

ASTM A194 - Nuts for pressure and temperature service

Technical reference sheet | Rev. 29.09.2026

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

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.

Project-specific documentation

Assembly and traceability

Lot, markings, component list and conformity documents relevant to the supply.

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State the required documents. Applicability and availability are confirmed during enquiry review.

Testing and coatings

Dimensional reports, mechanical tests, coating reports and ROCAP where applicable to the specification.

Related standards and components

Bolts and studs for flanges, valves and pressure equipment: specify grade, class, dimensions and service conditions.

Bolts and studs in L7 and L7M, separate from A193 and linked to applicable nut and testing requirements.

Application sectors

Industrial and EPC projects, according to the specified application.

Enquiries and supply

Specify standard, grade, dimensions, finish, quantity and required documents. This technical reference sheet does not replace the lot documentation, manufacturer installation instructions or project design.