

# Technical data sheet

<b>Title</b>	Wave spring washer.
<b>Standard</b>	DIN137B

## 1.- Functions of washers.

The main functions of washers are:

- 1.- To protect contact surfaces against scratches or wear that may be caused by screws or nuts by rubbing.
- 2.- To distribute the tightening force evenly to obtain local pressures that are close to the average pressure.
- 3.- To move the tightening force to different areas of the head of the screw or nut. Oversized or torn holes.
- 4.- To reduce the risks of loosening due to increase in the friction coefficient on the screw or nut (serrated or ribbed washers)
- 5.- To secure a possible loss of tightening torque due to deformation of the parts (elastic washers)
- 6.- To compensate for the lack of parallelism of the parts or uneven surfaces.
- 7.- Watertightness between the head or screw or nut and the part to be tightened (polyamide coated washer).
- 8.- Fastening of cables to the electrical connections.

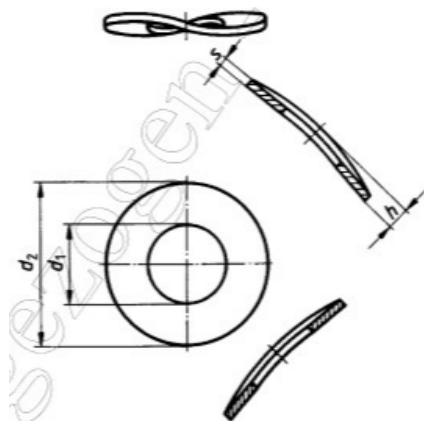
## 2- Application and classes of washers

DIN137 steel spring washers have a hardness of 430HV to 530HV.

This type of washer is recommended for use in screw/nut assemblies of class 5.8 or lower. They are also designed for use with short screws.

The washers are also available in A2 stainless steel. The steel washers have a Plain finish.

### 3.- Dimensions of washers



METRIC	d1	d2	h	s
3	3.2	8	0.8 - 1.6	0.5
3.5	3.7	8	0.9 - 1.8	0.5
4	4.3	9	1 - 2	0.5
5	5.3	11	1.1 - 2.2	0.5
6	6.4	12	1.3 - 2.6	0.5
7	7.4	14	1.5 - 3	0.8
8	8.4	15	1.5 - 3	0.8
10	10.5	21	2.1 - 4.2	1
12	13	24	2.5 - 5	1.2
14	15	28	3 - 6	1.6
16	17	30	3.2 - 6.4	1.6
18	19	34	3.3 - 6.6	1.6
20	21	36	3.7 - 7.4	1.6
22	23	40	3.9 - 7.8	1.8
24	25	44	4.1 - 8.2	1.8
27	28	50	4.7 - 9.4	2
30	31	56	5 - 10	2.2
33	34	60	5.3 - 10.6	2.2
36	37	68	5.8 - 11.6	2.5