

Cast Steel Roll Specifications

GRADE: Superten Alloy Cast Steel

Union Electric Åkers
Forged and Cast Rolls



DESCRIPTION

Superten is a high carbon, high alloy steel which is given a special multi-stage heat treatment in order to develop the combination of hardness, toughness and wear resistance required for any particular application.

The structure produced consists of well broken up and dispersed carbides in a matrix of bainite and pearlite. The high hardenability means that Superten rolls show no significant reduction in hardness with depth, even in larger diameter rolls.

The high carbide content and tough, hard matrix make Superten rolls particularly suitable for section rolling.

Abrasive wear is significantly reduced and surface finish remains very good for the duration of each mounting.

Experience in many mills has shown that Superten rolls give substantially higher outputs than conventional rolls.

They also have excellent resistance to thermal fatigue and thus are very suitable as roughing rolls for strip and plate.

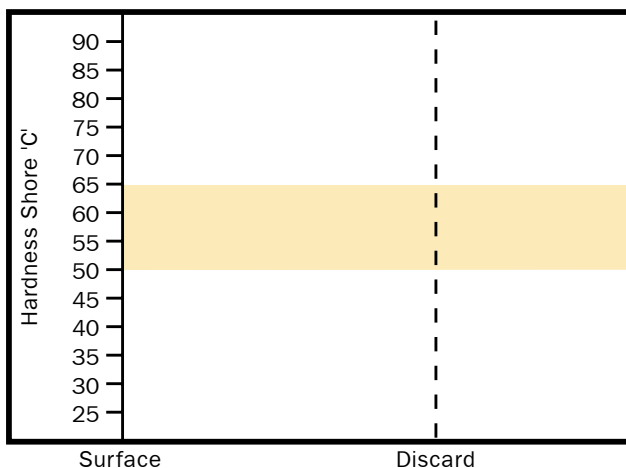
APPLICATIONS

Product	Type of Mill	Position
Medium Section	2 and 3 High	Intermediary and Finishing
Heavy Section	2 and 3 High	Finishing
Plate and Strip	2 and 4 High	Roughing
Beam	Universal	Horizontal
Med & Small Section	Cogging	

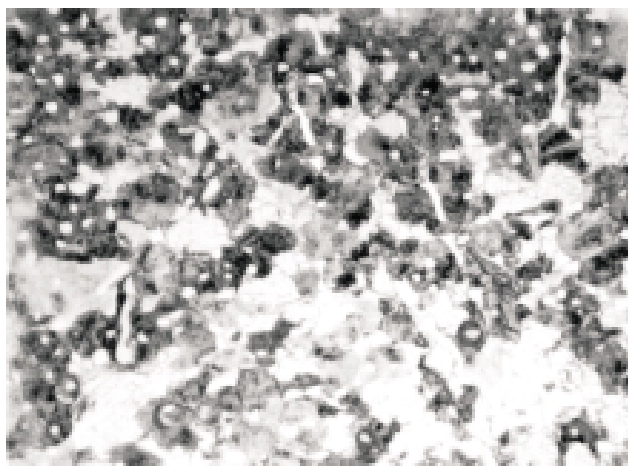
TYPICAL MECH. PROPERTIES

Property	N/mm ²
Tensile Strength	600
Bending Strength	850

DEPTH OF HARDNESS



MICROSTRUCTURE X500



AIM CHEMISTRY (WT%)

Code	Leeb E	Shore C	C	Si	Mn	Ni	Cr	Mo
ST15G	590/680	50/65	1.0/2.0	0.3/0.8	1.0/2.0	1.0/2.0	1.0/2.0	0.3/0.8