

REVOLEX®

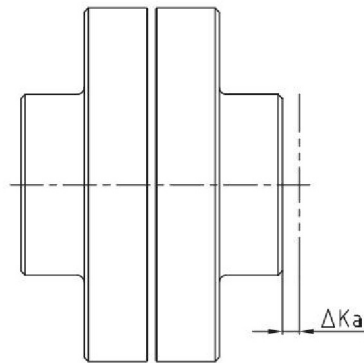
Flexible pin & bush coupling

Technical data

REVOLEX® KX-D Technical data											
Size	Torque [Nm] NBR 80 Sh-A			G.J.L.		Steel		Dyn. torsion spring stiffness [Nm/rad]			
	Rated T_{KN}	Max. T_{Kmax}	Vibratory T_{KW}	Max. speed [rpm] with $V=35$ m/s	Max. bore [mm]	Max. speed [rpm] with $V=60$ m/s	Max. bore [mm]	0.25x T_{KN}	0.50x T_{KN}	0.75x T_{KN}	1.00x T_{KN}
KX-D 75	3800	7600	1520	-	-	4500	90	0,64x10 ⁶	0,941x10 ⁶	1,355x10 ⁶	1,864x10 ⁶
KX-D 85	5000	10000	2000	-	-	4175	100	0,834x10 ⁶	1,224x10 ⁶	1,763x10 ⁶	2,425x10 ⁶
KX-D 95	6600	13200	2640	-	-	3845	110	1,077x10 ⁶	1,580x10 ⁶	2,277x10 ⁶	3,131x10 ⁶
KX-D 105	8650	17300	3460	2000	110	3475	120	1,404x10 ⁶	2,060x10 ⁶	2,967x10 ⁶	4,081x10 ⁶
KX-D 120	14110	28220	5640	1800	125	3100	140	1,742x10 ⁶	2,350x10 ⁶	3,297x10 ⁶	4,443x10 ⁶
KX-D 135	18890	37380	7476	1600	140	2725	160	2,304x10 ⁶	3,108x10 ⁶	4,360x10 ⁶	5,876x10 ⁶
KX-D 150	23100	46200	9240	1450	160	2500	185	2,880x10 ⁶	3,885x10 ⁶	5,450x10 ⁶	7,345x10 ⁶
KX-D 170	36900	73800	14760	1250	180	2150	220	4,550x10 ⁶	6,272x10 ⁶	1,050x10 ⁷	1,396x10 ⁷
KX-D 190	48210	96420	19284	1100	205	1900	245	5,980x10 ⁶	8,243x10 ⁶	1,138x10 ⁷	1,534x10 ⁷
KX-D 215	61900	123800	24760	1000	230	1725	275	7,634x10 ⁶	1,052x10 ⁷	1,462x10 ⁷	1,982x10 ⁷
KX-D 240	92030	184060	36812	900	250	1550	310	1,101x10 ⁷	2,350x10 ⁷	3,613x10 ⁷	4,861x10 ⁷
KX-D 265	121900	243800	48760	800	285	1375	350	1,456x10 ⁷	3,108x10 ⁷	4,778x10 ⁷	6,429x10 ⁷
KX-D 280	158800	317600	63520	720	315	1225	385	1,896x10 ⁷	4,047x10 ⁷	6,221x10 ⁷	8,371x10 ⁷
KX-D 305	191060	382120	76424	675	330	1150	405	2,287x10 ⁷	4,880x10 ⁷	7,502x10 ⁷	1,009x10 ⁸
KX-D 330	251200	502400	100480	625	355	1075	435	3,001x10 ⁷	6,403x10 ⁷	9,643x10 ⁷	1,324x10 ⁸
KX-D 355	300000	600000	120000	575	380	975	450	3,572x10 ⁷	7,622x10 ⁷	1,172x10 ⁸	1,577x10 ⁸
KX-D 370	400000	800000	160000	535	450	900	530	4,518x10 ⁷	9,640x10 ⁷	1,482x10 ⁸	1,994x10 ⁸
KX-D 470	510000	1020000	204000	-	-	855	520	6,325x10 ⁷	1,350x10 ⁸	2,075x10 ⁸	2,208x10 ⁸
KX-D 520	715000	1430000	286000	-	-	740		8,832x10 ⁷	1,885x10 ⁸	2,897x10 ⁸	3,083x10 ⁸
KX-D 590	950000	1900000	380000	-	-	660		1,177x10 ⁸	2,5107x10 ⁸	3,859x10 ⁸	4,107x10 ⁸
KX-D 650	1220000	2440000	488000	-	-	590		1,512x10 ⁸	3,228x10 ⁸	4,959x10 ⁸	5,277x10 ⁸

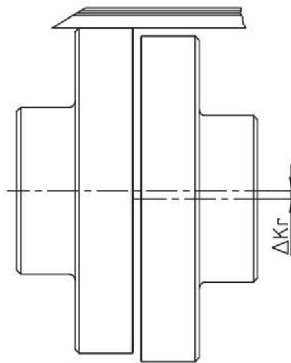
If requested, coupling is dynamically balanced (semi-key balancing G 6.3 with speed on request of customer). For circumferential speeds exceeding $V = 30$ m/s, we would recommend dynamic balancing.

Axial displacement ΔK_a

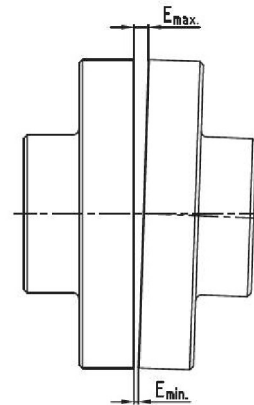


$$L_{max/min} = L + \Delta K_a \text{ [mm]}$$

Radial displacement ΔK_r



Angular displacement ΔK_w



$$\Delta K_w = E_{max} - E_{min} \text{ [mm]}$$

Size (KX and KX-D)	Displacements																					
	75	85	95	105	120	135	150	170	190	215	240	265	280	305	330	355	370	470	520	590	650	
Max. axial displacements ΔK_a [mm]	$\pm 1,5$	$\pm 1,5$	$\pm 1,5$	± 2	± 2	± 2	$\pm 2,5$	$\pm 2,5$	$\pm 2,5$	$\pm 2,5$	$\pm 2,5$	$\pm 2,5$	$\pm 2,5$	$\pm 2,5$	± 4	± 4	± 4	± 4	± 4	± 4	± 4	
Max. radial displacement ΔK_r [mm] or max. angular displacements ΔK_w [mm] with speed n	250 rpm	0,95	1,1	1,1	1,2	1,3	1,4	1,5	1,7	1,9	2,0	2,2	2,5	2,7	2,9	3,1	3,3	3,5	3,8	4,4	4,9	5,4
	500 1/min	0,70	0,80	0,80	0,9	0,9	1,0	1,1	1,2	1,3	1,4	1,6	1,7	1,9	2,0	2,2	2,3	2,5	2,8	3,1	3,5	3,8
	750 1/min	0,60	0,65	0,65	0,7	0,8	0,8	0,9	1,0	1,1	1,2	1,3	1,4	1,6	1,7	1,8	1,9	2,0	2,2	2,4	-	-
	1000 1/min	0,50	0,55	0,55	0,6	0,7	0,7	0,8	0,9	0,9	1,0	1,1	1,2	1,4	1,4	1,5	1,7	1,8	-	-	-	-
	1500 1/min	0,40	0,45	0,45	0,5	0,5	0,6	0,6	0,7	0,8	0,8	0,9	1,0	-	-	-	-	-	-	-	-	-
2000 1/min	0,35	0,40	0,40	0,4	0,5	0,5	0,5	0,6	0,7	-	-	-	-	-	-	-	-	-	-	-	-	
3000 1/min	0,30	0,35	0,35	0,4	0,4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

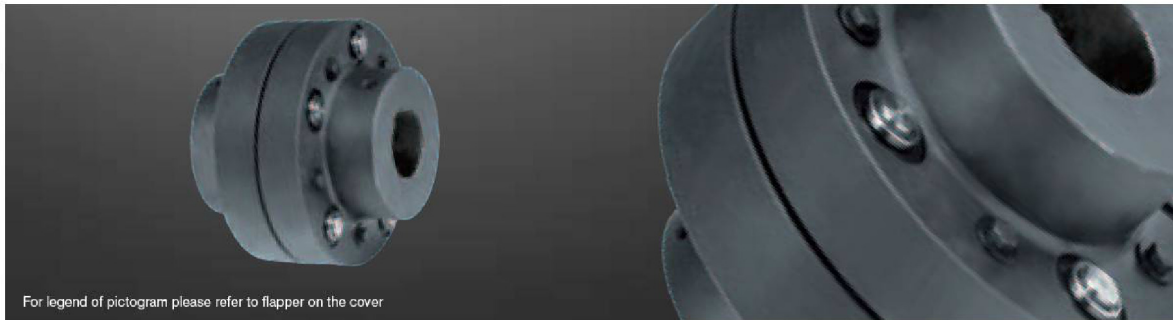
Assembly instructions

The above-mentioned permissible displacement figures of the flexible REVOLEX® KX couplings are standard values, considering the coupling load up to the rated torque T_{KN} of the coupling and an ambient temperature of + 30 °C. Care should be taken to maintain the distance dimension E accurately in order to allow for axial clearance of the coupling while in operation. See KTR mounting instructions, KTR standard 49410 at our homepage www.ktr.com.

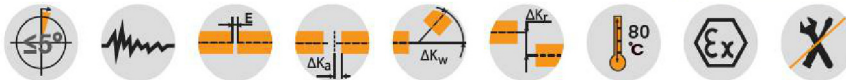
REVOLEX® KX-D

Flexible pin & bush coupling

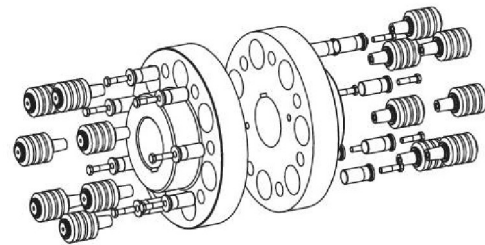
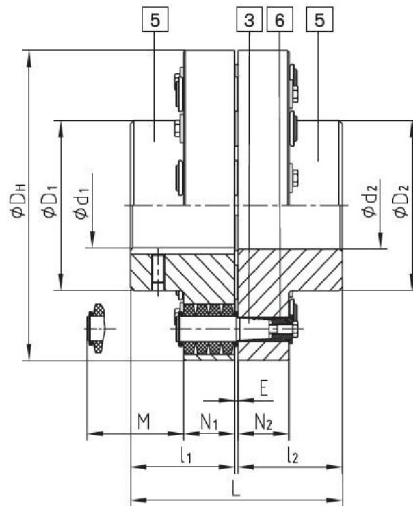
Casted material



For legend of pictogram please refer to flapper on the cover



Components



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

REVOLEX® Type KX-D													
Size	Torque ¹⁾ [Nm]		Max. speed ²⁾ [rpm]	Finish bore [min. - max.] d ₁ ; d ₂	Dimensions [mm]							Mass moments of inertia ³⁾	Approx. weight ³⁾ [kg]
	T _{KN}	T _{Kmax.}			L	l ₁ ; l ₂	E	D _H	D ₁ ; D ₂	N ₁ ; N ₂	M*		
KX-D 105	8650	17300	2000	34-110	237	117	3	330	180	56	76	0,907	68
KX-D 120	14110	28220	1800	50-125	270	132	6	370	206	76	100	1,867	108
KX-D 135	18690	37380	1600	70-140	300	147	6	419	230	76	100	3,144	145
KX-D 150	23100	46200	1450	82-160	336	165	6	457	256	76	100	4,573	180
KX-D 170	36900	73800	1250	95-180	382	188	6	533	292	92	130	10,259	291
KX-D 190	48210	96420	1100	110-205	428	211	6	597	330	92	130	16,601	385
KX-D 215	61900	123800	1000	125-230	480	237	6	660	368	92	130	25,495	498
KX-D 240	92030	184060	900	140-250	534	264	6	737	407	122	170	50,147	760
KX-D 265	121900	243800	800	160-285	590	292	6	826	457	122	170	80,796	997
KX-D 290	158800	317600	720	180-315	628	311	6	927	508	122	170	129,979	1301
KX-D 305	191060	382120	675	180-330	654	324	6	991	533	122	170	170,016	1509
KX-D 330	251200	502400	625	200-355	666	330	6	1067	572	122	170	227,451	1755
KX-D 355	300000	600000	575	225-450	721	356	9	1156	610	164	220	415,259	2263
KX-D 370	400000	800000	535	225-530	773	382	9	1250	720	164	220	586,686	2701

* Drop-out center dimension

¹⁾ Standard material NBR 80 Shore-A, please observe selection on page 14 et seqq.

²⁾ Higher speeds on request.

³⁾ Relating to max. bore

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

If requested, coupling is dynamically balanced (semi-key balancing G 6.3 with speed on request of customer). For circumferential speeds exceeding V = 30 m/s, we would recommend dynamic balancing.

■ = vorgebohrt ab Lager lieferbar

Ordering example:

REVOLEX® KX-D 170	GJL	Ø120	Ø150
Size and type of coupling	Material	Finish bore	Finish bore

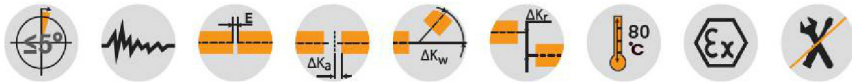
REVOLEX® KX-D

Flexible pin & bush coupling

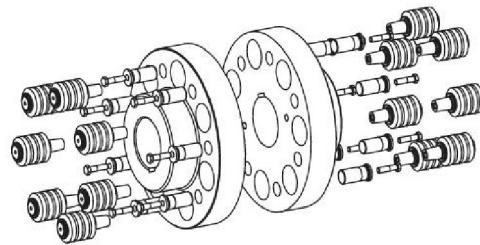
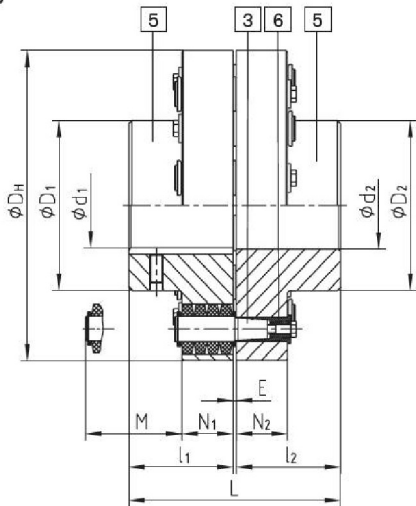
Material steel



For legend of pictogram please refer to flapper on the cover



Components



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

REVOLLEX® Type KX-D													
Size	Torque ¹⁾ [Nm]		Max. speed ²⁾ [rpm]	Finish bore [min. - max.]	Dimensions [mm]							Mass moments of inertia ³⁾ [kgm ²]	Approx. weight ³⁾ [kg]
	TKN	TKmax.			d ₁ ; d ₂	L	l ₁ ; l ₂	E	D _H	D ₁ ; D ₂	N ₁ ; N ₂		
KX-D 75	3800	7600	4500	0-90	193	95	3	255	136	56	76	0,325	39
KX-D 85	5000	10000	4175	0-100	213	105	3	274	152	56	76	0,440	46
KX-D 95	6600	13200	3825	0-110	227	112	3	298	168	56	76	0,624	56
KX-D 105	8650	17300	3475	0-120	237	117	3	330	180	56	76	0,907	80
KX-D 120	14110	28220	3100	0-140	270	132	6	370	206	76	100	1,867	124
KX-D 135	18690	37380	2725	70-160	300	147	6	419	230	76	100	3,144	165
KX-D 150	23100	46200	2500	82-185	336	165	6	457	256	76	100	4,573	205
KX-D 170	36900	73800	2150	95-220	382	188	6	533	292	92	130	10,259	322
KX-D 190	48210	96420	1900	110-245	428	211	6	597	330	92	130	16,601	431
KX-D 215	61900	123800	1725	125-275	480	237	6	660	368	92	130	25,495	559
KX-D 240	92030	184060	1550	140-310	534	264	6	737	407	122	170	50,147	833
KX-D 265	121900	243800	1375	160-350	590	292	6	826	457	122	170	80,796	1099
KX-D 280	158800	317600	1225	180-385	628	311	6	927	508	122	170	129,979	1436
KX-D 305	191060	382120	1150	180-405	654	324	6	991	533	122	170	170,016	1669
KX-D 330	251200	502400	1075	200-435	666	330	6	1067	572	122	170	227,451	1954
KX-D 355	300000	600000	975	225-450	721	356	9	1156	610	164	220	415,259	2451
KX-D 370	400000	800000	900	225-530	773	382	9	1250	720	164	220	584,686	2925
KX-D 470	510000	1020000	855	240-520	969 ⁴⁾	480 ⁴⁾	9	1340	705 ⁴⁾	164	220	785,489	3631
KX-D 520	715000	1430000	760	240-520 ⁴⁾	1089 ⁴⁾	540 ⁴⁾	9	1540	780 ⁴⁾	164	220	1264,725	5155
KX-D 590	950000	1900000	680	260-590 ⁴⁾	1212 ⁴⁾	600 ⁴⁾	12	1735	885 ⁴⁾	164	220	2081,885	6895
KX-D 650	1220000	2440000	610	280-650 ⁴⁾	1332 ⁴⁾	660 ⁴⁾	12	1935	975 ⁴⁾	164	220	3228,297	8893

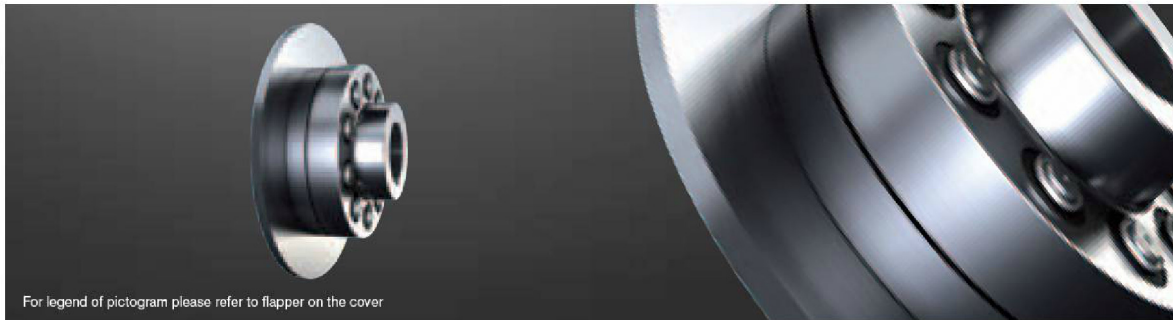
* Drop-out center dimension
¹⁾ Standard material NBR 80 Shore-A, for selection see page 14 et seqq. ²⁾ Higher speeds on request. ³⁾ Relating to max. bore ⁴⁾ Variable according to customer's requests
 Finish bore acc. to ISO fit H7, feather keyway acc. to DIN 6885 sheet 1 - JS9.
 If requested, coupling is dynamically balanced (semi-key balancing G 6.3 with speed on request of customer). For circumferential speeds exceeding V = 30 m/s, we would recommend dyn. balancing.
 = vorgebohrt ab Lager lieferbar

Ordering example:	REVOLLEX® KX-D 170	Stahl	Ø120	Ø150
	Size and type of coupling	Material	Finish bore	Finish bore

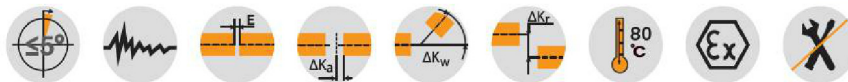
REVOLEX® KX-D SB

Flexible pin & bush coupling

With brake disk



For legend of pictogram please refer to flapper on the cover



REVOLEX® KX-D Type SB															
Size	Torque ¹⁾ [Nm] KX-D		Finish bore KX-D GJL [min. - max.]		Finish bore KX-D [min. - max.]		Dimensions [mm]								
	TKN	TKmax.	d ₁	d ₂	GJL d ₁ ; d ₂	Steel d ₁ ; d ₂	L	l ₁ ; l ₂	E	D _H	D _I	N ₁	N ₂	N ₃	M*
105	8650	17300	34-110	34-125	34-110	0-120	287	117	3	330	180	56	29	55	76
120	14110	28220	50-125	50-145	50-125	0-140	270	132	6	370	206	76	45	75	100
135	18690	37380	70-140	70-150	70-140	70-160	300	147	6	419	230	76	45	75	100
150	23100	46200	82-160		82-160	82-185	336	165	6	457	256	76	45	75	100
170	36900	73800	95-180		95-180	95-220	382	188	6	533	292	82	62	91	130
190	48210	96420	110-205		110-205	110-245	428	211	6	597	330	92	62	91	130
215	61900	123800	125-230		125-230	125-275	480	237	6	660	368	92	62	91	145
240	92030	184060	140-250		140-250	140-310	534	264	6	737	407	122	75	121	167

Selection of coupling/brake disk dimension "N"						
Size	Brake disk ØA x b ³⁾					
	Ø560x30	Ø630x30	Ø710x30	Ø800x30	Ø900x30	Ø1000x30
	KX-D	KX-D	KX-D	KX-D	KX-D	KX-D
105	47	47				
120	42	42				
135		57	57			
150			75	75		
170			82	82		
190				105		
215				131	131	131
240				128	128	128

* Drop-out center dimension

¹⁾ Standard material NBR 80 Shore-A, for selection see page 14 et seqq. ²⁾ Higher speeds on request.

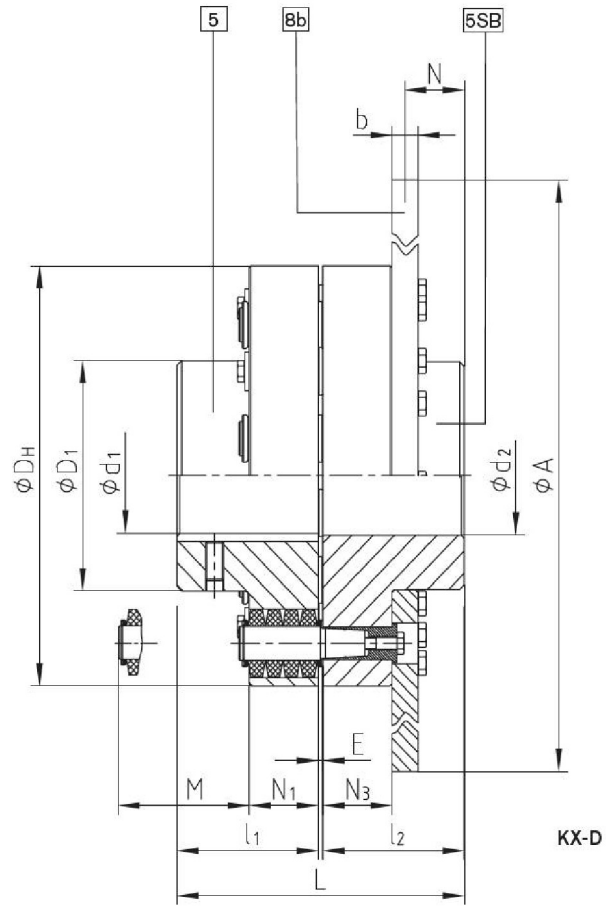
³⁾ Maximum circumferential speed = 60 m/s referring to maximum outside diameter.

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

If requested, coupling is dynamically balanced (semi-key balancing G 6.3 with speed on request of customer). For circumferential speeds exceeding 30 m/s (referring to outside diameter ØA) we would recommend dynamic balancing.

Ordering example:

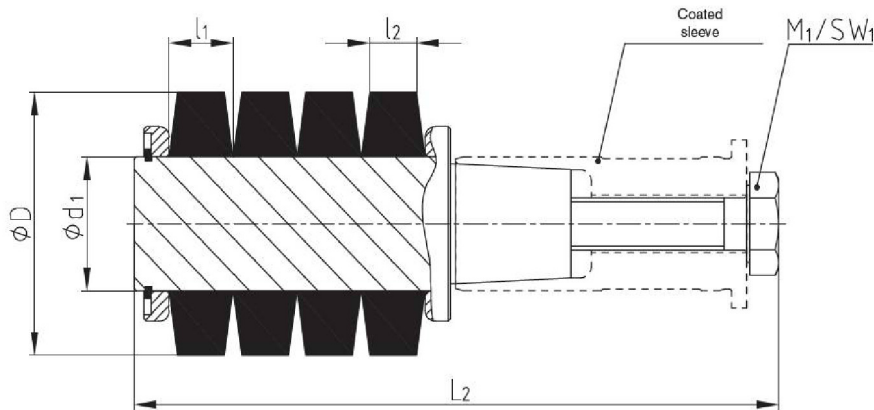
REVOLEX® KX 170	SB	Ø710x30	1 - Ø120	2SB - Ø150
Size and type of coupling	Type	Brake disk	Finish bore	Finish bore



REVOLEX® KX-D

Flexible pin & bush couplings

Technical data of pins



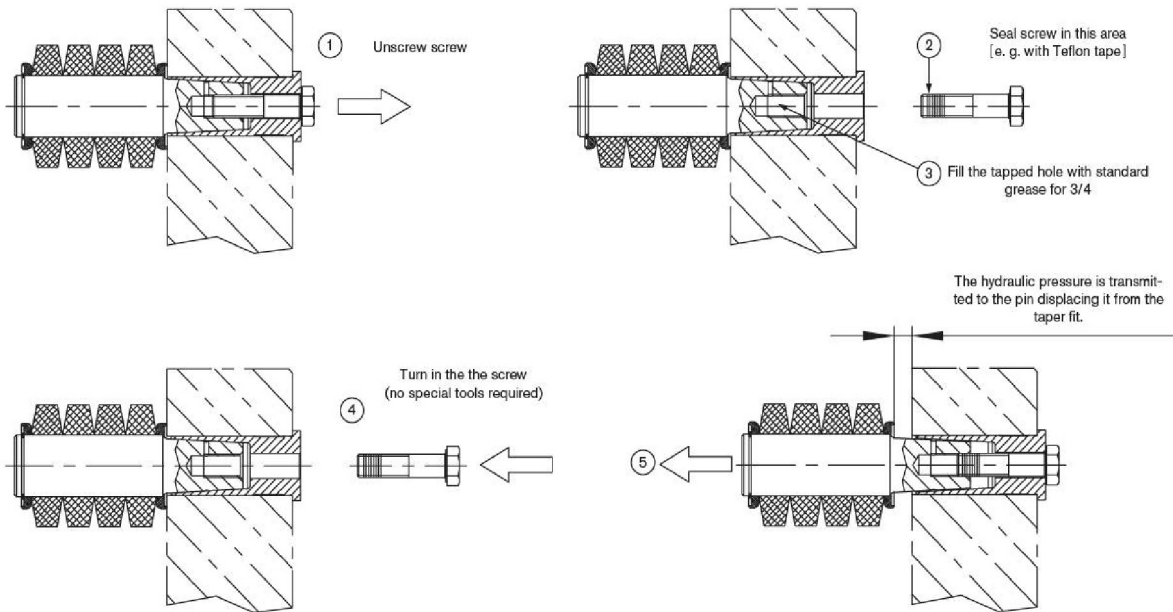
Taper pin design B

KX-D

Technical data											
Size	Pin		Component 3.2			Component 3.1b			Component 3.4b		Tightening torque T_A [Nm]
	Size	No. z	Elastomer ring NBR 80 Shore A			Pin			Screw DIN 931/933		
	KX-D		D	l_1	l_2	d_1	L_1	L_2	M_1	SW_1	
75	3	10									
85	3	12									
95	3	14	50,0	12,7	9,0	25,40	103	129	M10	16	67
105	3	16									
120	4	14									
135	4	16	63,0	17,8	12,5	30,60	147,5	178	M12	18	115
150	4	18									
170	5	14									
190	5	16	85,5	22,9	15,2	43,20	191	220	M16	24	290
215	5	18									
240	6	14									
265	6	16									
280	6	18	113,7	30,5	20,3	58,40	244	290	M24	36	970
305	6	20									
330	6	24									
355	7	16									
370	7	20	150	41	28	75	-	387	M30	46	1950
470	7	22									

General information on the elastomer rings			
	Perbunan (NBR)	Natural rubber (NR)	Perbunan (NBR)
Material	Perbunan (NBR)	Natural rubber (NR)	Perbunan (NBR)
Spider hardness	80 Shore-A	80 Shore-A	80 Shore-A
Permanent temperature range [°C]	- 30 to +80	- 50 to +70	- 30 to +80
Max. temperature (short-term) [°C]	- 50 to +120	-	-
Colour	black	black	blue
Operating range	STANDARD	Temperatures below zero	Electrically insulating and backlash-free, e. g. ropeway drives
			

Assembly/disassembly

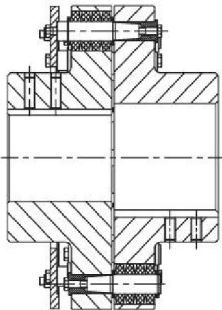


ROTEX®

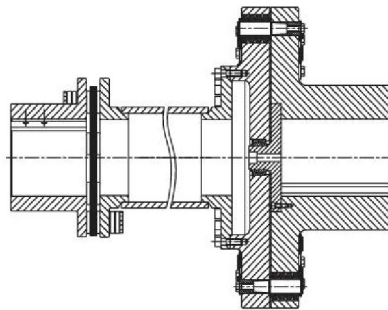
POLY-NORM®

Other types

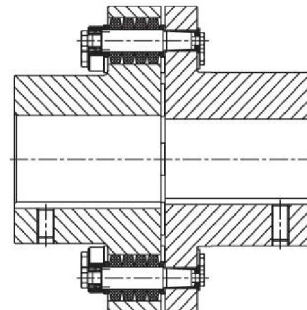
Type AB
with limited axial backlash



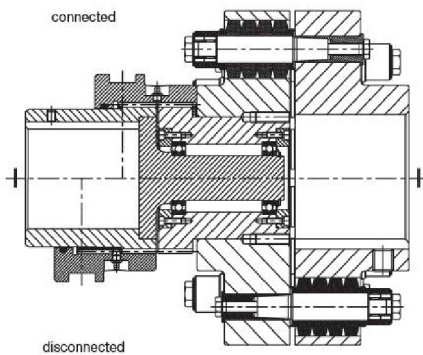
Intermediate shaft type with RADEX®-N



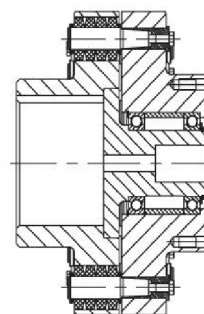
Backlash-free type



Type KX-D SD
shiftable with shiftable linkage



Type KX-D
with cardan shaft connection



POLY

REVOLEX®