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# 304 Stainless Steel Round Bar

General-Purpose Austenitic Stainless Bar • UNS S30400

304 stainless round bar is a widely specified chromium-nickel austenitic stainless alloy used for shafts, pins, fittings and general-purpose machined hardware. It offers a versatile balance of corrosion resistance and fabricability, while precision grinding helps control its finished diameter and surface condition.

## MATERIAL SPECIFICATIONS

| Property / designation | Reference data / purchase requirement |
|---|---|
| **UNS grade** | S30400 (304) / S30403 (304L is separate) |
| **European reference** | EN 1.4301 (304); EN 1.4307 (304L) |
| **Bar purchasing standard** | Check ASTM A276 / ASTM A479 as applicable |
| **Chromium (Cr)** | 17.5–19.5 wt% (Atlas 304 reference) |
| **Nickel (Ni)** | 8.0–10.5 wt% (Atlas 304 reference) |
| **Carbon (C)** | 0.07 wt% max (Atlas 304 flat-product reference) |
| **Typical annealed density** | Approx. 7.90 g/cm³ |
| **Heat-treatment response** | Not hardenable by conventional thermal treatment |
| **Key service limitation** | Pitting/crevice corrosion risk in warm chlorides |

## SELECTED APPLICATIONS

Machined industrial and sanitary fittings • Pins, shafts and corrosion-resistant hardware • Equipment components, guide rods and spacers

## GRADE SELECTION & FINISHING

304 and low-carbon 304L differ primarily in carbon limits and welded-service considerations. Dual certification is possible only when the actual heat and test certificate satisfy both grades. For a higher-machinability alternative, compare 303; for improved chloride pitting resistance, compare 316.

When quoting 304 ground bar, differentiate rough stock diameter from finished OD, specify straightness and length, and confirm passivation or polishing expectations separately.

## INFORMATION FOR A QUOTE

Specify 304 or 304L explicitly, the bar standard, certification requirement, diameter and tolerance, length, finish, straightness and quantity.

Material: material/304-stainless-round-bar-stock/

Technical source: Atlas Steels, 304/304L/304H datasheet

Reference values only; the specified product standard, material condition and mill test report govern.


Not a mill test report or stock availability guarantee. Confirm actual heat, condition and specification.