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ALUMINUM BAR

All bars are ordered to Ryerson Tull's rigid specs for highest quality. Ryerson Tull bar inventories are comprised of both cold finished and extruded bars to provide optimum choices for the machining, strength and cost considerations involved. Whenever possible, Ryerson Tull bars are ordered stretch stress-relieved to provide optimum stability during machining or cutting.

2011 (UNS A92011) screw machine stock is the best machining aluminum bar stock. Fine chips mean faster feeds and longer tool life. Machines to an excellent finish, has good strength, average formability. AMS QQ-A-225/3 and ASTM B211.

2017 (UNS A92017) screw machine stock has machinability approaching 2011. Particularly suitable for deep drilling operations and parts requiring clean, bright finishes. Formability and corrosion resistance are good. Strength is approximately the same as 2011. Conforms to AMS QQ-A-225/5 and ASTM B211.

2024 (UNS A92024) screw machine stock is slightly more difficult to machine than 2011 or 2017, but has enough strength for aircraft fittings, bolts, fastening devices. AMS QQ-A-225/6 and ASTM B211.

6061 (UNS A96061) is one of the most versatile screw machine alloys with good strength, workability, corrosion resistance and ease of joining. Less machineable than 2000 series. Cold finished rounds and hexes conform to AMS QQ-A-225/8 and ASTM B211. Extruded rounds, squares and rectangles to AMS QQ-A-200/8 and ASTM B211. Most extruded round items are specially ordered to restricted diameter tolerances for ready use in screw machines.

6063 extruded (UNS A96063) for architectural and ornamental applications. Highly corrosion resistant, with good formability, it is one of the most joinable alloys. Finish is pleasing and is the most suitable for anodizing. Conforms to AMS QQ-A-200/9 and ASTM B211.

6262 (UNS A96262) screw machine stock in T6511 temper offers more strength and machinability than 6061. Comes closest to machining characteristics of 2011 yet retains the joining characteristics of 6061. Cold finished conforms to AMS QQ-A-225/10 and ASTM B211. Extruded to AMS QQ-A-200/10 and ASTM B211.

7075 (UNS A97075) provides the greatest strength available in aluminum bar. Widely used in aircraft applications where light weight plus strength are required. Conforms to AMS QQ-A-225/9 and ASTM B211.

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5086 extruded (UNS A95086) used in marine industry. Offers resistance to stress corrosion and superior resistance to atmospheric corrosion, plus good formability and strength. Conforms to AMS QQ-A-200/5 and ASTM B211.

BAR COMPARISON GUIDE
(Based on 1″ round)

Alloy	Machinability	Minimum Strength in KSI		Corrosion Resistance
		Ultimate	Yield	
2011-T3	A + +	45	38	C
6262-T6511	B	42	35	A
2017-T4, T451	A	55	32	C
2024-T4, T351	A	62	42	C
6061-T6-T651	B	42	35	A
7075-T6, T651	A	77	66	C
6063-T6	C	30	25	A
6063-T5	D	21	15	A