

Features

- **Form & Finish:**
Available as extruded, cold-drawn, or centerless ground bars with finishes ranging from unpolished mill finish to bright black polish.
- **Weldability:**
Generally, not recommended for fusion welding (MIG/TIG) due to its high zinc content, which makes it prone to cracking; mechanical fastening is preferred.
- **Steel-Like Strength:**
Boasts a tensile strength of up to 83,000 PSI (572 MPa) in the T6 temper, comparable to many structural steels but at 1/3 the weight
- **Fatigue Resistance:**
Maintains excellent performance under repeated cyclic loading and vibration, crucial for moving parts.

RS PRO 7075 Aluminium Round Bar

L:304MM X D:101.6MM

RS Stock No: 0794124



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Aluminium Bars

Product Description

RS PRO 7075 Aluminium Round Bar

RS PRO 7075 Aluminium Round bar is a high-strength, solid cylindrical section of aerospace-grade alloy. It is one of the strongest aluminium grades commercially available, often used as a lightweight alternative to steel in high-stress structural applications.

Key Features

- *Steel-Like Strength: Boasts a tensile strength of up to 83,000 PSI (572 MPa) in the T6 temper, comparable to many structural steels but at 1/3 the weight (p. 1).*
- *Fatigue Resistance: Maintains excellent performance under repeated cyclic loading and vibration, crucial for moving parts.*
- *Machinability: Rated as Fair to Good, It produces fine chips and a high-quality surface finish, making it ideal for precision CNC turning and milling.*
- *Physical Stability: Highly stable at room and cryogenic temperatures, though mechanical properties degrade significantly if exposed to heat above 120°C.*

Applications

Aerospace	Aircraft structures, wing spars, landing gear, and fuselage frames.
Defence	Missile parts, firearm receivers (M16/AR-15), and tactical equipment.
Automotive	High-performance suspension arms, drive shafts, and racing gears.
Sporting Goods	Bicycle components, rock climbing hardware, and archery equipment.
Industrial	Precision shafts, worm gears, valve parts, and Mold tool manufacturing.

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General Specifications

Material	Aluminium
Form	Round Bar
Grade	7075
Length	304MM
Diameter	101.6MM

Material Specifications

Aluminium Bars

Density	2.81 g/cm ³
Tensile Strength	572 MPa
Coefficient of Thermal Expansion at 20 – 100°C	23.4 µm/m-°C 13.0 µin/in-°F
Thermal Expansion	22.9 x 10 ⁻⁶ /K
Thermal Conductivity	53.960 J/g-°C 0.229 BTU/lb-°F
Modulus of Elasticity	71.7 GPa

Similar Products

RS Code	Form	Diameter	Length
0794120	Round Bar	25.4MM	609MM
0794122	Round Bar	63.5MM	304MM
0794123	Round Bar	38.1MM	609MM
0794125	Round Bar	76.2MM	12"
0794126	Round Bar	50.8MM	12"