## Steel Bars, Steel Rounds Hot Rolled, Cold Finished, Alloy Bars

,	,
	Hot Rolled Steel Bars
ASTM A36	Low carbon, general purpose for structural applications. Minimum physical properties of 36,000 psi yield strength and 58,000 psi tensile strength.
HR Bars 1117	Low carbon high manganese steel. Used in manufacturing parts requiring considerable machining and close tolerances along with a smooth finish. Especially suitable for carburized parts requiring a soft core and high surface hardness. Used for gears, pinions, pins, and ratchets.
HR Bars 11L17	1117 with the addition of .15% to .35% lead providing improved machinability without changing the excellent case hardening characteristics of 1117.
HR Bars 1045	Medium carbon steel used when greater strength and hardness is desired. Can be hammer forged and responds to heat treatment: Suitable for flame and induction hardening. Used in gears, shafts, axles, bolts, studs, and machine parts.
HR Bars 1141	Medium carbon, special quality, manganese steel with improved machinability and a deeper, uniformed heat treatment response than plain carbon steel.
Cold Rolled Steel Bars	
CR Bars 1018	Low carbon, medium manganese content. Good hardening properties, fair machinability. Readily brazed and welded.
CR Bars 12L14	Lead bearing steel with extraordinarily fast machining speeds. Widely used in screw machining work. Has excellent ductility and fine surface quality.
	Alloy Bars
Alloy Bars 4140	A through hardening chromium molybdenum carbon steel not subject to temper embrittlement. It is recommended for heavy duty service. 4140 has high hardenability, good fatigue, abrasion, and impact resistance. It can be successfully nitrided for maximum wear and abrasion resistance. It is deep hardening suitable for severe service characterized by fatigue, abrasion, impact, high temperature stresses or combination of such stresses in both small and large sections.
Alloy Bars 4340	A tough, shock resisting, oil hardening nickel-chromium-molybdenum steel. In the heat treated condition it is the highest combination of tensile and endurance strengths along with ductility. Maintains good strength properties at elevated temperatures. The high depth hardness is reflected in excellent torque properties. Recommended for heavy duty, high strength applications.
Alloy Bars 8620	Most widely used case hardening alloy steel, with high core strength and toughness.