

# Roll Grade Descriptions

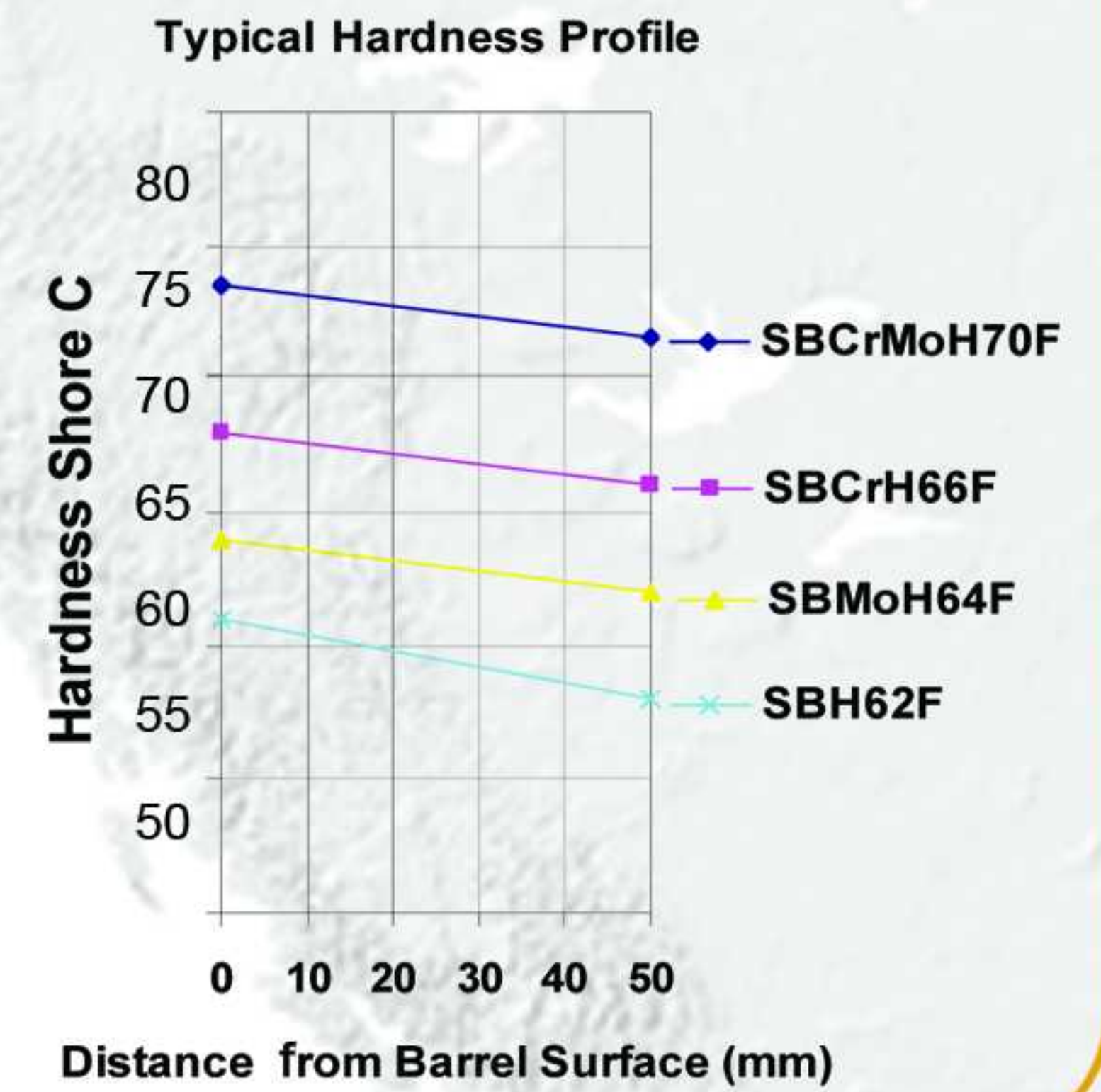
## SBHF

### Forged Steel Back Up Rolls

The grades have 3% and 5% chromium together with molybdenum and vanadium, differentially hardened to achieve bainitic to martensitic shell with spheroidized pearlitic core.

Chodan Sazan produces forged steel back up rolls for hot and cold strip mills. These rolls are used in continuous, semi continuous and Steckel hot strip mills, also tandem cold strip mill and temper mills.

The barrel hardness is constant along the working life



SB H 62F- Tempered martensite(x200)

Mechanical Properties		
Mechanical Properties	Barrel	Neck
U.T.S (N/mm <sup>2</sup> )	1300-1800	700-1300
Yield Strength (N/mm <sup>2</sup> )	1200-1500	630-1050
Bending strength (N/mm <sup>2</sup> )	2500-3000	1000-1500
Elongation	6-12	12-22

### Chemical Composition and Mechanical Properties of Forged Steel Back Up Rolls

Roll Grade	Barrels Hardness (shc)	C (%)	Si (%)	Mn (%)	Cr (%)	Mo (%)	V (%)
SBH62F	62	0.52-0.62	0.2-0.5	0.3-0.7	3.0-3.3	0.3-0.6	0.1-0.3
SBH64F	64	0.52-0.62	0.2-0.5	0.3-0.7	3.0-3.3	0.3-0.6	0.1-0.3
SBMoH64F	64	0.55-0.65	0.2-0.5	0.3-0.7	3.0-3.3	0.6-1.0	0.1-0.3
SBMoH66F	66	0.55-0.65	0.2-0.5	0.3-0.7	3.0-3.3	0.6-1.0	0.1-0.3
SBCrH66F	66	0.45-0.55	0.2-0.5	0.3-0.7	5.0-5.3	0.3-0.6	0.1-0.3
SBCrH68F	68	0.45-0.55	0.2-0.5	0.3-0.7	5.0-5.3	0.3-0.6	0.1-0.3
SBCrMoH70F	70	0.5-0.6	0.2-0.5	0.3-0.7	5.0-5.3	0.6-1.0	0.1-0.3
SBCrMoH72F	72	0.5-0.6	0.2-0.5	0.3-0.7	5.0-5.3	0.6-1.0	0.1-0.3

Note: Other roll grades, not specified in the table can be produced on request. Core for compound rolls can be produced on request with Grey, Compact or Nodular cast iron.

