



OSCIMON

EXACT MOLD OSCILLATION FOR PERFECT CASTING PRODUCTS

Mold oscillation reduces friction between strand and mold and induces flow of mold flux down the copper plates. Exact mold oscillation plays a significant role in obtaining a high quality casting product. Measurement of mold movement in all 3 directions is indispensable for high quality.

YOUR CHALLENGE

One Challenge in producing high quality products is to operate the oscillator with proper movement. Accurate setting of the oscillator is also an important factor for reducing the downtime of a continuous casting machine and for avoiding breakouts. Reduction of downtime is also a big challenge.

For efficient and predictive maintenance, the service team needs maintenance Information about the oscillation system in order to detect problems early on. Therefore, all available strands should be monitored at the same.

No extra time should be needed to measure oscillator movement, human errors should be avoided and measurement results should be available in an easily interpreted form.

The tool should also be applicable for different types of oscillators.

OUR SOLUTION

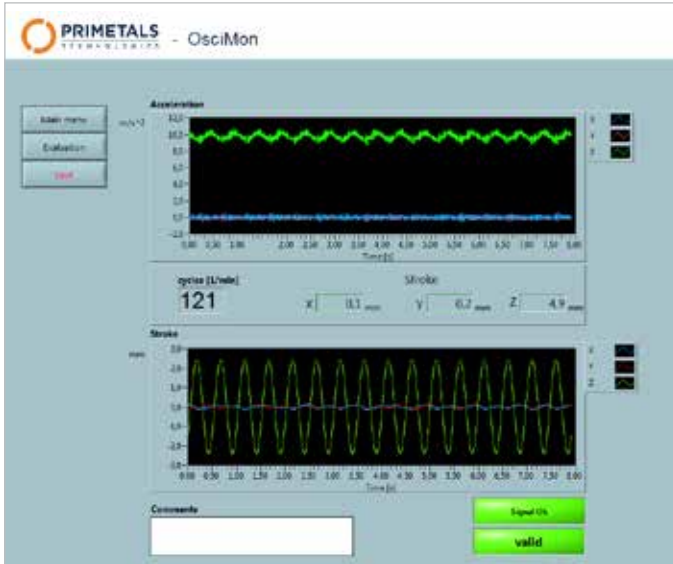
OsciMon is suitable for measurement of oscillator movement in all 3 directions and for the storage and visualization of the measurement data in 3D. The tool immediately issues a warning in the event of any set-point oscillation deviations.

The equipment can be used for straight and curved oscillations as well as sinusoidal and non-sinusoidal movements and is suitable for slab, bloom and billet casting machines

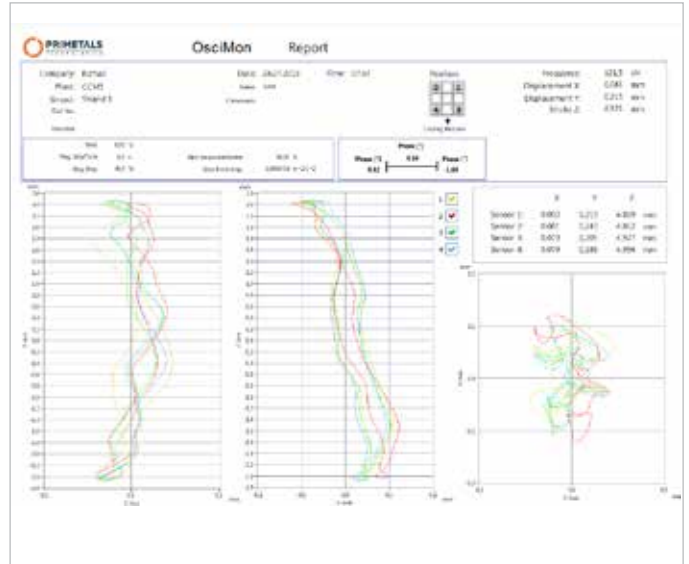
Additional metallurgical parameters (e.g. non sinusoidal factor, negative strip time, phase shift) can be calculated.



OsciMon Main screen slab



Oscimon Main screen billet



Oscimon MainReport

MEASURING TASKS

The Oscimon supports plant operators in several tasks like measurement of mold stroke, oscillation frequency and non-sinusoidal value. Movement in and perpendicular to the casting direction can be detected, as well as negative stroke time and percentage. Oscimon is able to spot total harmonic distortion and compared the measurement with set-point values.

TECHNICAL DATA

Acceleration sensor

Measuring range	±20 m/s ²
Temperature range	-25°C to +70°C
Dimensions	60x60x50
Weight	0,5 kg
Degree of protection	IP 67

Data acquisition unit

Measuring range amplitude	±10 mm
Measuring range frequency	50 - 600 strokes/min
Accuracy of measurement	±25 µm ver / ±10 µm hor
Accuracy of measurement frequency	±0.5 strokes/min
Temperature range	0°C to +45°C

ADVANTAGES

- Permanent monitoring of the oscillator movement
- Long- term trend view of oscillation status
- Avoidance of shutdowns and breakouts to predictive maintenance
- Ensured high quality due to known information on the condition of the oscillator guidance
- Intelligent cross check with rigid body model
- Temperature and inclination compensated system