

**is a rotary furnace equipped with**

# Rotary Furnace for Silicon Steels\*

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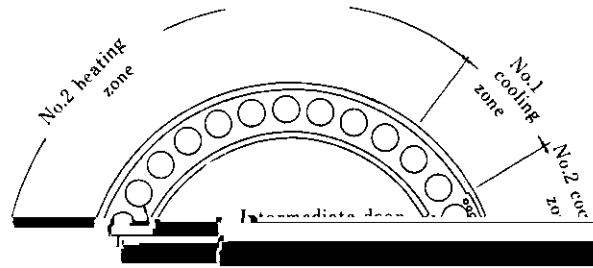
*A new type of coil annealing furnace, No. 1 and No. 2, for silicon steel production started*

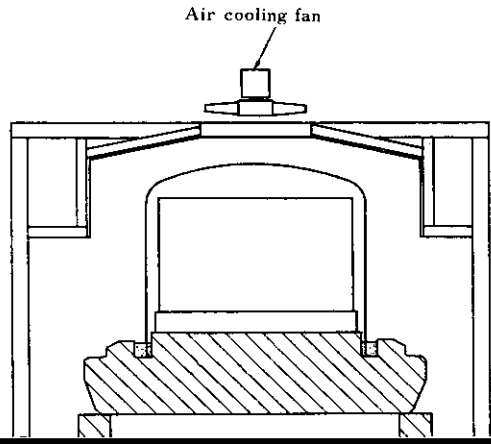
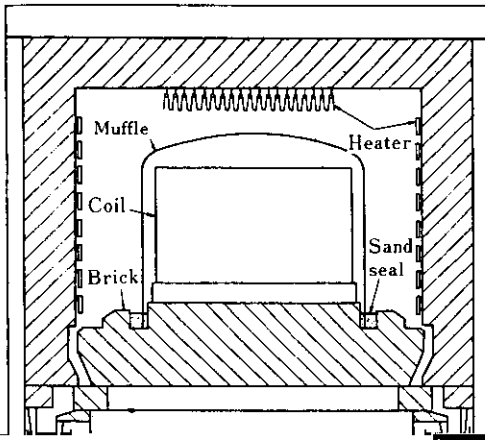
*Steel Corp. It helps save both time and money substantially and contributes significantly to quality improvement. This furnace is a rotary furnace equipped with muffles. The annealing temperature is 1 200° C and a pure hydrogen gas is used to get a good glass film and purification. Hydrogen gas which has leaked from the muffles into the heating zone is burned in the furnace with excess air, and the hydrogen gas which has leaked from the muffles into the cooling zone is diluted with air and made incombustible. The new-type No. 1 furnace saves 20% energy compared with the conventional batch type furnace and also shortens the cycle*

## 2 Equipment Specifications of Nos. 1 and 2 KSR Furnaces

### 2.1 Main Specifications

The main specifications of the Nos. 1 and 2 KSR furnaces are shown below:





10

In annealing with muffles, the atmospheric gas passed into the muffles leaks from the muffle skirts and fills the furnace. A 100% H<sub>2</sub> atmospheric gas is used in this

nace, and in the latter, the hydrogen gas is diluted to below the explosion limit by feeding a large volume of air. In both cases, a stable oxidizing atmosphere is gene-

device.

- (3) When the one-pitch rotation is completed, the coupler of the fixed type connector is attached, the coupler of the traveling type connector is detached,



Hence, the shortening of the cooling time in such

This continuous furnace has the following features:

(1) Although annealing is performed using a 1000% LI