

9310

9310 VAC-ARC steel is a premium quality, high-grade chromium-nickel-molybdenum carburizing steel known for its high hardenability, core hardness, and exceptional fatigue strength.

Produced through a vacuum consumable electrode process, 9310 ensures exceptional performance for demanding applications. This alloy is widely recognized for its durability and reliability in aerospace, transportation, consumer, defense, and industrial sectors.

Similar alloys: 9310 VIM-VAR (enhanced fatigue performance), Pyrowear® 53 (improved temperature resistance)



KEY FEATURES OF 9310

- **High core hardness and case carburization:** 9310 is known for its high core hardness and extreme durability, while its carburized case makes it resistant to wear and tear. This makes the alloy ideal for applications that require a high degree of durability and longevity, such as critical aircraft engine gears, shafts, and fasteners.
- **Excellent fatigue strength:** This alloy steel has excellent fatigue strength. 9310 can withstand repeated cyclic loading, which is particularly important in applications such as rotorcraft engine gears.
- **Good toughness:** Paired with its high hardness, 9310 also exhibits good toughness, which means it can absorb energy well and resist fracturing, even under high loads.
- **Aerospace applications:** Due to its high fatigue strength and toughness, 9310 is often used in the aerospace industry, particularly in the manufacture of aircraft and rotorcraft parts that require high strength and durability.
- **Cost-effective:** Compared to other high-performance materials, 9310 offers a good balance of performance and cost, making it an ideal choice for many applications. Remember, the choice of material should always be based on the specific requirements of the application.

