

# SNELDRAAISTAAL

## Beschikbare uitvoeringen

Stafstaal

## Product omschrijving

### BÖHLER S607 – "Het slijtvaste"

Deze kwaliteit munt uit door zijn zeer goede slijtvastheid en dat bij een nog goede taaiheid en een slijpbaarheid die nog binnen de perken ligt.

## Smeltroute

Airmeltd

## Eigenschappen

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

## Toepassingen

- > Spiraalboren en tappen

## Technische gegevens

Materiaal aanduiding		Normen	
1.3344	SEL	4957	EN ISO
HS6-5-3	EN		

## Chemische samenstelling

C	Si	Mn	Cr	Mo	V	W
1,21	0,25	0,3	4,1	5	2,9	6,2

## Materiaaleigenschappen

	Drukbelastingcapaciteit	Verdraaibaarheid	Hete hardheid	Taatheid	Slijtvastheid	Behoud van snijkant
<b>BÖHLER S607</b>	★★★	★★★	★★★	★★	★★★	★★★
<b>BÖHLER S200</b>	★★★	★★	★★★	★★	★★★	★★
<b>BÖHLER S400</b>	★★★	★★★	★★★	★★★	★★	★★
<b>BÖHLER S401</b>	★★	★★★	★★	★★★	★★	★★★
<b>BÖHLER S404</b>	★★	★★★	★★	★★★	★★	★★
<b>BÖHLER S430</b>	★★	★★★	★★	★★★	★★	★★
<b>BÖHLER S500</b>	★★★★	★★★	★★★★	★★	★★★	★★★
<b>BÖHLER S600</b>	★★★	★★★	★★★	★★	★★	★★★
<b>BÖHLER S630</b>	★★★	★★★	★★★	★★	★★	★★★
<b>BÖHLER S705</b>	★★★	★★★	★★★★	★★	★★	★★★★
<b>BÖHLER S730</b>	★★★	★★★	★★★★	★★	★★	★★★★

## Leveringsconditie

### gegloeid

Hardheid (HB)	max. 280
Treksterkte (N/mm <sup>2</sup> )	max. 6.551

## Warmtebehandeling

### Annealing

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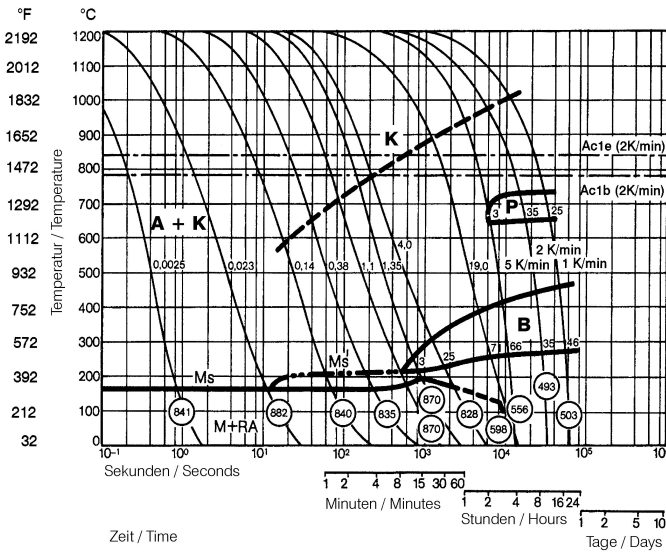
### Stress relieving

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	1.190 naar 1.230 °C	Salt bath, vacuum    Preheating: 1st stage ~ 500 °C, 2nd stage ~ 850 °C, 3rd stage ~1050 °C    Austenitising: 1190 - 1230 °C, holding time after complete heating 80 seconds, maximum 150 seconds, to avoid material damage due to overheating.   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    3 tempering cycles recommended    Hardness see tempering chart

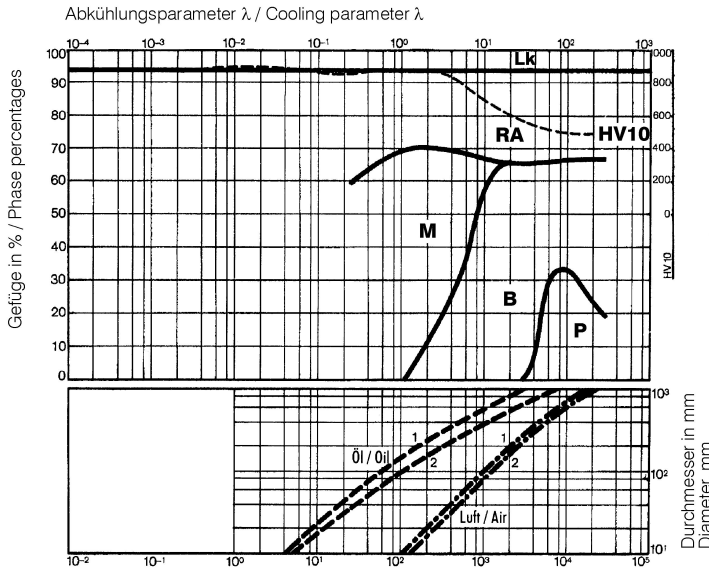
Continuous cooling CCT curves



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

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

Quantitative phase diagram

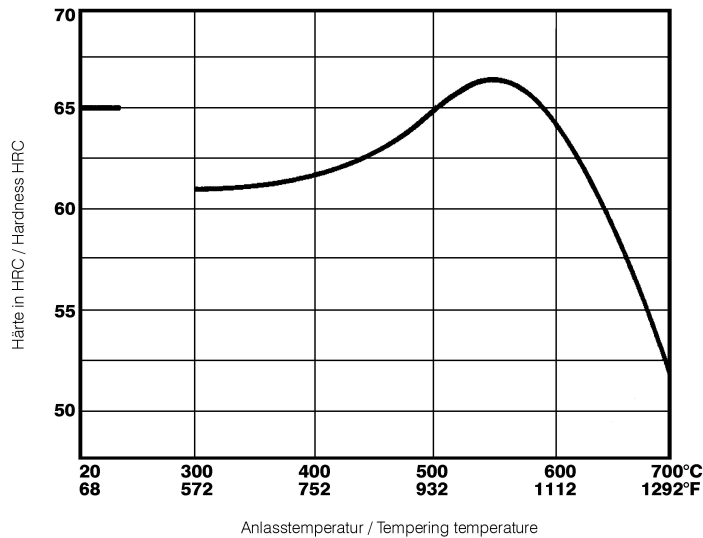


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- 1....Edge or Face
- 2....Core
- 3....Jominy test: distance from quenched end

Kühlzeit von 800°C auf 500°C in Sek. / Cooling time in sec. from 800°C to 500°C (1472 - 932°F)

## Tempering Chart



Hardening temperature: 1220°C (2228°F)

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

## Fysische eigenschappen

Temperatuur (°C)	20
Soortelijk gewicht (kg/dm <sup>3</sup> )	8,1
Thermische conductiviteit (W/(m.K))	19
Soortelijke warmte (kJ/kg K)	0,46
Specifieke elektrische weerstand (Ohm.mm <sup>2</sup> /m)	0,54
Elasticiteitsmodus (10 <sup>3</sup> N/mm <sup>2</sup> )	217

## Thermische expansie

Temperatuur (°C)	100	200	300	400	500	600	700
Thermische expansie (10 <sup>-6</sup> m/(m.K))	11,5	11,7	12,2	12,4	12,7	13	12,9

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

*The data contained in this brochure is merely for general information and therefore shall not be binding on the company. We may be bound only through a contract explicitly stipulating such data as binding. Measurement data are laboratory values and can deviate from practical analyses. The manufacture of our products does not involve the use of substances detrimental to health or to the ozone layer.*

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voestalpine

ONE STEP AHEAD.