



MOBILE LABORATORIES

Container, truck, van and caravan laboratories for biosafety, molecular diagnostics, public health, mining, fuel analysis and CBRN response.

BSL-2 · BSL-3 · BSL-4

PCR

Screening

Mining

Fuel

CBRN

THE LABORATORY COMES TO THE SAMPLE



We design and build mobile laboratories for biosafety work up to BSL-3 and BSL-4 cabinet lines, PCR diagnostics, public health screening, mining and chemistry, fuel analysis and CBRN response.

Each unit leaves our workshop as a finished laboratory: an insulated, sealed envelope; stainless steel furniture; seamless PVC floors; at least one 30 × 30 cm hand-wash unit; and power and climate systems sized for the site. Every unit can run off-grid on solar power with full climate control, from desert heat to mountain winter.

6 LAB TYPES

Biosafety, PCR, screening, mining, fuel, CBRN

BSL-2 TO BSL-4

Containment designed to WHO and BMML guidance

6 PLATFORMS

20 ft, 40 ft, 40 ft HQ, truck, van, caravan

-20 TO +50 °C

Design ambient range, solar and battery power

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SIX LABORATORIES, ONE BUILD STANDARD



BSL-2 · BSL-3 · BSL-4

BIO SAFETY LEVEL LABORATORIES

Containment laboratories for work with infectious agents, from routine microbiology at BSL-2 to high-consequence pathogens at BSL-3, and Class III cabinet-line configurations for BSL-4 work.

BUILT IN

- Airlock anteroom with interlocked doors
- Negative pressure cascade with alarms
- HEPA-filtered exhaust, bag-in/bag-out housings
- Class II or Class III biosafety cabinets
- Pass-through autoclave and effluent treatment

USED FOR

- Outbreak diagnostics in the field
- Tuberculosis and enteric pathogen culture
- Viral haemorrhagic fever sample handling
- Veterinary and zoonotic disease work

STANDARDS

WHO LBM 4th ed.	CDC/NIH BMBL 6th ed.	ISO 35001	EN 12128	EN 12469
NSF/ANSI 49				



Molecular · qPCR · sequencing

MOLECULAR BIOLOGY & PCR LABORATORIES

Nucleic acid testing laboratories with a one-way workflow, so amplified product never travels back towards clean reagents. Suitable for respiratory, enteric and vector-borne disease panels, genomic surveillance and food or environmental testing.

BUILT IN

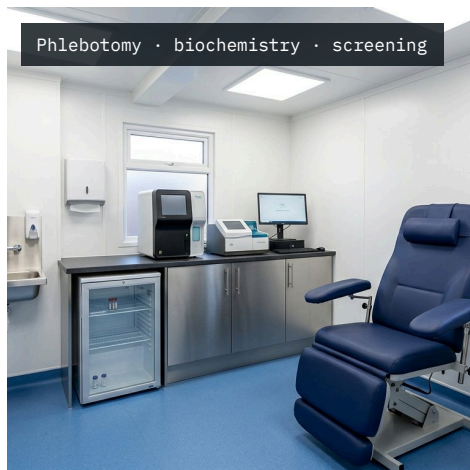
- Separate rooms for reagent prep, extraction and amplification
- Positive pressure in clean rooms, negative in amplification
- UV PCR workstations and glazed partitions
- -80 °C freezer and cold-chain reception

USED FOR

- Real-time PCR and digital PCR
- Automated nucleic acid extraction
- Portable sequencing for surveillance
- High-throughput screening campaigns

STANDARDS

ISO 15189	ISO/IEC 17025	ISO 20395	ISO 14644-1	WHO LBM 4th ed.
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Phlebotomy · biochemistry · screening

MOBILE PUBLIC HEALTH & SCREENING UNITS

Field units for blood collection, basic biochemistry, hematology, microbiology and infectious disease screening. They take the clinic and the lab to villages, camps, workplaces and border points, and return results the same day.

BUILT IN

- Phlebotomy chair and patient privacy area
- Hematology and biochemistry analyzers
- +4 °C sample refrigerator, sharps and waste handling
- Data link for results and patient records

USED FOR

- HIV, hepatitis B and C, syphilis screening
- Tuberculosis and malaria testing
- Diabetes and chronic disease programmes
- Occupational health checks

STANDARDS

ISO 15189

ISO 15190

ISO 22870

WHO LBM 4th ed.



Sample prep · assay · wet chemistry

MINING, ORE & CHEMISTRY LABORATORIES

On-site laboratories for exploration and production, so grade control decisions do not wait for samples to reach a city lab. Sample preparation is kept apart from the instrument room to control dust.

BUILT IN

- Crushing, pulverising and splitting room with dust extraction
- Ducted fume cupboards with acid-resistant worktops
- Drying ovens and balance tables
- Instrument room with filtered, positive-pressure air

USED FOR

- XRF and ICP-OES elemental analysis
- Atomic absorption and wet chemistry
- Water and environmental monitoring
- Process and reagent quality control

STANDARDS

ISO/IEC 17025

EN 14175

ISO 9001

IEC 61010-1



OIL, GAS & FUEL ANALYSIS LABORATORIES

Laboratories for oil fields, refineries, fuel depots, ports and military fuel supply. They check incoming and stored fuel against specification on site and follow the safety rules for flammable vapours.

BUILT IN

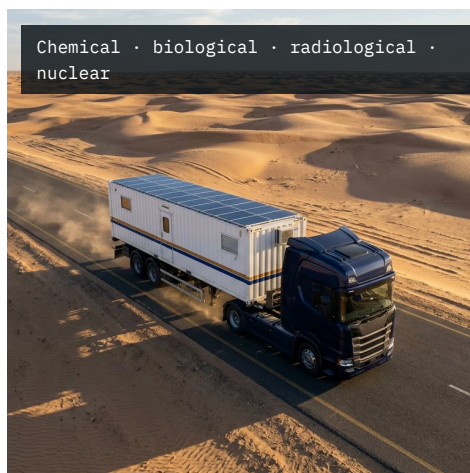
- Hazardous-area zoning with ATEX-rated equipment where required
- Flammable liquid storage and vapour extraction
- Gas detection and emergency shutdown
- Anti-static floor finish and earthing

USED FOR

- Density, viscosity, flash point, distillation
- Sulphur by XRF, water by Karl Fischer
- Gas composition by gas chromatography
- Diesel, petrol, jet and marine fuel checks

STANDARDS

ISO/IEC 17025	EN 590	EN 228	ISO 8217	ASTM D4052 · D445 · D93 · D86
ATEX 2014/34/EU	IEC 60079			



CBRN LABORATORIES

Deployable laboratories for the detection and identification of chemical, biological, radiological and nuclear agents. Built for civil protection, armed forces and first-responder agencies that need a confirmed result close to the incident.

BUILT IN

- Sample receipt through a glovebox or pass-through
- Negative pressure for sample handling, filtered overpressure for crew
- Separate chemical, biological and radiological work areas
- Chain-of-custody and secure data handling

USED FOR

- GC-MS identification of chemical agents
- PCR and immunoassay for biological agents
- Gamma and alpha/beta spectrometry
- Environmental sampling after incidents

STANDARDS

NATO AEP-66 (SIBCRA)	ISO/IEC 17025	WHO LBM 4th ed.	ISO 35001
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CONTAINMENT BY LEVEL

What changes inside a container as the biosafety level rises. Final values are set by the risk assessment for the agents handled and approved by the national authority.

FEATURE	BSL-2	BSL-3	BSL-4 (CABINET LINE)
ACCESS	Controlled door, hand-wash unit by the exit	Airlock anteroom with interlocked doors, changing area	Airlock, changing and shower area
AIR PRESSURE	Inward airflow where required	Negative cascade, typically –15 Pa anteroom and –30 Pa lab, with alarms	Deeper negative cascade, continuously monitored
EXHAUST	Room exhaust	HEPA-filtered, bag-in/bag-out housing	Double HEPA filtration
PRIMARY CONTAINMENT	Class II biosafety cabinet	Class II or Class III biosafety cabinet	Class III cabinet line (glovebox)
WASTE AND EFFLUENT	Autoclave on board or validated transport	Pass-through autoclave, effluent treatment option	Double-door autoclave, heat-treated effluent
SURFACES	Seamless PVC, stainless steel, Trespa® TopLab PLUS	As BSL-2, plus sealed penetrations and fumigation-ready room	As BSL-3, with pressure-decay tested envelope
TYPICAL PLATFORM	Van, caravan, 20 ft	40 ft or 40 ft High Cube	Coupled 40 ft High Cube units

Pressure values are typical design targets. Every BSL-3 and BSL-4 unit is commissioned and validated on site.



FROM THE DOOR TO THE BENCH

Every container leaves our workshop as a finished laboratory: sealed and insulated outside, clean and climate-controlled inside.

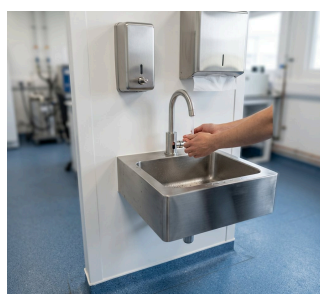


20 ft unit on site, doors open



20 ft microbiology unit, blue PVC floor

- 1 Climate control, 22 °C inside
- 2 Stainless steel wall cabinets
- 3 Trespa® TopLab PLUS on steel frame
- 4 Class II biosafety cabinet
- 5 Stainless steel bench
- 6 Hand-wash unit, 30 × 30 cm
- 7 Seamless PVC floor, blue or grey



FLOOR

SEAMLESS PVC

Welded and covered up the walls, chemical resistant and easy to disinfect. Blue or grey.

FURNITURE

STAINLESS STEEL

AISI 304 base units, drawers and wall cabinets. Trespa® TopLab PLUS worktops on welded steel frames where chemicals are handled.

HYGIENE

HAND-WASH UNIT

At least one 30 × 30 cm stainless steel hand-wash basin with sensor tap in every container, placed by the exit.

 PLATFORMS

SIX WAYS TO MOVE A LAB

Same interior standard on every platform. Choose by how far the lab has to travel, how fast it has to arrive and how much bench space the work needs.



20 FT CONTAINER

ML-20

EXTERNAL 6.06 × 2.44 × 2.59 m
LAB AREA ≈ 12 m², 2.2 m clear
BEST FOR BSL-2, PCR, single-team labs



40 FT CONTAINER

ML-40

EXTERNAL 12.19 × 2.44 × 2.59 m
LAB AREA ≈ 26 m², 2.2 m clear
BEST FOR Zoned labs, BSL-3, anteroom + two rooms



40 FT HIGH CUBE

ML-40HQ

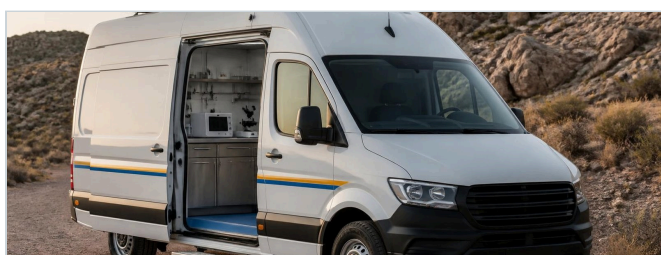
EXTERNAL 12.19 × 2.44 × 2.90 m
LAB AREA ≈ 26 m², 2.5 m clear
BEST FOR BSL-3/BSL-4, ducted HVAC, fume cupboards



TRACTOR + TRAILER

ML-TT

CHASSIS Scania, Mercedes-Benz, Volvo, MAN, BMC, HABAS, SANY, FAW or any brand on request
LAB 40 ft unit on trailer, ≈ 26 m²
BEST FOR CBRN response, relocating between sites



PANEL VAN

ML-PV

CHASSIS Mercedes-Benz, MAN, Volkswagen, Iveco, Ford, Fiat, Citroën, Toyota, Hyundai, Geely, SAIC, Foton, FAW, DFSK or any brand on request
LAB AREA ≈ 7 m², 1.9 m clear
BEST FOR Rapid sampling, phlebotomy, triage



CARAVAN

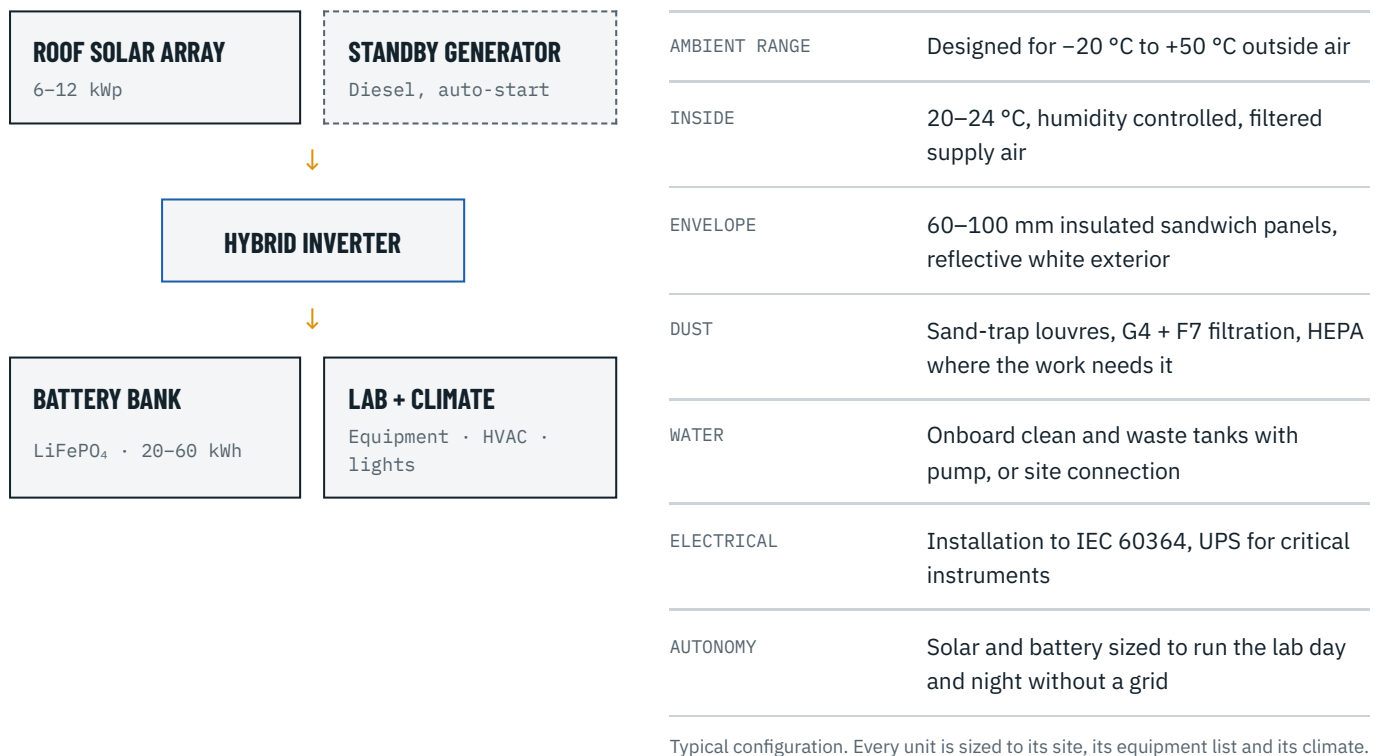
ML-CV

TYPE Tandem-axle towed unit
LAB AREA ≈ 13 m², 2.0 m clear
BEST FOR Screening campaigns, remote clinics

 OFF-GRID OPERATION

BUILT FOR HEAT, DUST AND NO GRID

Our container labs are designed for places with sand, sun and no reliable power. The roof makes the electricity, the battery carries the night, and the climate system keeps samples, instruments and staff at working temperature.



THE REFERENCES WE DESIGN TO

Each laboratory is designed with reference to the standards that apply to its work. Accreditation of the laboratory itself, such as ISO 15189 or ISO/IEC 17025, is held by the operator; we build the facility so that it can be achieved.

BIOSAFETY & BIORISK

WHO Laboratory Biosafety Manual, 4th ed.	Risk-based approach to biosafety, core and heightened control measures
CDC/NIH BMBL, 6th ed.	Biosafety levels 1 to 4 and facility requirements
ISO 35001	Biorisk management for laboratories
EN 12128	Containment levels of microbiology laboratories
EN 12469 · NSF/ANSI 49	Performance of microbiological safety cabinets

QUALITY & TESTING

ISO 15189	Medical laboratories, quality and competence
ISO 15190	Medical laboratories, requirements for safety
ISO 22870	Point-of-care testing
ISO/IEC 17025	Competence of testing and calibration laboratories
ISO 20395	Performance of qPCR and dPCR methods

FACILITY & TRANSPORT

ISO 14644-1	Cleanroom air cleanliness classes
EN 14175	Fume cupboards
ATEX 2014/34/EU · IEC 60079	Equipment for explosive atmospheres
IEC 60364 · IEC 61010-1	Electrical installations and laboratory equipment safety
ISO 1496-1 · CSC	Freight container construction and safe transport
NATO AEP-66 (SIBCRA)	Sampling and identification of CBRN agents

HOW A UNIT IS MADE

BRIEF TO FIELD

01

BRIEF & RISK ASSESSMENT

Workflow, agents or samples handled, equipment list, climate, access roads and power on site.

02

ENGINEERING

Layout, containment zoning, HVAC and pressure design, solar sizing and drawings for approval.

03

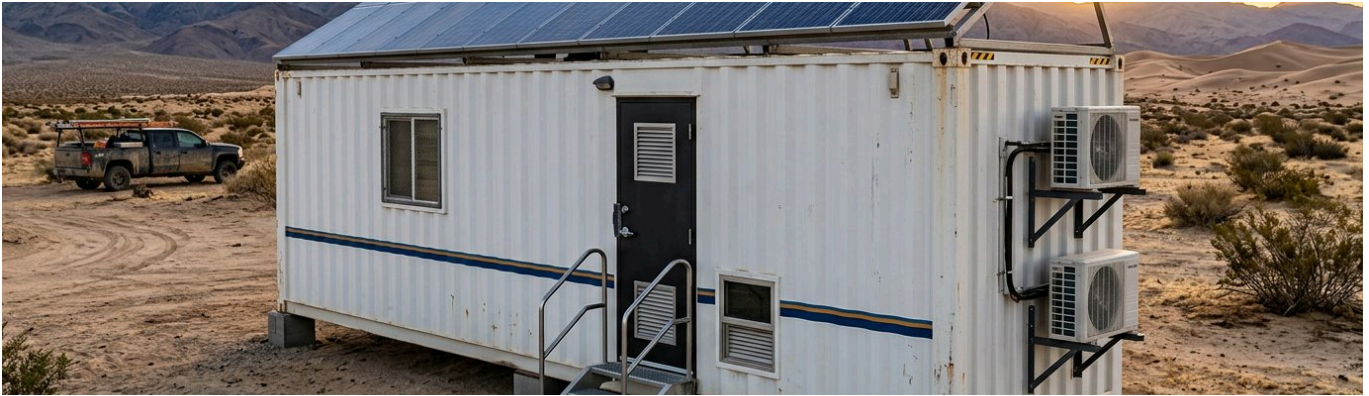
BUILD & FACTORY TEST

Fit-out in our workshop, then a factory acceptance test with power, climate and pressure systems running.

04

DEPLOY & VALIDATE

Delivery by road or sea, commissioning on site, validation support and training for the lab team.



CONTACT

TELL US WHERE THE LAB NEEDS TO GO

FOR A QUOTATION, SEND US

- The laboratory type and the work it must do
- The site, its climate and access
- Preferred platform and chassis brand
- Timeline and number of units



Scan for the website
mobillaboratory.com

COMPANY NAME

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TİCARET LİMİTED ŞİRKETİ

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Images show representative configurations. Specifications are typical and are confirmed for each project.