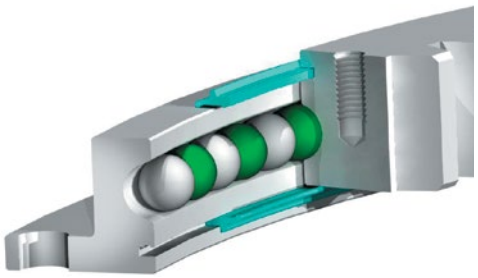
RK Series



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-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-geared and internal geared models, they are located on the outer counterbore diameter (D_r). On external geared models, they are located on the inner counterbore diameter (d_r).

Availability

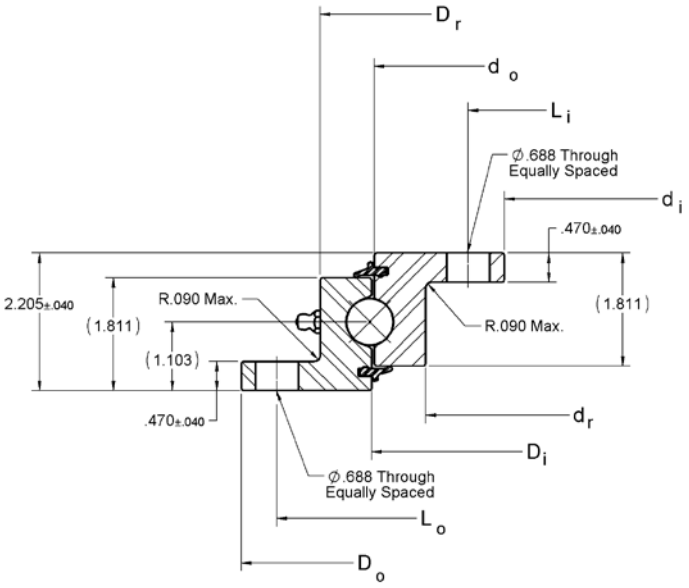
RK Series bearings are generally available from stock, and mating pinions for the geared versions are also generally available. See page 70 for mating pinions.

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



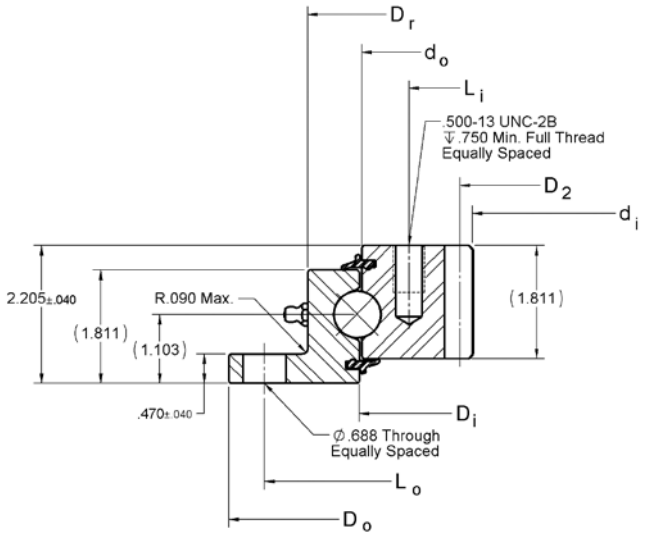
No Gear

Kaydon P/N	OUTLINE DIMENSIONS AND WEIGHT						
	D_o (in)	d_i (in)	D_r (in)	D_i (in)	d_o (in)	d_r (in)	G APPROX. (lbs)
RK6-16P1Z	20.390	11.970	17.870	16.220	16.140	14.490	58
RK6-22P1Z	25.510	17.090	22.990	21.340	21.260	19.610	76
RK6-25P1Z	29.450	21.030	26.930	25.280	25.200	23.550	89
RK6-29P1Z	33.390	24.970	30.870	29.220	29.140	27.490	104
RK6-33P1Z	37.320	28.900	34.800	33.150	33.070	31.420	118
RK6-37P1Z	41.260	32.840	38.740	37.090	37.010	35.360	132
RK6-43P1Z	47.170	38.750	44.650	43.000	42.920	41.270	153
Tolerances	±.040	±.040	+.000 -.080	Ref.	Ref.	+.080 -.000	

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



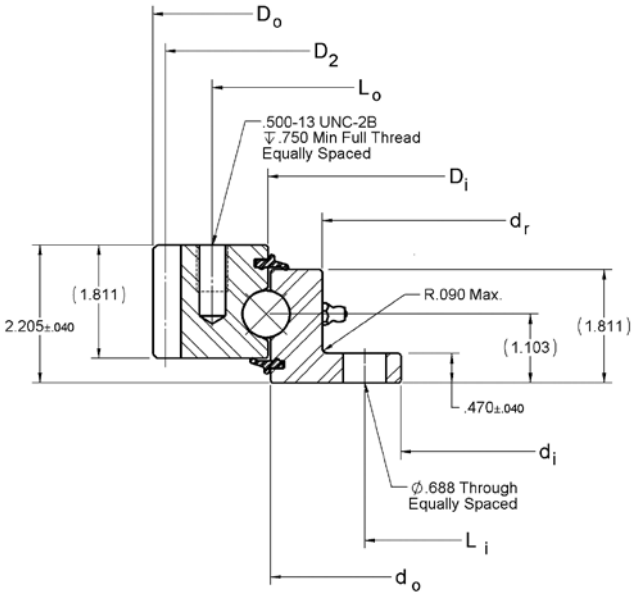
Internal Gear

Kaydon P/N	OUTLINE DIMENSIONS AND WEIGHT						
	D_o (in)	d_i (in)	D_r (in)	D_i (in)	d_o (in)	d_r (in)	G APPROX. (lbs)
RK6-16N1Z	20.390	12.850	17.870	16.220	16.140	—	65
RK6-22N1Z	25.510	17.600	22.990	21.340	21.260	—	90
RK6-25N1Z	29.450	21.600	26.930	25.280	25.200	—	106
RK6-29N1Z	33.390	25.600	30.870	29.220	29.140	—	121
RK6-33N1Z	37.320	29.133	34.800	33.150	33.070	—	148
RK6-37N1Z	41.260	33.133	38.740	37.090	37.010	—	165
RK6-43N1Z	47.170	39.133	44.650	43.000	42.920	—	188
Tolerances	±.040	+.030 -.000	+.000 -.080	Ref.	Ref.	Ref.	

Kaydon P/N	MOUNTING HOLES				GEAR DATA INV. STUB, $\alpha = 20°$				MOMENT RATING C_{rm}
	OUTER RING		INNER RING						
	L_o (in)	n_o	L_i (in)	n_i	D_2 (in)	P_d	z_2	F_Z (lbs)	(ft-lbs)
RK6-16N1Z	19.250	8	14.880	12	13.250	4	53	6800	22,700
RK6-22N1Z	24.380	10	19.630	15	18.000	4	72	6530	37,700
RK6-25N1Z	28.380	12	23.630	18	22.000	4	88	6400	49,800
RK6-29N1Z	32.250	15	27.630	18	26.000	4	104	6300	54,200
RK6-33N1Z	36.250	18	31.500	18	29.667	3	89	8520	56,500
RK6-37N1Z	40.130	18	35.500	20	33.667	3	101	8420	65,200
RK6-43N1Z	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



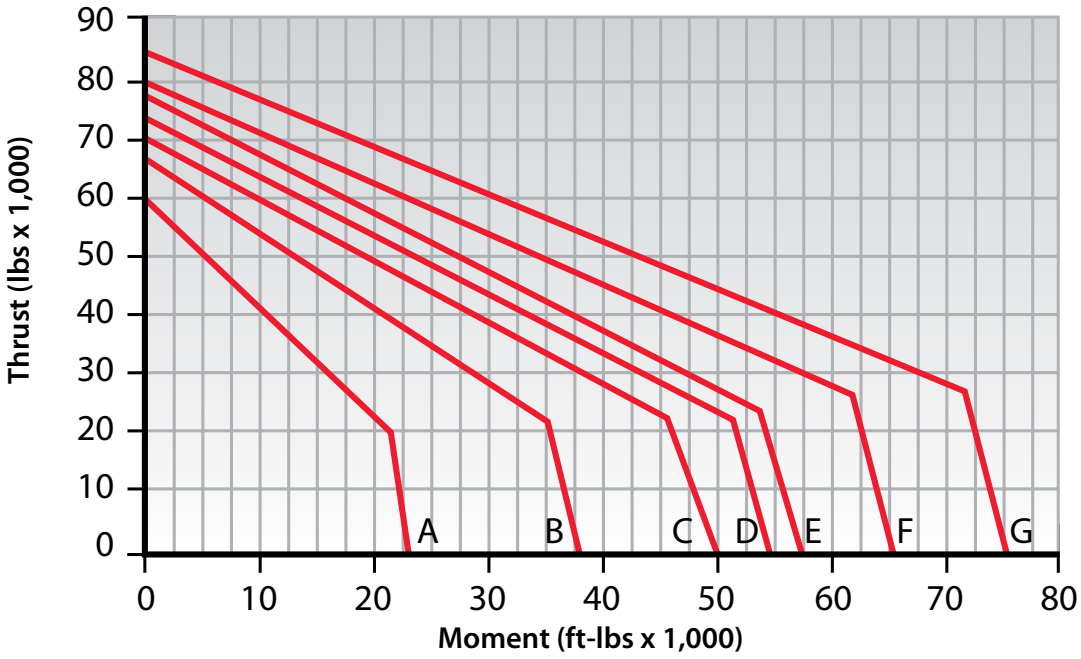
External Gear

Kaydon P/N	OUTLINE DIMENSIONS AND WEIGHT						
	D_o (in)	d_i (in)	D_r (in)	D_i (in)	d_o (in)	d_r (in)	G APPROX. (lbs)
RK6-16E1Z	19.900	11.970	—	16.220	16.140	14.490	72
RK6-22E1Z	25.150	17.090	—	21.340	21.260	19.610	96
RK6-25E1Z	29.150	21.030	—	25.280	25.200	23.550	115
RK6-29E1Z	32.900	24.970	—	29.220	29.140	27.490	128
RK6-33E1Z	37.200	28.900	—	33.150	33.070	31.420	152
RK6-37E1Z	41.200	32.840	—	37.090	37.010	35.360	172
RK6-43E1Z	46.867	38.750	—	43.000	42.920	41.270	189
Tolerances	**+.000 -.030**	**±.040**	**Ref.**	**Ref.**	**Ref.**	**+.080 -.000**	

Kaydon P/N	MOUNTING HOLES				GEAR DATA INV. STUB, $\alpha = 20°$				MOMENT RATING C_{rm}
	OUTER RING		INNER RING						
	L_o (in)	n_o	L_i (in)	n_i	D_2 (in)	P_d	z_2	F_z (lbs)	(ft-lbs)
RK6-16E1Z	18.000	8	13.130	12	19.500	4	78	5,560	22,700
RK6-22E1Z	23.250	12	18.130	15	24.750	4	99	5,650	37,700
RK6-25E1Z	27.250	15	22.130	18	28.750	4	115	5,700	49,800
RK6-29E1Z	31.000	18	26.130	18	32.500	4	130	5,740	54,200
RK6-33E1Z	35.000	18	30.000	18	36.667	3	110	7,580	56,500
RK6-37E1Z	38.880	18	34.000	20	40.667	3	122	7,620	65,200
RK6-43E1Z	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.

RK Series Load Charts



(A) RK6-16
(B) RK6-22
(C) RK6-25
(D) RK6-29
(E) RK6-33
(F) RK6-37
(G) RK6-43

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.