

Transit shelters along the escape route

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After an underground mine emergency, the immediate action for the survivors is to escape the mine.

In case of a long distance to the surface and safety, the escapees can benefit from transit shelters placed along the way

Transit shelters allow miners temporary refuge along the escape way

Also can be used by rescue teams in case of encountering difficulties

Transit Shelters may be built-in or pre-fabricated types

Used in conjunction with other escape methods such as recharge systems

Transit Shelters allow miners to:

- Rest
- Food/ hydration
- Exchange/ Re-charge breathing apparatus
- Review escape paths
- Communicate
- Treat injured

The most important design aspect of these shelters is to have a **high throughput of escapees**.

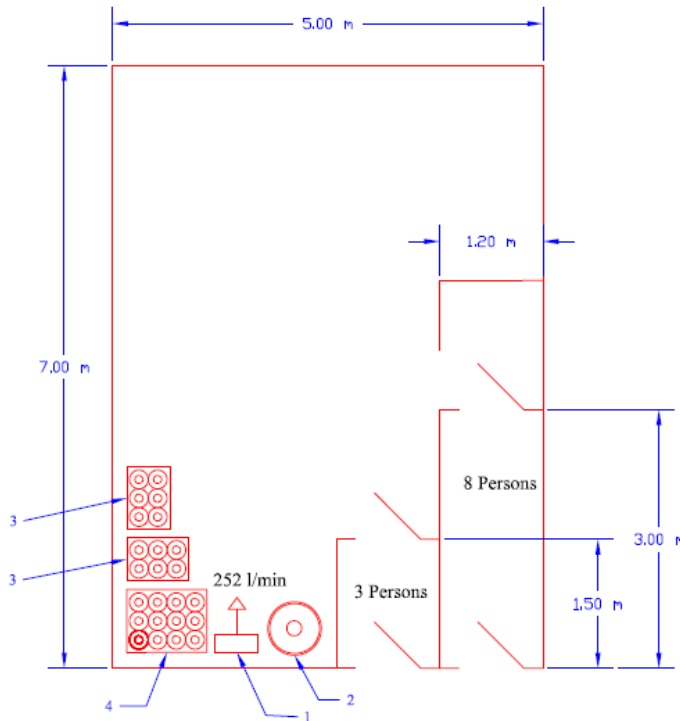
- ✓ Quick flushing of man locks
- ✓ Maintain a low carbon dioxide level
- ✓ Create an overpressure inside the shelter
- ✓ Inlet air filtration
- ✓ Recirculating filter system

Transit shelter with twin air locks

Two air locks for faster admittance into shelter.

Larger lock can accommodate stretcher

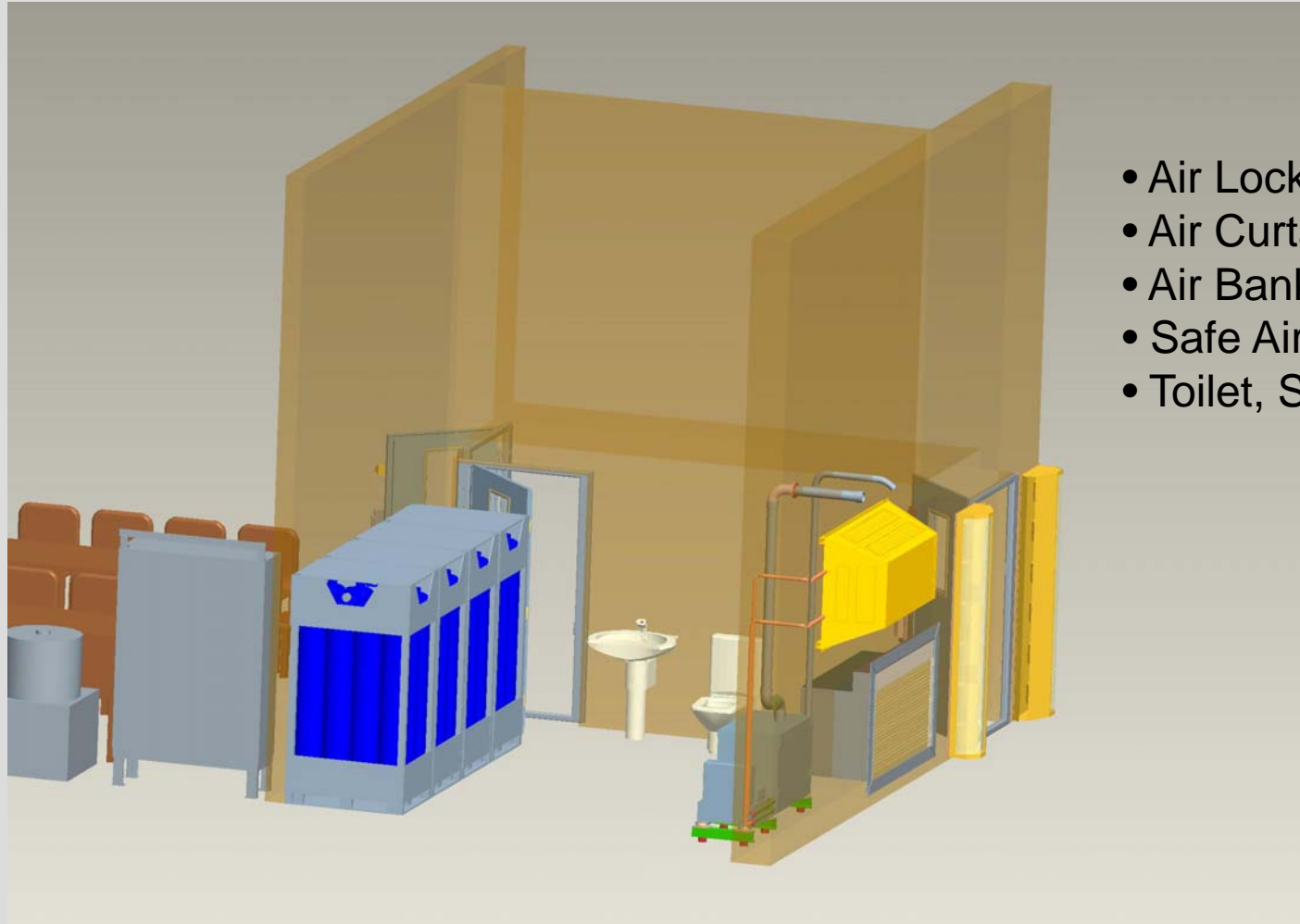
Separate air banks for flushing and maintaining positive pressure



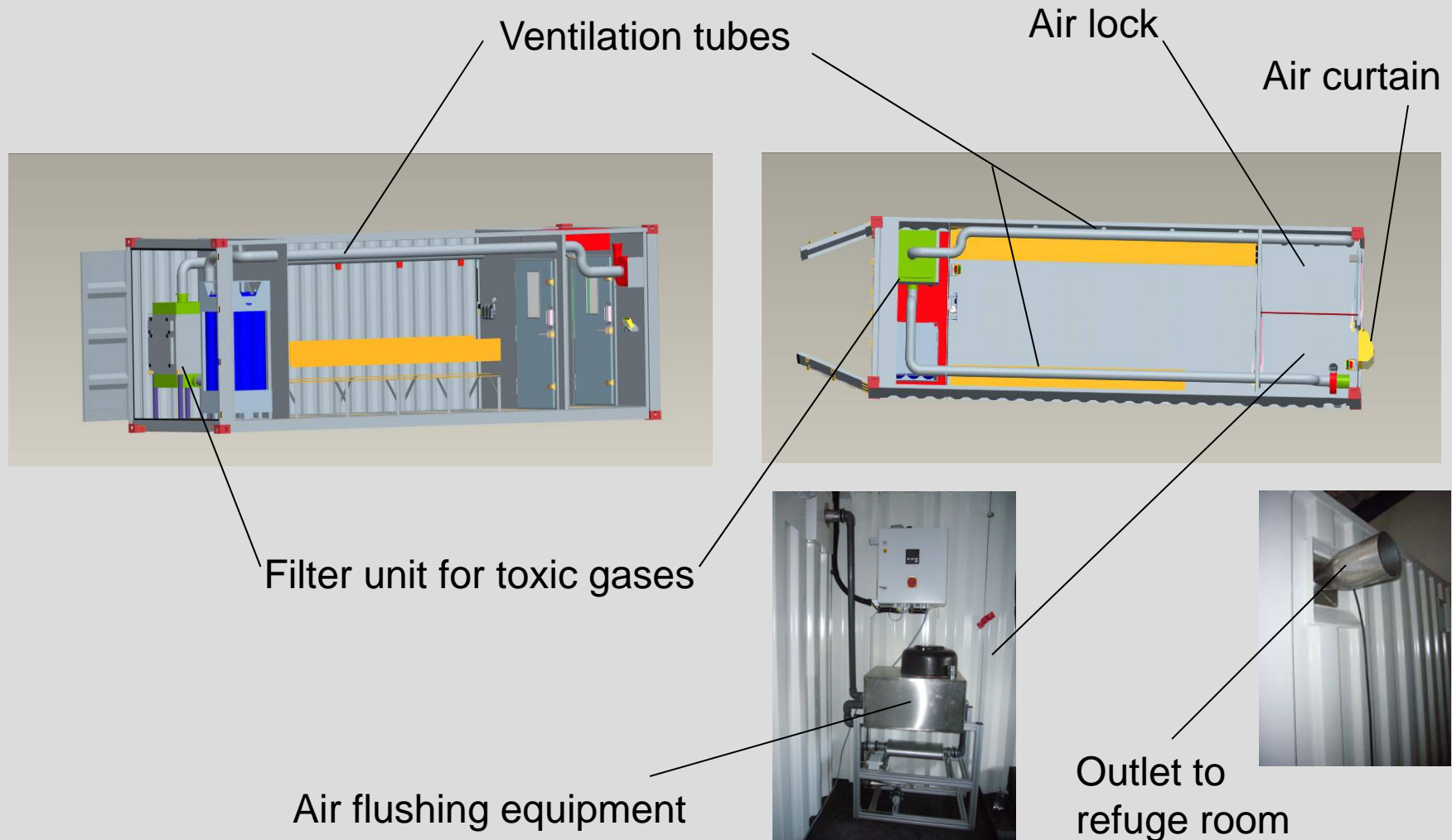
NOTES:

1. AIR SUPPLY PANEL.
2. CO2 ABSORBER.
3. BREATHING AIR CYLINDERS FOR AIR LOCK FLUSHING.
4. BREATHING AIR CYLINDERS FOR ROOM PRESSURE.

Built-in Shelter Components



- Air Lock
- Air Curtain
- Air Banks
- Safe Air Conditioner
- Toilet, Sink & Water Supply



Carbon Dioxide Scrubbing Systems



Twin-CO₂ - Scrubber K 3,0
for max. 120 persons / 1 Vol. % CO₂



CO₂- Absorption System K 10,0
for bunker rooms
e.g. 350 persons / 1 Vol. % CO₂



Dräger Sodalime cartridge K 3,0

CO₂ - Scrubber CH 16720
for max. 40 persons / 1 Vol. % CO₂



Air Storage Banks

Shelter Gas Tight Doors



**Special door for
blasting works**



**Spring loaded door
for shelters**



**Door with air curtain device
for excluding smoke and
contaminations**

Further work on the operation and training in the use of these shelters needed

Thank you for your attention!