Reheating Furnace with Regenerative Combustion System for Steel Works

Features

Nippon Steel Engineering Co., Ltd. initiated research work in 1992 to apply a regenerative combustion system to a continuous reheating furnace and constructed Japan’s first large-scale regenerative type walking beam furnace in 1995.

Basic Concept or Summary

![Diagram showing control principle of regenerative burner]

Effects or Remarks

Lower fuel consumption thanks to high temperature preheating air

Fuel consumption with regenerative combustion system is 10% lower owing to the high temperature preheating air.

Installation in Practice or Schedule

Bar mill, Toyohashi Works, Topy Industries Ltd.
Blooming mill Muroran Works, Nippon Steel
Bar mill Godo Steel, LTD
Large section mill, Sakai Works, Nippon Steel
Bar mill Kansai Steel Corporation
Section mill YAMATO KOGYO CO., LTD.
Hot strip mill Hirohata Works, Nippon Steel
Hot Strip Mill Pohang Iron & Steel Co., Ltd., Korea
Section Mill Kimitsu Works, Nippon Steel
Hot Stripn Mill Kimitsu Works, Nippon Steel
Hot Stripn Mill Nagoya Works, Nippon Steel
Section Mill PT. Gunung Garuda, Indonesia etc.

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