CASE STUDY: Digital Flow Monitoring Improves Visibility, Safety, and Reliability at a Northeast Pulp & Paper Mill

Customer Profile

A large pulp and paper mill in the Northeastern United States was looking for a better way to monitor flush water flow to critical rotating equipment. Operators relied on traditional mechanical flow indicators that were difficult to read from elevated walkways and required personnel to get close to equipment for verification. The mill wanted a solution that would improve visibility, enhance operator safety, and provide better process awareness.

The Challenge

Maintaining proper flush water flow is essential to the performance and longevity of packed pumps and other rotating equipment. While conventional flow indicators provide basic confirmation that water is flowing, they often require operators to stand directly in front of the instrument to determine whether flow is within specification.

At this facility, many flow indicators were installed in locations that could only be viewed from elevated catwalks or from several feet away. Operators frequently had to leave their normal inspection route or approach operating equipment to verify readings. This consumed valuable time and created unnecessary exposure during routine rounds.

The maintenance team also recognized the limitations of having no remote indication of flow status. If a flow problem developed between inspections, the issue might not be discovered until the next operator round, potentially allowing equipment to operate outside of recommended conditions.

The Solution

In November 2025, the mill installed two SealRyt FlowRyt™ Digital Flow Monitors on critical applications.

Unlike traditional flow indicators, the FlowRyt provides a bright digital display that is easily visible from significant distances. Operators can quickly verify the actual flow rate while remaining on catwalks or normal inspection paths without approaching the equipment.

The units also feature an intuitive visual status indicator:

- Green light – Flow is within the desired operating range.
- Red light – Flow has moved outside of the specified limits and requires attention.

This immediate visual feedback allows operators to identify abnormal conditions in seconds without interpreting analog scales or attempting to estimate flow from difficult viewing angles.

In addition, the FlowRyt can be integrated into the facility's control system, allowing maintenance and operations personnel to remotely monitor flow conditions from a central location. This capability provides another layer of operational awareness and supports faster response when abnormal conditions occur.

FlowRyt - Digital Flow Meter

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The Results

The impact of the initial installation was immediate.

Operators appreciated being able to confirm proper flow from a safe distance during routine inspections. The highly visible digital display eliminated much of the uncertainty associated with traditional indicators, while the green/red status lights made identifying normal versus abnormal operation nearly instantaneous.

Maintenance personnel also recognized the value of having equipment that could be monitored remotely through the plant's control system, reducing reliance on manual inspection alone.

The benefits became so apparent that shortly after the original installation, the mill ordered two additional FlowRyt Digital Flow Monitors for other critical assets.

The facility is now evaluating additional locations throughout the mill and plans to continue expanding its deployment of FlowRyt monitors as equipment is upgraded.

Why It Worked

The greatest value of the FlowRyt was not simply measuring flow—it was making critical operating information immediately visible.

By combining:

- Large, easy-to-read digital flow values
- Long-distance visibility from catwalks and operating aisles
- Instant green/red visual status indication
- Remote monitoring capability through plant controls

the system transformed what had traditionally been a manual inspection task into a fast, highly visible condition check.

Rather than requiring operators to interpret mechanical indicators or physically approach equipment, the FlowRyt delivers clear, actionable information at a glance.

Conclusion

For this Northeast pulp and paper mill, the initial purchase of two FlowRyt Digital Flow Monitors quickly demonstrated benefits beyond simple flow measurement. Improved visibility, enhanced operator safety, and the ability to remotely monitor critical flush water systems resulted in immediate confidence from both operations and maintenance teams.

The success of the first installation led directly to the purchase of two additional units, with plans for broader implementation across the facility. As more plants look to improve reliability while reducing operator exposure to running equipment, digital flow monitoring is proving to be a simple upgrade with measurable operational value.

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