KAWASAKI STEEL TECHNICAL REPORT

No.41 (October 1999)

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Recent Activities in Research of Measurement and Control*

Synopsis:

On-line measurement and process control have recently become increasingly important to keep stable and effective production of high quality and homogeneous products. To satisfy these strong needs, optical or ultrasonic measuring instruments and control systems using

years.

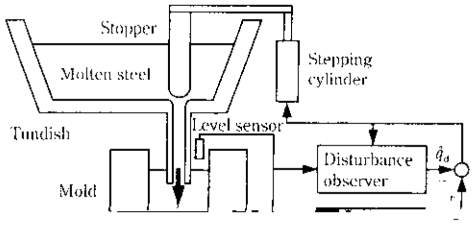
At the same time, supported by a great improvement

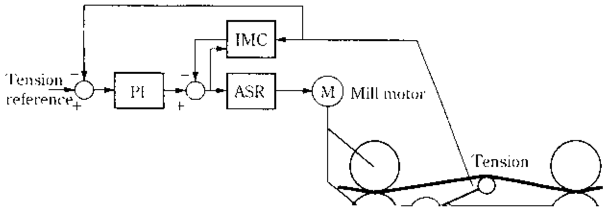
in hardware, represented by higher performance and

various properties can be used depending on the steel

surface quality and properties measurements are with measured values obtained from stylus roughness

Scanning


Stopper
Molten steel
Stepping cylinder
Tundish
Level sensor
Mold
Disturbance observer
$\hat{q}_d$


Tension reference
PI
IMC
ASR
M
Mill motor
Tension

[illegible]

References

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11) H. Takada, K. Asano, F. Ichikawa, T. Miyake, M. Kawahara, and H. Yamashita: "Nondestructive Detection of Poorly Grown Grains in the Grain Oriented Electrical Steel by Ultra-