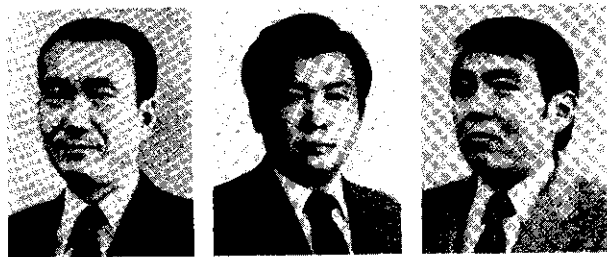




## New Finishing Plant for Cold Rolled

### Stainless Steel Sheets\*



**Synopsis:**

*A new finishing plant for stainless steel sheets was built in Hanshin Works and went into operation on May 1983. In order to improve material flow, various facilities which had been distributed over the entire cold strip shop were integrated in the new plant, which has many features in mechanisms and systems.*

## 2 General Layout

The layout of the new stainless steel finishing plant is shown in Fig. 1. The material flow of the new finishing

Paper pay  
off reel



Leveller



Side trimmer

Pinch roll



Pay off reel

Film laminator

Belt tension unit

No.1 pinch roll

Slitter

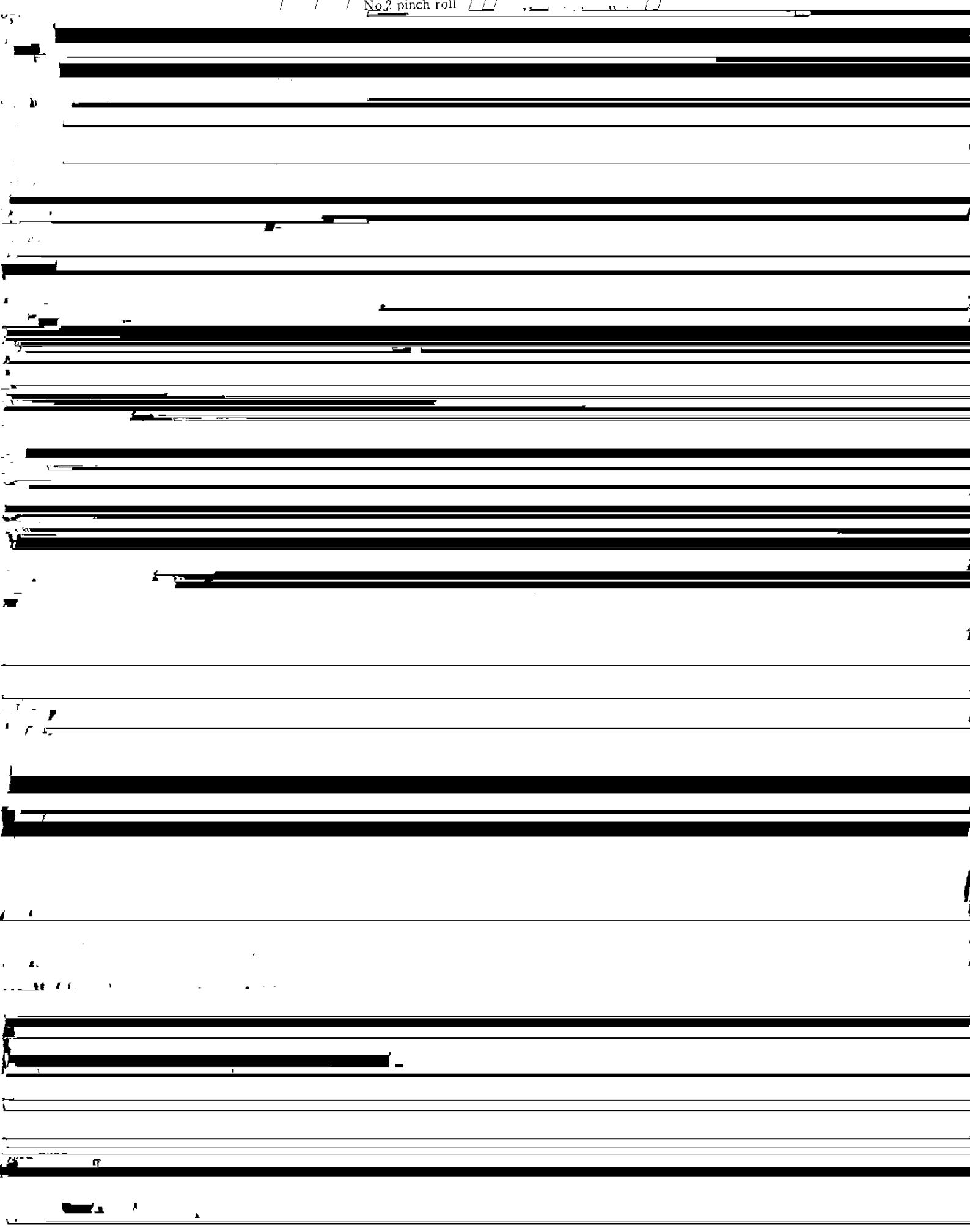
End shear

End shear

No.3 pinch roll

Deflect roll

No.2 pinch roll



Therefore, some of the prescribed boxes may either be

Table 3. Main specifications of soil shipping line

fully packed with accepted sheets, or otherwise not



(5) Automated Line Operation

This coil shearing line has been designed on the concept of "all that an operator has to do is just pressing the start switch." Threading of the residual width and splicing of the vinyl film at the laminator have already been explained. Beside the above, the following items have also been fully automated:

- (a) Coil setting and widthwise quick position control
- (b) Paying-off of coil top and end scraps and classifying coils according to types of steels.
- (c) Threading operation from payoff reel to shearing line
- (d) Width determination by side guide
- (e) Random sampling of sheets for inspection purposes
- (f) Polishing and cleaning of working roll of roller leveller
- (g) Setting-up of the box, pallet board for packing, and pallet to the piler
- (h) Marking
- (i) Feeding of insert paper
- (j) Weighing of piled sheets and residual strip after

Table 5 Main specifications of carriage conveyor

Item	Unit	Specification
Carrying out conveyor and conveyor for reinspecting table	7	Bushed roller chain conveyor type Width: 835 mm No. of chain lines: 4 Chain pitch: 200 mm
Conveyor for packing zone	5	Slat chain conveyor type Width: 2 400 mm No. of chain lines: 4 Chain pitch: 150 mm
Sheet packing conveyor	4	Slat chain conveyor type Width: 1 150 mm No. of chain lines: 4 Chain pitch: 150 mm

- (2) Sheets should be transported without binding, and yet no loosening of load will occur.<sup>6)</sup>
- (3) Estimation of appropriate value of the buffer amount which absorbs the imbalance in the capacities of two lines which are directly coupled

Item	Specification
Capacity	238 pallets
Package length	100-3 190 mm
Package width	120-3 200

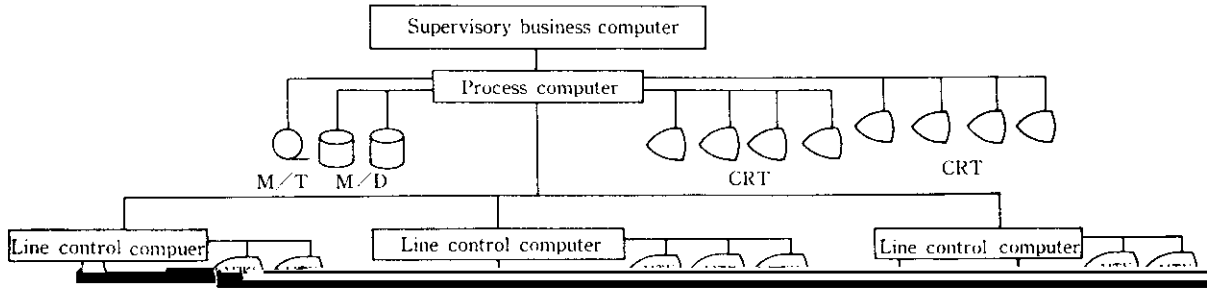
tion is inputted by a voice input system, etc. When inspection is over, the boxes are automatically weighed and transported to the automated warehouse.

### 3.2.6 Stretching-shearing line



Table 8 Main features of some facilities in stretching-shearing line

Film coil  
Cutter  
Photo detector



trollers

Computer

Main function

winding method of residual strip  
(3) Vacuum piler using rotary valves

- 1) *Nippon Kokan Technical Report*, 86(1980), 337-340
- 2) Japan Development Consultant Inc.: Jpn. Kokai 57-33143