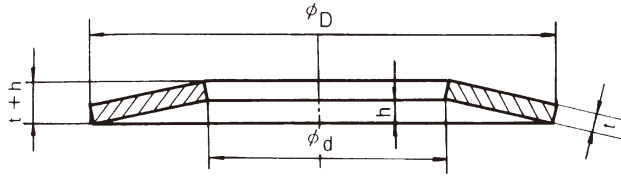


Disc Springs for Light Duty

DIN 2093
JIS B 2706 (Ref.)



Series $\frac{D}{t} \approx 28$, $\frac{h}{t} \approx 0.75$

Unit: mm

Nominals JIS	Dimensions Codes	Nominals No.	Internal Diameter		External Diameter		Thickness		Height		f=0.75h(Ref.)		
			d	Tolerance	D	Tolerance	t	h	t+h	Tolerance	Spring Force P N	Deformed Length =0.75h mm	Maximum Stress σ N/mm ²
8	23001	1	4.2	+0.15 0	8	0	0.3	0.25	0.55	±0.1	117.7	0.19	1,314.1
10	23002	2	5.2		10	-0.15	0.4	0.3	0.7		205.9	0.22	1,284.7
12.5	23003	3	6.2		12.5	0 -0.2	0.5	0.35	0.85		294.2	0.26	1,108.2
14	23004	4	7.2		14		0.5	0.4	0.9		274.6	0.3	1,098.3
16	23005	5	8.2		16		0.6	0.45	1.05		411.9	0.34	1,108.2
18	23006	6	9.2		18	0.7	0.5	1.2	568.8		0.37	1,108.2	
20	23007	7	10.2	+0.2 0	20	0 -0.25	0.8	0.55	1.35	±0.15	745.3	0.41	1,118.0
22.5	23008	8	11.2		22.5		0.8	0.65	1.45		706.1	0.49	1,078.7
25	23009	9	12.2		25		0.9	0.7	1.6		863.0	0.52	1,019.9
28	23010	10	14.2		28		1	0.8	1.8		1,127.8	0.6	1,108.2
※ 31.5	23011	11	16.3	+0.25 0	31.5	0 -0.3	1.25	0.9	2.15	±0.15	1,912.3	0.67	1,186.6
※ 35.5	23012	12	18.3		35.5		1.25	1	2.25		1,696.6	0.75	1,068.9
※ 40	23013	13	20.4		40		1.5	1.15	2.65		2,618.4	0.86	1,137.6
※ 45	23014	14	22.4		45		1.75	1.3	3.05		3,648.1	0.97	1,147.4
50	23015	15	25.4		50		2	1.4	3.4		4,765.2	1.05	1,147.4
56	23016	16	28.5	+0.3 0	56	0 -0.35	2	1.6	3.6	±0.2	4,462.0	1.2	1,098.3
63	23017	17	31		63		2.5	1.75	4.25		7,207.9	1.3	1,088.5
71	23018	18	36		71		2.5	2	4.5		6,717.6	1.5	1,049.3
80	23019	19	41		80		3	2.3	5.3		10,493	1.7	1,137.6
90	23020	20	46	+0.6 0	90	0 -0.4	3.5	2.5	6	+0.55 -0.25	14,122	1.87	1,108.2
100	23021	21	51		100		3.5	2.8	6.3		13,092	2.1	1,049.3
112	23022	22	57		112		4	3.2	7.2		17,770	2.4	1,088.5
125	23023	23	64	+1 0	125	0 -1	5	3.5	8.5	+0.6 -0.25	29,930	2.6	1,147.4
140	23024	24	72		140		5	4	9		27,949	3	1,098.3
160	23025	25	82	+1.2 0	160	0 -1.2	6	4.5	10.5	+0.7 -0.35	41,011	3.3	1,108.2
180	23026	26	92		180		6	5.1	11.1		37,569	3.8	1,039.5
200	23027	27	102		200		8	5.6	13.6		76,364	4.2	1,147.4
225	23028	28	112	+0.8 -0.45	225	0 -1.5	8	6.5	14.5	+0.8 -0.45	70,706	4.8	1,078.7
250	23029	29	127		250		10	7	17		118,955	5.2	1,137.6

- Remarks:**
- The spring force of spring steel is as shown in the table. For SUS 304 products, the values are approx. 90% of shown.
 - Maximum stress represents the maximum tensile stress which occurs at bottom fringe of disc springs.
 - Items marked with ※ have thickness, height, or other specifications that differ from JIS.
 - Please refer to pages T3 & T4 for technical information.

- Notes:**
- The stainless steel products that deviate from the JIS standard (JIS G 4313: Cold Rolled stainless Steel Strip for Springs) in thickness are classified as SUS304-CSP.
 - Product availability of spring steels 6mm or more in thickness is subject to material supply and demand situations. Please contact us for more information.

Product code	123	Material code	02...SUS304-CSP		Part Number Structure (Standardized Product Code)				
			70...Spring Steel		<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Product</p> <p>① ② ③ ○ ○ ○ ○ ○ ○ ○ ○</p> <p>Material</p> </div> <div style="text-align: center;"> <p>Surface</p> <p>○ ○ ○ ○ ○ ○ ○ ○ ○ ○</p> <p>Dimensions code</p> </div> </div>				
Surface code	01...Burnished (SUS304-CSP)		Hardness	HRC37 - 46 (SUS304-CSP)					
	03...Temper Color (Spring Steel)			HRC43 - 50 (Spring Steel)					