

HAYNES[®] HR-120[®] alloy

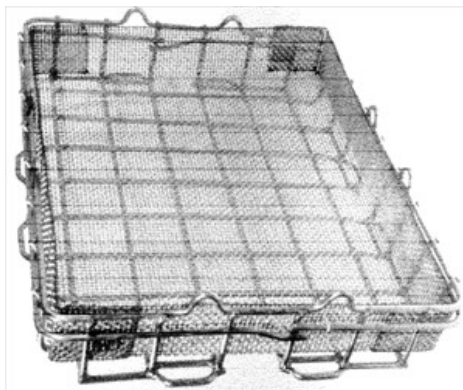
Principal Features

HAYNES[®] HR-120[®] alloy (UNS N08120) alloy is a solid-solution-strengthened heat-resistant alloy that provides excellent strength at elevated temperature combined with very good resistance to carburizing and sulfidizing environments. Its oxidation resistance is comparable to other widely used Fe-Ni-Cr materials, such as alloys 330 and 800H, but its strength at temperatures up to 2000°F (1095°C) is significantly higher, even in comparison to Ni-Cr alloys. The alloy can be readily formed hot or cold, and is commonly welded using HAYNES[®] 556[®] filler wire.

Applications

Applications include those which require high strength combined with good resistance to carburizing and sulfidizing environments such as the following:

- Bar Frame Heat Treating Baskets
- Wire Mesh Furnace Belts and Basket Liners
- Muffles, Retorts
- Heat Treating Fixtures
- Waste Incinerators
- Radiant Tubes
- Cast Link Belt Pins
- Recuperators
- Fluidized Bed Components



HR-120[®] alloy heat treat furnace basket and mesh liner. This 3/8 inch diameter rod frame basket has replaced 1/2 inch diameter baskets in similar design in 330 and 600 alloys. This reduction in rod diameter is equivalent to a 43% weight reduction.

Heat Treatment

HAYNES[®] HR-120[®] alloy is furnished in the solution annealed condition, unless otherwise specified. Depending on the product form, the alloy is solution annealed at a temperature ranging from 2150 to 2250 °F (1175 to 1230 °C) and rapidly cooled. For more information on heat-treatment, please [click here](#).