

Strata Safe Room (SSR)

Underground Refuge Alternative

The Strata Safe Room is a pre-constructed underground refuge room for emergencies. It is designed to provide life-sustaining shelter, supplies and breathable air to miners trapped underground. Safe Rooms can be built to any size.

BREATHABLE AIR OPTIONS

- Self-contained breathable air system including a carbon dioxide scrubber and regulated oxygen supply
- Compressed mine air connection with high quality air filtration
- Borehole air supply

SAFE ROOM COMPONENTS

- Air-tight steel-door access and optional dual-door Airlock entrance
- Optional blast-resistant access door (15 psi)
- Optional purge air system in airlock
- Optional air cooling with dehumidifying system
- Auxiliary battery power to extend battery life
- Lighting and alarm/siren kit for interior and exterior
- Accessories and Commodities

KEY BENEFITS

- Inexpensive to build, maintain and equip
- Accommodates large numbers of people
- Easily expanded
- Ready for immediate use once installed and air-tight
- Self-contained skid-based components for flexible options and layout
- Does not interfere with mining operations
- Strata customer support from design through implementation



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ACCESSORIES AND COMMODITIES

- Atmospheric monitoring
- First aid kits
- Communication
- String lights
- Food & water
- Private lavatory



SPECIFICATIONS

Carbon Dioxide (CO₂) Scrubbing

- Maintains CO₂ levels below 1% (10,000 ppm)
- Powered: Battery-powered fans circulate air through scrubber
- Soda lime chemicals remove CO₂
- Power-less soda lime curtains (alternative)

Oxygen Supply

- Individual skid stores up to nine (9), 2,900 psi (200 bar) cylinders
- Multiple skids can be used for additional cylinders
- Regulators, flow valves included
- Up to 3,300 cubic feet (93,000 L) of oxygen available per skid

Air Cooling with Dehumidifying

- Regulates internal temperatures and humidity
- Operates on mine power or battery back-up
- Continuous charging for emergency readiness
- 110 – 600 VAC input
- Minimum of 48 hours continuous cooling

Additional Options

- Stackable, auxiliary battery power with 24 hours of additional power. Multiple battery blocks can be used to increase duration
- Storage cabinets for accessories and commodities

