



Recent developments of heavy plates

Claudius Schindler

4th InnoTech Partner Event, 9 June 2016, Linz

voestalpine Grobblech GmbH
www.voestalpine.com/grobblech

voestalpine
ONE STEP AHEAD.

A516 for sour service

coke drums

7%Ni as an alternative to 9%Ni

clad plates in architecture

high strength steels for civil engineering

clad plates for water engineering

new approvals – vast expansion of pre-qualifications

instrumented DWTT

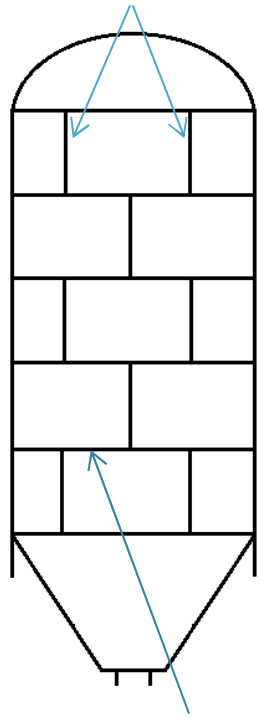
API X70 sour service at wt > 30mm

hard layers

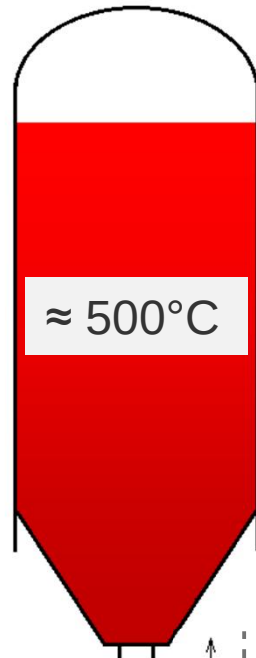
clad plates for pipes



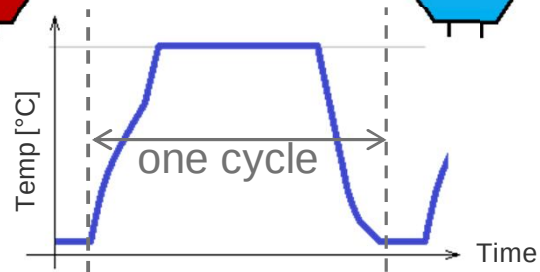
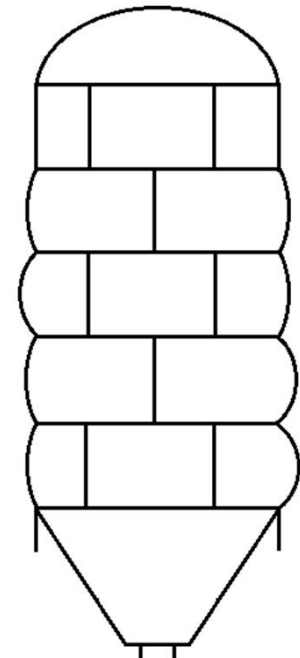
vertical welds



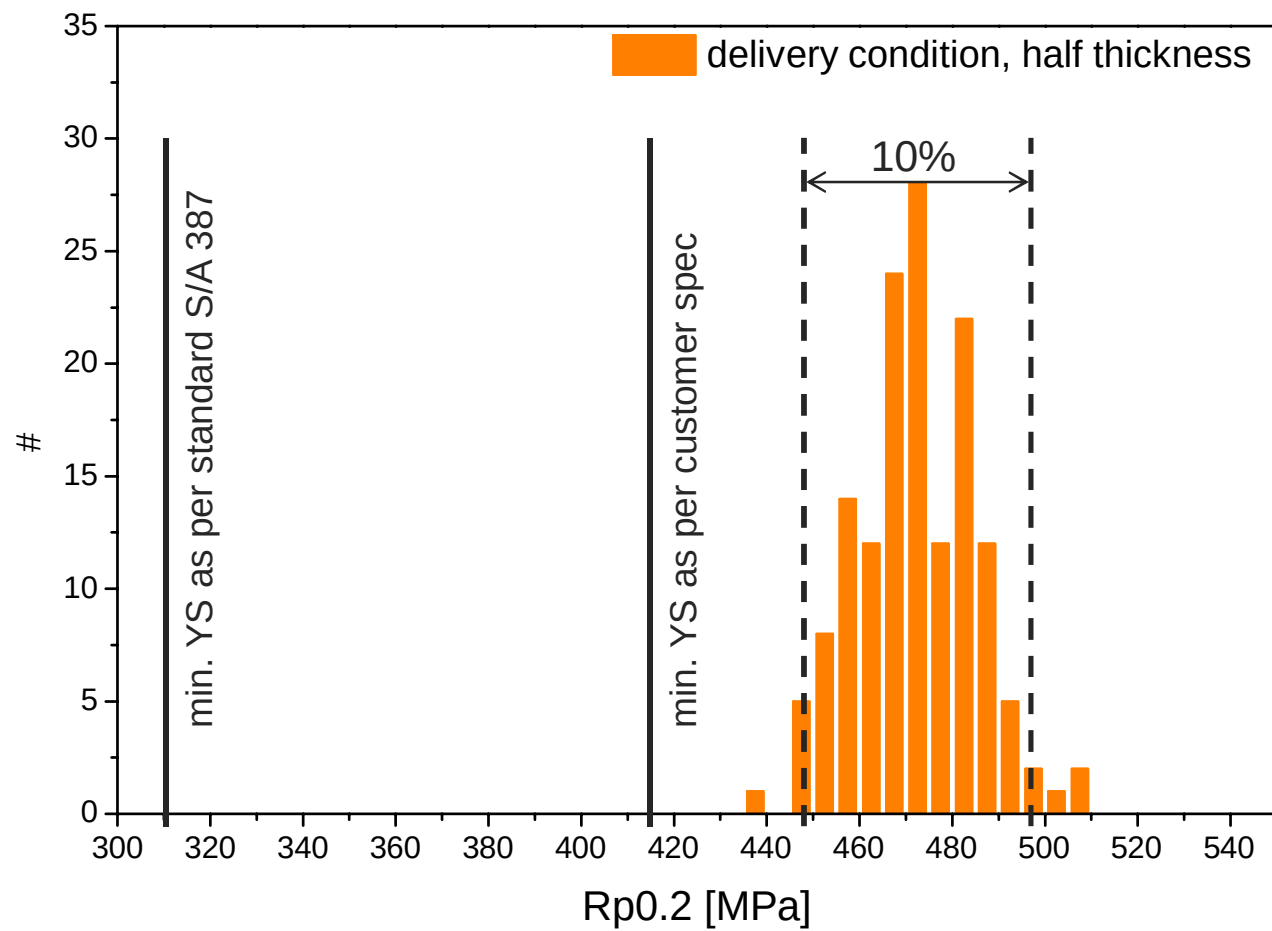
girth seam welds

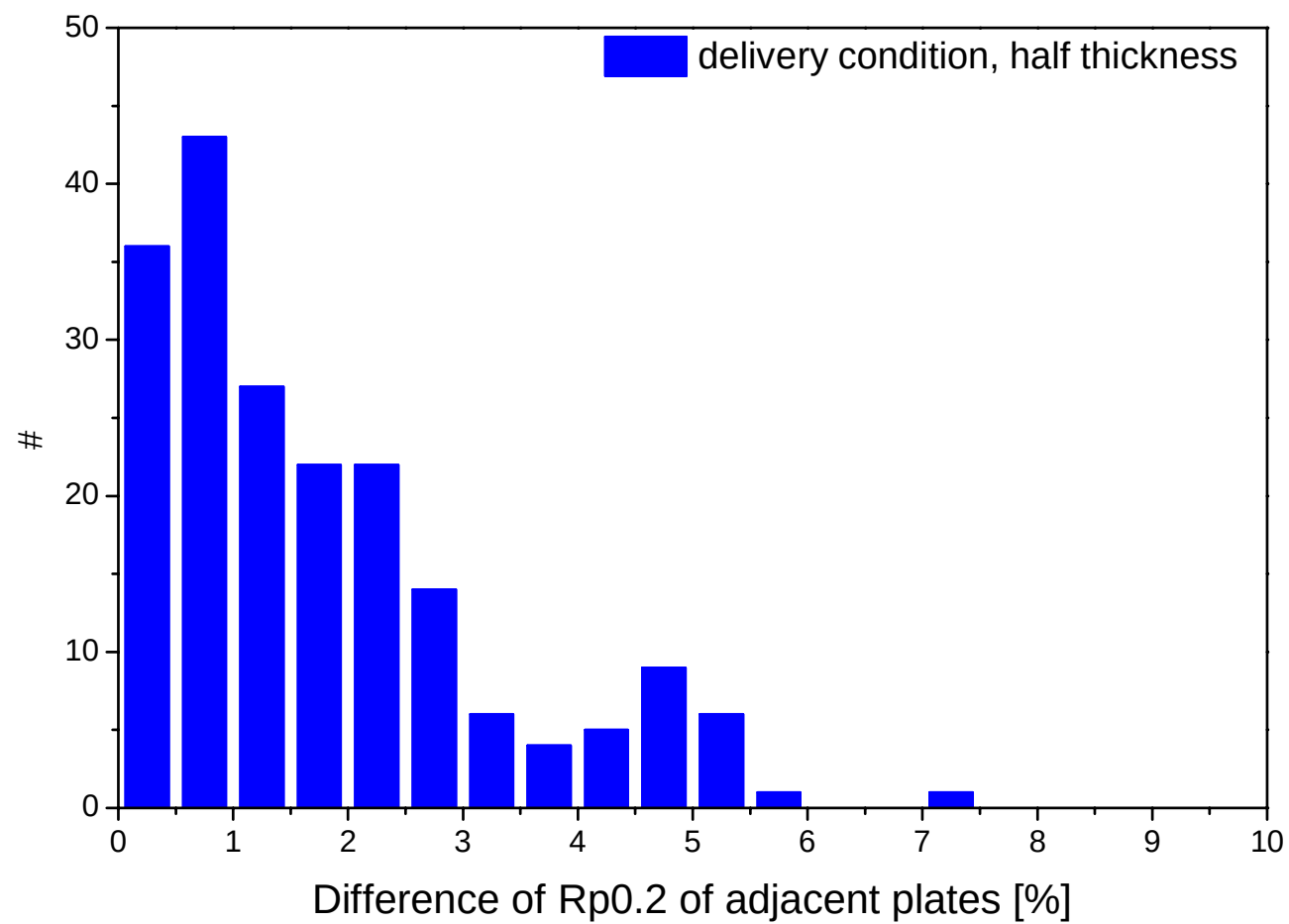


some
thousand
cycles

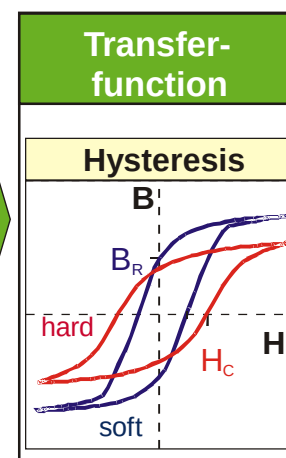
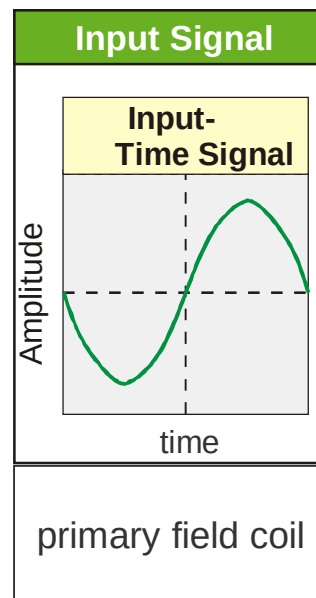
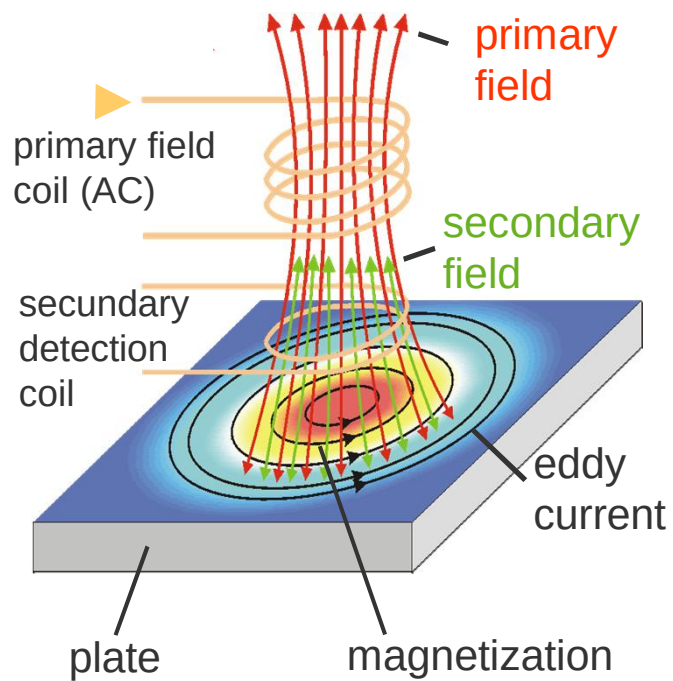


maximum of 10% difference in YS
between adjacent plates



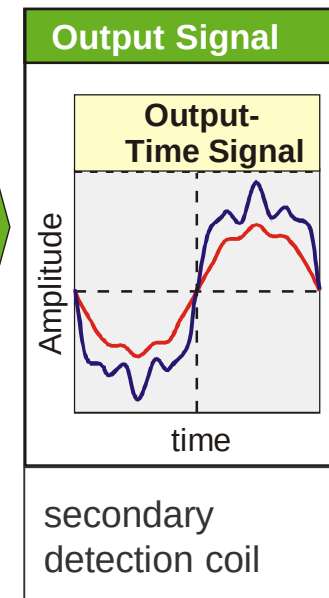






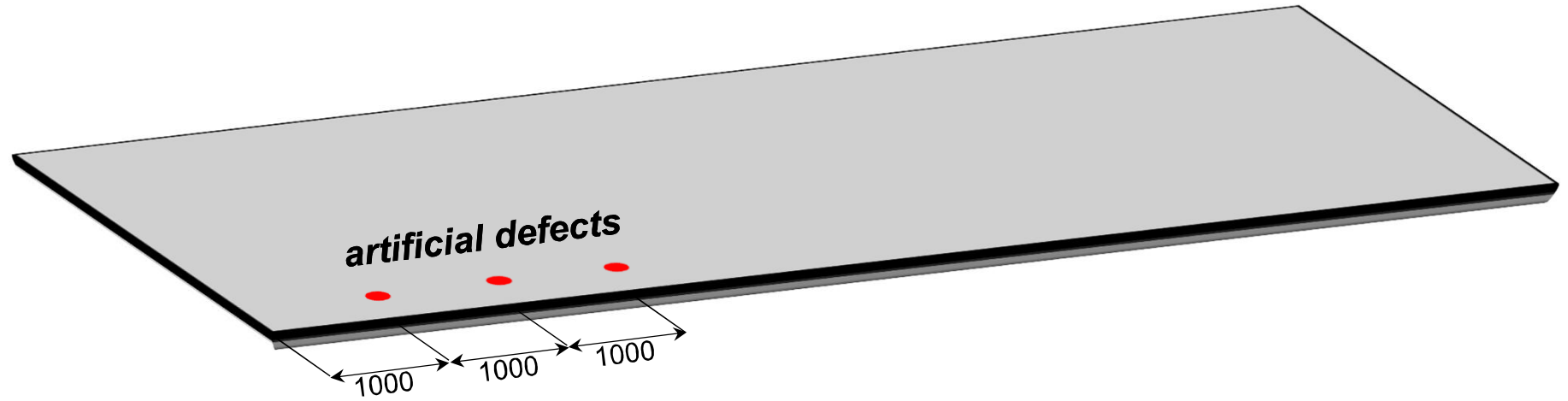
Influencing factors

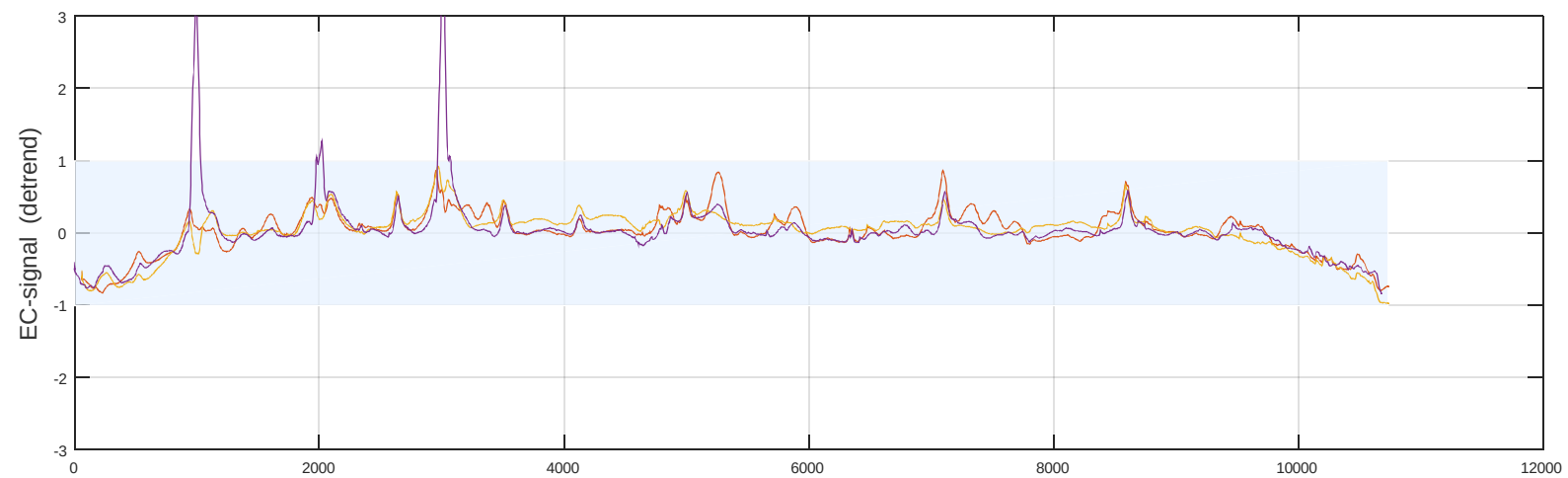
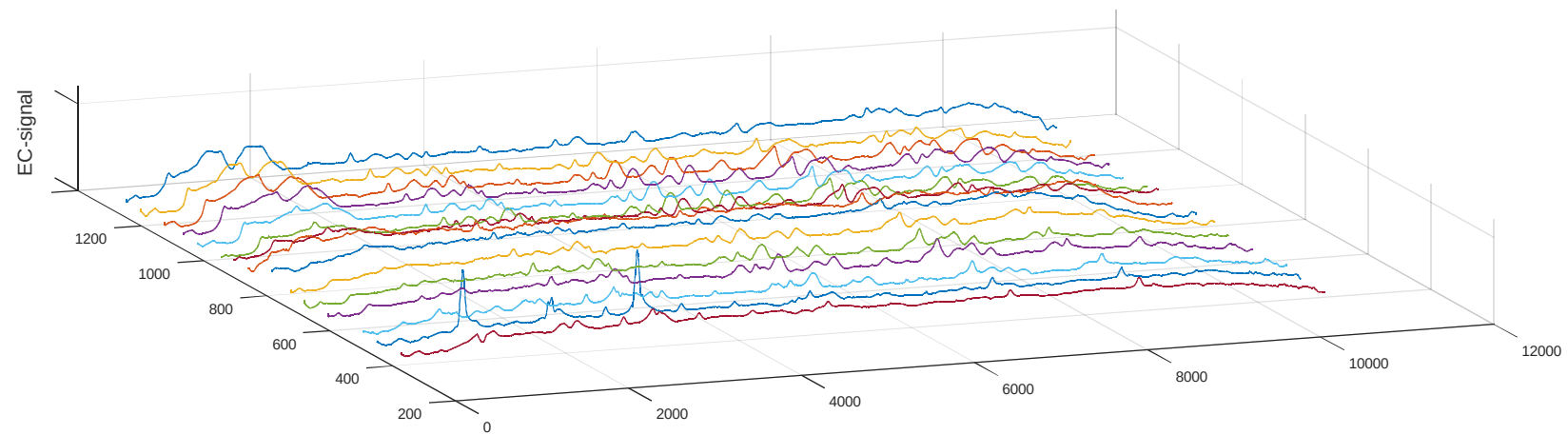
- alloy
- microstructure
- grain size
- dislocation-densities

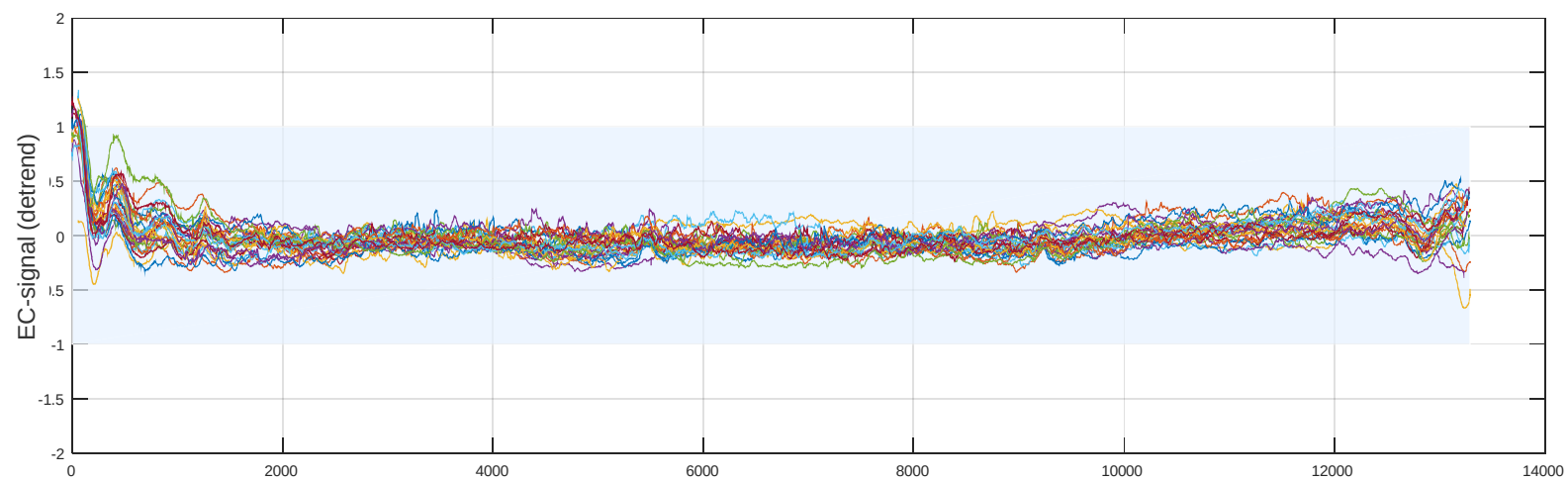
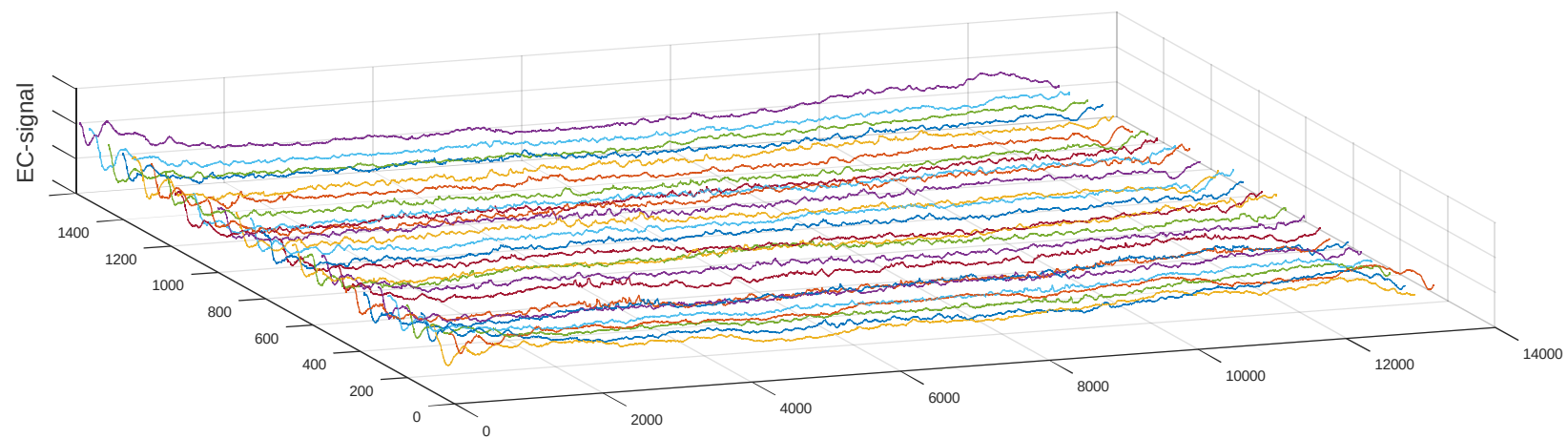


measured harmonic values

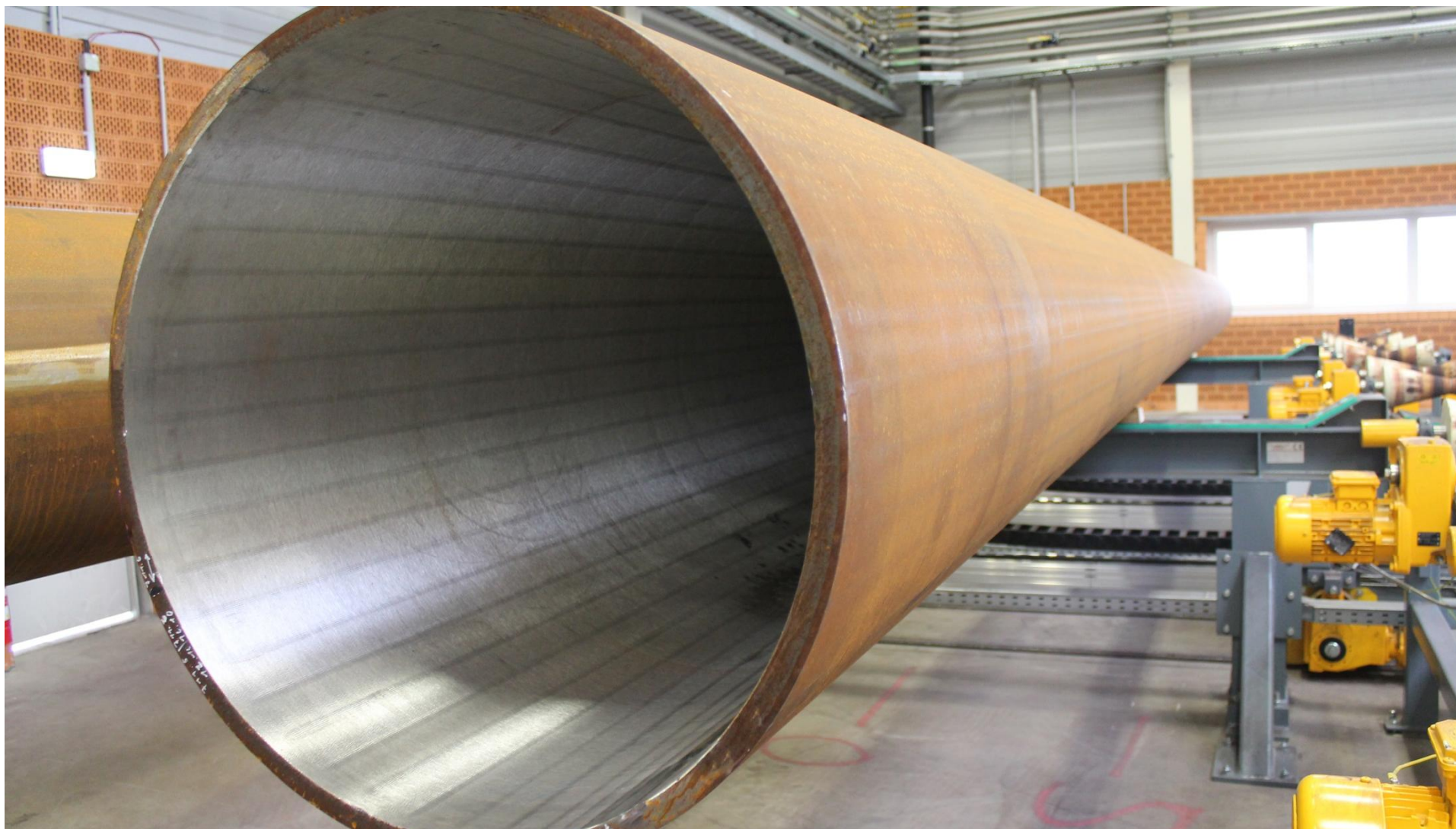
S355N (C > 0.15%)

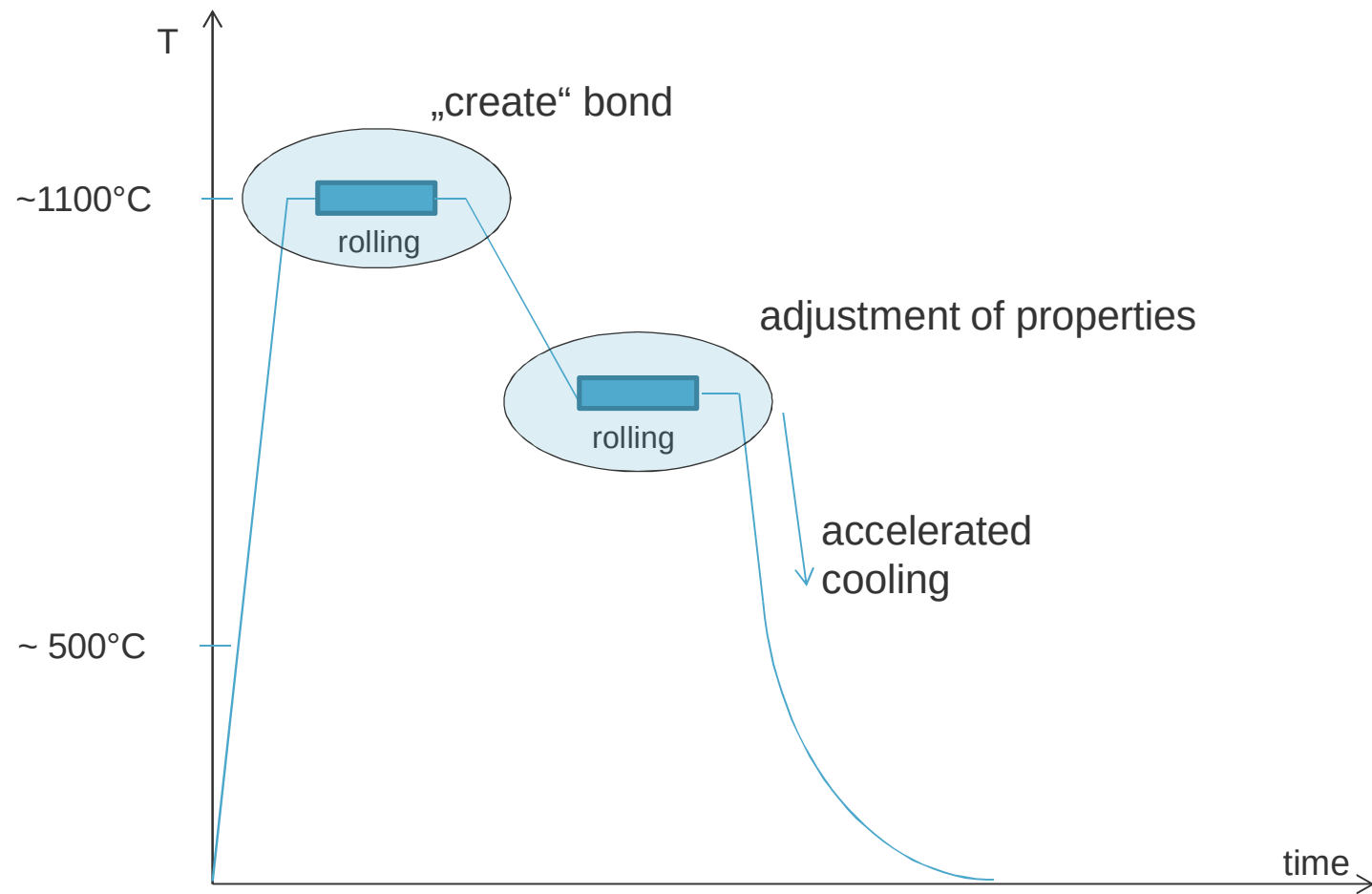


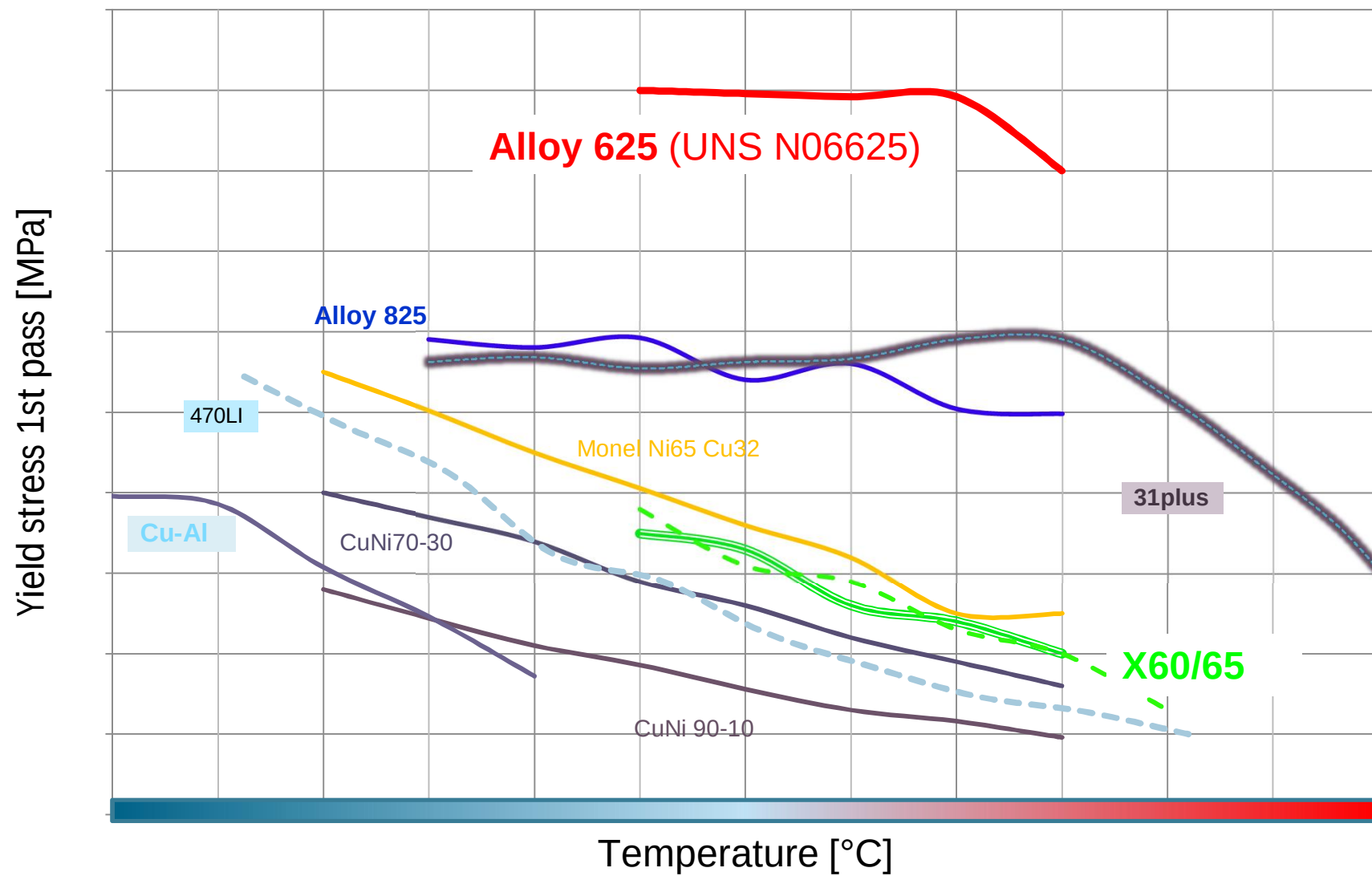


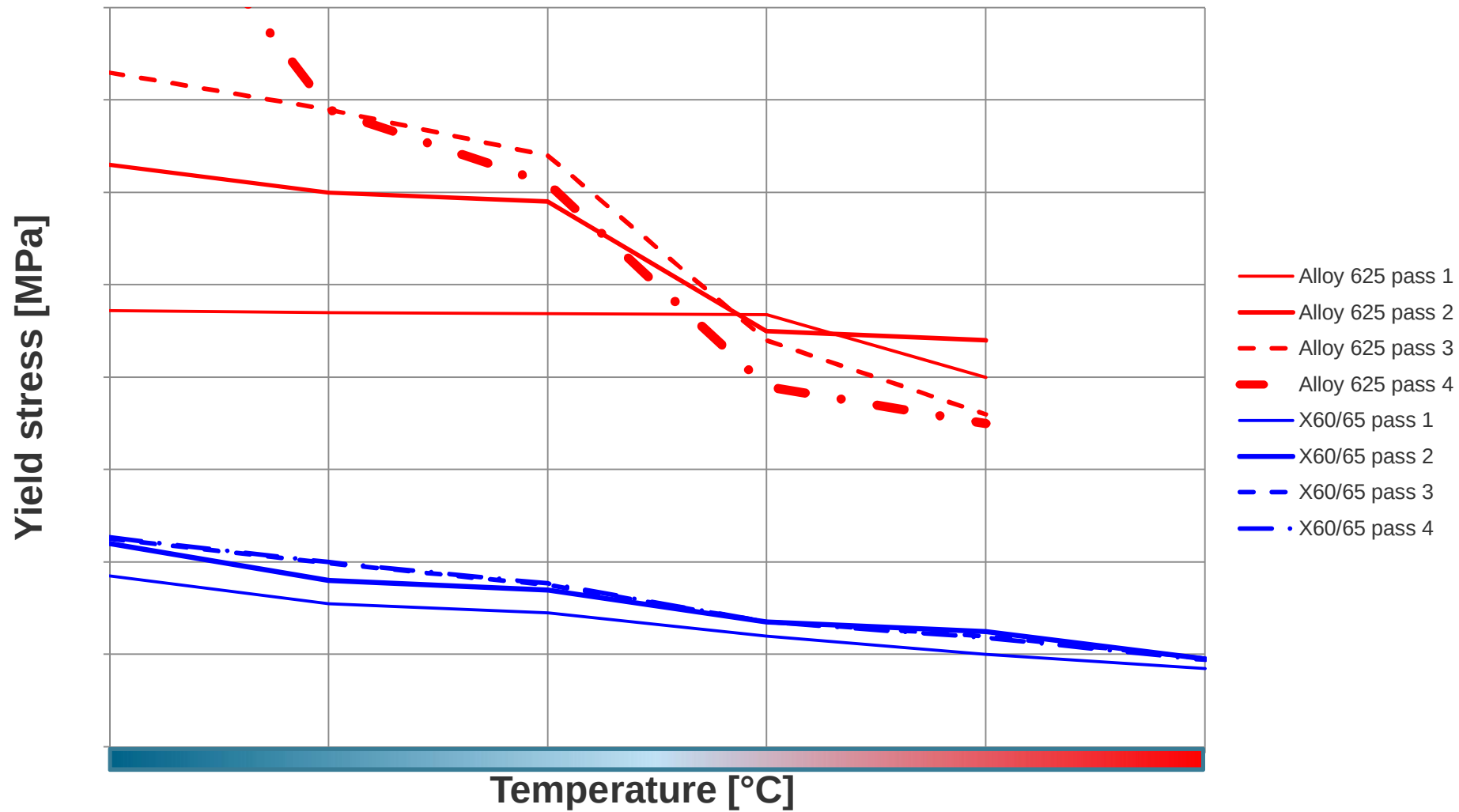


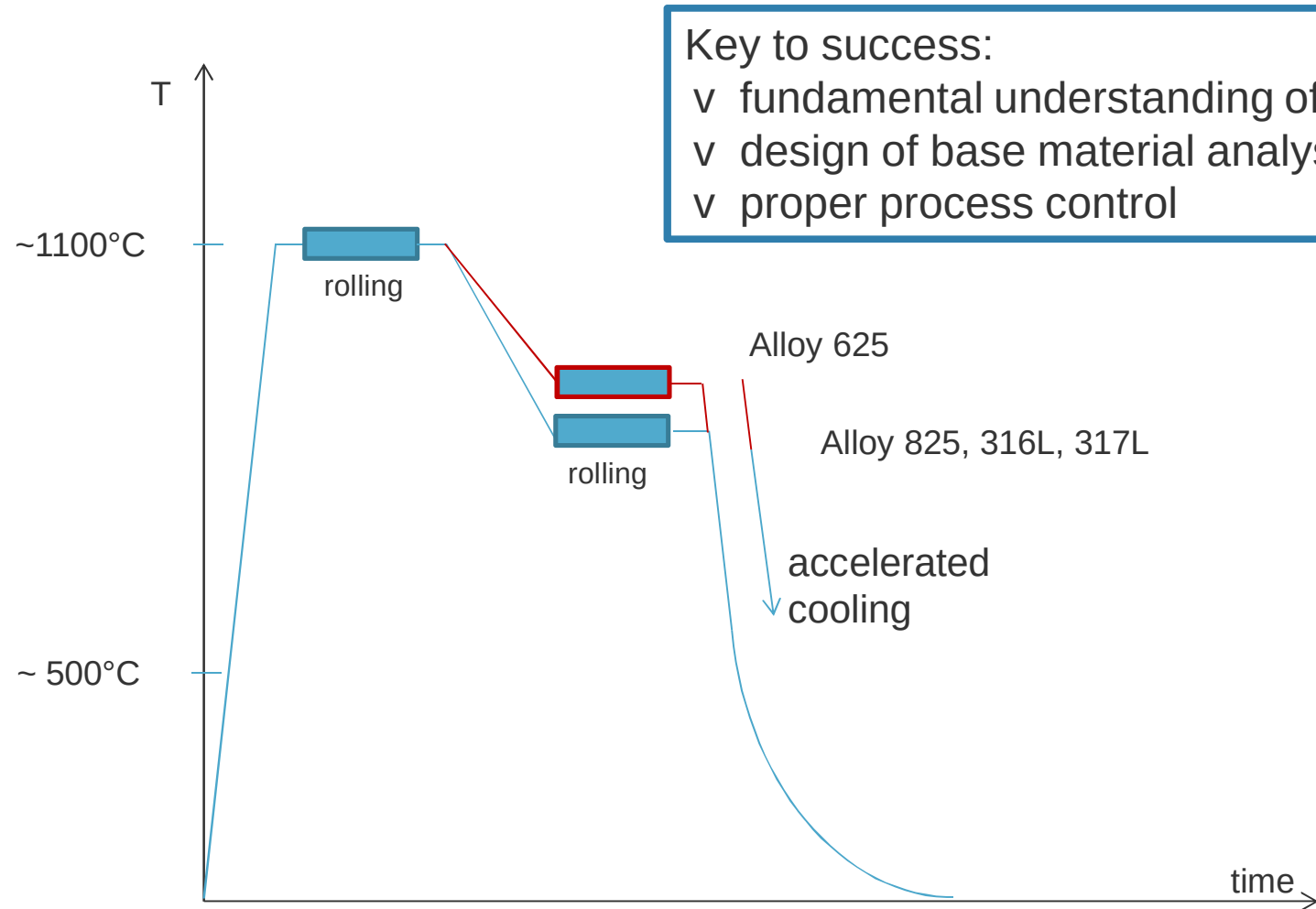


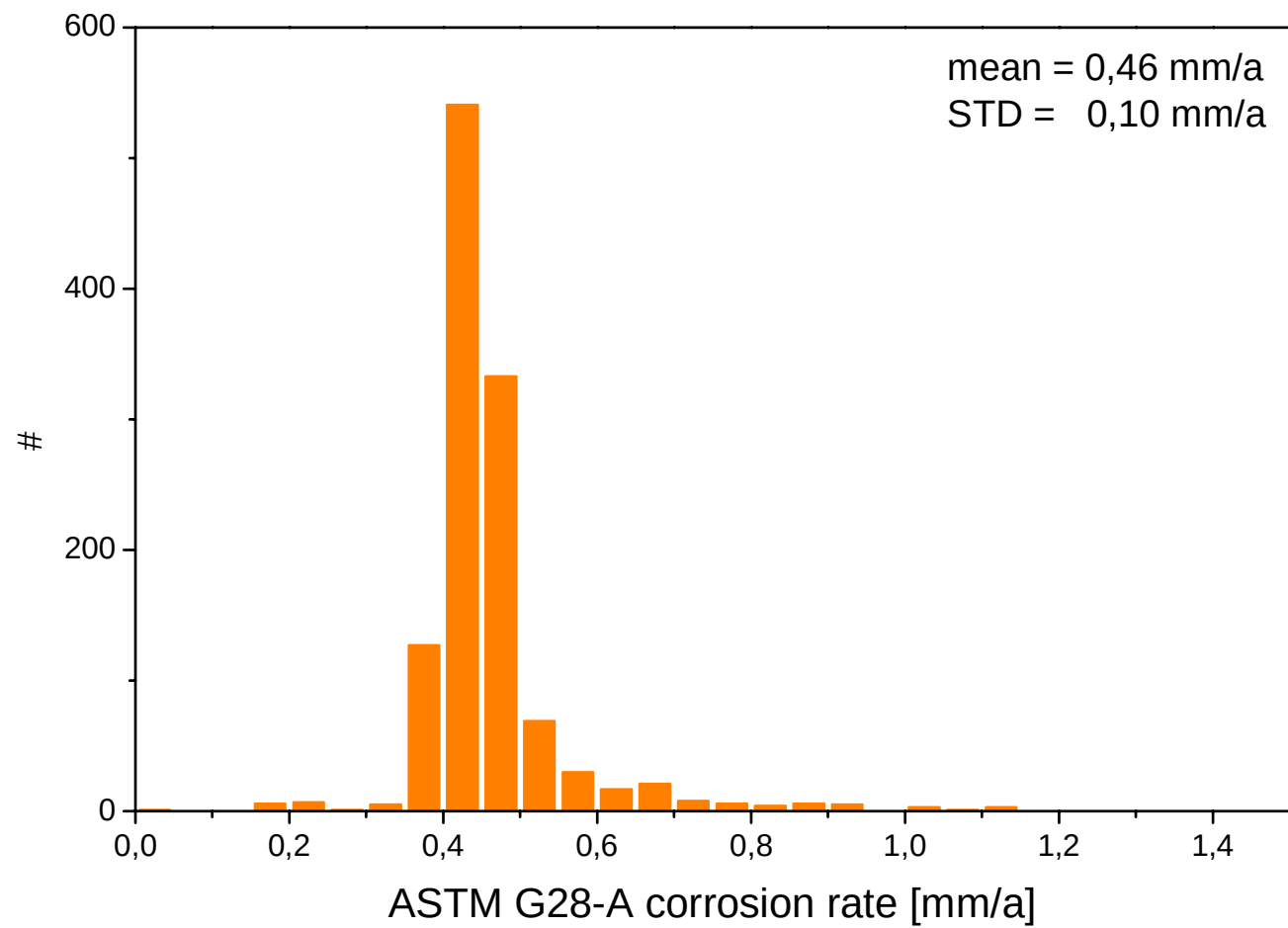


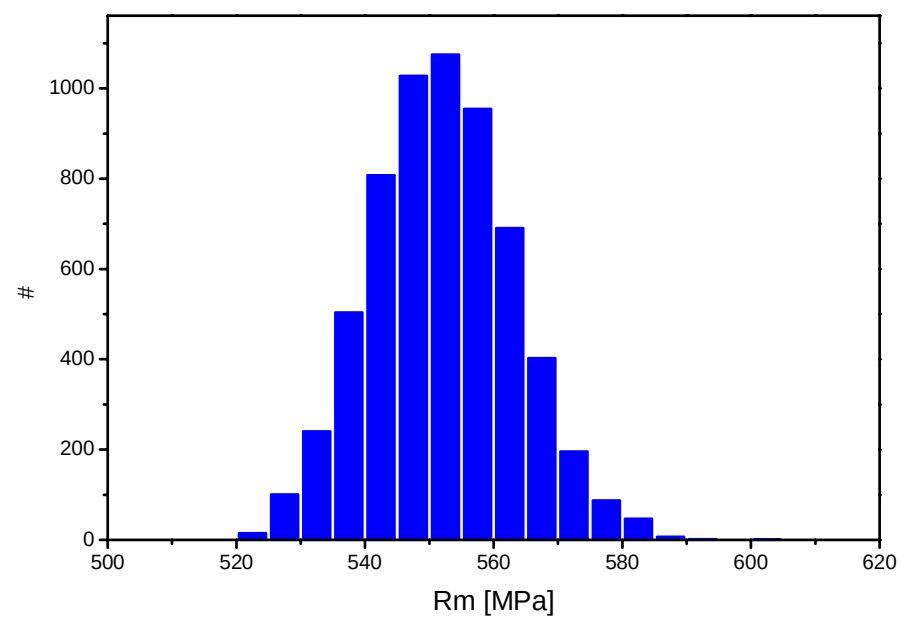
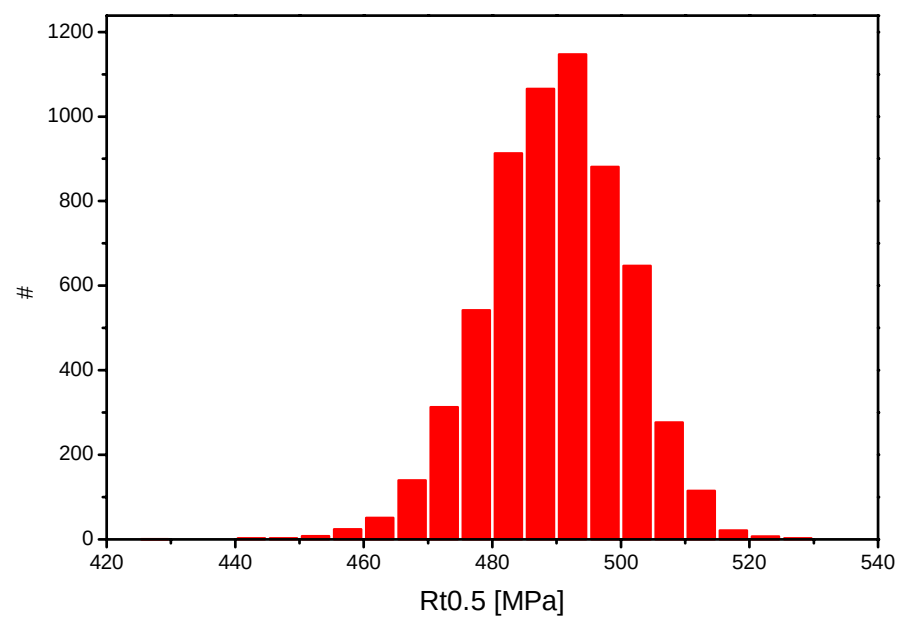


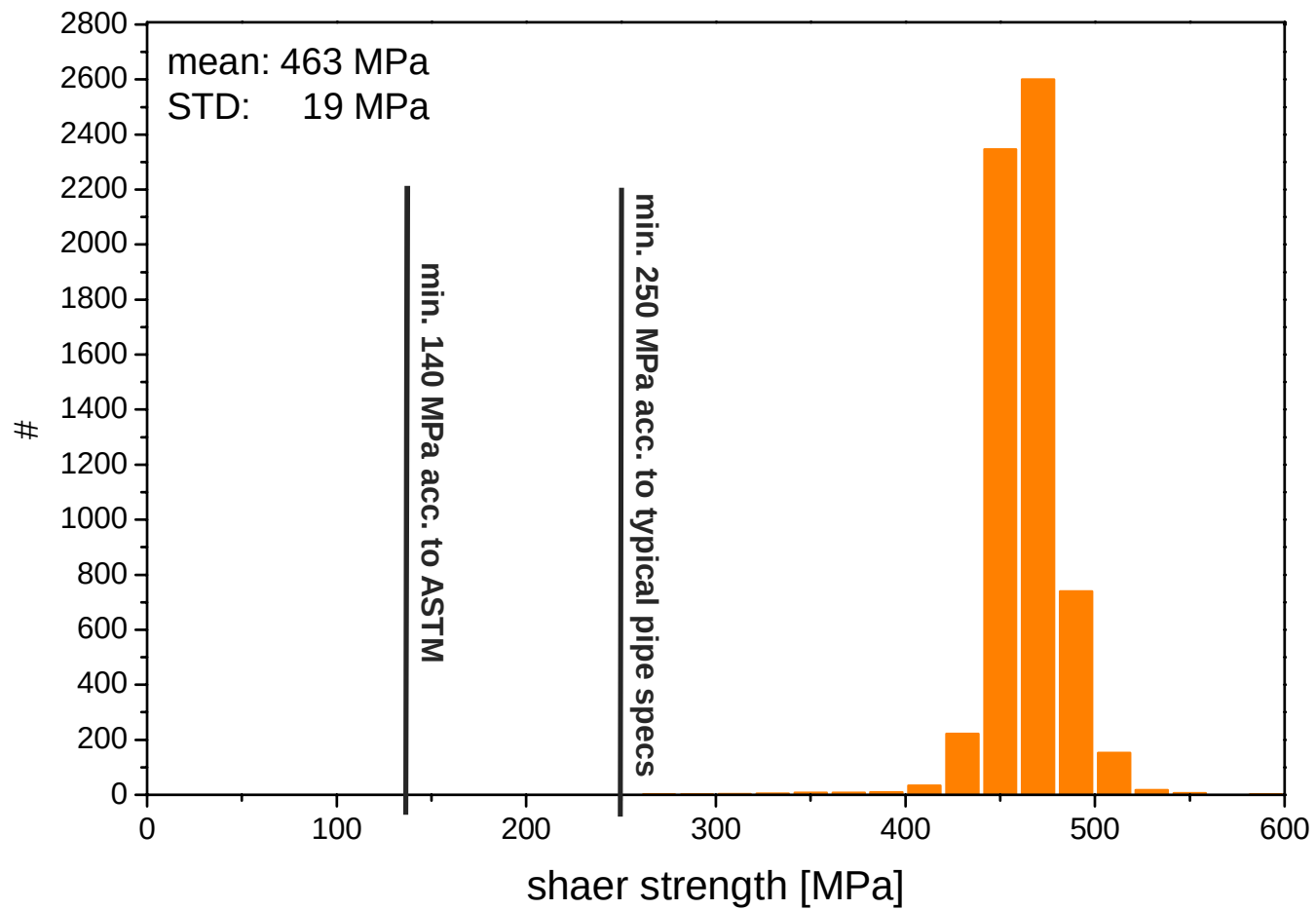












- v > 1000 heats of Alloy 625
- v > 35.000mt of Alloy 625 clad plates
- v > 70km of pipe/plate produced within 8 month
- v **total clad plate capacity of 60.000mt per year**

voestalpine Grobblech

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