

AUSTENITIC STEELS

Available Product Shapes

Long Products

Product Description

For applications involving highly corrosive environments due to the presence of chemically aggressive media, e.g. for equipment and plants which are cooled by seawater and parts for offshore plants. In the chemical industry where resistance to the attack of pure acids as well as acids containing chloride ions (sulphuric acid in particular), of organic acids and mixed acids is required in the higher pressure and temperature ranges. The enhanced resistance to crevice corrosion permits use also for applications where incrustation must be expected, and / or where the formation of gaps cannot be avoided by design precautions.

Properties

Austenitic chromium-nickel-molybdenum stainless steel with excellent resistance to stress corrosion cracking, pitting and crevice corrosion. Resistant to intergranular corrosion in the temperature range up to 400°C (752°F). For optimum resistance, surfaces should be pickled, scalefree heat treated or machined.

Material designation		Standards	
1.4547	SEL	10088-3	EN ISO
S31254	UNS	F44	ASTM
X1CrNiMoCuN20-18-7	EN	A182	
F44	AISI	A276	
		A479	
		A276/A276M	
		A479/A479M	

Chemical composition

Si	Mn	Cr	Mo	Ni	Cu	N
0.18	0.65	20.30	6.30	17.80	0.75	0.20

Thermal Expansions

Temperature (°C / °F)	100 / 212	200 / 392	300 / 572	400 / 752	500 / 932
Thermal expansion (10 ⁻⁶ m/(m.K) / 10 ⁻⁶ inch/(inch.F))	16.5 / 9.167	17 / 9.444	17.5 / 9.722	18 / 10	18 / 10

For more information see www.voestalpine.com/boehler-edelstahl

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ONE STEP AHEAD.