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Technical Features of Electrolytic Tinning Lines Installed Overseas by Kawasaki Steel

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Synopsis :

The Steel Plant Group of Kawasaki Steel's Engineering and Construction Division erected seven electrolytic tinning lines in South East Asia over the last 20 years, and has provided guidance for line operation and maintenance. Kawasaki Steel's ETL has a halogen process with horizontal cells and a halogen bath, offering excellent operability and maintainability. Further Kawasaki Steel has made numerous improvements in the equipment and operation technology, including (1) rearrangement of the tinning cells, (2) increased productivity by the application of high current density, (3) fluxing system improvement, and (4) relocation of the tin-free-steel section. All seven lines have rated up smoothly and are operating by completely fulfilling client expectations.

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The body can be viewed from the next page.

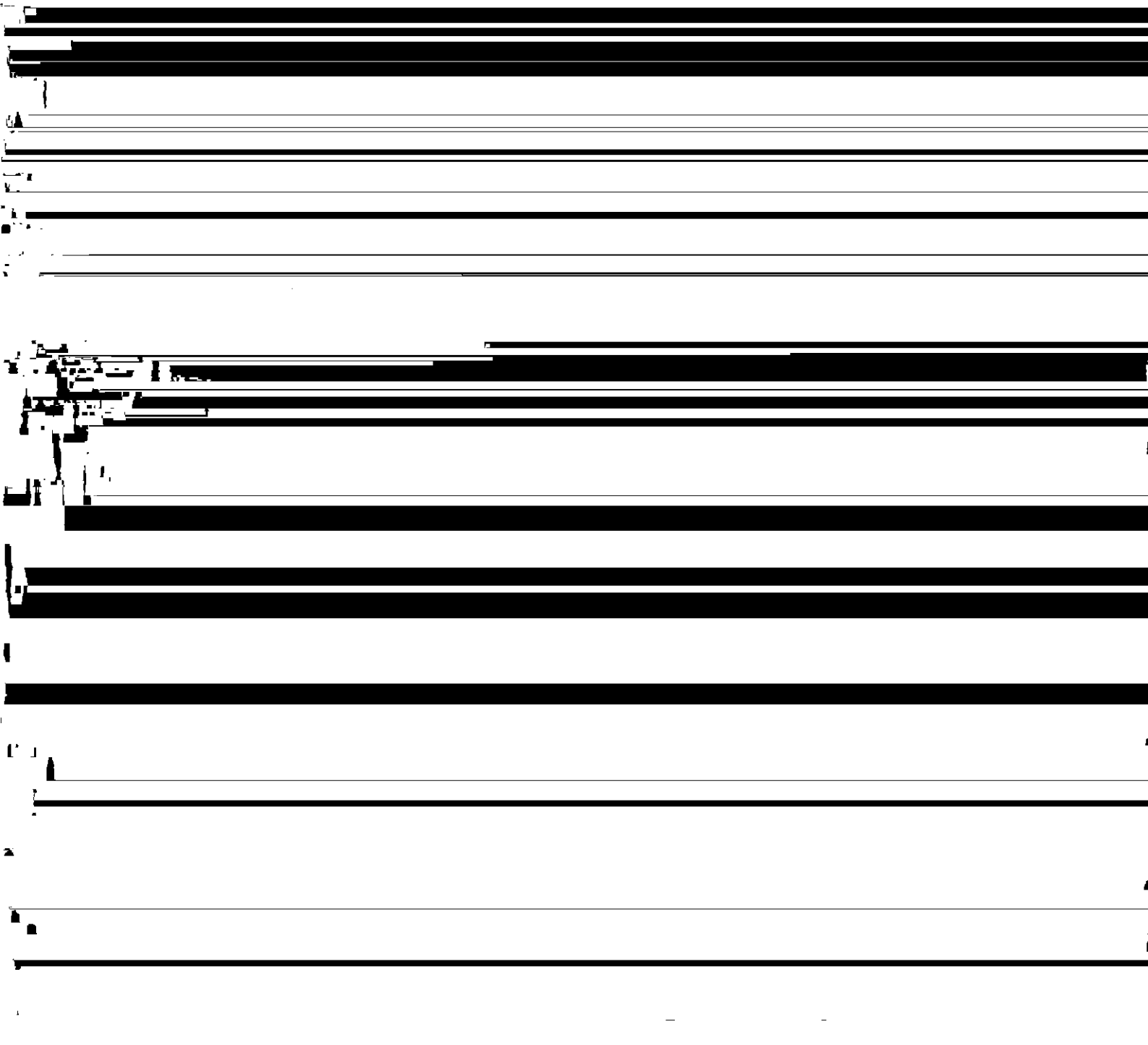
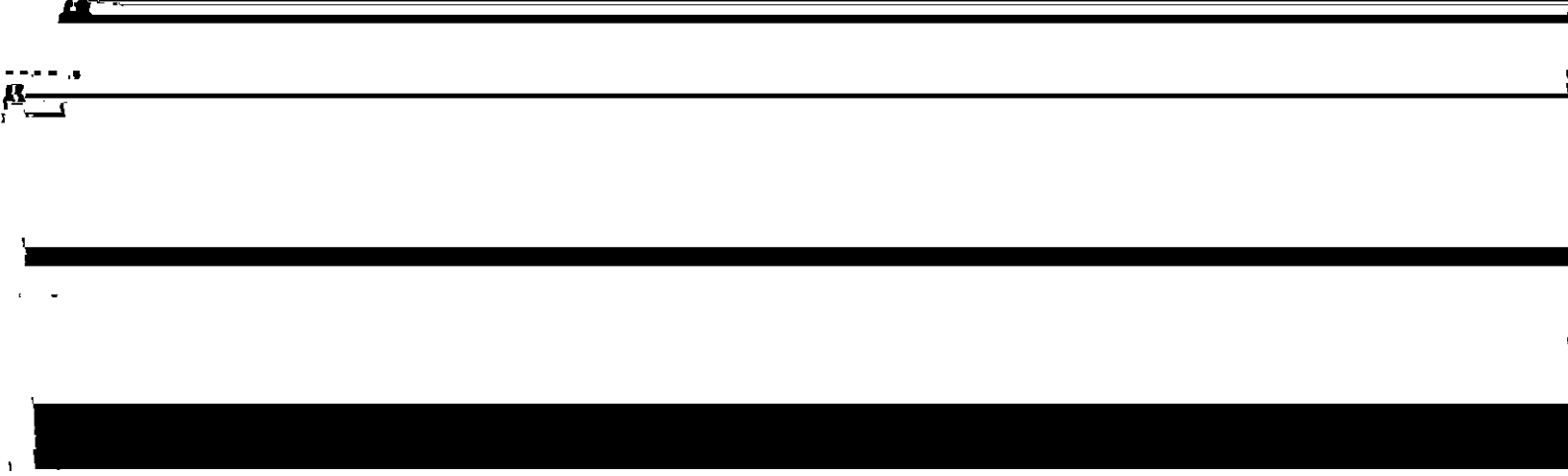
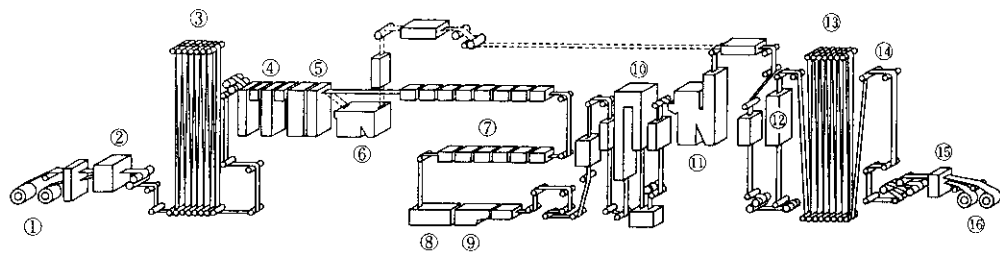


Fig. 10. Effect of temperature on the yield point phenomenon.

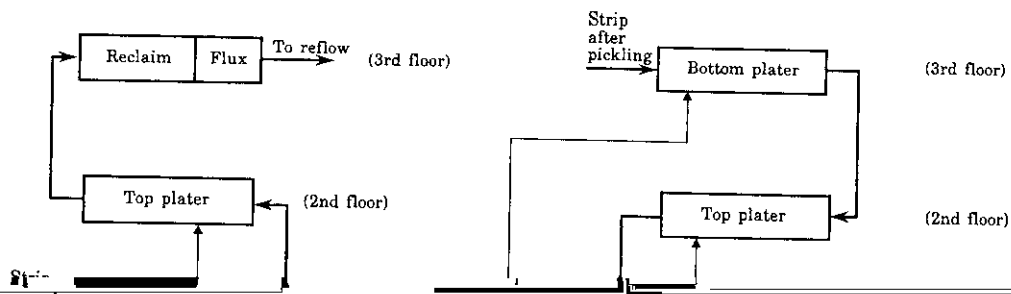




① No. 1 and 2 pay off reels ⑥ Pickling tank ⑩ Reflow ⑬ Inspection room
 ② Welder ⑦ Tin-plating tank ⑪ Chemical treatment tank ⑭ Ship shear
 ③ Entry looper ⑧ Reclaiming tank ⑫ Oiler ⑮ No. 1 and 2 tension reels
 ④ Cleaning tank

- ② Welder
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- ⑥ Cr-plating tank (TFS)
- ⑦ Tin-plating tank
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- ⑪ Chemical treatment tank
- ⑫ Oiler
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- ⑭ Ship shear
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Fig. 1 Schematic diagram of ETL



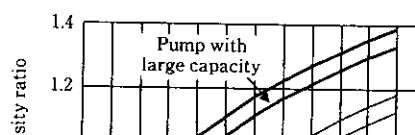
Conventional type
(with cellar)

New type
(without cellar)

Fig. 2 Comparison of design of strip pass line

3.1 Reduced Construction Cost by Pass Changes in the Plating Section

The strip pass line in the central section was reviewed,



equipment after pickling. An up-to-date ETL incor- are significantly governed by the quality of the original