

Mobile Microbiology Laboratory

Mobil Mikrobiyoloji Laboratuvarı

1 General Features

Access, security and communication

Access doors waterprrof and interlocking / **Giriş kapısı su geçirmez ve içten kilitlenebilir**

- Controlled access by card or badge / **Giriş kontrolü kartlı.**
- Videophone inside the laboratory to communicate with the outside / **Kapı zili görüntülü, ekranlı.**
- Fire detector / **Yangın dedektörü**



a Coating

Floor coating: PVC, waterprrof non porous / **Zemin kaplama PVC, su geçirmez.**
Waterproof partition made of synthesis acrylic resin / **Su geçirmez kısım akrilik reçine kaplı**



b Decontamination - Arınma/Temizlenme

Integrated decontamination system / **Dahili temizlenme sistemli**

c Air/pressure management - Hava/Basınç kontrolü

Renewal of at least 20 volumes/hour - **saatte 20 m3 hacimli yenileme**
Automatic management of depressure and overpressure - **Otomatik Basınç Düşürücü**
Filtration G4-F8 & H14 au soufflage et caisson sécuritif H15 à l'extraction. - **Filtre**



d Contrôle des équipements

Centralised control of the entire searchable facility - **Merkezi Kontrol sistemi**
Remote configurability
Including the control of temperature (freezers, fridges and working cycles of the autoclave) **Cihazlar için Isı kontrol soğutucu/dolap/otoklav vs.**



e Inside caracteristiques of the P3 zone - P3 alanı iç özellikler

Coated with a washable paint, easy to clean and hard-wearing to chemicals - **yıkanabilir boya ile kaplı, kolay temizlenebilir ve kimyasala dayanıklı**
Floor coating anti-slippery material, easy to clean, hard-wearing to disinfectants and chemicals - **Zemin kaplama kaymaz, kolay temizlenebilir, dezenfektan ve kimyasala dayanıklı**
washable doors, cleaning chemical-proof - **Yıkılabilir kapılar, temizleme kimyasalları dirençli kapılar**



2 Electric system -

Electric group
Generator set to supply :
Make and model to specify
Power of at least 33 Kva - **33 kva GENERATOR**
Voltage/frequency : 230-400 volts / 50 Hz
Fuel: diesel - **Dizel**
Regulation électronique and automatic starting system with relay to ensure the substitution without any electrical interference
Water tank of at least 175 Liters capacity - **175 litre su tankı - en az**
Tropicalised individual ondulators for the electrical maintenance of the security stations and amplifiers - **Tropikalleştirilmiş ondulators - elektrik bakımı için**

3 Worktop and work area

Mobile workbench with fitted furniture - **Hareketli tezgah - mobilyalı**
The area for preparing the samples must include a humid/damp workbench, a Class II A2 type securised microbiological station, a class III glove box, a fridge and a solvent cabinet -
Çalışma alanı Class II A2 güvenli mikrobiyolojik istasyon, a klas III eldiven kutusu, soğutucu ve çözücü (solvent) kabinli.

4 Sterilisation

Double entry autoclave of 90 litres min
Çift giriş - 90 litre minimum otoklav.



5 Security shower

Security shower and integrated eye rinse with water tank -
Güvenlik duşu - entegre durulama opsiyonlu - su tankı

6 Airlock

2 airlocks equipped with storage furniture and handwash - 2 hava bölmesi Lavabolu ve mobilyalı



8 Class II microbiology security station Klas II mikrobiyoloji istasyonu

Station must be compliant to security norm EN 12469 tested and certified independently)
Efficient cleaning: conceived to avoid cross contamination of samples. The window/glass pane lowers down easily to facilitate the cleaning of its internal
Width of 120 cm approximately and appropriately for a centenary P3
Type : class A2



9 Class III microbiology security station / Klas III mikrobiyoloji istasyonu

Class III glove box
For biological hazardous substances
With adjustable negative pressure
Stainless steel
Filter able to filter 99.99% of particles of 0.3 micrometer



10 PCR Machine (Thermo cycler) -PSR Makinası

PCR in real time (RT-PCR)
5 reading filters for 5 ranges of wave length
With incorporated laptop with at least i5 core, 4Gb RAM, 500Gb of memory
With piloting system



11 Nucleic acid mini extractor

Automaton to enable the extraction of nucleic acids (DNA & RNA)
Able to extract nucleic acid for bacteria, virus and fungi
Able to use at least: human cells and tissues, blood, cerebrospinal fluid
Extraction capacity: at least 4 to 10 samples at a time



12 **Nucleic acid measure Spectrophotometer**

Optical density reading
Absorbance Range: at least A280/230



13 **Closed transilluminator**

Revelation system for electrophoretic migration gel
Gel scanner/imager
Electronic system
Tactile screen



14 **Pack for ELISA**

Washer of the ELISA 96-well Strip Microplate
Optical density reader (96-well Strip Microplate)



15 **Water distiller**

Cartridge filters similar or equivalent to reduce the calcification on water heaters
At least storage capacity of 12 Liters
Performance : approximately 12 litres/hour
Heating resistance in stainless steel
Signaling LED: temperature, pressure, faults, volume



16 **-86°C Freezer**

Minimum volume minimum of 300 litres
External alarm
Insulated under doors



17 **Fridge/Freezer**

Gross volume of around 400 litres
Electronic regulation



5 glass shelves and 3 freezing drawers



18 **Cooling centrifuge**

1 free rotor 4x100ml
4 pods 100ml
4 adaptators for 15ml tubes
4 adaptators for 50ml tubes
1 free rotor for 1.5ml cryotube
Speed (rpm) : 5000 min
Acceleration RCF (g) : 4500 approx.
Temperature : -9°C to +40°C
Acceleration time: 10 secondes approx.
Deceleration time: 10 secondes approx.
Numbers of programmes: at least 10



19 **Thermomixer**

Supports for the tube between 0.2 µL & 50 ml as well as for plates (microplates, deep well plates and PCR 96 / 384 plates)
Agitation frequency: 300 – 3 000 rd/min
Agitation orbital: 3mm approx
Temperature control range: 15°C to 100°C
Temperature precision: Max. ±0,5 °C to 20 – 45 °C
Heating speed: Max. 7 °C/min (in case of use as a plate support)
Cooling speed: Max. 2,5 °C/min between 100 °C and ambient temperature
Incorporated timer: yes
Interface: USB Interface
Closing: Yes



20 **Mixed incubator**

Minimum capacity of 120 litres
Shelves: at least 3
Temperature range: +20 to 140°C, high temperature accessed by card or code.
With CO2 option: Regulation of the infrared CO2 rate.



21 **Numeric optical microscope with shelves/tablets**

Tactile tablet with detectable system
Numeric binocular head 30° reclinate and 360° rotative
Objectives: E-Plan : 10x, 40x et 100x, all treated with anti-fungi system
Observation: light background
Ocular: Wide filed/outfield ocular WF 10X/20 with field index 20
Revolver: 4 positions objective holder revolver with ball bearings rotation
Turntable: Turntable with overturntable, with fixation flap, belt movement
Option with luorescence included
Spare lamps: Yes
Camera resolution of at least 5 megapixels
Vision software supplied
Capture function: Continuous auto exppo and image settings integrated
Calibration blade: Yes



22 **Mycobacterium identification automaton**

Compact system that would fit in a P3
Totally automated system specifically dedicated to mycobacteria
Detection in liquid background and antibiogram possible with the same automaton
1st and 2nd line antibiogram automated
Early detection of growth
Capacity: up to 320 places
Approx. 2.700 tests/year
Originally equipped with culture tubes and antibiograms of 1st and 2nd lines: 2 x 3 racks
Source d'alimentation : Électricité 220 V
Individual ondulator: Yes



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