

- Fire Fighting Equipments
- Storage Tank Accesories
- Pig Receivers & Launchers
- Pressure Vessels

Adress:

Fenerbahçe Mah.
Fener Kalamış
Cad. No: 21/3
Kadıköy -
İstanbul /
TÜRKİYE

Tel: +90 216 405
2155

ema@emaindust
ry.com



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EMA INDUSTRY ENGINEERING SERVICES

emaindustry.com

EMA INDUSTRY
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SERVICES LTD.

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Technical Information

EMA mine and tunneling refuge chambers are designed and manufactured to the highest standards to save lives in possible accidents. Chambers ensure the minimum vital functions required until help and survivors of the accident are reached.

On the other hand, the cabins meet the needs of respiratory, toxic gas treatment, temperature control, communication, lighting, food and hygiene.

Depending on the structure and shape of the mine area, customers can select the Mine Refuge Chamber system for avoiding any hazard such as fire, explosion, gas outbursts or intercepts, inadequate or loss of ventilation and extensive collapse of workings.

Standart Dimensions

Our refuge chambers, which are manufactured in accordance with international rules and norms, can be manufactured in desired special sizes and standards for customer-specific solutions.

Model	Occupancy		Length(m)	Height(m)	Width(m)
	Person	Duration(h)			
AYS-MRC-8	8	36	4.5	2.20	2.25
AYS-MRC-12	12	36	5.5	2.20	2.25
AYS-MRC-16	16	36	6.5	2.20	2.25
AYS-MRC-20	20	36	7.5	2.20	2.25
AYS-MRC-26	26	36	9.0	2.20	2.25
AYS-MRC-30	30	36	10.0	2.20	2.25

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GENERAL FEATURES	STANDART	OPTIONAL	OFFER
Sealed structure	✓		✓
6 mm. Steel Plate Construction	✓		✓
Ergonomically designed room	✓		✓
Blast rating: 5 psi	✓		✓
Blast rating: 15 psi (Coal Mine)		✓	
Outward opening sealing door, with double locking handles	✓		✓
Two rear escape hatch	✓		✓
Viewing hole: 20 mm. thinkness	✓		✓
External and internal signage (reflective, safety and operational)	✓		✓
Highly portable; base fitted with 250mmx100mm forklift slots, front and rear tow points, lifting eyes	✓		✓
Secure rear housing to protect critical exte-rior-mounted components	✓		✓
Ergonomically designed seating	✓		✓
Under seating strorage	✓		✓
Portable chemical toilet 13 L	✓		✓
Fire Blanket	✓		✓
Fire extinguisher inside & outside	✓		✓
Playing cards	✓		✓
First aid kit	✓		✓
Continuous battery support for 36 hours	✓		✓
Life support extension 36up to 96 hours		✓	
External lighting; extra low voltage green and red LED	✓		✓

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Internal lighting; LED daylight	✓		✓
External antenna connection (for client's own communication systems)	✓		✓
Siren; 95-112 dBA	✓		✓
Touch screen LCD Control Panel	✓		✓
System diagnostics: Chamber status, mains power connection, audible and text warning alarms	✓		✓
Fault logging	✓		✓
Breathable air (O2) supply	✓		✓
CO2 and CO gas damping system and chemical cartridges (Scrubber System)	✓		✓
Positive Pressure Protection System	✓		✓
Compressed Air Management System	✓		✓
Voice Guidance System	✓		✓
Air Conditioning	✓		✓
Compressed (Medical) Oxygen Cylinders	✓		✓
Pneumatic Air Curtain		✓	
Airlock		✓	
Digital Gas Measurement System		✓	✓
Emergency Mine Air Shutdown System		✓	✓
Individual Oxygen Recovery Masks		✓	
Manual Gas Meter and Cartridges	✓		✓
Transformer; Step down 1000V to 240-220V		✓	
Remote Control & Camera System		✓	
Spinal Board; Immobilisation & Transportation		✓	

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For use NATM Tunnel (Not for TBM)	✓
Movable products (products with wheels installed)	✓
150m~300m from the tunnel face.	✓
Wall should have a surface finish chosen to minimize fire risk	✓
It should be internal lighting (intensity of at least 15lux and can be reduced to 5 lux when in standalone mode)	✓ The lighting work with motion sensors. They automatically turn off when not in use.
It should be sufficient storage space for rescue equipment.	✓
It should be capable of providing waste containment for 24hours (Toilet paper should also be supplied)	✓
At least 3L/person for 24hour should be stored.	✓
It should be provided water based fire extinguisher (Internally and externally)	✓
It should be provided storage for a first aid kit	✓
It should be the capability to continuously monitor temperature and for carbon monoxide, carbon dioxide, and oxygen in the chamber during use in both externally supported or standalone modes.	✓
It should be a circulation of air within the refuge chamber. (standalone air supply)	✓
(Oxygen : 20%+-2%, carbon monoxide should not exceed 60ppm, carbon di oxide should not exceed 10000ppm)	
Internal temperature not exceeding 30°C at least 24hr (Air conditioning unit)	✓
Own emergency uninterruptible power supply at least 24hr	✓
Normally connected to the tunnel power supply. And It should be protected against dust or water ingress (min IP54)	✓
It should be have a communication system which is connected to the tunnel communication network.	✓ We have a sealed outlet. The communication system of the customer can be connected inside the cabinet. Wireless or telephone are not included in the price .