

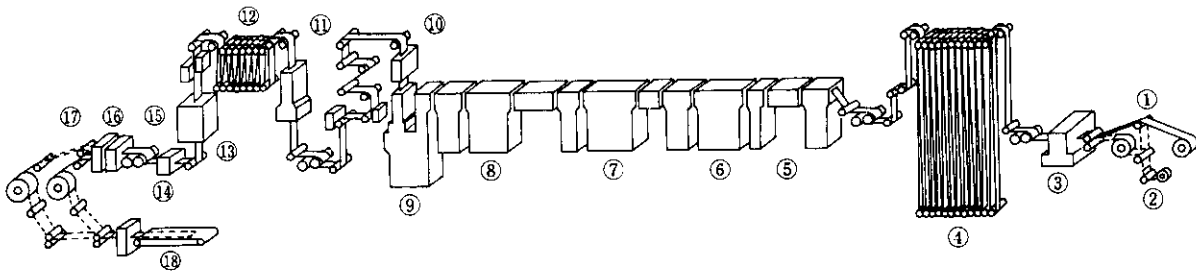
An Outline of New Continuous Tin-Free Steel Line and Shearing Line*

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*The continuous tin-free steel line (TFL) and the shearing line were introduced in June 1983
at the Oshika Works of Kawasaki Steel and are now in smooth operation.*



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|----------------------------|---------------------------|-------------------|
| ① No.1 and 2 pay-off reels | ⑦ Plating tank | ⑬ Inspection room |
| ⑨ Paint reel | ⑧ Chemical treatment tank | ⑭ Gauge stand |

- | | | |
|-----------------|------------|----------------------------|
| ④ No.1 looper | ⑩ Dryer | ⑮ Sheet sampling equipment |
| ⑤ Cleaning tank | ⑪ Oiler | ⑰ No.1 and 2 tension reels |
| | ⑫ M. A. L. | ⑱ Surface inspection table |

Fig. 1. Schematic diagram of TR1

FACOM M-200

Table 1 Specifications of TFL and shearing line

On-line production control

Item

TFL

Shearing line



Chemical treatment

Reverse
electrolysis

Plating

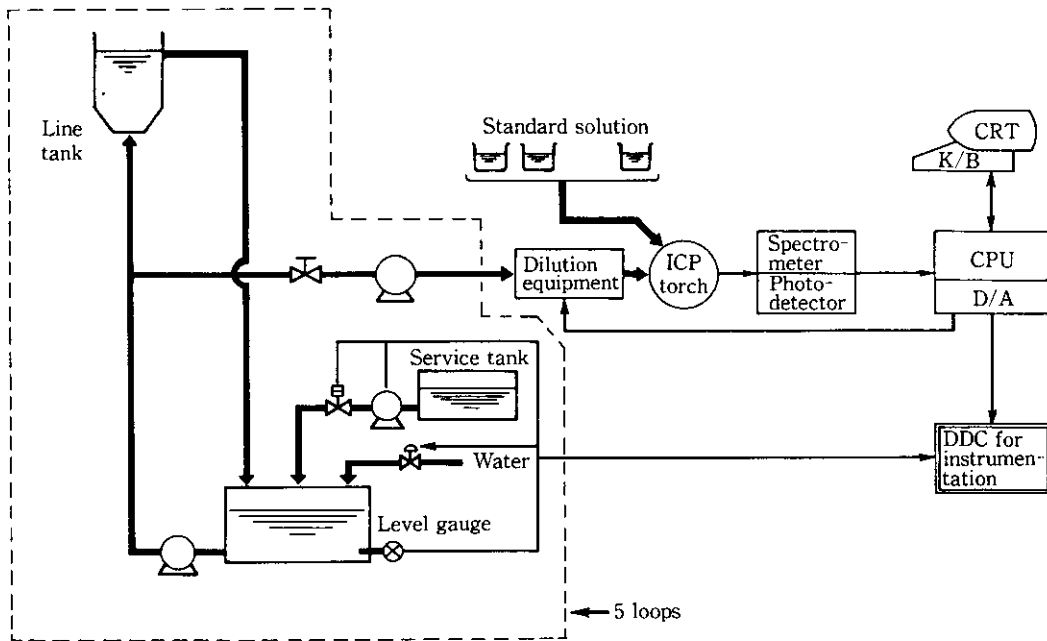


Fig. 5 Automatic concentration control system

DDC. The successful development of this system has

3.1.4 Automatic specimen sampling

permitted a stable manufacture of high quality products.

3.1.3 Overall quality control system

Since chromium coated steel is frequently used for

Formerly, specimens for testing the product quality have been taken by cutting out a piece from the outer layer of a wound coil by uncoiling it manually, which has posed some safety problems. In the TFL, a snip

matized. With the entry and exit section operations, mentioned above, mechanized for automation, and moreover, with automatized setting of electroplating conditions using process computer, a full automated

instruments, because the loop tended to cause strip vibration.

In the present shearing line, the NC shear is adopted and the strip is fed into the shear through a pinch roll.

skid at entry section comes out at exit section as finished product in full-automatic operation. The details of automation of entry and exit section operations are shown

ing tension between the bridle roll and the pay-off reel, the loop from the entry side of the shear is eliminated⁴⁾. This comes to prevent the strip from vibrating when

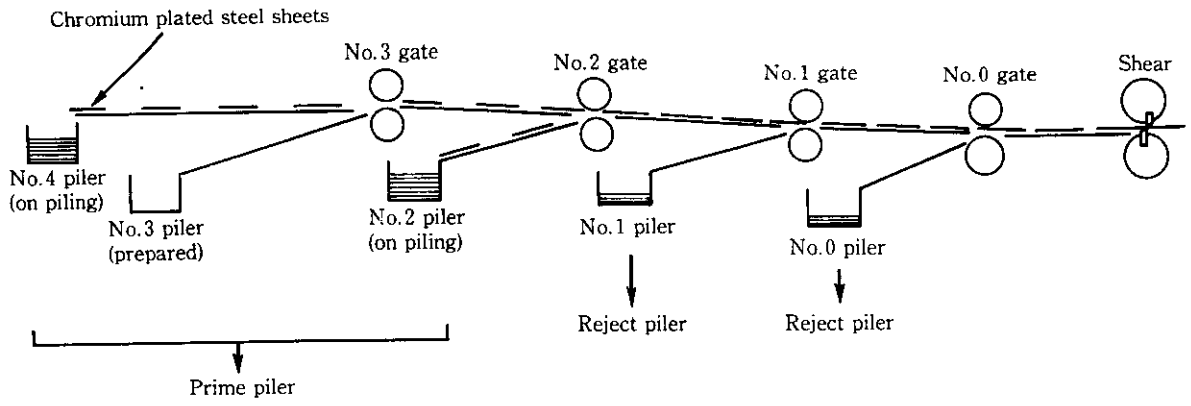
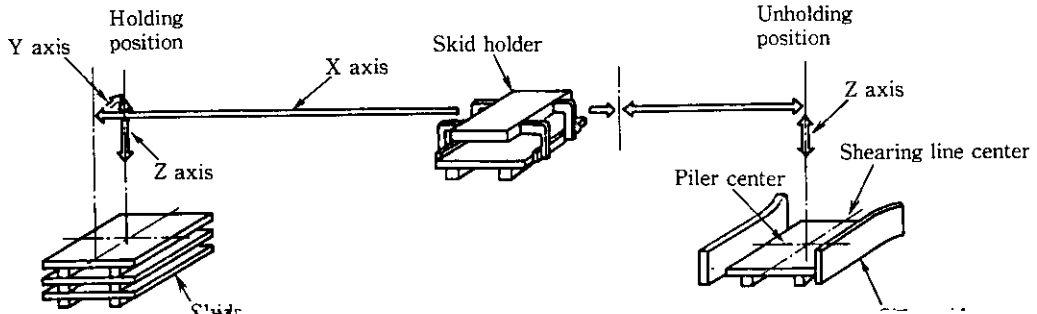


Fig. 7 Piling system of chromium plated steel sheets



the level of

(a) Metallic Cr

