



### **Black Rounds:**

- Typically produced by hot rolling or forging
- Surface is oxidized and rougher
- Lower cost option
- Suitable for structural and industrial applications where appearance is not critical

### **Bright Rounds:**

- Produced by cold drawing, turning, or polishing processes
- Smooth, shiny surface finish
- Tight dimensional tolerances
- Preferred in industries where aesthetics, precision, and hygiene are critical, such as food processing and medical equipment

### **Comparison at a glance:**

| <b>Feature</b>       | <b>Black Condition</b> | <b>Bright Condition</b>                      |
|----------------------|------------------------|--|
| Production method    | Hot rolling/forging    | Cold drawing/polishing                       |
| Surface finish       | Rough, oxidized        | Smooth, polished                             |
| Dimensional accuracy | Moderate               | High   |
| Cost                 | Lower                  | Higher                                       |
| Applications         | Structural, industrial | Food, pharmaceuticals, precision engineering |

### **Applications of SS304 Rounds in Black and Bright Conditions**

#### **Common sectors include:**

- Food processing equipment and storage tanks
- Chemical and pharmaceutical industries
- Construction and architectural structures
- Automotive and transportation
- Heat exchangers and boilers

- Water treatment plants
- Marine and coastal structures
- Industrial machinery and fabrication

Steelmet Industries supports industries across India including major hubs like Mumbai, Pune, Chennai, Bengaluru, Hyderabad, and Ahmedabad by providing tailored solutions for varied industrial requirements.

## Related Stainless Steel Products You May Also Consider

- SS304 Squares for framing and structural components
- SS304 Flats used in manufacturing and fabrication
- SS316 Rounds for marine and corrosive environments
- SS310 Sheets & Plates for high-temperature applications

Contact our team to explore customized solutions for your unique industrial needs.

## Global Equivalence Table • SS304 Stainless Steel

The table below provides approximate equivalences of SS304 across various global standards. Please note that these are indicative references and properties may vary by manufacturer and batch.

| Standard   | Equivalent Grade      |
|------------|-----------------------|
| ASTM       | A240 / A276 / A484    |
| UNS        | S30400                |
| EN         | 1.4301 / 1.4307       |
| DIN        | X5CrNi18-10           |
| JIS        | SUS304                |
| BS         | 304S31 / 304S15       |
| ISO        | 683-17 / 15510        |
| NACE       | MR-01-75 (compliant)  |
| GB         | 06Cr19Ni10            |
| AS/NZS     | 316 / 304L equivalent |
| SAES       | 304L                  |
| AFNOR      | Z6CN18-09             |
| UNI        | X5CrNi18-10           |
| EN 10088-1 | 1.4301                |
| AISI       | 304                   |

*Note: These equivalences are approximate and provided for reference purposes. Always consult our technical experts for precise material selection.*

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## Buying Considerations – How to Choose SS304 Rounds

When selecting SS304 rounds, it's essential to consider:

- Application environment – chemical, moisture, temperature exposure
- Required finish – black vs bright
- Dimensional tolerances and machining requirements
- Welding or fabrication methods
- Corrosion and wear resistance needs
- Regulatory compliance or certifications required

At **Steelmet Industries**, we provide technical assistance to help you choose the best material for your project. Get in touch with us to discuss your requirements in detail.

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### FAQs

#### Q1. What are the key differences between black and bright stainless steel rounds?

Black rounds are produced through hot rolling, offering cost-effective structural use, while bright rounds are cold-drawn, offering superior finish and accuracy for precision applications.

#### Q2. Is SS304 suitable for outdoor use?

Yes, SS304 offers good corrosion resistance for outdoor environments, but depending on exposure, higher-grade materials like SS316 may be preferred.

#### Q3. Can I use SS304 rounds for food processing equipment?

Yes, the bright finish option is ideal for food-grade applications due to its smooth surface and hygiene properties.

#### Q4. What standards does SS304 comply with?

SS304 has equivalents in ASTM, EN, JIS, DIN, and other global standards. These are indicative; consult Steelmet's team for specific project requirements.

#### Q5. Can I request material certifications and datasheets?

Absolutely. Steelmet Industries provides documentation and technical support upon request to ensure compliance and traceability.

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### Disclaimer

The information provided in this post, including material properties and standard equivalences, is for reference purposes only. Properties may vary by supplier, manufacturing process, or batch. Please consult Steelmet Industries' technical team for detailed specifications and advice before making material selections.

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For accurate material selection and supply of SS304 rounds in black or bright condition, reach out to Steelmet Industries. Our technical team is ready to assist you.

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**Date**

22/06/2026

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*Steelmet Industries - Bright Bars, Alloy  
Steels, Free Cutting Steels, Stainless Steels*