



Unit: mm

Dimensions Codes	Nominals	Grip Retaining Ring Dimensions								Thrust Loading N	d ₁ : Applicable Shafts	
		d _s	Tolerance	t	Tolerance	b	a	d ₀	(H)		Basic Size	Tolerance
52015	1.5	1.40	+0.05 -0.08	0.3	±0.04	0.7	1.3	0.5	3.3	19.61	1.5	±0.025
52020	2	1.90		0.5		1	1.8	0.8	4.6	19.61	2	
52022	2.2	2.05		0.5		1.1	1.9	0.8	4.9	24.52	2.2	
52024	2.4	2.25		0.5		1.1	1.9	0.9	5.1	24.52	2.4	
52025	2.5	2.35		0.5		1.2	1.9	0.9	5.3	24.52	2.5	
52028	2.8	2.65		0.5		1.3	1.9	0.9	5.7	34.32	2.8	
52030	3	2.85		0.6		1.4	1.9	0.9	6	39.23	3	
52032	3.2	3.05		0.6		1.5	2	0.9	6.4	44.13	3.2	
52035	3.5	3.30		0.6		1.6	2	0.9	6.8	49.03	3.5	
52040	4	3.80		0.8		1.8	2.8	1.2	8.3	58.84	4	
52045	4.5	4.25	+0.05 -0.1	0.8	±0.05	2	2.9	1.3	9	68.65	4.5	±0.03
52048	4.8	4.60		0.8		2.1	2.9	1.3	9.5	73.55	4.8	
52050	5	4.75	±0.08	0.8	±0.05	2.2	2.9	1.3	9.7	78.45	5	±0.036
52060	6	5.70		1		2.4	3.1	1.4	11.1	93.16	6	
52063	6.3	6.05	±0.1	1	±0.05	2.5	3.1	1.4	11.5	93.16	6.3	±0.036
52070	7	6.70		1		2.7	3.3	1.4	12.6	93.16	7	
52080	8	7.70		1		3	3.5	1.4	14.1	112.78	8	
52090	9	8.65	±0.06	1.2	±0.06	3.3	4.7	1.5	16.5	147.10	9	±0.036
52100	10	9.65		1.2		3.5	4.7	2	17.7	156.91	10	

Remarks: 1. Thrust loading is measured with SUS304-CSP
 2. Thrust loading measured using steel shafts with hardness HV300 or less.

Product code	152	Material code	02...SUS304-CSP		Part Number Structure (Standardized Product Code)			
			70...Spring Steel		Product Surface ① ⑤ ② ○ ○ ○ ○ — ○ ○ ○ ○ ○ ○ Material Dimensions code			
Surface code	01...Burnished (SUS304-CSP)	Hardness	HRC37 - 46 (SUS304-CSP)					
	05...Phosphate Coating (Spring Steel)		HRC46 - 51 (Spring Steel)					