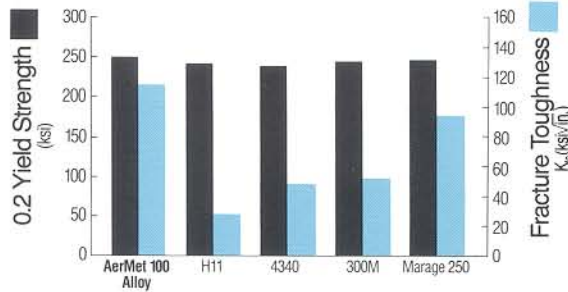


What could you do with the strongest, toughest steel available?

Think of the design requirements you could meet if you could specify a steel with the best combination of strength and toughness of any available in the world. Independent laboratory tests have shown Carpenter's AerMet® 100 alloy to be just that . . .

including H-11, 4340, 300M and Marage 250. It has an ultimate tensile strength of 285 ksi, a yield strength of 250 ksi and a fracture



toughness of 115 ksi√in. Others have already called upon it to provide exceptional properties needed to perform tasks like these . . .



Race Cars ▲

A recent Penske race car design required the driveshaft to pass critically close to the superheated exhaust. Temperatures up to 1100 deg. F would have caused failures in typical driveshaft alloys. Tough, strong, fatigue-resistant AerMet 100 alloy solved the problem . . . and went on to a fourth Indy 500 victory for Rick Mears.



Aerospace ▲

AerMet 100 alloy was originally developed for landing gears for the F/A 18 fighter aircraft. Three aircraft manufacturers have specified it for structural components demanding high strength, high fracture toughness and exceptional resistance to stress corrosion cracking and fatigue, plus good ductility at high hardness levels.



High Impact Tooling ▲

Precision Propeller, Inc., needed long, thin mandrel tool shafts to support heavy, stainless steel propellers being straightened by impacting hammers. Previous tool steel shafts fractured in a month or less—until a change was made to AerMet 100 alloy. So far, the AerMet 100 alloy shafts have lasted 12 times as long as S-7 tool steel, and are still going strong.



Ultrastrong Bolts ▲

Superbolt, Inc., used AerMet 100 alloy and a patented bolt design to develop what it considers the world's strongest bolting system. All parts are made with AerMet 100 steel: multi-jackbolt tensioner, hardened washers, stress-equalizing nut, eight jackbolts. The one-inch, 12-tpi bolting system has shown no signs of failure when subjected repeatedly to a 150,000-pound load. This is equal to 240,000 psi stress in the minor thread area.



Racing Bikes ▲

65% of the bicycles used in the 1992 Tour de France had steel frames. The fact that AerMet 100 alloy has higher stiffness and a higher strength-to-weight ratio than titanium, plus easy welding and brazing properties, made it a logical candidate for high performance bicycles.

What are your requirements?

AerMet 100 alloy has been used successfully in dozens of other critical applications demanding high strength, toughness and exceptional resistance to stress corrosion cracking. Our application engineers are ready to discuss the requirements of your design with you. For free literature about AerMet 100 alloy and our Application Engineering Service, call 1-800-527-6900 or circle the reader service card number provided below.

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