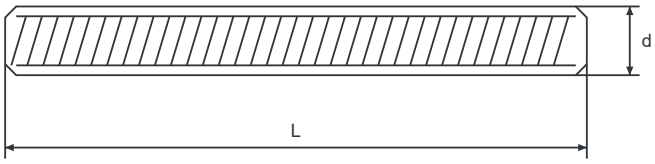
ASTM A320 - Low-temperature bolting

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

ASTM A320/A320M - 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
L	Overall length; specify ends and measurement convention	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/a0320_a0320m-26.html

L7 and L7M: low-temperature bolting

Quenched and tempered alloy steels for bolts and studs. L7M has different hardness and strength requirements from L7: M does not mean “metric”. Specify minimum design temperature and required impact testing.

What to check for low-temperature service

Field	Check
Temperature	Minimum design temperature, test temperature and applicable code criteria
Charpy impact	Required energy, specimen and lot results
Nuts	Compatible grade and testing; for L7M assess A194 7M with applicable requirements
Marking and documents	Grade, lot and test traceability

Charpy test temperature is not automatically a universal minimum service temperature. Do not transfer A193 thermal values to A320.

L7 and L7M: separate enquiries

State the exact grade and project temperature conditions. The M suffix is not interpreted as a simple indication of metric thread.

Testing requirements

Include the tests and acceptance criteria required by the project. Documentation is reviewed against the configuration and supply lot.