

SNELDRAAISTAAL

Beschikbare uitvoeringen

Stafstaal*

Plaat

*) Presented data refer exclusively to long products. Please observe the detailed explanations at the end of the data sheet (pdf).

Product omschrijving

BÖHLER S630 – "Het rendabele"

Wolfram-molybdeen-snelstaal met aluminiumlegering met hoge taaiheid en goede snijdcapaciteit. Universeel toepasbaar voor schroefdraadtappen en spiraalboren, opruimers, brootsgereedschap, metaalzagen, allerlei frezen, houtbewerkingsgereedschappen.

Smeltroute

Airmelted

Eigenschappen

- > Taaiheid & Vervormbaarheid : hoog
- > Slijtageweerstand : hoog
- > Samenpersende sterkte : hoog
- > Randstabiliteit : zeer hoog
- > Slijpbaarheid : goed
- > Hete hardheid (rode hardheid) : hoog

Toepassingen

- > Koudvervorming / munten
- > Walsen
- > Standaardonderdelen (matrijzen, platen, pennen, ponsen)
- > Fijn stanswerk / ponsen / stampen
- > Knippen / machinale messen
- > Spiraalboren en tappen
- > Persen van poeders
- > Speciale snijwerktuigen
- > Slijtstukken

Technische gegevens

Materiaal aanduiding	
1.3330	SEL
HS 4-4-2 Al	EN

Chemische samenstelling

C	Cr	Mo	V	W	Al
0,95	4,00	4,00	2,00	4,00	0,50

Materiaaleigenschappen

	Drukbelastingcapaciteit	Verwerkbaarheid	Hete hardheid	Taaheid	Slijtvastheid	Behoud van snijkant
BÖHLER S630	★★★	★★★	★★★	★★	★★	★★★
BÖHLER S200	★★★	★★	★★★	★★	★★★	★★
BÖHLER S400	★★★	★★★	★★★	★★★	★★	★★
BÖHLER S401	★★	★★★	★★	★★★	★★	★★★
BÖHLER S404	★★	★★★	★★	★★★	★★	★★
BÖHLER S430	★★	★★★	★★	★★★	★★	★★
BÖHLER S500	★★★★	★★★	★★★★	★★	★★★	★★★
BÖHLER S600	★★★	★★★	★★★	★★	★★	★★★
BÖHLER S607	★★★	★★★	★★★	★★	★★★	★★★
BÖHLER S705	★★★	★★★	★★★★	★★	★★	★★★★
BÖHLER S730	★★★	★★★	★★★★	★★	★★	★★★★

Leveringsconditie

gegloeid

Hardheid (HB)	max. 280
Treksterkte (MPa)	max. 950

Warmtebehandeling

Annealing

Temperatuur	770 naar 840 °C	Controlled slow cooling in furnace (10 - 20°C / h / (50 - 68°F 7 h) to approx. 600°C (1110°F), air cooling.
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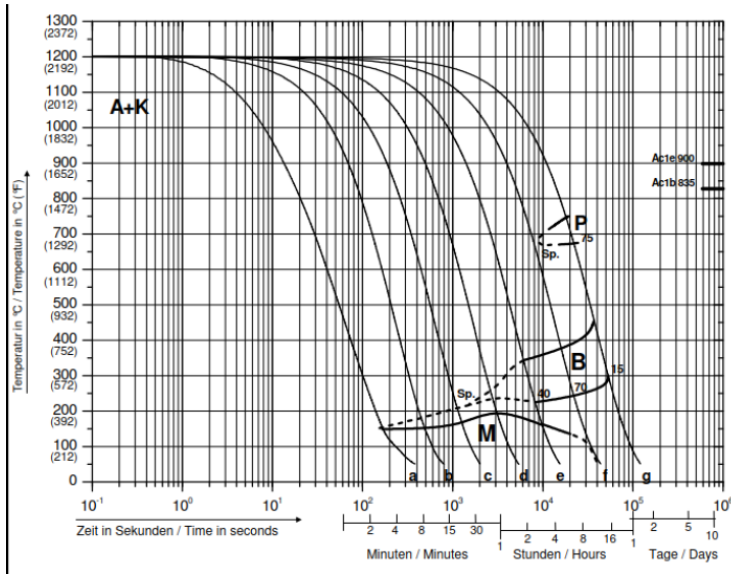
Stress relieving

Temperatuur	600 naar 650 °C	Slow cooling furnace. To relieve stresses set up by extensive machining or in tools of intricate shape. After through heating, hold in neutral atmosphere for 1 to 2 hours.
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Harden en ontlaten

Temperatuur	1.050 naar 1.200 °C	Salt bath, vacuum Preheating: 1st stage ~ 500 °C, 2nd stage ~ 850 °C, 3rd stage ~ 1050 °C (for higher austenitising temperature) Austenitising: for cutting applications at higher austenitising temperatures (> 1130 °C), holding time after complete heating 80 seconds, maximum 150 seconds, to avoid material damage due to overtime. Austenitising: for cold work applications at lower austenitising temperatures (< 1100°C). Holding time after complete heating 15 to 30 min Quenching: oil, warm bath (500 - 550 °C), gas.
Temperatuur	550 naar 570 °C	Slow heating to tempering temperature immediately after austenitising. Dwell time in the furnace 1 hour per 20 mm material thickness (at least 1 hour) Slow cooling to room temperature after each tempering step 3 tempering cycles recommended Hardness see tempering chart

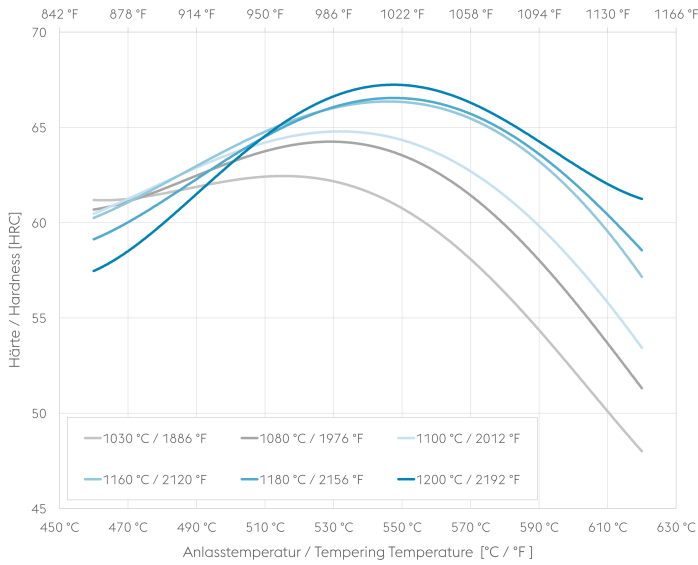
Continuous cooling CCT curves



Austenitising temperature: 1210°C (2210°F)
Holding time: 180 seconds

- A....Austenite
- B....Bainite
- K....Carbide
- P....Pearlite
- M....Martensite
- RA...Retained Austenite

Tempering Chart



Holding time 3 x 2 hours
Specimen size: square 25 mm

Fysische eigenschappen

Temperatuur (°C)	20
Soortelijk gewicht (kg/dm ³)	7,88
Thermische conductiviteit (W/(m.K))	18,8
Soortelijke warmte (kJ/kg K)	0,432
Specifieke elektrische weerstand (Ohm.mm ² /m)	0,56
Elasticiteitsmodus (10 ³ N/mm ²)	217

Long Products: For additional specifications and technical requirements, please contact our regional voestalpine BÖHLER sales companies.

Sheet & Plates: Product Variant may differ in terms of melting process, technical data, delivery, and surface condition as well as available product dimensions. Please contact voestalpine BÖHLER Bleche GmbH & Co KG.

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