

ASTM F3111 - Heavy Hex structural assemblies

Technical reference sheet | Rev. 29.09.2026

Very-high-strength bolt, nut and washer assemblies, handled through a specification distinct from F3125.

A complete assembly, not a generic bolt

Identify the entire system: bolt, nut, washers, dimensions, finish, equipment and installation procedure. Components with the same diameter are not automatically interchangeable.

Data required for supply

Technical field	Requirement
Rm min.	200 ksi
Configuration	Heavy Hex
Dimensions	Diameter, length and grip range of the selected system
Installation	Instructions and checks for the specific assembly

Do not infer equivalence between standards from tensile strength in ksi alone. Check the standard and proposed system for temperature, exposure and outdoor-use limitations.

Specify the complete system

F3111 covers Heavy Hex assemblies with a minimum tensile strength of 200 ksi. Selection requires review of dimensions, installation, tests and documentation.

Send project requirements and conditions

Dueemme assesses sourcing against the project specification, without treating generic components as substitutes for the assembly. Include installation provisions and inspection requirements.

Service environment

F3111 restricts the permitted service environments. It must not be extended automatically to uncovered exterior structures or highly corrosive environments. Provide project conditions for application review.

Project-specific documentation

Assembly and traceability

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

EN 10204 3.1 · DoP · CoC

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

From grade to assembly configuration: Heavy Hex bolts and Twist-Off assemblies, with dedicated A325 and A490 grades.

Fixed-spline assemblies: identify the bolt, nut, washer arrangement and installation requirements together.

Application sectors

Steelwork, structures and infrastructure.

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.