

# A/SA 320M L43

# ALLOY STEEL

HIGH TENSILE

BOLTING MATERIAL FOR LOW TEMPERATURE SERVICE

A/SA 320M covers alloy steel bolting materials for pressure vessels, valves, flanges and fittings for low- temperature service. The term "bolting material" as used in this specification covers rolled, forged, or strain hardened bars, bolts, screws, studs and stud bolts. The bars shall be hot-wrought. A/SA 320M covered several grades, including both ferritic and austenitic steels designated L7, B8, etc. Selection will depend on design, service conditions, mechanical properties and low-tempeerate characteristics. A/SA 320M expressed in both inch-pound units and in SI units. The values stated in either inch-pound units or SI units are to be regarded separately as standard.

## Chemical Properties

## Impact Properties

| C         | Si        | Mn        | P         | S         | Cr        | Mo        | Ni        | Joules | Temperature |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|--------|-------------|
| 0.38-0.43 | 0.15-0.35 | 0.60-0.85 | 0.035 Max | 0.040 Max | 0.70-0.90 | 0.20-0.30 | 1.65-2.00 | 27     | -101°C      |

## Mechanical Properties

| Yield strength | Tensile strength | Elongation | Reduction |
|----------------|------------------|------------|-----------|
| Mpa            | Mpa              | %          | %         |
| min            | min              | min        | min       |
| 725            | 860              | 16         | 50        |

## Heat Treatment

Quenched &amp; Tempered @620°C min.

## Equivalent Designation

|               |
|---------------|
| UNS AISI 4340 |
| EN number     |
| EN Name       |
| W.Nr.         |
| SS            |
| AFNOR         |



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