

## **METALS**

## How Falkonry Helped Anticipate Failures & Avoid Downtime



The continuous metal casting process has a number of areas prone to failures:

- Slab mold
- Mold oscillator
- Bending rolls
- Straighteners
- Cooling segment
- Shears

Unplanned downtime in any of these areas is a major concern for steelmakers.

One example is the pinch roller – a key component of the continuous steel caster. The pinch rolls are in contact with the hot strip on either side and pull it down via motors turning them.

**Pinch rolls wear due to heat and friction** and have to be replaced just before they actually breakdown. On average, the cost of downtime is **\$9,000 per hour per line**. Unplanned downtime of casters and hot mills alone can cause a **loss of 25 hours** every year per steel production line. That is more than **\$2 million** in lost production per year.

tion ey Additionally, the time and effort spent in manually analyzing the data to find the root causes of the faults makes the operations team less productive in their actions. Using <u>Falkonry Time Series AI</u>, a steelmaker was able to analyze data from multiple sources to **identify patterns and provide alerts 7 days before** a pinch roll fails.

## How?

By analyzing existing sensor data, the Unattended AI automatically detected deviations from normal operating behavior along with the details on the contributing signals.

The early warnings and explanations helped reliability engineers take proactive actions in avoiding unplanned downtimes in the casting mills.

Tell us your challenge, we're here to help:

