

HOT WORK TOOL STEELS

Available Product Shapes

Open Die Forgings

Product Description

A balanced alloy composition ensuring high toughness even in large tools and an improved thermal stability opts for an optimal hardness/strength-toughness/ductility ratio (elongation after fracture and percentage reduction of area after fracture) tailor-fit to every application.

Properties

- Very high toughness & ductility
- High wear resistance
- Very good machinability
- High hot hardness
- Very good polishability
- Very high thermal conductivity
- High micro-cleanliness
- High resistance to fire cracking
- Excellent homogeneity and isotropy
- Coatable
- Lowest levels of unwanted trace elements
- Can be nitrated
- Very high thermal stability

Material designation		Standards	
E1850	NADCA		Patent
		#207	NADCA

Chemical composition

C	Si	Mn	Cr	Mo	V	N
0.38	0.20	0.55	5.00	1.80	0.55	def.

Material characteristics

	High temperature strength	High temperature toughness	High temperature wear resistance	Machinability
BÖHLER W350 ISOBLOC®	★★★	★★★★★	★★★	★★★★★
BÖHLER W300 ISOBLOC®	★★	★★★★	★★	★★★★★
BÖHLER W300 ISODISC®	★★	★★★	★★	★★★★★
BÖHLER W302 ISOBLOC®	★★★	★★★★	★★★	★★★★★
BÖHLER W302 ISODISC®	★★★	★★★	★★★	★★★★★
BÖHLER W303 ISODISC®	★★★★★	★★★	★★★★★	★★★★★
BÖHLER W320 ISODISC®	★★★	★★	★★★	★★★★★
BÖHLER W360 ISOBLOC®	★★★★★	★★★★	★★★★★	★★★★★
BÖHLER W400 VMR®	★★	★★★★★	★★	★★★★
BÖHLER W403 VMR®	★★★★★	★★★★	★★★★	★★★★

Physical Properties at 20°C / 68°F

Thermal Expansions

Temperature (°C / °F)	100 / 212	200 / 392	300 / 572	400 / 752	500 / 932	600 / 1112	700 / 1292
Thermal expansion (10 ⁻⁶ m/(m.K) / 10 ⁻⁶ inch/(inch.F))	11.14 / 6.189	11.94 / 6.633	12.42 / 6.9	12.85 / 7.139	13.21 / 7.339	13.51 / 7.506	13.58 / 7.544

For more information see 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

www.voestalpine.com/boehler-edelstahl



ONE STEP AHEAD.