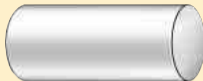
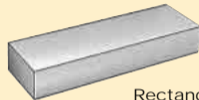


Alloy Steel Information

Alloy steels consist of carbon steel, with added elements for higher tensile and/or yield strengths, improved hardness/hardenability, and enhanced wear resistance.



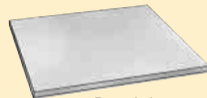
Cylindrical Rod



Rectangular Bar



Seamless Tube



Precision Ground Blank

ALLOY STEEL COMPARISON CHART

Material	Tensile Strength (psi)*	Yield Strength (psi)*	Hardness (BHN)*	Toughness	Wear Resistance	Formability	Machinability†	Weldability
Alloy 4140	105,000-120,000	85,000-105,000	185-250	Good	Fair	Fair	Good	Fair
Alloy 4140/4142	148,000	127,000-150,000	185-250	Good	Fair	Fair	Good	Fair
Alloy 4142	80,000	60,000	185-250	Good	Fair	Fair	Good	Fair
Alloy 8620	95,000-105,000	80,000-90,000	165-220	Excellent	Excellent	Good	Fair	Good

(*) Typical levels @ 1" diameter. (†) Compared to AISI 1212, which has 100% machinability.