

USSR STATE STANDARD

Oversize Washers
Technical Conditions

GOST
6958-78
This supercedes
GOST 6958-68

Non observance of this standard is punishable
by law.

Valid till 01.01. 1984.

The present standard relates to oversize (enlarged) washers for fasteners with diameter ranging from 1 to 48 mm.

This standard is in conformity with CT G3B 281-76 in so far as it relates to thread diameters of fasteners ranging from 1 to 48 mm and to nominal inside diameter of washers and with CT G3B 219-75 in so far as it relates to tolerances in inside diameter for washers of thickness upto 4 mm and accuracy class C.

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Table 1 Contd.

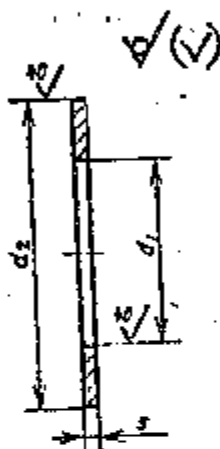
Fastener thread diameter	mm		
	d_1	d_2	s
20.0	21.0	60	5.0
22.0	23.0	65	
24.0	25.0	70	
27.0	28.00	80	6.0
30.0	31.0	90	
36.0	37.0	100	8.0
42.0	43.0	120	
48.0	50.0	140	

11. Washer dimensions must conform to values shown in the drawing and Table below.

Стр. 2 ГОСТ 6958-78

1. Dimensions
1. ВЪЗМЕРЫ

1.1. Размеры шайб должны соответствовать указанным на чертеже и в таблице.



мм
mm

Таблица 1
Table 1

Fastener
thread
diameter

Диаметр резьбы крепящей детали	d_1	d	s
1,0	1,1	4	0,5
1,2	1,3		
1,6	1,7	5	
2,0	2,2	6	0,8
2,5	2,7	8	
3,0	3,2	10	
4,0	4,3	12	1,0
5,0	5,3	16	1,6
6,0	6,4	18	
8,0	8,4	24	2,0
10,0	10,5	20	2,5
12,0	13,0	25	3,0
14,0	15,0	42	
16,0	17,0	48	4,0
18,0	19,0	55	

Example of conventional designation of oversize washer for a fastener of thread diameter 12 mm and standard thickness, made out of group O1 material, with plating O1 of thickness 9 microns.

Washer 12.01.019 GOST 6958-78

1.2. Washers of other thicknesses may be manufactured by mutual consent.

Washers with inside diameter 12.5, 14.5 and 16.5 mm may be used by mutual consent.

2. Technical Requirements

2.1. Washers must be manufactured in conformity with the requirements of the present standard and GOST 18123-72.

2.2. Tolerances in washer dimensions are specified in

CT C9B 144-75; CT C9B 145-75;
ST CMEA ST CMEA

Tolerances in hole diameter d_1 are as per H 14; in outside diameter d_2 as per h 14; in eccentricity between hole diameter d_1 and outside diameter d_2 for $d_2 \leq 50$ per $\frac{IT15}{2}$ and for $d_2 > 50$ as per $\frac{IT16}{2}$.

3. Acceptance Rules

3.1. GOST 17769-72 specifies acceptance rules for coarse accuracy washers.

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4. Testing Methods

4.1. GOST 18123-72 specifies methods of inspecting washers.

5. Packing and Marking

5.1. GOST 18160-72 specifies the rules for packing washers and for case markings.

3

Annexure
Reference

Weight of Steel Washers

Fastener, thread diameter, mm	Theoretical weight of 1000 nos washers, kg	Fastener thread diameter, mm	Theoretical weight of 1000 nos washers, kg
1.0	0.05	14.0	28.47
1.2	0.04	16.0	49.69
1.6	0.11	18.0	65.70
2.0	0.14	20.0	97.38
2.5	0.28	22.0	113.94
3.0	0.44	24.0	158.14
4.0	0.78	27.0	207.75
5.0	2.25	30.0	264.09
6.0	2.80	36.0	425.71
8.0	6.23	42.0	619.05
10.0	12.17	48.0	843.43
12.0	20.84		

Note: Values shown in the Table must be multiplied by the following factors for determining the weight of washers made out of other materials.

0.356 - for aluminium alloys

0.970 - for bronze

1.080 - for brass