

STRAND CHECKER

ACCURATE AND EASY ADJUSTMENT OF CONTINUOUS CASTING SEGMENTS

BENEFITS

Strand Checker supports casting plant operators in several tasks like checking the gap, alignment and rotability of rolls. Spray water nozzles are checked for operation and non performance. The frequent use of the fully automatically measuring Strand Checker enables optimum use and maximum lifecycle time of continuous casting machines. Internal quality of slabs can only be guaranteed with proper adjusted caster rolls

FIELD OF APPLICATION

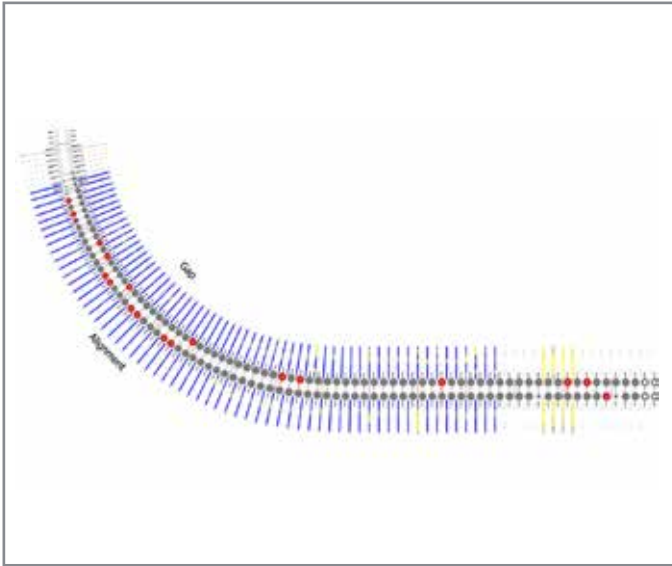
Strand Checker can be used for all types of continuous slab casting machines from 80mm thickness on.

FUNCTION

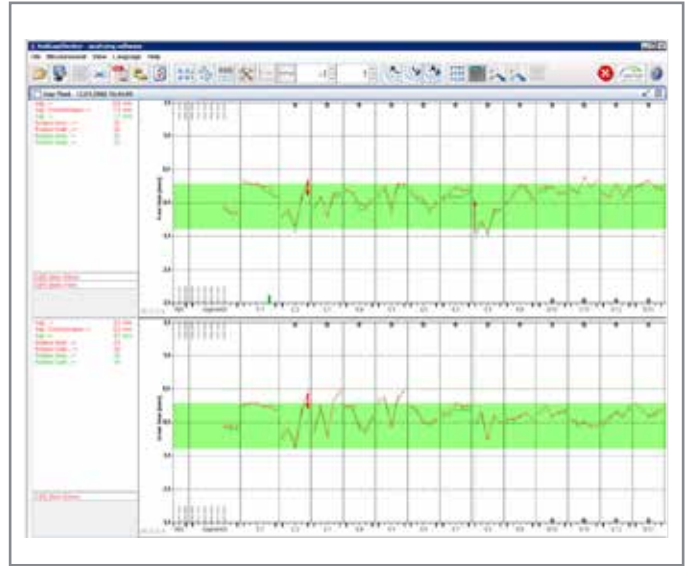
The Strand Checker is mounted on the dummy bar. The bearing clearance of measured rolls is compensated by pressing the Strand Checker against rolls using nitrogen gas springs. The nitrogen gas springs can easily be activated and deactivated. The power supply of the electronic processing unit and signal storage of all sensors is provided by batteries. Data is transferred to the evaluation unit using WLAN.

The Strand Checker offers a 3 step software: Measurement software continuously measures and stores measured values for the automatic transfer via WLAN to the server. Converter software converts measured values to "real" gap, alignment, rotability and spray water values saves data into the database. The analyzer software can be installed on PCs of everyone interested in Strand Checker data. Only connection to database is necessary.





Complete measurement of caster in overview plot showing gap, alignment, roll rotation and spray water distribution.



Detailed gap measurements can be commented for maintenance staff

TECHNICAL DATA

Roll gap:

| | |
|--|----------|
| Measuring range (max. deviation from setpoint gap) | ±8 mm |
| Sensor accuracy | ±0.01 mm |
| Repeatability of measurement | ±0.1 mm |

Roll alignment:

| | |
|--|----------|
| Measuring range (max. deviation from setpoint gap) | ±5 mm |
| Sensor accuracy | ±0.01 mm |
| Repeatability of measurement | ±0.15 mm |

Spray water:

| | |
|--|------------------------|
| Microphone units | on inner and outer bow |
| Accuracy of detection of non-functioning nozzles | min. 75% |

ADVANTAGES COMPARED TO COMPETITORS

- DynaGap connection**
 Operator can send measurement values from Strand Checker with 1 click to segment controller for gap calibration.
- Nitrogen springs**
 Force of springs can be switched on/off on demand.
 Easier entering of Strand Checker on bottom feeding caster.
- Same sensors for gap and alignment sensors**
 Easier and faster calibration (without disassembly of Strand Checker).
 Less spare parts.
- No sensors on bottom side**
 Sensors cannot be damaged when Strand Checker is placed down.
 We can measure caster with non-opposite rolls.
- Microphones for spray water detection**
 More robust and reliable system for spray water detection.

Primetals Technologies Austria GmbH
 A joint venture of Siemens, Mitsubishi Heavy Industries and Partners

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Order No. T03-4-N445-L2-P-V1-EN
 Printed in Linz | © 03.2016

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