

Spring Washer



Salient Features of Spring Washer

Spring Washers have the dual function of

Spring take up devices to compensate for developed looseness and loss of tension between components of an assembly. It is a well known fact that the initial tension in a bolt or screw is reduced by its gradual stretch, the slight wearing-down of the contracting surface or the breakdown of rust, scale or protective paint, enamel, etc., finishes. The use of a Spring Washer under the nut or bolt head exerts an axial force during this period of initial looseness, preventing the tightening pressure diminishing below a danger level, i.e. the point at which the nut and bolt can easily rotate backwards.

- Hardened thrust bearing to facilitate assembly of bolted fastenings, by decreasing the frictional resistance between the bolted surfaces and the bearing face of bolt head or nut.

Material of Spring Washer

Washers are hardened and tempered to 42 to 47 degrees Rockwell C Scale or as per the customer's requirement.

Finish of Spring Washer

As a standard, Spring Washers are thermally blackened . We also do various finishes like Zinc, Copper, Nickel and other as per the party's specification.

Spring Washer TO ISS 3063/1965 DIN 127
Spring Washers Millimeter Sizes "Flat"

Catlog No.	Nominal Size	Inside Diameter		Width	Thickness	M.D.
		Min	Max			Max
MSF3	3 mm	3.1	3.4	1.3	0.8	6.0
MSF4	4 mm	4.1	4.4	1.5	0.9	7.4
MSF5	5 mm	5.1	5.4	1.8	1.2	9.0
MSF6	6 mm	6.1	6.0	2.5	1.6	11.4
MSF8	8 mm	8.2	8.6	3.0	2.0	14.6
MSF10	10 mm	10.2	10.8	3.5	2.2	17.8
MSF12	12 mm	12.2	13.0	4.0	2.5	21.0
MSF14	14 mm	14.2	15.0	4.5	3.0	24.0
MSF16	16 mm	16.2	17.2	5.0	3.5	27.2
MSF18	18 mm	18.2	19.2	5.0	3.5	29.2
MSF20	20 mm	20.2	21.2	6.0	4.0	33.2
MSF22	22 mm	22.5	23.5	6.0	4.0	35.5
MSF24	24 mm	24.5	25.5	7.0	5.0	39.5
MSF27	27 mm	27.5	28.5	7.0	5.0	42.5
MSF30	30 mm	30.5	31.8	8.2	6.0	48.2
MSF32	32 mm	32.5	33.8	8.2	6.0	50.2
MSF33	33 mm	33.5	34.8	10.2	6.2	55.2
MSF36	36 mm	36.5	37.8	10.2	6.2	58.2

Spring Washer TO DIN 7980
Spring Washers Millimeter Sizes "Square"

Catlog No	Nominal Size	Inside Diameter		Width	Thickness	O.D.
		Min	Max			Max
MSS3	3 mm	3.1	3.4	1.0	1.0	5.4
MSS4	4 mm	4.1	4.4	1.2	1.2	6.8
MSS5	5 mm	5.1	5.4	1.6	1.6	8.6
MSS6	6 mm	6.1	6.5	1.6	1.6	9.7
MSS8	8 mm	8.2	8.6	2.0	2.0	12.6
MSS10	10 mm	10.2	10.8	2.5	2.5	15.8
MSS12	12 mm	12.2	13.0	2.5	2.5	18.0
MSS14	14 mm	14.2	15.0	3.0	3.0	21.0
MSS16	16 mm	16.2	17.2	3.0	3.0	23.2
MSS18	18 mm	18.2	19.2	3.5	3.5	26.2
MSS20	20 mm	20.2	21.2	4.5	4.5	30.2
MSS22	22 mm	22.5	23.5	4.5	4.5	32.5
MSS24	24 mm	24.5	25.5	5.0	5.0	35.5
MSS27	27 mm	27.5	28.5	5.0	5.0	38.5
MSS30	30 mm	30.5	31.8	6.0	6.0	43.8

SPRING WASHER STANDARD SQUARE SECTION
Spring Washers Square Commercial (Inches)

Catlog No.	Nominal Size	Inside Diameter		Width and Thickness		O.D. Max
		Min	Max	G.	Inch	
ISS1	3/16"	0.192	0.199	17	0.056	0.311
ISS2	1/4"	0.255	0.267	16	0.064	0.395
ISS3	5/16"	0.319	0.333	15	0.072	0.477
ISS4	3/8"	0.382	0.398	14	0.080	0.558
ISS5	7/16"	0.446	0.464	13	0.092	0.648
ISS6	1/2"	0.509	0.529	12	0.104	0.737
ISS7	9/16"	0.573	0.595	11	0.116	0.827
ISS8	5/8"	0.636	0.660	10	0.128	0.916
ISS9	3/4"	0.763	0.791	9	0.144	1.079
ISS10	7/8"	0.890	0.922	8	0.160	1.242
ISS11	1"	1.017	1.053	7	0.175	1.402
ISS12	1-1/8"	1.144	1.184	4	0.232	1.648
ISS13	1-1/4"	1.271	1.315	4	0.232	1.779
ISS14	1-3/8"	1.398	1.441	4	0.232	1.910
ISS15	1-1/2"	1.525	1.577	4	0.232	2.041

SPRING WASHER Rectangular Section TO BSS 1802
Spring Washers FLAT Section

Catlog No.	Nominal Size	Inside Diameter		Width		Thickness		O.D.
		Min	Max	G.	Inch	G.	Inch	Max
ISF1	1/8"	0.129	0.136	18	0.048	21	0.032	0.232
ISF2	5/32"	0.160	0.167	16	0.064	21	0.032	0.295
ISF3	3/16"	0.192	0.199	13	0.092	18	0.048	0.383
ISF4	1/4"	0.255	0.267	13	0.092	16	0.064	0.451
ISF5	5/16"	0.319	0.333	10	0.128	16	0.064	0.589
ISF6	3/8"	0.382	0.398	9	0.144	16	0.064	0.686
ISF7	7/16"	0.446	0.464	8	0.160	16	0.064	0.784
ISF8	1/2"	0.506	0.529	8	0.160	13	0.092	0.849
ISF9	9/16"	0.573	0.595	6	0.192	13	0.092	0.979
ISF10	5/8"	0.636	0.660	6	0.192	10	0.128	1.044
ISF11	3/4"	0.763	0.791	4	0.232	10	0.128	1.255
ISF12	7/8"	0.890	0.922	3	0.252	10	0.128	1.426
ISF13	1"	1.017	1.053	3	0.281	6	0.187	1.615
ISF14	1 1/8"	1.144	1.184	-	0.281	-	0.187	1.746
ISF15	1 1/4"	1.271	1.315	-	0.318	-	0.187	1.939
ISF16	1 3/8"	1.398	1.446	-	0.312	-	0.187	2.070
ISF17	1 1/2"	1.525	1.577	-	0.375	-	0.187	2.327