



Axial preloading of bearings with Spirol bearing disc springs extends the bearing life and eliminates excessive running noise.

One or more disc springs can be used. In most cases the outer race of the ball bearing is preloaded with the disc spring. In some cases it is desirable to preload the inner race. Accordingly, disc springs designed for the outer race of one bearing will also fit the inner race of another bearing.

The recommended preload is achieved when the disc is deflected to 75% of the free cone heights (h_o). The h_o/t ratio is designed so that the spring load remains nearly constant for a large deflection range. Tolerance build up and variations resulting from expansion can be accommodated without a significant change in preload.

STANDARD MATERIALS	
B	"t" less than 1.25 mm Ck67, CS70, AISI 1070
W	"t" 1.25 mm and thicker 50CrV4 (Wnr 1.8159) AISI 6150
Austempered to HRC 42 - 52 / HV 412 - 544	
STANDARD FINISH	
R	Phosphate coated, oiled

Ball Bearing Size	Dimensions					$s = 0.75 h_o$			
	D_e	D_i	t	l_o	h_o	s, mm	F (N)		
623	EL3	9.8	6.2	0.2	0.4	0.2	0.15	23.2	
624	EL4	12.8	7.2	0.25	0.5	0.25	0.188	29.3	
625	634	EL5	15.8	8.2	0.25	0.55	0.3	0.225	23
626	635	EL6	18.8	9.2	0.3	0.65	0.35	0.263	31.3
607	EL7	18.8	10.2	0.35	0.7	0.35	0.263	50.7	
608	627	EL8	21.8	12.3	0.35	0.75	0.4	0.3	46.3
609	EL9	23.7	14.3	0.4	0.9	0.5	0.375	80.6	
600	629	25.7	14.3	0.4	0.9	0.5	0.375	63.5	
6001		27.7	17.3	0.4	1	0.6	0.45	80	
	6200	29.7	17.4	0.4	1.1	0.7	0.525	82.8	
6002	6201	31.7	20.4	0.4	1.1	0.7	0.525	81	
	6300	34.6	20.4	0.4	1.1	0.7	0.525	61.4	
6003	6202	34.6	22.4	0.5	1.2	0.7	0.525	118.4	
	6301	36.6	20.4	0.5	1.3	0.8	0.6	110.2	
	6203	39.6	25.5	0.5	1.3	0.8	0.6	109.9	
6004	6302	41.6	25.5	0.5	1.4	0.9	0.675	113.3	
6005	6204	46.5	30.5	0.6	1.5	0.9	0.675	153.5	
	6205	6304	51.5	35.5	0.6	1.5	0.9	0.675	135.5
6006		54.5	40.5	0.6	1.5	0.9	0.675	141.3	
6007	6206	6305	61.5	40.5	0.7	1.8	1.1	0.825	175.6
6008		67.5	50.5	0.7	1.7	1	0.75	161.3	
	6306	71.5	45.5	0.7	2.1	1.4	1.05	184.9	
	6207	71.5	50.5	0.7	2.1	1.4	1.05	218.3	
6009		74.5	55.5	0.8	1.9	1.1	0.825	211.3	
	6307	79.5	50.5	0.8	2.3	1.5	1.125	227.5	
6010	6208	79.5	55.5	0.8	2.3	1.5	1.125	263.4	
	6209	84.5	60.5	0.9	2.5	1.6	1.2	358.7	
	6308	89.5	60.5	0.9	2.5	1.6	1.2	287.8	
6011	6210	89.5	65.5	0.9	2.5	1.6	1.2	335.3	
6012		94.5	75.5	1	2.2	1.2	0.9	324.7	
	6309	99	65.5	1	2.6	1.6	1.2	292.3	
6013	6211	99	70.5	1	2.6	1.6	1.2	332.3	
	6310	109	70.5	1.25	2.7	1.45	1.088	357.1	
6014	6212	109	75.5	1.25	2.7	1.45	1.088	397.9	
6015		114	90.5	1.25	2.45	1.2	0.9	398.2	
	6311	119	75.5	1.25	2.8	1.55	1.163	319.9	
	6213	119	85.5	1.25	2.8	1.55	1.163	392.6	
6016	6214	124	90.5	1.25	3	1.75	1.313	444.8	

TO ORDER: Product / D_e x D_i x t / material code / finish code
 EXAMPLE: BRG 41.6 x 25.5 x 0.5 B R

Predictable preloading of bearings results in quiet running and long life. Disc springs may also be used to preload seals, packings, clutches and other machine elements.

