

Haynes International Gas Turbine Alloys

HASTELLOY® X alloy [Ni-22Cr-18Fe-9Mo-1.5Co-0.6W-0.1C]

For nearly 70 years, HASTELLOY® X alloy has been and continues to be the workhorse alloy for combustion parts in industrial gas turbine applications all over the world. The alloy offers a very good balance of high-temperature strength, oxidation resistance, and fabricability at lower cost than many other materials. This alloy is widely used in industrial gas turbine and aircraft engine fabricated combustor and exhaust components, such as transition ducts, combustor cans and liners, injector nozzles and spray bars, flame holders, exhaust struts and many other hot gas path components.

HAYNES® 617 alloy [Ni-22Cr-12.5Co-9Mo-1.2Al-1Fe-0.3Ti-0.07C]

HAYNES® 617 alloy is a common high temperature alloy in use on many industrial gas turbines since it offers excellent high-temperature strength and good oxidation resistance up to 2000°F (1095°C), together with good thermal stability and fabricability. This alloy is used in transition ducts, large burner can structures, and similar hot gas path components.

HAYNES® 188 alloy [Co-22Ni-22Cr-14W-0.35Si-0.1C-0.03La]

HAYNES® 188 alloy is a cobalt-nickel-chromium-tungsten alloy that offers excellent high-temperature strength and superior oxidation resistance up to 2000°F (1095°C) and thermal stability. This alloy is used extensively in demanding military and civil aircraft gas turbine engine combustors, transition ducts, and after-burner components.

HAYNES® 214® alloy [Ni-16Cr-4.5Al-3Fe-0.04C-0.01Y]

HAYNES® 214® alloy is the most oxidation resistant, wrought nickel alloy commercially available, offering outstanding resistance to 2300°F (1260°C) via formation of a highly protective alumina scale. Strengths are very good at intermediate temperatures to 1650°F (900°C), and the alloy can be conventionally formed and joined. This alloy is used in demanding, specialized gas turbine parts, such as honeycomb seals, combustor splash plates, and other static oxidation-limited parts.

Accreditations:

AS9100
ISO9001:2008
ISO14001:2004
ISO50001:2011
OSHAS 18001:2007
AD2000-Merkblatt W 0
Nadcap
European PED97/23/EC

Approvals:

BAE Systems
Cessna
General Electric
ITP
Pratt & Whitney
Rolls-Royce
Siemens
Snecma Moteurs/Groupe SAFRAN
Spirit Aero Systems



We offer service centers and sales offices worldwide. Our service centers' capabilities extend from specialized cutting to supplying parts cut to specific drawings and specifications, which reduce your labor time and material waste. We can be a partner in your entire material management system. We are continuously expanding our capabilities to increase your operation's efficiency and shorten your cycle time. Our highly trained staff and technicians are dedicated to providing solutions that exceed your expectations.

Whether you need on-demand delivery of finished goods, end-use technical support or a partner with a global presence, Haynes International provides value far beyond the alloys themselves.