

Real-Time Dust Monitoring at Squarefeet Group's Construction Site



INTRODUCTION: Building Better Spaces with Better Air

Air quality management is becoming an essential aspect of responsible urban development, particularly in rapidly growing regions like Maharashtra. With large-scale construction projects contributing to increased dust emissions and ambient pollution, the need for accurate and continuous monitoring is greater than ever. Real-time visibility into Particulate matter is essential for both compliance and worker safety.

Squarefeet Group, one of Thane's most trusted real estate developers, has consistently delivered residential and commercial projects that combine affordability with quality. Recognizing air quality needs, Squarefeet Group chose to integrate Oizom's continuous air quality monitoring system across its active project sites. This decision reflects their commitment to sustainable development, environmental transparency, and data-backed decision-making during high-scale construction activities.



THE CHALLENGE: Meeting Compliance While Maintaining Construction Pace

As Squarefeet Group scaled up its operations in Thane, especially with the launch of multiple high-investment projects, it became crucial to ensure compliance with air quality regulations without slowing down construction activities. Below were the key challenges the team encountered on the ground:

- 1. Dust Emissions from High-Activity Zones:** Excavation, vehicular movement, and raw material handling resulted in frequent dust generation, making it difficult to control and manually monitor PM levels.
- 2. Lack of Real-time Environmental Data:** Without continuous air quality data, it was hard for the team to assess the immediate impact or implement timely mitigation strategies.
- 3. Inability to Generate Regulatory Reports:** Manual data collection did not meet the standards required for environmental audits or local compliance checks.
- 4. Operational Blind Spots Across Large Sites:** With multiple construction fronts active, there was no centralized monitoring system to provide a site-wide environmental overview.

These challenges called for a reliable, automated, and easy-to-use particulate monitoring solution that would ensure regulatory compliance, improve decision-making, and fit seamlessly into the fast-paced nature of construction operations.

THE SOLUTION: Real-Time, Multi-Parameter Monitoring with AQBot PM and Envizom

To address the above challenges, Squarefeet Group deployed five units of Aqbot PM on-site and integrated them with Oizom's Envizom platform. This combination allowed for continuous, remote air quality monitoring with actionable insights.

- 1. Certified Accuracy with MCERTS and TUV:** The Aqbot PM comes with international certifications that guarantee high-precision monitoring of PM.
- 2. 24x7 Real-time Monitoring:** Envizom's Live Data module delivers real-time visibility into PM trends, allowing teams to monitor compliance and act instantly when limits are breached.
- 3. Easy Reporting and Compliance Management:** Using the Compliance Module in Envizom, teams can generate automated reports that align with regulatory requirements, saving time and reducing manual errors.
- 4. Multi-device Management Dashboard:** Envizom provides a centralized view of all devices on a single screen, helping Squarefeet manage multiple sites efficiently without needing individual logins or manual



**INSTALLATION
DETAILS**

**1 UNIT
of
AQBOT PM**

check-ins.

- 5. Custom Alerts and Thresholds:** Teams receive instant SMS or email alerts when PM levels cross permissible thresholds, allowing them to take timely dust mitigation measures such as water spraying or rescheduling high-dust activities.

Oizom's easy device setup, paired with an intuitive software platform, gave Squarefeet a reliable system that required minimal maintenance, offering peace of mind and measurable results.

THE TRANSFORMATION: From Compliance-Driven to Data-Driven Construction

Since implementing Oizom's solution, Squarefeet Group has seen significant operational benefits. What began as a tool for compliance has now become a key part of site strategy and sustainability planning.

- 1. Real-Time Visibility:** Immediate access to PM data has enabled supervisors to respond to pollution spikes instantly, avoiding delays and regulatory penalties.
- 2. Regulatory Readiness, Always:** Continuous data feeds and auto-generated reports ensure that site teams are always audit-ready, removing the stress of last-minute document prep.
- 3. Smarter Site Operations:** Environmental insights are now used to schedule high-dust activities when wind speeds are low or humidity is higher, helping to reduce dust dispersion naturally.
- 4. Improved Stakeholder Confidence:** Clients and partners have greater trust in the site's environmental practices, thanks to transparent and verifiable data shared via Envizom.
- 5. Internal Alignment Across Teams:** With everyone from the project manager to the compliance officer accessing the same dashboard, decision-making is more aligned and informed.

Oizom's continuous monitoring system has transformed how Squarefeet Group handles environmental safety. By integrating air quality intelligence into their construction workflow, they've not only maintained compliance but also improved site performance and accountability.

BROADER IMPACT: Sustainability as a Differentiator

Choosing Oizom's continuous particulate monitoring system has helped Squarefeet Group demonstrate its commitment to responsible construction. With the ability to monitor PM levels in real time, they are now better equipped to maintain cleaner working environments, ensure worker safety, and meet all compliance requirements with confidence.

Additionally, Oizom's strong after-sales support and a focused sales pitch made the onboarding process seamless. The solution is not only a tool for compliance but also a way to build trust with stakeholders through transparency and data-backed reporting.

CONCLUSION: A Data-Led Blueprint for Smarter Construction

Squarefeet Group's collaboration with Oizom is a strong example of how smart infrastructure and real-time environmental monitoring can go hand-in-hand. With big construction projects underway, this partnership ensures that air quality does not become a barrier to progress.

By choosing Oizom's certified and scalable solutions, Squarefeet has taken a step toward responsible urban development, where innovation, data, and sustainability come together to create real impact.

Oizom is a company specializing in environmental monitoring solutions. They offer products to monitor air quality, weather conditions, and other environmental factors. Utilizing advanced sensor technology and data analytics, Oizom aims to provide actionable insights for construction, industrial compliance, and community awareness. Their solutions can be applied in various sectors including government, industries, and community initiatives.