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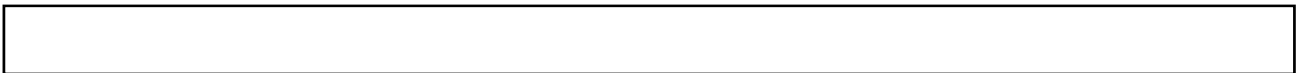
Crown Control of Hot-Rolled Stainless Steel Coils

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Synopsis :

User's demand for the decrease in the traverse gauge deviation of hot-rolled strip is becoming more serious year after year, especially for the stainless or other special steel. To satisfy this demand, K-WRS (Kawasaki Steel-Work Roll Shifting) mill, which controls the strip crown by shifting a tapered work roll, was applied to Chiba No.1 hot strip mill in June 1983. and HC mill (High crown control mill, 6-high), equipped with the IMR shifting device and work roll bender, was installed in Mizushima hot strip mill in September 1983. As a result, the capability of controlling the strip-crown has been improved to produce the stainless steel hot coil, with a smaller strip crown and square cross section by applying the respective control methods used in K-WRS and HC mills.

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Crown Control of Hot-Rolled Stainless Steel Coils*



Synopsis:

User's demand for the decrease in the traverse gauge deviation of hot-rolled strip is becoming more serious year

the K-WRS mill and HC mill and the results of rolling of stainless steel strips on these mills.

2 Crown of Hot-Rolled Steel Strips

When reduction is applied to material, the rolling reaction force from the material causes roll bending, and flattening of the roll surface. Especially in materials with

Conventional

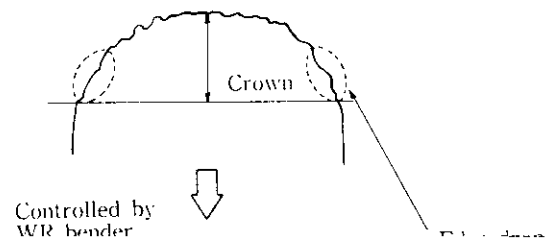
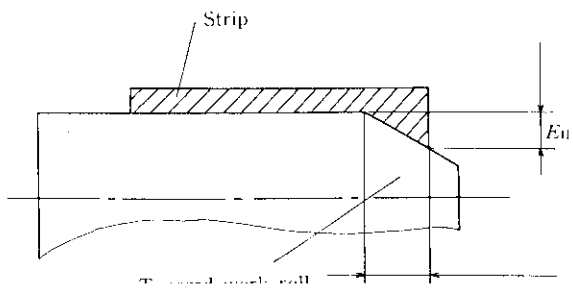


Table 1 Specifications of K-WRS mill and HC mill

Mill	Item	Specification
Chiba No. 1 hot strip mill (K-WRS)	Roll size	WR : 597~ 700 ϕ \times 1 700 L mm BUR: 1 118~1 255 ϕ \times 1 372 L mm
	Work roll shift	Stroke: \pm 275 mm max Force : 100 tf max
	WR bend-	



[REDACTED]

[REDACTED]

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ing, so the usable range of E_L values is limited.

Therefore, the composition of the rolling campaign and the setting of E_L -values should be carried so as to

trapezoid-camber rolls; the average Cr_{25} throughout such a campaign has been about $100 \mu\text{m}$. With the TA method, however, it has become possible to control Cr_{25}

method was adopted. C_{20} decreased to less than about 1. However, the flatness between stands and on the exit

side of the furnace changes with changes in crown ratio

5.2.4 Strip crown and profile

By applying the various techniques mentioned

Table 3 Crown control capability-comparison of Cr_{25} -
in HC mill (μm)

Materials	SUS 304	SUS 304
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