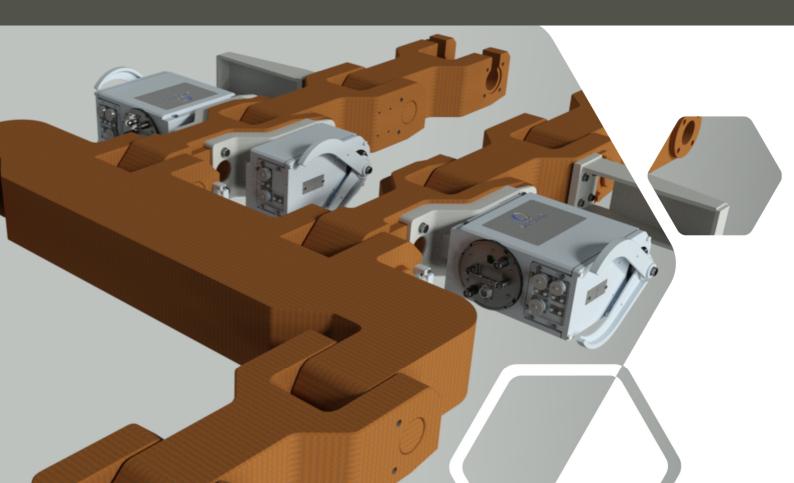


# In-Chain Caliper

Online Continuous Slab Caster Strand Condition Monitoring



## World leading on-line strand measuring system for continuous slab casting.

The In-Chain Strand Condition Monitor is a precision on-line measurement system for continuous casting machines. Each in-chain SCM system is designed for seamless integration with the continuous casting process, providing caster roll gap measurements during the start of every cast sequence.

Performing frequent caster measurements without interrupting the production schedule allows the end user to plan preventative maintenance activities, maximize the casting process efficiency and significantly improve caster performance.

## Tailor-made solution to suit your caster.

Top or bottom feed applications, extendable across multiple strands and thickness requirements.

## Modular design.

Battery charging can be performed in situ, on the strand or the data logger and battery module can be removed for offline charging and data download.



**Gap measuring range** 70mm



Typical measuring speed 0.5 to 2.5 m/min



Accuracy +/- 0.15mm

- **Take control.** Provides fully automated gap measurement results every time the dummy bar chain is inserted into the casting machine.
- Cast every sequence with confidence. Analyse roll gap data trends to ensure optimum settings are maintained.
- Minimise the risk of major failures and quality problems. Breakouts and product downgrading can be costly and time consuming.
- Maximise production time. Seamless integration with the caster activities. Minimise interruptions to production schedules.
  - **Operator friendly.** Easy to interpret roll gap display information that is level 2 compatible.



The measuring caliper assemblies consist of two radius arms rotating around a common supporting shaft.

Two or more measuring assemblies are installed across the width of the dummy bar chain, providing slab quality-critical roll gap measurements.

The assembly incorporates a custom data logger and battery modules which can be easily removed if required.

The robust component design is suitable for the harsh caster environment whilst its semi-permanent, modular installation allows easy detachment from the dummy bar for maintenance and calibration activities.

## Designed to last.

The measuring caliper is manufactured using stainless and nickel-plated steel to resist corrosion and designed to fully retract behind the dummy bar chain avoiding impact from the drive rolls.

#### Accurate measurements every time.

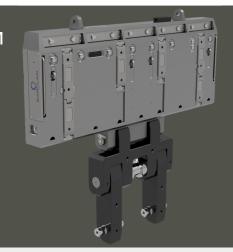
The measuring caliper has been designed to accommodate the dummy bar chain lifting off from the outer-face rolls by up to 50mm during measurement, without affecting the measured results.

# The Complete Package: Off-line SCM + On-line In-Chain SCM

Optimize your continuous casting production with the Sarclad off-line and on-line caster monitoring equipment.

## Comprehensive off-line caster monitoring

The Sarclad off-line SCM can be used to check additional strand condition parameters such as roll condition, roll alignment, water spray measurement, roll bend and roll rotation.



Following commencement of the casting sequence, the measurement data is transferred via WiFi to the laptop for analysis. The user-friendly Software allows the end user to:

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Accurate data analysis for complete caster control

- > Interpret the roll gap data and perform any necessary adjustments.
- Analyse and understand the casters operating behaviour and implement a suitable maintenance plan.
- > Caster integration possible upon detailed technical agreements.





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