

# HOT WORK TOOL STEELS

## Available Product Shapes

Flat Bar

## Product Description

Hot work tool steel featuring excellent hot tensile properties, high hot wear resistance, adequate toughness and heat checking resistance; admits water cooling.

## Properties

High toughness & ductility  
 High wear resistance  
 Very good machinability  
 High hot hardness  
 Very good polishability  
 Good thermal conductivity  
 High micro-cleanliness  
 Excellent homogeneity and isotropy  
 Coatable  
 Can be nitrated

Material designation		Standards	
1.2343	SEL	4957	EN ISO
1.2344		G4404	JIS
T20813	UNS	#207	NADCA
X40CrMoV5-1	EN		
H13	AISI		
SKD61	JIS		
B1885	NADCA		

## Chemical composition

C	Si	Mn	Cr	Mo	V
0.39	0.90	0.40	5.20	1.40	0.95

### Material characteristics

	High temperature strength	High temperature toughness	High temperature wear resistance	Machinability
<b>BÖHLER W302</b> <b>ISOBLOC®</b>	★★★	★★★★	★★★	★★★★★
<b>BÖHLER W300</b> <b>ISODISC®</b>	★★	★★★	★★	★★★★★
<b>BÖHLER W300</b> <b>ISOBLOC®</b>	★★	★★★★	★★	★★★★★
<b>BÖHLER W302</b> <b>ISODISC®</b>	★★★	★★★	★★★	★★★★★
<b>BÖHLER W303</b> <b>ISODISC®</b>	★★★★	★★★	★★★★	★★★★★
<b>BÖHLER W350</b> <b>ISOBLOC®</b>	★★★	★★★★★	★★★	★★★★★
<b>BÖHLER W360</b> <b>ISOBLOC®</b>	★★★★★	★★★★	★★★★★	★★★★★
<b>BÖHLER W400</b> <b>VMR®</b>	★★	★★★★★	★★	★★★★
<b>BÖHLER W403</b> <b>VMR®</b>	★★★★	★★★★	★★★★	★★★★

### Physical Properties at 20°C / 68°F

#### Thermal Expansions

Temperature (°C / °F)	100 / 212	200 / 392	300 / 572	400 / 752	500 / 932	600 / 1112
Thermal expansion (10 <sup>-6</sup> m/(m.K) / 10 <sup>-6</sup> inch/(inch.F))	10.75 / 5.972	11 / 6.111	12.11 / 6.728	12.68 / 7.044	14.17 / 7.872	14.34 / 7.967

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

voestalpine BÖHLER Edelstahl GmbH & Co KG

Mariazeller Straße 25

8605 Kapfenberg, AT

T. +43/50304/20-0

E. [info@boehler-edelstahl.at](mailto:info@boehler-edelstahl.at)

[www.voestalpine.com/boehler-edelstahl](http://www.voestalpine.com/boehler-edelstahl)



ONE STEP AHEAD.