



# PLANT STANDARD

HPBP TIRUCHIRAPALLI

BPS: 41405

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Based on IS: 3063-1972

## SPRING WASHERS - TYPE B

### 1.0 SCOPE

Covers the requirements for single coil rectangular section spring washers, type B (with flat ends) in the size range 2 to 100mm.

### 2.0 SPECIFICATION AND REFERENCE STANDARDS

Dimensions and tolerances	Table 1 of this standard
Material	Suitable spring steel of tensile strength 700 MN/m <sup>2</sup> Min. according to IS: 4072
Mechanical properties	Hardness 43-50 HRC
Finish	Natural finish
Sampling and Acceptability	According to IS: 6821
General requirements	Washers shall comply with IS: 3063 in respect of requirements not covered in this standard.

### 2.1 Referred Standards (Only the current versions are applicable)

IS: 3063 Single coil rectangular section spring washers for bolts, nuts and screws

IS: 4072 Steel for spring washers

IS: 6821 Methods for sampling non-threaded fasteners

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REVISIONS

DATE

APPROVED

STANDARDS SECTION  
ENGINEERING AND DEVELOPMENT CENTRE  
HPBP TIRUCHIRAPALLI

PREPARED

HPBP TIRUCHY

ISSUED  
STANDARDS  
ENGG

DATE

DEC 1986



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## 3.0 DESIGNATION

A Spring Washer to this standard for bolt/screw size M6 shall be designated as

## 3.1 On Drawings

- i) Material Specification column: IS: 3063-B
- ii) Description column : WASHER SPRING SC 6
- iii) Drawing Number column : 4140506000
- iv) Material code column : 4140500006

## 3.2 Ordering Description

For placing indents, issuing enquiries and on purchase orders, the ordering description given below shall be followed.

Spring Washer B6 IS: 3063

## 4.0 ADDITIONAL INFORMATION

- 4.1 For Cadmium plated spring washers refer BPS: 41445.
- 4.2 These washers can be used for right hand threaded fasteners only.
- 4.3 For screws with cylindrical heads intended for use in counter bores, refer spring washers to BPS: 41412

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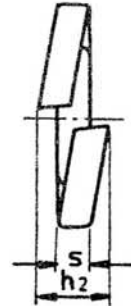
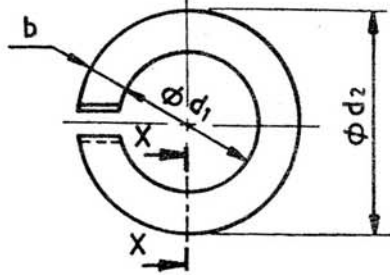
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**TABLE 1 - DIMENSIONS FOR SPRING WASHERS**



$h_2 = 2s$

SECTION XX

(All dimensions in millimetres)

Nom size	$d_1$		$d_2$ Max	$b$		$s$		$r$ Nom	Weight	For bolt/ screw size
	Basic	Tol $\pm$		Basic	Tol $\pm$	Basic	Tol $\pm$			
2	2.1	0.3	4.4	0.9	0.1	0.5	0.1	0.1	0.033	M2
3	3.1	0.3	6.2	1.3	0.1	0.8	0.1	0.2	0.112	M3
4	4.1	0.3	7.6	1.5	0.1	0.9	0.1	0.2	0.18	M4
5	5.1	0.3	9.2	1.8	0.1	1.2	0.1	0.2	0.36	M5
6	6.1	0.4	11.8	2.5	0.15	1.6	0.1	0.3	0.83	M6
8	8.2	0.4	14.8	3.0	0.15	2.0	0.1	0.5	1.60	M8
10	10.2	0.6	18.1	3.5	0.2	2.2	0.15	0.5	2.53	M10
12	12.2	0.8	21.1	4.0	0.2	2.5	0.15	1.0	3.82	M12
16	16.2	0.8	27.4	5.0	0.2	3.5	0.2	1.0	8.91	M16
20	20.2	1.0	33.6	6.0	0.2	4.0	0.2	1.0	15.20	M20
24	24.5	1.0	40.0	7.0	0.25	5.0	0.2	1.6	26.20	M24
(27)	27.5	1.0	43.0	7.0	0.25	5.0	0.2	1.6	28.70	(M27)
30	30.5	1.2	48.2	8.0	0.25	6.0	0.2	1.6	44.30	M30
(33)	33.5	1.2	55.2	10.0	0.25	6.0	0.2	1.6	63.00	(M33)
36	36.5	1.2	58.2	10.0	0.25	6.0	0.2	1.6	67.30	M36
(39)	39.5	1.2	61.2	10.0	0.25	6.0	0.2	1.6	71.70	(M39)
42	42.5	1.2	68.2	12.0	0.25	7.0	0.25	2.0	111.00	M42
(45)	45.5	1.2	71.2	12.0	0.25	7.0	0.25	2.0	117.00	(M45)
48	49.0	1.5	75.0	12.0	0.25	7.0	0.25	2.0	123	M48
52	53.0	1.5	83.0	14.0	0.25	8.0	0.25	2.0	182	M52
56	57.0	1.5	87.0	14.0	0.25	8.0	0.25	2.0	193	M56
60	61.0	1.5	91.0	14.0	0.25	8.0	0.25	2.0	203	M60
64	65.0	1.5	95.0	14.0	0.25	8.0	0.25	2.0	218	M64
72	73.0	1.5	103.0	14.0	0.25	8.0	0.25	2.0	240	M72
76	77.0	1.5	109.0	14.0	0.25	8.0	0.25	2.0	253	M76
80	81.0	1.5	111.0	14.0	0.25	8.0	0.25	2.0	262	M80
90	91.0	1.5	121.0	14.0	0.25	8.0	0.25	2.0	290	M90
100	101.0	1.5	131.0	14.0	0.25	8.0	0.25	2.0	318	M100

**NOTE:**

- 1 Weights are given in kg/1000 numbers only
- 2 Sizes in brackets are non-preferred.
- 3 For stocked sizes, refer BPS Components booklet

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