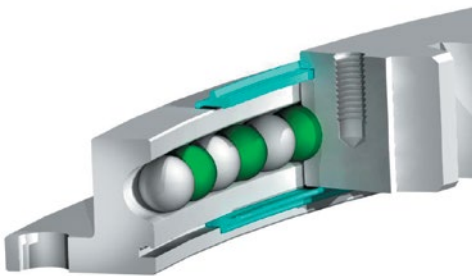


# RK Series

## Introduction

RK Series bearings have a flanged cross-section on one or both rings and range in size from 20 – 47 inches OD (500 – 1200 mm). The flanged design reduces weight and provides the equipment designer greater flexibility for configuration of adjacent mounting structures and bolting arrangements. RK Series bearings are well suited for many applications where a large diameter and lighter weight are predominant factors in selection of a bearing.



## Design Features

The internal configuration is a deep-groove gothic arch raceway, which provides four points of contact with the balls, enabling the bearing to simultaneously carry radial, axial, and moment loads. The use of spacer balls alternated with load balls allows for lower rotational torque and superior performance in applications involving oscillatory movement. Integral face-riding seals are provided to assist in the exclusion of contaminants.

RK Series bearings are offered in non-g geared, internally geared, and externally geared configurations for maximum design flexibility. The gears are Involute Stub designs with 20° pressure angles, manufactured to AGMA Class Q5 quality and .005 to .015 inches allowance for backlash.

All models feature four fittings for lubrication, spaced 90 degrees apart. On non-g geared and internal geared models, they are located on the outer counterbore diameter ( $D_p$ ). On external geared models, they are located on the inner counterbore diameter ( $d_p$ ).

## Availability

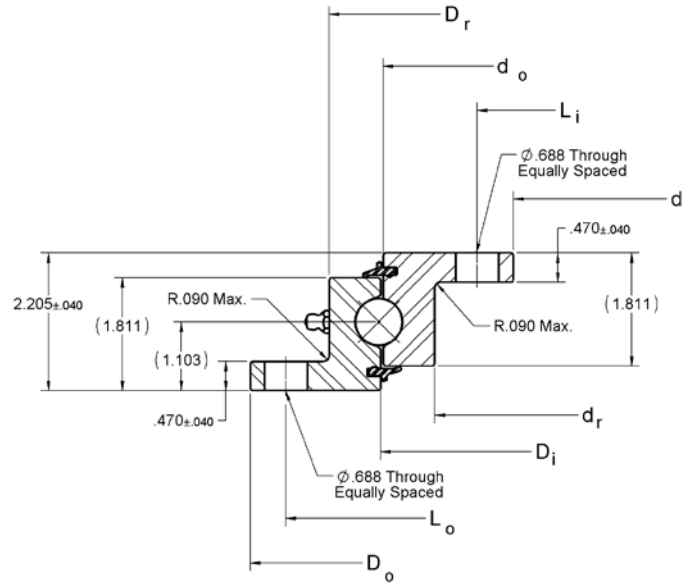
RK Series bearings are generally available from stock, and mating pinions for the geared versions are also generally available. See [page 70](#) for mating pinions.

## Applications

RK Series bearings have been used successfully in a variety of light to medium duty applications including:

- Small cranes, booms, and lifts
- Industrial positioners and rotary tables
- Chute swivels
- Stretch wrapping machines
- Bottle filling machines
- Conveyors and related material handling equipment
- Rotating displays

# RK Series



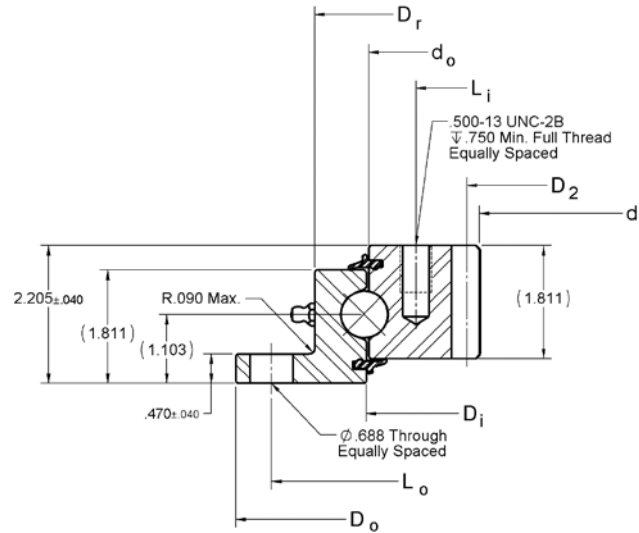
## No Gear

Kaydon P/N	OUTLINE DIMENSIONS AND WEIGHT						G APPROX. (lbs)
	$D_o$ (in)	$d_i$ (in)	$D_r$ (in)	$D_i$ (in)	$d_o$ (in)	$d_r$ (in)	
<b>RK6-16P1Z</b>	20.390	11.970	17.870	16.220	16.140	14.490	58
<b>RK6-22P1Z</b>	25.510	17.090	22.990	21.340	21.260	19.610	76
<b>RK6-25P1Z</b>	29.450	21.030	26.930	25.280	25.200	23.550	89
<b>RK6-29P1Z</b>	33.390	24.970	30.870	29.220	29.140	27.490	104
<b>RK6-33P1Z</b>	37.320	28.900	34.800	33.150	33.070	31.420	118
<b>RK6-37P1Z</b>	41.260	32.840	38.740	37.090	37.010	35.360	132
<b>RK6-43P1Z</b>	47.170	38.750	44.650	43.000	42.920	41.270	153
<b>Tolerances</b>	$\pm .040$	$\pm .040$	+0.000 -0.080	Ref.	Ref.	+0.080 -0.000	

Kaydon P/N	MOUNTING HOLES				GEAR DATA INV. STUB, $\alpha = 20^\circ$				MOMENT RATING $C_{rm}$ (ft-lbs)
	OUTER RING		INNER RING		$D_2$ (in)	$P_d$	$z_2$	$F_z$ (lbs)	
	$L_o$ (in)	$n_o$	$L_i$ (in)	$n_i$					
<b>RK6-16P1Z</b>	19.250	8	13.130	12	—	—	—	—	22,700
<b>RK6-22P1Z</b>	24.380	12	18.130	15	—	—	—	—	37,700
<b>RK6-25P1Z</b>	28.380	12	22.130	18	—	—	—	—	49,800
<b>RK6-29P1Z</b>	32.250	15	26.130	18	—	—	—	—	54,200
<b>RK6-33P1Z</b>	36.250	18	30.000	18	—	—	—	—	56,500
<b>RK6-37P1Z</b>	40.130	18	34.000	20	—	—	—	—	65,200
<b>RK6-43P1Z</b>	46.000	18	39.880	24	—	—	—	—	75,500

**Not quite what you need?** Contact Kaydon to inquire about custom features such as different mounting holes, internal clearance, pilot diameters, drive arrangements, or Endurakote® plating.

# RK Series



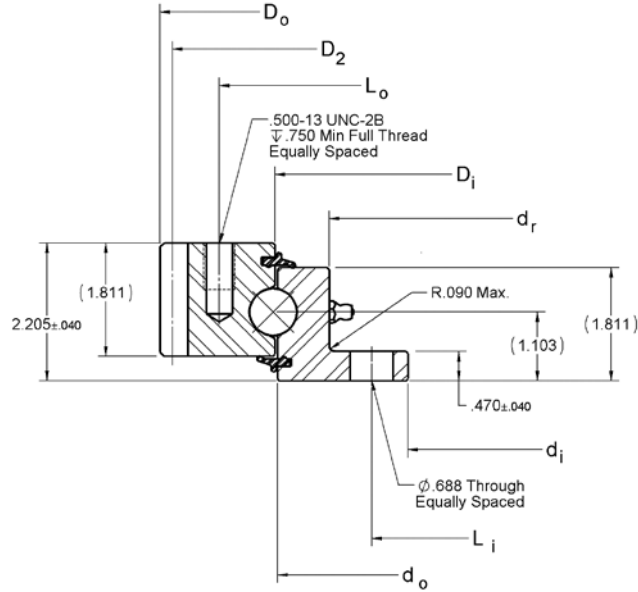
## Internal Gear

Kaydon P/N	OUTLINE DIMENSIONS AND WEIGHT						G APPROX. (lbs)
	D <sub>o</sub> (in)	d <sub>i</sub> (in)	D <sub>r</sub> (in)	D <sub>i</sub> (in)	d <sub>o</sub> (in)	d <sub>r</sub> (in)	
<b>RK6-16N1Z</b>	20.390	12.850	17.870	16.220	16.140	—	65
<b>RK6-22N1Z</b>	25.510	17.600	22.990	21.340	21.260	—	90
<b>RK6-25N1Z</b>	29.450	21.600	26.930	25.280	25.200	—	106
<b>RK6-29N1Z</b>	33.390	25.600	30.870	29.220	29.140	—	121
<b>RK6-33N1Z</b>	37.320	29.133	34.800	33.150	33.070	—	148
<b>RK6-37N1Z</b>	41.260	33.133	38.740	37.090	37.010	—	165
<b>RK6-43N1Z</b>	47.170	39.133	44.650	43.000	42.920	—	188
<b>Tolerances</b>	±.040	+0.030 -0.000	+0.000 -0.080	Ref.	Ref.	Ref.	

Kaydon P/N	MOUNTING HOLES				GEAR DATA INV. STUB, α = 20°				MOMENT RATING C <sub>rm</sub> (ft-lbs)
	OUTER RING		INNER RING		D <sub>2</sub> (in)	P <sub>d</sub>	z <sub>2</sub>	F <sub>Z</sub> (lbs)	
	L <sub>o</sub> (in)	n <sub>o</sub>	L <sub>i</sub> (in)	n <sub>i</sub>					
<b>RK6-16N1Z</b>	19.250	8	14.880	12	13.250	4	53	6800	22,700
<b>RK6-22N1Z</b>	24.380	10	19.630	15	18.000	4	72	6530	37,700
<b>RK6-25N1Z</b>	28.380	12	23.630	18	22.000	4	88	6400	49,800
<b>RK6-29N1Z</b>	32.250	15	27.630	18	26.000	4	104	6300	54,200
<b>RK6-33N1Z</b>	36.250	18	31.500	18	29.667	3	89	8520	56,500
<b>RK6-37N1Z</b>	40.130	18	35.500	20	33.667	3	101	8420	65,200
<b>RK6-43N1Z</b>	46.000	18	41.500	24	39.667	3	119	8340	75,500

**Not quite what you need?** Contact Kaydon to inquire about custom features such as different mounting holes, internal clearance, pilot diameters, drive arrangements, or Endurakote® plating.

# RK Series



## External Gear

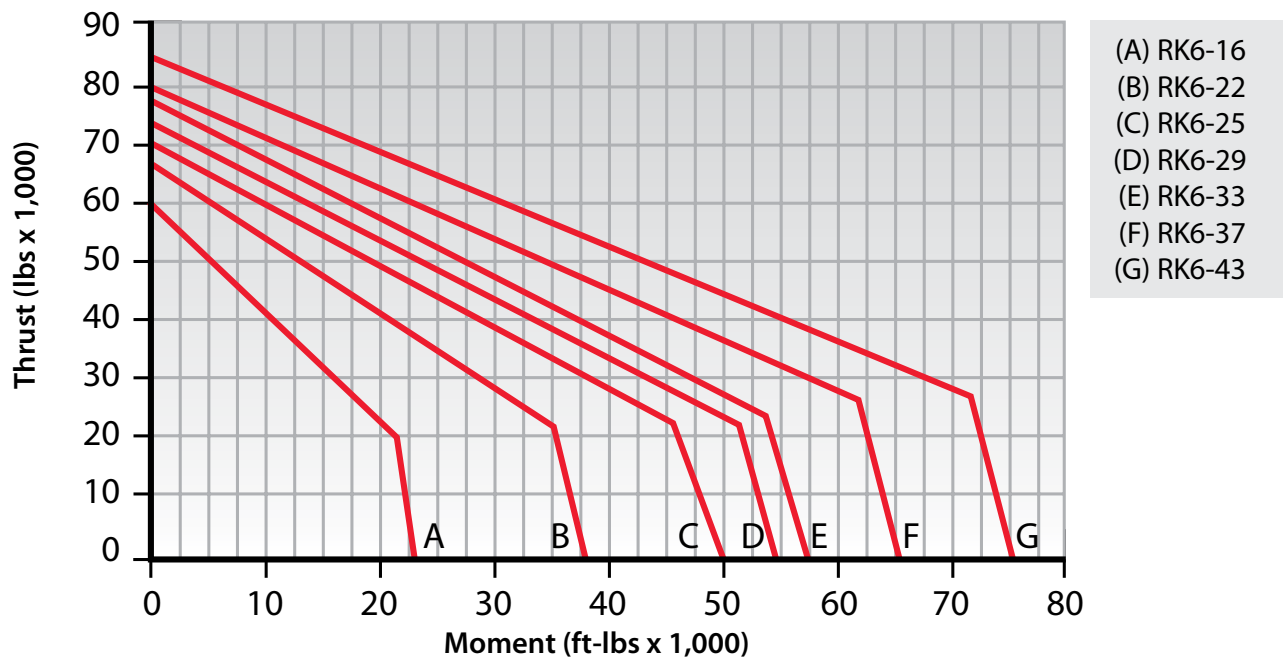
Kaydon P/N	OUTLINE DIMENSIONS AND WEIGHT						
	D <sub>o</sub> (in)	d <sub>i</sub> (in)	D <sub>r</sub> (in)	D <sub>i</sub> (in)	d <sub>o</sub> (in)	d <sub>r</sub> (in)	G APPROX. (lbs)
<b>RK6-16E1Z</b>	19.900	11.970	—	16.220	16.140	14.490	72
<b>RK6-22E1Z</b>	25.150	17.090	—	21.340	21.260	19.610	96
<b>RK6-25E1Z</b>	29.150	21.030	—	25.280	25.200	23.550	115
<b>RK6-29E1Z</b>	32.900	24.970	—	29.220	29.140	27.490	128
<b>RK6-33E1Z</b>	37.200	28.900	—	33.150	33.070	31.420	152
<b>RK6-37E1Z</b>	41.200	32.840	—	37.090	37.010	35.360	172
<b>RK6-43E1Z</b>	46.867	38.750	—	43.000	42.920	41.270	189
Tolerances	+0.000 -0.030	±.040	Ref.	Ref.	Ref.	+0.080 -0.000	

Kaydon P/N	MOUNTING HOLES				GEAR DATA INV. STUB, α = 20°				MOMENT RATING C <sub>rm</sub> (ft-lbs)
	OUTER RING		INNER RING		D <sub>2</sub> (in)	P <sub>d</sub>	z <sub>2</sub>	F <sub>Z</sub> (lbs)	
	L <sub>o</sub> (in)	n <sub>o</sub>	L <sub>i</sub> (in)	n <sub>i</sub>					
<b>RK6-16E1Z</b>	18.000	8	13.130	12	19.500	4	78	5,560	22,700
<b>RK6-22E1Z</b>	23.250	12	18.130	15	24.750	4	99	5,650	37,700
<b>RK6-25E1Z</b>	27.250	15	22.130	18	28.750	4	115	5,700	49,800
<b>RK6-29E1Z</b>	31.000	18	26.130	18	32.500	4	130	5,740	54,200
<b>RK6-33E1Z</b>	35.000	18	30.000	18	36.667	3	110	7,580	56,500
<b>RK6-37E1Z</b>	38.880	18	34.000	20	40.667	3	122	7,620	65,200
<b>RK6-43E1Z</b>	44.630	20	39.880	24	46.333	3	139	7,680	75,500

**Not quite what you need?** Contact Kaydon to inquire about custom features such as different mounting holes, internal clearance, pilot diameters, drive arrangements, or Endurakote® plating.

Section 4 Bearing Tables & Ratings

# RK Series Load Charts



Rating Charts are only applicable for operating conditions defined as **NORMAL OPERATION** in [Section 2](#) and when installed and maintained as defined in [Section 3](#) of this catalog. Bearing diameter increase does not necessarily ensure bearing rating increase due to variations in rolling elements, ring section, and fastener complements. For information concerning the basis for development of Rating Charts refer to the **LOAD RATING** paragraph in [Section 2](#).