

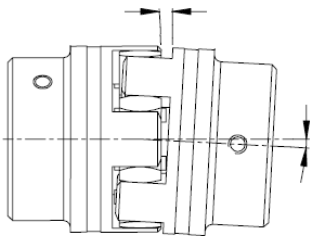
# CAUTION!

## CHECK YOUR NON-LISTED (NON-FIRE) KTR ROTEX® COUPLING ALIGNMENT

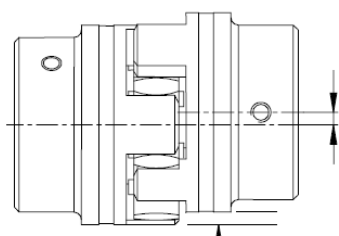
You must check the pump's flexible coupling alignment immediately and then again just before startup. While accurately aligned at the factory, this alignment may shift or twist during shipment. Misalignment will severely shorten the lifespan of your coupling insert. Please check against the maximum displacement figures shown below.

<b>NON-LISTED (NON-FIRE) KTR ROTEX (CURVE JAW TYPE) COUPLING ALLIGNMENT DATA</b>											
<b>PUMP OPERATING SPEED</b>				<b>1500 RPM</b>		<b>1800 RPM</b>		<b>3000 RPM</b>		<b>3600 RPM</b>	
<b>KTR COUPLING SIZE</b>	<b>HUB MAX OUTER DIAMETER</b>	<b>SPIDER WIDTH (INSIDE GAP)</b>	<b>GAP</b>	<b>MAX Parallel</b>	<b>MAX Angular</b>	<b>MAX Parallel</b>	<b>MAX Angular</b>	<b>MAX Parallel</b>	<b>MAX Angular</b>	<b>MAX Parallel</b>	<b>MAX Angular</b>
<b>24</b>	2.17	0.55	<i>0.71</i>	0.009	0.033	0.008	0.031	0.006	0.03	0.005	0.017
<b>28</b>	2.64	0.59	<i>0.79</i>	0.01	0.04	0.009	0.039	0.007	0.033	0.006	0.026
<b>38</b>	3.15	0.71	<i>0.94</i>	0.011	0.053	0.01	0.051	0.007	0.043	0.007	0.035
<b>42</b>	3.74	0.79	<i>1.02</i>	0.012	0.07	0.011	0.067	0.008	0.055	0.007	0.047
<b>55</b>	4.72	0.87	<i>1.18</i>	0.015	0.091	0.014	0.09	0.01	0.079	0.009	0.071
<b>65</b>	5.31	1.02	<i>1.38</i>	0.016	0.11	0.015	0.102	0.011	0.091	0.01	0.087
<b>75</b>	6.3	1.18	<i>1.57</i>	0.018	0.13	0.017	0.126	0.013	0.114	0.011	0.106
<b>90</b>	7.87	1.34	<i>1.77</i>	0.019	0.17	0.018	0.161	0.013	0.15	0.013	0.138
<b>100</b>	8.86	1.5	<i>1.97</i>	0.02	0.19	0.019	0.181	0.014	0.165	<b>ALL DIMENSIONS IN INCHES</b>	
<b>110</b>	10.04	1.65	<i>2.17</i>	0.021	0.22	0.02	0.213	0.015	0.197		
<b>125</b>	11.42	1.81	<i>2.36</i>	0.024	0.25	0.021	0.248	0.021	0.248		

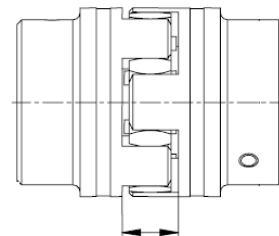
Please remember that these are maximums and must not be reached at the same time. For example, once any percentage of the MAX parallel value is reached, this percentage value must be subtracted from 100% to find out what percentage of the MAX angular value may be used (using 70% of the MAX parallel value allows you 30% of the angular value).



ANGULAR MISALIGNMENT



PARALLEL MISALIGNMENT



GAP

Check your coupling size by measuring the spider width, the maximum hub outer diameter against the values listed, or documentation enclosed with the packing list. Check parallel alignment by placing straightedge across the coupling flanges or using a dial indicator. This should be done at 4 points on the coupling, 90 degrees apart. Check angular misalignment by inserting a feeler gauge or taper gauge at these 4 points or using a dial indicator. Check for coupling GAP minimum while maintaining full engagement of the element. More complete information on proper procedures may be obtained from the factory or by consulting the Hydraulic Institute Standards.

**BEFORE STARTING PUMP, MAKE A FINAL CHECK ON THE ALIGNMENT. PROPER ALIGNMENT MEANS ADDED YEARS OF SERVICE.**

### NON-LISTED (NON-FIRE) KTR ROTEX (CURVE JAW TYPE) COUPLING SELECTION TABLE

H.P.	OPERATING SPEED								H.P.											
	3600	3000	1800	1500	1150	875	700	580												
1/4	ROTEX 24	ROTEX 24	ROTEX 24	ROTEX 24	ROTEX 24	ROTEX 24	ROTEX 24	ROTEX 24	ROTEX 24	ROTEX 24										
1/3																				
1/2																				
3/4																				
1																				
1 1/2																				
2																				
3																				
5																				
7 1/2																				
10	ROTEX 28	ROTEX 28	ROTEX 28	ROTEX 28	ROTEX 28	ROTEX 28	ROTEX 28	ROTEX 28	ROTEX 28	ROTEX 28										
15	ROTEX 38	ROTEX 38	ROTEX 38	ROTEX 38	ROTEX 38	ROTEX 38	ROTEX 38	ROTEX 38	ROTEX 38	ROTEX 38										
20																				
25																				
30																				
40																				
50																				
60																				
75																				
100																				
125																				
150	ROTEX 42	ROTEX 42	ROTEX 42	ROTEX 42	ROTEX 42	ROTEX 42	ROTEX 42	ROTEX 42	ROTEX 42	ROTEX 42										
200	ROTEX 55	ROTEX 55	ROTEX 55	ROTEX 55	ROTEX 55	ROTEX 55	ROTEX 55	ROTEX 55	ROTEX 55	ROTEX 55										
250	ROTEX 65	ROTEX 65	ROTEX 65	ROTEX 65	ROTEX 65	ROTEX 65	ROTEX 65	ROTEX 65	ROTEX 65	ROTEX 65										
300	ROTEX 75	ROTEX 75	ROTEX 75	ROTEX 75	ROTEX 75	ROTEX 75	ROTEX 75	ROTEX 75	ROTEX 75	ROTEX 75										
350	ROTEX 90	ROTEX 90	ROTEX 90	ROTEX 90	ROTEX 90	ROTEX 90	ROTEX 90	ROTEX 90	ROTEX 90	ROTEX 90										
400																				
450																				
500																				
600																				
700																				
800																				
ROTEX 110											ROTEX 110	ROTEX 110	ROTEX 110	ROTEX 110	ROTEX 110	ROTEX 110	ROTEX 110	ROTEX 110	ROTEX 110	
ROTEX 125											ROTEX 125	ROTEX 125	ROTEX 125	ROTEX 125	ROTEX 125	ROTEX 125	ROTEX 125	ROTEX 125	ROTEX 125	ROTEX 125
ROTEX 140											ROTEX 140	ROTEX 140	ROTEX 140	ROTEX 140	ROTEX 140	ROTEX 140	ROTEX 140	ROTEX 140	ROTEX 140	ROTEX 140
ROTEX 160	ROTEX 160	ROTEX 160	ROTEX 160	ROTEX 160	ROTEX 160	ROTEX 160	ROTEX 160	ROTEX 160	ROTEX 160	ROTEX 160										

SIZE	ROTEX 24	ROTEX 28	ROTEX 38	ROTEX 42	ROTEX 55	ROTEX 65	ROTEX 75	ROTEX 90	ROTEX 100	ROTEX 110	ROTEX 125
MAXIMUM BORE	1 1/8	1 1/2	1 3/4	2 1/8	2 3/4	2 1/2	3 3/4	3 1/2	4 1/2	4 7/8	5 5/8
DIAMETER INCHES (mm)	(28)	(38)	(45)	(55)	(70)	(65)	(95)	(90)	(115)	(125)	(145)

**NOTES:**

- 1) SHAFT BORE SIZE MAY REQUIRE USING LARGER COUPLING SIZE THAN LISTED. AFTER SELECTING COUPLING, CHECK MAXIMUM BORE DIAMETER REQUIREMENTS FOR PUMP AND DRIVER. REFER TO MOTOR SHAFT DIMENSIONS BY FRAME SIZE IN SECTION 1005 PAGE 354). IF REQUIRED, MOVE TO THE RIGHT UNTIL THE SHAFT SIZES FIT WITHIN THE LIMITS OF THE COUPLING.
- 2) COUPLING SIZES ROTEX 24 THRU ROTEX 55 ARE SIZED USING INSERT SPIDER DUROMETER OF 98 SHORE A. COUPLING SIZES ROTEX 65 THRU ROTEX 90 ARE SIZED USING INSERT SPIDER DUROMETER OF 95 SHORE A. COUPLING SIZES ROTEX 100 THRU ROTEX 160 ARE SIZED USING INSERT SPIDER DUROMETER OF 64 SHORE D. INSERT SPIDER MATERIAL TO BE URETHANE.
- 3) ROTEX IS A REGISTERED TRADE MARK OF KTR CORPORATION.
- 4) OPERATING AND ASSEMBLY INSTRUCTIONS ARE AVAILABLE AT [WWW.KTRCORP.COM](http://WWW.KTRCORP.COM).

## CAUTION!

# CHECK YOUR UL LISTED (FIRE APPLICATION) KTR ROTEX® COUPLING ALIGNMENT

You must check the pump's flexible coupling alignment immediately and then again just before startup. While accurately aligned at the factory, this alignment may shift or twist during shipment. Misalignment will severely shorten the lifespan of your coupling insert. Please check against the maximum displacement values shown below.

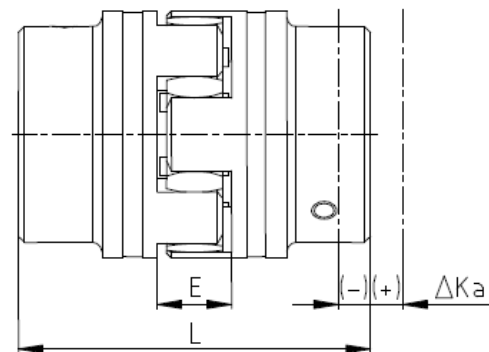
Check your coupling size by measuring the spider width, maximum hub outer diameter against the values listed, documentation enclosed with the packing list.

Check alignment by using the appropriate tool; laser, dial indicator, caliper, straight edge or feeler gage. This should be done at 4 points on the coupling, 90 degrees apart.

For normal wear limits and replacement part numbers to the spider element, please see the Maintenance Requirements section of this document below.

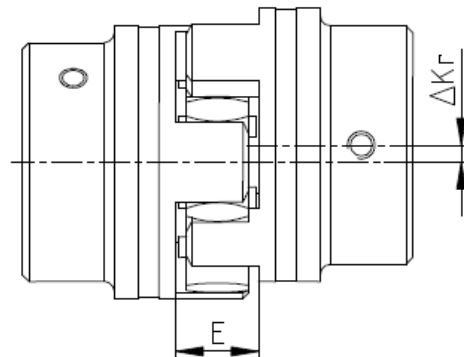
Additional Operating and assembly instructions are available at [www.ktrcorp.com](http://www.ktrcorp.com).

ROTEX is a registered trade mark of KTR Corporation.

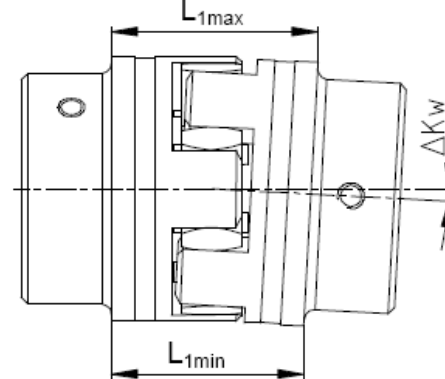


axial misalignments

$$L_{\max} = L + \Delta K_a$$



parallel misalignments



angular misalignments

$$\Delta K_w = L_{1\max} - L_{1\min}$$

<b>UL LISTED (FIRE APPLICATION) KTR ROTEX COUPLING ALIGNMENT DATA</b>							
<i>UL LISTED KTR COUPLING SIZE</i>	<i>MAX SPEED</i>	<i>L DIMENSION</i>	<i>E DIMENSION</i>	<i>HUB MAX OUTER DIAMETER</i>	<i>MIN / MAX Axial (Ka)</i>	<i>MAX Parallel (Kr)</i>	<i>MAX Angular (Kw)</i>
<b>42</b>	3600	4.96	1.02	3.74	-0.04 / 0.04	0.004	0.024
<b>55</b>	3600	6.3	1.18	4.72	-0.04 / 0.05	0.005	0.035
<b>65</b>	3600	7.28	1.38	5.31	-0.04 / 0.05	0.005	0.043
<b>75</b>	1800	8.27	1.57	6.3	-0.06 / 0.06	0.008	0.063
<b>90</b>	1800	9.65	1.77	7.87	-0.04 / 0.08	0.009	0.081

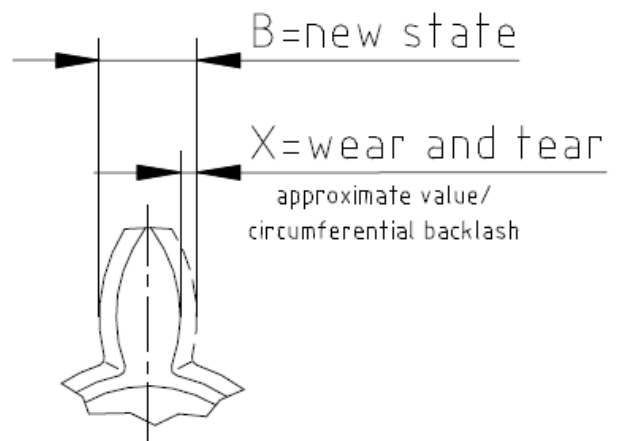
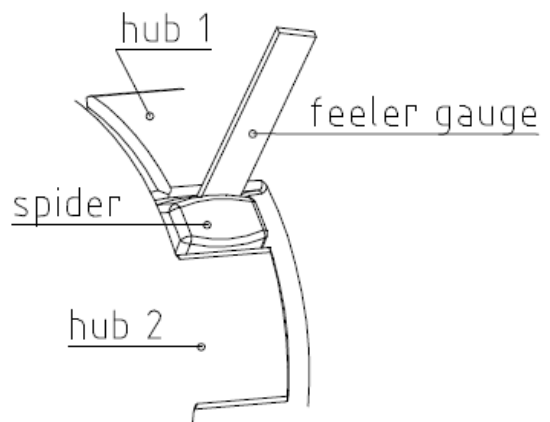
ALL DIMENSIONS IN INCHES

**UL LISTED (FIRE APPLICATION) KTR ROTEX COUPLING MAINTENANCE REQUIREMENTS**

You must check the pump's flexible coupling spider element at regular intervals for normal wear and tear. Normal wear and tear found during inspection is dependent on the actual operating conditions. Please check against the maximum wear figures shown below.

**IF WEAR VALUES LARGER THEN THOSE LISTED BELOW ARE FOUND DURING INSPECTION THE SPIDER SHOULD BE REPLACED.**

<i>UL LISTED KTR COUPLING SIZE</i>	<i>Wear Limit <math>X_{max}</math> [inches]</i>	<i>Spider Replacement Part Number</i>
<b>42</b>	0.004	4481062650
<b>55</b>	0.005	4481063650
<b>65</b>	0.005	4481064650
<b>75</b>	0.008	4481065650
<b>90</b>	0.009	4481066650



## UL-LISTED (FIRE APPLICATION) KTR ROTEX (CURVE JAW TYPE) COUPLING SELECTION TABLE

H.P.	OPERATING SPEED				H.P.
	3500	2900	1750	1450	
1/4	ROTEX 42	ROTEX 42	ROTEX 42	ROTEX 42	1/4
1/3					1/3
1/2					1/2
3/4					3/4
1					1
1 1/2					1 1/2
2					2
3					3
5					5
7 1/2					7 1/2
10					10
15					15
20					20
25					25
30					30
40					40
50					50
60	60				
75	75				
100	100				
125	125				
150	150				
200	200				
250	250				
300	300				
350	350				
400	400				
450	450				
500	500				
600	600				
700	700				
800	800				

SIZE	ROTEX 42	ROTEX 55	ROTEX 65	ROTEX 75	ROTEX 90		C1080T
MAXIMUM BORE DIAMETER INCHES (mm)	2.125 (52)	2.813 (70)	3.000 (75)	3.625 (92)	4.250 (105)		3.375 (85)

**NOTES:**

- 1) SHAFT BORE SIZE MAY REQUIRE USING LARGER COUPLING SIZE THAN LISTED. AFTER SELECTING COUPLING, CHECK MAXIMUM BORE DIAMETER REQUIREMENTS FOR PUMP AND DRIVER (REFER TO MOTOR SHAFT DIMENSIONS BY FRAME SIZE IN SECTION 1005 PAGE 354). IF REQUIRED, MOVE TO THE RIGHT UNTIL THE SHAFT SIZES FIT WITHIN THE LIMITS OF THE COUPLING. SIZE C1080T MAXIMUM LISTED SPEED IS 1800 RPM.
- 2) ROTEX IS A REGISTERED TRADE MARK OF KTR CORPORATION.
- 3) C1080T SIZE IS REGISTERED TRADE MARK OF CLARKE CORPORATION.
- 4) COUPLING SELECTIONS ARE FOR UL LISTED COUPLINGS.
- 5) COUPLINGS CANNOT BE USED WITH DIESEL ENGINES.
- 6) 1.15 SERVICE FACTOR FOR ELECTRIC MOTOR DRIVEN CENTRIFUGAL PUMPS ONLY.