NINOX

MOBILE UNIT · HEALTHCARE · DUAL EXPANSION · 2023

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SIES Salud: Mobile Medical Infrastructure with Automated Dual Expansion

A multifunctional medical unit with lateral and rear expansion for high-throughput clinical care in the field.

CLIENT

SIES Salud

LOCATION

Colombia

YEAR

February 2023

ninoxcorp.com

CLIENT

SIES Salud

SIES-SALUD HEALTH MOBILE PRIMARY-CARE PREVENTION MOBILE-UNIT COLOMBIA

> *A structural and automotive engineering success story focused on equipping a leading private healthcare provider with a high-performance, multifunctional land-based medical unit.*

01

High Clinical Capacity with Agile Access Through Colombian Municipalities

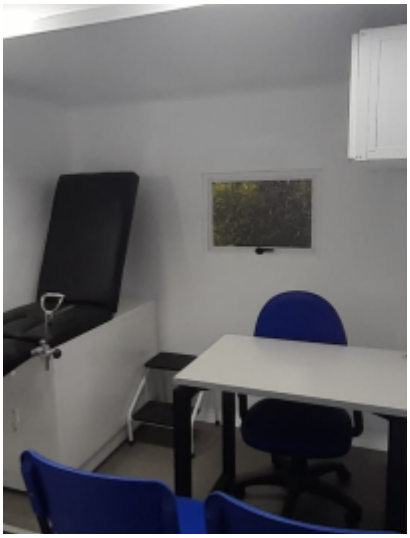
The client required itinerant infrastructure capable of moving agilely through narrow streets, secondary roads and complex topographical conditions in Colombian municipalities, while also offering a large usable clinical area for high-throughput patient missions.

The unit deployed at a community health event, with its expanded module open and medical staff attending to the public.

02

Maximum Operational Capacity with a Minimal Transport Footprint

The task was to design a medium-sized unit that solved the equation of maximum on-site operational capacity with a minimal transport footprint, implementing sustainable technologies and advanced climate-control systems compliant with rigorous international standards.



The consultation room: articulated exam table, physician's desk, and patient seating — a complete clinical space compressed with precision engineering.

The unit's central corridor, showing the full depth of the interior with recessed LED lighting, compartment doors, and sanitary-grade finishes.

Sample storage and work area, featuring a chest refrigerator, laboratory countertop, and overhead medical supply cabinet.

03

Automated Dual Expansion and More Than 100 Patients per Day

NINOX developed an advanced automated dual-expansion system (lateral and rear) using a high-precision hydraulic system on a 10.4-tonne chassis. In transport mode, it retains compact dimensions (18 square meters) for complex routes; in campaign mode, it expands its usable area to 24 square meters. Its intelligent internal layout houses two climate-controlled clinical environments, a sample collection area, an integrated technical pharmacy and administrative control, achieving capacity of more than 100 patients per day for outpatient consultations, vaccination, cervical cytology and minor procedures.

The completed unit ready for service: NINOX coachwork on a Mitsubishi Fuso F1 chassis, carrying the SIES Salud identity in a tropical Colombian setting.

Rear-lateral view of the unit with the expansion module fully deployed, revealing the scale of operational space available in the field.

The independent sanitary module with stainless steel sink and portable sanitary unit — clinical-grade hygiene conditions anywhere in the country.

04

Continuous Operation, Resilience and Environmental Sustainability

After several years of continuous, uninterrupted operation without failures, the unit has demonstrated exceptional versatility and resilience in the territory, being validated as a model of technical efficiency and environmental sustainability.

The unit in operation at a community health event, with staff and equipment fully active — the mobile clinic model in action.

“Equipped with a sustainable energy-autonomy system using high-efficiency solar panels to support the cold chain, an integrated hydraulic generator and independent water and sanitation tanks, this unit demonstrates how we turn complex requirements into high-engineering operational realities.”