UDC 621.882.33 February 1985

Square nuts

Product grade C

DIN 557

Vierkantmuttern; Produktklasse C

Supersedes December 1972 edition.

In keeping with current practice in standards published by the International Organization for Standardization (ISO), a comma has been used throughout as the decimal marker.

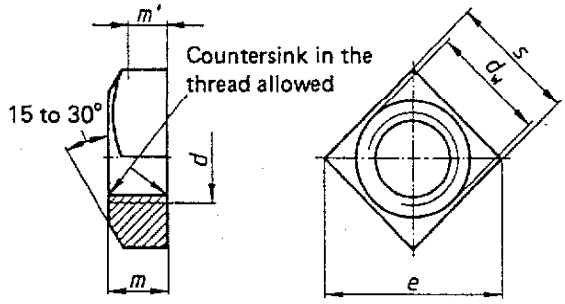
Dimensions in mm

1 Scope and field of application

This standard specifies product grade C square nuts with M 5 to M 20 coarse thread.

Where, for special purposes, the nuts are to meet requirements differing from those specified in the present standard, e.g. in respect of property class, the specifications of the relevant standards shall be complied with.

2 Dimensions



m' is the minimum wrenching height; for this zone at least e shall be maintained.

Thread size d		M 5	M 6	M 8	M 10		M 12		M 16	M 20
P[1]		0,8	1	1,25	1,5		1,75		2	2,5
d_w	min.	6,7	8,7	11,5	14,5	15,5	16,5	17,2	22	27,7
e	≈	11,3	14,1	18,4	22,6	24	25,4	26,9	33,9	42,4
m	Nominal dimension	4	5	6,5	8		10		13	16
	max.	4,6	5,6	7,25	8,75		10,75		13,9	16,9
	min.	3,4	4,4	5,75	7,25		9,25		12,1	15,1
m'	min.	2,4	3,1	4	5,1		6,4		8,5	10,6
s	max. = nominal dimension	8	10	13	16[2]	17	18[2]	19	24	30
	min.	7,64	9,64	12,57	15,57	16,57	17,57	18,48	23,16	29,16
Mass (7,85 kg/dm³), in kg per 1000 units ≈		1,31	2,77	5,5	10,7	13	16,3	19,1	38,2	73,5

[1] P = pitch of thread (coarse thread).

[2] See clause 4.

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3 Technical delivery conditions

Material		Steel
General requirements		As in DIN 267 Part 1.
Thread	Tolerance	7H
	Standard	DIN 13 Part 15
Mechanical properties [1]	Property class (material)	Up to M 16: 5; over M 16: 4.
	Standard	DIN 267 Part 4
Permissible dimensional deviations and deviations of form	Product grade	C (previously g).
	Standard	ISO 4759 Part 1
Surface		As processed. DIN 267 Part 9 shall apply with regard to electroplating. DIN 267 Part 10 shall apply with regard to hot dip galvanizing.
Acceptance inspection		DIN 267 Part 5 shall apply with regard to the acceptance inspection.

4 Designation

Designation of an M 8 square nut:

Square nut DIN 557 – M 8

If it is required that M 10 and M 12 nuts be supplied with the new widths across flats 16 mm and 18 mm as specified in ISO 272, then the width across flats (SW) is to be incorporated in the designation, e.g.:

Square nut DIN 557 – M 12 – SW 18

Standards referred to

DIN 13 Part 15 ISO metric screw thread, fundamental deviations and tolerances for screw threads from 1 mm diameter
DIN 267 Part 1 Fasteners; technical delivery conditions; general requirements
DIN 267 Part 4 Fasteners; technical delivery conditions; property classes for nuts (previous classes)
DIN 267 Part 5 Fasteners; technical delivery conditions; acceptance inspection
DIN 267 Part 9 Fasteners; technical delivery conditions; electroplated components
DIN 267 Part 10 Fasteners; technical delivery conditions; hot-dip galvanized parts
ISO 273 Fasteners; clearance holes for bolts and screws
ISO 4759 Part 1 Tolerances for fasteners; bolts, screws and nuts with thread diameters from 1,6 to 150 mm, product grades A, B and C

Previous editions

DIN 557 Part 1: 01.41x; 03.63
DIN 557: 04.23, 04.25, 07.36, 05.70, 12.72

Amendments

The following amendments have been made in comparison with the December 1972 edition:

a) The previous design g as specified in DIN 267 Part 2 has been replaced by product grade C as specified in ISO 4759 Part 1.
b) The limits of size calculated from the permissible dimensional tolerances and the dimensions d_w (minimum bearing face diameter) and m' (minimum wrenching height) have been included.
c) Additions have been made to the technical delivery conditions.
d) For sizes M 10 and M 12, the widths across flats 16 mm and 18 mm as specified in ISO 272 have been added.
e) The content of the standard has been editorially revised.

International Patent Classification

F 16 B 37/00