

# CREEP RESISTANT STEELS

## Available Product Shapes

- Long Products
- Plates

## Product Description

Components for steam and gas turbines, such as blades, discs, bolts and pins.

## Properties

Creep resisting austenitic steel. Scaling resistance in air up to appr. 750°C.

## Applications

- > Blades & Shafts for Turbines and Compressors
- > Fasteners, Bolts, Nuts
- > Other Power Generation Components

Material designation		Standards	
1.4962	SEL	10088-1 10302	EN ISO
X12CrNiWTiB16-13	EN		
ST17/13W	Market grade		

## Chemical composition

C	Si	Mn	Cr	Ni	W	Ti	B
0.13	0.30	0.65	16.10	13.60	2.80	≥ 5°C	0.004

## Thermal Expansions

Temperature (°C / °F)	100 / 212	200 / 392	300 / 572	400 / 752	500 / 932	600 / 1112	700 / 1292	800 / 1472
Thermal expansion (10 <sup>-6</sup> m / (m.K) / 10 <sup>-6</sup> inch / (inch.F))	15.7 / 8.722	16.7 / 9.278	17.1 / 9.5	17.4 / 9.667	17.6 / 9.778	17.8 / 9.889	18 / 10	18.7 / 10.389

For more information see [www.voestalpine.com/boehler-edelstahl](http://www.voestalpine.com/boehler-edelstahl)

