

RESPETRA[®]

RESCUE CHAMBER



TIME TO RESCUE

+ RESCUE CHAMBER

In cases of emergency, the shelter provides extra time and flexibility for making a rescue plan and implementing measures. The shelter works completely independently and is always ready to use and holds all the necessary equipment to cover operation up to three days. The shelter is gastight and has normal breathing air inside. There is no need to use breathing masks. The entrance area prevents gases from accessing the actual shelter. The Respetra protective shelter is design protected.

WHY TO CHOOSE RESPETRA RESCUE CHAMBER?

- Close to the work site
- Long operating time
- No need for breathing masks
- Flexible in the number of persons for exceptional situations
- Minimal service requirement
- Low lifetime costs
- Retail sales value

RESPETRA® 8



RESPETRA® 14



The **Respetra 8-LT** and **Respetra 14-LT** models are also available for container freight transportation. More information can be found from the technical information section.

+ EQUIPMENTS

Moveable tables, seats, beds and hygiene facilities, chemical toilet and waste management.



+ RESPIRATORY AIR

The oxygen required for the shelter is produced by the oxygen bottles in the entrance area. At the same time the shelter has 0.1 bar overpressure that prevents harmful gases and dust from entering the shelter.

Carbon dioxide is maintained at the normal level using air purification devices. Air humidity is adjusted using a condensation dryer and temperature is maintained using electrical radiators. When at standby, dust is prevented from entering the shelter using non-return valves.

RESPETRA® 8



RESPETRA® 14



+ CONNECTIONS

The shelter is connected to the 230 V power source. During a power cut, the systems operate using protected and maintenance-free batteries that are kept charged by the electrical supply. The shelter can be connected to the telephone and telecommunications network of the mine. If necessary, communication can also be done through the resonant window without needing to open the doors.



+ VISIBILITY

The lit entrance and the reflective surfaces on the door and front section make the shelter easily visible and guide the user to the door of the shelter.

+ HANDLING AND TRANSPORTATION

The shelter can be moved using a wheel loader with a fork lifter. The shelter has lifting points for a forklift on the short and long sides. For uneven ground, the shelter can be made to sit flat using the adjustable legs.

+ RESPETRA BENEFITS

The material used for the protective shelter is special stainless steel made by Outokumpu Oy, the benefits of which are:

- Anti-corrosion properties for the demanding conditions of underground mines
- Low servicing and lifecycle costs
- No surface treatment is required, so the shelter does not have paint odours
- Endures fluctuations in pressure many times over compared to structural steel
- The rounded surfaces increase pressure fluctuation endurance and ensure the gastight properties of the protective shelter



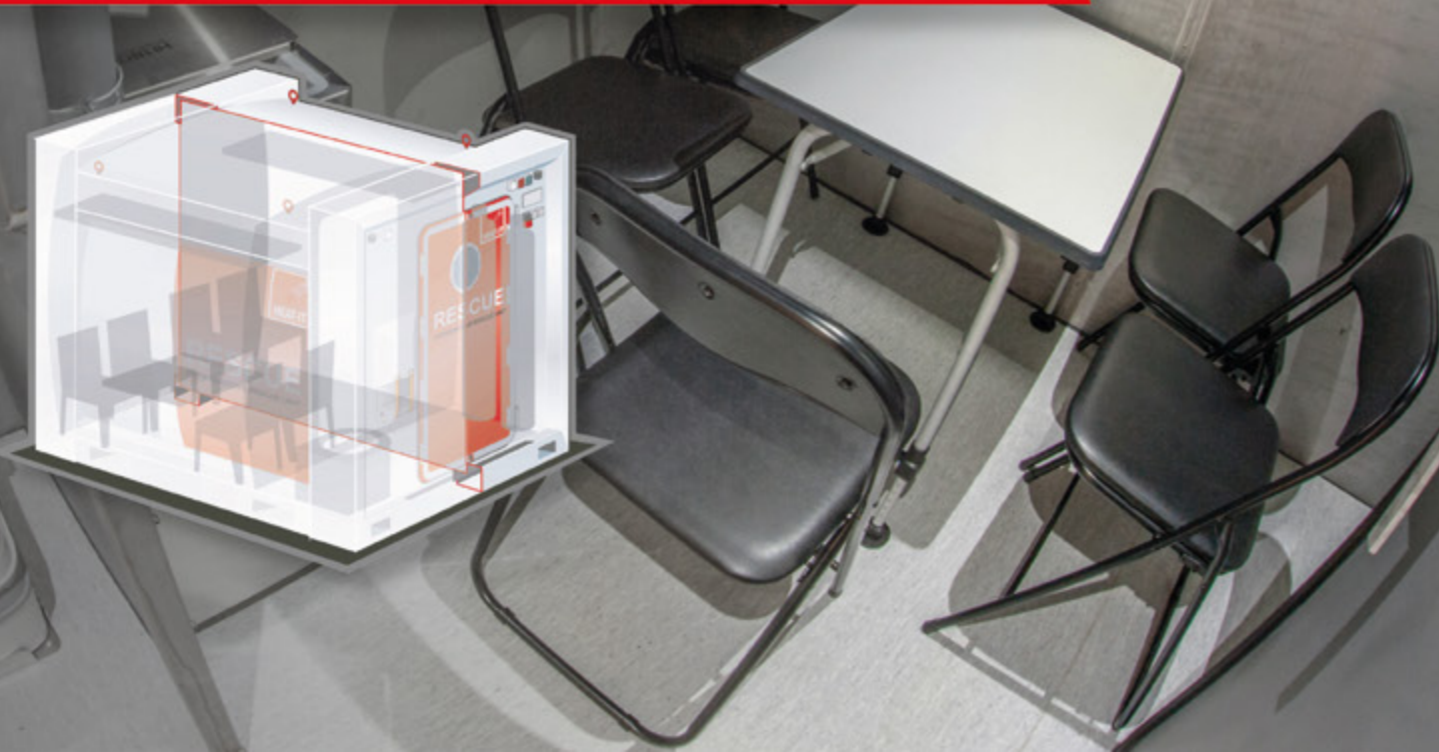
+ RESPETRA 8

For a maximum of eight persons, and due to its small size, durable structure and easily movability, it can be placed close to the excavation site. Operating time can be adjusted between 8 – 72 hours according to local needs and safety regulations. The protective shelter weighs approximately 2,000 kilograms, length 2.68 metres, width 2.52 metres and height 2.52 metres.



+ RESPETRA 14

For a maximum of 14 persons, for instance placement along main access routes. Operating time can be chosen between 8 – 72 hours according to local requirements and safety regulations. The shelter weighs approximately 3,000 kilograms, length 5.0 metres, width 2.52 metres and height 2.52 metres.



+ TECHNICAL SPECIFICATIONS

	RESPETRA® 8	RESPETRA® 14	RESPETRA® 8-LT	RESPETRA® 14-LT
NUMBER OF PERSONS	8	14	8	14
NUMBER OF SEATS	8	14	8	14
NUMBER OF BEDS	2	4	0	0
NUMBER OF TABLES	1	3	0	0
OPERATING TIME (max)	72 h / 8 persons	72 h / 14 persons	72 h / 8 persons	72 h / 14 persons
BATTERIES, 92 Ah	2	3	2	3
OPERATING TIME WITH BATTERIES	30 h	30 h	30 h	30 h
OPERATING VOLTAGE	240 V	240 V	240 V	240 V
AIR PURIFICATION / CO ₂ UNITS	1 unit / HI1800	1 unit / HI3600R	1 unit / HI1800	1 unit / HI3600R
LENGHT OF ENTRANCE AREA	70 cm	100 cm	70 cm	100 cm
WEIGHT	2 000 kg	3 000 kg	1700 kg **	2500 kg **
LENGHT / WIDTH / HEIGHT (m)	2,68/ 2,52/ 2,52	5,00/ 2,52/ 2,52	2,68/ 2,25/ 2,52	5,00/ 2,25/ 2,52

** transport weight

+ TESTING AND MEASUREMENTS

The protective shelter has been tested in actual conditions in mines with rescue authorities, the defence forces and research facilities.

The values measured in the tests correspond to normal working conditions.

The physical and mental welfare of the test subjects was normal during the testing period.





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REFERENCES:

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- Boliden Ab
- LKAB Ab
- Veidekke ASA
- Outokumpu Oy
- Nordkalk Oy
- Yara Oy
- Skanska Oy

IN CO-OPERATION:

