

GDST 10450-78

TITLE : REDUCED WASHERS  
SPECIFICATIONS

TRANSLATED

AND

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## USSR STATE STANDARD

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Reduced Washers	GOST 10450-78
Specifications	This supersedes
Valid upto 01.01.1984	GOST 10450-68

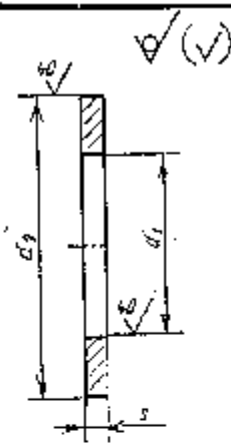
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The present standard relates to reduced washers for fasteners of thread diameter 1 to 48 mm.

This standard corresponds to CT C 9 B 281-76 for sizes 1 to 48 mm as far as nominal inside diameters of washers are concerned and to CT C 9 B 219-75 as far as limit deviations in inside diameters for class C accuracy washers upto 4 mm thick are concerned.

## 1. DIMENSIONS

1.1. Dimensions of washers must conform to the values shown in the drg. and the Table



mm

Fastener thread diameter	$d_1$	$d_2$	$s$
1.0	1.8	3.0	0.3
0.9	1.3	3.5	
1.4	1.5	4.0	
1.6	1.7	4.5	
2.0	2.2	5.0	
2.5	2.7	6.0	0.5
3.0	3.2	8.0	
4.0	4.3	10.0	0.8
5.0	5.3	12.0	
6.0	6.4	16.5	1.0
8.0	8.4	18.0	
10.0	10.5	21.0	2.0
12.0	13.0	24.0	
14.0	15.0	28.0	
16.0	17.0	30.0	
18.0	19.0	34.0	2.5
20.0	21.0	37.0	
22.0	23.0	39.0	3.0
24.0	25.0	44.0	
27.0	28.0	60.0	4.0
30.0	31.0	60.0	
36.0	43.0	72.0	6.0
42.0	50.0	84.0	

EXAMPLE OF CONVENTIONAL DESIGNATION of reduced washer for fastener thread diameter 12mm, standard thickness, made out of group 01 material, with 01 plating to 6 microns thickness:

WASHER 12.01016 GOST 10450-78

1.2. Washers of other thicknesses may be manufactured by mutual consent. Washers of 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 of GOST 18123-72.

2.2. Limit deviations in the dimensions of washers conform to CЭB 144-75, CT CЭB 145-75 are as follows:

H14 - for hole diameter  $d_1$ ;

h14 - for outside diameter  $d_2$ ;

$\frac{IT15}{2}$  - for misalignment of hole diameter  $d_1$  relative to the outside diameter  $d_2$  for  $d_2 \leq 50$  and  $\frac{IT16}{2}$  for  $d_2 > 50$ .

2.3. Theoretical weight of washers is given in the reference annexure.

## 3. ACCEPTANCE RULES

3.1. Rules for acceptance of washers are as in GOST 17750-72 for rough accuracy items.

## 4. INSPECTION METHODS

4.1. GOST 18123-72 defines inspection methods.

## 5. PACKING AND MARKING

5.1. GOST 18160-72 defines packing and case making.

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ANNEXURE  
For reference

Weight of steel washers					
Thread diameter of fastener, mm	Theoretical weight of 1000 nos. washers, Kg	Thread diameter of fastener, mm	Theoretical weight of 1000 nos. washers, kg	Thread diameter of fastener, mm	Theoretical weight of 1000 nos. washers, Kg
1.0	0.014	5.0	0.356	20.0	11,000
1.2	0.019	6.0	0.640	22.0	12,900
1.4	0.020	8.0	1.670	24.0	13,800
1.6	0.023	10.0	2.112	27.0	17,800
2.0	0.029	12.0	3.360	30.0	28,500
2.5	0.055	14.0	4.350	36.0	41,300
3.0	0.079	16.0	6.110	42.0	82,200
4.0	0.225	18.0	8.310	48.0	108,500

Note: The weight of washers manufactured out of other materials may be obtained by multiplying the values given in the Table by the following factors:

0.356 - for aluminium alloys  
0.970 - for bronze and  
1.080 - for brass

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