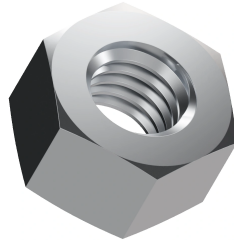


ISO 4033

Hexagon high nuts (style 2)



Standard	ISO 4033		
Product Type	This document specifies the characteristics of hexagon high nuts (style 2), in steel and stainless steel, with metric coarse pitch thread M5 to M39, and with product grades A and B. If in certain cases other specifications are requested, property classes and stainless steel grades can be selected from ISO 898 - 2 or ISO 3506 - 2.		
Material	Stainless Steel, Carbon Steel		
Property Class	A2-70, A4-80 (ISO 3506-2) · 6, 8, 10 (ISO 898-2)		
Surface Finish	Passivated, Plain, Zinc Plated, Hot Dip Galvanized, Dacromet, Phosphate, Blackened		
Size Range	M5 - M39	Thread	ISO metric coarse pitch

BASIS OF SPECIFICATION

WHICH STANDARD GOVERNS WHAT

Dimensions to	ISO 4033:2023
Carbon steel / Alloy steel mechanical properties to	ISO 898-2:2022
Stainless steel mechanical properties to	ISO 3506-2:2020
Product grade	A / B

PROPERTY CLASSES

REQUIRED VALUES PER ISO 3506-2

Class	Governing property	Source
A2-70	Proof load - no tensile strength specified for nuts	ISO 3506-2
A4-80	Proof load - no tensile strength specified for nuts	ISO 3506-2

PROPERTY CLASSES

REQUIRED VALUES PER ISO 898-2

Class	Governing property	Source
6	Proof load - no tensile strength specified for nuts	ISO 898-2
8	Proof load - no tensile strength specified for nuts	ISO 898-2
10	Proof load - no tensile strength specified for nuts	ISO 898-2

DIMENSIONAL DATA - SIZES WE SUPPLY

ALL DIMENSIONS PER THE STANDARD

d	P	s (max)	e (min)	m	m (min)	d	P	s (max)	e (min)	m	m (min)
Diameter - mm	Thread Pitch - mm	Width Across Flats - mm	Width Across Corners - mm	Nut Height - mm	Nut Height - mm	Diameter - mm	Thread Pitch - mm	Width Across Flats - mm	Width Across Corners - mm	Nut Height - mm	Nut Height - mm
M5	0.8	8	8.79	5.1	4.8	M16	2	24	26.75	16.4	15.7
M6	1	10	11.05	5.7	5.4	M20	2.5	30	32.95	20.3	19
M8	1.25	13	14.38	7.5	7.14	M24	3	36	39.55	23.9	22.6
M10	1.5	16	17.77	9.3	8.94	M30	3.5	46	50.85	28.6	27.3
M12	1.75	18	20.03	12	11.57	M36	4	55	60.79	34.7	33.1

FURTHER SIZES IN THIS STANDARD

ALL DIMENSIONS PER THE STANDARD

Not held in stock. Available to order; minimum order quantity applies.

d	P	s (max)	e (min)	m	m (min)	d	P	s (max)	e (min)	m	m (min)
Diameter - mm	Thread Pitch - mm	Width Across Flats - mm	Width Across Corners - mm	Nut Height - mm	Nut Height - mm	Diameter - mm	Thread Pitch - mm	Width Across Flats - mm	Width Across Corners - mm	Nut Height - mm	Nut Height - mm
M7	1	11	12.12	7.2	6.84	M27	3	41	45.2	26.7	25.4
M14	2	21	23.36	14.1	13.4	M33	3.5	50	55.37	32.5	30.9
M18	2.5	27	29.56	17.6	16.9	M39	4	60	66.44	37.5	35.9
M22	2.5	34	37.29	21.8	20.5						

MARKING
Steel — Required

What	Manufacturer identification mark and the property class symbol of Table 9. Small nuts, or nuts whose shape leaves no room, may use the clock-face marking of Table 9 instead
Where	Indented on a side face or on the bearing face, or embossed on the chamfer; an embossed mark shall not stand above the bearing face
Sizes	All sizes
Clause	ISO 898-2:2012, 10.3.1, 10.3.2 and 10.4.1

"The marking symbol in accordance with 10.3.2 to 10.5 shall be embossed or indented, during the manufacturing process, on all nuts manufactured to the requirements of this part of ISO 898."

Stainless steel — Required

What	Stainless steel grade, the optional letter L for low-carbon grades (C 0,030 % max.), a hyphen and the property class symbol of Table 10, for example A4-80, together with the manufacturer identification mark. For grades A2 and A4 only, the alternative groove marking of Figure 7 may be used; where it carries no property class, property class 50 applies
Where	Preferably on the top of the nut, which is the face opposite the bearing face, indented or embossed; or indented on the side of the nut. An embossed mark on the top is not counted in the nut height. On nuts with flange, on the flange when the manufacturing process does not allow marking on the top
Sizes	D ≥ 5 mm
Clause	ISO 3506-2:2020, 11.1 Nut marking, 11.2 Manufacturer's identification mark and 11.3.1 Hexagon nuts

"All hexagon nuts of nominal thread diameter D ≥ 5 mm shall be marked for all stainless steel grades and all property classes, with the stainless steel grade in accordance with Clause 7, with the property class symbol in accordance with Table 10 or 11, and with the manufacturer's identification mark in accordance with 11.2."

Style 2 nuts and standard nuts share the same Table 9. Property class symbols that can appear on this standard: 8, 10, 12.

Clause 6.2 of this standard also requires the package label to carry: this document number ISO 4033, the thread size D, the property class symbol for steel (steel group plus property class for stainless), the surface condition, the manufacturer or distributor identification, the manufacturing lot number to ISO 1891-4, and the number of pieces in the package.

Confirm the ordered property class before production.

INSPECTION DOCUMENTS WE CAN ISSUE

EN 10204 3.1 material certificate	Can be included when agreed in the order.
Dimensional inspection report	Can be provided for the agreed inspection scope.
Certificate of conformity	Can be issued against the confirmed order requirements.
Mechanical test report	Available when the required tests are agreed before production.
Chemical analysis report	Available when the material verification scope is agreed.
Coating inspection report	Can record the coating checks agreed for the order.

REFERENCES & NOTES

Note: Dimensional values follow the selected execution standard. Material properties and batch test results are included only when declared or supported by the applicable certificate or test report.