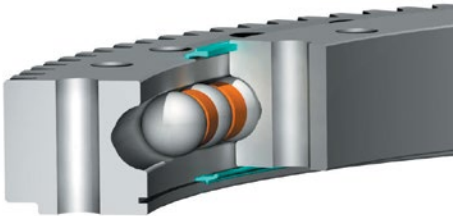


XT Series

Introduction

XT Series slewing ring bearings are custom designs having a rectangular cross-section, and are available in sizes up to 218 inches OD (5500 mm). They are well suited for a wide range of applications where our standard product series do not meet your size, capacity, or weight requirements.



Design Features

The internal configuration consists of deep groove gothic arch raceways and maximum ball complement. This results in a four-point contact design which provides exceptional moment, thrust, and radial load capacities. Integral seals are provided to assist in the exclusion of contaminants.

XT Series bearings are available in internal geared, external geared, and non-geared configurations.

Availability

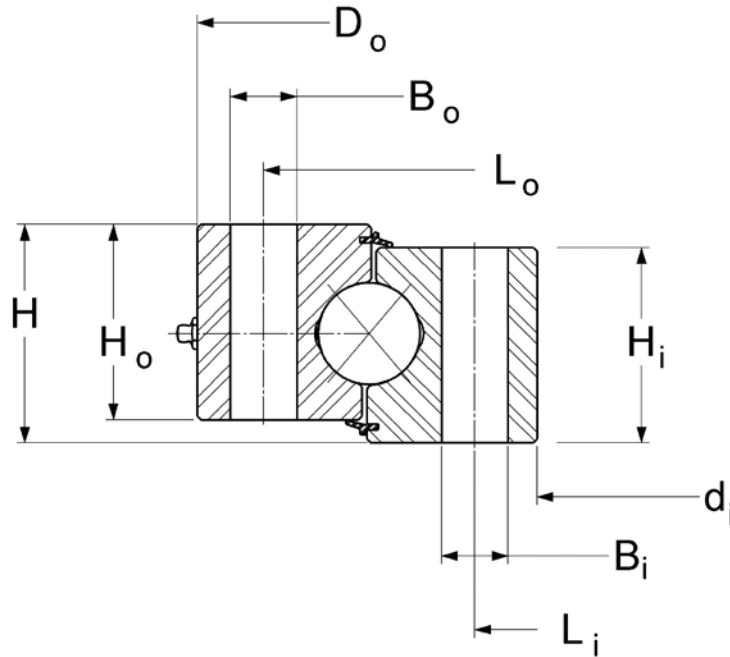
XT Series bearings are made to order, and can be customized for the specific application.

Applications

XT Series bearings have been used successfully in a wide range of applications, including:

- Cranes
- Aerial lifts
- Excavators
- Wind turbines
- Utility derricks
- Log loaders and feller bunchers
- Grapples
- Mining equipment

XT Series



No Gear

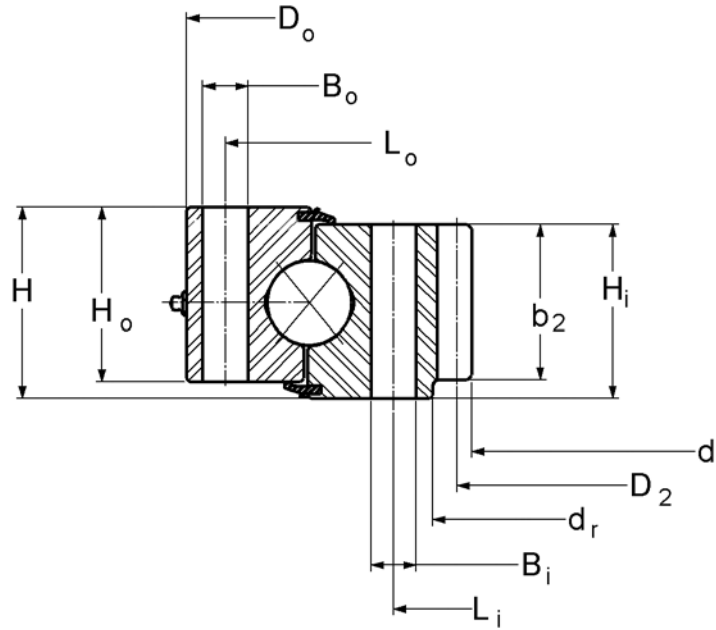
Kaydon P/N	OUTLINE DIMENSIONS AND WEIGHT							
	D_o (in)	d_i (in)	H (in)	H_o (in)	H_i (in)	D_r^* (in)	d_r^* (in)	G APPROX. (lbs)
12740001	24.650	16.250	2.375	2.063	2.063	—	—	145
12750001	26.900	18.500	2.375	2.063	2.063	—	—	155
12770001	29.650	21.250	2.375	2.063	2.063	—	—	180
12775001	33.534	23.125	2.875	2.563	2.563	—	—	305
12780001	38.201	27.750	2.875	2.563	2.563	—	—	350
12785001	41.850	28.750	3.250	2.880	2.880	—	—	530
12790001	47.444	34.250	4.250	3.875	3.875	—	—	835
16289001	61.250	52.325	3.540	2.800	2.800	—	—	585
16389001	87.992	69.094	6.024	5.512	5.512	—	—	3,330
16290001	129.000	113.000	5.500	5.000	5.000	—	—	3,950
16291001	178.000	162.000	5.500	5.000	5.000	—	—	5,350

*No internal or external diameters for this type.

XT Series

HOLE DATA							GEAR DATA						GEAR TOOTH RATING F_z (lbs)	BEARING MOMENT RATING C_{rm} (ft-lbs)
OUTER RING			INNER RING				$\alpha = 20^\circ$							
L_o (in)	n_o	B_o (in)	L_i (in)	n_i	B_i (in)	TOOTH FORM	D_2 (in)	P_d or (m)	z_2	x_2	b_2 (in)			
22.250	16	0.813	17.750	20	0.813	—	—	—	—	—	—	—	159,000	
24.500	18	0.813	20.000	24	0.813	—	—	—	—	—	—	—	188,000	
27.250	24	0.813	22.750	28	0.813	—	—	—	—	—	—	—	232,000	
30.625	18	0.938	24.875	24	0.938	—	—	—	—	—	—	—	338,000	
35.250	24	0.938	29.500	28	0.938	—	—	—	—	—	—	—	443,000	
38.000	20	1.063	31.000	24	1.063	—	—	—	—	—	—	—	587,000	
43.875	24	1.188	36.250	28	1.188	—	—	—	—	—	—	—	873,000	
59.625	30	0.844	54.000	30	0.844	—	—	—	—	—	—	—	348,000	
83.543	52	1.535	73.543	52	1.535	—	—	—	—	—	—	—	3,675,000	
125.500	72	1.063	116.500	72	1.063	—	—	—	—	—	—	—	1,337,000	
174.500	96	1.063	165.500	96	1.063	—	—	—	—	—	—	—	2,258,000	

XT Series



Internal Gear

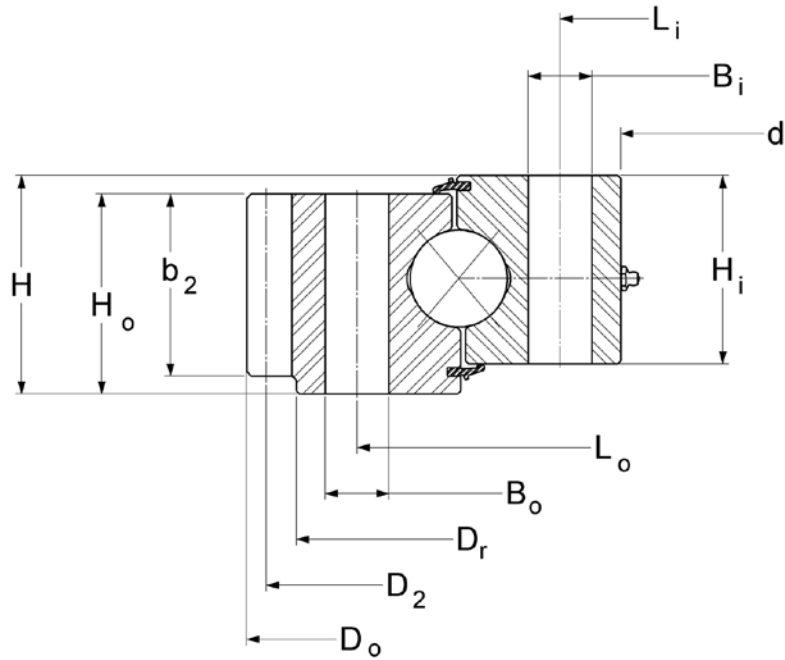
Kaydon P/N	OUTLINE DIMENSIONS AND WEIGHT							
	D_o (in)	d_i (in)	H (in)	H_o (in)	H_i (in)	D_r^* (in)	d_r (in)	G APPROX. (lbs)
16292001	16.625	9.714	1.968	1.732	1.732	—	—	65
16293001	20.486	12.750	2.060	2.000	2.000	—	—	105
16294001	25.750	16.850	2.750	2.375	2.375	—	—	180
16295001	28.937	19.600	2.834	2.480	2.480	—	—	225
16296001	34.252	24.921	2.834	2.480	2.480	—	—	270
16390001	40.880	30.560	3.380	2.560	3.000	—	32.375	375
16374001	48.250	36.400	4.000	3.500	3.500	—	38.250	660
16297001	54.375	41.280	5.000	3.875	4.625	—	43.000	1,090
16298001	62.250	47.760	4.875	4.375	4.375	—	49.325	1,370
16299001	72.500	57.000	6.000	5.000	5.000	—	59.380	1,900
16300001	81.750	62.267	6.500	5.625	6.125	—	64.750	3,080
16301001	102.500	85.360	7.440	6.780	5.660	—	88.380	3,750
16302001	117.000	93.600	7.125	6.500	6.500	—	96.375	6,200
16303001	148.425	135.039	4.724	4.134	4.134	—	136.890	3,000
16304001	168.000	151.700	6.000	5.500	5.500	—	153.940	5,500

*No external diameters for this type.

XT Series

HOLE DATA							GEAR DATA						GEAR TOOTH RATING F_z (lbs)	BEARING MOMENT RATING C_{rm} (ft-lbs)
OUTER RING			INNER RING				$\alpha = 20^\circ$							
L_o (in)	n_o	B_o (in)	L_i (in)	n_i	B_i (in)	TOOTH FORM	D_2 (in)	P_d or (m)	z_2	x_2	b_2 (in)			
15.354	18	0.594	11.614	24	0.594	FS	10.000	5/7	50	0	1.732	7,800	71,800	
18.875	20	0.594	14.375	20	0.594	FS	13.000	5/7	65	0	2.000	8,800	81,300	
24.500	18	0.688	19.500	24	0.688	SD	17.250	4	69	0	2.375	12,750	143,000	
27.165	24	0.813	22.126	30	0.813	SD	20.000	4	80	0	2.480	13,250	244,000	
32.480	30	0.813	27.441	36	0.813	SD	25.250	4	101	-15	2.480	12,900	343,000	
39.250	40	0.813	33.750	40	0.813	SD	31.200	2.5	78	0	2.750	20,230	461,000	
46.125	30	0.938	39.875	36	0.938	FD	37.200	2.5	93	0	3.250	21,290	720,000	
52.500	48	0.938	45.250	48	0.938	SD	41.600	2.5	104	-40	3.000	24,900	1,131,000	
59.750	48	1.063	51.750	48	1.063	SD	48.400	2.5	121	0	4.312	38,500	1,650,000	
69.750	48	1.063	61.500	48	1.063	FD	58.000	2	116	0	4.500	46,600	1,831,000	
78.750	52	1.312	67.625	52	1.312	SD	63.333	1.5	95	0	5.000	75,450	3,764,000	
99.803	60	1.312	91.142	60	1.312	FD	86.667	1.5	130	0	5.500	81,500	3,457,000	
113.000	52	1.562	100.000	52	1.562	SD	94.667	1.5	142	0	4.750	69,900	6,125,000	
146.457	72	0.866	138.583	72	0.866	FD	135.827	(10)	345	0	3.543	25,300	1,013,000	
165.120	90	1.313	156.000	90	1.313	SD	152.500	2	305	0	5.000	45,400	3,003,000	

XT Series



External Gear

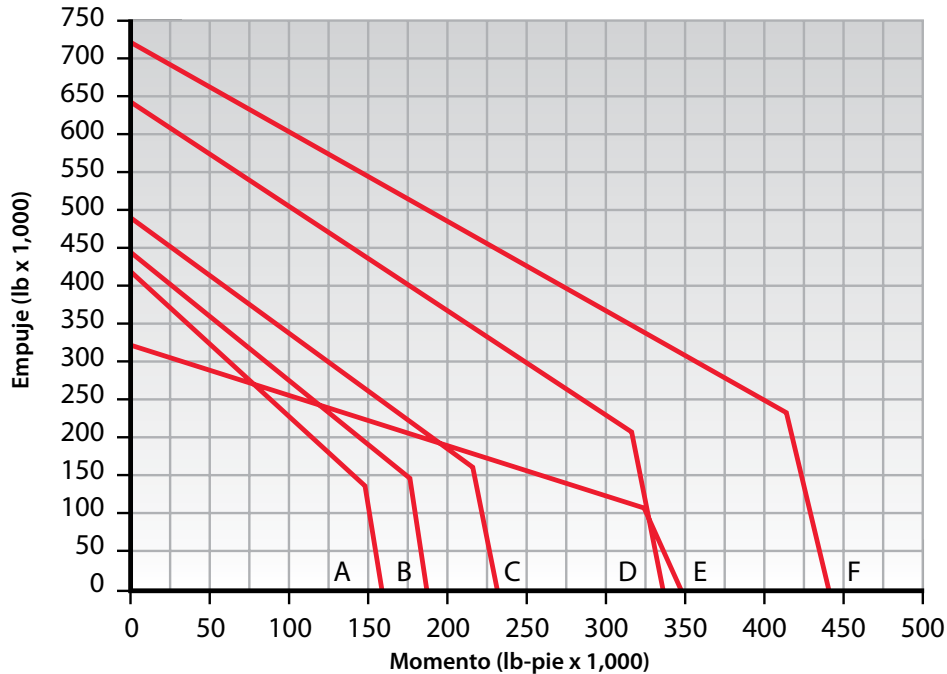
Kaydon P/N	OUTLINE DIMENSIONS AND WEIGHT							
	D _o (in)	d _i (in)	H (in)	H _o (in)	H _i (in)	D _r (in)	d _r * (in)	G APPROX. (lbs)
16305001	9.500	4.813	1.344	1.141	1.141	—	—	15
16306001	21.286	12.438	2.812	2.656	2.656	—	—	140
16307001	30.457	19.000	3.625	3.250	3.250	—	—	330
12440001	39.400	29.500	3.875	3.031	3.031	38.375	—	390
16308001	50.640	37.750	4.000	3.620	3.620	—	—	770
12288001	54.300	42.000	4.625	3.625	3.625	52.250	—	770
16309001	56.240	41.370	4.750	3.850	4.400	—	—	1,133
16310001	61.300	47.125	5.875	4.688	4.688	59.375	—	1,420
16311001	75.000	54.500	6.500	5.875	5.875	72.560	—	2,865
16312001	85.067	66.750	7.120	6.500	6.620	82.120	—	3,410
16313001	98.800	78.400	6.625	6.000	6.000	98.000	—	4,000
16314001	134.331	118.110	5.512	5.000	5.000	130.984	—	3,600
16315001	170.079	146.850	6.024	5.512	5.512	—	—	8,030
16316001	196.850	173.622	7.000	6.250	6.250	192.716	—	10,100
16317001	218.268	197.244	5.512	5.039	5.039	216.142	—	8,700

*No internal diameters for this type.

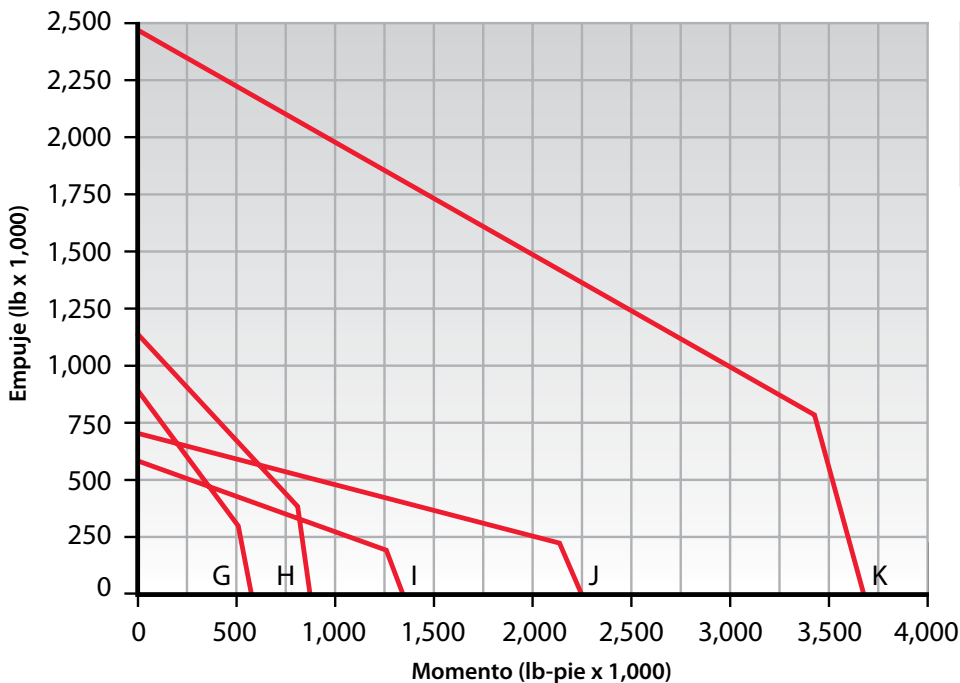
XT Series

HOLE DATA							GEAR DATA						GEAR TOOTH RATING F_z (lbs)	BEARING MOMENT RATING C_{rm} (ft-lbs)
OUTER RING			INNER RING				$\alpha = 20^\circ$							
L_o (in)	n_o	B_o (in)	L_i (in)	n_i	B_i (in)	TOOTH FORM	D_2 (in)	P_d or (m)	z_2	x_2	b_2 (in)			
8.188	12	0.354	5.500	12	0.354	FD	9.250	8	74	0	1.141	2,470	6,200	
19.156	16	0.813	13.750	18	0.813	FS	21.000	5/7	105	0	2.656	10,570	122,500	
27.375	30	0.813	20.625	29	0.813	SD	30.000	3.5	105	0	3.250	17,400	322,000	
36.750	36	0.813	31.250	39	0.813	SD	39.000	4	156	0	2.750	14,000	477,000	
47.000	30	1.031	40.000	29	1.031	SD	50.000	2.5	125	0	3.620	27,400	832,000	
50.375	30	1.062	44.125	36	1.062	SD	53.500	2	107	0	3.000	28,150	875,000	
52.000	28	1.313	44.000	28	1.313	SD	55.600	2.5	139	0	3.850	29,300	1,220,000	
57.375	40	1.063	49.250	44	1.063	SD	60.500	2	121	0	4.000	40,850	1,522,000	
70.250	40	1.313	58.500	40	1.313	FD	74.000	2	148	0	4.000	36,600	2,873,000	
80.125	48	1.313	69.250	48	1.313	SD	84.000	1.5	126	0	6.000	81,900	3,575,000	
94.250	72	1.562	82.500	60	1.812	SD	98.000	2	196	0	4.750	49,600	4,951,000	
128.976	72	1.260	120.512	72	1.260	FD	132.520	(18)	187	.28	4.724	61,800	2,070,000	
162.598	72	1.535	150.787	72	1.535	FD	168.504	(20)	214	0	5.512	80,500	4,176,000	
189.370	80	1.535	177.559	80	1.535	FD	195.276	(20)	248	0	5.512	81,000	5,210,000	
212.598	90	1.260	200.787	90	1.260	FD	217.323	(12)	460	0	3.780	31,100	3,190,000	

XT Series Load Charts - No Gear



- (A) 12740001
- (B) 12750001
- (C) 12770001
- (D) 12775001
- (E) 16289001
- (F) 12780001

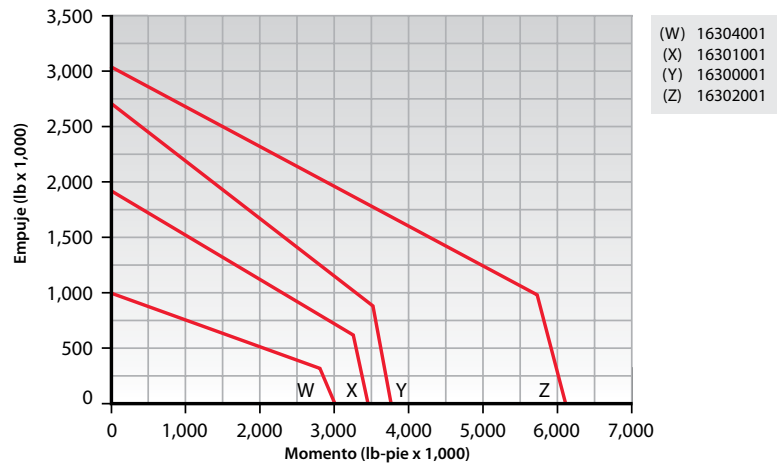
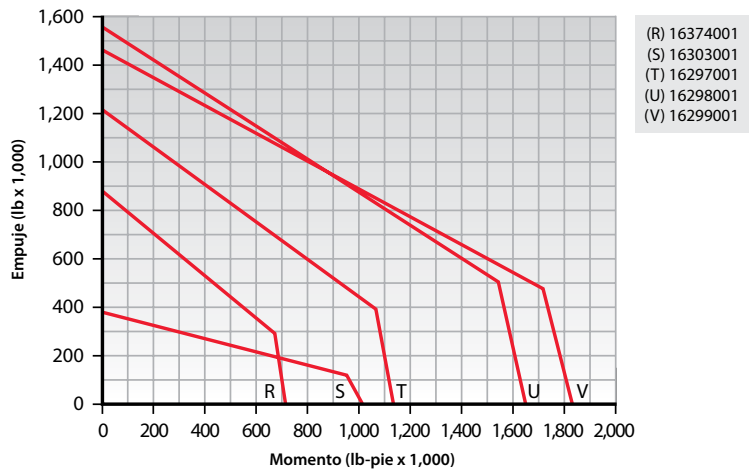
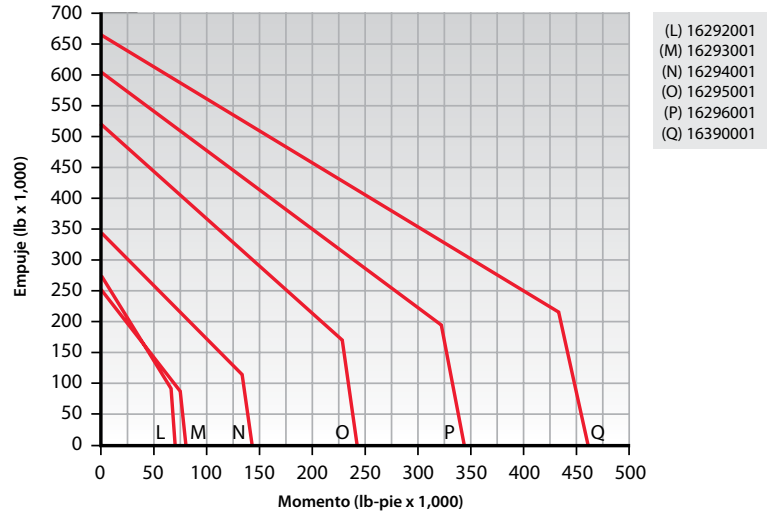


- (G) 12785001
- (H) 12790001
- (I) 16290001
- (J) 16291001
- (K) 16389001



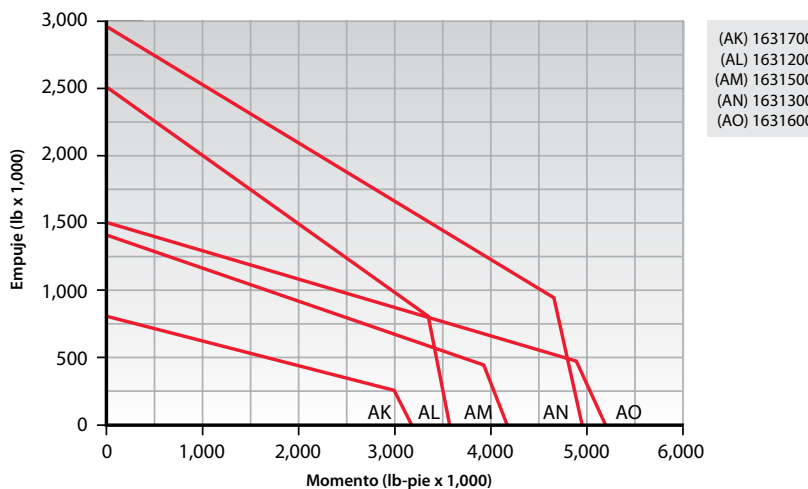
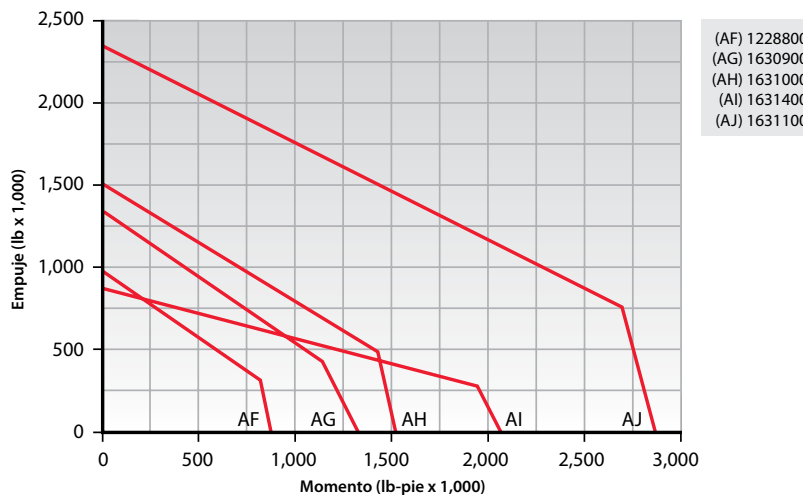
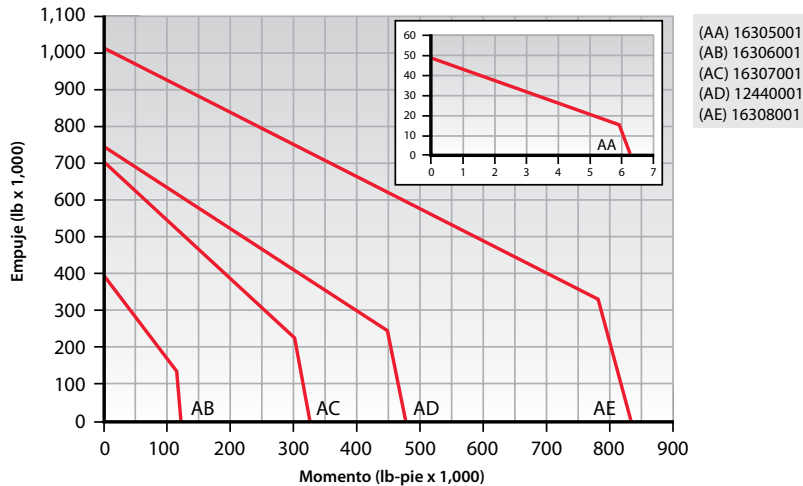
Rating Charts are only applicable for operating conditions defined as NORMAL OPERATION in Section 2 and when installed and maintained as defined in Section 3 of this catalog. Bearing diameter increase does not necessarily ensure bearing rating increase due to variations in rolling elements, ring section,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

XT Series Load Charts - Internal Gear



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.

XT Series Load Charts - External Gear



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.