

HAYNES[®] 263 alloy

Principal Features

Good High-Temperature Strength Up to 1650°F (900°C), Excellent Ductility, and Excellent Weldability

HAYNES[®] 263 alloy (UNS N07263) is an age-hardenable nickel-cobalt-chromium-molybdenum alloy designed specifically to combine good age-hardened strength properties with excellent fabrication characteristics in the annealed condition. HAYNES[®] 263 alloy exhibits excellent intermediate temperature tensile ductility, and is not normally subject to strain age cracking problems common for gamma prime strengthened alloys. Its strength at elevated temperature is not quite as high as materials such as HAYNES[®] 282[®] alloy, Waspaloy alloy, or R-41 alloy. However, it is much easier to form or weld than Waspaloy alloy and R-41 alloy. Because HAYNES[®] 282[®] alloy exhibits superior tensile, creep-rupture, and low cycle fatigue strength than HAYNES[®] 263 alloy and has significantly greater fabricability than Waspaloy and R-41 alloys, it is replacing HAYNES[®] 263 alloy in many applications.

HAYNES[®] 263 alloy is normally used for applications up to about 1650°F (900°C). Its oxidation resistance is comparable to that for other gamma-prime-strengthened superalloys.

Applications

HAYNES[®] 263 alloy combines properties which make it suitable for a variety of fabricated component applications in both aircraft turbine engine and industrial turbine applications. These include low-temperature combustors, transition liners, and some ring components.