

A2 (304) Stainless Steel Hex Nut

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A2 Stainless Steel Hex Nut are supplied to ISO 3506 group A2 (304 / 1.4301), commonly supplied A2-70. Corrosion behaviour is good general corrosion resistance, the material is largely non-magnetic, and the usable service range is approx. -200 °C to +400 °C, subject to the property class and the joint. In practice this grade is the most common stainless group for indoor and general outdoor fasteners.

Grade

ISO 3506 group A2 (304 / 1.4301), commonly supplied A2-70

Corrosion resistance

Good general corrosion resistance

Magnetic response

Largely non-magnetic

Service temperature

approx. -200 °C to +400 °C, subject to the property class and the joint

Property values are typical for the grade. Certified mechanical test data is available on request for production orders.



A2 Stainless Steel (ISO 3506 group A2 (304 / 1.4301), commonly supplied A2-70) is the most common stainless group for indoor and general outdoor fasteners. When hex nut are specified in this grade, the dimensions remain per GB/T 41 / ISO 4034; the material determines corrosion behavior (good general corrosion resistance) and the service temperature range (approx. -200 °C to +400 °C, subject to the property class and the joint). Both are covered below with the size table.

Why Choose A2 Stainless Steel for Hex Nut — GB/T 41 / ISO 4034 (Series 060)

The most common stainless group for indoor and general outdoor fasteners. For hex nut — gb/t 41 / iso 4034 (series 060), this matters when good general corrosion resistance is the primary requirement.

Mechanical & Physical Properties

Grade designation	ISO 3506 group A2 (304 / 1.4301), commonly supplied A2-70
Magnetic response	Largely non-magnetic
Service temperature	approx. -200 °C to +400 °C, subject to the property class and the joint
Corrosion characteristic	Good general corrosion resistance

Galvanic & Galling Considerations

Two important notes for stainless hex nut — gb/t 41 / iso 4034 (series 060): (1) stainless can gall on stainless threads under load — use a thread lubricant or anti-galling compound, especially for M6 and below; (2) when joined to aluminum or galvanized steel, stainless can drive galvanic corrosion of the less-noble metal in wet service — isolate with a coating or sleeve where appropriate.

Comparable Grades

For Hex Nut — GB/T 41 / ISO 4034 (Series 060), the alternative stainless grade is A4 (316). Choose A2 (304) for general use and A4 (316) wherever chlorides are present; the

molybdenum in A4 is the whole difference. Remember that stainless is the corrosion answer, not the strength answer — for load, look at class 8.8 or 10.9 instead.

Using Stainless Fasteners in Aluminum

Expect the aluminum to corrode, not the fastener — stainless sits higher in the galvanic series, so the aluminum is the one that gives up material. A small fastener in a thick section spreads the loss over a large area and is usually fine; a large fastener in thin sheet concentrates it and is not. Keep water out of the joint, or isolate the two metals with a nylon or coated washer and a sealant.

Sizes of Hex Nut — GB/T 41 / ISO 4034 (Series 060) Available in A2 Stainless Steel

Size	Pitch (mm)	Width across flats s (mm)	Width across corners e (mm)	Nut height
M3	0.5	5.5	6.01	2.4
M4	0.7	7.0	7.66	3.2
M5	0.8	8.0	8.79	4.7
M6	1.0	10.0	11.05	5.2
M8	1.25	13.0	14.38	6.8
M10	1.5	16.0	17.77	8.4
M12	1.75	18.0	20.03	10.8
M14	2.0	21.0	23.36	12.8
M16	2.0	24.0	26.75	14.8
M18	2.5	27.0	30.14	15.8
M20	2.5	30.0	33.53	18.0
M24	3.0	36.0	39.98	21.5
M30	3.5	46.0	50.85	25.6

Size	Pitch (mm)	Width across flats s (mm)	Width across corners e (mm)	Nut height
M36	4.0	55.0	60.79	31.0

Dimensions are independent of the material: every size above is available in A2 Stainless Steel.

Custom manufacturing · Made to drawing

Need this nut in a grade that is not listed?

A2 Stainless Steel is one of the grades the catalog describes. Thread, height, across-flats, property class, locking feature and flange form can all be varied, including thread sizes the standard series does not run to. Made by cold heading or tapping.

Minimum order from 2,000 pieces; samples within 7 days of drawing approval.

Custom nut manufacturing (<https://engineeringhardware.com/custom/nuts/>)

Send a drawing (<https://engineeringhardware.com/custom/nuts/#rfq>)

Technical Drawing

Customize the parameters below — every spec field is editable, and the drawing redraws to match the values you choose. Changing the size will snap the other fields to that size's standard values; you can then override any individual value.



Dimensioned line drawing of M3 Hex Nut — GB/T 41 / ISO 4034 (Series 060) to GB/T 41 / ISO 4034. Side view and top view, drawn to the dimensions in the table below and redrawn for any size selected.

Opens a short step to confirm the exact specification before you enter contact details.

Request a Quote

Click “Request this configuration” under the drawing to confirm the exact specification, then add your contact details. You can also send the request without a specification — but only an accurate selection gets an accurate quote.

Dimensions & Specifications (GB/T 41 / ISO 4034)

Size	Pitch (mm)	Width across flats s (mm)	Width across corners e (mm)	Nut height
M3	0.5	5.5	6.01	2.4
M4	0.7	7.0	7.66	3.2
M5	0.8	8.0	8.79	4.7
M6	1.0	10.0	11.05	5.2
M8	1.25	13.0	14.38	6.8
M10	1.5	16.0	17.77	8.4
M12	1.75	18.0	20.03	10.8
M14	2.0	21.0	23.36	12.8
M16	2.0	24.0	26.75	14.8
M18	2.5	27.0	30.14	15.8
M20	2.5	30.0	33.53	18.0
M24	3.0	36.0	39.98	21.5
M30	3.5	46.0	50.85	25.6
M36	4.0	55.0	60.79	31.0

Materials & Grades

Select a material class to see the grades we supply it in. Each designation is listed with its ISO/EN, AISI/SAE, JIS and GB equivalents.

Stainless Steel

Carbon Steel66

Alloy Steel41

Bearing Steel5

Spring Steel25

Aluminum and Aluminum Alloys21

Brass17

Bronze11

Copper8

Titanium and Titanium Alloys18

Nickel and Nickel Alloys22

Iron-Nickel and High-Temperature Alloys10

Tool Steel and Specialty Hardened Steel9

Structural and Construction Steel9

Stainless Steel

Austenitic Stainless Steel

A1

AISI 303 · SAE 303 · SUS303 · EN 1.4305 · X8CrNiS18-9

A2

AISI 304 · SAE 304 · SUS304 · EN 1.4301 · X5CrNi18-10 · 06Cr19Ni10

304L

AISI 304L · SUS304L · EN 1.4307 · X2CrNi18-9 · 022Cr19Ni10

302

AISI 302 · SUS302 · EN 1.4310

305

AISI 305 · SUS305 · EN 1.4303

A4

AISI 316 · SAE 316 · SUS316 · EN 1.4401 · X5CrNiMo17-12-2 · 06Cr17Ni12Mo2

316L

AISI 316L · SUS316L · EN 1.4404 · X2CrNiMo17-12-2 · 022Cr17Ni12Mo2

321

AISI 321 · SUS321 · EN 1.4541 · X6CrNiTi18-10

310 / 310S

AISI 310 · AISI 310S · SUS310S · EN 1.4845

302HQ

AISI 302HQ

A3

A5

347

AISI 347 · SUS347 · EN 1.4550 · X6CrNiNb18-10

309 / 309S

AISI 309 · AISI 309S · SUS309S

Martensitic Stainless Steel

AISI 410

SUS410 · EN 1.4006 · X12Cr13 · 12Cr13

AISI 420

SUS420J1 · SUS420J2 · EN 1.4021 · EN 1.4028 · 20Cr13 · 30Cr13

AISI 431

SUS431 · EN 1.4057 · X17CrNi16-2

C1

C3

C4

AISI 440A

AISI 440B

AISI 440C

SUS440C · EN 1.4125

Ferritic Stainless Steel

AISI 430

SUS430 · EN 1.4016 · X6Cr17 · 10Cr17

F1

AISI 434

AISI 444

Precipitation-Hardening Stainless Steel

17-4 PH

AISI 630 · UNS S17400 · SUS630 · EN 1.4542 · X5CrNiCuNb16-4

15-5 PH

UNS S15500

17-7 PH

UNS S17700

Duplex and Super Duplex Stainless Steel

Duplex 2205

UNS S31803 · UNS S32205 · EN 1.4462

Super Duplex 2507

UNS S32750 · EN 1.4410

D2

D4

D6

D8

Lean Duplex 2101

UNS S32101

Super Duplex S32760

UNS S32760 · EN 1.4501

Carbon Steel

Low-Carbon Steel

SAE 1006

SAE 1008

SAE 1010

SAE 1018

SAE 1020

Q195

Q235

SAE 1012

SAE 1015

Q215

ML08

ML08AI**ML10****ML15****ML20****SWRCH6A****SWRCH8A****SWRCH10A****SWRCH12A****SWRCH15A****SWRCH18A****Medium-Carbon Steel****SAE 1035****SAE 1045****S45C****C45****SAE 1030****SAE 1040****SAE 1050****30****35****40****45****50****S35C****S40C****S50C****C35**

C40**High-Carbon Steel****SAE 1060****SAE 1070****65Mn****SAE 1065****SAE 1075****SAE 1080****SAE 1085****SAE 1090****SAE 1095****60****65****70****75****80****85****Cold-Heading Steel****SWRCH22A****10B21****SWRCH22K****SWRCH25K****SWRCH30K****SWRCH35K****SWRCH40K**

ML20Mn**ML25****ML30****ML35****ML40****15B25**

Alloy Steel

Chromium Steel

40Cr**45Cr****AISI 5140****SAE 5140****AISI 5120****SAE 5120****SCr420****SCr440**

Chromium-Molybdenum Steel

35CrMo**42CrMo****AISI 4140****SCM435****SCM440****42CrMo4****30CrMo**

AISI 4130**SAE 4130****SAE 4140****AISI 4142****AISI 4145****SCM415****SCM420****SCM445****EN 1.7220****EN 1.7225****25CrMo4****34CrMo4****Nickel-Chromium-Molybdenum Steel****AISI 4340****SAE 4340****40CrNiMo****SNCM439****EN 1.6511****36CrNiMo4****Boron Alloy Steel****10B22****10B21****15B21****15B25****20MnTiB****20Mn2B**

35VB**40MnB**

Bearing Steel

Bearing Steel

GCr15**AISI 52100****SAE 52100 · UNS G52986****SUJ2****100Cr6****EN 1.3505****GCr15SiMn**

Spring Steel

Carbon Spring Steel

SAE 1065**SAE 1070****SAE 1075****SAE 1080****SAE 1095****65****70****75****80****65Mn**

Silicon-Manganese Spring Steel

60Si2Mn**60Si2MnA****SUP6****SUP7**

Chromium-Vanadium Spring Steel

50CrVA**SAE 6150****AISI 6150****SUP10**

Stainless Spring Steel

AISI 301**SUS301****EN 1.4310****AISI 302****AISI 304****AISI 316****17-7 PH**

Aluminum and Aluminum Alloys

Commercially Pure Aluminum

1050**1060****1070****1100**

2xxx Series Aluminum

2024**2011****2014****2017**

5xxx Series Aluminum

5052**5083****5754**

6xxx Series Aluminum

6061**6061-T6****6063****6082****6082-T6**

7xxx Series Aluminum

7075**7075-T6****7005****7050****7075-T73**

Brass

Free-Cutting Brass

C36000**H62****HPb59-1****C3601****C3602****C3604****CuZn36Pb3****CuZn39Pb3****EN CW614N****EN CW617N****H65**

Lead-Free Brass

C69300**C27450****CW510L****CW511L**

Naval Brass

C46400**CuZn39Sn1**

Bronze

Silicon Bronze

C65500**C65100****C65600**

Phosphor Bronze

C51000**C52100****CuSn6****CuSn8**

Aluminum Bronze

C95400**C95500****C63000****CuAl10Ni5Fe4**

Copper

Copper

C11000**T2****C10100****C10200****C12200****T1**

TU1**TU2**

Titanium and Titanium Alloys

Commercially Pure Titanium

Grade 2**Grade 1****Grade 3****Grade 4****TA1****TA2****TA3**

Alpha-Beta Titanium Alloys

Grade 5**Ti-6Al-4V****TC4****UNS R56400**

Low-Interstitial Grade

Grade 23**Ti-6Al-4V ELI****UNS R56407**

Other Titanium Fastener Alloys

Ti-6Al-6V-2Sn**Ti-6Al-2Sn-4Zr-2Mo**

Beta-C titanium**Ti-10V-2Fe-3Al**

Nickel and Nickel Alloys

Commercially Pure Nickel

Nickel 200**UNS N02200****Nickel 201****UNS N02201**

Inconel Alloys

Inconel 625**UNS N06625****Inconel 718****UNS N07718****Inconel 600****UNS N06600****Inconel 601****UNS N06601****Inconel 686****UNS N06686****Inconel X-750****UNS N07750**

Monel Alloys

Monel 400**UNS N04400****Monel K-500****UNS N05500**

Hastelloy Alloys

Hastelloy C-276

UNS N10276

Hastelloy C-22

UNS N06022

Hastelloy B-2

UNS N10665

Hastelloy B-3

UNS N10675

Hastelloy X

UNS N06002

Other Nickel Alloys

Alloy 20

UNS N08020

Alloy 625

Alloy 718

Alloy 825

UNS N08825

Alloy 925

UNS N09925

Iron-Nickel and High-Temperature Alloys

A286

A-286

UNS S66286

EN 1.4980

Invar

Invar 36

Alloy 36

UNS K93600

FeNi36

Alloy 42

Alloy 42

UNS K94100

FeNi42

Tool Steel and Specialty Hardened Steel

Tool Steel and Specialty Hardened Steel

AISI D2

AISI H13

SKD11

Cr12MoV

AISI O1

AISI A2

AISI S7

SKD61

9CrSi

Structural and Construction Steel

Structural and Construction Steel

ASTM A36

Q235B**Q355B****S355JR****Q235C****Q355C****S235JR****S275JR****S355J2**

Applications & Industries

The sectors that buy Hex Nut to GB/T 41 / ISO 4034, and the duty each one buys them for. Stocked from M3 to M36.

Industries that specify Hex Nut

Maintenance & MRO **Replacements matched to the existing bolt class, thread and finish.**

Building services **Threaded rod, channel and suspension assemblies.**

Machine building & OEM **The clamping counter-face on studs and bolts throughout an assembly.**

Steel fabrication **Bolted structural and frame connections.**

Automotive & transport **Vibration-prone joints where the locking type is specified on the drawing.**

Typical applications

- **completing a bolted joint on a stud, rod or bolt**
- **locking an adjustment so it cannot drift**
- **joints re-torqued at a service interval**

Service conditions to specify against

Marine and coastal

Available in A4 (316) stainless for chloride exposure — coastal structures, pool halls, water treatment and deck hardware, where A2 will eventually pit.

High load

Supplied in ISO 898-1 property classes, so the joint can be designed to a stated proof load and tightened to a calculated torque rather than by feel.

Match the class

A nut below the bolt property class strips before the bolt reaches its own limit — pair class 8 nuts with 8.8 bolts, class 10 with 10.9.

Need help matching Hex Nut to your application? Send the assembly, the load and the environment with your enquiry and we will specify the size, material and finish against them.

Inside the plant

Manufactured in our own plant

This part is cold-formed, threaded, heat-treated and finished in-house. The stages below are where its class and finish are actually decided.



01

Cold heading

Wire rod is drawn to size and cold-formed into blanks. Forming rather than cutting keeps the grain flow continuous around the head, which is where a bolt is most likely to fail.

Head dimensions and under-head radius checked at set-up and per shift.



02

Thread rolling

Threads are rolled between hardened dies rather than cut. Rolled threads are stronger in fatigue than cut threads and hold pitch and flank angle far more consistently across a batch.

Go / no-go ring gauges to ISO 965 tolerance class 6g.



03

Heat treatment

Quench-and-temper brings carbon and alloy steel to the property class ordered — 8.8, 10.9 or 12.9 — with the furnace charge tracked so a finished lot can be traced back to it.

Core hardness and tensile tested per lot to ISO 898-1.



04

Surface treatment

Zinc, zinc-nickel, hot-dip galvanizing, black oxide, phosphate and Dacromet, selected against the service environment rather than against the price list.

Coating thickness and neutral salt spray hours to ISO 9227.

Frequently Asked Questions

What corrosion resistance do A2 Stainless Steel Hex Nut — GB/T 41 / ISO 4034 (Series 060) offer?

A2 Stainless Steel Hex Nut — GB/T 41 / ISO 4034 (Series 060) provide good general corrosion resistance with a service range of approx. -200 °C to +400 °C, subject to the property class and the joint.

Should I choose A2 Stainless Steel or A4 (316) for Hex Nut — GB/T 41 / ISO 4034 (Series 060)?

For Hex Nut — GB/T 41 / ISO 4034 (Series 060), A2 Stainless Steel suits general indoor and outdoor use; A4 (316) is preferred for marine, coastal and chemical environments. Choose by corrosion exposure first.

Can A2 Stainless Steel Hex Nut — GB/T 41 / ISO 4034 (Series 060) gall during installation?

Yes — stainless on stainless is prone to thread galling under load, especially at smaller sizes. Use an anti-galling lubricant or wax thread compound, and slow the tightening rate where possible.

Is A2 Stainless Steel food-grade?

A2 (304) is widely accepted for food contact in non-chloride environments; A4 (316) is preferred where chlorides are present.

How do I request a quotation?

Use the technical drawing on this page to pick the exact configuration, then submit it with the quote form. We respond within one business day.

Related Pages

[View the full Hex Nut — GB/T 41 / ISO 4034 \(Series 060\) page](https://engineeringhardware.com/fastener/cad-svg-060-hexnut/)
(<https://engineeringhardware.com/fastener/cad-svg-060-hexnut/>)

More Hex Nut — GB/T 41 / ISO 4034 (Series 060) Guides

- **A4 Stainless Steel Hex Nut — GB/T 41 / ISO 4034 (Series 060)** (<https://engineeringhardware.com/guide/material/a4-stainless-steel-cad-svg-060-hexnut/>)
- **Property Class 8.8 Steel Hex Nut — GB/T 41 / ISO 4034 (Series 060)**
(<https://engineeringhardware.com/guide/material/grade-8-8-steel-cad-svg-060-hexnut/>)
- **Property Class 12.9 Steel Hex Nut — GB/T 41 / ISO 4034 (Series 060)**
(<https://engineeringhardware.com/guide/material/grade-12-9-steel-cad-svg-060-hexnut/>)