

Hitachi Cast Roll Manufacturing Process

Hitachi Roll Material

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

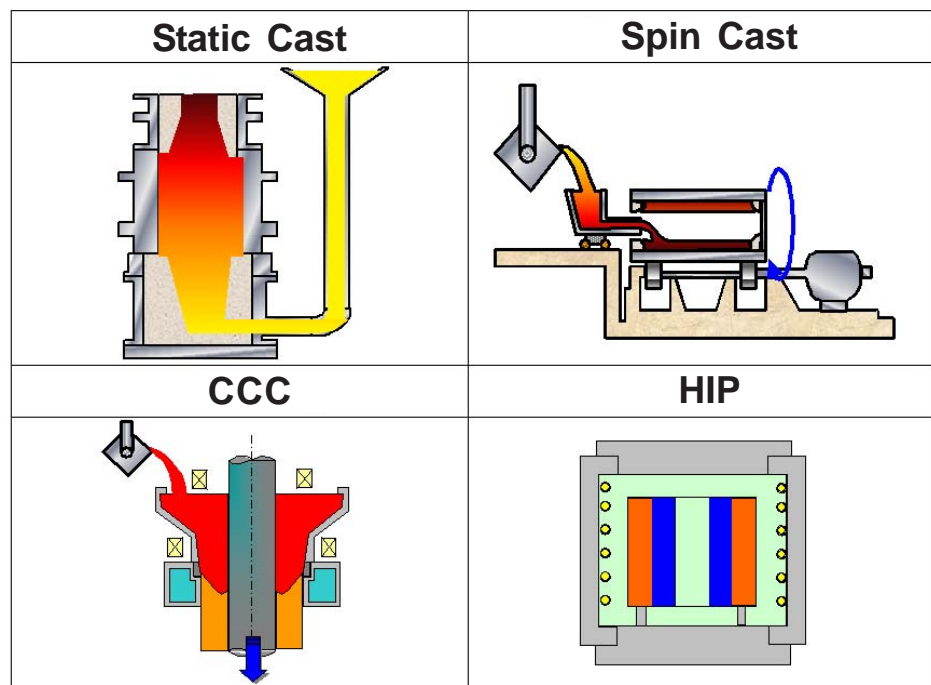
Hitachi's highly efficient and wear resistant rolls are manufactured using various casting methods. In conventional casting, rolls are formed into a particular shape by pouring molten metal into a mold and allowing it to solidify. Hitachi uses static (conventional) casting, spin casting, continuous casting for cladding (CCC), and hot isostatic pressing (HIP). The casting method is determined by the use of the roll and the amount of alloys present in the metal. A high alloy content increases the rolling performance.

Static Cast: Used for mono structure rolls: low cost manufacturing method.

Spin Cast: Used for mono and complex structure rolls; higher alloy than static cast, lower cost than CCC and HIP.

CCC: Used for complex structure and steel core rolls; higher alloy than spin cast, lower cost than HIP.

HIP: Used for mono and complex structure rolls; highest alloy.



Hitachi Rolls and Casting Methods



Material	Roll	Static Cast	Spin Cast	CCC	HIP
Adamite Steel	2SY				
	2SL				
	2SA				
	2SB				
	2SC				
	2SX				
	2SS				
	CDP-1				
	CDP-2				
Cr Iron	2HC				
Cr Steel	1HC				
Definite Chilled Iron	6A				
	6B				
	6C				
High Speed Steel	RZ				
	SZ				
	MZ				
	WZ				
	HP				
Indefinite Chilled Iron	7X				
	7A				
	7B				
	7C				
Nodular Iron	8SM				
	8X				
	8A				
	8AM				
	AC				
Special Cast Steel	CPL				
	CP1				
	CP2				
	CP3				
	CP4				

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.

Hitachi Metals America, Ltd.
 Materials Trading Division
 222 North Park Drive, Suite 2
 West Hills Industrial Park
 Kittanning, PA 16201-8883
 Toll Free: 1.877.787.3120
 Phone: 724.545.3161
 Fax: 724.545.3164
www.hitachimetals.com

