. speed ²⁾ n [rpm]	Max. finish bore ϕd [mm]			Dimensions [mm]												Thread for setscrew			Weight ³⁾ [kg]
			Teil 1	Teil 2Z	Teil 2D	D_H	D	D_Z	D_D	$l_1; l_2$	M_Z	M_D	N	E	D_2	$D_A(H7/h7)$	L_{PKZ}/L_{PKD}	G	t	T_A [Nm]	
8 (Z)	42	5000	20	28	—	86	43	50	—	35	25	—	3	3	—	—	73	M5	18	2	1,7
9 (Z)	72	5000	28	38	—	97	55	65	—	41	30	—	7	3	—	—	85	M8	23	10	2,7
10 (Z)	100	5000	32	42	—	107	60	70	—	45	35	—	10	4	—	—	94	M8	27	10	3,5
12 (Z)	170	5000	38	48	—	131	70	80	—	55	43	—	12	4	—	—	114	M8	30	10	5,4
14 (Z)	210	4800	45	55	—	142	80	93	—	60	46	—	17	4	—	—	124	M8	10	10	7,6
15 (Z;D)	320	4300	50	60	50	157	90	100	74,5	65	52	33	21	4	90	75	134	M8	15	10	8,6
17 (Z;D)	400	3800	60	65	60	176	100	110	87	70	56	43,5	26	4	106	90	144	M8	15	10	12
19 (Z;D)	660	3500	75	75	70	195	125	125	106	75	64	48	27	4	126	107	154	M8	15	10	18
20 (Z;D)	820	3300	65	75	70	205	115	127	98	80	65	45	23	4	123	105	164	M8	15	10	20
22 (Z)	1100	3000	85	85	—	224	140	140	—	90	75	—	38	4	—	—	184	M10	20	17	25
25 (Z;D)	1600	2700	90	90	95	257	150	150	138	100	84	67	43	5	162	140	205	M12	20	40	35
28 (Z;D)	2500	2350	100	100	100	288	165	165	154	110	90	65	44	5	178	160	225	M12	20	40	53
30 (Z;D)	3950	2200	110	110	110	308	180	180	165	130	108	89	58	5	202	170	265	M16	20	80	66
35 (D)	6100	1850	130	—	140	373	210	—	209	160	—	102	70	5	240	210	325	M16	25	80	125
40 (D)	9000	1600	145	—	160	423	240	—	238	180	—	124	86	5	275	240	365	M16	25	80	180



¹⁾ Maximum torque $TK_{max} = TKN \times 2$; Standard material of elastomer: Perbunan (NBR) 92 Shore A; Standard hub material: GJL
²⁾ Speeds for $v = 30$ m/sec. For peripheral speeds exceeding $v = 30$ m/sec. we recommend dynamic balancing
³⁾ Referring to average bore

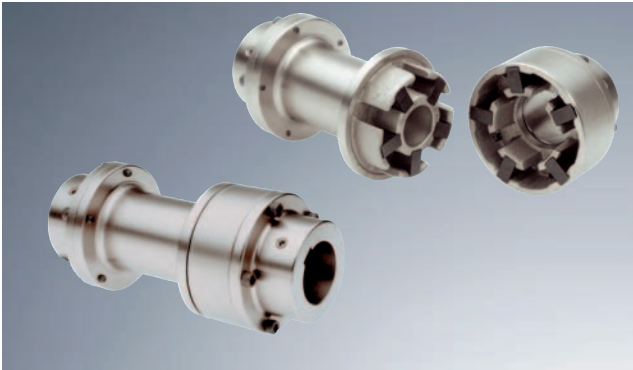
Ordering example:	POLY	PKD	28	$d_1 \phi 90$	$d_2 \phi 80$
	Coupling type	Type	Size	Finish bore part 1	Finish bore part 2


POLY

Torsionally flexible, not failsafe coupling

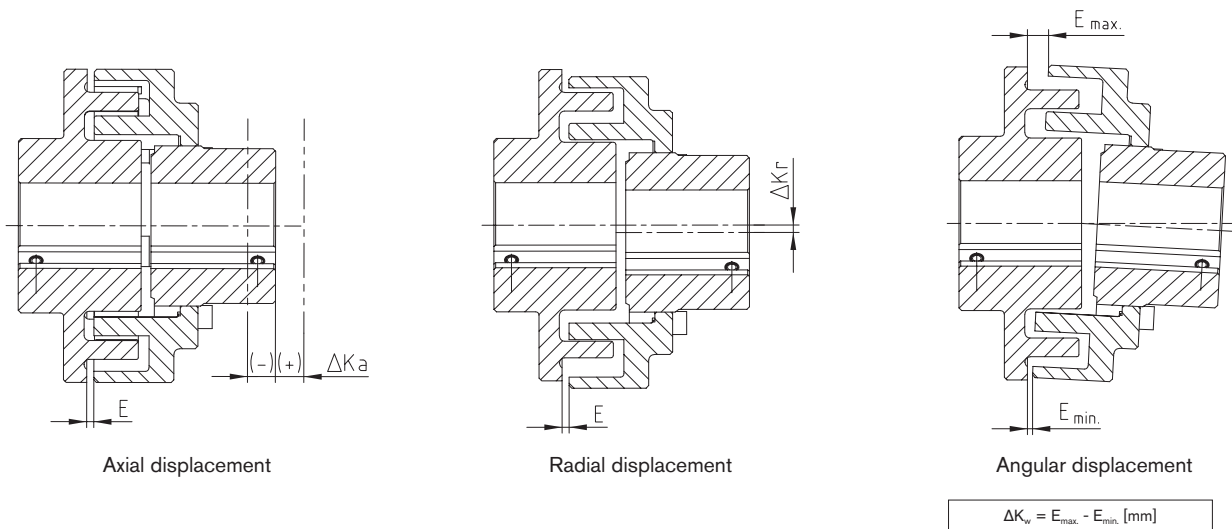
Type

Type PKA (dismountable coupling)



- Torsionally flexible, maintenance-free
- Damping vibrations
- Shear type
- Axial plug-in
- Separation of power flow possible while being assembled
- Bridging large shaft gaps with (standard) spacers
-  Approved according to EC standard 94/9/EC
- Detailed mounting instructions and further information available at www.ktr.com


Displacements — Elastomer elements — Screws

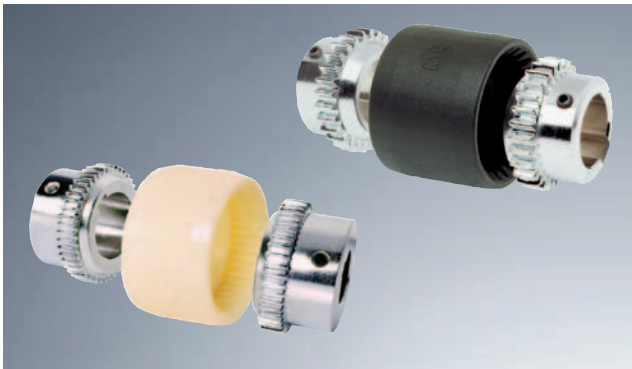



Radial and angular displacements may occur simultaneously.

The combined sum $V = \Delta Kr + (E_{max} - E_{min})$ must not exceed the values listed in the table .

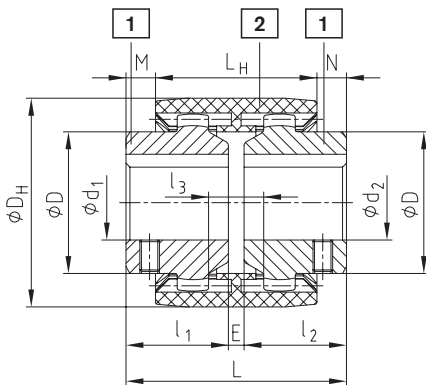
		Displacements [mm]														
Coupling size		8	9	10	12	14	15	17	19	20	22	25	28	30	35	40
Max. axial displacement ΔKa [mm]		±1	±1	±1	±2	±2	±2	±2	±2	±2	±2	±2	±2	±2	±3	±3
Max. radial displacement ΔKr	n=750 1/min	0,8	0,8	0,8	0,8	0,8	1,0	1,0	1,0	1,0	1,0	1,0	1,0	1,2	1,2	1,2
or max. angular displacement	n=1000 1/min	0,7	0,7	0,7	0,7	0,7	0,9	0,9	0,9	0,9	0,9	0,9	0,9	1,1	1,1	1,1
ΔKw or sum V	n=1500 1/min	0,5	0,5	0,5	0,5	0,5	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,7	0,9	0,9

Type M, type I and type M...C 

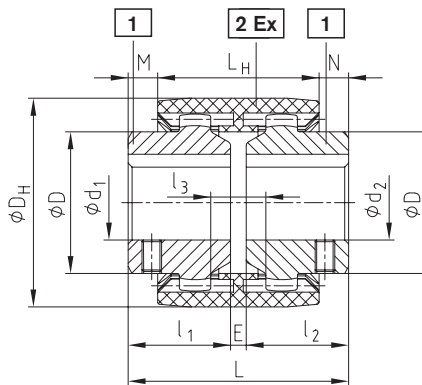


- For all applications in the range of general engineering and hydraulics
- Maintenance-free due to the material combination nylon/steel
- Compensating for shaft misalignment axial – radial – angular
- Axial plug-in - easy assembly
- Available with finish bore to ISO fit H7, keyway to DIN 6885 sheet 1 - JS9 as well as taper and inch bores
-  Type M...C with carbon fibre reinforced PA, low backlash, higher torques and approved according to EC Standard 94/9/EC
- For finish bores see stock programme (see company catalogue)
- Leistungsdaten siehe Seite 80 (siehe Gesamtkatalog)

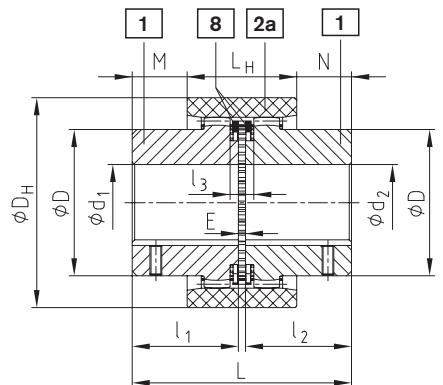
Components





Type M



Type M...C 



Type I

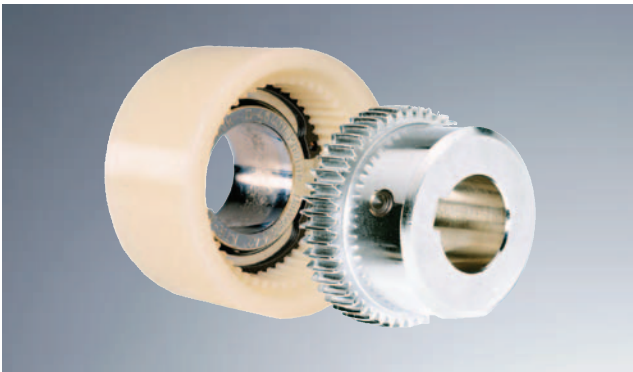
BoWex® type M, type I and type M...C 																			
Size	Finish bore d ₁ , d ₂		Dimensions [mm]										Weight with max. bore-Ø			Mass moment of inertia J with max. bore Ø			
		Pilot bored	max.	l ₁ , l ₂	E	L	L _H	M, N	l ₃	D	D _H	Tip circle-Ø D ₂ Hub	Hub length, l ₁ , l ₂ max.	Sleeve [kg]	Hub [kg]	Total [kg]	Sleeve [kgcm ²]	Hub [kgcm ²]	Total [kgcm ²]
M-14	M-14C	-	15	23	4	50	37	6,5	10	25	40	33	40	0,03	0,07	0,10	0,08	0,09	0,26
M-19	M-19C	-	20	25	4	54	37	8,5	10	32	47	39	40	0,03	0,10	0,23	0,15	0,16	0,47
M-24	M-24C	-	24	26	4	56	41	7,5	14	36	53	45	50	0,04	0,14	0,32	0,21	0,36	0,93
M-28	M-28C	-	28	40	4	84	46	19	13	44	65	54	55	0,08	0,33	0,74	0,65	1,22	3,09
M-32	M-32C	-	32	40	4	84	48	18	13	50	75	63	55	0,09	0,43	0,95	1,14	2,17	5,48
M-38	M-38C	-	38	40	4	84	48	18	13	58	83	69	60	0,13	0,55	1,23	1,58	3,55	8,68
M-42		-	42	42	4	88	50	19	13	65	92	78	60	0,14	0,68	1,50	2,32	5,98	14,28
M-48	M-48C	-	48	50	4	104	50	27	13	68	95	78	60	0,23	0,79	1,81	3,90	7,22	18,34
M-65	M-65C	21	65	55	4	114	68	23	16	96	132	110	70	0,55	1,90	4,35	21,2	31,8	84,8
I-80		31	80	90	6	186	93	46,5	20	124	178	145	-	1,13	5,20	11,53	68,9	150,8	370,5
I-100		38	100	110	8	228	102	63	22	152	210	176	-	1,78	9,37	20,52	158,6	401,3	961,2
I-125		45	125	140	10	290	134	78	30	192	270	225	-	3,88	19,44	42,76	562,9	1362,3	3287,5

Ordering example:

BoWex® M-28	d ₁ Ø20	d ₂ Ø28
Size and type of coupling	Finish bore H7 keyway to DIN 6885 sheet1 (JS9)	Finish bore H7 keyway to DIN 6885 sheet 1 (JS9)

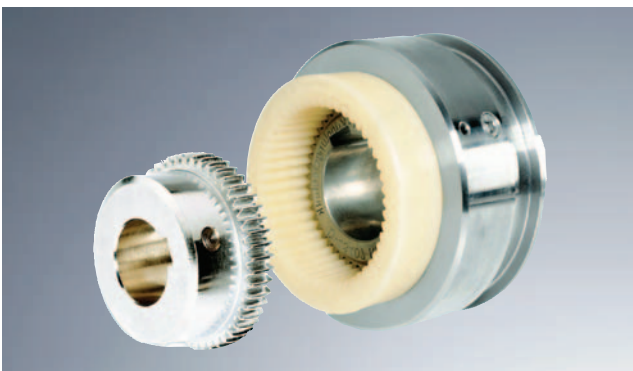
BoWex® Curved-tooth gear coupling Miscellaneous types

Type AS and type Spec.-I



- Double-cardanic curved-tooth gear coupling
- Maintenance-free due to the material combination nylon/steel
- Compensating for shaft misalignment axial – radial – angular
- Type AS – separable coupling design - axially movable sleeve when assembled
- Type Spec.-I – axial plug-in for blind assembly
- Application range from - 25 °C to + 100 °C
- Available with finish bore acc. to ISO fit H7, keyway to DIN 6885, sheet 1 - JS9 and thread for setscrews (page 83)
- For finish bores see stock programme (see company catalogue)
- For performance data see company catalogue

Type SD



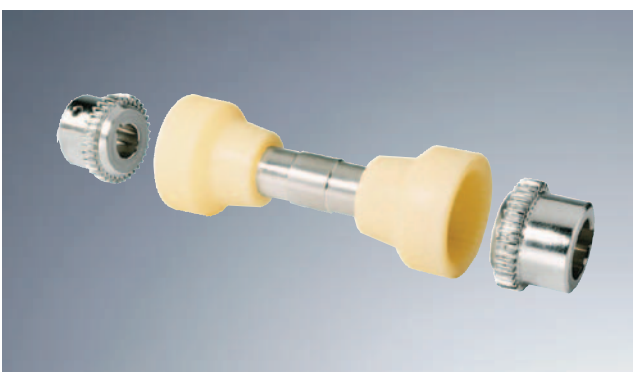
- For all applications in the range of general engineering to quickly connect or disconnect power packs at standstill
- Maintenance-free due to the material combination nylon/steel
- Application range from - 25 °C to + 100 °C
- Available with finish bore according to ISO fit H7, keyway to DIN 6885 sheet 1 - JS9, thread for setscrews (see company catalogue)
- For performance data please see page 80, compare to type M/I
- Max. circumferential speed $v = 20$ m/s, referring to ØD_A

Made of corrosion-proof material



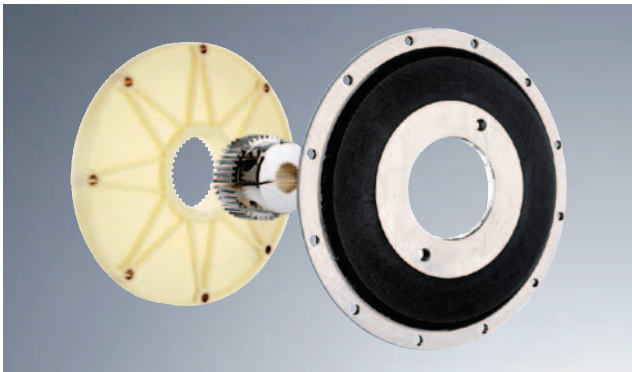
- BoWex® shaft coupling made of polyamide or stainless steel (material No. 1.4571 or V4A, respectively)
- BoWex® junior plug-in coupling (2 pieces)
- BoWex® junior M (3 pieces) made of polyamide
- BoWex® M with sleeve made of polyamide and hubs made of stainless steel (1.4571), available with finish bore acc. to ISO fit H7, keyway to DIN 6885, sheet 1 - JS9 and thread for setscrews (see company catalogue)
- For performance data see company catalogue

Type ZR and type Spec.-I for connection of larger shaft distances

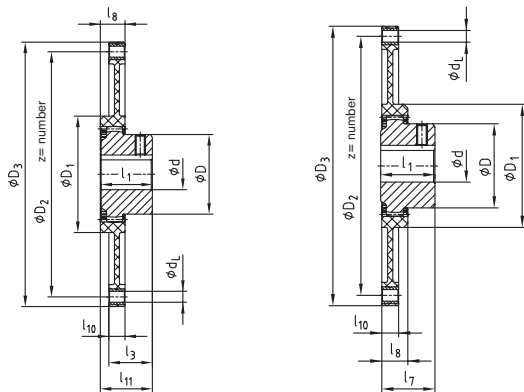


- Double-cardanic curved-tooth gear coupling
- For all applications to connect larger shaft distances
- Low-cost with serial production
- Compensating for larger shaft displacements
- Axial plug-in
- Intermediate tubes variable in length (max. 2000 mm; on consultation with KTR)
- Hubs available with finish bores acc. to ISO fit H7 as well as taper and inch bores
- Application range from - 25 °C to + 100 °C

Type FLE-PA



- Flange coupling for connection to I. C.-engines and hydraulic pumps
- Applicable to all hydrostatic drives of construction machines, harvesting machines, etc.
- High torsional stiffness – operation free from resonance
- Maintenance-free due to the material combination nylon/steel
- Nylon flange with high mechanical resistance and thermal strength (+ 130 °C)
- Extremely short assembly
- Easy assembly by axial joining
- Special mounting flanges available

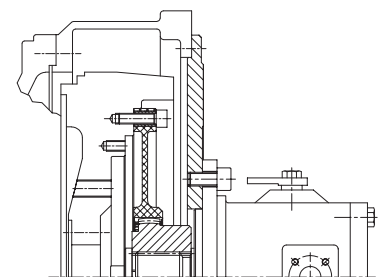


Short mounting

Long mounting

Flange dimensions acc. to SAE J 620 [mm]				
Size	D ₃	D ₂	z	d _L
6 1/2"	215,9	200,02	6	9
7 1/2"	241,3	222,25	8	9
8"	263,52	244,47	6	11
10"	314,32	295,27	8	11
11 1/2"	352,42	333,37	8	11
14"	466,72	438,15	8	13

Example of installation

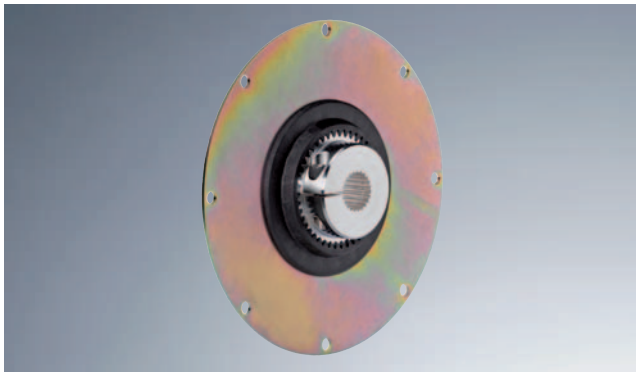


BoWex® FLE-PA for diesel engines with SAE connection. Axial fixing of hub by means of end plate and screw.

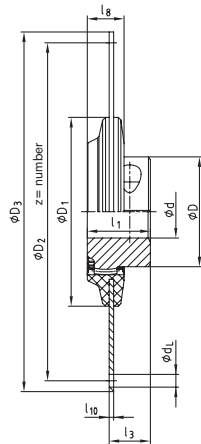
BoWex® FLE-PA – Dimensions/nominal dimension to SAE																			
Size	Pilot bore	Finish bore d		Dimensions [mm]								Special length l _{1 max}	Dimension acc. to SAE (D ₃)					Max. axial displacement [mm]	
		min.	max.	D	D ₁	l ₁	l ₃	l ₇	l ₈	l ₁₀	l ₁₁		6 1/2"	7 1/2"	8"	10"	11 1/2"		14"
48	-	20	48	68	100	50	41	50	20	13	48	up to 60	●	●	●	●			± 2
T 48	13	20	48	68	100	50	38	45	20	13	46	-	●	●	●	●			± 1
T 55	17	20	55	85	115	50	37	48	24	13	48	-	●	●	●	●			± 2
65 / T 65	21	30	65	96	132	55	45	54	27	21	51	up to 70			●	●			± 2
T 70	26	30	70	100	153	60	48	56	30	21	57	-			●	●			± 2
80 / T 80	31	35	80	124	170	90	78	87	30	21	87	-				●	●		± 2
100 / T 100	38	40	100	152	265	110	78	108	35	21	110	-				●	●		± 2
125	45	50	125	192	250	140	37	133	50	28	97	-				●	●		± 2

Technical data of BoWex® FLE-PA – Torques/Weights/Mass moments of inertia/Torsion spring stiffness															
Size	Torque T _k [Nm]			Weight / Mass moment of inertia J	Hub with max. bore Ø	FLE-PA flanges according to SAE						Dynamic torsion spring stiffness with + 60 °C / ψ = 0,4 [Nm/rad]			
	T _{KN}	T _{Kmax}	T _{KW}			6 1/2"	7 1/2"	8"	10"	11 1/2"	14"	0,30 T _{KN}	0,50 T _{KN}	0,75 T _{KN}	1,00 T _{KN}
48	240	600	120	[kg] [kgm ²]	0,79 0,0007	0,32 0,0021	0,43 0,0035	0,51 0,0049	0,64 0,0085	-	-	35 x 10 ³	75 x 10 ³	105 x 10 ³	125 x 10 ³
T 48	300	750	150	[kg] [kgm ²]	0,79 0,0007	0,32 0,0021	0,43 0,0035	0,51 0,0049	0,64 0,0085	-	-	40 x 10 ³	86 x 10 ³	120 x 10 ³	143 x 10 ³
T 55	450	1125	225	[kg] [kgm ²]	1,12 0,0016	0,34 0,0022	0,62 0,0053	0,45 0,0044	0,646 0,0086	-	-	90 x 10 ³	140 x 10 ³	170 x 10 ³	195 x 10 ³
65	650	1600	325	[kg] [kgm ²]	2,30 0,0044	-	-	0,63 0,0064	0,64 0,0065	0,89 0,012	-	110 x 10 ³	160 x 10 ³	200 x 10 ³	230 x 10 ³
T 65	800	2000	400	[kg] [kgm ²]	2,40 0,0044	-	-	0,63 0,0064	0,64 0,0065	0,89 0,012	-	130 x 10 ³	190 x 10 ³	240 x 10 ³	280 x 10 ³
T 70	1000	2500	500	[kg] [kgm ²]	2,60 0,0059	-	-	-	0,941 0,0132	-	-	230 x 10 ³	345 x 10 ³	440 x 10 ³	517 x 10 ³
80	1200	3000	600	[kg] [kgm ²]	5,20 0,0151	-	-	-	1,05 0,015	1,12 0,022	-	200 x 10 ³	410 x 10 ³	580 x 10 ³	700 x 10 ³
T 80	1500	3750	750	[kg] [kgm ²]	5,20 0,0151	-	-	-	1,05 0,015	1,12 0,022	-	240 x 10 ³	450 x 10 ³	638 x 10 ³	770 x 10 ³
100	2050	5150	1025	[kg] [kgm ²]	9,37 0,0401	-	-	-	-	1,16 0,021	8,45 0,234	500 x 10 ³	700 x 10 ³	856 x 10 ³	950 x 10 ³
T 100	2500	6250	1250	[kg] [kgm ²]	9,37 0,0401	-	-	-	-	1,16 0,021	8,45 0,234	600 x 10 ³	830 x 10 ³	960 x 10 ³	1070 x 10 ³
125	4250	10700	2125	[kg] [kgm ²]	19,73 0,1359	-	-	-	-	2,09 0,043	9,85 0,306	4200 x 10 ³	5000 x 10 ³	5600 x 10 ³	6200 x 10 ³

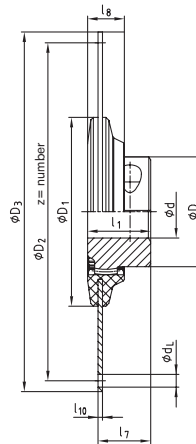
Type FLE-PAC



- High-quality flange coupling to connect flywheels to I. C.-engines and hydraulic pumps
- Composite design of steel flange/polyamide with carbon fibre reinforcement
- High mechanical stiffness and thermal stability
- Maintenance-free with high resistance to wear due to the use of carbon fibre reinforcement
- Extremely short dimensions subject to composite design
- Easy assembly by axial joining
- Special flange dimensions as a single-part design



Short mounting



Long mounting

Flange dimensions acc. to SAE J 620 [mm]

Size	D ₃	D ₂	z	d _L
6 1/2"	215,9	200,02	6	9
7 1/2"	241,3	222,25	8	9
8"	263,52	244,47	6	11
10"	314,32	295,27	8	11
11 1/2"	352,42	333,37	8	11
14"	466,72	438,15	8	14

BoWex® FLE-PAC – Dimensions/nominal dimension to SAE


Size	Pilot bore	Finish bore d		Dimensions [mm]							Special length l _{1 max}	Dimension acc. to SAE (D _j)						Max. axial displacement [mm]
		min.	max.	D	D ₁	l ₁	l ₃	l ₇	l ₈	l ₁₀		6 1/2"	7 1/2"	8"	10"	11 1/2"	14"	
48 / T 48	13	20	48	68	110	50	35	46	25	3	up to 60	●	●	●	●		± 3	
65 / T 65	21	30	65	96	165	55	36	46	32	4	up to 70			●	●	●	± 3	
80 / T 80	31	35	80	124	220	90	72	76	35	4	-			●	●	●	± 3	
100 / T 100	38	40	100	152	280	110	85	102	48	5	-				●	●	± 3	

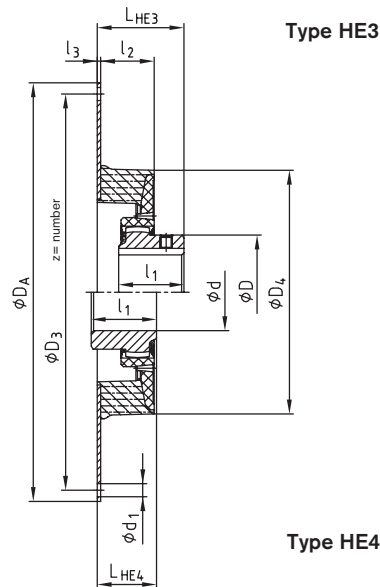
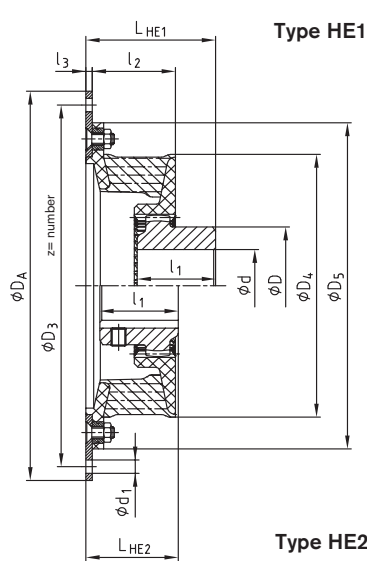
Technical data of BoWex® FLE-PAC – Torques/Weights/Mass moments of inertia/Torsion spring stiffness

Size	Torque T _K [Nm]			Weight / Mass moment of inertia I	Hub with max. bore Ø	FLE-PAC flanges according to SAE						Dynamic torsion spring stiffness with + 60 °C / ψ = 0,45 [Nm/rad]					
	T _{KN}	T _{K max.}	T _{KW}			6 1/2"	7 1/2"	8"	10"	11 1/2"	14"	0,30 T _{KN}	0,50 T _{KN}	0,75 T _{KN}	1,00 T _{KN}		
48	240	600	120	[kg]	0,79	0,77	0,98	1,19	1,73								
				[kgm ²]	0,0007	0,0049	0,0077	0,0109	0,0221				57 x 10 ³	89 x 10 ³	109 x 10 ³	126 x 10 ³	
T 48	300	750	150	[kg]	0,79	0,77	0,98	1,19	1,73								
				[kgm ²]	0,0007	0,0049	0,0077	0,0109	0,0221				74 x 10 ³	115 x 10 ³	141 x 10 ³	164 x 10 ³	
65	650	1600	325	[kg]	2,30			1,48	2,20	2,83							
				[kgm ²]	0,0044			0,0145	0,0294	0,0467			164 x 10 ³	286 x 10 ³	365 x 10 ³	411 x 10 ³	
T 65	800	2000	400	[kg]	2,40			1,48	2,20	2,83							
				[kgm ²]	0,004			0,0145	0,0294	0,0467			202 x 10 ³	328 x 10 ³	420 x 10 ³	473 x 10 ³	
80	1200	3000	600	[kg]	5,20						2,27	2,90	5,20				
				[kgm ²]	0,0151					0,0312	0,0485	0,1462	378 x 10 ³	620 x 10 ³	790 x 10 ³	985 x 10 ³	
T 80	1500	3750	750	[kg]	5,20						2,27	2,90	5,20				
				[kgm ²]	0,0151					0,0312	0,0485	0,1462	430 x 10 ³	700 x 10 ³	900 x 10 ³	1120 x 10 ³	
100	2050	5150	1025	[kg]	9,37								3,35	6,22			
				[kgm ²]	0,0401							0,0606	0,1828	600 x 10 ³	810 x 10 ³	1050 x 10 ³	1280 x 10 ³
T 100	2500	6250	1250	[kg]	9,37								3,35	6,22			
				[kgm ²]	0,0401							0,0606	0,1828	700 x 10 ³	900 x 10 ³	1170 x 10 ³	1400 x 10 ³

Type HE1, HE2, HE3 and HE4



- Flange coupling with flanges according to SAE and special dimensions for mounting to I. C.-engines
- Easy assembly by axial joining
- Compensating for misalignment on driving and driven side
- Use of coupling hubs from the BoWex® standard programme
- Finish bore according to ISO fit H7, keyway to DIN 6885, sheet 1 (JS9) - inch bores, taper bores, spline clamping hubs
- Available in the hardness 40, 50 and 65 Shore A
-  Approved according to EC standard 94/9/EC



Flange dimensions acc. to SAE J 620 [mm]				
Size	D _A	D ₃	z	d ₁
6 1/2"	215,90	200,02	6	9
7 1/2"	241,30	222,25	8	9
8"	263,52	244,47	6	11
10"	314,32	295,27	8	11
11 1/2"	352,42	333,37	8	11
14"	466,72	438,15	8	13
16"	517,50	489,00	8	13
18"	571,50	542,90	6	18
21"	673,10	641,35	12	17
24"	733,42	692,15	12	17

BoWex-ELASTIC® Type HE1 and HE2																				
Size	Bore d [mm]		Flange connections										Dimensions [mm]							
	Pilot bored	max.	6 1/2"	7 1/2"	8"	10"	11 1/2"	14"	16"	18"	21"	24"	l ₃	l ₂	D ₄	D ₅	D	l ₁	L _{HE1}	L _{HE2}
42 HE	-	42	●	●	●								4	45	146	180	65	42	55	40
48 HE	-	48	●	●	●	●							4	45	164	198	68	50	68	42
65 HE	21	65				●	●						5	55	205	244	96	55	73	50
80 HE	31	80				●	●						6	56	265	-/316	124	90	126/132	74/80
G 80 HE	31	80					●	●					6	66	300	-/356	124	90	136/142	84/90

BoWex-ELASTIC® Type HE3 and HE4																			
Size	Bore d [mm]		Flange connections										Dimensions [mm]						
	Pilot bored	max.	6 1/2"	7 1/2"	8"	10"	11 1/2"	14"	16"	18"	21"	24"	l ₃	l ₂	D ₄	D	l ₁	L _{HE3}	L _{HE4}
42 HE	-	42	●	●	●								4	45	146	65	42	55	40
48 HE	-	48	●	●	●	●							4	45	164	68	50	68	42
G 65 HE	21	65				●	●						5	55	205	96	55	73	50
80 HE	31	80				●	●						4	56	265	124	90	112	60
G 80 HE	31	80					●						4	66	300	124	90	122	70
100 HE	38	100						●					4	80	350	152	110	150	82
125 HE	45	125						●	●				6	92	416	192	140	86/119	103/109
G 125 HE	45	125						●	●				6	89	440	192	140	179	91
150 HE	44	160							●	●			6	140	470	225	150	205	160
G 150 HE	44	160							●	●			6	140	504	225	150	205	160
200 HE	46	180								●	●		6	149	568	250	175	240	160
G 200 HE	46	180								●	●		6	149	600	250	175	240	160

Ordering example:

BoWex-ELASTIC® 42	HE1	40	8	70	U
Coupling size	Type	Elastomer hardness	Flange Ø D _A acc. to SAE or special	Mounting length L _{HE}	Unbored or with finish bore

Technical data and displacements

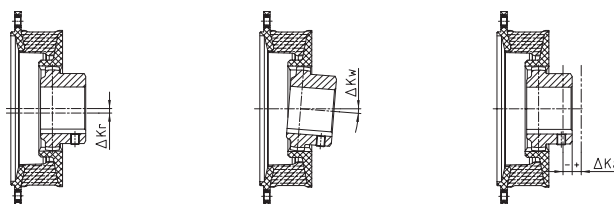
Technical data												
Size	Shore	Torque [Nm]			Perm. damping power PKW [W]		Perm. operating speed n_{max} [rpm]	Twisting angle with T_{KN} ϕT_{KN} [°]	Dynamic torsion spring stiffness C _{dyn.} [Nm/rad]	Relative damping ψ	Resonance factor $V_R \approx 2 \cdot \pi / \psi$	Radial spring stiffness C _r [N/mm]
		T_{KN}	T_{Kmax}	bei 10 Hz T_{KW}	60 °C	80 °C						
42 HE	40 Sh	130	390	36				16	550	0,6	10,5	142
	50 Sh	150	450	45	20	6,5	6200	13	850	0,8	7,9	219
	65 Sh	180	540	54				8	2700	1,2	5,2	697
48 HE	40 Sh	200	600	60				16	850	0,6	10,5	176
	50 Sh	230	690	69	27	9,0	5600	13	1300	0,8	7,9	269
	65 Sh	280	840	84				8	3500	1,2	5,2	724
65 HE	40 Sh	350	1050	105				16	1600	0,6	10,5	209
	50 Sh	400	1200	120	45	15	4500	13	2200	0,8	7,9	288
	65 Sh	500	1500	150				8	6000	1,2	5,2	784
G 65 HE	40 Sh	430	1290	129				12	2350	0,6	10,5	259
	50 Sh	500	1500	150	51	17	4300	10	3000	0,8	7,9	346
	65 Sh	620	1860	186				6	8500	1,2	5,2	975
80 HE	40 Sh	750	2250	225				14	4500	0,6	10,5	351
	50 Sh	950	2850	285	90	30	3600	13	6500	0,8	7,9	507
	65 Sh	1200	3600	360				6	18000	1,2	5,2	1404
G 80 HE	40 Sh	1250	3750	375				12	7500	0,6	10,5	476
	50 Sh	1600	4800	480	135	45	3000	10	12000	0,8	7,9	762
	65 Sh	2000	6000	600				6	32000	1,2	5,2	2031
100 HE	40 Sh	2000	6000	600				12	12000	0,6	10,5	366
	50 Sh	2500	7500	750	160	53	2700	10	19000	0,8	7,9	570
	65 Sh	3200	9600	960				6	48000	1,2	5,2	1200
125 HE	40 Sh	3000	9000	900				12	19000	0,6	10,5	617
	50 Sh	4000	12000	1200	180	60	2300	10	30000	0,8	7,9	974
	70 Sh	5000	15000	1500				6	75000	1,2	5,2	2434
G 125 HE	40 Sh	4000	12000	1200				11	30000	0,6	10,5	560
	50 Sh	5200	16000	1600	200	67	2250	9	44000	0,8	7,9	920
	70 Sh	6500	20000	2000				5	110000	1,2	5,2	1915
150 HE	40 Sh	5500	16500	1650			1950	10	42000	0,6	10,5	714
	52 Sh	7000	21000	2100	225	75	2050	8	67000	0,8	7,9	1200
	68 Sh	9000	27000	2700			2200	5	166000	1,2	5,2	2500
G 150 HE	40 Sh	7000	21000	2100			1900	11	60000	0,6	10,5	1485
	52 Sh	9200	27600	2760	240	80	2000	8	95000	0,8	7,9	2372
	68 Sh	11500	34500	3450			2100	5	236000	1,2	5,2	5874
200 HE	40 Sh	9500	28500	2850			1700	11	85000	0,6	10,5	1720
	52 Sh	12500	37500	3750	294	98	1800	8	136000	0,8	7,9	2740
	68 Sh	16000	48000	4800			1900	5	335000	1,2	5,2	6769
G 200 HE	40 Sh	11500	34500	3450			1600	11	105000	0,6	10,5	1952
	52 Sh	15000	45000	4500	321	107	1700	8	167000	0,8	7,9	3114
	68 Sh	19500	58500	5850			1800	5	412000	1,2	5,2	7708

The technical data mentioned apply for an ambient temperature of T = 60 °C.

Displacements

For other operating speeds or higher operating temperatures the permissible radial displacement is calculated as follows:

$$\Delta K_{rperm} = \Delta K_r \cdot \sqrt{1500 / n_x}$$



Radial displacement ΔK_r Angular displacement ΔK_w Axial displacement ΔK_a

Displacements																									
Size		42 HE			48 HE			65 HE/G 65 HE			80 HE/G 80 HE			100 HE			125 HE/G 125 HE			150 HE/G 150 HE			200 HE/G 200 HE		
		40 Sh	50 Sh	65 Sh	40 Sh	50 Sh	65 Sh	40 Sh	50 Sh	65 Sh	40 Sh	50 Sh	65 Sh	40 Sh	50 Sh	65 Sh	40 Sh	50 Sh	70 Sh	40 Sh	50 Sh	70 Sh	40 Sh	50 Sh	70 Sh
Perm. radial displacement ΔK_r [mm]	n=1500 1/min.	1,1	1,0	0,5	1,2	1,1	0,5	1,6	1,5	0,7	1,8	1,7	0,8	2,2	2,0	1,0	2,5	2,3	1,1	2,8	2,5	1,3	3,0	2,7	1,5
	max. ¹⁾	3,6	3,3	1,5	3,8	3,5	1,7	5,1	4,7	2,2	5,7	5,3	2,4	6,5	6,0	3,0	7,5	6,9	3,3	8,0	7,5	4,0	8,5	8,0	4,5
Perm. angular displacement ΔK_w [°]	n=1500 1/min.	1,0	0,75	0,5	1,0	0,75	0,5	1,0	0,75	0,5	1,0	0,75	0,5	1,0	0,75	0,5	1,0	0,75	0,5	1,0	0,75	0,5	1,0	0,75	0,5
	n=3000 1/min.	0,5	0,4	0,25	0,5	0,4	0,25	0,5	0,4	0,25	0,5	0,4	0,25	0,5	0,4	0,25	0,5	0,4	0,25						
Perm. angular displacement ΔK_w [mm]	max. ¹⁾	1,5			1,5			1,5			1,5			1,5			1,5			1,5			1,5		
Perm. axial displacement ΔK_a [mm]		± 2			± 2			± 2			± 2			± 3			± 3			± 5			± 5		

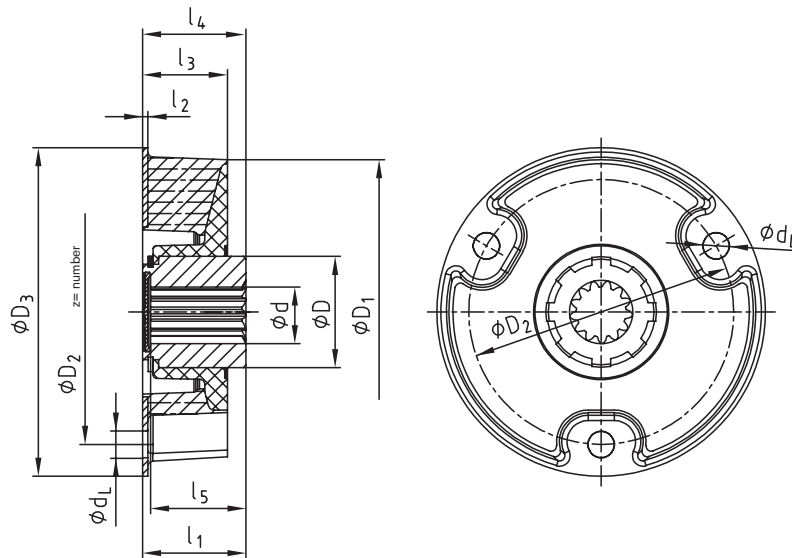
¹⁾ for short-term starting operation

Process of assembly, screw type with quality, tightening torques according to KTR assembly instructions (see www.ktr.com).

Type with 3 holes (EP 0853203/U.S. Patent 6,117,017)



- MONOLASTIC® – for the drive of diesel engine/hydraulic pump up to 100 kW
- Single-part design with flange fastening by three bolts
- Easy assembly of coupling
- Axial plug-in in combination with the pump shaft
- Compensating for high radial and angular displacements
- Available for pump gear shafts according to SAE and DIN



MONOLASTIC®																
Size	Elastomer hardness [Shore A]	Torque [Nm]			Dimensions [mm]											
		T _{KN}	T _{K max.}	T _{KW}	d	D	D ₁	D ₂	z	d _L	D ₃	l ₁	l ₂	l ₃	l ₄	l ₅
22	65	40	100	20	20	34	93	80	3	8,10	100	33	1,5	32	34	30
	70	70	175	35	25	42	115	100	3	10,10	124	40	2	32	40	38
28	65	160	400	80	32	50	140	125	3	12,10	150	42	2	42	43	38
	70	225	675	112	32	50	175	165	3	16,15	200	46	3	35	46	43
32	65	160	400	80	32	50	140	125	3	12,10	150	42	2	42	43	38
32	70	225	675	112	32	50	175	165	3	16,15	200	46	3	35	46	43
50-140	70	300	750	150	32	50	175	170	3	16,15	200	46	3	35	46	43
50-165	70	400	1000	200	48	68	191	165	3	16,15	205	50	3	40	55	46

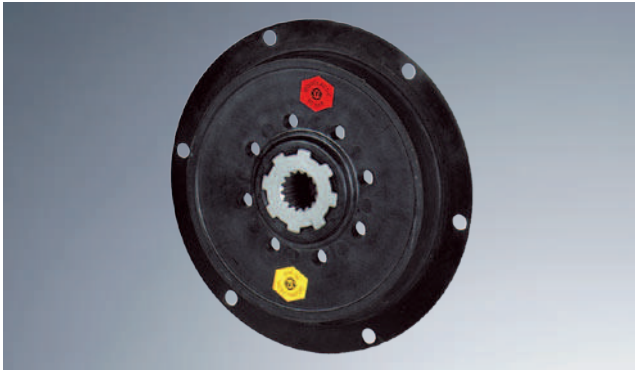
Technical data									
Size	Elastomer hardness [Shore A]	C _{dyn} with 60 °C [Nm/rad]	Perm. damping power with 60 °C P _{KW} [W]	Max. displacement with 2200 1/min ΔKr [mm]	Perm. angular displacement with 2200 1/min ΔKw [°]	Radial spring stiffness C _r [N/mm]	Mass moment of inertia [kgm ²]		Max. perm. operating speed [1/min]
							J _A	J _L	
22	65	600	10	0,6		200	0,00017	0,00010	6000
	70	900	15	0,6		300	0,00054	0,00033	6000
28	65	1300	25	0,5		400	0,00120	0,00081	6000
	70	2400	35	0,5	1	500	0,00210	0,00130	6000
32	65	1800	40	0,5		1365	0,00250	0,00130	6000
32	70	4200	40	0,5		1550	0,00599	0,00358	6000
50-140	70	5600	40	0,5		1500			6000
50-165	70	7800	40	0,5					6000

MONOLASTIC®

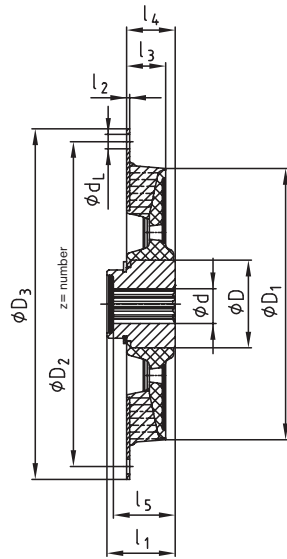
One-piece, flexible flange coupling



SAE-Ausführung (EP 0853203/U.S. Patent 6,117,017)



- MONOLASTIC® – for the drive of diesel engine/hydraulic pump up to 100 kW
- Flange connection according to SAE 6 1/2" to 11 1/2"
- Easy assembly of coupling
- Axial plug-in in combination with the pump shaft
- Compensating for high radial and angular displacements
- Available for pump gear shafts according to SAE and DIN
- Size 65 and 75 also available as an axial plug-in type



Flange dimensions acc. to SAE J 620 [mm]				
Size	D ₃	D ₂	z	d _L
6 1/2"	215,9	200,02	6	9
7 1/2"	241,3	222,25	8	9
8"	263,52	244,47	6	11
10"	314,32	295,27	8	11
11 1/2"	352,42	333,37	8	11

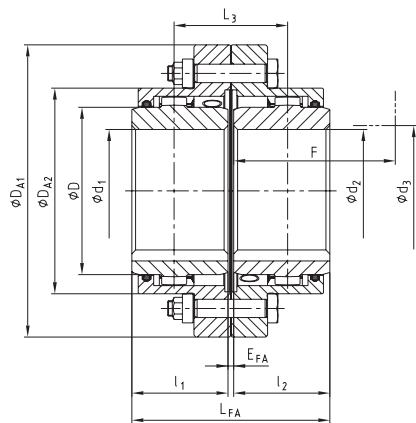
MONOLASTIC®																		
Size	Elastomer hardness [Shore A]	Torque [Nm]			Dimensions [mm]									MONOLASTIC® flanges according to SAE				
		T _{KN}	T _{K max.}	T _{KW}	d	D	D ₁	l ₁	l ₂	l ₃	l ₄	l ₅	6 1/2"	7 1/2"	8"	10"	11 1/2"	
30	65	160	400	80	25	42	120	39	2	21	30	36	X	X				
	70	200	500	100														
50	65	300	750	150	32	50	167	42	2	24	30	38	X	X	X	X		
	70	400	1000	200														
65	65	600	1500	300	48	68	200	45	3	32	45	42				X	X	
	70	800	2000	400														
75	65	1200	3000	600	60	90	265	58	3	35	50	54				X	X	
	70	1500	3750	750														

Technical data										
Size	Elastomer hardness [Shore A]	C _{dyn} with 60 °C [Nm/rad]	Perm. damping power with 60 °C P _{KW} [W]	Max. displacement with 2200 rpm ΔKr [mm]	Permissible angular displacement with 2200 rpm ΔKw [°]	Radial spring stiffness C _r [N/mm]	Mass moment of inertia [kgm ²]			Max. permissible operating speed n _{max} [rpm]
							J _A	J _L		
30	65	3750	25	0,5	1	1150	6,5"	0,0038	0,00030	6000
	70	4875					7,5"	0,0057		
50	65	9000	35	0,5	1	1300	8"	0,0078	0,00120	6000
	70	12000					10"	0,0153		
65	65	14000	45	0,5	1	1900	10"	0,0238	0,00380	6000
	70	18000					11,5"	0,0368		
75	65	34000	80	0,5	1	1850	10"	0,0272	0,01450	6000
	70	42000					11,5"	0,0402		

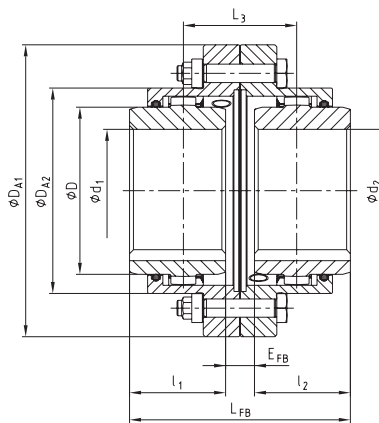
Type FA, type FB and type FAB



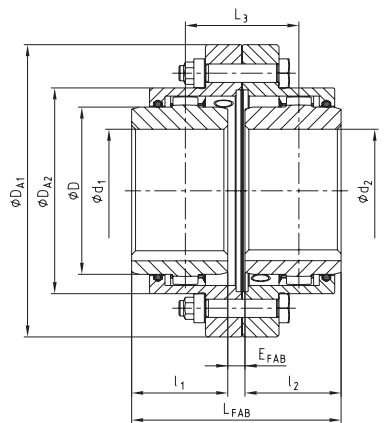
- Coupling in accordance with AGMA 9008-B00
- Double-cardanic crowned gear coupling
- To be used on all applications in general engineering
- Compensating for shaft misalignment axial – radial – angular
- Available with finish bore acc. to ISO fit H7, feather key according to DIN 6885 sheet 1, taper and inch bores
- For horizontal assembly
- Higher torques to be realized by special materials
- Approved according to EC standard 94/9/EC
- Max. Kupplungsmoment $T_{Kmax} = 2 \cdot T_{KN}$
For types DA/DB/DAB see company catalogue



Type FA



Type FB



Type FAB

Dimensions type FA/FB/FAB

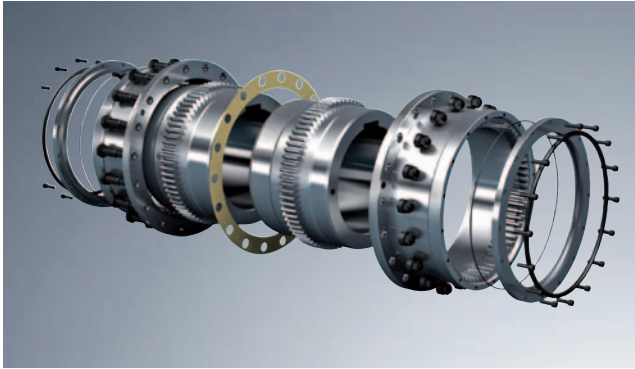
Size	Torque [Nm]		Pilot bore	max. finish bore d ₁ ; d ₂	Dimensions [mm]													
	T _{KN}	T _{KN} (42CrMo4)			l ₁ , l ₂	Hub lengthened max l ₁ , l ₂	E _{FA}	E _{FB}	E _{FAB}	L _{FA}	L _{FB}	L _{FAB}	L ₃	D	D _{A1}	D _{A2}	F ¹⁾	d ₃ ¹⁾
10	930	1580	26	50	43	105	3	21	12	89	107	98	55	67	111	84	74	52
15	2000	3300	26	64	50	115	3	15	9	103	115	109	59	87	152	107	84	68
20	3500	6300	31	80	62	130	3	31	17	127	155	141	79	108	178	130	104	85
25	6500	11000	38	98	76	150	5	29	17	157	181	169	93	130	213	158	123	110
30	10000	17400	44,5	112	90	170	5	33	19	185	213	199	109	153	240	182	148	130
35	17000	28800	46	133	105	185	6	40	23	216	250	233	128	180	280	214	172	150
40	28500	48500	52	158	120	215	6	42	24	246	282	264	144	214	318	250	192	175
45	37000	62000	80	172	135	245	8	50	29	278	320	299	164	233	347	274	216	190
50	51000	86000	80	192	150	295	8	56	32	308	356	332	182	260	390	309	241	220
55	65000	110000	90	210	175	300	8	70	39	358	420	389	214	283	425,5	334	275	250
60	85000	145000	100	232	190	305	8	84	46	388	464	426	236	312	457	365,5	316	265
70	135000	240000	100	276	220	310	10	76	43	450	516	483	263	371	527	425	360	300

Dimensions type DA/DB/DAB

Size	Torque [Nm]		Pilot bore	max. finish bore d ₁ ; d ₂	Dimensions [mm]												
	T _{KN}	T _{KN} (42CrMo4)			l ₁ , l ₂	E _{DA}	E _{DB}	E _{DAB}	L _{DA}	L _{DB}	L _{DAB}	L ₃	D	D _{A1}	D _{A2}	F ¹⁾	d ₃ ¹⁾
20	3500	6300	31	80	62	3	31	17	133	155	144	79	108	187	146	105	85
25	6500	11000	38	98	76	5	29	17	157	181	169	93	130	220	172	115	105
30	10000	17400	44,5	112	90	5	33	19	185	213	199	109	153	248	182	140	120
35	17000	28800	46	133	105	6	40	23	216	250	233	128	180	285	214	165	145
40	28500	48500	52	158	120	6	42	24	246	282	264	144	214	335	250	180	160
45	37000	62000	80	172	135	8	50	29	278	320	299	164	233	358	294	195	185
50	51000	86000	80	192	150	8	56	32	308	356	332	182	260	390	309	215	205
55	65000	110000	90	210	175	8	70	39	358	420	389	214	283	425,5	348	240	220
60	85000	145000	100	232	190	8	84	46	388	464	426	236	312	457	380	260	245
70	135000	240000	100	276	220	10	76	43	450	516	483	263	371	527	445	300	290
80	175000	300000	140	300	280	10	50	30	570	610	590	310	394	545	475	340	310
85	225000	380000	160	325	292	13	53	33	597	637	617	325	430	585	515	352	330
90	290000	500000	180	350	305	13	83	48	623	693	658	353	464	640	560	365	360
100	380000	650000	220	390	330	13	93	53	673	753	713	383	512	690	612	390	400
110	480000	820000	220	420	350	20	296	158	720	996	858	508	560	765	665	410	420
120	620000	1050000	260	450	420	25	421	223	864	1261	1063	643	608	825	720	480	470

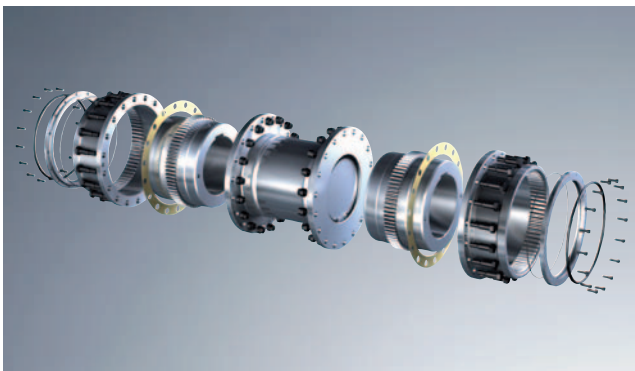
Ordering example:	GEARex® DA 80	d ₁ Ø300	d ₂ Ø300
	Size and type of coupling	Finish bore with keyway to DIN 6885 sheet 1	Finish bore with keyway to DIN 6885 sheet 1

Type DA, type DB and type DAB



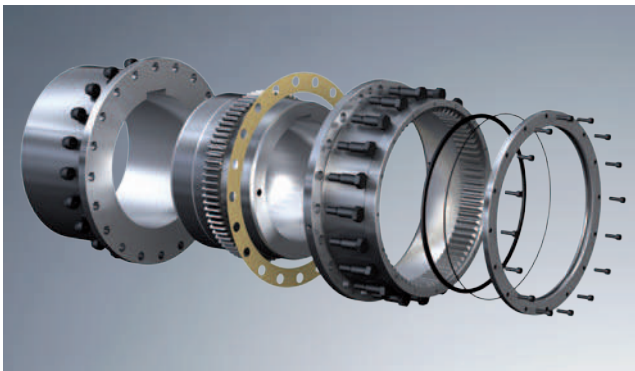
- Double-cardanic crowned gear coupling
- To be used on all applications in general engineering
- Compensating for shaft misalignment axial – radial – angular
- Available with finish bore to ISO fit H7, feather key according to DIN 6885 sheet 1, taper and inch bores
- For horizontal assembly
- Higher torques to be realized by special materials
- Approved according to EC standard 94/9/EC
- Max. torque of coupling $T_{Kmax.} = 2 \cdot T_{KN}$

Type FH and type DH



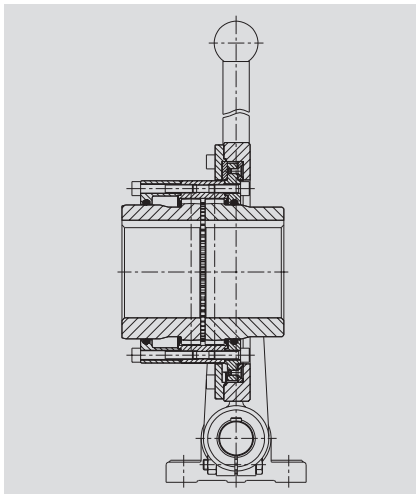
- Coupling type for bigger shaft distance dimensions
- Type FH with one-piece sleeve GEARex® size 10 to 70
- Type DH with split sleeve GEARex® size 80 to 120
- Higher torques to be realized by special materials
- Available with finish bore acc. to ISO fit H7, feather key according to DIN 6885 sheet 1, taper and inch bores
- Max. torque of coupling $T_{Kmax.} = 2 \cdot T_{KN}$

Type FR and type DR

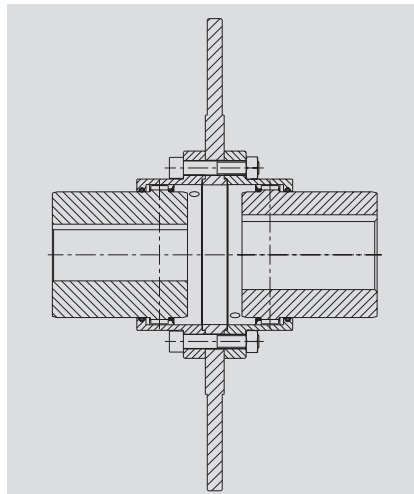


- Type FR with one-piece sleeve GEARex® size 10 to 70
- Type DR with split sleeve GEARex® size 80 to 120
- Higher torques to be realized by special materials
- Available with finish bore acc. to ISO fit H7, feather key according to DIN 6885 sheet 1, taper and inch bores
- Max. torque of coupling $T_{Kmax.} = 2 \cdot T_{KN}$

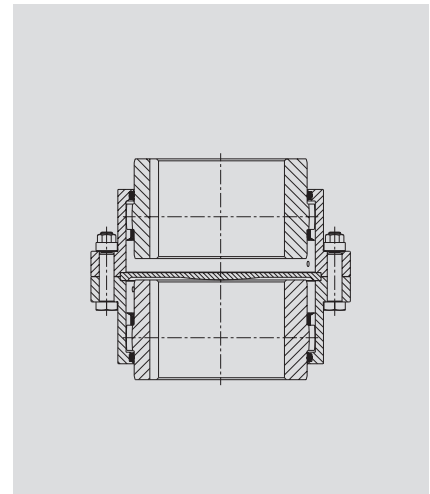
Further types



Type SD



Type with brake disk

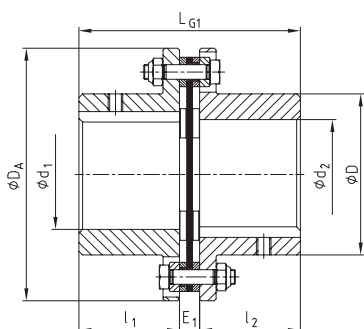


Type VD (vertical assembly)

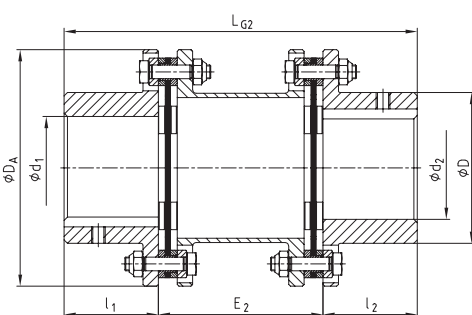
Standard types



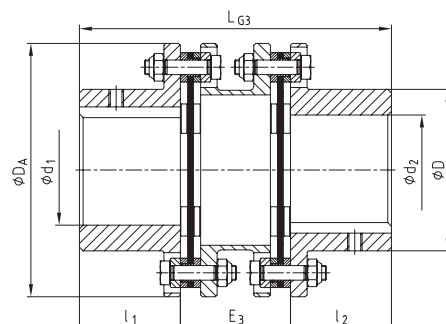
- Standard types available from stock
- Single and double cardanic designs
- Optionally available with frictionally engaged shaft-hub-connection
- Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9.
- Approved according to EC standard 94/9/EC
- From size 136 screwing of laminas by means of clamping nut (see assembly instructions KTR-N 47112)



Type NN



Type NANA 1



Type NANA 2

RADEX®-N Type NN, type NANA 1 and type NANA 2													
Size	Torque [Nm]			Max. finish bore [mm]		Dimensions [mm]							
	T _{RN}	T _{Kmax}	T _{KW}	d ₁ , d ₂	D	D _A	l ₁ , l ₂	L _{G1}	E ₁	L _{G2}	E ₂	L _{G3}	E ₃
20	15	30	5	20	32	56	20	45	5	100	60	—	—
25	30	60	10	25	40	68	25	56	6	110	60	—	—
35	60	120	20	35	54	82	40	86	6	150	70	—	—
38	120	240	40	38	58	94	45	98	8	170	80	—	—
42	180	360	60	42	68	104	45	100	10	170	80	—	—
50	330	660	110	50	78	126	55	121	11	206	96	—	—
60	690	1380	230	60	88	138	55	121	11	206	96	170	60
70	1100	2200	370	70	102	156	65	141	11	246	116	200	70
80	1500	3000	500	80	117	179	75	164	14	286	136	233	83
85	2400	4800	800	85	123	191	80	175	15	300	140	246	86
90	4500	9000	1500	90	132	210	80	175	15	300	140	251	91
105	5100	10200	1700	105	147	225	90	200	20	340	160	281	101
115	9000	18000	3000	115	163	265	100	223	23	370	170	309	109
135	12000	24000	4000	135	184	305	135	297	27	520	250	—	—
136	17500	35000	8750	135	180	300	135	293	23	—	—	—	—
138	23000	46000	11500	135	180	300	135	293	23	—	—	—	—
156	25000	50000	12500	150	195	325	150	327	27	—	—	—	—
158	33000	66000	16500	150	195	325	150	327	27	—	—	—	—
166	35000	70000	17500	165	225	350	165	361	31	—	—	—	—
168	45000	90000	22500	165	225	350	165	361	31	—	—	—	—
186	42000	84000	17500	180	250	380	185	401	31	—	—	—	—
188	56000	112000	28000	180	250	380	185	401	31	acc. to customer's request	—	—	—
206	52500	105000	26250	200	275	420	200	437	37	—	—	—	—
208	70000	140000	35000	200	275	420	200	437	37	—	—	—	—
246	90000	180000	45000	240	320	500	240	524	44	—	—	—	—
248	120000	240000	60000	240	320	500	240	524	44	—	—	—	—
286	150000	300000	75000	280	383	567	280	612	52	—	—	—	—
288	200000	400000	100000	280	383	567	280	612	52	—	—	—	—
336	210000	420000	105000	330	445	660	330	718	58	—	—	—	—
338	280000	560000	140000	330	445	660	330	718	58	—	—	—	—

Ordering example:	RADEX®-N 60	NANA 1	Ø50	Ø60
	Coupling size	Type	Finish bore d ₁	Finish bore d ₂

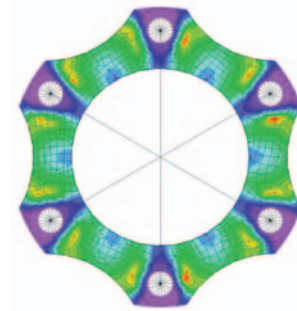
Description of coupling

The RADEX®-N is a backlash-free, torsionally rigid and maintenance-free all-steel coupling. The laminae that are extremely rigid in sense of rotation are made of high-strength, stainless spring steel and enable a compensation for high displacements with low restoring forces. By reason of the all-steel design the RADEX®-N can be used in drives with temperatures of up to 280 °C.



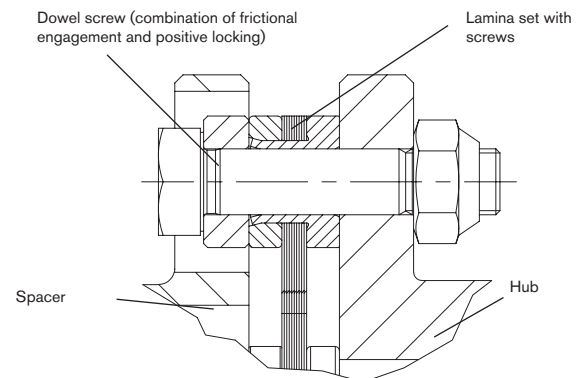
FEM-optimized lamina shape

The steel lamina sets made of stainless spring steel were developed on the basis of FEM calculations. Taking into account the necessary possibilities of displacements of the coupling the optimum shape regarding torque transmission and torsional rigidity was aimed at. The fitted shape of the steel laminae on the outside diameter is the result of this optimization calculation.



Lamina sets with dowel screws

The „heart“ of the steel lamina coupling are the lamina sets and their connection to the hubs or spacers. High-strength, special dowel screws that are alternately screwed to hubs and spacer enable a combination of frictional engagement and positive locking. Thus a high power density with at the same time ease of displacement and low restoring forces is ensured. Due to the special design of the RADEX®-N components the lamina sets are prestressed „artificially“. Hereby the torsional rigidity is increased by approx. 30 % and at the same time the well-known problem regarding the axial vibrations of the spacer is prevented.

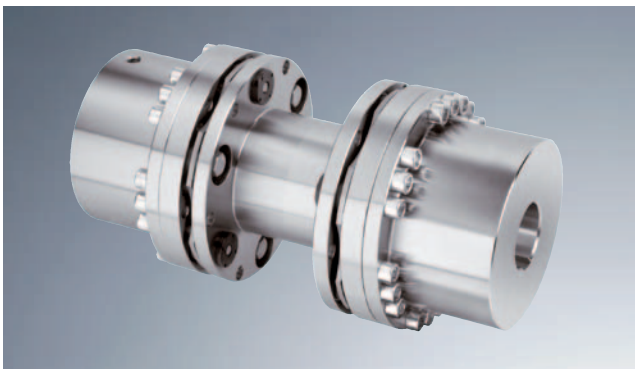



Use in explosive areas

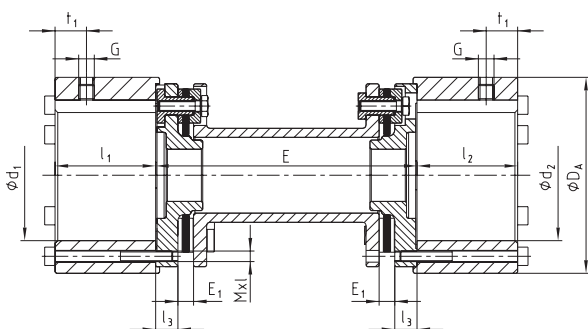
RADEX®-N couplings are suitable for power transmission in drives in hazardous areas. The couplings are certified and confirmed according to EC standard 94/9/EC (ATEX 95) as units of category 2G/2D and thus suitable for the use in hazardous areas of zone 1, 2, 21 and 22. With the use in explosive areas clamping ring hubs (clamping hubs without feather key for category 3 only) have to be selected such that there is a safety factor of $s = 2$ between the peak torque of the unit including all operating parameters and the friction and rated torque of the coupling. You will find further details about this subject at www.ktr.com.



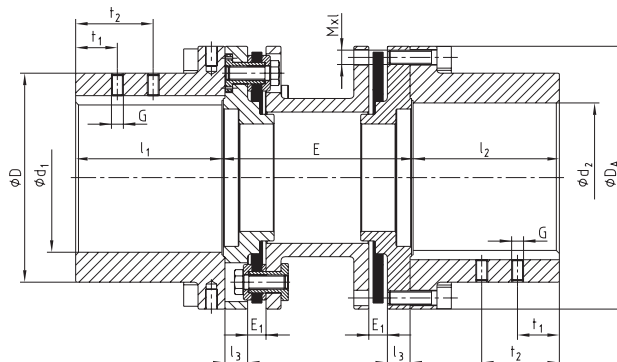
Type A



- Series for pump drives
- Coupling in accordance with API 610, API 671 optionally
- Available with large hub for bigger bore diameters
- Spacers are supplied assembled by the manufacturer
- Finish bore according to ISO fit H7, feather key according to DIN 6885 sheet 1 - JS9
- High balancing quality due to accurate machining (AGMA Class 9)
-  Approved according to EC standard 94/9/EC



Size 35



Size 50 - 408

RIGIFLEX®-N Type A																			
Size	Torques [Nm]			Max. finish bore	Dimensions [mm]											Screws DIN EN ISO 4762			
	T _{KN}	T _{Kmax}	T _{KW}		d ₁ /d ₂	D	D _A	l ₁ /l ₂	l ₃	G	t ₁	t ₂	E _i	E ¹⁾				MxI	TA [Nm]
35	120	240	60	50	-	75	38,5	8,5	M6	15	-	6	100	140	-	-	-	M4x45	4,1
50	240	480	120	50	70	95	50	12	M6	10	-	9	100	140	-	-	-	M6x22	14
65	450	900	225	65	100	126	63	12	M8	20	-	11	100	140	180	-	-	M6x25	14
75	940	1880	470	75	105	138	62,5	12	M8	20	-	11	100	140	180	-	-	M8x30	35
85	1700	3400	850	85	120	156	72,5	15	M10	20	-	12	-	140	180	200	250	M8x30	35
110	2700	5400	1350	110	152	191	87	18	M10	25	-	12	-	140	180	200	250	M10x35	69
120	4500	9000	2250	120	165	213	102	20	M12	25	-	12	-	-	180	200	250	M12x40	120
140	9000	18000	4500	140	200	265	126	25	M12	30	-	15	-	-	-	200	250	M16x50	295
160	13000	26000	6500	160	230	305	145	31	M12	30	-	15	-	-	-	-	250	M16x55	295
166	17500	35000	8750	160	230	305	155	31	M16	30	70	17					M20x50	560	
196	22500	45000	11250	190	260	330	185	32	M16	40	90	24					M20x50	560	
216	32000	64000	16000	210	285	370	205	32	M20	50	110	26					M20x65	560	
256	52500	105000	26250	250	350	440	245	38	M20	70	130	31					M24x80	970	
306	86000	172000	43000	300	400	515	295	43	M24	70	130	36					M27x100	1450	
346	135000	270000	67500	340	460	590	335	55	M24	95	175	45					M30x110	1950	
406	210000	420000	105000	400	530	675	395	58,5	M24	95	175	50	acc. to customer's request				M36x130	3300	
168	23000	46000	11500	160	230	305	155	31	M16	30	70	17					M20x50	560	
198	30000	60000	15000	190	260	330	185	32	M16	40	90	24					M20x50	560	
218	42500	85000	21500	210	285	370	205	32	M20	50	110	26					M20x65	560	
258	70000	140000	35000	250	350	440	245	38	M20	70	130	31					M24x80	970	
308	115000	230000	57500	300	400	515	295	43	M24	70	130	36					M27x100	1450	
348	180000	360000	90000	340	460	590	335	55	M24	95	175	45					M30x110	1950	
408	280000	560000	140000	400	530	675	395	58,5	M24	95	175	50					M36x130	3300	

¹⁾ Other shaft distances available on request.
For selection of coupling see company catalogue. Assembly instruction No. 47410 available at www.ktr.com.

Ordering example:	RIGIFLEX®-N 120	A	Ø 100	Ø 120	200
	Coupling size	Type	Bore d ₁	Bore d ₂	Shaft distance dimension E

Description of coupling

RIGIFLEX®-N couplings are used on such applications which require a reliable and maintenance-free torque transmission with shaft displacement at the same time.

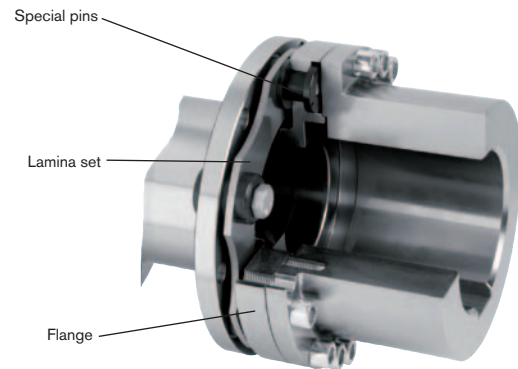
RIGIFLEX®-N was developed specifically for pump drives. This coupling system corresponds to the regulations of API 610 and may be supplied in accordance with API 671 optionally. (API = American Petroleum Institute) Torques from 60 Nm to 280.000 Nm are available in 23 sizes for an optimum adjustment to the different applications.



RIGIFLEX®-N laminas

RIGIFLEX®-N laminas are waisted lamina sets arranged in layers. They are connected to the hubs or flanges, respectively, in an absolutely backlash-free fit by means of positive-locking set screws.

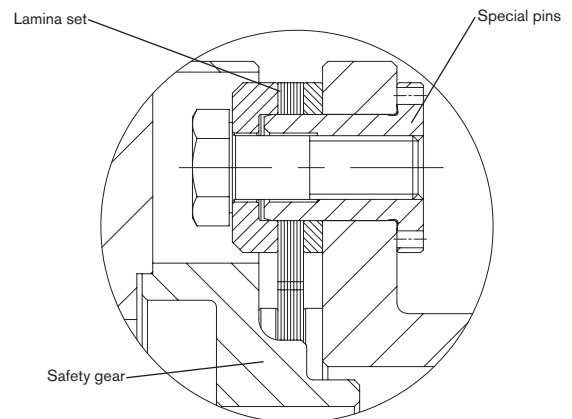
The number of the layers of individual laminas allows to vary torques, displacement figures and stiffness for special designs.



Protecting the spacer

Since our main idea with the development of RIGIFLEX®-N was to comply with the standards of API 610 and API 671, the spacer is secured by a safety catch, too. In case that the laminas break the spacer remains within the coupling.

In general the removable part is supplied along with a lamina set preassembled by the manufacturer.




Use in explosive areas

RIGIFLEX®-N couplings are suitable for the use in drives in hazardous areas. The couplings are certified and confirmed according to EC standard 94/9/EC (ATEX 95) as units of category 2G/2D and thus suitable for the use in hazardous areas of zone 1, 2, 21 and 22. Please read through our information included in the respective Type Examination Certificate and the operating and mounting instructions at www.ktr.com.

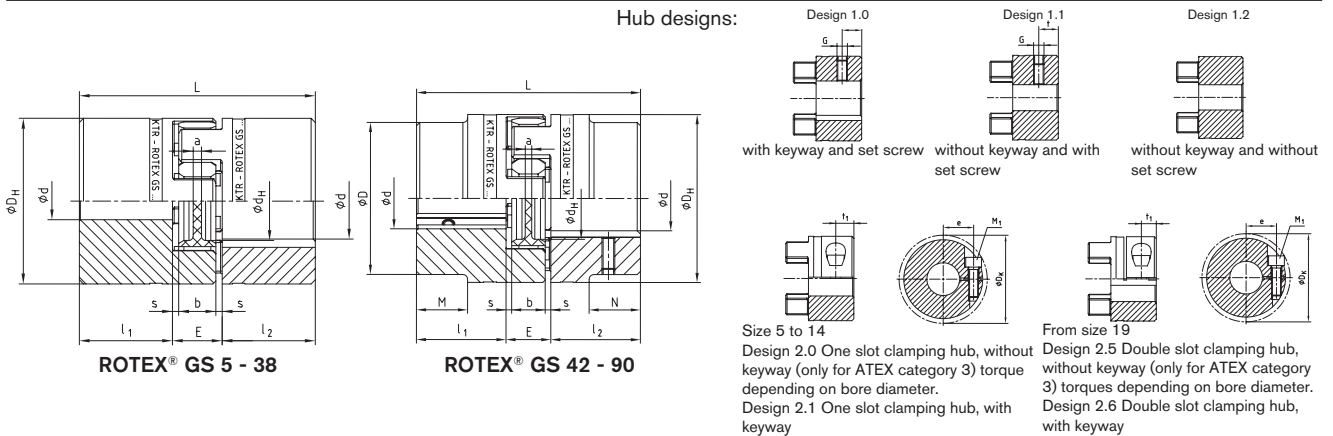


Standard types



- Backlash-free shaft connection under prestress
- Small dimensions – low flywheel mass
- Maintenance-free, easy to inspect visually
- Different elastomer hardness of spiders (see company catalogue)
- Finish bore according to ISO fit H7 (except for clamping hub), feather key optionally available from Ø 6 mm according to DIN 6885 sheet 1 – JS9.
- Friction torques of the shaft-hub-connection without feather keyway see assembly instruction KTR-N 45510
-  Approved according to EC standard 94/9/EC (hubs without feather keyway acc. to category 3)

Hub designs:



ROTEX® GS standard types For size 5 to 38 hub material aluminium/for size 42 to 90 hub material steel

Size	Torque of spider T_{KN} [Nm] for 95/98Sh-A1)	Maximum finish bore ϕd for hub design			Dimensions [mm]										Setscrew DIN EN ISO 4029 Hub design 1.0/1.1		Clamping screw DIN EN ISO 4762 (ROTEX® 5 DIN 84) Hub design 2.0/2.1/2.5/2.6				
		1.0-1.2	2.0/2.5	2.1/2.6 ³⁾	D	D _H	d _H	L	l _{1,2}	M;N	E	b	s	a	G	t	M ₁	t ₁	e	D _K	T _A [Nm]
5	0,9	6	5	5	-	10	-	15	5	-	5	4	0,5	4,0	M2	2,5	M1,2	2,5	3,5	11,4	- ²⁾
7	2,0	7	7	7	-	14	-	22	7	-	8	6	1,0	6,0	M3	3,5	M2	3,5	5,0	16,5	0,37
9	5,0	11	11	11	-	20	7,2	30	10	-	10	8	1,0	1,5	M4	5,0	M2,5	5,0	7,5	23,4	0,76
12	9,0	12	12	12	-	25	8,5	34	11	-	12	10	1,0	3,5	M4	5,0	M3	5,0	9,0	27,5	1,34
14	12,5	16	16	16	-	30	10,5	35	11	-	13	10	1,5	2,0	M4	5,0	M3	5,0	11,5	32,2	1,34
19	21,0	24	24	24	-	40	18	66	25	-	16	12	2,0	3,0	M5	10	M6	11,0	14,5	46	10,5
24	60	28	28	28	-	55	27	78	30	-	18	14	2,0	3,0	M5	10	M6	10,5	20,0	57,5	10,5
28	160	38	38	38	-	65	30	90	35	-	20	15	2,5	4,0	M8	15	M8	11,5	25,0	73	25
38	325	45	45	45	-	80	38	114	45	-	24	18	3,0	4,0	M8	15	M8	15,5	30,0	83,5	25
42	450	55	50	45	85	95	46	126	50	28	26	20	3,0	4,0	M8	20	M10	18	32,0	93,5	69
48	525	62	55	55	95	105	51	140	56	32	28	21	3,5	4,0	M8	20	M12	21	36,0	105	120
55	685	74	68	68	110	120	60	160	65	37	30	22	4,0	4,5	M10	20	M12	26	42,5	119,5	120
65	940	80	70	70	115	135	68	185	75	47	35	26	4,5	4,5	M10	20	M12	33	45,0	124	120
75	1920	95	80	80	135	160	80	210	85	53	40	30	5,0	5,0	M10	25	M16	36	51,0	147,5	295
90	3600	110	90	90	160	200	104	245	100	62	45	34	5,5	6,5	M12	30	M20	40	60,0	192	580


NEW

1) Further spiders/selection see company catalogue
2) tightening torque TA not defined (slotted screw)
3) from Ø65 keyway opposite to the clamping screw

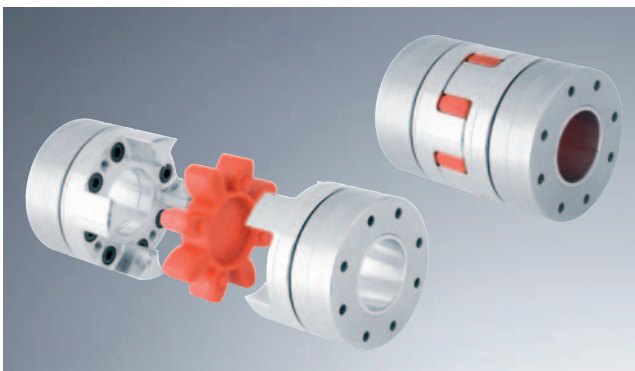
Ordering example:	ROTEX® GS 24	98 Sh-A-GS	d20	2.5 – Ø 24		1.0 – Ø 20	
	Coupling size	Spider hardness	Optionally: Bore dia. in spider	Hub design	Finish bore	Hub design	Finish bore


Compact



- Shorter by up to 1/3
- High power density, design with axial slot, patent pending (from size 24)
 - Good concentric running properties
 - Uniform power transmission due to cams without slots
 - Improved balancing quality
- Finish bore from Ø 6 mm also available with feather key acc. to DIN 6885 sheet 1 – JS9
-  Approved according to EC standard 94/9/EC (hubs without feather keyway acc. to category 3)


Clamping ring hubs light



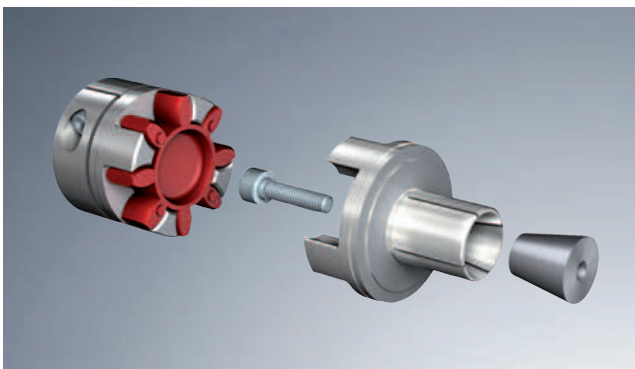
- Torsionally flexible backlash-free shaft coupling with integrated clamping system
- As an example, use on feed/main spindles, drives on machine tools, handling units, etc.
- Low weight and low mass moment of due to a design fully made from aluminium
- Easy assembly due to internal clamping screws and block assembly
- For high friction torques (see ass. instruction KTR-N 45510)
- High smoothness of running, application up to a peripheral speed of 50 m/s
-  Approved according to EC standard 94/9/EC

Clamping ring hubs steel



- Torsionally flexible backlash-free shaft coupling with integrated clamping system
- As an example, use on gearboxes and other drives with high torque shocks
- Smooth running, application up to a peripheral speed of 40 m/s
- For high friction torques (consider the selection with explosion protection use, see ass. instruction KTR-N 45510)
- Easy to assemble due to internal clamping screws
- Finish bore up to Ø 50 mm according to ISO fit H7, from Ø 55 mm according to ISO fit G7
-  Approved according to EC standard 94/9/EC

Expansion hub for hollow shaft connection

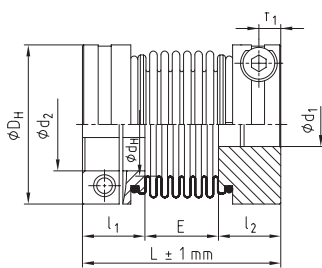


- Torsionally flexible backlash-free shaft coupling with integrated clamping system
- Short design
- Electric insulation
- Quick assembly
- Good concentric running properties
- Can be combined with various hub designs
- Self-centering clamping connection

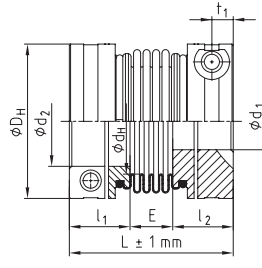
Type S and type M with clamping hubs



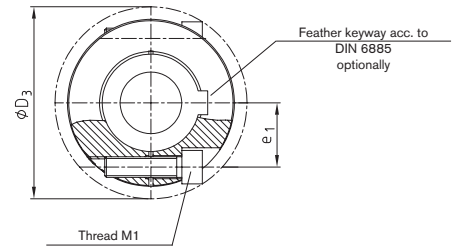
- Backlash-free, torsionally stiff
- Frictionally engaged clamping hubs
- Temperature range:
for size 7 to 12: -30 °C to +100 °C
from size 16: suitable for high temperatures max. 200 °C due to flanged insert connection
- Good resistance to corrosion
- Finish bore from Ø 6 mm also available with feather key acc. to DIN 6885 sheet 1 – JS9
- Mounting instructions at www.ktr.com



TOOLFLEX® type M design 2.5



TOOLFLEX® type S design 2.5



TOOLFLEX® S/M with clamping hubs (design 2.5) Hub material aluminium/bellow material stainless steel

Size	Type 1/2)	Bellow-hub-connection	Torque of bellow T_{KN} [Nm] ³⁾	Dimensions [mm]											Perm. displacements			Torsional stiffness C_T [Nm/rad] [Nm/rad]	Weight 5) [kg]
				Finish bore		General					Clamping screw DIN EN ISO 4762				Axial [mm]	Radial [mm]	Angular [Grad]		
				min. d	max. d	L	l_1, l_2	E	D_H	d_H	M_1	D_3	t_1	e_1					
7	S	Bored	1	3	7	24	6	15	9	M2	16,5	3,2	5	0,37	±0,3	0,10	0,7	390	0,007
7	M		26	9	8	8	8	15	9	M2	16,5	3,2	5	0,37	±0,4	0,15	1,0	300	0,008
9	S	Bored	1,5	3	9	29	7	20	12	M2,5	21,5	3,5	7,1	0,76	±0,35	0,15	1,0	750	0,014
9	M		32	11	10	10	10	20	12	M2,5	21,5	3,5	7,1	0,76	±0,5	0,20	1,5	580	0,015
12	S	Bored	2	4	12	34,5	8,5	25	16	M3	26,5	4	8,5	1,34	±0,4	0,15	1,0	1270	0,025
12	M		38	13	12	12	12	25	16	M3	26,5	4	8,5	1,34	±0,6	0,20	1,5	980	0,03
16	S	Bored	5	5	16	45	11	32	20	M4	35,0	5	12	2,9	±0,3	0,15	1,0	4500	0,06
16	M		49	17,0	15	15	15	32	20	M4	35,0	5	12	2,9	±0,5	0,20	1,5	3050	0,06
20	S	Bored	15	8	20	55	12	40	27	M5	43,5	6	14,5	6	±0,4	0,15	1,0	9600	0,12
20	M		62	215	19	19	19	40	27	M5	43,5	6	14,5	6	±0,6	0,20	1,5	6600	0,14
30	S	Flanged	35	10	30	63	17	55	33	M6	58	7	19	10	±0,5	0,20	1,5	17800	0,24
30	M		72	23	26	26	26	55	33	M6	58	7	19	10	±0,8	0,25	2,0	14800	0,31
38	S	Flanged	65	12	38	69	18	65	42	M8	72,5	9	25	25	±0,6	0,20	1,5	37400	0,35
38	M		81	25,5	30	30	30	65	42	M8	72,5	9	25	25	±0,8	0,25	2,0	24900	0,45
42	S	Flanged	95	14	42	84	24	70	46	M8	76,1	9	27	25	±0,6	0,20	1,5	54700	0,49
42	M		95	30	35	35	35	70	46	M8	76,1	9	27	25	±0,8	0,25	2,0	36500	0,52
45	S	Flanged	150	14	45	86,5	22,5	87	58	M10	89	11	30	49	±0,9	0,25	1,5	95800	0,82
45	M		103	32	39	39	39	87	58	M10	89	11	30	49	±1,0	0,30	2,0	64000	1,13
55	S	Hubs from steel welded to the bellow	340	20	55	111	31	100	73	M12	106	14	37	120	±1,0	0,25	0,25	144100	3,2
55	M		125	40	45	45	45	100	73	M12	106	14	37	120	±1,0	0,30	0,3	96100	3,3
65	S	Hubs from steel welded to the bellow	600	30	65	126	36	125	95	M14	127,2	15	45	185	±1,0	0,30	1,5	322740	5,5
65	M		142	45	52	52	52	125	95	M14	127,2	15	45	185	±2,0	0,35	2,0	226550	5,6

Transmittable friction torques T_R [Nm] of the clamping hub without keyway type 2.5

Size	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø14	Ø15	Ø16	Ø18	Ø19	Ø20	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø42	Ø45	Ø50	Ø55	Ø60	Ø65
7	0,84	0,91	0,97	1,04	1,10																									
9	1,87	1,98	2,09	2,20	2,31	2,41	2,52																							
12		3,48	3,65	3,81	3,98	4,14	4,31	4,48	4,64	4,81																				
16			8,5	8,8	9,1	9,4	9,7	9,9	10,2	10,5	11,1	11,4	11,7																	
20						17,6	18,1	18,6	19,1	19,5	20,5	21,0	21,4	22,4	22,9	23,3														
30									33,1	33,8	35,1	35,8	36,5	37,8	38,5	39,2	41,9	42,5	44,6	45,9										
38											79,2	80,4	81,7	84,2	85,4	86,6	91,6	92,8	96,5	99,0	102	105	109							
42											84,2	85,4	86,6	89,1	90,3	91,6	96,5	97,8	102	104	106	110	114	116	119					
45																157	165	167	173	177	181	187	193	197	200	206				
55 ⁵⁾																397	401	413	421	429	442	454	462	470	482	502	523			
65 ⁵⁾																				720	732	750	768	780	792	810	840	870	900	930

NEW

Ordering example:	TOOLFLEX® 30 M	2.5	Ø25	2.5	Ø30
	Coupling size	Hub design	Finish bore	Hub design	Finish bore

TOOLFLEX®

Metall bellow-type coupling

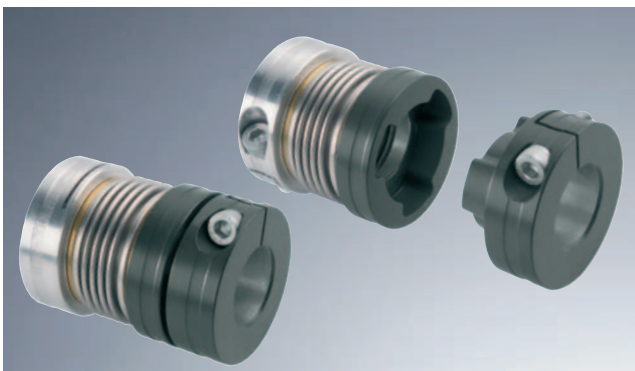
Miscellaneous types

Type KN



- Backlash-free, torsionally stiff
- Non-positive bellow-hub-connection
- For high friction torques
(consider mounting instruction KTR-N 458 10)
- Maintenance-free
- Good properties of concentric running with high speeds
- Maximum speed up to 40 m/s circumferential speed
- Size 30 - 55 available

Type PI



- Axial plug-in
- Backlash-free, torsionally stiff
- Suitable for high temperatures due to flanged insert connection
- Good resistance to corrosion due to bellow made of stainless steel and aluminium clamping hubs
- Optionally type M (6 section bellows)
 - higher perm. displacements
- or Type S (4 section bellows, short design)
 - higher torsion spring stiffness
 - low mass moment of inertia
- Size 20 - 45 available

Type CF



- Backlash-free, torsionally stiff
- Maintenance-free
- Non-positive bellow-hub-connection
- Suitable for high temperatures due to flanged insert connection (max. 200 °C)
- Available as type M (6 section bellows) and S (4 section bellows)
- Available as special design with 1, 2 or 3 section bellows
- Size 30 - 55 available


Type S and M with thread for setscrews

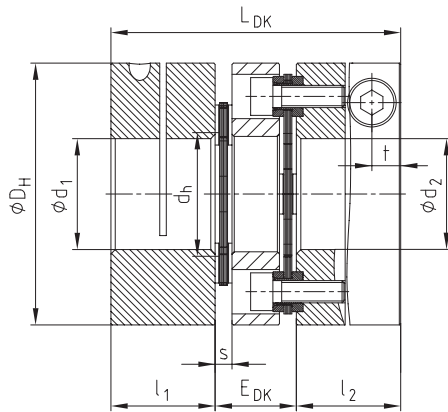


- Backlash-free, torsionally stiff
- Maintenance-free
- Low mass moment of inertia
- Easy assembly due to tolerance F7
- Temperature range for size 5 to 12: -30 °C to +100 °C
Temperature range for size 16 to 20: max. 200 °C
- Finish bore from Ø 6 mm also available with feather key acc. to DIN 6885 sheet 1 – JS9
- Size 5 - 20 available

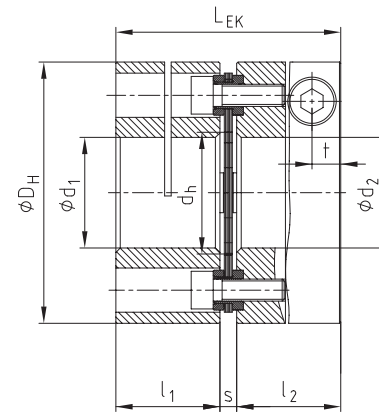
Standard types



- Backlash-free torque transmission
- Higher torsional rigidity
- Backlash-free shaft-hub-connection (for friction torques see KTR-N 47210)
- Low mass moment of inertia
- High speeds
- Operating temperature up to 200 °C
- Short Design
- Finish bore from Ø 6 mm also available with feather key acc. to DIN 6885 sheet 1 – JS9
-  Approved according to EC standard 94/9/EC (without feather key for category 3 only)



Type DK



Type EK

RADEX®-NC types DK and EK Hub and spacer material aluminium (size 42 steel) / laminas stainless steel

Size	Dimensions [mm]									Clamping screw		Mass moment of inertia	
	max. d ₁ /d ₂	D _H	l ₁ ;l ₂	L _{DK}	E _{DK}	L _{EK}	d _h	s	t	M	T _A [Nm]	DK [kgm ²]	EK [kgm ²]
5	12	26	12	34	10	26,5	12	2,5	3,5	M2,5	0,8	0,000004	0,000003
10	15	35	16	44	12	35	14,5	3	5,0	M4	3	0,000016	0,000012
15	20	47	21	55	13	45	19,5	3	6,8	M6	10	0,000065	0,000053
20	25	59	24	67	19	52	24	4	6,5	M6	10	0,000199	0,000154
25	35	70	32	88	24	69	30	5	9,0	M8	25	0,000508	0,000393
35	40	84	35	98	28	77	38	7	10,5	M10	49	0,001153	0,000911
42	55	104	40	116	36	91	48	11	10,5	M10	69	0,007458	0,006153

Technical data

Size	T _{KN} ¹⁾ [Nm]	T _{K max} ¹⁾ [Nm]	Max. speed [rpm]	Torsion. stiffness [Nm/rad]		Displacement type DK			Displacement type EK		
				Type EK	Type DK	Radial [mm]	Axial [mm]	Angular [°]	Radial [mm]	Axial [mm]	Angular [°]
5	2,5	5	25000	2400	1200	0,10	0,4	1	—	0,2	1
10	7,5	15	20000	5600	2800	0,14	0,8	1	—	0,4	1
15	20	40	16000	12000	6000	0,16	1,0	1	—	0,5	1
20	30	60	12000	30000	15000	0,25	1,2	1	—	0,6	1
25	60	120	10000	60000	30000	0,30	1,6	1	—	0,8	1
35	100	200	9000	72000	36000	0,40	2,0	1	—	1,0	1
42	180	360	7000	120000	60000	0,50	2,8	1	—	1,4	1

¹⁾ see company catalogue
 hub design 2.5 = clamping hub without feather keyway,
 hub design 2.6 = clamping hub with feather keyway

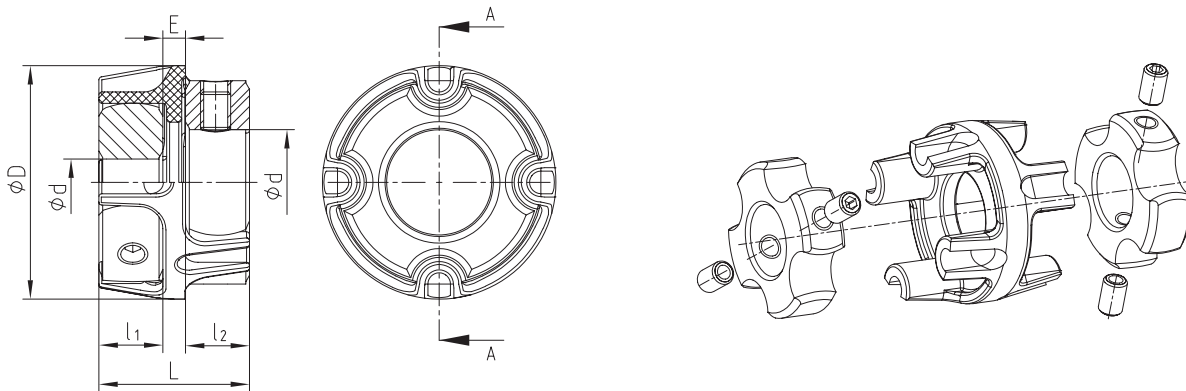
Ordering example:

RADEX®-NC 20	DK	Ø20	Ø25
Coupling size	Type	Finish bore	Finish bore

Double-cardanic for measuring drives



- Backlash-free shaft coupling for measurement drives with small torques
- 3-parted double-cardanic coupling
- Small dimensions - low flywheel mass
- Axial plug-in – easy blind assembly
- Available from stock with usual shaft dimensions
- Temperature range -40 °C to +160 °C
- Electric insulation
- Finish bore acc. to ISO fit H7, keyway from Ø 6 mm acc. to DIN 6885 sheet 1 - JS9
- Application up to a peripheral speed of 40 m/s (higher speeds on request)



COUNTEX® Hub material aluminium/spacer PEEK

Size	Torque [Nm]		Dimensions [mm]						Displacements			Torsion stiffness C_T [Nm/rad]	Radial stiffness C_R [N/mm]	Axial restoring force C_A [N]
	T_{KN}	$T_{Kmax.}$	min. d	max. d	D	l_1/l_2	E	L	radial ΔK_r [mm]	axial ΔK_a [mm]	angular ΔK_w [°]			
6	0,3	0,6	2	6	15	4	4	12	0,05	-0,3/+0,6	0,36	48	26	10
NEW 12	0,5	1,0	2	12	22	6	3,5	15,5	0,10	-0,5/+1,0	0,45	120	65	25
14	1,0	2,0	5	14	31	8	4	20	0,12	-0,5/+1,0	0,57	235	70	27

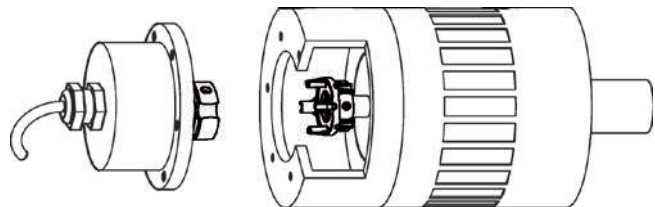
General description

COUNTEX® is a three-parted, backlash-free and torsionally stiff coupling mainly used in measuring and control technology. Its axial plug-in ability combined with the geometry of hubs results in a coupling system which has a short design and is easy to assemble. The material of the spacer is resistant to high temperatures ensuring almost continuous properties of the coupling system even with temperatures up to 160 °C.

Measuring and control technology

The measuring and control technology demands for a high torsion spring stiffness of the coupling in order to realize reproduceable positioning.

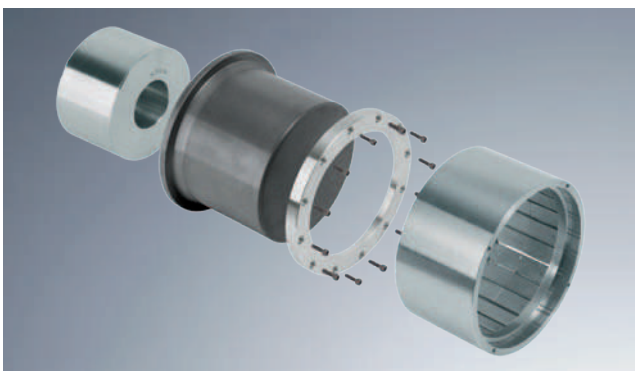
The torques that arise are relatively low so that a backlash-free, torsional stiff power transmission is achieved subject to the prestress. The double-cardanic principle of COUNTEX® reduces the restoring forces to a minimum.



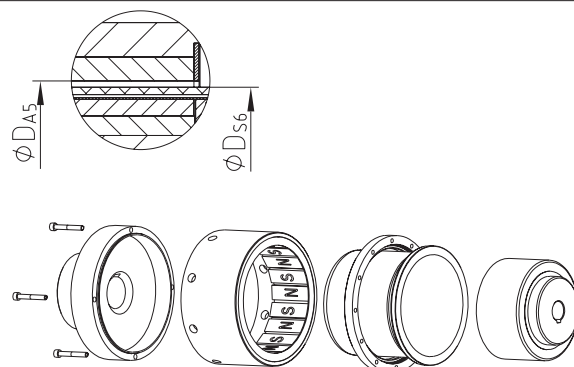
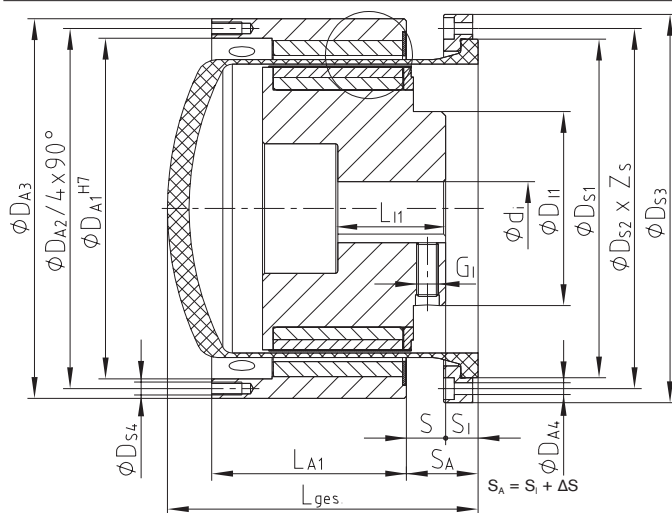
Ordering example:

COUNTEX® 14	Ø6,35	Ø10
Coupling size	Finish bore Ød ₁	Finish bore Ød ₂

Sizes SA 75/10 to SE 165/24 with containment shroud made of PEEK



- No eddy current losses and consequently no generation of heat in the coupling caused by the containment shroud
- Low susceptibility to fracture, low weight, easy handling
- Optimal solution with low demands on temperature and pressure resistance (up to 16 bar and 130 °C)
- Internal cooling measures are not required
- High energy efficiency and cost effectiveness
- The selection torque may be reduced by 10 - 15 %
- Suitable for dry-running drives like compressors and vacuum pumps, but also agitators, polyurethane plants, etc.



Optional flange hub with bore d_a External rotor Containment shroud with clamping ring Internal rotor

Containment shroud size 75 also available as a one-piece design!

Technical data – Internal rotor and containment shroud

Size	$T_{K,max.}$ [Nm] with ~ 20 °C	Dimensions [mm]												
		Internal rotor						Containment shroud						
		Finish bore ¹⁾ d_i		D_{I1}	L_{I1}	S_i		G_i	D_{S1}	D_{S2}	D_{S3}	D_{S4}	D_{S5}	Z_s
min.	max.	min.	max.											
SA 75/10	10				39,5	7,5	54,5							
SB 75/10	24	12	28	45	58	7,5	35,5	M6	100	115	135	9,0	72,1	8
SC 75/10	40				80	5,5	13,5							
SA 110/16	30				45		45,0							
SB 110/16	70	14	55	80	65	4,0	25,0	M8	140	151	168	9,0	109,3	12
SC 110/16	100				85		5,0							
SB 135/20	110				65		48,0							
SC 135/20	155	20	70	90	85	4,0	28,0	M10	157	167	180	5,5	133,9	12
SD 135/20	210				110		4,0							
SC 165/24	220				85		32,0							
SD 165/24	300	24	90	110	110	4,0	8,0	M12	196	210	225	6,6	163,8	12
SE 165/24	390				130	0,0	0,0							

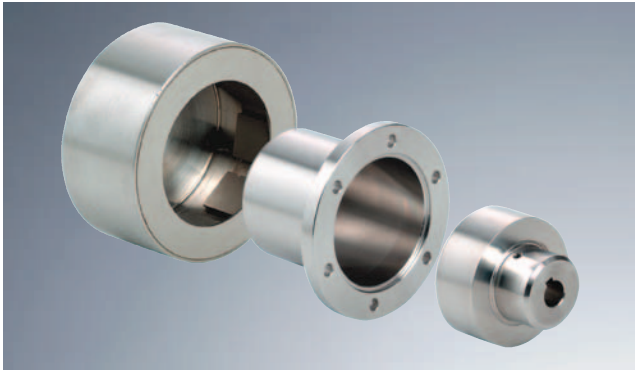
Technical data – External rotor and general


Size	Dimensions [mm]								
	External rotor						General		
	D_{A1}	D_{A2}	D_{A3}	D_{A4}	L_{A1}	ΔS	D_{S6}	D_{A5}	$L_{ges.}$
SA 75/10					41	12,5			
SB 75/10	90	100	110	M6	61		75,1	76,5	108
SC 75/10					83,5	14,5			
SA 110/16					41				
SB 110/16	130	138	150	M6	61	19	113,2	115,7	115
SC 110/16					81				
SB 135/20					70				
SC 135/20	158	167	176	M6	90	18,5	138,2	141,9	144
SD 135/20					110	21			
SC 165/24					90	18			
SD 165/24	182	191	200	M6	110		168,3	172,0	156
SE 165/24					130	21			160

Bore H7 with keyway to DIN 6885 sheet 1 [JS9]

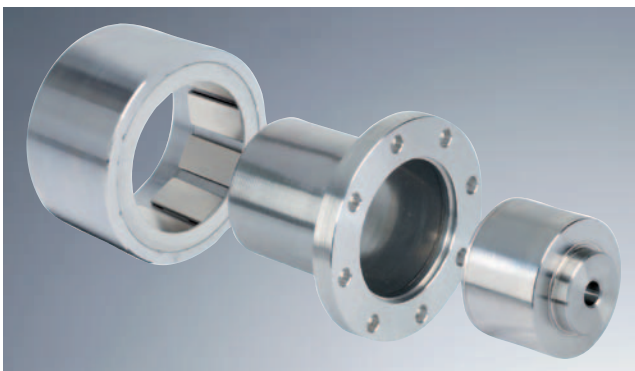
Ordering example:	MINEX® SB 75/10	NdFeB	$d_i \varnothing 20\text{mm}$	$d_a \varnothing 24\text{mm}$	PEEK
	Coupling size	NdFeB – $t_{max.} = 150 \text{ °C}$ Sm2Co17 – $t_{max.} = 300 \text{ °C}$	Finish bore (H7), feather keyway according to DIN 6885 sheet 1 (JS9).		Containment shroud type


Sizes SA 22/4 to SB 60/8 with containment shroud made of stainless steel



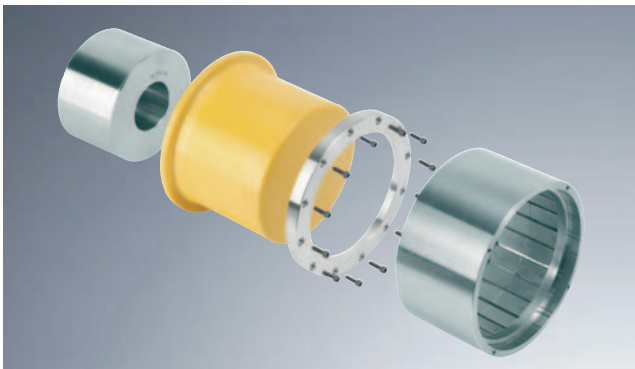
- Contactless torque transmission
- Hermetic separation of driving and driven side
- Containment shroud made of stainless steel 1.4571
- Available from stock with pilot bored internal rotor and unbored external rotor
- Finish bore available according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9.
-  Approved according to EC standard 94/9/EC
- Mounting instructions at www.ktr.com


Sizes SA 75/10 to SF 250/38 with containment shroud made of stainless steel or Hastelloy



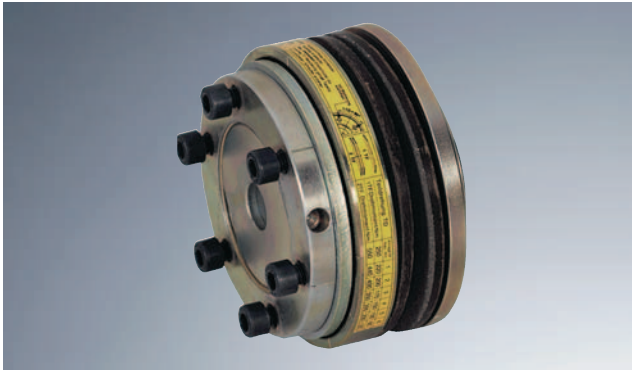
- Contactless torque transmission
- Hermetic separation of driving and driven side
- Optionally containment shroud made of stainless steel 1.4571 or Hastelloy
- Two-piece external rotor with flange hub that must be separately screwed, customized variations are possible
- Available from stock with pilot bored internal rotor
- Finish bore available according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9.
-  Approved according to EC standard 94/9/EC

Sizes SA 110/16 to SE 200/30 with containment shroud made of oxide ceramics

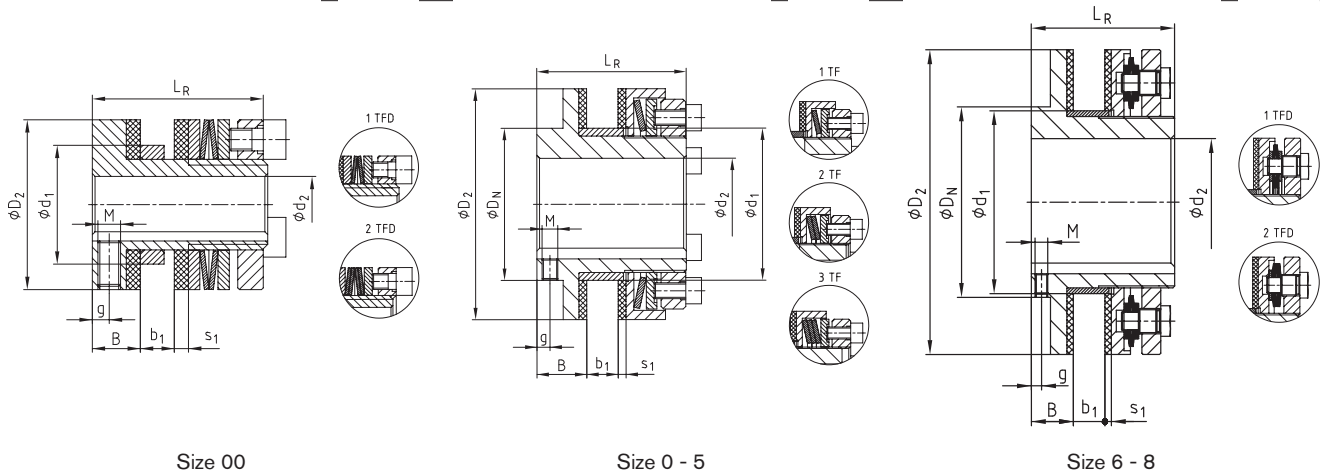


- No eddy current losses and consequently no generation of heat in the coupling caused by the containment shroud
- Suitable for higher demands on temperature and pressure resistance (up to 25 bar and 300 °C)
- Internal cooling measures are usually not required
- High energy efficiency and cost effectiveness
- The selection torque may be reduced by 10 - 15 %
- Suitable for dry-running drives like compressors and vacuum pumps, but also agitators, polyurethane plants, etc.
- Sizes SA 110/16 to SE 200/30 available from stock, other sizes on request
-  Approved according to EC standard 94/9/EC

Standard RUFLEX®



- Torque limiter for a torque range up to 6800 Nm
- Standard RUFLEX® zinc-coated and passivated
- Torque setting possible while in place
- Asbestos-free and rust-resistant friction linings
- Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9.
- Securing of the setting nut by locking in 12 different positions
- All components are made of high-quality steel



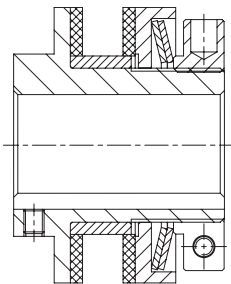
Size 00

Size 0 - 5

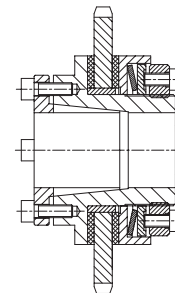
Size 6 - 8

Technical data																
Size	Max. speed [rpm]	Torques [Nm]			Dimensions [mm]											
					Bore d^2		D_2	D_N	$d_1^{2)}$	B	Driving part b^1		S_1	L_R	Setscrew	
		pilot b.	max.	min.	max.	g					M					
00	10000	0,5-3	1-5	-	-	10	30	30	21	8,5	2	6	2,5	31	3	M4
0	8500	2-10	4-20	-	-	20 ¹⁾	45	45	35	8,5	2	6	2,5	33	3	M4
01	6600	5-35	10-70	-	-	22	58	40	40	16	3	8	3	45	4	M5
1	5600	20-75	40-150	130-200	-	25	68	45	44	17	3	10	3	52	5	M5
2	4300	25-140	50-280	250-400	-	35	88	58	58	19	4	12	3	57	5	M6
3	3300	50-300	100-600	550-800	-	45	115	75	72	21	5	15	4	68	5	M6
4	2700	90-600	180-1200	1100-1600	-	55	140	90	85	23	6	18	4	78	5	M8
5	2200	400-800	800-1600	1400-2100	-	65	170	102	98	29	8	20	5	92	8	M8
6	1900	300-1200	600-2400	-	38	80	200	120	116	31	8	23	5	102	8	M8
7	1600	600-2200	1200-4400	-	45	100	240	150	144	33	8	25	5	113	8	M10
8	1300	900-3400	1800-6800	-	58	120	285	180	170	35	8	25	5	115	8	M10

Finish bore exceeding $\phi 19$, keyway to 6885 sheet 3
Bore tolerance (driving component): F8 with size 00-4, H8 with size 5-8
to be used on design with limited dimensions only



- with clamping setting nut
- for radial torque setting



- with taper bush (hub design 4.5)
- frictionally engaged shaft-hub-connection

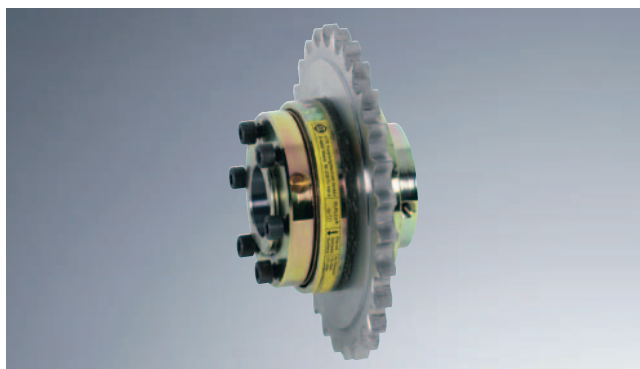
Ordering example:	RUFLEX®	1	2TF	$\phi 10$	$\phi 20$
	Type	Size	Disk spring layer	Width of driving components	Finish bore d_2

RUFLEX®

Torque limiter

Miscellaneous types

RUFLEX® with sprocket



- RUFLEX® torque limiter with sprocket mounted
- Available from stock with standard sprocket (see table below)
- Other types of sprockets on request
- Complete unit with torque pre-set
- On request also available from stainless material
- Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9.

RUFLEX® max.



- RUFLEX® for assemblies with wide driving components
- E. g. double and triple sprockets
- Detailed adjustment to the customer's dimensions possible
- Also available as a complete unit with sprocket
- Other sizes of RUFLEX® max. on request
- Please mention the width of driving component „b“ in your order
- Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9.

RUFLEX® with torsionally flexible ROTEX®



- RUFLEX® with ROTEX® as shaft-to-shaft-connection
- Torsionally flexible torque limiter
- Axial plug-in
- Able to compensate for misalignment
- Various kinds of elastomer hardness available
- Torque can be set while in place
- Easy assembly
- Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9.

RUFLEX® with torsionally rigid BoWex®



- RUFLEX® with BoWex® as shaft-to-shaft-connection
- Torsionally rigid safety clutch
- Axial plug-in
- Double-cardanic, able to compensate for misalignment
- For simple drives (low speeds, etc.)
- Easy assembly
- Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9.