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# Automatic Operations of Continuous Pickling Line\*



## Synopsis:

*At Chiba Works, a new pickling line has been installed.*

and carousel tension reel have also been adopted at the coil delivery side.

Main specifications of the line are shown in **Table 1**. The entry-side coil specification is set to 1 400 PIW (pound per inch width; 25 t/m-wide) to permit system expansion from the existing 1 000 PIW. To cope with the current processing capacity, a tank section speed of

### 3 Features of Automated Facilities

#### 3.1 Automation of Coil Handling

##### 3.1.1 Coil handling

A schematic diagram of coil handling flow is shown in Fig. 3. Hot coil, which has been transported from the

1. Operating instructions for coil handling are given in a unified manner by information from the production control computer. In the control pulpit, only a single operator using graphic display devices is required to monitor the automated operation system.

#### 3.2 Automation of Pickling Line



Coil center  
offset detector

Coil top-end detector

No.1

No.2

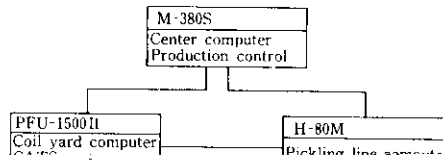
Pay-off reel

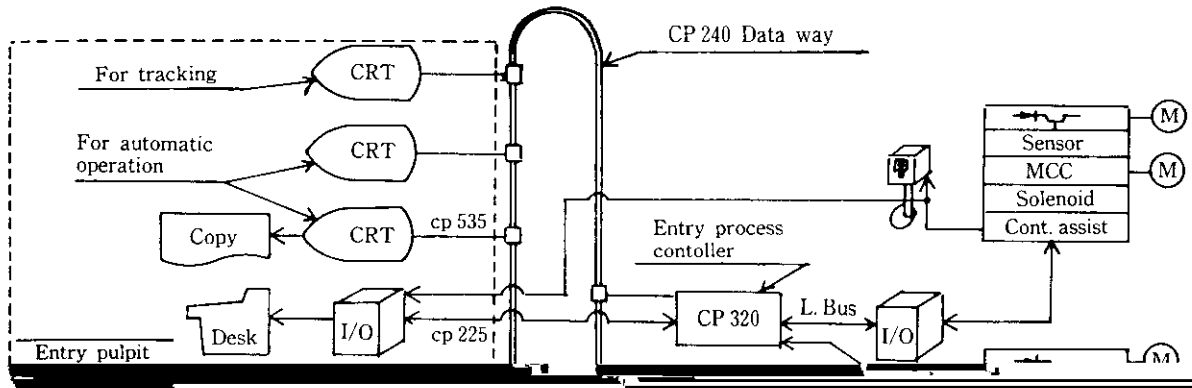
been fully automated.

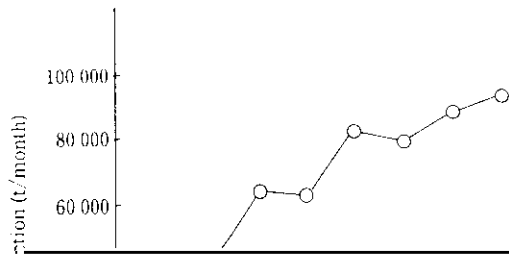
### 3.3 Fully-Automated Operation System

#### 3.3.1 Computer network

The computer network is shown in Figure 3.3.1.







through the use of the high-stiffness trimmer and improvements in strip centering.

### 5 Conclusion

The system and facilities for automation of the new continuous pickling line have been reviewed. Both system and facilities for automatic operation demonstrated