Primetals Technologies Japan, Ltd.
A joint venture of Siemens, Mitsubishi Heavy Industries and Partners

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STECKEL MILL

The Steckel Mill is especially applied for specialty steel production, such as stainless steel, high-alloy steel and harder material.

The Steckel Mill mainly consists of one-roughing mill, one-crop shear, one-Steckel Mill, strip cooling device and one-down coiler for around 800,000 ton annual production.

The Steckel Mill also provides for flexibility of expansion as follows:

- Increase production
  - Addition of two (2) or three (3) stands finishing mills at the delivery side of the Steckel Mill is available.

- Expand production grade of plate
  - Addition of a plate transfer device and plate shear is available.

**Features**

- Selection of mill type
  - 4Hi work roll shift mill, 4Hi Pair Cross mill (PC mill) with ORP* and with dynamic PC mill (as an option) for dynamic APFC**

- Mill stabilizer
  - Standard application

- High speed threading
  - 2m/sec or higher to keep top and tail temperature of material

- Short gap time
  - Time between passes less than 5 sec except 1st and 2nd

- Stable rolling
  - Hydraulic servo side guide and appropriate furnace cooling tension

- Various quality control
  - Head/tail thickness compensation, AGC, APFC**, AWC, CTC, QOC*** and others

(* On-line Roll Profiler, ** Automatic Profile and Flatness Control, *** Quick Open Control)

Typical Steckel Mill Layout for 800,000 ton annual production

1: Reheating furnace entry device
2: Reheating furnace
3: Reheating furnace delivery device
4: Hydraulic scale breaker
5: Roughing mill with edger
6: Crop shear
7: Finishing mill
8: Coiler furnace
9: Downcoiler
10: Laminar Flow strip cooling
11: Thickness gauge and/or multi-channel profile gauge
12: Width gauge

**Recent Supply Record**

- Zhangjiagang Pohang Stainless Steel, China 2006
- North American Stainless Ghent, USA 1998
- Nippon Metal Industry Kinuura, Japan 1996
- ACERINOX Algeciras, Spain 2008
- 2000
- 1996
- 1985
- OUTOKUMPU Tornio, Finland 1998
- 1986
- Nippon Yakin Kogyo Kawasaki, Japan 1995

Finishing Mill with Coiler Furnace

Roughing Mill