Hitachi Metals America, Ltd.

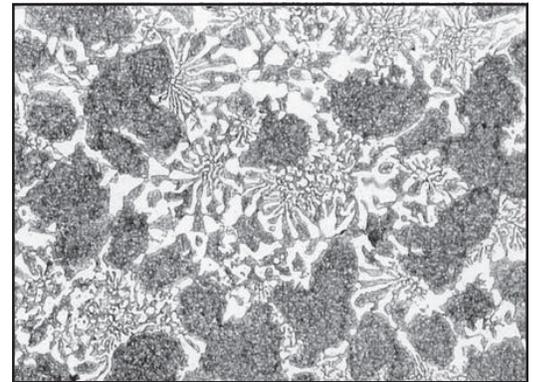# Chromium Iron Rolls

Hitachi Roll Material

Adamite Steel
Cr Iron
Cr Steel
Definite Chilled Iron
High Speed Steel
Indefinite Chilled Iron
Nodular Iron
Special Cast Steel

2HC Metal Structure

High chromium iron rolls are composite rolls manufactured by centrifugal or spin casting technique. Since chromium carbide is higher in hardness than ferrous carbide, these rolls exhibit high hardness and wear resistance, contributing to their excellent performance. Due to the uniform hardness exhibited throughout their use, these rolls can be used in early finishing stands in strip mills.
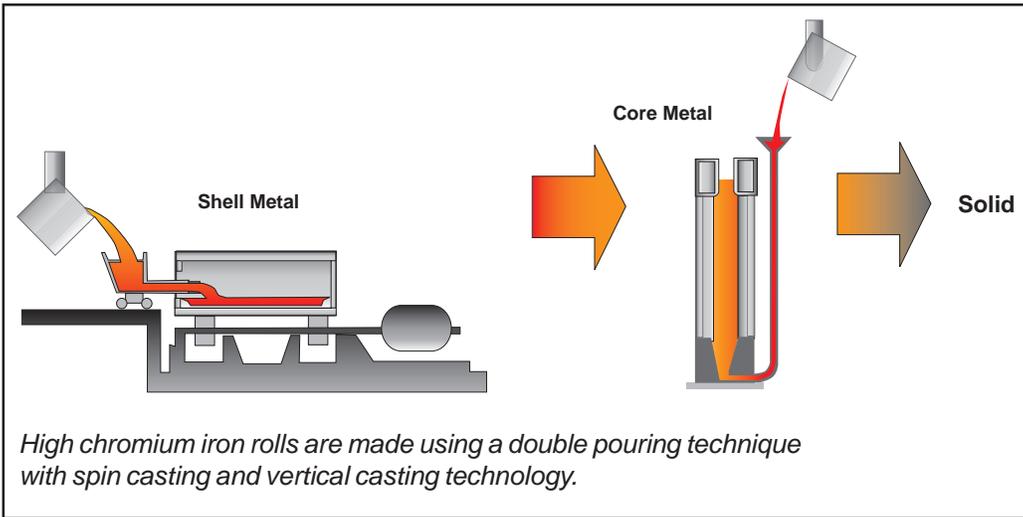
High chromium iron rolls are spin cast. The high spinning speed creates a centrifugal force to push the molten metal to fill the mold. Vertical casting technology provides excellent bonding between dissimilar shell and core metals. These double poured rolls have high wear resistance properties.

Applications for these rolls include all early finishing stands in both hot and cold strip mills, initial finishing stands of plate mills and skin pass mills, and plate finishing stands.

Cr Iron Rolls	2HC
Hardness (HSC)	65-75
Composition (% wt)	
Carbon (C)	2.3-3.0
Silica (Si)	0.4-1.0
Manganese (Mn)	0.4-1.5
Nickel (Ni)	0.5-1.5
Chromium (Cr)	14.0-20.0
Molybdenum (Mo)	0.5-3.0

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ISO 9001, ISO 14000 Certified

Shell Metal

Core Metal

Solid

High chromium iron rolls are made using a double pouring technique with spin casting and vertical casting technology.

Since 1915, Hitachi Metals, Ltd. has been a leading roll manufacturer. Through constant study and research, Hitachi has kept abreast of the demands and advances of the industry. Today, Hitachi is a full-line roll manufacturer, second to none in the world. With its innovative roll manufacturing techniques, Hitachi supplies all types of mill rolls to industries in all parts of the world, meeting the special demands of each industry.

This information does not constitute a warranty or guarantee.

Materials Mag!c
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