# ASTM A194 - Nuts for pressure and temperature service

Nuts associated with bolting enquiries for high pressure and/or temperature service. Pairing depends on grade and service requirements.

ASTM A194/A194M - 26

## Technical drawing and dimensions to specify




Family selection guide. The drawing only identifies dimensions to specify; it does not identify a certified item, an available size range or a complete assembly. Final geometry and dimensions must match the approved drawing.

## Dimensional data for the request

| Symbol | Required information | Units |
|---|---|---|
| d | Nominal thread and pitch | mm or inches, specify |
| s | Width across flats | mm or inches, specify |
| m | Nut height | mm or inches, specify |

Attach the dimensional standard or drawing, tolerances, quantity and configuration. Mechanical properties and grades appear below; they are not geometric dimensions.

Selection and documentation

Specify the contractual standard and edition, grade, material, finish, matching components and tests. Confirm markings, batch, certificates and applicable instructions before ordering. This Dueemme guide does not replace the standard or connection design.

Standard reference: https://store.astm.org/a0194_a0194m-26.html

## Which A194 nut?

| Grade | Material family | Characteristic |
|---|---|---|
| 2H | Quenched and tempered carbon steel | Nut for pressure / temperature service |
| 2HM | Quenched and tempered carbon steel | Specific hardness requirements |
| 7 / 7M | Quenched and tempered alloy steel | Separate grades; specify required tests |
| 8 | Type 304 stainless steel | Specify condition and marking |
| 8M | Type 316 stainless steel | Specify condition and marking |

## Matching bolts and studs

Examples to check against the specification: A193 B7 with 2H; B8 with 8; B8M with 8M. For Class 2, specify any supplementary nut requirements. Establish the temperature rating for the entire joint, not from the nut designation alone.

## Specify the nut alongside the bolting

State the nut grade, material, thread and finish. Any supplementary tests must be included in the enquiry and supply documentation.