

Modular Instrument Air Solution

Enables Rapid Transition from

Instrument Gas – Airbox™

Utilities Solutions / AirBox™



Customer challenges

A client operating a **mature onshore flow station in remote swamp terrain** in the Niger Delta was experiencing persistent operational failures from reliance on instrument gas.

Deterioration of the **scrubber and filtration system** caused crude oil entrainment in control lines — resulting in valve sticking, poor control stability, increased maintenance, and elevated safety risk from unreliable actuation of critical shutdown valves.

The operating environment was highly constrained — poor road infrastructure, river crossings requiring boats and pontoon barges, and high mobilisation costs compounded execution risk.

The client's **original stick-built strategy involved multiple** discrete equipment packages, on-site integration, and extensive multi-vendor interfaces — making it a high-risk and costly approach for a fast-track upgrade in a remote swamp location.

O&G Solutions was selected on its proven modular utility delivery experience and a demonstrated track record at the same facility — including prior commissioning of a VFD-controlled oil export pump.

The client needed fast-track execution with minimal site exposure and no disruption to ongoing operations.

O&G Excellence

O&G Solutions introduced the **Airbox™ as a plug-and-play alternative** to the client's stick-built plan.

Following technical alignment, the client transitioned fully to the modular solution, recognising clear advantages in quality control, delivery certainty, and reduced site exposure.

The Airbox™ is a fully engineered instrument air system housed in a 40ft ISO container, integrating 2x oil-free screw compressors, 2x heatless desiccant dryers, 2x dry air receivers, integrated piping, power distribution, ESD, and built-in fire protection.

Full system assembly, integration, and Factory Acceptance Testing (FAT) were completed entirely offsite.

The unit was delivered as a **single-lift modular system** — minimising logistics complexity, eliminating on-site integration risk, and enabling plug-and-play commissioning.

The Airbox™ was delivered 11 months ahead of the client's planned commissioning date, de-risking the project's critical path and enabling earlier operational readiness.



Value to client

Eliminated crude oil contamination in pneumatic systems

Restored stable and reliable control valve performance

Reduced maintenance frequency and unplanned interventions

Improved reliability of critical shutdown and control systems

Reduced risk associated with **valve failure** and system instability

11-month early delivery created significant schedule buffer

Minimized on-site construction scope in a logistically constrained environment

Reduced dependency on multiple contractors and interfaces

Lower total installed cost versus stick-built alternative (reduced logistics + site labour)

Significant reduction in project execution risk

Accelerated readiness for commissioning

Operational Impact



Safety Improvement



Schedule & Execution Advantage



Commercial Value



Contact us

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