

Cross section of KTR products

Couplings

Torque Limiter

Clamping Elements

Hydraulic Components

Hydraulic Brakes

Made for Motion



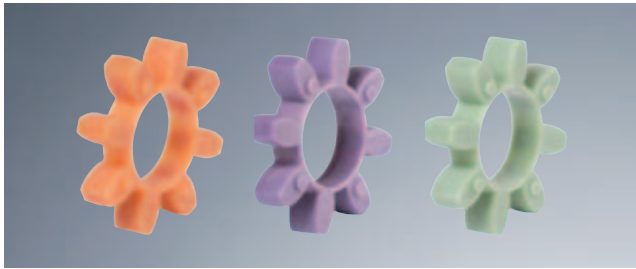
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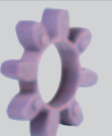
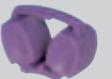
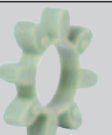
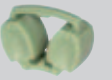




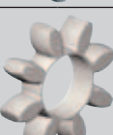

ROTEX® spiders – new spider material T-PUR®



We have developed a new standard material for our spiders. This improved polyurethane material, T-PUR®, is resistant to considerably higher temperatures and has a significantly longer service life than the previous polyurethane. From a 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). Of course, the previous polyurethane spiders in the colours yellow, red and natural white with green tooth marking continue to be available. Up to size ROTEX® 90 inclusive single-parted spiders are used. For ROTEX® couplings from

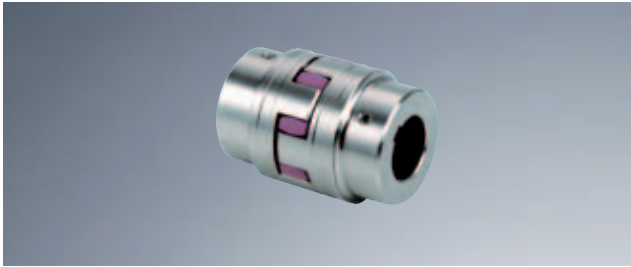
size 100 to 180 the spider consists of the tooth segments DZ as a standard. Optionally the single-parted spider continues to be available in these sizes, too.

Summary of spiders

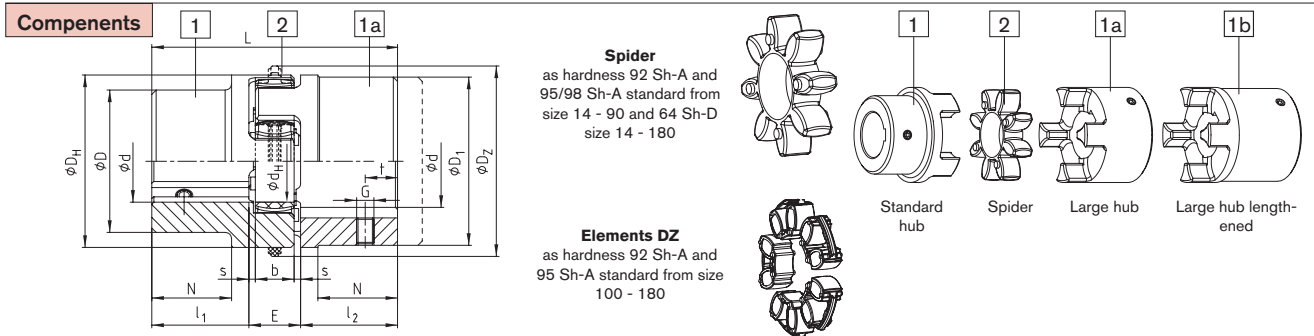
Summary of spiders						
Colour		Description of Shore hardness	Material	Perm. temperature range (°C)		Properties
				Perm. temperature	Short-term temp.	
		92 Sh-A (T-PUR®)	T-PUR®	-50 °C to 120 °C	-50 °C to 150 °C	<ul style="list-style-type: none"> – significantly higher service life expectancy – very 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	<ul style="list-style-type: none"> – good damping, average flexibility
		98 Sh-A	Polyurethane (PUR)	-30 °C to 90 °C	-40 °C to 120 °C	<ul style="list-style-type: none"> – transmission of high torques with average damping
		64 Sh-D	Polyurethane (PUR)	-30 °C to 110 °C	-30 °C to 130 °C	<ul style="list-style-type: none"> – transmission of very high torques with low damping – suitable to shift critical speeds
		Spider from wire	Stainless steel	up to +250 °C	–	<ul style="list-style-type: none"> – torque transmission with average damping – resistant to high temperatures – very good resistance to chemicals – resistant to hydrolysis – technical data according to 98 Sh-A
		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

ROTEX® type 001



- Torsionally flexible, maintenance-free
- Damping vibrations
- Fail-safe, axial plug-in
- High variation of components/individual adaptation possible
- Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9
- Approved according to EC Standard 94/9/EC (without aluminium AL-D)
- Mounting instruction/further information available at www.ktr.com



ROTEX® type 001																
Size	Component	Spider (part 2) ¹⁾ Rated torque [Nm]			Material/max. bore diameter Ød [mm]					Dimensions in general [mm]						
		92 Sh-A	95/98 Sh-A	64 Sh-D ²⁾	Al-D	GJL (GG)	GJS (GGG)	Steel	powder metal	L	l ₁ ; l ₂	E	s	D _H ³⁾	D; D ₁ ³⁾	D _Z
14	1a	7,5	12,5	16	16 ⁴⁾			16	16	35	11	13	1,5	30	30	—
	1b									50	18,5					
	1				19					66	25				32	
	1a	10	17	21	24			25	24	90	37	16	2,0	41 (40)	41 (40)	—
	1b									90	37					
	1				24					78	30				40	
24	1a	35	60	75	28			35		118	50	18	2,0	56 (55)	56 (55)	—
	1b															
	1				28					90	35				48	
	1a	95	160	200	38			40		140	60	20	2,5	66 (65)	66 (65)	—
	1b															
	1					40		48		114	45				66 (70)	
38	1a	190	325	405		48		48		164	70	24	3,0	80	78 (80)	—
	1b															
	1					45		55		126	50				75 (85)	
	1a	265	450	560		55				176	75	26	3,0	95	94 (95)	—
	1b							55								
	1					52		62		140	56				85 (95)	
48	1a	310	525	655		62		62		188	80	28	3,5	105	104 (105)	—
	1b							62								
	1					60		74		160	65				98 (110)	
	1a	410	685	825		74				210	90	30	4,0	120	118	—
	1b							74							120	
	1					70		80		185	75	35	4,5	135	115	—
65	1b	625	940	1175						235	100				135	
	1					80		95		210	85	40	5,0	160	135	—
75	1b	1280	1920	2400						260	110				160	
	1					97		110		245	100	45	5,5	200	160	218
90	1b	2400	3600	4500						295	125				200	
	1	3300	4950	6185			115			270	110	50	6,0	225	180	246
110	1	4800	7200	9000			125			295	120	55	6,5	255	200	276
125	1	6650	10000	12500			145			340	140	60	7,0	290	230	315
140	1	8550	12800	16000			160			375	155	65	7,5	320	255	345
160	1	12800	19200	24000			185			425	175	75	9,0	370	290	400
180	1	18650	28000	35000			200			475	195	85	10,5	420	325	450

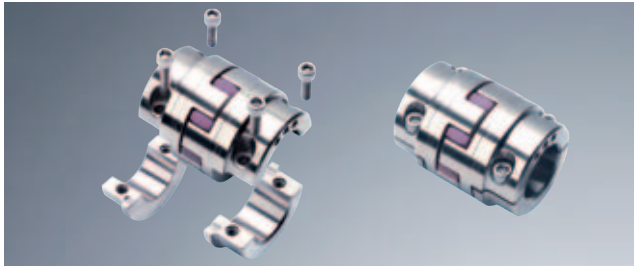
¹⁾ Maximum torque of the coupling T_{Kmax} = rated torque of the coupling T_{KNom} x 2.

²⁾ 64 Sh-D spider not with Al-D/GJL (GG) hubs

³⁾ Values for steel hubs and sintered steel hubs in brackets

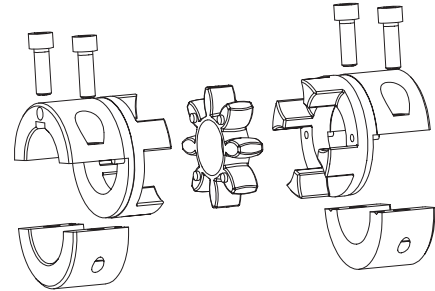
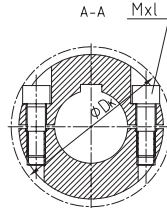
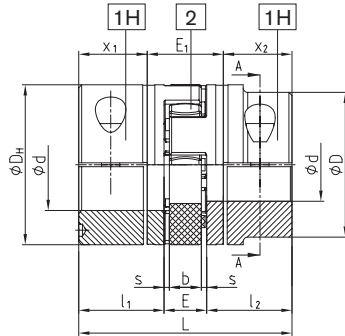
⁴⁾ Material Al-H

ROTEX® type A-H



- Assembly/disassembly by means of 4 screws only
- Replacement of spider with no need to shift the driving and driven side (motor and pump)
- Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9
- Approved according to EC Standard 94/9/EC (type 7.8 shell clamping hub without feather key according to category 3)
- Mounting instruction/further information available at www.ktr.com

Components

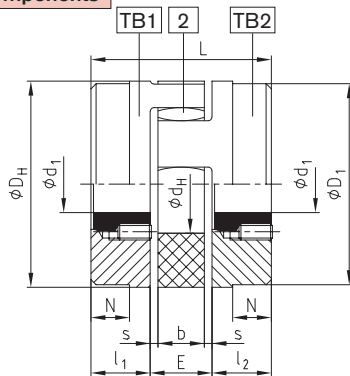


¹⁾ From size 100: 4 clamping screws for each clamping hub.

ROTEX® type A-H

Size	Component	max. finish bore d [mm]	Dimensions [mm]											Cyl. screw DIN EN ISO 4762 – 12.9	
			L	l ₁ ; l ₂	E	b	s	D _H	D	D _{K1}	x1/x ₂	E ₁	MxL	T _A [Nm]	
19	1H	20	66	25	16	12	2,0	40	-	46,0	17,5	31	M6x16	14	
24	1H	28	78	30	18	14	2,0	55	-	57,5	22,5	33	M6x20	14	
28	1H	38	90	35	20	15	2,5	65	-	73,0	25,5	39	M8x25	35	
38	1H	45	114	45	24	18	3,0	80	-	83,5	35,5	43	M8x30	35	
42	1H	55	126	50	26	20	3,0	95	85	97,0	39,0	48	M10x30	69	
48	1H	60	140	56	28	21	3,5	105	95	108,5	45,0	50	M12x35	120	
55	1H	70	160	65	30	22	4,0	120	110	122,0	50,0	60	M12x40	120	
65	1H	80	185	75	35	26	4,5	135	115	132,5	60,0	65	M12x40	120	
75	1H	90	210	85	40	30	5,0	160	135	158,0	67,5	75	M16x50	295	
90	1H	110	245	100	45	34	5,5	200	160	197,0	81,5	82	M20x60	580	
100 ¹⁾	1H	110	270	110	50	38	6,0	225	180	185,5	84,0	102	M16x50	295	
110 ¹⁾	1H	120	295	120	55	42	6,5	255	200	208,0	90,0	119	M20x60	580	
125 ¹⁾	1H	140	340	140	60	46	7,0	290	230	242,5	105,0	130	M24x70	1000	

Components



ROTEX® type No. 001 with taper clamping bush

Size	Taper clamping bush	Dimensions [mm]										Fixing screw for taper clamping bushes			
		l ₁ ;l ₂	E	s	b	L	N	D _H	D ₁	d _H	Size [Inch] ²⁾	Length [mm]	Number	T _A [Nm]	
24	1008	23	18	2,0	14	64	—	55	55	27	1/4"	13	2	5,7	
28	1108	23	20	2,5	15	66	—	65	65	30	1/4"	13	2	5,7	
38	1108	23	24	3,0	18	70	15	80	78	38	1/4"	13	2	5,7	
42	1610	26	26	3,0	20	78	16	95	94	46	3/8"	16	2	20	
48	1615	39	28	3,5	21	106	28	105	104	51	3/8"	16	2	20	
55	2012	33	30	4,0	22	96	20	120	118	60	7/16"	22	2	31	
65	2012	33	35	4,5	26	101	19	135	115	68	7/16"	22	2	31	
75	2517	52	40	5,0	30	144	36	160	158	80	1/2"	25	2	49	
	5/8"										32	92			
90	3020	52	45	5,5	34	149	33	200	160	100	5/8"	32	2	92	
125	3535	90	60	7,0	46	288	86	230	290	147	1/2"	49	3	113	
	3/4"										192				

¹⁾ BSW thread

²⁾ Only available for design TB 2

Coupling type TB 1/1; TB 2/2; TB 1/2 possible Please order our separate dimension sheet (M 373054).

Further types



ROTEX® SBAN
Shaft coupling with disk for braking caliper



ROTEX® CF
Short design
Connection flange/shaft



ROTEX® DKM
Compensating for extremely big shaft misalignments,
Easy assembly
Small shaft distance dimension



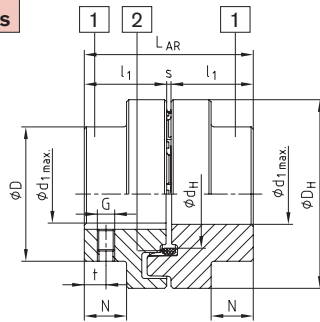
ROTEX® ZR
to bridge very big shaft distances, shaft distance dimension as per customer's details

POLY-NORM® type AR and ADR

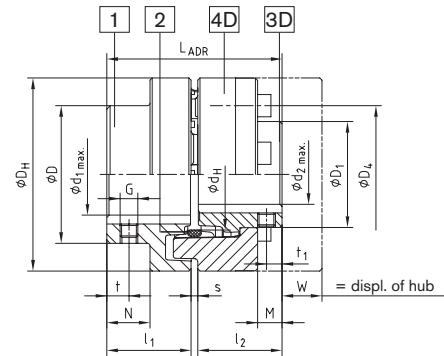


- Torsionally flexible, reduces vibrations
- Fail-safe
- Maintenance-free
- Very short design
- Axial plug-in
- According to DIN 740
- Finish bore according to ISO fit H7, feather keyway according to DIN 6885 sheet 1 - JS9
- Approved according to EC Standard 94/9/EC
- Mounting instruction/further information available at www.ktr.com

Components



Type AR (2-part design)



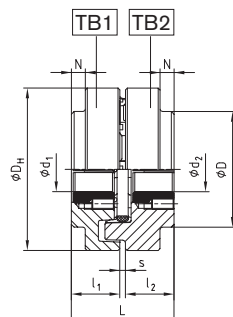
Type ADR (3-part design), Elastomer to be replaced while being assembled

POLY-NORM® Type AR and Type ADR																		
Size	Elastomerring (part 2)		max. finish bore		Dimensions [mm]													
	Torque ¹⁾ [Nm]		d1 max. d2 max.															
	T _{KN}	T _{Kmax.}	d1 max.	d2 max.	L _{AR}	L _{ADR}	l ₁ ; l ₂	s	D _H	d _H	D	D ₄	D ₁	N	G	t	t ₁	T _A [Nm]
28	40	80	30	—	59	—	28	3	69	36,5	46	—	—	12	M5	7	—	2
32	60	120	35	—	68	—	32	4	78	41,5	53	—	—	14	M8	7	—	10
38	90	180	40	34	80	80	38	4	87	50,0	62	62	48	19,5	M8	10	7	10
42	150	300	45	38	88	88	42	4	96	55,5	69	69	54	20	M8	10	7	10
48	220	440	50	44	101	101	48	5	106	64	78	78	62	24	M8	15	7	10
55	300	600	60	50	115	115	55	5	118	73	90	88	72	29	M8	14	14	10
60	410	820	65	56	125	125	60	5	129	81	97	98	80	33	M8	15	15	10
65	550	1100	70	60	135	135	65	5	140	86	105	104	86	36	M10	20	20	17
75	850	1700	80	68	155	155	75	5	158	100	123	120	98	42,5	M10	20	20	17
85	1350	2700	90	78	175	175	85	5	182	116	139	138	112	48,5	M10	25	25	17
90	2000	4000	95	85	185	185	90	5	200	128	148	149	122	49	M12	25	25	40
100	2900	5800	110	95	206	206	100	6	224	143	165	163	136	55	M12	25	25	40
110	3900	7800	50-120	105	226	226	110	6	250	158	185	183	150	60	M16	30	30	80
125	5500	11000	55-140	115	256	256	125	6	280	178	210	202	168	70	M16	35	35	80
140	7200	14400	65-155	55-135	286	286	140	6	315	216	235	237	195	76,5	M20	35	35	140
160	10000	20000	75-175	65-155	326	326	160	6	350	246	265	267	225	94,5	M20	45	45	140
180	13400	26800	75-200	65-175	366	366	180	6	400	290	300	304	255	111,5	M20	50	50	140

¹⁾ Standard material perbutane (NBR) 78 Shore-A, size 140 - 180 double tooth elastomers (DZ-elements)

²⁾ Bore H7 with keyway DIN 6885 sheet 1 [JS9] and threads for setscrews on the feather keyway.

Components



POLY-NORM® with taper clamping sleeve																
Size	Taper clamping bush	Dimensions [mm]		Fixing screws ¹⁾ for taper clamping sleeve				Size	Taper clamping bush	Dimensions [mm]		Fixing screws ¹⁾ for taper clamping sleeve				
		max. d1; d2	l ₁ ; l ₂	Size [Inch]	Length [mm]	SW [mm]	T _A [Nm]			max. d1; d2	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		3030	75	82,0	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 fixing screws, except for 3535/4040 3 fixing screws.

Coupling design

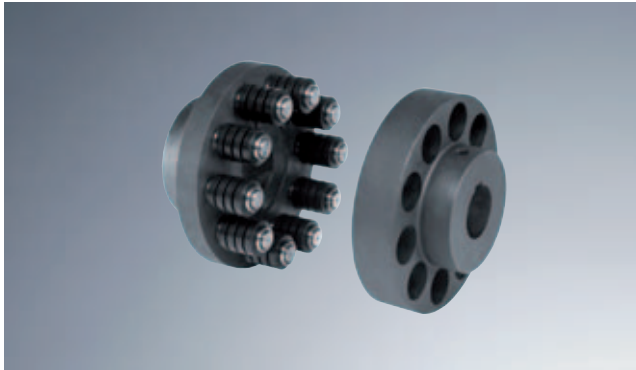
TB 1 Cam-sided screwing

TB 2 Collar-sided screwing

Combination possible!

Please order our separate data sheet M407045.

REVOLEX® KX-D and REVOLEX® KX



- Torsionally flexible, maintenance-free
- Damping vibrations
- Radial assembly/disassembly
- Axial plug-in, Fail-safe
- Machines all over -> good dynamical features
- Short design
- Approved according to EC Standard 94/9/EC

KX-D

- Pins are installed reciprocally, symmetric arrangement of pin and bush hub
- Increased torque transmission
- Mounting instruction/further information available at www.ktr.com

Components

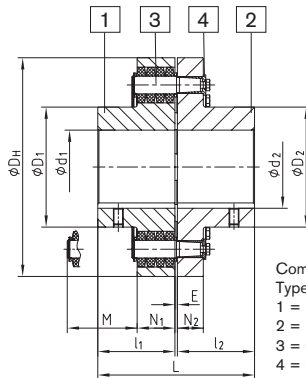
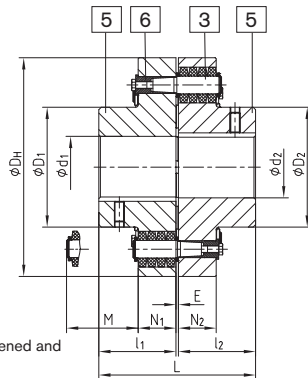
Components

Type KX-D

5 = Hub part 5

3 = Complete pin

6 = KX-D sleeve (hardened and corrosion-resistant)



Components

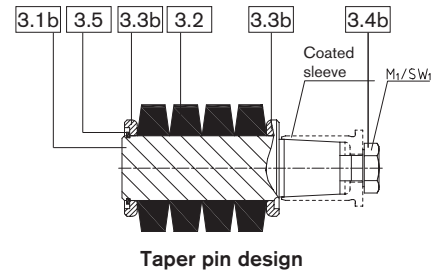
Type KX

1 = Hub part 1 (Bush)

2 = Hub part 2 (Pin)

3 = Complete pin

4 = KX sleeve (hardened and corrosion-resistant)



Taper pin design

REVOLEX® KX-D ³⁾

Size	Torque ¹⁾ [Nm]		Finish bore [mm] (min. - max.)	Dimensions [mm]							Screw tightening torque T _A [Nm]	Approx. weight ²⁾ [kg]
	T _{KN}	T _{Kmax}		d ₁ ; d ₂	L	l ₁ ; l ₂	E	D _H	D ₁ ; D ₂	N ₁ ; N ₂	M*	
KX-D 75	3800	7600	0-90	193	95	3	225	136	56	76	67	39
KX-D 85	5000	10000	0-100	213	105	3	274	152	56	76		46
KX-D 95	6600	13200	0-110	227	112	3	298	168	56	76		56
KX-D 105	8650	17300	0-120	237	117	3	330	180	56	76		68
KX-D 120	14110	28220	0-140	270	132	6	370	206	76	100	115	108
KX-D 135	18690	37380	70-160	300	147	6	419	230	76	100		145
KX-D 150	23100	46200	82-185	336	165	6	457	256	76	100		180
KX-D 170	36900	73800	95-220	382	188	6	533	292	92	130		291
KX-D 190	48210	96420	110-245	428	211	6	597	330	92	130	290	385
KX-D 215	61900	123800	125-275	480	237	6	660	368	92	130		498
KX-D 240	92030	184060	140-310	534	264	6	737	407	122	170		760
KX-D 265	121900	243800	160-350	590	292	6	826	457	122	170		997
KX-D 280	158800	317600	180-385	628	311	6	927	508	122	170	970	1301
KX-D 305	191060	382120	180-405	654	324	6	991	533	122	170		1509
KX-D 330	251200	502400	200-435	666	330	6	1067	572	122	170		1755
KX-D 355	299100	598200	225-465	718	356	6	1156	610	122	170		2275
KX-D 370	377800	755600	225-550	770	382	6	1250	720	122	170	1950	2853
KX-D 470	545000	1090000	240-470	969	480	9	1313	705	164	220		3775
KX-D 520	740000	1480000	240-520	1089	540	9	1501	780	164	220		5155
KX-D 590	970000	1940000	260-590	1212	600	12	1685	885	164	330		6895
KX-D 650	1220000	2440000	280-650	1332	660	12	1869	975	164	220		8893

REVOLEX® KX ⁴⁾

Size	Torque ¹⁾ [Nm]		Finish bore [mm] (min. - max.)	Dimensions [mm]										Screw tightening torque T _A [Nm]	Approx. weight ²⁾ [kg]
	T _{KN}	T _{Kmax}		d ₁	d ₂	L	l ₁ ; l ₂	E	D _H	D ₁	D ₂	N ₁	N ₂	M*	
KX 105	6485	12970	34-110	34-125	237	117	3	330	180	202	56	30	76	67	62
KX 120	10080	20160	50-125	50-145	270	132	6	370	206	232	76	46	100		96
KX 135	14030	28060	70-140	70-150	300	147	6	419	230	240	76	46	100	115	123
KX 150	17960	35920	82-160		336	165	6	457	256	260	76	46	100		162
KX 170	26360	52720	95-180		382	188	6	533	292	292	92	63	130		273
KX 190	36160	72320	110-205		428	211	6	597	330	330	92	63	130	290	360
KX 215	48160	96320	125-230		480	237	6	660	368	368	92	63	145		465
KX 240	65740	131480	140-250		534	264	6	737	407	407	122	76	167		695
KX 265	91480	182960	160-285		590	292	6	826	457	457	122	76	170		910
KX 280	123530	247060	180-315		628	311	6	927	508	508	122	76	189	970	1183
KX 305	152840	305680	180-330		654	324	6	991	533	533	122	76	202		1369
KX 330	188470	376940	200-355		666	330	6	1067	572	572	122	76	208		1598

¹⁾ Drop-out center dimension

²⁾ Standard material NBR 80 Shore-A

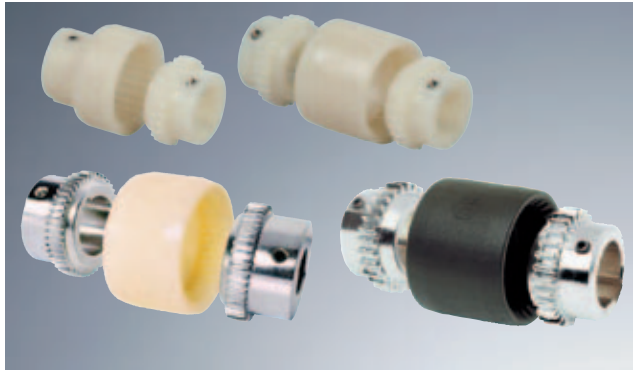
³⁾ Relating to max. bore

⁴⁾ Material: cast iron / steel

⁵⁾ Material: cast iron

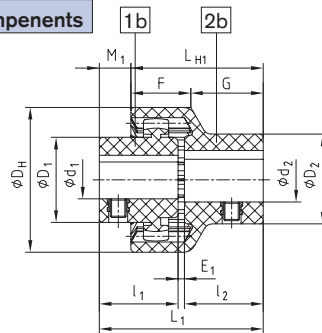
Finish bore acc. to ISO fit H7, feather key acc. to DIN 6885 sheet 1 - JS9.

BoWex® Type plug-in coupling, type junior M, type M and type M...C

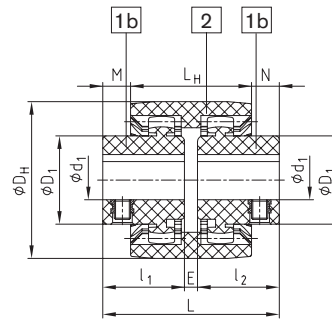


- Curved-tooth gear coupling plug-in design (2 parts) and double cardanic curved-tooth gear coupling junior M (3 parts) from nylon, type M from steel
- Maintenance-free, operating range -25 °C to +100 °C
- Compensating for shaft misalignment, Axial plug-in – easy assembly
- Finish bore for standard shafts including keyway acc. to DIN 6885 sh. 1 and thread for setscrews, bore tolerances junior -0,1 to +0,05, feather key +0,08, H7 fit and keyway tolerance JS9 only with steel/powder metal steel
- ☒ Type M...C with carbon fiber reinforced PA up to size M-65C, low backlash, higher torques and approved according to EC Standard 94/9/EC (Explosion Certificate ATEX 95)

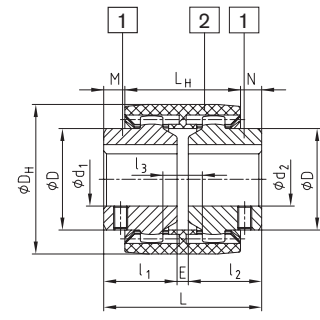
Components



Type junior plug-in coupling (2 parts)



Type junior M coupling (3 parts)



Type M
☒ Type M...C

Technical data BoWex® junior

Size	Torque [Nm]		Finish bore [mm]				Dimensions [mm]												max. speed [rpm]
	T _{KN}	T _{Kmax.}	Hub part 1b		Plug-in sleeve part 2b		D _H	l ₁ ; l ₂	E ₁	L ₁	L _{H1}	M ₁	F	G	E	L	L _H	M; N	
BoWex® junior 14	5	10	Ø6, Ø7, Ø8, Ø9	22	Ø8	22	40	23	2	48	40	8	18,5	21,5	4	50	37	6,5	6000
BoWex® junior M-14			Ø10, Ø11	25	Ø10, Ø11	25													
			Ø12, Ø14	26	Ø12, Ø14	26													
BoWex® junior 19	8	16	Ø12, Ø14	27	Ø14, Ø15	29	47	25	2	52	42	10	19,0	23,0	4	54	37	8,5	6000
BoWex® junior M-19			Ø16	30	Ø16	30													
			Ø19	32	Ø19	35													
BoWex® junior 24	12	24	Ø10, Ø11, Ø12	26	Ø14, Ø16	32	53	26	2	54	45	9	21,5	23,5	4	56	41	7,5	6000
BoWex® junior M-24			Ø14, Ø15, Ø16	32	Ø14, Ø16	32													
			Ø18, Ø19, Ø20	36	Ø19, Ø20	36													
			Ø24	38	Ø24	40													


Technical data BoWex® M and BoWex® type M...C

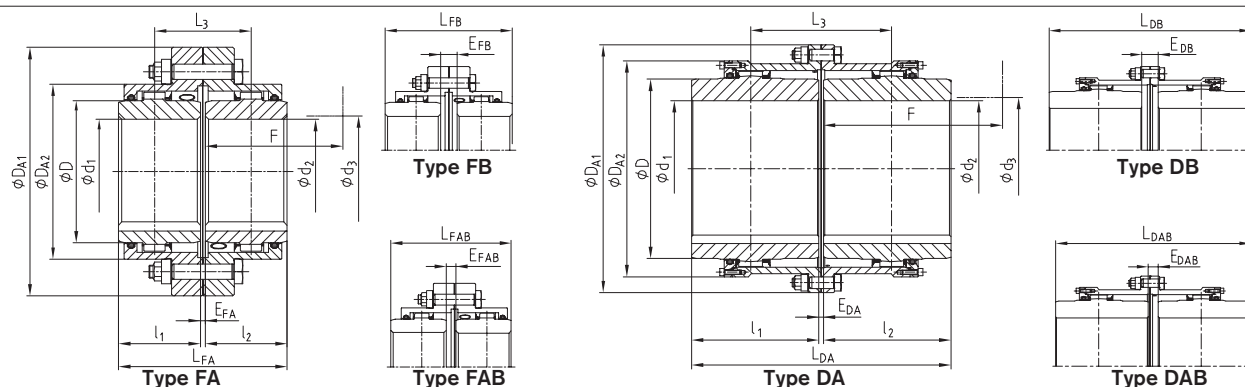
Size	☒	Torque [Nm] Type M		Torque [Nm] Type M...C		Pilot bored	max. finish bore d1; d2	Dimensions [mm]							Lengthened l ₁ ; l ₂	max. speed [rpm]
		T _{KN}	T _{Kmax.}	T _{KN}	T _{Kmax.}			l ₁ ; l ₂	E	L	L _H	M; N	D	D _H		
M-14	M-14C	10	30	15	45	–	15	23	4	50	37	6,5	25	40	40	14000
M-19	M-19C	16	48	24	72	–	20	25	4	54	37	8,5	32	47	40	11800
M-24	M-24C	20	60	30	90	–	24	26	4	56	41	7,5	36	53	50	10600
M-28	M-28C	45	135	70	210	–	28	40	4	84	46	19	44	65	55	8500
M-32	M-32C	60	180	90	270	–	32	40	4	84	48	18	50	75	55	7500
M-38	M-38C	80	240	120	360	–	38	40	4	84	48	18	58	83	60	6700
M-42		100	300			–	42	42	4	88	50	19	65	92	60	6000
M-48	M-48C	140	420	200	600	–	48	50	4	104	50	27	68	95	60	5600
M-65	M-65C	380	1140	560	1680	21, 70 lg.	65	55	4	114	68	23	96	132	70	4000
I-80		700	2100			31	80	90	6	186	93	46,5	124	178	–	3150
I-100		1200	3600			38	100	110	8	228	102	63	152	210	–	3000
I-125		2500	7500			45	125	140	10	290	134	78	192	270	–	2120

Thread for setscrew

Size	Thread	Distance from shaft end [mm]	Size	Thread	Distance from shaft end [mm]	Size	Thread	Distance from shaft end [mm]
14 – 24	M5	6	65 l1=55	M10	15	80	M10	20
28 – 48	M8	10	65 l1=70	M10	20	100	M12	30
BoWex® M14 to M24 – opposite the keyway / BoWex® M28 to I-125 – on the keyway						125	M16	40

Type M Hubs (part 1) made of powder metal steel / Type I Hubs (part 1) made of steel

- 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, feather key according to DIN 6885 sheet 1, taper and inch bores
- For horizontal assembly
- Higher torques to be realized by special materials
- Type FA, FB and FAB:  Standard 94/9/EC (Explosion Certificate ATEX 95)
- Mounting instruction/further information available at www.ktr.com

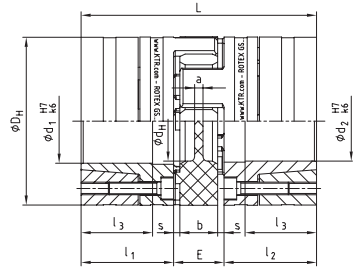
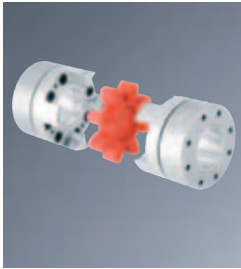


GEARex® type FA, type FB, type FAB, type DA, type DB and type DAB																					
Size	max. finish bore [mm]	Dimensions [mm]																		Grease feeding ²⁾ [dm ³]	
	d1; d2	l1, l2	EFA	EDA	EFB	EDB	EFAB	EDAB	LFA	LDA	LFB	LDB	LFAB	LDAB	L3	D	DA1	DA2	F ¹⁾		d3 ¹⁾
10	50	43	3	–	21	–	12	–	89	–	107	–	98	–	55	67	111	84	74	52	0,02
15	64	50	3	–	15	–	9	–	103	–	115	–	109	–	59	87	152	107	84	68	0,04
20	80	62	3	–	31	–	17	–	127	–	155	–	141	–	79	108	178	130	104	85	0,08
25	98	76	5	–	29	–	17	–	157	–	181	–	169	–	93	130	213	158	123	110	0,12
30	112	90	5	–	33	–	19	–	185	–	213	–	199	–	109	153	240	182	148	130	0,18
35	133	105	6	–	40	–	23	–	216	–	250	–	233	–	128	180	280	214	172	150	0,22
40	158	120	6	–	42	–	24	–	246	–	282	–	264	–	144	214	318	250	192	175	0,35
45	172	135	8	–	50	–	29	–	278	–	320	–	299	–	164	233	347	274	216	190	0,45
50	192	150	8	–	56	–	32	–	308	–	356	–	332	–	182	260	390	309	241	220	0,70
55	210	175	8	–	70	–	39	–	358	–	420	–	389	–	214	283	425,5	334	275	250	0,90
60	232	190	8	–	84	–	46	–	388	–	464	–	426	–	236	312	457	365,5	316	265	1,15
70	276	220	10	–	76	–	43	–	450	–	516	–	483	–	263	371	527	425	360	300	1,50
80	300	280	–	10	–	50	–	30	–	570	–	610	–	590	310	394	545	475	340	310	2,50
85	325	292	–	13	–	53	–	33	–	597	–	637	–	617	325	430	585	515	352	330	3,00
90	350	305	–	13	–	83	–	48	–	623	–	693	–	658	353	464	640	560	365	360	4,00
100	390	330	–	13	–	93	–	53	–	673	–	753	–	713	383	512	690	612	390	400	5,00
110	220	350	–	20	–	296	–	158	–	720	–	996	–	858	508	560	765	665	410	420	6,00
120	260	420	–	25	–	421	–	223	–	864	–	1261	–	1063	643	608	825	720	480	470	7,50

Technical data										
Size	Torque [Nm]		max. speed [rpm]	Weight with max. bore [kg]			Mass moment of inertia with max. bore-Ø [kgm²]	Dowel screws (10.9)		
	T _{KN}	T _{Kmax}		Sleeve	Hub	Total		z	M	T _A [Nm]
10	930	1860	8500	0,8	0,6	2,7	0,00436	6	M6	15
15	2000	4000	7700	1,9	1,1	6,4	0,01894	8	M8	36
20	3500	7000	6900	2,6	2,1	9,9	0,04000	6	M10	72
25	6500	13000	6200	4,5	3,6	16,8	0,09749	6	M12	125
30	10000	20000	5800	5,8	6,2	25,2	0,18080	8	M12	125
35	17000	34000	5100	9,7	9,9	41,6	0,41419	8	M14	200
40	28500	57000	4500	11,9	16,1	58,1	0,75535	8	M14	200
45	37000	74000	4000	15,7	21,4	77,1	1,17590	10	M14	200
50	51000	102000	3750	25,7	29,6	114,4	2,24991	8	M18	430
55	65000	130000	3550	31,5	40,3	150,4	3,45102	14	M18	430
60	85000	170000	3400	32,8	52,9	177,4	4,16734	14	M18	430
70	135000	270000	3200	43,5	85,8	268,2	9,32429	16	M20	610
80	175000	350000	1900	64,0	117,0	362,0	14,214	18	M20	610
85	225000	450000	1900	75,0	148,0	446,0	20,320	20	M20	610
90	380000	760000	1700	101,0	183,0	568,0	31,036	20	M24	1000
100	500000	1000000	1600	117,0	232,0	698,0	45,358	24	M24	1000
110	630000	1260000	1450	140,0	295,0	940,0	73,880	20	M30	1700
120	820000	1640000	1350	188,0	430,0	1312,0	118,40	24	M30	1700

2) Grease feeding for each coupling half

ROTEX® GS Clamping ring hubs light



Tack thread
M1 between
clamping
screws

- Torsionally flexible backlash-free shaft coupling with integrated clamping system
- Low weight and low mass moment of due to a design fully made from aluminium
- High smoothness of running, application up to a peripheral speed of 50 m/s, high friction torques
- Mounting instruction/further information available at www.ktr.com

Hub material – Aluminium (Al-H) / Clamping ring material – Aluminium (Al-H)

Size	Torque [Nm] ¹⁾				Dimensions [mm]										Clamping screws			Weight per hub with max. bore [kg]	Mass moment of inertia per hub with max. bore [kgm ²]
	92 Sh-A		98 Sh-A																
	T _{KN}	T _{Kmax}	T _{KN}	T _{Kmax}	D _H ²⁾	d _H	L	l ₁ ; l ₂	l ₃	E	b	s	a	M	Num- ber z	T _A [Nm]	M ₁		
14	7,5	15	12,5	25	30	10,5	50	18,5	13,5	13	10	1,5	2,0	M3	4	1,34	M3	0,032	0,04 x 10 ⁻⁴
19	10	20	17	34	40	18	66	25	18	16	12	2,0	3,0	M4	6	3	M4	0,077	0,19 x 10 ⁻⁴
24	35	70	60	120	55	27	78	30	22	18	14	2,0	3,0	M5	4	6	M5	0,162	0,78 x 10 ⁻⁴
28	95	190	160	320	65	30	90	35	27	20	15	2,5	4,0	M5	8	6	M5	0,240	1,70 x 10 ⁻⁴
38	190	380	325	650	80	38	114	45	35	24	18	3,0	4,0	M6	8	10	M6	0,490	5,17 x 10 ⁻⁴
42	265	530	450	900	95	46	126	50	35	26	20	3,0	4,0	M8	4	25	M8	0,772	11,17 x 10 ⁻⁴
48	310	620	525	1050	105	51	140	56	41	28	21	3,5	4,0	M10	4	49	M10	1,066	18,81 x 10 ⁻⁴

Bore d₁/d₂ and the corresponding transmittable friction torques T_R of clamping ring hub in [Nm] ¹⁾

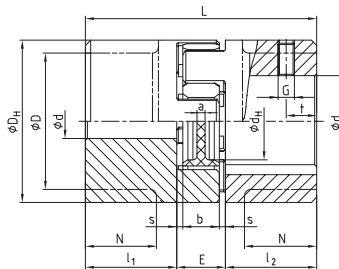
Size	Ø6	Ø10	Ø11	Ø14	Ø15	Ø16	Ø19	Ø20	Ø24	Ø25	Ø28	Ø30	Ø32	Ø35	Ø38	Ø40	Ø42	Ø45	Ø48	Ø50	Ø55
14	5,4	7,5	11,3	24,7																	
19		17	20	41	49	36	56	64													
24				47	57	67	98	110	127	139	175										
28							121	133	201	219	248	285	253	307	329						
38								203	304	331	394	452	453	543	550	609	669	634			
42											444	508	535	638	692	763	754	858	964	976	
48												572	638	762	842	929	943	1074	1208	1136	1336

¹⁾ Please note coupling selection on our company catalogue

²⁾ ØD_H + 2 mm with high speeds for expansion of spider

The transmittable torques of the clamping connection consider the max. clearance with shaft fit k6 / bore H7. With bigger clearance the torque is reduced. As shaft material steel or nodular iron with a yield point of approx. 250 N/mm² or more can be used. For the stiffness calculation of the shaft/hollow shaft see KTR standard 45510 at our homepage www.ktr.com.

ROTEX® GS Backlash-free shaft coupling



- Servo coupling for CNC axes for positioning and main spindle drives for machine tools
- Axial plug-in - easy blind assembly
- Small dimensions – low flywheel mass
- Available with feather key or various systems which are frictionally engaged, e. g. clamping hub
- Mounting instruction/further information available at www.ktr.com

Size	Torque [Nm] 98 Sh-A-GS		Max. finish bore Ød Hub design		Dimensions [mm]										Setscrew		Clamping screw			
	T _{KN}	T _{Kmax.}	1.x	2.x	D	D _H	d _H	L	l ₁ , l ₂	N	E	b	s	a	G	t	M ₁	t ₁	D _K ⁶⁾	T _A [Nm]
	Hub material – Aluminium (Al-H)																			
5	0,9	1,7	–	5	–	10	–	15	5	–	5	4	0,5	4,0	M2	2,5	M1,2	2,5	11,4	–*
7	2	4	7	7	–	14	–	22	7	–	8	6	1,0	6,0	M3	3,5	M2,0	3,5	16,5	0,37
9	5	10	10	11	–	20	7,2	30	10	–	10	8	1,0	1,5	M4	5,0	M2,5	5,0	23,4	0,76
12	9	18	12	12	–	25	8,5	34	11	–	12	10	1,0	3,5	M4	5,0	M3	5,0	27,5	1,34
14	12,5	25	16	16	–	30	10,5	35	11	–	13	10	1,5	2,0	M4	5,0	M3	5,0	32,2	1,34
19	17	34	24	24 ⁵⁾	–	40	18	66	25	–	16	12	2,0	3,0	M5	10	M6	11,0	46,0	10,5
24	60	120	28	28	–	55	27	78	30	–	18	14	2,0	3,0	M5	10	M6	10,5	57,5	10,5
28	160	320	38	38	–	65	30	90	35	–	20	15	2,5	4,0	M8	15	M8	11,5	73,0	25
38	325	650	45	45	–	80	28	114	45	–	24	18	3,0	4,0	M8	15	M8	15,5	83,5	25
Hub material – Steel (St-H)																				
42	450	900	55	50	85	95	46	126	50	28	26	20	3,0	4,0	M8	20	M10	18	93,5	69
48	525	1050	62	55	95	105	51	140	56	32	28	21	3,5	4,0	M8	20	M12	21	105,0	120
55	685	1370	74	68	110	120	60	160	65	37	30	22	4,0	4,5	M10	20	M12	26	119,5	120
65	940 ⁴⁾	1880 ⁴⁾	80	70	115	135	68	185	75	47	35	26	4,5	4,5	M10	20	M12	33	124,0	120
75	1920 ⁴⁾	3840 ⁴⁾	95	80	135	160	80	210	85	53	40	30	5,0	5,0	M10	25	M16	36	147,5	295
90	3600	7200	110	90	160	200	104	245	100	62	45	34	5,5	6,5	M12	30	M20	40	192,0	580

⁴⁾ Figures for 95 Sh-A-GS

⁵⁾ Use of DIN 84 screw, tightening torque T_A not defined (slotted screw)

Finish bore according to ISO fit H7 (apart from clamping hub), feather keyway according to DIN 6885 sheet 1 - JS9

Hub design

1.0 with keyway and thread

1.1 without keyway with thread

Clamping hub design up to size 14 standard:

2.0 single slotted without keyway

2.1 single slotted with keyway

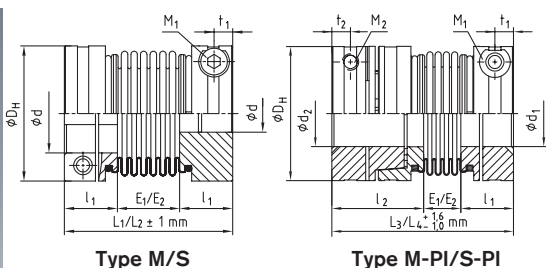
⁶⁾ Biggest outside diameter due to screw head

Clamping hub design from size 19 standard:

2.5 double slotted without keyway

2.6 double slotted with keyway

TOOLFLEX® Metall bellow-type coupling



- Backlash-free, torsionally stiff
- Suitable for high temperatures (max. 200 °C)
- Good resistance to corrosion due to bellow made of stainless steel and aluminium clamping hubs
- Also available as TOOLFLEX® miniature coupling
- Type M = 6 waves, type S = 4 waves, type M-PI/S-PI = axial plug-in
- Mounting instruction/further information available at www.ktr.com

TOOLFLEX® Type M, type S, type M-PI and type S-PI

Size	Range of finish bores [mm]		Dimensions [mm]														
			M = type M; S = type S									Clamping screw					
	d; d ₁	d ₂	M = L ₁	S = L ₂	M = L ₃	S = L ₄	l ₁	l ₂	M = E ₁	S = E ₂	D _H	M ₁	M ₂	D ₃ ¹⁾	t ₁	t ₂	T _A [Nm]
16	5-16	—	49	45	—	—	17,0	—	15	11	32	M4	—	35,0	5	—	2,9
20	8-20	8-20	62	55	74,0	67,0	21,5	33,5	19	12	40	M5	M5	43,5	6	6	6
30	10-30	10-28	72	63	82,5	73,5	23,0	33,5	26	17	55	M6	M6	58,0	7	7	10
38	12-38	12-32	81	69	99,5	87,5	25,5	44,0	30	18	65	M8	M8	72,6	9	9	25
42	14-42	12-35	95	84	104,0	93,0	30,0	39,0	35	24	70	M8	M8	76,1	9	9	25
45	14-45	14-42	103	86,5	112,5	96,0	32,0	41,5	39	22,5	83	M10	M10	89,0	11	11	49
55 ⁴⁾	20-55	—	125	111	—	—	40,0	—	45	31	100	M12	—	106,0	14	—	120

Technical data

Size	Torque [Nm] T _{KN}	Speed [rpm] n ²⁾	Technical data														Mass ³⁾ [x 10 ⁻³ kg	
			Momnet of inertia ³⁾ [x 10 ⁻⁶ kgm ²]		Torsional stiffness [Nm/rad]		Axial spring stiff- ness [N/mm]		Radial spring stiff- ness [N/mm]		Perm. displacements							
											Axial [mm]		Radial [mm]		Angular [°]			
			M	S	M	S	M	S	M	S	M	S	M	S	M	S	M	S
16	5	14900	10	9	3050	4500	29	43	92	138	±0,5	±0,3	0,20	0,15	1,5	1,0	61	61
20	15	11950	32	30	6600	9600	42	63	126	189	±0,6	±0,4	0,20	0,15	1,5	1,0	144	121
30	35	8700	123	114	14800	17800	65	97	155	233	±0,8	±0,5	0,25	0,20	2,0	1,5	306	243
38	65	7350	262	245	24900	37400	72	108	212	318	±0,8	±0,6	0,25	0,20	2,0	1,5	448	351
42	95	6820	427	396	36500	54700	80	120	333	499	±0,8	±0,6	0,25	0,20	2,0	1,5	520	485
45	150	5750	1020	931	64000	95800	88	132	492	738	±1,0	±0,9	0,30	0,25	2,0	1,5	1125	824
55 ⁴⁾	340	4800	5118	4996	96100	144100	107	160	598	894	±1,0	±1,0	0,30	0,25	2,0	1,5	3300	3213

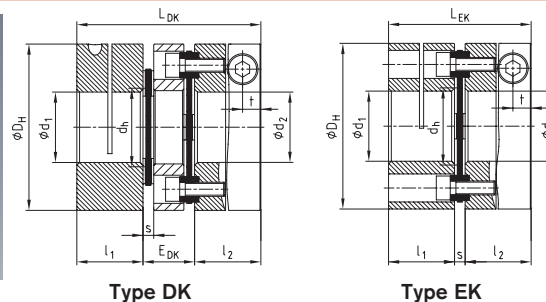
¹⁾ Biggest outside diameter due to screw head

³⁾ Details referring to the overall coupling with max. bore

²⁾ with v = 25 m/s

⁴⁾ Hubs from steel welded to the bellow

RADEX®-NC Servo lamina coupling



- Backlash-free torque transmission
- Higher torsional stiffness
- Backlash-free shaft-hub-connection
- Low mass moment of inertia
- High speeds
- Operating temperature up to 200 °C
- Short Design
- Mounting instruction/further information available at www.ktr.com

RADEX®-NC type DK and type EK

Size	Dimensions [mm]										Clamping screw		Mass moment of inertia	
	max. d ₁ , d ₂	D _A	l ₁ , l ₂	L _{DK}	EDK	LEK	dh	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

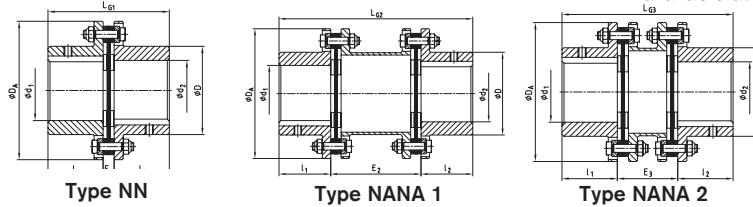
Technical data

Size	T _{KN} [Nm]	T _{Kmax.} [Nm]	max. speed [rpm]	Torsion. stiffness [Nm/rad]		Displacement type DK			Displacement type EK		
						Radial [mm]	Axial [mm]	Angular [°]	Radial [mm]	Axial [mm]	Angular [°]
				Type EK	Type DK						
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

RADEX®-N Steel lamina coupling

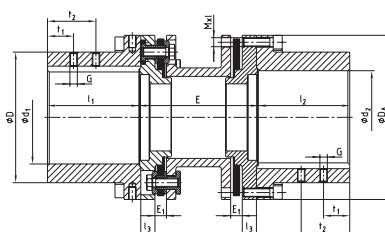
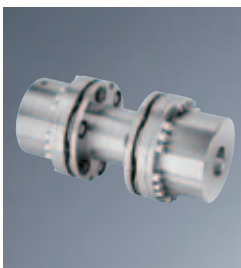


- Backlash-free and maintenance-free steel coupling
- Temperature-resistant up to 280°C
- Compensating for high misalignments with low restoring forces
- Laminas are made of stainless spring steel
- Shaft distance dimensions up to 6 m possible
- Mounting instruction/further information available at www.ktr.com



RADEX®-N Type NN, Type NANA 1 and Type NANA 2													
Size	Torque [Nm]			max. finish bore [mm]		Dimensions [mm]							
	T _{KN}	T _{Kmax.}	T _{KW}	d ₁ , d ₂	D	D _A	l ₁ , l ₂	LG ₁	E ₁	LG ₂	E ₂	LG ₃	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 / 138	17500 / 23000	35000 / 46000	8750 / 11500	135	180	300	135	293	23	acc. to customer's request			
156 / 158	25000 / 33000	50000 / 66000	12500 / 16500	150	195	325	150	327	27				
166 / 168	35000 / 45000	70000 / 90000	17500 / 22500	165	225	350	165	361	31				
186 / 188	42000 / 56000	84000 / 112000	17500 / 28000	180	250	380	185	401	31				
206 / 208	52500 / 70000	105000 / 140000	26250 / 35000	200	275	420	200	437	37				
246 / 248	90000 / 120000	180000 / 240000	45000 / 60000	240	320	500	240	524	44				
286 / 288	150000 / 200000	300000 / 400000	75000 / 100000	280	383	567	280	612	52				
336 / 338	210000 / 280000	420000 / 560000	105000 / 140000	330	445	660	330	718	58				

RIGIFLEX®-N Steel lamina coupling



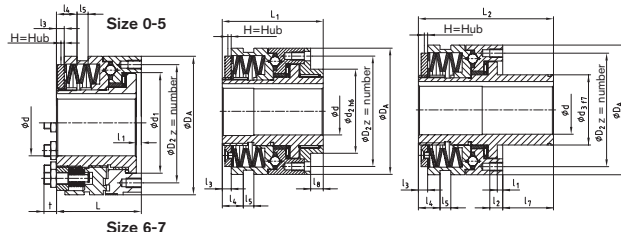
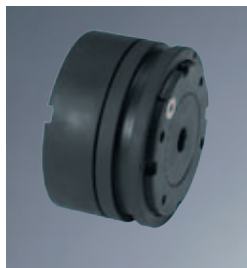
Type A

- Series for pump drives
- Coupling in accordance with API 610, API 671 optionally
- Spacers are supplied assembled by the manufacturer
- High balancing quality due to accurate machining (AGMA Class 9)
- Mounting instruction/further information available at www.ktr.com

RIGIFLEX®-N Type A																			
Size	Torques [Nm]			Max. finish bore	Dimensions [mm]												Cyl. 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 ₁	E ¹⁾				Mxl	T _A [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 / 168	17500 / 23000	35000 / 46000	8750 / 11500	160	230	305	155	31	M16	30	70	17						M20x50	560
196 / 198	22500 / 30000	45000 / 60000	11250 / 15000	190	260	330	185	32	M16	40	90	24						M20x50	560
216 / 218	32000 / 42500	64000 / 85000	16000 / 21500	210	285	370	205	32	M20	50	110	26						M20x65	560
256 / 258	52500 / 70000	105000 / 140000	26250 / 35000	250	350	440	245	38	M20	70	130	31	acc. to customer's request					M24x80	970
306 / 308	86000 / 115000	172000 / 230000	43000 / 57500	300	400	515	294	43	M24	70	130	36						M27x100	1450
346 / 348	135000 / 180000	270000 / 360000	67500 / 90000	340	460	590	333	55	M24	95	175	45						M30x110	1950
406 / 408	210000 / 280000	420000 / 560000	105000 / 140000	400	530	675	395	58,5	M24	95	175	50						M36x130	3900

¹⁾ Other shaft distances available on request

KTR-SI Safety system



- Safety coupling up to 8200 Nm
- Available as a ratchet, synchronous and fail-safe design
- Furthermore available as an idle rotating design (no residual torque)
- For a direct connection of customer components
- Mounting instruction/further information available at www.ktr.com

Type FT

Type KT

Type LT

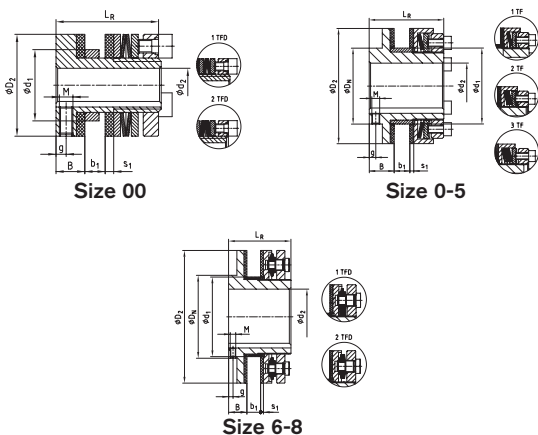
KTR-SI																						
Size	Bore d		Dimensions [mm]																H = stroke			
	pilot b.	max	d ₁	D ₂	D _A	d ₂	d ₃	l ₁	l ₂	l ₃	l ₄	l ₅	l ₇	l ₈	L	L ₁	L ₂	z	DK	SR	SGR	FR
0	7	20	41	48	55	38	28	4	6,5	3	7,5	9	27,5	8	38,5	51	66	6xM5	1,4	1,2	0,6	1,6
1	10	25	60	70	82	50	38	4	8	6	11,5	9	33	10	52	70	85	6xM5	2,3	1,8	0,8	2,3
2	14	35	78	89	100	60	52	5	10	5	12	9	39	12	61	78	100	6xM6	2,4	2,0	1,1	3,0
3	18	45	90,5	105	120	80	65	5	12	8,5	21	10	47	12	78	96	125	6xM8	2,7	2,2	1,2	3,5
4	24	55	105	125	146	100	78	6,5	15	11	27	9	52,5	16	100	124,5	152,5	6xM10 ¹⁾	3,7	2,5	1,2	3,8
5	30	65	120,5	155	176	120	90	6,5	17	12	33	9	57,5	18	113,5	140	171	6xM12 ¹⁾	4,6	3,0	1,6	4,5
6 ²⁾	40	80	136	160	200	130	108	7	20	14	39	9	64	20	119	150	183	6xM12 ¹⁾	5,0	3,5	2,5	–
7 ²⁾	50	100	168	200	240	160	135	8	25	15	46	9	72	25	141	175	213	6xM16 ¹⁾	5,5	4,0	2,7	–

Technical data									
Size	Disk spring layers design DK				Disk spring layers design SR and SGR				Weight with max. bore [kg]
	T1	T2	T3	T4	T1	T2	T3	T4	
0	2,5 - 5	5 - 20	—	20 - 40	5 - 10	10 - 40	—	—	0,41
1	6 - 12	12 - 25	25 - 55	55 - 100	12 - 25	25 - 50	50 - 100	—	1,30
2	12 - 25	25 - 50	50 - 120	120 - 200	25 - 50	50 - 100	100 - 200	—	2,27
3	25 - 50	50 - 100	100 - 250	200 - 450	50 - 100	100 - 200	200 - 450	—	3,88
4	50 - 100	100 - 200	200 - 500	500 - 1000	100 - 200	200 - 400	400 - 800	800 - 2000	8,34
5	85 - 250	230 - 600	300 - 1000	600 - 2000	170 - 450	350 - 900	600 - 1800	1200 - 3400	13,51
6	180 - 480	360 - 960	720 - 1950	1600 - 3300	300 - 750	600 - 1500	1200 - 3000	2900 - 5800	21,0
7	250 - 520	500 - 1050	1000 - 2100	2000 - 3600	550 - 1100	1100 - 2200	2200 - 4400	3000 - 8200	37,0

¹⁾ Design T4, SR and SGR: tightening torques acc. to 12.9

²⁾ Size 6: dimension t = 15 mm, size 7: dimension t = 21 mm

RUFLEX® Torque limiter



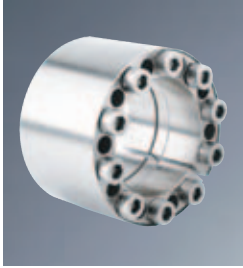
- Torque limiter with high power density due to high-quality materials
- Overload protection up to 6800 Nm
- Big wear volume for a long service life
- Surfaces zinc-plated and passivated
- Mounting instruction/further information available at www.ktr.com

RUFLEX®																
Size	max. speed [rpm]	Torque [Nm]			Dimensions [mm]											
		1TF	2TF	3TF ³⁾	Bore d2		D ₂	D _N	d ₁ ²⁾	B	Driving part b1		s ₁	L _B	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

¹⁾ Finish bore exceeding Ø19, keyway to 6885 sheet ²⁾ Bore tolerance (driving component): F8 with size 00-4, H8 with size 5-8 ³⁾ to be used on design with limited dimensions only

CLAMPEX® Shaft-hub-connection

CLAMPEX® Shaft-hub-connections are a safe and economical alternative to usual positive connections.



- Backlash-free and wear-free transmission of torque and axial forces
- Easy assembly/disassembly with standard tools
- Transmission of high torques
- Secondary overload protection of machine parts by means of slipping
- Bigger production tolerances of shaft/hub, only H8/h8 necessary
- Reduction of expenses in designing, production and assembly
- Mounting instruction/further information available at www.ktr.com

The clamping elements listed here are an extract from our CLAMPEX® product range. For a general survey please order our company catalogue including other types like

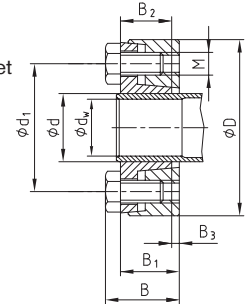
KTR 150, KTR 200

KTR 201, KTR 203

KTR 206, KTR 225

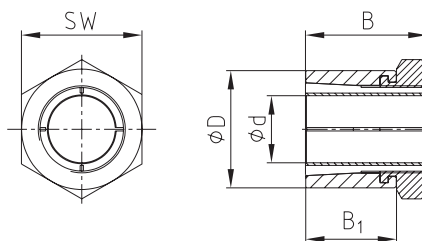
and the external clamping sets KTR 603!

KTR 620 external clamping set
Modified 2-parted external
clamping set with optical
assembly aid

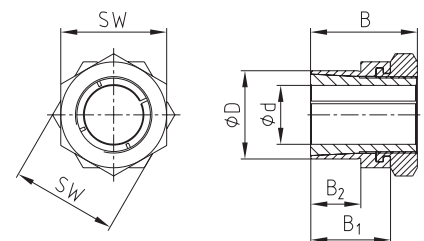


KTR 620																																				
Type dxD	d _w	B	B ₁	B ₂	B ₃	d ₁	M	T _A [Nm]	T [Nm]	F _{ax} [kN]	P _H [N/mm²]	Type dxD	d _w	B	B ₁	B ₂	B ₃	d ₁	M	T _A [Nm]	T [Nm]	F _{ax} [kN]	P _H [N/mm²]	Type dxD	d _w	B	B ₁	B ₂	B ₃	d ₁	M	T _A [Nm]	T [Nm]	F _{ax} [kN]	P _H [N/mm²]	
16x41	13	14	19	15	13	2	28	M6	12	85	13	60x110	48	50								170	71	223	120x197	85	90	61	53	48	5	147	M12	100	12700	299
	15	15								105	15		281	58	34,5	29	26	3	80	M8	30	2050	82	216		96	14200	316	205							
20x47	17	19	15	13	2	32	M6	12	155	18	62x110	52	55								2200	85	125x215	95	95								15700	331		
	18								175	19		288	55	50	34,5	29	26				190	76		222	90	14600	324									
24x50	20	22	18	16	2	36	M6	12	235	24	68x115	60	60	34,5	29	26	3	86	M8	30	2450	89	222	100	95	61	53	48	5	158	M12	100	16000	337		
	22								305	28		266	60	3000	100						3000	100	227	100	17500	350										
30x60	24								390	33	75x138	55	60	38	31	27	4	100	M10	59	2650	96	130x230	95	100	67	58	52	6	165	M14	160	18600	392		
	25	24	20	18	2	44	M6	12	430	34		256	65	65							3250	108		227	110	20300	406	225								
36x72	26								480	37	80x141	65	60								3850	118	140x230	110	100								23600	429		
	28								510	38		256	60	60							3350	112		224	105	67	58	52	6	172	M14	160	21700	413		
38x72	30	27,5	22	20	2	54	M8	30	690	46	80x141	65	65	38	31	27	4	104	M10	59	3980	122	224	115	67	58	52	6	172	M14	160	21700	413			
	33								820	50		253	70	70							4620	132	224	115	67	58	52	6	172	M14	160	21700	413			
40x80	34								910	54	90x155	65	70	45	38	34	4	114	M10	59	5200	160	155x263	110	115	71	62	56	6	195	M14	160	27400	497		
	36	29,5	24	22	2	61	M8	30	850	49		231	75	75							6000	171		219	115	71	62	56	6	195	M14	160	29600	515		
44x80	37								980	53	90x155	75	75								6900	184	155x263	125	125								32000	533		
	38								1180	62		249	70	75	50	43	39	4	124	M10	59	6600		189	206	120	78	68	61	7	204	M16	250	41500	692	
50x90	40	31,5	26	23,5	2,5	68	M8	30	1320	66	100x170	75	80	50	43	39	4	124	M10	59	7600	203	206	125	78	68	61	7	204	M16	250	44300	709			
	42								1470	70		249	80	80							8600	215	206	135									47200	726		
	42								1400	67	100x170	80	80								10600	265	175x300	130	130								47600	732		
	45	34,5	29	26	3	72	M8	30	1650	73		223	85	90	57	49	44	5	136	M12	100	11900		280	212	135	78	68	61	7	214	M16	250	50500	748	
55x100	48								1900	79	110x185	90	90								13300	296	175x300	140	140								53500	764		

KTR 130 self-centering
Assembly and disassembly by means of central clamping nut



KTR 131 self-centering
Assembly and disassembly by means of central clamping nut and fixing hexagon screw



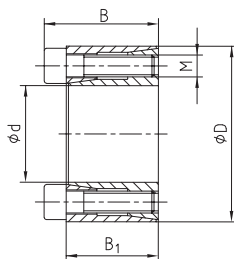
KTR 130															
Type dxD	B	B ₁	SW	T _A [Nm]	T [Nm]	F _{ax} [kN]	F _N [N/mm ²]	Type dxD	B	B ₁	SW	T _A [Nm]	T [Nm]	F _{ax} [kN]	F _N [N/mm ²]
5x14	19	15	14	10	10,1	4,0	96	22x42	41	30	46	250	349	31,8	110
6x14	19	15	14	10	12,1	4,0	96	24x42	41	30	46	250	381	31,8	110
8x16	22	17	17	17	23,4	5,8	91	25x42	41	30	46	250	397	31,8	110
9x20	24	19	22	35	43,2	9,7	112	30x47	44	33	50	355	605	40,4	110
10x20	24	19	22	35	48,6	9,7	112	32x55	51	38	55	490	764	47,8	102
12x22	24	19	22	44	65,3	10,9	117	35x55	51	38	55	490	836	47,8	102
14x26	28	22	27	65	93	13,3	99	40x62	58	43	65	800	1329	66,5	98
15x26	28	22	27	65	99	13,3	99	45x65	63	48	65	900	1605	71,0	98
16x26	28	22	27	65	106	13,3	99	48x75	73	58	75	1290	2227	92,0	77
18x35	36	27	36	161	223	24,8	125	50x75	73	58	75	1290	2320	92,0	77
19x35	36	27	36	161	235	24,8	125								
20x35	36	27	36	161	248	24,8	125								

KTR 131																	
Type dxD	B	B ₁	B ₂	SW	T _A [Nm]	T [Nm]	F _{ax} [kN]	P _N [N/ mm²]	Type dxD	B	B ₁	B ₂	SW	T _A [Nm]	T [Nm]	F _{ax} [kN]	P _N [N/ mm²]
5x12	19	15	9	14	10	10,1	4,0	119	18x30	36	27	17	36	161	223	24,8	145
6x12	19	15	9	14	10	12,1	4,0	119	19x30	36	27	17	36	161	235	24,8	145
8x14	22	17	11	17	17	23,4	5,8	121	20x30	36	27	17	36	161	248	24,8	145
10x18	24	19	12	22	35	48,6	9,7	127	22x38	41	30	20	46	250	349	31,8	122
12x20	24	19	12	22	44	65,3	10,9	128	24x38	41	30	20	46	250	381	31,8	122
14x24	28	22	15	27	65	93	13,3	107	25x38	41	30	20	46	250	397	31,8	122
15x24	28	22	15	27	65	99	13,3	107	30x42	44	33	23	50	355	605	40,4	123
16x24	28	22	15	27	65	106	13,3	107	32x50	51	38	28	55	490	764	47,8	112
									35x50	51	38	28	55	490	836	47,8	112

CLAMPEX® Shaft-hub-connection

KTR 105 self-centering

Compact internal clamping set with short periods of assembly and dis-assembly



All dimensions in mm

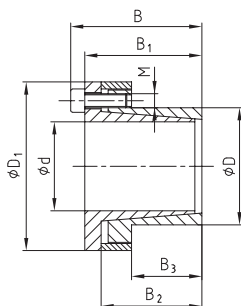
¹⁾ These are the maximum screw tightening torques. They can be reduced to max. 40% of the aforementioned figures with T, F_{ax} and P_N being reduced proportionally.

KTR 105

Type dxD	B	B ₁	M	T _A ¹⁾ [Nm]	T [Nm]	F _{ax} [kN]	P _N [N/ mm ²]	Type dxD	B	B ₁	M	T _A ¹⁾ [Nm]	T [Nm]	F _{ax} [kN]	P _N [N/ mm ²]
5x16	13,5	11	M2,5	1,2	6	3	61	17x35	25	21	M4	4,9	85	10	54
6x16	13,5	11	M2,5	1,2	8	3	61	18x35	25	21	M4	4,9	90	10	54
6,35x16	13,5	11	M2,5	1,2	8	3	61	19x35	25	21	M4	4,9	95	10	54
7x17	13,5	11	M2,5	1,2	9	3	58	20x38	26	21	M5	10	164	16	82
8x18	13,5	11	M2,5	1,2	10	3	54	22x40	26	21	M5	10	180	16	78
9x20	15,5	13	M2,5	1,2	16	3	54	x24x47	32	26	M6	17	278	23	75
9,53x20	15,5	13	M2,5	1,2	16	3	54	25x47	32	26	M6	17	289	23	75
10x20	15,5	13	M2,5	1,2	17	3	54	28x50	32	26	M6	17	486	35	105
11x22	15,5	13	M2,5	1,2	19	3	50	30x55	32	26	M6	17	520	35	96
12x22	15,5	13	M2,5	1,2	21	3	50	32x55	32	26	M6	17	555	35	96
14x26	20	17	M3	2,2	40	6	52	35x60	37	31	M6	17	810	46	101
15x28	20	17	M3	2,2	43	6	48	38x65	37	31	M6	17	879	46	93
16x32	21	17	M4	4,9	80	10	74	40x65	37	31	M6	17	925	46	93
								48x80	44	36	M8	41	2052	85	119
								50x80	44	36	M8	41	2137	85	119

KTR 250 self-centering

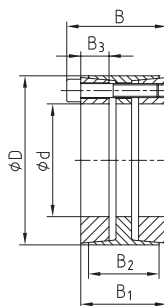
Clamping set suitable for hubs with a small wall thickness



Available as a standard from type 6x14 to 130x165

KTR 400 self-centering

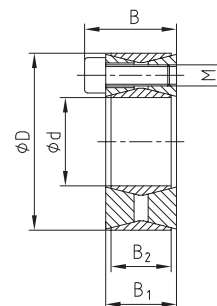
Clamping set suitable for high loads



Available as a standard from type 24x50 to 400x495

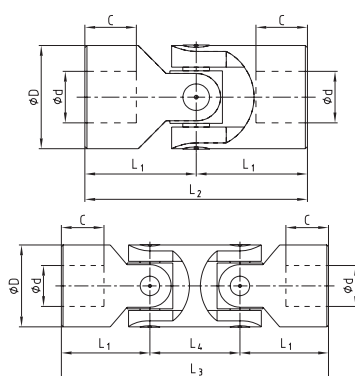
KTR 100 not self-centering

no axial shifting of the hub during the assembly



Available as a standard from type 18x47 to 400x495

KTR Precision joints



- Type G and H precision single joint
- Type GD and HD precision double joint
- Maximum articulation angle 45° for each joint
- Type G and GD: up to max. 1000 rpm
 - bearings designed as plain bearings
- Type H and HD: up to max. 4000 rpm
 - bearings designed as needle bearings, maintenance-free
 - high dynamic load - small bearing clearance
- Available with finish bore H7 - on request with keyway, hexagon bore (SW) or square bore (Q)
- Further types on request (extendable, with quick locking, stainless steel)

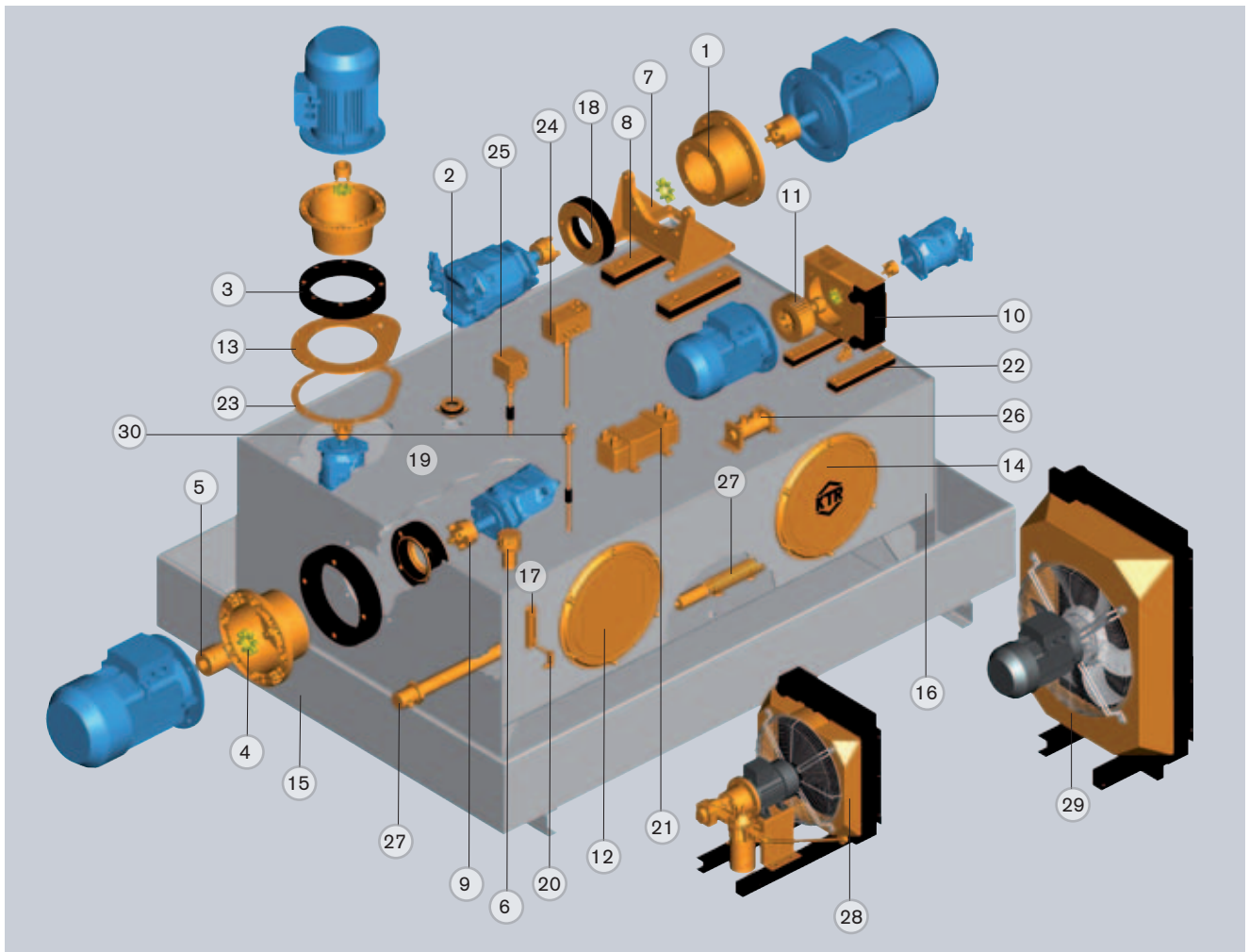
KTR Precision joints

KTR Precision joints																					
Types and sizes							d [H7]	D	L ₂	L ₁	C	L ₄	L ₃	a [JS9]	b	Q [H8]	SW [H8]	Weight			
Size	Type		DIN descrip- tion to H	DIN description to H	Type	DIN descrip- tion to GD												DIN description to HD	G/H [kg]	GD/ HD [kg]	
01	G	-	E6 x 16-G	-	GD	-	D6 x 16-G	-	6	16	34	17	8	22	56	2	7,0	6	6	0,05	0,08
02	G	-	E8 x 16-G	-	GD	-	D8 x 16-G	-	8	16	40	20	11	22	62	2	9,0	8	8	0,05	0,08
03	G	H	E10 x 22-G	E10 x 22-W	GD	HD	D10 x 22-G	D10 x 22-W	10	22	48	24	12	26	74	3	11,4	10	10	0,10	0,15
04	G	H	E12 x 25-G	E12 x 25-W	GD	HD	D12 x 25-G	D12 x 25-W	12	25	56	28	13	30	86	4	13,8	12	12	0,16	0,25
05	G	H	E14 x 28-G	E14 x 28-W	GD	HD	D14 x 28-G	D14 x 28-W	14	28	60	30	13	36	96	5	16,3	14	14	0,20	0,40
1	G	h	E16 x 32-G	E16 x 32-W	GD	HD	D16 x 32-G	D16 x 32-W	16	32	68	34	16	36	104	5	18,3	16	16	0,30	0,45
2	G	H	E18 x 36-G	E18 x 36-W	GD	HD	D18 x 36-G	D18 x 36-W	18	36	74	37	17	40	114	6	20,8	18	18	0,45	0,70
3	G	H	E20 x 42-G	E20 x 42-W	GD	HD	D20 x 42-G	D20 x 42-W	20	42	82	41	18	46	128	6	22,8	20	20	0,60	1,00
4	G	H	E22 x 45-G	E22 x 45-W	GD	HD	D22 x 45-G	D22 x 45-W	22	45	95	47,5	22	50	145	6	24,8	22	22	0,95	1,55
5	G	H	E25 x 50-G	E25 x 50-W	GD	HD	D25 x 50-G	D25 x 50-W	25	50	108	54	26	55	163	8	28,3	25	25	1,20	2,00
6	G	H	E30 x 58-G	E30 x 58-W	GD	HD	D30 x 58-G	D30 x 58-W	30	58	122	61	29	68	190	8	33,3	30	30	1,85	2,90
6	G1	H1	E32 x 58-G	E32 x 58-W	GD1	HD1	D32 x 58-G	D32 x 58-W	32	58	130	65	33	68	198	10	35,3	30	30	2,00	3,00
7	G	H	E35 x 70-G	E35 x 70-W	GD	HD	D35 x 70-G	D35 x 70-W	35	70	140	70	35	72	212	10	38,3	-	-	3,15	4,75
8	G	H	E40 x 80-G	E40 x 80-W	GD	HD	D40 x 80-G	D40 x 80-W	40	80	160	80	40	85	245	12	43,3	-	-	4,60	7,20
9	G	H	E50 x 95-G	E50 x 95-W	GD	HD	D50 x 95-G	D50 x 95-W	50	95	190	95	50	100	290	14	53,8	-	-	7,60	12,0

Summary of Hydraulic Components

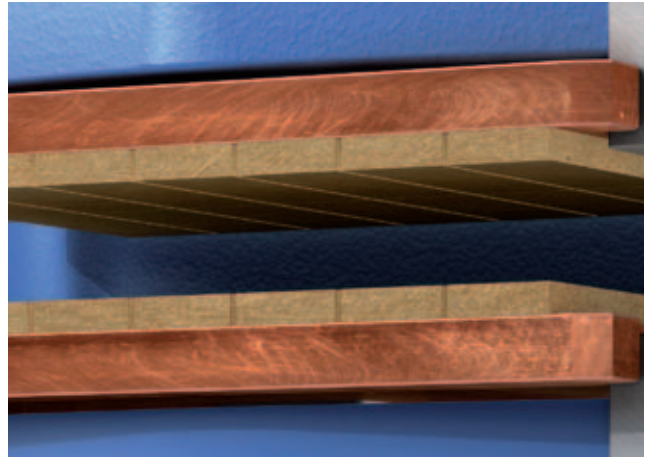
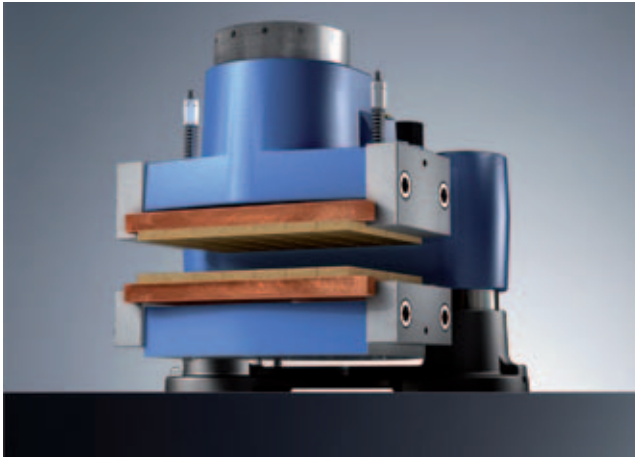
KTR offers a wide range of components for stationary hydraulics in mechanical engineering, plant engineering and construction of vehicles. There is a wide choice of products from KTR thus reducing the number of suppliers you need to transact with. We can provide you with a vast range of products by means of one-stop-shopping, including bell-housings and cooling systems. In addition to a range of standard products we can supply you with special sizes and customised designs; following your dimensions; in a word – KTR.

KTR hydraulic components provide for highest reliability in a tiny space. The same applies for our delivery times and prices: less is more. We do not make any compromises regarding quality, long service life and variety. That is why our standard product range covers almost every demand and application.



- | | |
|--|---|
| 1. Bellhousing type PK/PL | 16. Steel tanks type BSK/BNK/BEK |
| 2. Elastic flange | 17. Oil-level indicator type KO |
| 3. Damping ring design DT | 18. Damping ring type D |
| 4. ROTEX® spider | 19. Machining of tank according to customer specification |
| 5. ROTEX® coupling hub, motor side | 20. Temperature switch type TS |
| 6. Filler breather (with ventilation filter) | 21. PHE plate heat exchanger |
| 7. Foot flange type PTFS (VDMA 24 561 part 1) | 22. Damping rod design DSK for PIK |
| 8. Damping rod design DSFS for foot flange type PTFS | 23. Gasket type DZ for additional flange type ZO |
| 9. ROTEX® coupling hub, pump side | 24. Industrial controller IR |
| 10. Bellhousing PIK with integrated oil cooler | 25. IRDN digital industrial control with level switch |
| 11. Fan for PIK | 26. Horizontally mounted cooler TAK |
| 12. Standard cleaning cover | 27. Tank heaters |
| 13. Additional flange type ZO | 28. OPC Cooling-pump-unit with hydraulic pump filter |
| 14. Cleaning cover with logo according to customer specification | 29. OAC-Oil/air coller |
| 15. Oil sump pan | 30. Level temperature switch NVT |

KTR-STOP®



What drives us now? Brakes.

For many years we have been in the brake business. We have now put to good use this accumulated know-how and have performed tests on our test benches. Through the use of an accurate stop-and-go analysis even the slightest weak points were diagnosed and adjusted. The result of this consistent development of our products' strength is an efficient and tough brake system.

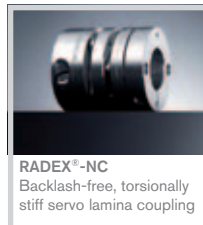
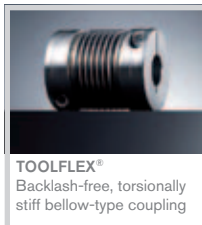
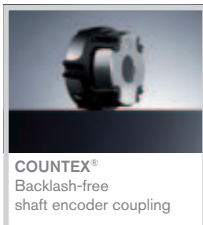
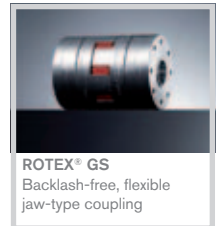
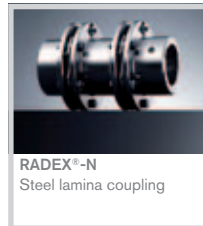
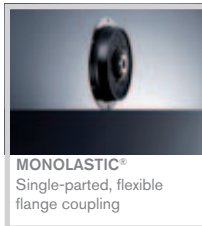
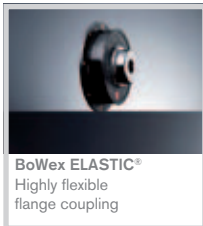
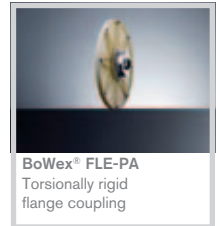
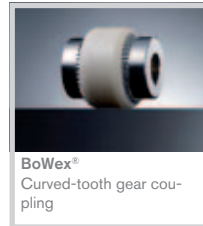
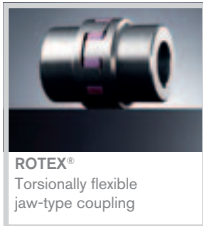
More compact design – higher power density

In KTR there is one structural credo: We design all components as compact as possible to leave the utmost space to you. The same applies for our new brake systems. Their design with an optimised space allows for a high power density with low weight. The compact dimensions extend the application range, at the same time reducing the transport, storage and mounting expenses.

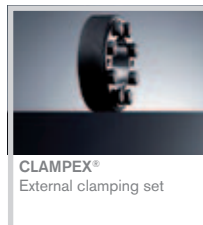
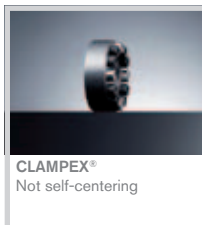
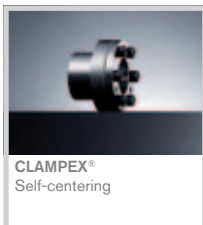
The right brake for every application

With KTR-STOP® we offer the perfect brake solution for every demand on a drive - with brake forces from 1 to 500 kN, in an active or spring-actuated design. The brake forces are as variable as the applications: The variety includes marine and offshore technology as well as crane building, mining and conveyor technology to wind turbines and mill building. On the high seas we brake winches, anchor windlasses and deck cranes. On the land we safely brake belt conveyors, bucket wheel excavators, reclaimers or stackers. In addition, we can stop large wind turbines via yaw brakes and rotor lock, if necessary.

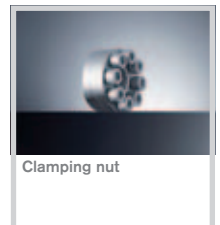
Couplings



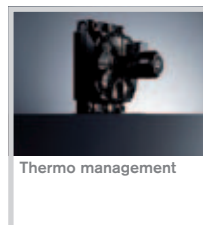
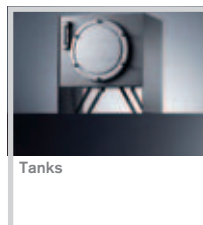
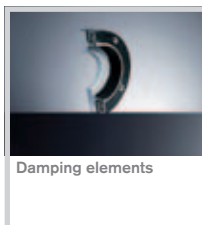
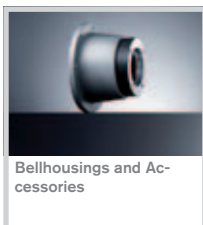
Clamping sets



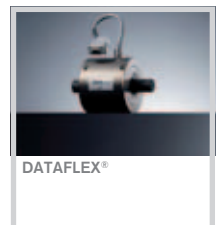
Clamping nuts



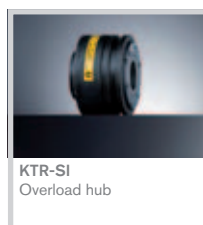
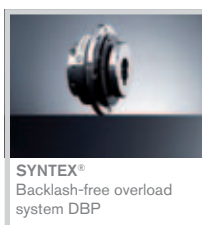
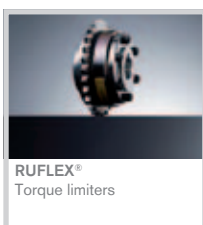
Hydraulic Components



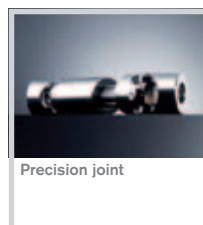
Torque measuring shafts



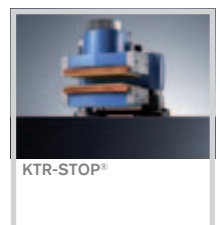
Torque Limiter



Precision joints



Hydraulic brakes



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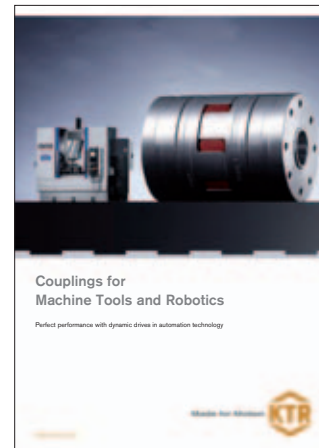
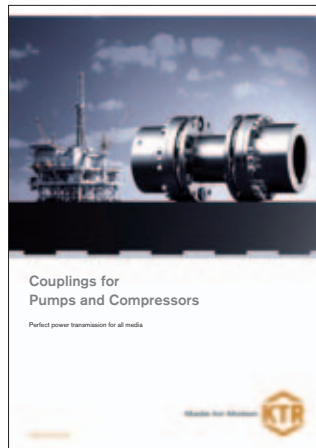
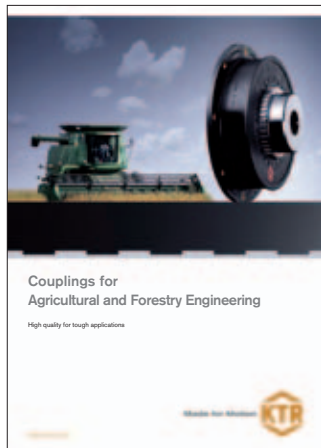
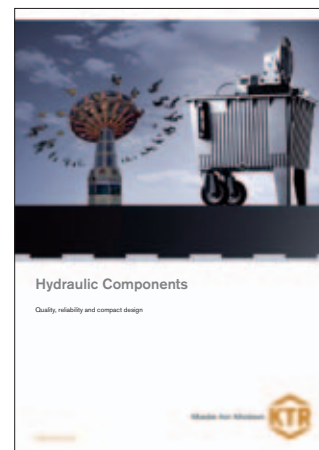
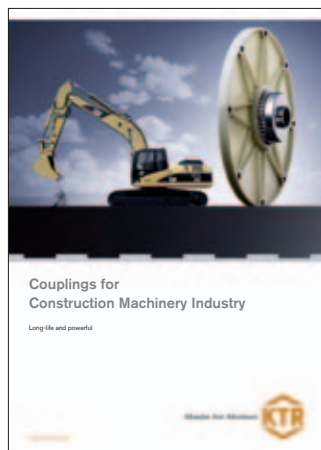
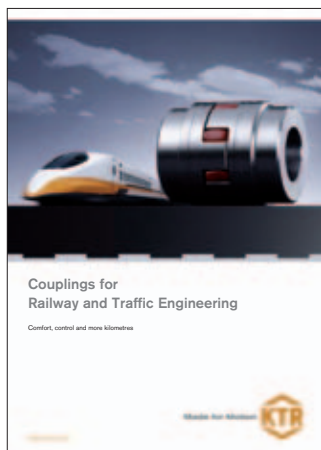
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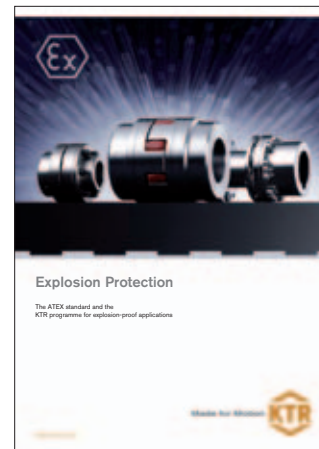
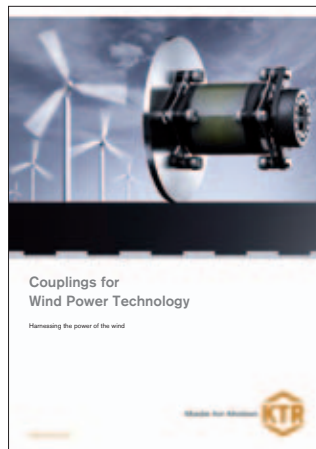
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