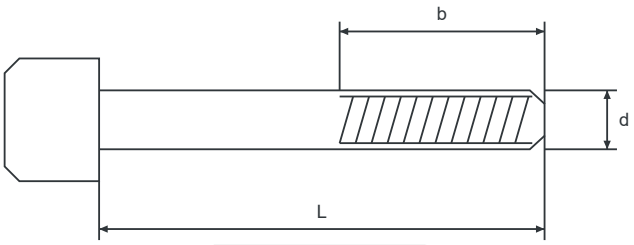
ASTM F3111 - Heavy Hex structural assemblies

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

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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. For special assemblies request the complete system drawing; the hex-bolt schematic does not depict the installation mechanism.

Dimensional data for the request

Symbol	Required information	Units
d	Nominal thread and pitch	mm or inches, specify
L	Under-head length of the illustrated hex bolt	mm or inches, specify
b	Threaded length	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/f3111-23.html

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.

The intended scope includes normally dry sheltered environments; exterior locations under a roof require the specified structural-system protection. Unroofed exterior exposure, aggressive chemical environments, almost continuous condensation, immersion in water or soil, and cathodically protected systems are excluded.