

What Are Knurled Nuts, High Type Used For?

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Typical applications, the industries that specify knurled nuts, high type, and how to choose the right size, material and finish for the joint.

Knurled Nuts, High Type are used for assemblies that are adjusted or removed by hand, without tools. They are manufactured to DIN 466, and selection is driven by the thread size, the fit and tolerance the assembly requires, and the service environment.

Primary duty

Assemblies that are adjusted or removed by hand, without tools

Governing standard

DIN 466

Thread size range

M3 to M12

Category

Nuts

Application notes are general engineering guidance. Verify the property class and any approval requirement against your own design calculation.



Knurled Nuts, High Type (DIN 466) are specified where the joint requires assemblies that are adjusted or removed by hand, without tools. The sections below cover the typical end-uses by industry, the size and material decisions for each, assembly practice, and the applications this fastener type is not suited to. Stocked across roughly M3 to M12, they cover general to heavy-duty work.

Typical Applications for Knurled Nuts, High Type

The most common settings where these are specified:

- **General machine building:** fastening covers, brackets, motors and sub-assemblies on production equipment.
- **Maintenance & repair (MRO):** a stocked size for servicing existing plant where the original fastener spec must be matched.
- **Fabrication & metalwork:** bench and on-site assembly of steel frames, enclosures and weldments.
- **Bolted joints:** the clamping counter-face on studs and bolts across every assembly type.
- **Vibration-prone equipment:** where a locking or flanged style resists loosening.

How to Specify Knurled Nuts, High Type for Your Application

- **Size:** Match the nominal size to the mating thread or hole. This product spans M3-M12; check the full table below for the exact dimensions of each size.

- **Locking & grade:** Match the strength grade to the bolt, and choose a locking style (nyloc, all-metal, serrated flange) if the joint sees vibration.
- **Environment:** For damp, coastal or chemical exposure prefer A4/316 stainless or a suitable coating; indoors, plated steel or A2 is usually sufficient.
- **Standard:** This product is supplied to DIN 466. Quoting the standard on your order guarantees interchangeable dimensions between suppliers.

Installation & Assembly Practice

- Run the nut down by hand before applying the wrench to catch cross-threading early.
- Tighten the nut rather than the bolt head where access allows — the torque-to-preload relation is more consistent.
- For locking styles, note that nyloc inserts are single-use in critical joints and lose grip above roughly 120 °C.

Common Selection Mistakes with Knurled Nuts, High Type

- Pairing a high-class bolt with a lower-class nut — the nut strips before the bolt reaches proof load; the nut class must meet or exceed the bolt class.
- Using a plain nut with a spring washer in severe vibration instead of a prevailing-torque locking nut.
- Re-using nyloc nuts in critical joints.

Where Knurled Nuts, High Type Are Not the Right Choice

Not on their own — they need a matching bolt or stud — and a plain nut is not a substitute for a locking type under heavy vibration.

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.

Sends the selected values to the quote form below.

Request a Quote

The form below follows the current technical drawing configuration. Change the drawing values above and the request details update automatically.

Dimensions & Specifications (DIN 466)

Thread size	Pitch (mm)	Body diameter d2 (mm)	Total height m (mm)	Collar diameter (mm)	Collar height (mm)	Knurl type	Reference standard
M3	0.5	12	8	16	2.0	Straight	DIN 466
M4	0.7	15	10	20	2.5	Straight	DIN 466
M5	0.8	18	12	24	3.0	Straight	DIN 466
M6	1.0	21	14	28	3.5	Straight	DIN 466
M8	1.25	25	16	34	4.0	Straight	DIN 466
M10	1.5	30	20	40	4.0	Straight	DIN 466
M12	1.75	36	24	48	5.0	Straight	DIN 466

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.

1.



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.



2.

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.

3.



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.

4.



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 are Knurled Nuts, High Type used for?

Assemblies that are adjusted or removed by hand, without tools. They are supplied to DIN 466.

Which industries use Knurled Nuts, High Type?

They are commonly specified in general machine building, maintenance & repair (mro) and fabrication & metalwork, among other sectors.

How do I choose the right size of Knurled Nuts, High Type?

Match the nominal size to the mating thread or hole. This product is available from M3 to M12; the full dimension table on this page lists each size.

Do Knurled Nuts, High Type need a locking feature?

If the joint sees vibration or cyclic load, use a locking style (nyloc, all-metal lock, or serrated flange) or a thread-locking adhesive. For static joints a standard nut tightened correctly is usually sufficient.

Can I get a quote for Knurled Nuts, High Type in the size and material I need?

Yes. Use the technical drawing and quote form on this page to set the size and options, then send the exact configuration to our team for pricing and lead time.

Related Pages

Product page: [Knurled Nuts, High Type — specifications & sizes](#)

Knurled Nuts, High Type Specification Guides

- [M3 Knurled Nuts, High Type size guide](#)
- [A4 stainless Knurled Nuts, High Type](#)

Related Fastener Applications

- [All-Metal Lock Nuts applications](#)
- [All-Metal Prevailing Torque Hex Lock Nut \(Type 1\) — GB/T 6184 / ISO 7042 \(Series 047\) applications](#)
- [Cap \(Acorn\) Nuts applications](#)
- [Castellated Hex Nut — GB/T 6180 / ISO 7036 \(Series 048\) applications](#)
- [Custom Slotted Round Nut — GB/T 812 \(Series 070\) applications](#)
- [Hex Flange Nuts applications](#)