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Westfield Fasteners Product Specification:

DIN 557 - Square Nuts

This datasheet provides technical specifications, dimensions and tolerances for metric square nuts available from Westfield Fasteners, in accordance with DIN 557.

Product Description

Square nuts feature a four-sided body that provides a broad bearing surface and allows them to be held securely using a spanner or within a suitably sized recess. They are particularly useful in applications where the nut needs to be prevented from rotating during assembly.

Square nuts are commonly used in machinery, fabrication, construction and general engineering, particularly where their shape allows them to be located or retained within a component.

Scope of the DIN standard.

DIN 557 specifies the dimensions and tolerances for metric square nuts in nominal thread sizes from M5 to M16.

The standard covers steel square nuts of property class 5. Stainless steel variants may be manufactured to equivalent dimensions, but their material and mechanical properties are governed by separate specifications.

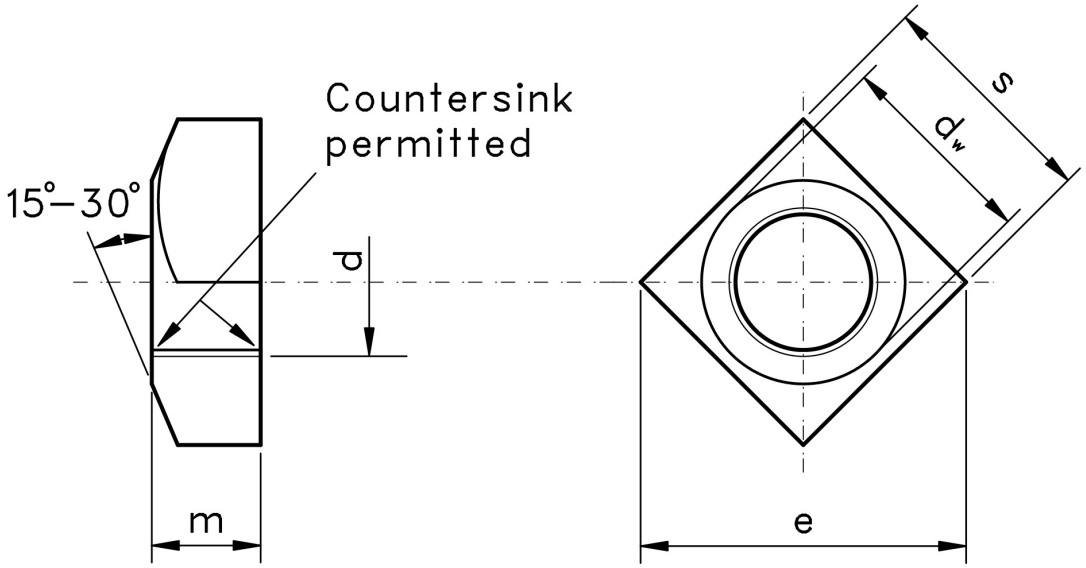


Figure 1: Square Nut to DIN 557

Table 1: Dimensions and Tolerances according to DIN 557

Thread, d		M5	M6	M8	M10		M12		M16
Thread Pitch		0.8	1	1.25	1.5		1.75		2
d_w	min	6.7	8.7	11.5	14.5	15.5	16.5	17.2	22
e	max	11.3	14.1	18.4	22.6	24	25.4	26.9	33.9
	min	9.93	12.53	16.34	20.24	21.54	22.84	24.02	30.11
m	nom=max	4	5	6.5	8		10		13
	min	3.52	4.52	5.92	7.42		9.42		12.3
s	nom=max	8	10	13	16	17	18	19	24
	min	7.64	9.64	12.57	15.57	16.57	17.57	18.48	23.16

Material Specifications

The following table summarises the available materials, mechanical properties and applicable specifications for this range of square nuts. Material grades and property classes may vary according to the nominal thread size.

Material Code	Description	Grade / Spec.	Stress Under Proof Load (MPa)
A2	A2 / 304 Stainless Steel	A2-50 min.	500
A4	A4 / 316 Stainless Steel	A4-50 min.	500
BZP	Zinc Plated Steel	Class 5 Steel	500
Available on Request:			
A2-70	A2-70 Stainless Steel	A2-70	700
A4-80	A4-80 Stainless Steel	A4-80	800

For further information on the relevant dimensional specifications, refer to DIN 557. Actual product dimensions should be confirmed against the tables above.