Material Data Sheet

QUEST 4 ALLOYS

Alloy 825

Chemical Composition	Cr	Ni	Mo	Cu	Cb+ Ta	Al	Al + Ti	C	Fe	Co	Mn	Si	P	S
% Values (minimum)	19.5	38	2.5	1.5		-	0.6	-			-	-	-	-
% Values (Maximum)	23.5	46	3.5	3		0.2	1.2	0.05	Bal		1	0.54	0.020	0.010

APPLICATION

Fuel element dissolvers
Sea-water-cooled heat exchangers
Offshore product piping systems
Tubes and components in sour gas service
Heat exchangers
Evaporators
Scrubbers
Air-cooled heat exchangers in petroleum refineries
Chemical and Food Processing

DESCRIPTION

Alloy 825 is a high performing nickel-iron-chromium alloy with additions of molybdenum, copper, and titanium. The nickel content is sufficient for resistance to chloride-ion stress-corrosion cracking. This has been successfully used in oil & gas, chemical processing and power generation markets.

CORROSION RESISTANCE

The outstanding attribute of Alloy 825 is its high level of corrosion resistance. In both reducing and oxidize environments, the alloy resists general corrosion, pitting, crevice corrosion, inter-granular corrosion, and stress-corrosion cracking. Some environments in which Alloy 825 is particularly useful are sulphuric acid, phosphoric acid, sulphur containing flue gases, sour gas and oil wells, and sea water.