UDC 621.882.342 November 1986

Knurled nuts

DIN 6303

Rändelmutter

Supersedes January 1971 edition.

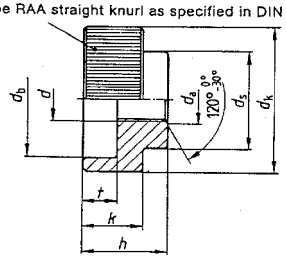
In keeping with current practice in standards published by the International Organization for Standardization (ISO), a comma has been used throughout as the decimal marker.

Dimensions in mm

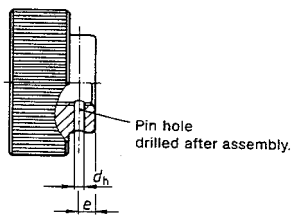
1 Dimensions

Type A, without pin hole

Type RAA straight knurl as specified in DIN 82



Type B, with pin hole



Other dimensions as in left-hand illustration.

Thread size d		M 5	M 6	M 8	M 10
P [1]		0,8	1	1,25	1,5
d_a	min.	5	6	8	10
	max.	5,75	6,75	8,75	10,8
d_b	min. = nominal size	15	18	24	30
	max.	15,43	18,43	24,52	30,52
d_h	Nominal size [2]	1,5	1,5	2	3
d_k	Nominal size	20	24	30	36
	max.	20,24	24,42	30,42	36,5
	min.	19,58	23,58	29,58	35,5
d_s	max. = nominal size	14	16	20	28
	min.	13,57	15,57	19,48	27,48
e		2,5	2,5	3	4
h	max. = nominal size	12	14	17	20
	min.	11,57	13,57	16,57	19,48
k	max. = nominal size	8	10	12	14
	min.	7,64	9,64	11,57	13,57
t	max. = nominal size	5	6	7	8
	max.	5,3	6,3	7,36	8,36
Associated parallel pin [3]		DIN 7 – 1,5 m6 × 14	DIN 7 – 1,5 m6 × 16	DIN 7 – 2 m6 × 20	DIN 7 – 3 m6 × 28

[1] P = pitch of thread (coarse pitch thread).
[2] After drilling, the finished drilled hole shall lie within tolerance zone H7.
[3] Other equivalent fasteners, such as grooved pins and spring-type straight pins may equally be used instead of parallel pins. Alternatively, set screws may be permanently connected with knurled nuts by welding or any other appropriate assembly method.

Continued on pages 2 and 3

2 Technical delivery conditions

Material		Steel	Stainless steel	Non-ferrous metal
General requirements		As specified in DIN 267 Part 1.		
Thread	Tolerance class	6H		
	Standard	DIN 13 Part 15		
Mechanical properties [3]	Property class (material)	St ≙ steel [1]	A1-50 C4-50	CuZn ≙ copper-zinc alloy [2]
	Standard	DIN 1651	DIN 267 Part 11	DIN 267 Part 18
Permissible dimensional deviations and deviations of form	Product grade	A		
	Standard	ISO 4759 Part 1		
Surface finish [4]		As processed.	Bright.	Bright.
		DIN 267 Part 20 shall apply with regard to permissible surface discontinuities. DIN 267 Part 9 shall apply with regard to electroplating. DIN 50942 shall apply with regard to phosphating of metals.		
Acceptance inspection		DIN 267 Part 5 shall apply with regard to acceptance inspection [5].		

[1] St ≙ 9SMnPb28K as specified in DIN 1651 or an equivalent steel in terms of strength. This material shall also be used in cases where property class 5 is given in existing documentation.

[2] CuZn ≙ CU2 or CU3 (as specified in DIN 267 Part 18), at the manufacturer's discretion.

[3] Other property classes or materials shall be subject to agreement.

[4] R_z 25 shall apply for the surface roughness in general, R_z 40 for the surface of thread flanks.

[5] AQL (acceptable quality level) 1 shall apply for major characteristics and AQL 1,5 for minor characteristics, thread size d and the straight knurl being regarded as major characteristics, diameter of the head, d_k, collar diameter, d_s, and heights h and k, as minor characteristics.

3 Designation

Designation of an M 5 type A knurled nut made of steel (St):

Knurled nut DIN 6303 – A M 5 – St

The DIN 4000 – 2 – 7 tabular layout of article characteristics shall apply to knurled nuts conforming to this standard.

Standards referred to

DIN	7	Parallel pins
DIN	13 Part 15	ISO metric screw threads; fundamental deviations and tolerances for screw threads of 1 mm diameter and larger
DIN	82	Straight knurls
DIN	267 Part 1	Fasteners; technical delivery conditions; general requirements
DIN	267 Part 5	Fasteners; technical delivery conditions; acceptance inspection (modified version of ISO 3269, 1984 edition)
DIN	267 Part 9	Fasteners; technical delivery conditions; components with electroplated coatings
DIN	267 Part 11	Fasteners; technical delivery conditions (with additions to ISO 3506); corrosion-resistant stainless steel fasteners
DIN	267 Part 18	Fasteners; technical delivery conditions; components made of non-ferrous metals
DIN	267 Part 20	Fasteners; technical delivery conditions; surface discontinuities on nuts
DIN	1651	Free cutting steels; technical delivery conditions
DIN	4000 Part 2	Tabular layouts of article characteristics for bolts, screws and nuts
DIN	50942	Phosphating of metals; principles, symbols and test methods
ISO	4759 Part 1	Tolerances for fasteners; bolts, screws and nuts with thread diameters between 1,6 (inclusive) and 150 mm (inclusive) and product grades A, B and C

Previous editions

DIN 6303: 12.31, 05.40, 01.71.

Amendments

The following amendments have been made in comparison with the January 1971 edition.

a) The content of the standard has been editorially revised and aligned with the basic standards concerned.

b) The technical delivery conditions have been amended.

c) The previous design m as specified in DIN 267 Part 2, April 1968 edition, has been replaced by product grade A as specified in ISO 4759 Part 1.

International Patent Classification

F16B 37/00