

Technical data sheet

Title	Flat washer
Standard	DIN125

1.- Functions of washers.

The main functions of washers are:

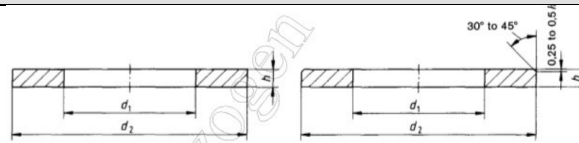
- 1.- To protect contact surfaces against scratches or wear that may be caused by screws or nuts by rubbing.
- 2.- To distribute the tightening force evenly to obtain local pressures that are close to the average pressure.
- 3.- To move the tightening force to different areas of the head of the screw 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

DIN125 washer are grade A washers with hardness up to 250HV, although there are high resistance ones with minimum hardness of 300HV. DIN125 washers are designed to be used with screws from class 8.8 or lower. The hardness of the washer to be used will be selected according to the assembly to be screwed together.

The washers are available in A2 and A4 stainless steel. The steel washers are 140HV, 200HV and even 300HV. These washers may have different surface finishes: Plain, Zinc coated and Hot galvanised.

3.- Dimensions of washers



METRIC	d1	d2	h
1.6	1.7	4	0.3
1.7	1.8	4.5	0.3
2	2.2	5	0.3
2.3	2.5	6	0.5
2.5	2.7	6	0.5
2.6	2.8	7	0.5
3	3.2	7	0.5
3.5	3.7	8	0.5
4	4.3	9	0.8
5	5.3	10	1
6	6.4	12	1.6
7	7.4	14	1.6
8	8.4	16	1.6
10	10.5	20	2
12	13	24	2.5
14	15	28	2.5
16	17	30	3
18	19	34	3
20	21	37	3
22	23	39	3
24	25	44	4
26	27	50	4
27	28	50	4
28	29	50	4
30	31	56	4
32	33	60	5
33	34	60	5
35	36	66	5
36	37	66	5
38	39	72	6
39	40	72	6
40	41	72	6
42	43	78	7
45	46	85	7
48	50	92	8
50	52	92	8
52	54	98	8
55	57	105	9
56	58	105	9
58	60	110	9
60	62	110	9
64	66	115	9
68	70	120	10
72	74	125	10
76	78	135	10
80	82	140	12
85	87	145	12
90	93	160	12
95	98	165	12
100	104	175	14
105	109	180	14
110	114	185	14
115	119	200	14
120	124	210	16
125	129	220	16
130	134	220	16
135	139	230	16
140	144	240	18
145	149	250	18
150	155	250	18
160	165	250	18