METRIC BEVELED WASHERS

IFI
534
1982

1. Scope.

1.1 This Standard covers metric steel beveled washers, in nominal sizes 12 thru 36 mm, intended for use with American Standard beams and channels in structural applications to compensate for the lack of parallelism where an outer face of the members to be joined has a slope approximately 1:6 with respect to a plane normal to the bolt axis.

1.2 There are no ISO standards for beveled washers nor are any contemplated at this time.

2. Types of Washers.

2.1 This Standard recognizes 3 types of steel beveled washers as follows:

2.1.1 Non-heat treated carbon steel.

2.1.2 Heat treated (hardened) carbon steel with chemical composition and mechanical requirements conforming to those specified for Type 1 washers in IFI-542, page I—12.

2.1.3 Heat treated atmospheric corrosion resistant steel washers with chemical composition and mechanical requirements conforming to those specified for Type 3 washers in IFI-542.

3. Dimensions.

3.1 Washers shall conform to the dimensions specified in Table 1.

3.2 Other dimensional characteristics and controls shall conform to those specified in IFI-542.

3.3 All dimensions apply before plating or coating.

4. Marking.

4.1 Washers shall be identification marked as specified in IFI-542.

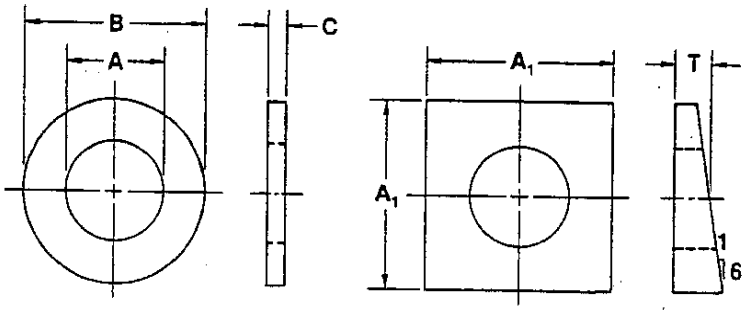

Table 1 Dimensions of Beveled Washers

Nom Washer Size	A		A_1		T		E
	Inside Dia		Side Width		Mean Thickness		Clipped Width
	Max	Min	Max	Min	Max	Min	Min
12	14.4	14.0	45.0	43.0	8.5	7.5	10.5
14	16.4	16.0	45.0	43.0	8.5	7.5	12.2
16	18.4	18.0	45.0	43.0	8.5	7.5	14.0
20	22.5	22.0	45.0	43.0	8.5	7.5	17.5
22	24.5	24.0	45.0	43.0	8.5	7.5	19.2
24	26.5	26.0	45.0	43.0	8.5	7.5	21.0
27	30.5	30.0	58.0	56.0	8.5	7.5	23.6
30	33.6	33.0	58.0	56.0	8.5	7.5	26.2
36	39.6	39.0	58.0	56.0	8.5	7.5	31.5
See Note 1							2

NOTES:

1. Nominal washer sizes are intended for use with fasteners of the same nominal thread diameter.
2. Washers may be clipped on one side not closer to the center of the washer than width E.
3. All dimensions are in mm.