

# SEMI-AUTONOMOUS PLANT

## Outcomes

**139**



Total No. of Plants Digitalized

**490**

Total Areas

**3815**

No. of Critical Equipment

**2.5%**

Utilization rate increased in mills section

**36108 Hrs.**

Unplanned Downtime eliminated

**6917 Hrs.**

MTBF (Mean Time Between Failures)

## The 99% Trust Loop™



### Equipment Data

Contextualization  
**Single Source of Truth**

490 Areas → 3815 critical equipment

### User-validated outcomes

Unplanned Downtime – 36108 hrs

MTBF – 6917 Hrs (last 12 months)

Utilization Rate – raised by 2.5% in mills section

## ABOUT THE COMPANY

JSW Steel is a global leader with integrated and downstream steel operations.



## KEY AREA

- Pellet Plant (Ball Mill, Conveyor)
- Electric Arc Furnace
- Blast Furnace (Dedusting & Blower Fans)
- Steel Melting Shop (Continuous Casting)
- Hot Strip & Cold Rolling Mill



Hot Combustion Blower – Sinter Plant



Coke Oven Pump



**PlantOS**<sup>TM</sup>  
Manufacturing  
Intelligence

**Prediction  
Accuracy**  
99.75%

**Missed Faults**  
19

Note – Data as of January 07 2026

Source – PlantOS™ Digital Reporting System – User Validated True Positives & False Negative Rate

## 1 The Challenge: Building Trusted Reliability at Scale

JSW Steel set out to improve reliability across complex, multi-plant operations without adding to the operational burden on plant teams. The journey began in India in 2021, with early deployments focused on validating predictive insights and earning the trust of maintenance and production teams. As prescriptions consistently translated into real outcomes, confidence in PlantOS™ became the foundation for broader adoption.

## 2 The Solution: Precision, Prescription & Co-Innovation

PlantOS™ enabled JSW Steel to establish a closed-loop reliability model—where predictive insights drive actionable prescriptions, outcomes are validated, and value is continuously proven. Deployments scaled rapidly from Indian plants to mills across the Americas, evolving the partnership into a true co-innovation engine.

**Key pioneering solutions include:**

- Crane application optimization for enhanced operational uptime
- Predictive maintenance for steam fans to prevent critical failures
- Advanced ROT roll monitoring in hot strip mills for precision rolling
- Gearbox reliability enhancements in long product mills for sustained performance



## 3 The Pivot: The Rise of Prescriptive AI

With 24x7 monitoring and deep domain expertise, JSW Steel's operations shifted from reactive decisions to prescriptive, data-led actions. Digital workorders and automated prescriptions improved execution discipline, reduced manual intervention, and strengthened adoption on the shop floor. The current focus is on deepening reliability outcomes and scaling across more global sites, with future plans to integrate reliability, process, and energy optimization into three outcomes in a single prescription with zero guesswork.



## 4 The Result: The 99% Trust Loop Delivered

JSW Steel's PlantOS™ partnership delivered explosive reliability gains—nearly doubling unplanned downtime savings from 18,367 hours (Jan 2025) to 36,108 hours in just one year.

### Reliability Outcomes

- 36,108 hours unplanned downtime eliminated (doubled in 12 months)
- 6,917 hours MTBF achieved across critical assets
- 2.5% utilization rate increase in mills section

### Reliability Intelligence Outcomes

- 6,047 prescriptions executed at 89.61% implementation rate
- Proven closed-loop trust from prediction to validated action
- Enterprise-wide data-driven reliability culture established

**Infinite Uptime has been a strategic partner of JSW** for the last four years, playing a pivotal role in transforming & optimizing our Steel, Cement and Paint Plant production outputs.

-Mr. Rishi Shroff, CEO,  
JSW New Age

We needed a partner willing to co-innovate on our most difficult problems. [With Infinite Uptime] we're not monitoring equipment anymore; **we're enabling AI-assisted decision-making from work order creation through execution.**

-Mr. Alec Glenn, Vice President of Reliability,  
JSW Steel

**Diagnostic Report**  
Equipment: SERVICE\_WATER\_PUMP\_3  
Plant:

Report Status: COMPLETED      Completed On: 22 Dec 2025 - 08:45am      IUSERV980854438

**Observation**  
1.Total acceleration 17 ( $m/s^2$ )<sup>2</sup> (0.18G<sup>2</sup>) to 199 ( $m/s^2$ )<sup>2</sup> (2.07 G<sup>2</sup>) at motor DE bearing since 12th December 2025. 2.Spectrum indicates nonsynchronous frequencies and multiples of 1xrpm & repetitive impacts in 1Wf at motor DE bearing.

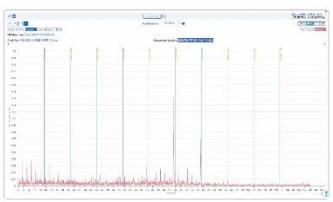
**Diagnostic**  
Vibration characteristics indicates bearing defects in outer raceways & rolling element in motor DE bearing (SKF 6219).

**Recommendation**  
1.As a preliminary action, Relubricate the motor DE & NDE bearings. 2.In an opportunity, Replace the motor DE bearing with respect to defects within outer raceways & rolling elements.

**Business Impact**  
Downtime savings of 24 hrs

Corrective Actions Taken: Lubrication Carry out Bearing replacement

**Customer Comment**  
Grease was added to the drive end bearing. About 10-15 grams were added. This is a reconditioned motor that was installed on December 3/4th 2025. The temperature of the motor is around 125F.

**Attachments**  
  

Completed By: [@jswsteel.us](#)

**Diagnostic Report**  
Equipment: SERVICE\_WATER\_PUMP\_2  
Plant:

Report Status: COMPLETED      Completed On: 20 Oct 2025 - 05:05pm      IUSERV959401325

**Observation**  
1. Acceleration RMS has gradually increased from 0.4 G-s to 0.9G-s at the Motor DE bearing & 0.4 G-s to 0.8G-s at the Motor NDE bearing since September 28, 2025. 2. The acceleration spectrum indicates non-synchronous frequencies at the Motor DE & NDE bearings.

**Diagnostic**  
1. Vibration characteristics indicate inadequate lubrication condition in Motor DE & NDE bearings (SKF 6219),(SKF 7228 BCBM).

**Recommendation**  
1. As a preliminary action,lubricate the Motor DE & NDE bearings.

**Business Impact**  
Downtime savings of 24 hrs

Corrective Actions Taken: Lubrication

**Customer Comment**  
The drive end motor was lubricated with grease. We will change the oil on the non-drive end during the next scheduled outage

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**Ready to close the Trust Loop in your facility?**

Infinite Uptime is currently delivering results for 844 plants in 26 countries

Click Here to

**Try PlantOS™ Today**