

Laboratory Truck



Laboratory Truck

Generals

This mobile laboratory is mounted on a Mercedes-Benz 4WD truck.

It is used for the physico-chemical and microbiological analysis of water and food intended to human consumption.

Then, this laboratory complies with international standards.

Organization

The vehicle includes four compartments as follows :

- Two analysis compartments : including all necessary equipment with four work benches covered with brushed aluminum
- One compartment for cleaning and stocking : including equipment for sterilization, accessories and stocking of samplings.
- Energy compartment : 20 kVA power generator incorporated in the structure of the truck with a main board and distribution network

The truck is equipped with its own power generator.

When the connection to the electric network is impossible, a 20 kVA power generator is put in operation.

For this purpose, a power station allows the operation of all power inputs and the electrical distribution for the vehicle.

The vehicle

Its dimensions are according to the needs and comply with the international road rules (signaling, dimensions, security ...)

It is delivered according to the rules in force.

Disposition inside the laboratory

The floor is covered with non-skid coating washable with water.

The furniture is made of epoxy coated steel sheets and tubular frame providing sturdiness and maximum reliability for maximum integration of analysis equipment complying with international standards.

Analysis and stocking/cleaning compartments are provided with numerous storage drawers.

The acces to the laboratory is made by a galvanized steel step ladder (6 steps – width 715 mm) on back door.

Stainless steel tanks for potable water are fixed under the frame and at the back of the truck on each side and connected between them by a connecting pipe.

The truck is also provided with a tank for waste water.

A circuit of water under pressure is distributed to the sinks with a pump and filtration system.

One sink for each analysis compartment

Steel made chests are arranged all around the lower part of the truck frame for storage of various equipment.

Sky-domes with 5-speed fans, featuring thermostatic control and mosquito nets, are installed on the ceiling of each laboratory compartment.

A reverse air conditioning system is provided in each analysis compartment.

A 50-meter rolling pipe located in an external chest allows to feed the bi-distiller with water inside the laboratory.

A butane gas facility, located in an external chest, allows to feed Bunsen burners and refrigerators.

The electrical circuit

The central box allows to feed the laboratory with electric power and water.

It featured an inverter 220 Vac / 12 Vdc – 15 Amps, a control board for battery charging, water level, voltage 220 Vac, voltage 12 Vdc with all outputs protected.

The central box regroups all electrical inputs / outputs with adequate and normalized protections.

Power circuit

It is fed either directly by the external power network or by the power generator. The selection being made by a manual switch.

In both cases, the output is protected by fuses, differential breaker and surge arrester.

Pictures of the analysis laboratory 4WD truck

Inside views of the laboratory – Analysis compartment

Compartment for storage and cleaning of accessories

Chest of rolling pipe and pump to feed the bi-distiller

Air outputs of the power generator

External chest for tank of potable water

External chest for auxiliary battery

Outside views of the laboratory truck

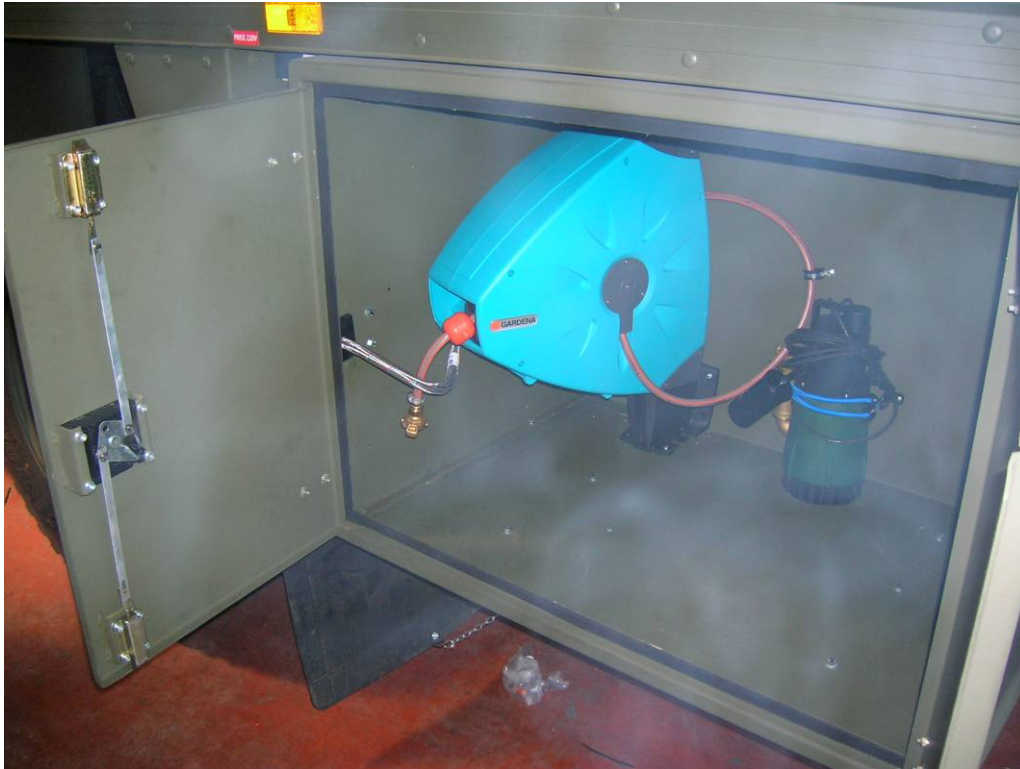
Inside views of the laboratory – Analysis compartment



Compartment for storage and cleaning of accessories



Chest of rolling pipe and pump to feed the bi-distiller



Air outputs of the power generator



External chest for tank of potable water



External chest for auxiliary battery



Outside views of the laboratory truck



