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Full Continuation of Descaling and Cold Rolling Mill

Tomio Komatsu, Namio Suganuma, Takaharu Eto, Tadashi Naito, Katsuhiko Doi, Kazuhiro Hirohata

Synopsis :
The existing conventional pickling line (No.2 CPL) and the batch type cold tandem mill (No.1 TM) at Mizushima Works were modified into a fully continuous descaling and cold rolling mill in June 1985. On the other hand, we have been operating new KM-CAL since February 1984. As a result, we can produce cold rolled strip using only two processes, that is, the fully continuous descaling and cold rolling mill and KM-CAL. This paper reports new technology necessary for combining a pickling line with a cold tandem mill for a continuous operation; high efficient descal

Full Continuation of Descaling and Cold Rolling Mill*

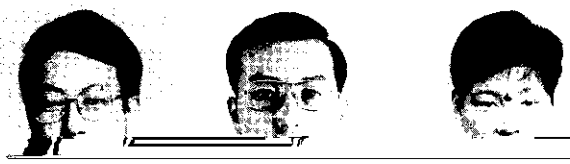

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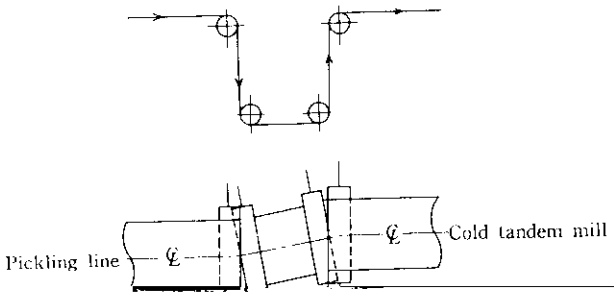
Table 1 Main specifications

Entry section		Descaling section		Trimmer section		Mill section	
Line speed	620 m/min	Line speed	320 m/min	Line speed	380 m/min	Mill speed	1 930 m/min
Loop car capacity	480 m	Loop car capacity	200 m	Loop car capacity	350 m	Cutting speed	400 m/min max
[illegible]	[illegible]	Descaling	(1) Tension leveler	Trimmer	Turret trimmer	#1	4 Hi with WR shift

Table 2 Specifications of descaling equipment

Tension leveler	1. Elongation ratio	4% max
	2. Stretching work roll	80 mmϕ × 2
	Leveling work roll	80 mmϕ × 1
	3. Motor power	
	Main motor	1 000 kW
	Stretching motor	110 kW

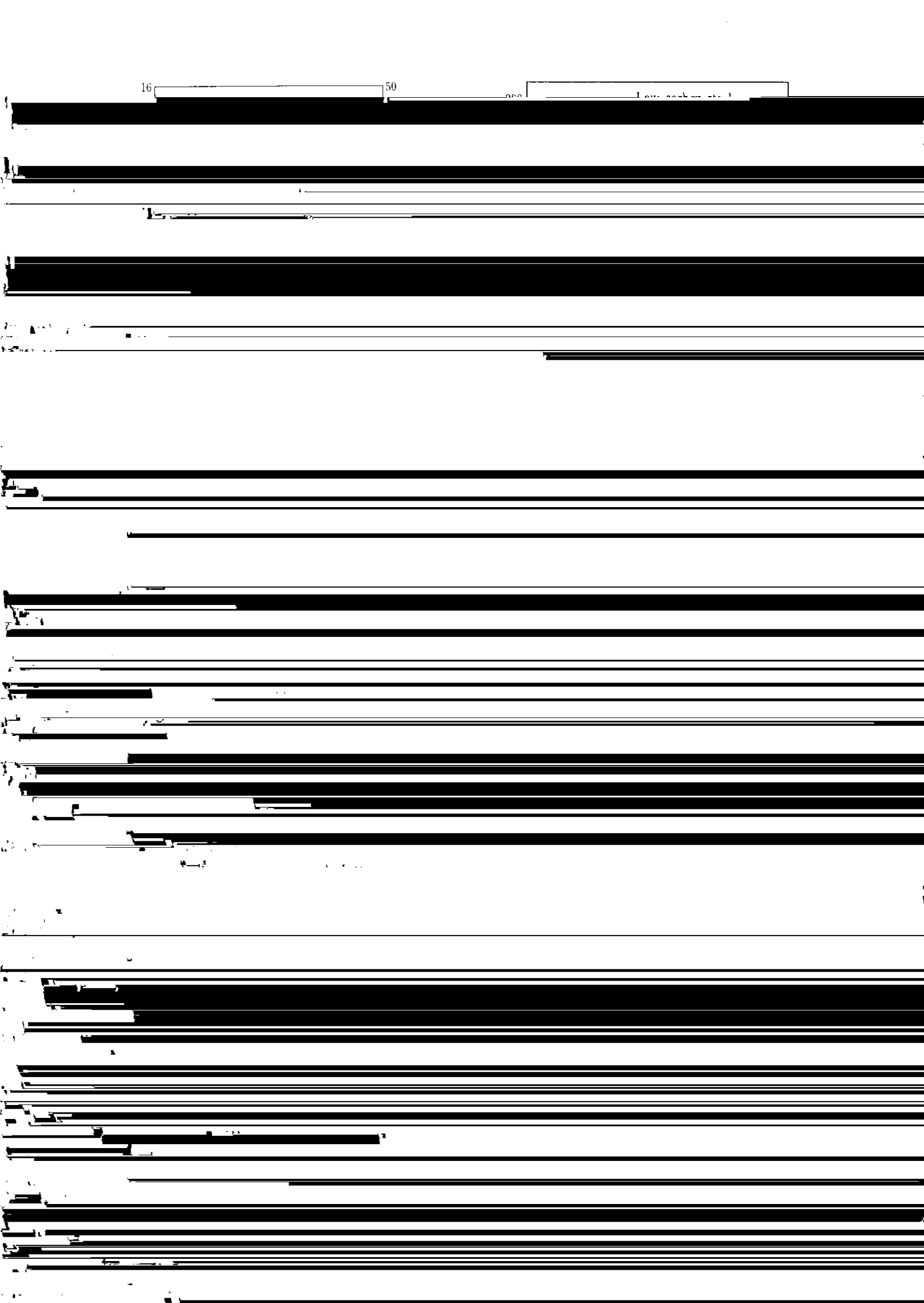


Automatic Descaling Controller–H08L) has been intro-

At the exit side of the rolling mill, a drum shear and carrousel tension reel were installed; therefore, shearing and coiling during flying were made possible. Coil

descaler, and hydrochloric acid tanks.

In the DDC system, three H08L's are installed for AGC and ASC, seven MICREX's at the pickling line,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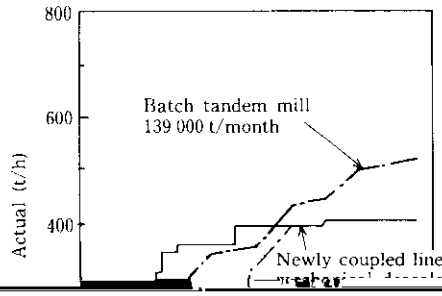


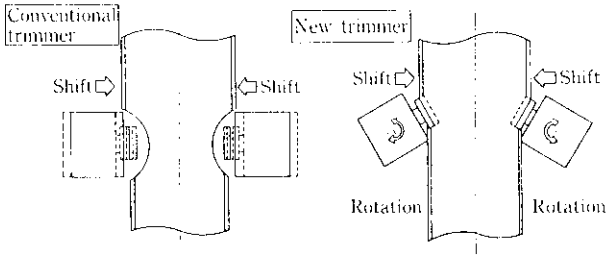
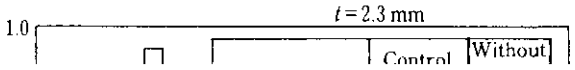


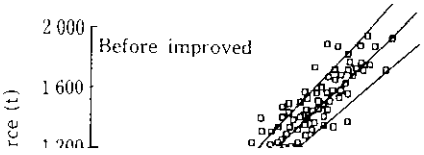
Fig. 10 Comparison of width change methods be

If the following notations,

$L(t)$: strip moving distance

$T(L)$: [illegible]





necessary to meet the demands of the times. The improvements made in the course of this project includes the developments of high speed descaling and of flying width and gauge change techniques. This line has been