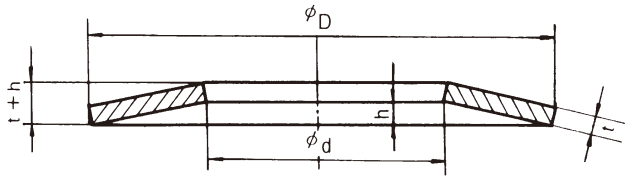
Disc Springs for Heavy Duty

DIN 2093
JIS B 2706 (Ref.)

TAIYO Stainless Spring Co., Ltd.



Series $\frac{D}{t} \approx 18$, $\frac{h}{t} \approx 0.4$

Unit: mm

	Nominals JIS	Dimensions Codes	Nominals No.	Internal Diameter d	Tolerance	External Diameter D	Tolerance	Thickness t	Height h	Height t+h	Tolerance	f=0.75h(Ref.) Spring Force P N	Deformed Length =0.75h mm	Maximum Stress σ N/mm²
	8	22001	1	4.2	+0.15 0	8	0 −0.15	0.4	0.2	0.6	±0.1	205.9	0.15	1,216.0
	10	22002	2	5.2		10		0.5	0.25	0.75		323.6	0.19	1,216.0
	12.5	22003	3	6.2		12.5	0 −0.2	0.7	0.3	1		657.1	0.22	1,382.7
	14	22004	4	7.2		14		0.8	0.3	1.1		794.3	0.22	1,304.3
	16	22005	5	8.2		16		0.9	0.35	1.25		1,029.7	0.26	1,333.7
	18	22006	6	9.2		18		1	0.4	1.4	±0.15	1,274.9	0.3	1,323.9
	20	22007	7	10.2	+0.2 0	20	0 −0.25	1.1	0.45	1.55		1,520	0.34	1,284.7
※	22.5	22008	8	11.2		22.5		1.25	0.5	1.75		1,931.9	0.37	1,294.5
※	25	22009	9	12.2		25		1.5	0.55	2.05		2,922.4	0.41	1,422.0
※	28	22010	10	14.2		28		1.5	0.65	2.15		2,843.9	0.49	1,274.9
※	31.5	22011	11	16.3		31.5	0 −0.3	1.75	0.7	2.45		3,873.6	0.52	1,294.5
	35.5	22012	12	18.3	+0.25 0	35.5		2	0.8	2.8		5,197.5	0.6	1,333.7
※	40	22013	13	20.4		40		2.25	0.9	3.15		6,501.8	0.67	1,323.9
	45	22014	14	22.4		45		2.5	1	3.5	±0.2	7,698.2	0.75	1,294.5
	50	22015	15	25.4		50		3	1.1	4.1		11,964	0.82	1,422.0
	56	22016	16	28.5		56	0 −0.35	3	1.3	4.3		11,376	0.97	1,265.1
	63	22017	17	31	+0.3 0	63		3.5	1.4	4.9		15,004	15	1,294.5
	71	22018	18	36	+0.5 0	71	0 −0.5	4	1.6	5.6	+0.4 −0.2	20,545	1.2	1,333.7
	80	22019	19	41		80		5	1.7	6.7		33,588	1.3	1,451.4
	90	22020	20	46		90		5	2	7		31,411	1.5	1,294.5
	100	22021	21	51	+0.6 0	100	0 −1	6	2.2	8.2	+0.55 −0.25	48,013	1.65	1,422.0
	112	22022	22	57		112		6	2.5	8.5		43,757	1.9	1,235.6
	125	22023	23	64		125		8	2.6	10.6	+0.6 −0.25	85,975	1.9	1,471.0
	140	22024	24	72	+1 0	140		8	3.2	11.2		85,347	2.4	1,372.9
	160	22025	25	82		160	0 −1.2	10	3.5	13.5	+0.7 −0.35	138,333	2.5	1,480.8
	180	22026	26	92		180		10	4	14		125,623	3	1,294.5

Remarks: 1. The spring force of spring steel is as shown in the table. For SUS 304 products, the values are approx. 90% of shown.
2. Maximum stress represents the maximum tensile stress that occurs at bottom fringe of disc springs.
3. Items marked with ※ have thickness, height, or other specifications that differ from JIS.
4. Please refer to pages T3 & T4 for technical information.

Notes: 1. The stainless steel products that deviate from the JIS standard (JIS G 4313: Cold Rolled stainless Steel Strip for Springs) are classified as SUS304-CSP.
2. 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	122	Material code	02···SUS304-CSP 70···Spring Steel	Part Number Structure (Standardized Product Code)	
Surface code	01···Burnished (SUS304-CSP) 03···Temper Color (Spring Steel)	Hardness	HRC37 – 46 (SUS304-CSP) HRC43 – 50 (Spring Steel)	①②② ○○○○ – ○○○○○	Product, Surface, Material, Dimensions code