

Westfield Fasteners Product Specification:

DIN 435 - Square Taper Washers for I-Sections

This product guide contains the specification for metric sized square taper washers for I-section beams, standard parts available from Westfield Fasteners. The basis of this specification is the DIN standard DIN 435.

Product Description

Square taper washers for use with tapered flange I-section beams to EN 10024. This washer has a taper angle of 14% which corresponds to the angle or taper on the I-section's flange. The groove is on the top side and indicates the thick end of the taper. Placed on the I section, they will create a level surface for the bolt head or nut to be fixed against. Square taper washers will also distribute the load evenly around the fixing point and reduce the risk of the joint loosening.

I-sections are metal beams used in building construction, which are also known as I-beams or H-beams. I-section beams are available in parallel as well as tapered profiles.

Scope of the DIN Standard.

Din 435 specifies the dimensions and materials for square taper washers for use in structural bolting of I-sections, using bolts up to property class 5.6. Figure 1 and table 1 below define the overall dimensions and tolerances of these washers.

This standard covers steel washers, the grade being at the manufacturer's discretion. The hardness is between 100-250 HV 10, with the 10 figure referring to a 10kg load.

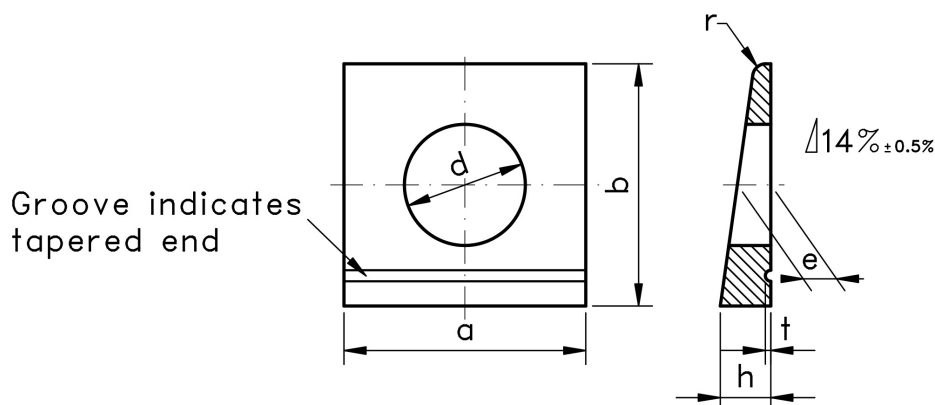


Figure 1: Square Taper Washer for I-Sections, to DIN 435

Table 1: Dimensions & Tolerances according to DIN 435 (mm)

Nominal Size	For Thread Size	d		a			b			e	h			r	t
		min=nom	max	nom	min	max	nom	min	max		nom	min	max		
9	M8	9	9.36	22	20	24	22	21.35	22.65	3.05	4.6	3.6	5.6	1.2	0.5
11	M10	11	11.43	22	20	24	22	21.35	22.65	3.05	4.6	3.6	5.6	1.2	0.5
14	M12	14	14.43	26	24	28	30	29.35	30.65	4.1	6.2	5	7.4	1.6	0.7
18	M16	18	18.43	32	29.5	34.5	36	35.20	36.80	5	7.5	6.3	8.7	2	0.8
22	M20	22	22.52	40	37.5	42.5	44	43.20	44.80	6.1	9.2	8	10.4	2.4	0.9
24	M22	24	24.52	44	41.5	46.5	50	49.20	50.80	6.5	10	8.8	11.2	2.4	1
26	M24	26	26.52	56	53	59	56	55.05	56.95	6.9	10.8	9.3	12.3	2.4	1
30	M27	30	30.52	56	53	59	56	55.05	56.95	6.9	10.8	9.3	12.3	2.4	1

For verification of details and for further information please refer to the relevant DIN standard documents.
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