THAMES STOCKHOLDERS
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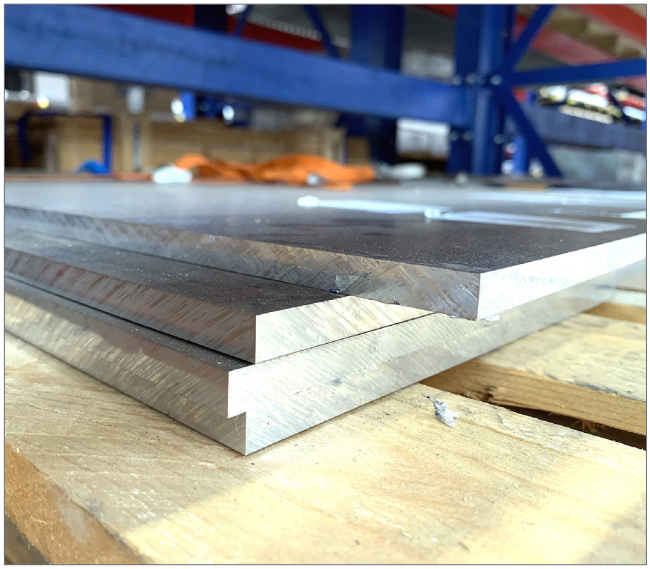
UNS S31254 (F44)

SUPER AUSTENITIC STAINLESS STEEL



Product Overview

UNS S31254 (F44, 1.4547) is a super austenitic stainless steel alloy containing 6% molybdenum (Mo).

The stainless steel offers an attractive combination of good malleability with moderate strength. UNS S31254 provides excellent corrosion resistance, particularly in saltwater, although it performs well in other industrial environments. Resistance to pitting corrosion is also high. The alloy should be considered a viable alternative to standard austenitic stainless steels because the material gives greater mechanical strength and enhanced pitting resistance. Machinability and welding of the alloy presents no difficulties. UNS S31254 is often reffered to as a high molybdenum stainless steel.

We stock UNS S31254 in solid round bars and plate.

Key Features

- High ductility
- Highly resistant to pitting corrosion
- Excellent corrosion resistance
- Greater mechanical strength compared to other grades

Applications

- Oil & Gas industry components
- Pumps & valves
- Flanges & manifolds
- Chokes

* Chemical Composition (weight, %) (EN 10088-3 1.4547)

	C	Mn	Si	S	P	Cr	Ni	Mo	N	Cu	PREn
Min.						19.50	17.50	6.00	0.18	0.50	40.00
Max.	0.020	1.00	0.70	0.010	0.030	20.50	18.50	7.00	0.25	1.00	

* PREn = Cr % + 3.3Mo% + 16N%

* Mechanical Properties

Ultimate Tensile Strength	650 – 850 MPa
0.2% Proof Strength	300 MPa min
Elongation	35% min
Hardness (Max)	260 HB
Impact	100 J

* Properties as per BS EN 10088-3, 1.4547 (up to 160mm)

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