

Coupling description

RADEX®-N – couplings are designed to transmit torque between drive and driven components via steel hubs and flexible metallic elements commonly known as discs. The combination of these components provides high stiffness with accommodation for misalignments. This product is available in a variety of shaft gaps to meet your specific needs.

RADEX®-N – is a zero-backlash, torsional rigid, lubrication-free coupling suitable for horizontal or vertical applications constructed from a variety of steel alloys, reducing the need for coupling maintenance. This accommodates misalignment while maintaining a torsionally rigid platform capable of high speeds, temperatures and torques. The precision machined hubs are available in a variety of hub mounting designs, optimized to accommodate maximum bore sizes while utilizing stainless disc pack(s) and several spacer combinations to accommodate misalignments while minimizing restoring forces.



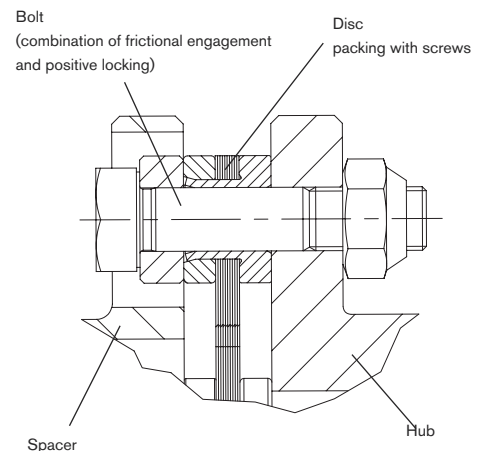
Disc Design

The disc packs are assembled from layers of stainless spring steel and are available in 4, 6 and 8 bolts designs, each optimized by finite element analysis to maximize misalignment capability and torque transmission. As in most disc couplings, the hub to disc connection is crucial to overall coupling performance. The RADEX®-N features a pre-assembled disc pack with high-grade shoulder bolts, inducing a preload on the disc, contributing to a 30% increase in torsional rigidity while minimizing spacer movement.



Disc pack with bolts

The standard hubs are available for shafts up to 13 inches and a maximum nominal torque of 2,478,280 lb-in. RADEX®-N couplings are suitable for high industrial temperature ranges. Standard solutions are available for most pump and compressor applications with designs in accordance with API 610.



Explosion protection use

RADEX®-N couplings are suitable for power transmission of drives in hazardous areas. The couplings are certified to EC standard 94/9/EC (ATEX 95) as units of category 2G/2D and therefore suitable for use in hazardous areas of zone 1, 2, 21 and 22. Please see information included in the Clamping ring hubs section, (clamping hub without keyway only for category 3), used in hazardous areas must be selected to provide a safety of $s = 2$ from the peak torque of the unit. This includes all operating parameters to the torque of frictional engagement and to the nominal torque of the coupling.

Examination Certificate and operating and installation instructions at www.ktr.com.



General information

Availability

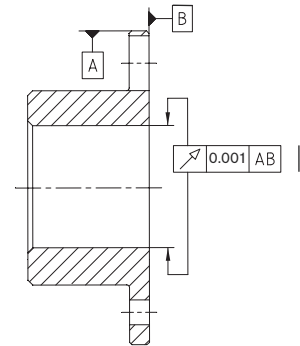
RADEX®-N couplings are shipped as individual parts (assembled on request). The hubs can be supplied unbored (RSB), finish machined with keyway or with a frictionally engaged shaft-hub-connection.

Assembly and operating recommendations

Please see our installation instructions KTR standard 471 10 at www.ktr.com.

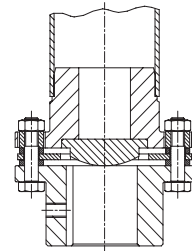
For assembly it is important to make sure that the disc packs are assembled with zero axial preload.

When the finish bore is machined by the customer, the concentric and axial running tolerances must be applied. (See sketch right).



Installation:

RADEX®-N couplings are designed for horizontal installation. For vertical installation, the spacer must be radially supported (see sketch right). Please contact KTR Engineering for details.



Delivery condition

RADEX®-N are delivered as individual parts (can be delivered assembled on request). The hubs can be supplied unbored or with finish bore and keyway or with a frictionally engaged shaft-hub-connection. The shaft-hub-connection needs to be inspected by the customer (consult with KTR, if necessary).



Balancing:

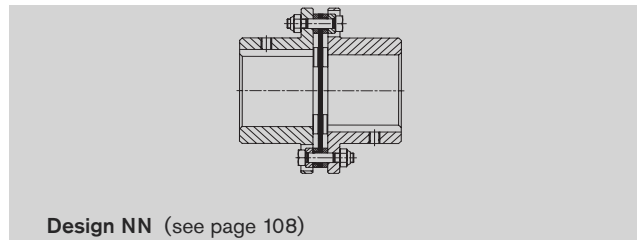
RADEX®-N couplings can be balanced on request. For most applications this is not necessary because the coupling is precision machined to AGMA or ISO standards. Please consult with KTR if you have questions.

Safety regulations:

The coupling must be selected so that the allowable coupling load is not exceeded in any operating condition. A comparison between the actual loads with the allowable coupling capacities must be performed. The customer must protect rotating parts against unintended contact (Safety of Machines DIN EN 292 part 2). Please take care to include sufficient coupling protection (guarding) to protect from injury.

Designs and applications

Designs



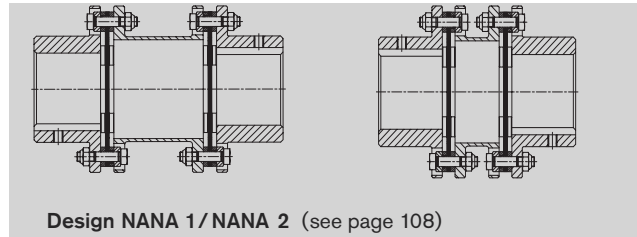
Design NN (see page 108)

Characteristics

Single cardanic design
Angular and axial misalignment allowable
High torsional rigidity
Compact dimensions

Applications

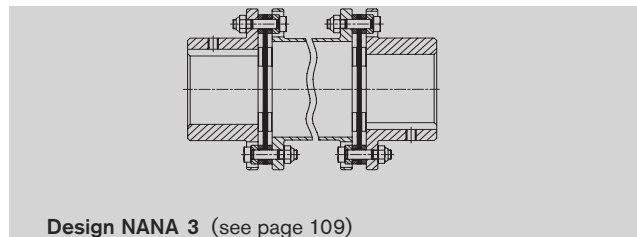
Mixers
Gearbox / transmissions
Immersion pumps
Fans
High radial load applications



Design NANA 1 / NANA 2 (see page 108)

Double-cardanic design
Angular, radial and axial misalignment allowable
Accommodates misalignment with low restoring forces
Standard spacers available

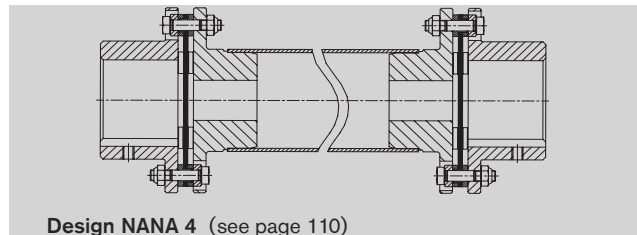
Gearbox / transmissions
Printing and processing machines
Conveyors
Generators
Grinding machines



Design NANA 3 (see page 109)

Double-cardanic design
Angular, radial and axial misalignment allowable
Accommodates misalignment with low restoring forces
Standard spacers available
Dropout spacer design
Available according to API 610

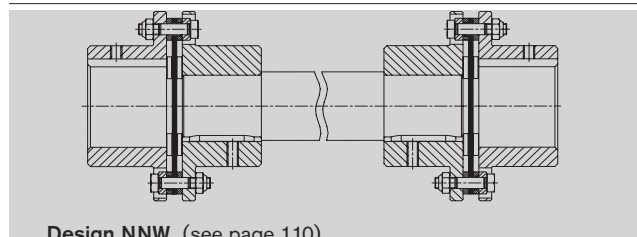
Process pumps
Water pumps
Pumps according to API standard
Turbines
Compressors / blowers



Design NANA 4 (see page 110)

Double-cardanic design
Angular, radial and axial misalignment allowable
Accommodates misalignment with low restoring forces
Custom spacer lengths with DBSEs up to 236 inches
Dropout design utilizing welded spacers for torsional rigidity

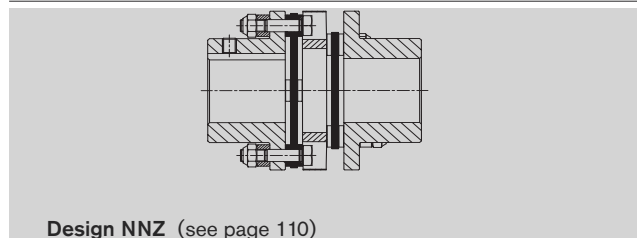
Paper and metal working machines
Pallet and conveyor systems
Portal robots
Test benches
Cooling towers/ blowers



Design NNW (see page 110)

Double-cardanic design
Angular, radial and axial misalignment allowable
Accommodates misalignment with low restoring forces
Dropout custom spacer lengths determined by customer
Coupling consisting of 2 x design NN with intermediate shaft
Intended for low speed drives

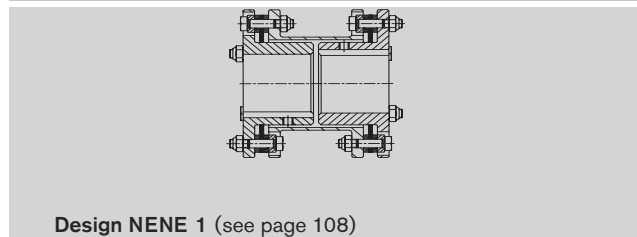
Low speed drives with long DBSE's
Agitating machines
Crushers
Presses
Packaging machines



Design NNZ (see page 110)

Compact double-cardanic design
Angular, radial and axial misalignment allowable
Includes intermediate disc
Dimensional replacement of curved tooth steel gear couplings
Standard design up to size 70

Robotics
Paper machines and inserters
Machine tools
Packaging machines
Test benches



Design NENE 1 (see page 108)

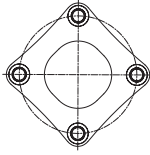
Double-cardanic design
Angular, radial and axial misalignment allowable
Accommodates misalignment with low restoring forces with reduced moment load
Spacers cannot be assembled radially
Variable spacer lengths

Applications with short DBSE's
Dimensional replacement for steel curved-tooth gear couplings

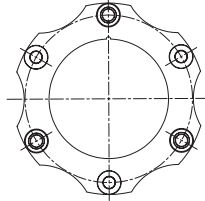
Technical data

The following laminae types are distinguished for RADEX-N

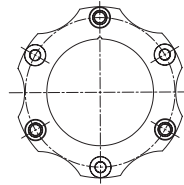
Size 20 - 50
(4 hole laminae)



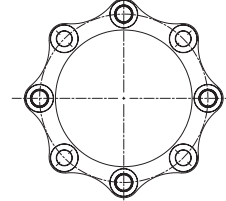
Size 60 - 135
(6 hole laminae)



Size 136 - 336
(6 hole laminae)



Size 138 - 338
(8 hole laminae)



Torques and displacements

Size	Laminae Types	Torques [lb-in]			Angular [°] each disc	Permissible displacements			
		T _{KN}	T _{K max}	T _{KW}		Axial [in]		Radial [in]	
						NN	NANA 1/ NANA2/NNZ	NANA 1	NANA 2/NNZ
20	4 bolt	130	270	40	1.0	0.02	0.05	0.02	0.0
25		270	530	90	1.0	0.03	0.06	0.02	0.01
35		530	1,060	180	1.0	0.04	0.08	0.02	0.01
38		1,060	2,120	350	1.0	0.05	0.09	0.02	0.01
42		1,590	3,190	530	1.0	0.06	0.11	0.02	0.01
50		2,920	5,840	970	1.0	0.06	0.13	0.03	0.02
60	6 bolt	6,110	12,210	2,040	1.0	0.04	0.08	0.06	0.03
70		9,740	19,470	3,270	1.0	0.04	0.09	0.07	0.04
80		13,280	26,550	4,430	1.0	0.05	0.10	0.08	0.05
85		21,240	42,480	7,080	1.0	0.05	0.10	0.09	0.05
90		39,830	79,660	13,280	1.0	0.04	0.08	0.09	0.04
105		45,140	90,280	15,050	1.0	0.05	0.09	0.09	0.06
115		79,660	159,320	26,550	1.0	0.06	0.11	0.10	0.06
135		106,210	212,420	35,400	1.0	0.07	0.14	0.15	-
136		154,890	309,790	77,450	0.7	0.07	0.15	-	-
156		221,280	442,550	110,640	0.7	0.08	0.17	-	-
166		309,790	619,570	154,890	0.7	0.09	0.18	-	-
186		371,740	743,480	185,870	0.7	0.09	0.19	-	-
206		464,680	929,360	232,340	0.7	0.10	0.20	-	-
246		796,590	1,593,180	398,300	0.7	0.12	0.24	-	-
286	1,327,650	2,655,300	663,830	0.7	0.13	0.26	-	-	
336	1,858,710	3,717,420	929,360	0.5	0.15	0.30	-	-	
138	8 bolt	203,570	407,150	101,790	0.5	0.05	0.10	-	-
158		292,080	584,170	146,040	0.5	0.06	0.11	-	-
168		398,300	796,590	199,150	0.5	0.06	0.12	-	-
188		495,660	991,310	247,830	0.5	0.06	0.13	-	-
208		619,570	1,239,140	309,790	0.5	0.07	0.14	-	-
248		1,062,120	2,124,240	531,060	0.5	0.08	0.16	-	-
288		1,770,200	3,540,400	885,100	0.5	0.09	0.18	-	-
338		2,478,280	4,956,560	1,239,140	0.5	0.10	0.20	-	-

$$\Delta Kr = \tan 0,5^\circ \times (E_7 - E_1)$$

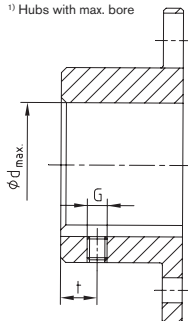
Permissible speeds and torsional stiffness

Size	Max. speed [rpm] (higher speeds on request)	Torsional rigidity x10 ⁶ [lb-in/rad] per disc pack	Size	Max. speed [rpm] (higher speeds on request)	Torsional rigidity x10 ⁶ [lb-in/rad] per disc pack
20	20,000	0.1505	156	3,500	81.43
25	16,000	0.2478	166	3,300	122.14
35	13,000	0.8143	186	3,000	162.86
38	12,000	1.753	206	2,800	210.65
42	10,000	2.496	246	2,300	251.37
50	8,000	4.434	286	2,000	366.43
60	6,700	4.957	336	1,800	429.27
70	5,900	7.966	138	3,800	116.83
80	5,100	10.09	158	3,500	161.97
85	4,750	13.45	168	3,300	231.90
90	4,300	17.17	188	3,000	274.38
105	4,000	22.48	208	2,800	460.25
115	3,400	30.80	248	2,300	628.42
135	3,000	60.63	288	2,000	955.91
136	3,800	67.62	338	1,800	1,380.76

Straight bores

Weights and mass moments in inertia						
Size	Hub ¹⁾ [lb] / [lb-in-sec ²]	Laminae Set [lb] / [lb-in-sec ²]	NN complete [lb] / [lb-in-sec ²]	NANA 1 complete [lb] / [lb-in-sec ²]	NANA 2 complete [lb] / [lb-in-sec ²]	NNZ complete [lb] / [lb-in-sec ²]
20	0.3 / 0.00038	0.1 / 0.00018	0.7 / 0.00097	1.3 / 0.00181	- / -	0.9 / 0.00147
25	0.4 / 0.00103	0.2 / 0.00044	1.2 / 0.00248	2.0 / 0.00462	- / -	1.8 / 0.00366
35	1.3 / 0.00372	0.2 / 0.00089	2.6 / 0.00832	4.2 / 0.01398	- / -	4.0 / 0.01142
38	1.8 / 0.00646	0.4 / 0.00230	4.0 / 0.01505	6.2 / 0.02682	- / -	5.3 / 0.02186
42	2.4 / 0.01089	0.6 / 0.00354	5.3 / 0.02567	7.9 / 0.04266	- / -	6.8 / 0.03620
50	3.7 / 0.02576	1.0 / 0.00885	8.8 / 0.06019	13.7 / 0.10444	- / -	11.2 / 0.08249
60	4.2 / 0.03346	0.9 / 0.01062	9.3 / 0.07700	13.2 / 0.1248	12.8 / 0.12214	11.7 / 0.10621
70	6.2 / 0.06320	0.9 / 0.01416	13.2 / 0.14162	19.0 / 0.22393	18.1 / 0.21419	16.5 / 0.18941
80	9.0 / 11860	1.6 / 0.03275	19.8 / 0.27438	27.8 / 0.42131	26.5 / 0.40538	24.5 / 0.36289
85	11.2 / 0.17259	2.2 / 0.57453	24.7 / 0.4215	35.7 / 0.64966	34.2 / 0.62931	32.6 / 0.57532
90	13.7 / 0.24960	5.1 / 0.14339	32.4 / 0.64612	48.5 / 1.07097	47.0 / 1.05327	44.3 / 0.95591
105	16.8 / 0.36643	4.9 / 0.15932	38.4 / 0.89395	56.9 / 1.46042	54.2 / 1.40731	50.9 / 1.28340
115	26.5 / 0.79570	8.8 / 0.38325	61.5 / 1.97377	94.4 / 3.37223	90.8 / 3.29257	84.5/2.94378
135	41.9 / 1.65514	16.1 / 0.92936	99.4 / 4.23078	157.2 / 7.39059	- / -	- / -
136	37.0 / 1.35420	17.4 / 1.00016	91.3 / 3.70857	/	- / -	- / -
156	44.5 / 1.92067	26.2 / 1.77020	115.1 / 5.61153	/	- / -	- / -
166	66.2 / 3.30142	27.1 / 2.25701	159.4 / 8.85985	/	- / -	- / -
186	92.6 / 5.56728	28.0 / 2.81462	213.2 / 13.94918	/	- / -	- / -
206	121.5 / 8.88640	40.1 / 4.85035	282.9 / 22.62316	/	- / -	- / -
246	189.4 / 19.72888	68.8 / 11.54170	447.8 / 50.99946	/	- / -	- / -
286	319.9 / 44.05143	97.9 / 22.08325	737.4 / 110.18610	/	- / -	- / -
336	493.7 / 92.65227	141.6 / 41.95374	1,129.0 / 227.57691	/	- / -	- / -
138	35.7 / 1.28340	21.8 / 1.26569	93.3 / 3.83248	/	- / -	- / -
158	43.0 / 1.81446	32.9 / 2.23045	119.1 / 5.85936	/	- / -	- / -
168	64.8 / 3.18636	33.5 / 2.81462	163.2 / 9.18734	/	- / -	- / -
188	91.9 / 5.40796	34.4 / 3.50500	218.3 / 14.32092	/	- / -	- / -
208	119.3 / 8.59432	49.4 / 6.01868	287.8 / 23.20732	/	- / -	- / -
248	185.2 / 18.97654	84.2 / 14.20586	454.7 / 52.15894	/	- / -	- / -
288	314.2 / 42.68837	118.6 / 27.04866	747.1 / 112.42540	/	- / -	- / -
288	487.5 / 90.1032	172.0 / 51.4863	1,142 / 231.6926	/	- / -	- / -

¹⁾ Hubs with max. bore

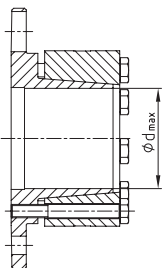


Standard hub 1.0 according to DIN 6885 sheet 1 (with keyway)										
Size	d_{max}	G	t	T_A [lb-in]		Size	d_{max}	G	t	T_A [lb-in]
20	.813	M5	0.24	18		105	4.188	M12	1.18	354
25	1.000	M5	0.31	18		115	4.563	M12	1.18	354
35	1.438	M6	0.59	42		135	5.375			
38	1.500	M6	0.59	42		138	5.375			
42	1.688	M8	0.79	89		158	5.938			
50	2.000	M8	0.79	89		168	6.500			
60	2.375	M8	0.79	89		208	7.125			
70	2.813	M10	0.79	150		248	7.875			
80	3.188	M10	0.79	150		288	9.500			
85	3.375	M10	0.98	150		338	11.063			
90	3.563	M12	0.98	354		338	13.000			
										Per customer specification

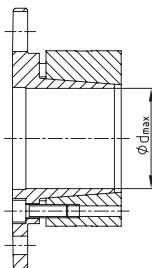
Zero-Backlash shaft-hub connections without keyway

Selection: If used in hazardous areas, the clamping ring hubs must be selected so that there is a minimum safety factor of $sf = 2$ between the peak torque (including all operating parameters), the nominal torque, and frictional torque of engagement of the coupling.

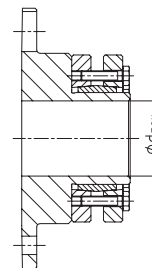
Clamping ring hub design 6.5
(clamping screws from the outside)



Clamping ring hub design 6.0
(clamping screws from the inside)



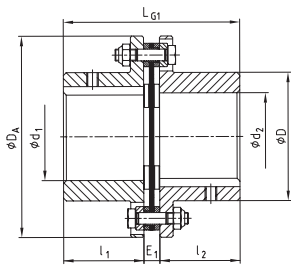
Design with CLAMPEX®
element design 603



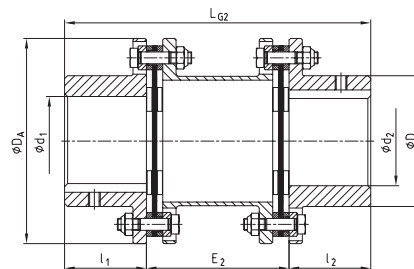
Standard designs



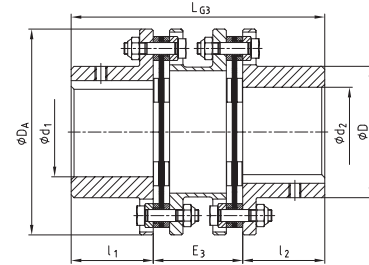
Failsafe, reduced maintenance, zero-backlash
Torsionally stiff
Single and double cardanic designs
CE approved to EC Standard 94/9/EC
Installation instructions available at www.ktr.com



Design NN



Design NANA 1



Design NANA 2

RADEX®-N designs NN, NANA 1, NANA 2,										
Size	Bore		Dimensions [in]							
	d ₁ /d ₂	D	D _A	l ₁ /l ₂	L _{G1}	E ₁	L _{G2}	E ₂	L _{G3}	E ₃
20	0.813	1.26	2.20	0.79	1.77	0.20	3.94	2.36	-	-
25	1.000	1.57	2.68	0.98	2.20	0.24	4.33	2.36	-	-
35	1.438	2.13	3.23	1.57	3.39	0.24	5.91	2.76	-	-
38	1.500	2.28	3.70	1.77	3.86	0.31	6.69	3.15	-	-
42	1.688	2.68	4.09	1.77	3.94	0.39	6.69	3.15	-	-
50	2.000	3.07	4.96	2.17	4.76	0.43	8.11	3.78	-	-
60	2.375	3.46	5.43	2.17	4.76	0.43	8.11	3.78	6.69	2.36
70	2.813	4.02	6.14	2.56	5.55	0.43	9.69	4.57	7.87	2.76
80	3.188	4.61	7.05	2.95	6.46	0.55	11.26	5.35	9.17	3.27
85	3.375	4.84	7.52	3.15	6.89	0.59	11.81	5.51	9.69	3.39
90	3.563	5.20	8.27	3.15	6.89	0.59	11.81	5.51	9.88	3.58
105	4.188	5.79	8.86	3.54	7.87	0.79	13.39	6.30	11.06	3.98
115	4.563	6.42	10.43	3.94	8.78	0.91	14.57	6.69	12.17	4.29
135	5.375	7.24	12.01	5.31	11.69	1.06	20.47	9.84	-	-
136	5.375	7.09	11.81	5.31	11.54	0.91				
156	5.938	7.68	12.80	5.91	12.87	1.06				
166	6.500	8.86	13.78	6.50	14.21	1.22				
186	7.125	9.84	14.96	7.28	15.79	1.22				
206	7.875	10.83	16.54	7.87	17.20	1.46				
246	9.500	12.60	19.69	9.45	20.63	1.73				
286	11.063	15.08	22.32	11.02	24.09	2.05				
336	13.000	17.52	25.98	12.99	28.27	2.28				
138	5.125	7.09	11.81	5.31	11.54	0.91				
158	5.938	7.68	12.80	5.91	12.87	1.06				
168	6.500	8.86	13.78	6.50	14.21	1.22				
188	7.125	9.84	14.96	7.28	15.79	1.22				
208	7.875	10.83	16.54	7.87	17.20	1.46				
248	9.500	12.60	19.69	9.45	20.63	1.73				
288	11.125	15.08	22.32	11.02	24.09	2.05				
338	13.000	17.52	25.98	12.99	28.27	2.28				

Indicated by the customer

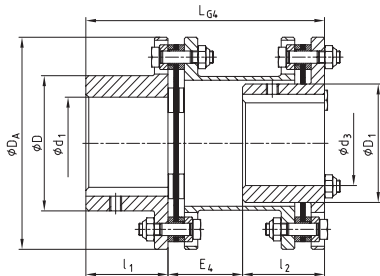
Inch bores machined to AGMA Class 1, Metric bores machined to H7

Order form	RADEX® - N 60	NANA 1	Ø 50	Ø 60
		Coupling size	Design	Bore d ₁

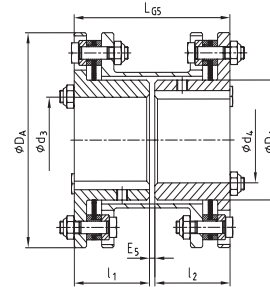
Standard designs



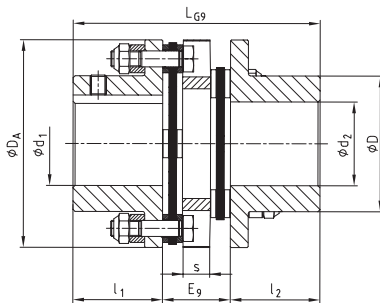
Failsafe, reduced maintenance, zero-backlash
Torsionally stiff
Single and double cardanic designs
CE approved to EC Standard 94/9/EC
Installation instructions available at www.ktr.com



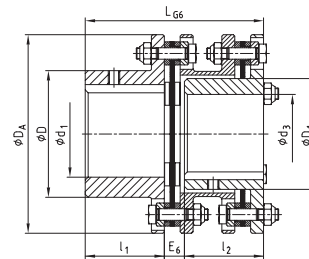
Design NENA 1



Design NENE 1



Design NNZ



Design NENA 2

RADEX®-N designs NENA 1, NENE 1, NENA 2, NNZ														
Size	Bore		Dimensions [in]											
	d ₁ /d ₂	d ₃ /d ₄	D	D ₁	D _A	l ₁ /l ₂	L _{G4}	E ₄	L _{G5}	E ₅	L _{G6}	E ₆	L _{G9}	E ₉
20	.8125	-	1.26	-	2.20	0.79	-	-	-	-	-	-	2.28	0.71
25	1.000	-	1.57	-	2.68	0.98	-	-	-	-	-	-	2.76	0.79
35	1.438	-	2.13	-	3.23	1.57	-	-	-	-	-	-	4.02	0.87
38	1.500	-	2.28	-	3.70	1.77	-	-	-	-	-	-	4.65	1.10
42	1.688	-	2.68	-	4.09	1.77	-	-	-	-	-	-	4.88	1.34
50	2.000	-	3.07	-	4.96	2.17	-	-	-	-	-	-	5.67	1.34
60	2.375	2.188	3.46	3.03	5.43	2.17	6.30	1.97	4.49	0.16	4.88	4.88	5.67	1.34
70	2.813	2.563	4.02	3.54	6.14	2.56	7.48	2.36	5.28	0.16	5.67	5.67	6.54	1.42
80	3.188	3.000	4.61	4.09	7.05	2.95	8.66	2.76	6.06	0.16	6.57	6.57	-	-
85	3.375	3.188	4.84	4.41	7.52	3.15	9.13	2.83	6.46	0.16	7.01	7.01	-	-
90	3.563	3.375	5.20	4.69	8.27	3.15	9.17	2.87	6.54	0.24	7.24	7.24	-	-
105	4.188	3.563	5.79	5.04	8.86	3.54	10.35	3.27	7.32	0.24	8.03	8.03	-	-
115	4.563	3.938	6.42	5.71	10.43	3.94	11.34	3.46	8.11	0.24	8.94	8.94	-	-

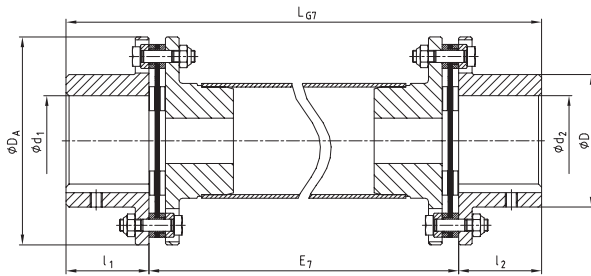
Inch bores machined to AGMA Class 1, Metric bores machined to H7

Order form	RADEX®-N 60	NENA 1	Ø 50	Ø 60
	Coupling size	Type	Bore d ₁	Bore d ₂

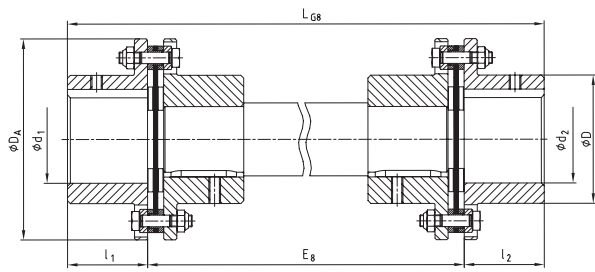
Special designs by customer request



Failsafe, torsionally stiff, zero-backlash
 Design NANA 4 – accommodates shaft gaps up to 20'
 Design NNW – solid shaft design
 Design NNZ – compact double-cardanic design
 ⚙️ approved to EC Standard 94/9/EC
 Installation instructions available at www.ktr.com



Design NANA 4



Design NNW

RADEX®-N designs NANA 4, NNZ and NNW								
Size	max. bore		Dimensions [in]					
	d_1/d_2	D	D_A	l_1/l_2	L_{G7}	E_7	L_{G8}	E_8
20	0.813	1.26	2.20	0.79	$L_{G7} = E_7 + l_1 + l_2$	Intermediate shaft dimension per customer specification	$L_{G8} = E_8 + l_1 + l_2$	Intermediate shaft dimension per customer specification
25	1.000	1.57	2.68	0.98				
35	1.438	2.13	3.23	1.57				
38	1.500	2.28	3.70	1.77				
42	1.688	2.68	4.09	1.77				
50	2.000	3.07	4.96	2.17				
60	2.375	3.46	5.43	2.17				
70	2.813	4.02	6.14	2.56				
80	3.188	4.61	7.05	2.95				
85	3.375	4.84	7.52	3.15				
90	3.563	5.20	8.27	3.15				
105	4.188	5.79	8.86	3.54				
115	4.563	6.42	10.43	3.94				
135	5.375	7.24	12.01	5.31				
136	5.375	7.09	11.81	5.31				
156	5.938	7.68	12.80	5.91				
166	6.500	8.86	13.78	6.50				
186	7.125	9.84	14.96	7.28				
206	7.875	10.83	16.54	7.87				
246	9.500	12.60	19.69	9.45				
286	11.125	15.08	22.32	11.02				
336	13.000	17.52	25.98	12.99				
138	5.125	7.09	11.81	5.31				
158	5.938	7.68	12.80	5.91				
168	6.500	8.86	13.78	6.50				
188	7.125	9.84	14.96	7.28				
208	7.875	10.83	16.54	7.87				
248	9.500	12.60	19.69	9.45				
288	11.125	15.08	22.32	11.02				
338	13.000	17.52	25.98	12.99				

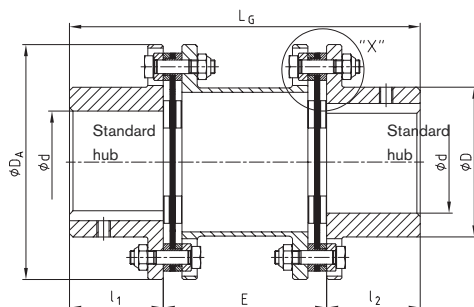
Inch bores machined to AGMA Class 1, Metric bores machined to H7

Order form:	RADEX®-N 60	NANA 4	Ø 50	Ø 60	2500
	Coupling size	Type	Bore d_1	Bore d_2	Shaft distance dimension

NANA 3 for pump drives according to API 610



Failsafe, torsionally stiff, zero-backlash
 High balancing quality (AGMA class 9)
 Spacer held captive in case of disc pack failure (see detail "X")
 ⚙️ approved to EC Standard 94/9/EC
 Installation instructions available at www.ktr.com



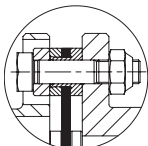
RADEX®-N design NANA 3														
Size	d _{max.}	D	D _A	Common Spacer Sizes E:								Perm. Displacements		
				DBSE [in]				DBSE [mm]				l ₁ /l ₂	Angle each disc [°]	Axial [in]
				3.500	4.375	5.000	7.000	100	140	180	250			
42	1.688	2.69	4.13	X	X	X		X				1.77	1.0	0.11
50	2.000	3.13	5.00	X	X	X		X	X	X		2.17	1.0	0.13
60	2.375	3.50	5.44	X	X	X		X	X	X	X	2.17	1.0	0.08
70	2.813	4.06	6.19		X	X		X	X	X		2.56	1.0	0.09
80	3.188	4.63	7.06			X	X	X	X	X	X	2.95	1.0	0.10
85	3.375	4.88	7.56			X	X	X	X	X	X	3.15	1.0	0.10
90	3.563	5.25	8.31			X	X	X	X	X	X	3.15	1.0	0.08
105	4.188	5.81	8.88				X			X	X	3.54	1.0	0.09
115	4.563	6.44	10.44				X			X	X	3.94	1.0	0.11
135	5.375	7.25	12.06				X				X	5.31	1.0	0.14
136	5.375	7.13	11.81									5.31	0.7	0.15
156	5.938	7.69	12.81									5.91	0.7	0.17
166	6.500	8.88	13.81									6.50	0.7	0.18
186	7.125	9.8	15.00									7.28	0.7	0.19
206	7.875	10.88	16.56									7.87	0.7	0.20
246	9.500	12.63	19.69									9.45	0.7	0.24
286	11.063	15.13	22.38									11.02	0.7	0.26
336	13.000	17.56	26.00									12.99	0.7	0.30
138	5.125	7.13	11.81									5.31	0.7	0.10
158	5.938	7.69	12.81									5.91	0.7	0.11
168	6.500	8.88	13.81									6.50	0.7	0.12
188	7.125	9.88	15.00									7.28	0.7	0.13
208	7.875	10.88	16.56									7.87	0.7	0.14
248	9.500	12.63	19.69									9.45	0.7	0.16
288	11.063	15.13	22.38									11.02	0.7	0.18
338	13.000	17.56	26.00									12.99	0.7	0.20

Indicated by the customer

1) Other E-dimensions available on request.

Inch bores machined to AGMA Class 1, Metric bores machined to H7

Detail "X"



Securing device of the spacer:

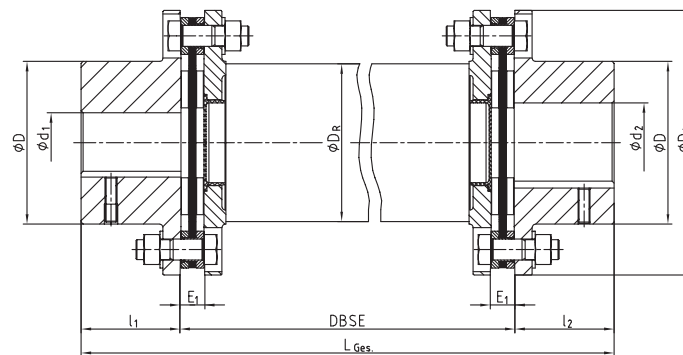
The disc packs have a sleeve added in order to secure the spacer if a disc fails.

Order form:	RADEX®-N 60	NANA 3	Ø 50	Ø 60	140
	Coupling size	Type	Bore d ₁	Bore d ₂	Shaft distance dimension

Corrosion-resistant design for large DBSE's



Failsafe, torsionally stiff, zero-backlash
 Low inertia
 Installation instructions available at www.ktr.com



RADEX®-N design NANA 4 CFK

Size	Torque [lb-in]		Dimensions								
	T _{KN}	T _{K max.}	D _A	max. d ₁ /d ₂	D	l ₁ /l ₂	E ₁	DBSE	L _{Ges.}	Composite Pipe D _R	max. DBSE ¹⁾ at 1,500 rpm
70	7,080	14,160	5.87	2.813	4.02	2.56	0.43	customer's specifications	l ₁ + l ₂ + DBSE	3.74	138.00
85	15,930	31,860	7.24	3.375	4.84	3.15	0.59			4.61	153.75
90	22,130	44,260	7.87	3.563	5.31	3.15	0.59			5.04	161.50
115	39,830	79,660	9.96	4.563	6.42	3.94	0.91			6.30	181.24

¹⁾ In case of higher speeds or longer DBSE dimensions, please contact the KTR engineering department.
 For composite tube applications, the technical details listed (e. g. max. DBSE) may be varied, if required.
 Inch bores machined to AGMA Class 1, Metric bores machined to H7

Steel disc couplings with spacers are designed for applications with especially large distance dimensions between the drive and the driven side (e. g. cooling towers, ventilators, etc.).

To achieve high speeds with large DBSE dimensions, RADEX®-N couplings utilize intermediate spacers made from fiberglass or carbon fiber reinforced nylon (GRP or CFR) when necessary.

Order form:	RADEX®-N 85	NANA 4 CFK	Ø 60	Ø 70	3000
	Coupling size	Design	Bore d ₁	Bore d ₂	Shaft distance dimension