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TEBRIX is engaged in the manufacture, development and sales of underground fallout shelters, security checkpoints, panic rooms, protection of existing facilities in both the military and private sectors and supplies complete range of equipment and technologies to these shelters.

TEBRIX is one of the first companies in the Czech Republic that specializes in the design and construction of private shelters. TEBRIX shelters meet all safety requirements and are designed to make any customer feel as comfortable and cozy as in its second home. TEBRIX focus on safety and comfort. Specialists of TEBRIX will prepare an individual shelter project for each customer. TEBRIX has a team of specialists, and these specialists work closely with several international companies that have many years of experience in the construction of shelters from Switzerland, Finland and Israel. **TEBRIX is a member of the Defense and Security Industry Association of the Czech Republic. (AOBP – DSIA)**

Our team

To be able to build a life support facility for case of environmental disasters, social riots, or even war needs a whole team of specialists is required. In TEBRIX team there are physicists, engineers, architects, constructors, designers and organizers who lead the whole process of building and deliveries of complete facilities. The construction of each shelter involves an initial survey of the terrain, followed by the design and calculations of the capacity of various facilities according to the number of people who will inhabit it. For this purpose, TEBRIX has assembled a team of specialists in various fields of activities and trusted partners.

TEBRIX offers the following deliveries and services:

- Basic shelters for the private, state and military sectors. For smaller shelters, steel modules can be used, which are subsequently concreted or not according to the customer's wishes (thickness min. 40 cm). For larger shelters a reinforced concrete structure is chosen both with the provision of basic needs and safety for the customer and his family.
- For apartment buildings A civil protection shelter (hereinafter referred to as CPS) can be created from an underground parking lot in an apartment building, it can be made in already existing buildings.
- For schools and hospitals their underground spaces, safe spaces can be modified. For schools especially bulletproof and fire proof doors in classrooms, panic rooms, security against chemical and biological weapons.
- Modification of CPS. TEBRIX is the only company in the Czech Republic engaged in complete reconstruction of existing large-capacity shelters. These shelters were built in the 60s-80s of the last century and, with some exceptions, were not maintained in any way. Currently, their condition does not allow their use during crisis events, that is why we started to deal with this issue.
- Security checkpoints. TEBRIX supplies ISO security checkpoints designed for armies and specialized industries worldwide. These are mobile stations that can be transported by car, airplanes and ships.
- Panic Rooms. A safe place used to protect people, cash, weapons, and other valuables. Construction of protective rooms can also be carried out in existing buildings.
- Underground shooting ranges. Production and construction of underground shooting ranges. TEBRIX builds shooting ranges according to the customer's requirements with respect to the standard ČSN 39 5401 (395401) - Gunnery. For underground shelters, from 1 to 10 boxes are feasible. This is an add-on to our services.

All production and constructions are subject to the ČSN 73 9010 standard, designing and construction of buildings for civil protection of the population.

- Our buildings withstand:
- Attacks with weapons of mass destruction
 - Industrial accidents
 - Natural disasters
 - Social unrest
 - Blackout
 - Terrorist attacks





TEBRIX is the largest manufacturer of underground nuclear shelters in the Czech Republic. TEBRIX manufactures shelters of various classes of resistance according to ČSN 73 9010, designing and construction of buildings for civil protection of the population. We also deliver our products abroad, where we are opening new TEBRIX branches. (Slovakia, Germany, Poland, Albania)



Each individual underground building (shelter) is unique; therefore, TEBRIX technicians will recommend a suitable building for you based on accurate calculations and many years of experience with regard to the terrain, surrounding goals, your needs and your budget. Sizes, shapes, equipment and various designs of individual shelters are always made individually according to the wishes and possibilities of the customer. You can't pick shelters for example from four sizes and that's enough, we've done dozens of projects each shelter has never been the same. The smallest shelters are from approx. 20 m² and these are buildings for short-term stays. Our largest underground building was 1050 m² with maximum technological equipment and was made as a multi-purpose for a long-term stay of several years.



TEBRIX manufactures shelters according to the strict standards of the Czech Republic, Switzerland and the USA. In this way, we create the highest possible security, which also does not lack maximum comfort for a long-term stay. The minimum hiding time for our building's ranges from 3 to 36 months. By securing sufficient supplies, the hiding time is extended.





BASE SHELTER

TEBRIX offers you its "basic shelter" product. It meets all the necessary safety requirements. Anyone who owns such a shelter can have complete peace of mind for himself and his family. In a moment of emergency, you can take advantage of this and calmly wait for ending of the crisis situation.

With the BASIC SHELTER project, you guarantee yourself and your future generations a peaceful future. Whatever threats await you you'll know you have a safe place to hide with your family to stay safe until the situation is over.

Such peace in life is a luxury that only a few people could afford until recently. Now at TEBRIX we are making this luxury available to more people.

DURABILITY AND PROTECTION

The BASE SHELTER is built from a reinforced concrete structure with a minimum wall thickness of 40 cm. The amount and type of reinforcement provided will ensure your shelter against earthquakes, explosions and other events. At your request, the shelter can also be designed as an anti-aircraft shelter with walls over 1 meter thick.

The calculated construction is stable and resistant to all kinds of threats, providing complete protection against the penetration of radioactive radiation.

DECONTAMINATION AND STORAGE AREA

There is a DECONTAMINATION AREA at the entrance to the shelter. Every time you want to go into the shelter, you go through a short decontamination process. This ensures that we do not carry contamination such as radioactive particles, viruses or chemicals into our enclosure.

Another is a warehouse that can hold supplies long enough until the external situation passes. The shelter is equipped with a small bathroom with toilet and shower.

RESIDENTIAL PART

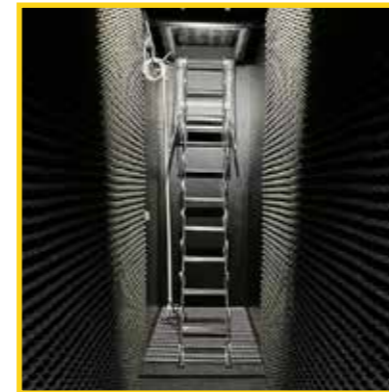
The living area has everything necessary for the stay of all the sheltered persons. The kitchenette is equipped with a sink, a stove with hotplates and various storage spaces.

The shelter is equipped with bunk beds for maximum comfort.



AIR AND WATER PURIFICATION

Each shelter has a CBRN filter ventilation system, which will provide you with 100% clean air without radioactive dust or chemical and biological substances. We also install special water filtration that cleans the water from any contaminated sources.



EMERGENCY EXIT

The shelter has an emergency exit to which a small tunnel lead. One end is in the living area and the other is on the surface. In case of backfilling at the central entrance, you can safely use emergency exit. The emergency exit will be invisible (masked) on the property.

BACKUP SOURCE OF ELECTRIC ENERGY

An integral part of the shelter is a backup power source. We supply diesel generator sets, battery storage, island systems, fuel tanks.



DIMENSIONS

Shelters can be made in any size according to the client's requirements and wishes. TEBRIX will build you a shelter of all sizes from 20 m² up to 1000 m².

TIME OF COMPLETION

The construction of a smaller shelter (20-80 m²) takes 3-5 months. The construction of larger shelters (200-500 m²) takes 6-12 months. Construction of the largest shelters (up to 1000 m²) takes up to 24 months.

A few more months of preparation will pass before we get to the start of construction. Any preparation takes time. The sooner a person starts the process, the closer he will be to the moment when he will be ready to face any unpredictable events with a calm mind.





TEBRIX is the only company in the Czech Republic dealing with complete reconstructions of existing large-capacity shelters. These shelters were built in the 60s-80s of the last century and, with some exceptions, were not maintained in any way. Currently, their condition does not allow their use during crisis events, that is why we started to deal with this issue. This resulted in the creation of a branch of TEBRIX, which specializes in the complete reconstruction of these buildings on a turnkey basis. The greatest advantage is the possibility of replacing the CBRN air-technical system, which is the same in all SCPs. It is an air system that consists of ventilators, filters, overpressure and pressure valves, overpressure measurement, complete distribution, etc. The practice is that we do not have to supply a new (very expensive) air system, but only replace damaged and otherwise degraded components with new ones that fit into the existing one.



TEBRIX carries out reconstructions in state, but also in private shelters for civil protection of the population.

Turnkey work:

- Reconstruction of existing anti-pressure doors and other safety closures
- Manufacture of new anti-pressure doors and other safety closures
- Rebuild of complete CBRN air system
- Decontamination areas
- Water treatment and filtration
- Backup power source
- Measurement of outdoor radiation and other dangerous substances (chemical and biological warfare substances)
- Radio communication
- Personal protection of the individual (masks, filters, suits, ...)
- Reconstruction of building parts (floors, walls, ceilings)
- Reconstruction of water, waste, electricity





TEBRIX supplies ISO Security Stations, designed for military and specialized industries worldwide. These are mobile stations that can be transported by car, airplanes and ships.

- Modules with ballistic protection (HQ, ammunition depot)
- Retractable watchtowers (ballistic protection option)
- Emergency survival modules
- Arms and ammunition depots
- Accommodation units
- Sanitary units (WC, showers)
- Field kitchen
- Medical units
- Operating rooms and other specialized equipment
- Decontamination Unit



Sample of the most requested:

ISO 1 DD – Watchtower

ISO Military Containers is a special container intended for use in the army, in field camps, in foreign missions, when housing detached units, to protect property, borders, ensure security, etc. Its main advantage is the possibility of quick deployment or pulling out and putting it from transport to working condition. The guard tower is extended and retracted by a hydraulic lifting mechanism. The use of the container is possible only after connection to the electricity distribution network or mobile power station.



ISO 1C Emergency Survival Module

The emergency survival module is designed for small, isolated units and groups (up to 30 people) within the integrated rescue system, armed forces and humanitarian organizations. It primarily serves to ensure the background of the commander’s staff and the intervening members. It can also be used to ensure the emergency survival of at least 30 people.

Accommodation modules ISO 1C with ballistic protection

It is an accommodation container of ISO 1 C dimensions, which is intended for the accommodation of people in field conditions with ballistic and anti-explosion protection. The container provides day and night rest for a maximum of 4 people.



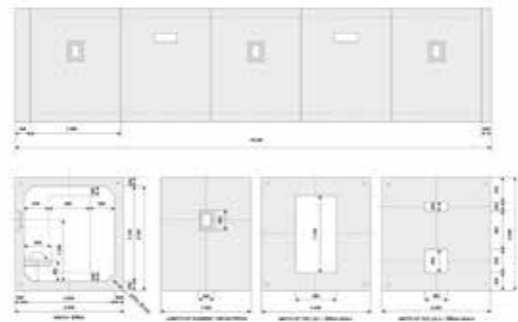
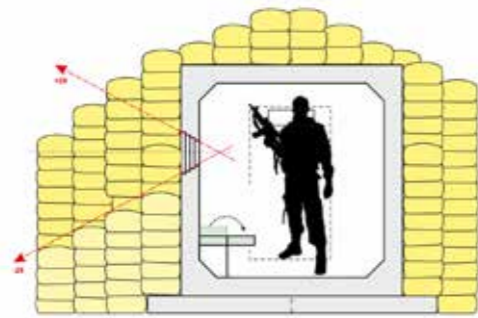
The perimeter shell meets the requirements for protection against a milder threat according to Level M1 of Annex A to AEP-55 (C) VOL 2, Procedures for evaluating the level of protection of armored vehicles - Threats from mines, STANAG 4569, Ed. 3 The module provides protection against an improvised means of threat (IED) defined by the explosion of a ball charge of 15 kg of TNT at a distance of 15 m from the side wall of the container at a height of the charge of 1 m above the horizontal ground plane common to the IED and the container.





MOBILE SECURITY CHECKPOINTS

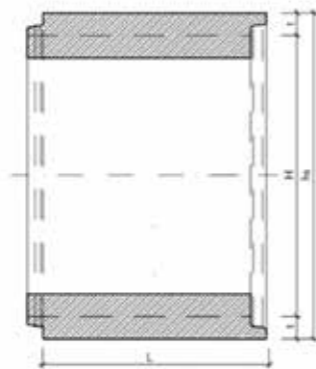
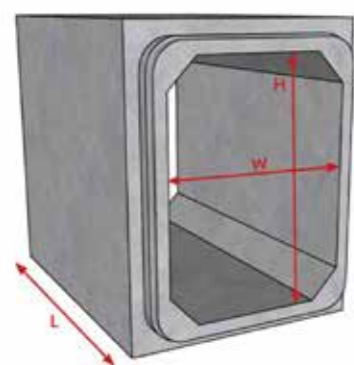
First line post to slow down or stop an enemy attack. Variably equipped universal segments with hatches, portholes, armored doors, emergency exit and filter ventilation system. Location of the Mobile Checkpoints in the field according to the tactical situation, configuration made on a turnkey basis according to the client's specifications.



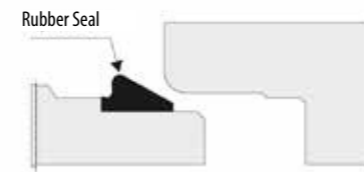
A sample of a possible arrangement.
Five individually fitted segments with doors and escape entrance.

UNIVERSAL CONSTRUCTION SEGMENT- BUNKER, SHELTERS, CHECKLIST

- Durability, simplicity, durability, and unusually long life. These are the key design attributes of high-quality IBIPC spatial precasts with a lock that creates a watertight joint when the gasket is installed. A simple and reliable system of reinforced concrete elements from UHPFRC to create mobile Shelters, CO Shelters or Checkpoints. In several dimensions and construction lengths.
- The ventilation system is functional even in the case of a state of war, when electricity is not available, aggregate for manual and electric drive. Filtration and ventilation equipment to supply the protected area with air even under the conditions of WMD use. In the object of collective protection, it creates overpressure, which prevents the penetration of harmful substances into the protected space of the crew.
- All elements and components for modular assembly without the need for routine maintenance. Intended for a flexible solution of the necessary assembly according to current requirements.
- Technical data of the basic Universal building segment: Length $L = 2$ m, clear width and height $W*H = 2*2.1$ m, total width* height $2.4*2.5$ m, wall thickness 0.2 m, weight 15 ton.

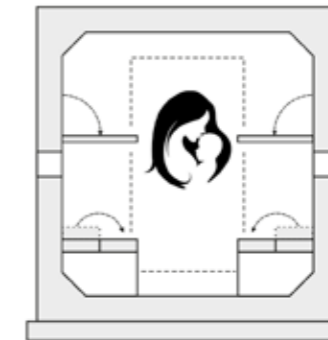


DETAIL OF JOINT WITH GASKET



CIVIL DEFENSE SHELTERS

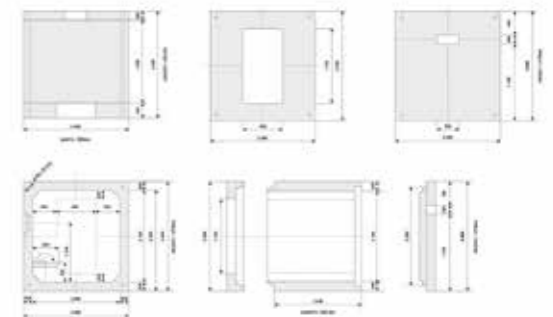
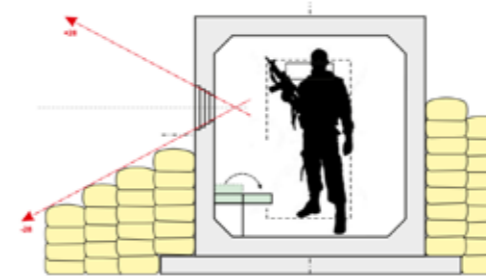
Use as a means of sheltering civilians in case of air attack or shelling by rocket forces and artillery. Location in institutions, nurseries and schools, hospitals, critical infrastructure, etc. Protection can be increased by covering with sandbags or placing in the ground.



A sample of a possible arrangement.
Five individually fitted segments with doors and escape entrance.

CHECKPOINTS

To strengthen the defense at the state border, to strengthen the outer perimeters of military and civilian airports, to strengthen the defense on bridges and important transit arteries, to strengthen the defense of critical and civilian infrastructure.



TESTED AND CERTIFIED BY MILITARY RESEARCH INSTITUTE



HUB 12.7 x 99 API M8 / 14.5 x 114 API M32.
SHATTERING FIRE TO PIERCE ARMOR

For heavy machine gun and anti-tank rifle cartridge. AP - Armor Piercing. Impact velocity 900 m/s. Against armored targets.



ROCKET 107 MM / MORTAR 120 MM.
FROM A DISTANCE OF 1.5 M.

The 120 mm mortar round is designed for firing at unprotected stationary targets, high concentrations of enemy units, transport convoys or machine gun nests.



CHARGE 20 KG TNT.
FROM A DISTANCE OF 5 M.

The explosion causes a sudden release of energy and a sharp local increase in temperature and pressure; causes an air pressure wave. Dynamic pressure destroys and burns everything.



Panic room is a safe place used to protect people, cash, weapons and other valuables. Construction of protective rooms can also be carried out in existing buildings.



Panic room locations

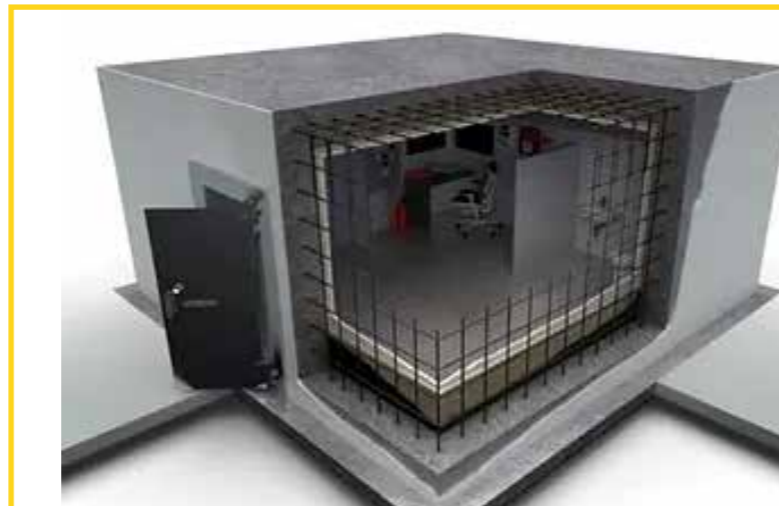
- Family houses
- Post offices
- Cellars
- Schools
- Office buildings
- Hospitals
- Banks

In most cases, the protective room is built to be invisible to possible attackers or thieves. Its construction of concrete and iron ensures bulletproofing at the FB6/BR6 level. As standard, we equip the room with a bulletproof safe door with a panic lock function.

Additional safes, air supply with NBC filtration, alternative power source can be placed inside the room. Backup power supply, telephone, radio station, water, food, medicine, etc., everything, according to the client's wishes. The time of hiding depends on the technical processing and the equipment level of the technologies used.

The technical level of a safe room solution depends on many aspects:

- time aspect of the stay – long-term (shelter, security, workplace) or short-term stay (declaration of an alarm, time of arrival of the intervention group, liquidation of the threat)
- scope and degree of protection required (protection against break-in, bulletproof, fire resistance)
- requirement for insulation – heat, fire, sound, air, water.
- equipment requirement – fixed or mobile room connection, connection to surveillance and intervention centers (CPD), interior and exterior surveillance camera system, air conditioning, heating, backup power supplies.



The Panic Room is a space where you can wait for a certain period of time before the danger situation passes. The room is equipped with special ventilation, floor or wall storage for an emergency phone, water and medicine,

RADIO COMMUNICATION

We are aware of the fact that an attacker will try to disconnect (disrupt) all communication with the outside world, so we supply radio communication equipment in our rooms, bearing in mind that mobile phones may not work due to the steel structure. TEBRIX only uses radio equipment that can be programmed for police or security services. We hide the cameras out of sight, which allows you to secretly monitor the movement and number of attackers on the screen of your monitor or mobile phone. Any windows are equipped with complete security from the inside and outside. An escape route can also lead from the panic room, which will take the victim to safety. It is ideal to consider the construction of this space already when designing a new house, but an escape room can also be set up additionally.

TEBRIX offers versions in I. - V. safety class according to ČSN EN 1143.1.

TEBRIX will also supply the rooms with the necessary equipment for personal protection of the residents.

- gas masks and half masks
- filters
- escape pods
- protective suits
- decontamination instruments
- fire extinguishers
- rescue backpacks
- fire rescue tools



FOG GENERATOR

For additional protection, TEBRIX supplies a fogging system designed to protect small and medium-sized objects such as shops, family houses, garages, etc. If the alarm is triggered, the fog generator will immediately start releasing fog and thus make it impossible to steal objects in the space. The generator can reliably fill a space with a volume from 250 m³ to 1000 m³, in a few seconds. With the recommended coverage of the area with fog, it is absolutely impossible for an intruder to see anything. When the liquid reservoir runs out, you simply replace it with a new one. It is pre-prepared for easy installation on the wall. The time required to heat up the heating element is approx. 50 minutes, the maximum fog generation time for one start is 30 s. The fog discharge time can be set with precision in seconds. The device can work for up to 2 hours without power. A patented system that automatically detects whether the nozzle has been blocked and notifies the owner if it has been tampered with.





APARTMENT BUILDINGS

In an apartment building that has an underground parking lot or a basement, we will adjust the spaces for the immediate shelter of all residents. It would be an anti-nuclear shelter according to the ČSN 73 9010 standard. It contains armored doors, CBRN air technology, drinking water deposits, and possibly an emergency exit, all according to the customer's wishes. In a few minutes, the residents of the building can come down to these modified spaces and they are safe.

The premises continue to serve their original purpose as a parking lot or cellar all year round, and in the event of a crisis, the premises are transformed within one hour into a shelter for the civil protection of the population. The ideal implementation of such security is during the construction of a new house, but it is not a problem to implement it in existing buildings as well.



SCHOOLS

In the premises of the school and kindergartens, TEBRIX provides security against physical attack, as well as anti-radiation protection, including protection against chemical and biological warfare substances.

The method of protecting schools consists in securing the main and secondary entrances, installing bulletproof ballistic doors in each classroom, protection from the external environment - air technology. For VIP schools, TEBRIX also provides a Security service - a person who protects the school locally, has training with weapons, and is connected to the central protection desk 24/7 (Central protection desk - CPD). In addition, we can also offer individual transportation of children to and from school.



HOSPITALS AND OTHER COMMERCIAL BUILDINGS

TEBRIX will secure hospital and other commercial premises against forced entry and thus secure staff and patients against threats to their lives. TEBRIX provides the main and emergency exits with armored doors, security camera systems, security systems and sensors. TEBRIX ensures the purity of water, for example, for government buildings (Prague Castle, Parliament, etc.) using special water filters that ensure drinking water in the event of contamination by chemical or combat substances. As with school buildings, we ensure security by using trained staff to protect people.



GOVERNMENT BUILDINGS

In the event of a chemical attack on government buildings such as parliaments, senates, embassies, etc., we will provide water filtration that will safely remove and filter any water contamination with chemical and biological warfare substances.





SHOOTING RANGE

The shooting range contains all the equipment for maximum comfort and functionality, such as a safe downstream floor, which eliminates the recoil of the ammunition, so that it does not endanger the shooter in any way. Lighting that simulates daylight is important. Noise isolation that will reduce all gunshot sound to a minimum. For the comfort of the shooter, we install a target that the shooter can electronically zoom in and out of. To track the target, we place a camera, thanks to which the shooter can monitor each hit.

The construction of the shooting range can be independent or connected to an underground shelter, where it also serves as an escape tunnel ending in an emergency exit (see diagram).



The shooting range can be heated or air-conditioned in the summer months. Every shooting range has a powerful extraction of unwanted smoke from shots.

The shooting ranges correspond to the ČSN 39 5401 standard.
(Civilian Firearms and Ammunition - Shooting range for small arms and gas weapons)



PRODUCTION AND CONSTRUCTION OF SHOOTING RANGE

TEBRIX builds underground shooting range according to customer requirements.

- LENGTH: from 10 to 30 m (and more)
- BOXES: 1-10
- ACOUSTIC INSULATION: YES
- CAMERAS: YES
- TARGET RETRIEVAL SYSTEM: YES



ČSN 39 5401 (395401) – shooting range

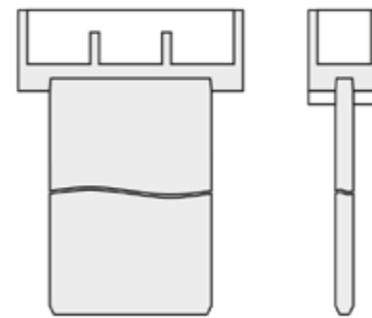
Civilian firearms and ammunition
- Shooting range for small arms and gas weapons
Czech Standards Institute, 1997





BALLISTIC CONCRETE BENCHES AND FLOWER BOXES

For strengthening the defense of the internal perimeters of military and civilian airports, protection of foreign embassies, public administration buildings, access roads to city centers, defense of critical infrastructure, both military and civilian are offered ballistic concrete benches and other forms of protection.



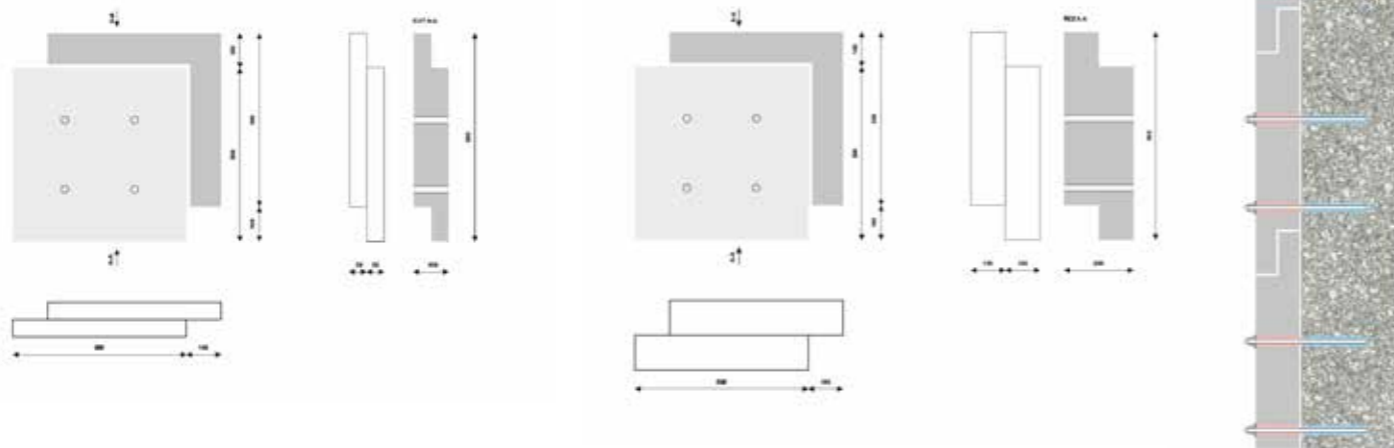
Either free-standing only the upper part of the element or placed on a board set in the ground. The combination of both parts designed according to explicit numerical simulation, with the impact of the ability to withstand the impact of a 20t truck traveling at 100 km/h.

BALLISTIC PLATES

For strengthening the walls of important infrastructure buildings, military objects and objects for the protection of the population

LIGHT

HEAVY

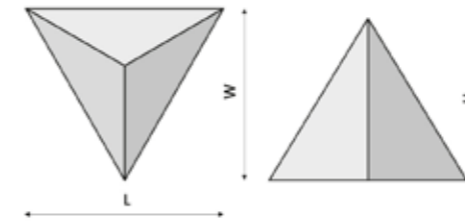


CONCRETE SPIRALS

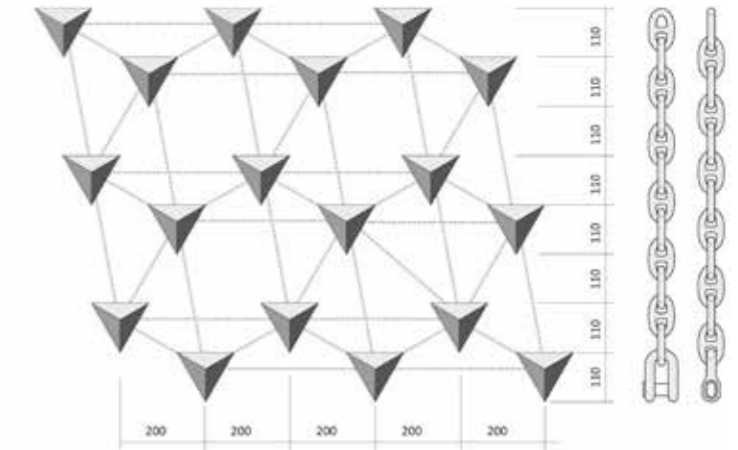
For the creation of roadblocks on the state border, roadblocks on the main transport arteries, access roads to urban agglomerations, important bridges and waterways, access roads to objects of critical military and civil infrastructure are offered.

HEAVY / MEDIUM / LIGHT

All elements can be connected by ship shekel and marine anchor chain.



DIMENSIONS	UNITS	HEAVY	MEDIUM	LIGHT
LENGTH	L mm	1 350	1 000	600
HEIGHT	H mm	1 102	816	490
WIDTH	W mm	1 170	866	518
VOLUME	V m ³	0.29	0.12	0.03
WEIGHT	M tun	0.725	0.30	0.075



CONCRETE MIXTURES

For quick repair of airport runways, bridges and roads are supply special concrete mixtures.





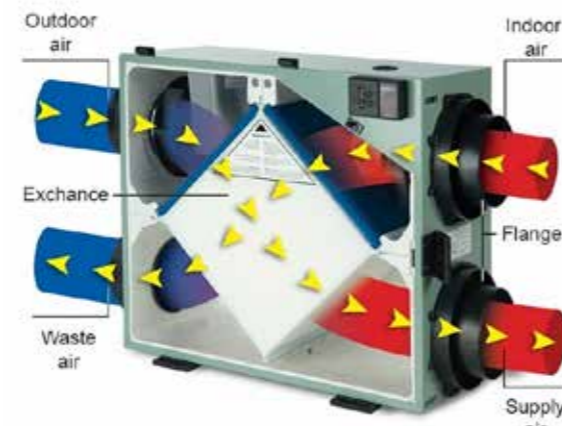
HEATING AND COOLING IN THE SHELTER IS PROVIDED BY A RECOVERY UNIT.

Recuperation

Instead of classic ventilation, where you lose all the heat in the shelter, you remove the humid and polluted air, but use its energy to heat the fresh and cool air from outside.

The recovery unit ensures active ventilation of the shelter against moisture and reduces heat loss. In humid and warm rooms, such as a bathroom or kitchen, warm air flows into one part of the unit. In the opposite direction, air from the outside is supplied to the second part, and the heat exchange surface between them ensures the transfer of heat.

In this way, TEBRIX can easily maintain a constant temperature inside at minimal costs. Recuperation units can heat in winter and cool in summer. In crisis (combat) mode, the safety pressure flaps close the entire shelter system. The air supplied via the CBRN filter ventilation system then re-enters the recuperation unit. The entire shelter is in overpressure mode of 50-60 pascals. Overpressure is controlled by overpressure valves. Everything can then be remotely controlled by the control units via the control panel, the Internet or a mobile phone. The set also includes a CO₂ air quality meter and pressure gauge.



TEBRIX offers this system as a complete kit consisting of the following main components:

- ventilation recovery unit with circulation
- heat pumps and storage tanks
- a complete measurement and regulation system with the possibility of controlling other parts of the system (e.g. zone flaps, ground heat exchangers, heat pumps, etc.) incl. internet connection
- integrated system of air distribution and fittings

DIGITAL REGULATION

Settings

The digital control mode represents the most modern way of controlling the unit. It provides all the basic functions and at the same time contains a whole range of other inputs and outputs for connection with optional sensors (e.g. CO₂ sensors, relative humidity sensors), signals from rooms (toilet, bathroom, kitchen), heating systems including shut-off valves or shut-off flaps in the development - breath. In addition, it also includes a web server and the possibility of connecting to the Internet.

A unit with a digital module can be controlled by:

- CP Touch series controller with touch screen
- Via an intelligent built-in web-server - enables control and settings via a web application.



COOLING

In underground shelters and security checkpoints in extreme temperature conditions + 60 °C, we use a special cooling device that first cools the supplied air to the required temperature and then feeds it to the CBRN filter ventilation system.

The Device has a fresh air intake. For applications requiring CBRN/COLPRO compliance, please refer to the Device product page.

Key properties

- Manufactured from hot-dip galvanized and powder-coated steel
- Sheet steel Top finish is standard NATO green, RAL 6014
- Airtight environmental boundary
- Full compliance with CBRN/COLPRO (no fresh air supply)
- Provides cooling at ambient temperature up to +60°C
- Scroll compressor for a high degree of reliability and low noise
- Two-speed selector for the internal fan
- „VENT-only“ option for ventilation without cooling
- It is stored inside the container during transport.
- Chosen as a NATO standard, meeting all NATO requirements and standards
- All units have unique NATO Stock Numbers (NSN)

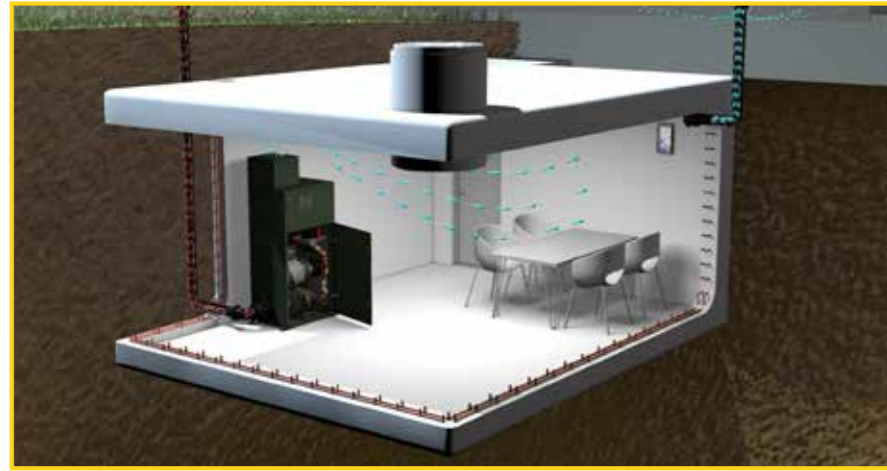


Ventilation in civil defense shelters

In a simplified way, we can talk about two types of shelters. Permanent pressure-resistant shelters are used to protect the population against the effects of weapons of mass destruction.

Permanent pressure-resistant shelters to protect against the effects of light and heat radiation, penetrating radiation, contamination radioactive dust and partially against the pressure effects of weapons of mass destruction in the event of a state of threat to the state and a state of war.

An essential part of the equipment of a permanent civil defense shelter is a filter ventilation device that ensures the supply of conditioned air to the shelter, the overpressure of air in the interior spaces and the exhaust of air out of the shelter.



Species sheltered according to standard 739010

- **Building civil protection**
a special, usually dual-purpose building designed for the needs of civil protection; includes in particular shelters of civil protection, protected workplaces and buildings for decontamination.
- **Permanent shelter of civil protection**
permanent protective space in the underground part of buildings or free-standing buildings that are built in an investment way to shelter the population; it is divided into permanent pressure-resistant civil protection shelters
- **Permanent pressure-resistant civil protection shelter**
a permanent civil defense shelter providing protection against the effects of weapons of mass destruction
- **Permanent pressure-no-resistant civil protection shelter**
permanent CO shelter that does not meet the requirement of pressure resistance, or any of the other requirements for a permanent pressure-resistant civil protection shelter
- **Protected workplaces of crisis management**
a permanent pressure-resistant shelter for securing the activity of crisis management bodies when dealing with crisis situations
- **Small-capacity civil protection shelter**
permanent pressure-resistant shelter with a capacity of up to 150 sheltered persons

Fresh air is brought from the outside area by a ventilator into the air-conditioning machine room. After entering the building, it is filtered by an FVS wall filter with a Firon Special B 400 + G 460 filter cartridge. The FVS filter serves to ensure dust filtration and possible protection against radioactive dust. It then enters the dust chamber and passes through collective filters. There are two KF sets in the dust chamber, one working, the other backup. Both assemblies are separated by RPU manual lever locks.

After filtration, the supply fan located in the HVAC engine room conveys the treated fresh air to the main air conditioning unit located in the air conditioning engine room. There are two fresh air supply fans, one working, the other backup. Both are connected in such a way that they can be used for both suction paths. For the possibility of using the working or backup fan for fresh air supply, these routes are equipped with automatic APU lever shutters.

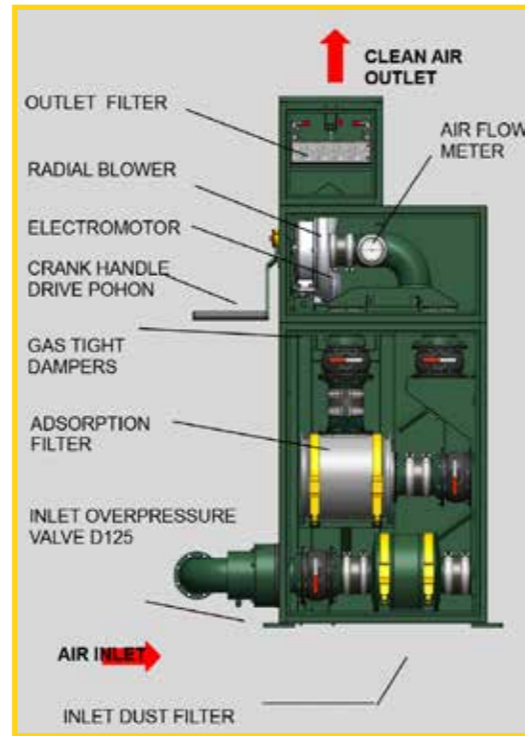
SAFETY VALVES

The systems are equipped with anti-explosion valves to protect the shelter from the effect of sudden changes in outside air pressure. A nuclear weapon creates a shock wave, which can cause sudden changes in atmospheric pressure (about 3 kg per square centimeter) that spread several tens of kilometers from the explosion site. The passage of the shock wave is followed by a sudden under pressure. If such waves enter the shelter, they will cause significant damage to occupants and equipment. Anti-explosion valves are located in the air ducts and exhaust pipes. Under normal conditions, the jet valves remain open and the spring-loaded valves automatically close under high pressure.





The CBRN FIRBACH 100 filter ventilation device is used to ventilate and filter air in small CO shelters (for 6 to 8 people). It is intended for the separation of dust particles and air purification from chemical warfare substances in the form of vapors and gases and from dust and aerosols of chemical warfare substances, radioactive substances and biological warfare substances.



2. DESCRIPTION

The device is equipped with three-stage filtration and can work in two modes:

- 1. Ventilation mode** – ensures ventilation of the enclosure and capture of coarse dust particles
- 2. Active filtration mode** – in times of danger, it protects people in the shelter from the effects of combat annoying, biological and radioactive substances

To switch between modes, the ventilator switch and the system of gas-tight flaps are used, which must be readjusted to the appropriate position in case of danger.

In the event of a power failure, this device can be operated in manual mode - using a hand crank to drive the fan through a special gearbox.

The amount of air flow is displayed on the dial of the indicator. The device is supplied with a manostat, which enables monitoring of the clogging status of the filters.

3. BASIC TECHNICAL DATA

UNIT TYPE		FIRBACH 100	
Basic dimensions	Ground plan	[mm]	800x550
	Height	[mm]	1545
	Height incl. outlet filter top	[mm]	1945
Inlet duct diameter		[mm]	D 125
Air mass flow		[m ³ /hour]	100
Power voltage		[V]	230
Input power		[W]	180
Frequency		[Hz]	50
Total weight		[kg]	190

4. SPARE PARTS

- Dust filter
- Sorption filter (KFM-200)
- Handle for manual operation
- Fan belt
- Final filter - a special additional filter for the capture and disposal of viruses and bacteria

5. ACCESSORIES

- Inlet back pressure valve
- Outlet back pressure valve
- Intermediate valve
- Manostat (U-tube)





The TEBRIX company develops specialized water treatment and filtration plants for the treatment of drinking and technological water from any contaminated water source.

NUCLEAR 100

NUCLEAR 100 is a device that eliminates and removes radioactive substances, chemical and biological warfare substances, bacteria, viruses, spores, fungi, yeasts, antibiotics, contraceptives, estrogens, testosterone, drug residues, psychoactive drugs, pesticides, microplastics, isotopes and other toxins from water.

FOR SHELTERS

- connection to any DC or AC power source
- extremely low power consumption on average 10 W/hour.
- 7 times sterilization of both technological and drinking water
- the output is naturally mineralized, ionized and structured water, infant type-high daily capacity depending on the water temperature, up to 2.5 m3/24 hours
- drawing unknown contaminated water from any flowing source
- detoxification of contaminated water using minerals and membrane-type filters
- 30% return of wastewater for repeated filtration
- the concentrate is used for flushing in WC storage tanks
- automatic system flushing
- highly sophisticated electronics ensure constant monitoring and correction of set values

WHO:

- unlimited water units
- ozone filtration
- medium-pressure UV 250w with power up to 15kw
- low-pressure UV with power from 48w to 348w



Device function description:

Incoming water from the public water system flows through Temperature sensor and Pressure sensor to a cascade of combined mechanical pre-filters with a coarseness from 50 through 5 to 0.5 microns (mechanical removal of suspended substances), then through a combined ionex filter/TMC/FO36 (water softening, removal of isotopes, arsenic) and finally GAC granular activated carbon (removal of chlorine and odors).

Alternatively, the water can pass through any of a possible 10 consumable cascade depending on the characteristics of the inlet water. Water flows through the solenoid valve and the flow meter to the integrated vacuum semi-permeable spiral nano-module of membrane Cross-Flow type (for the Basic version via HFM sedimentation modules of the Dead-End type), which removes dissolved particles - separates the contaminant with the coarseness of solid particles into ~ 0.05 microns from clean water, continues into the waste in a ratio of ~ 5:1 (5 - clean production, 1 - waste water). Ion optimization of water is realized using needle valve, when the biogenic value of water changes.

The treated water flows through the primary suction part of the mechanical vacuum pump and the waste concentrate are led through the secondary part. Waste continues to flow through manometer and needle valve, with which we regulate the ratio of produced pure water and waste concentrate. The concentrate goes to the waste siphon and is measured by flow meter.

Clean water is supplied via pressure sensor to the storage tank. From the tank, water flows into flow meter to the post-filtration cascade, which consists of a coconut-carbon filter (improves taste properties and removes odors), a negative ion generator (positively affects the human organism, improves the fixation of minerals on water molecules), from the mineralization filter (enriches clean water with the necessary substances) and from the generator of oxygen molecules (improves the circulatory blood and lymphatic system), alternatively via the Ergoactivator, which changes the crystal lattice of water and ensures better use of water in the body.



Mobile water treatment plants (containers):

All water treatment plants listed below remove radionuclides, biological and chemical warfare substances.

- mobile water treatment plants according to need and purpose
- equipment in the form of a container solution depending on the special requirements of the customer
- facilities for field hospitals or refugee camps, rescue operations in areas affected by ecological accidents, natural disasters and in the event of disruption of infrastructure when sources of drinking water are contaminated
- designed for hospitals and laboratories with specific requirements for water purity
- capacity 5-100 m³ per day
- length 20 - 40 feet



Containers (water treatment)

NUCLEAR Humanitarian

This type has wide possibilities of use in humanitarian projects such as refugee camps and field hospitals, in rescue operations in areas affected by ecological accidents, natural disasters and in infrastructure disruptions when sources of drinking water are contaminated. NUCLEAR Humanitarian is transported to the affected area and connected to the local water source, from which clean and high-quality water is produced.

Solar panels for independent operation are standard equipment.

Daily capacity (20 to 50 m³) depends on local conditions.

The equipment is designed in 20- or 40-foot containers.

NUCLEAR Industry

NUCLEAR industry equipment is always built individually for the customer's needs and is intended for specific requirements with an emphasis on constant and unchanging quality of treated water. Technologically, it is based on the THASMS concept. This option is suitable for the required capacity from 5m³/24 hours and can be modified for any requirements.

Use is possible in any field, e.g.:

- bottling plants for bottled water
- treatment of inlet water for breweries
- industrial operations (washing plant products, supplying CNC water jets in engineering, etc.)
- decontamination of wastewater from industrial premises

A laboratory analysis of the inlet water is required.

The equipment can be delivered in the form of a container solution or installed in a building depending on the special requirements of the customer. The output can be pure water, drinking water, laboratory water or any other desired type of water.

NUCLEAR Agro

The model for agricultural use is designed for higher produced volumes - more than 50 m³ of water per day.

The facility produces clean water that is physically treated and enriched with minerals needed for a specific type of plant. This can significantly contribute to reducing the amount of chemical fertilizers used.

NUCLEAR Agro is supplied in a 40ft container.

The RCS (Remote Control Supervision) system and all other functions are installed. Optionally, it is possible to use the energy of solar panels.

NUCLEAR Village

The Village model used for the production of clean water in small agglomerations - the capacity is 15 to 50 cubic meters of water per day. Wastewater treatment and recycling is also possible. Clean water is in the entire distribution system and a significant reduction in total water consumption is achieved. NUCLEAR Village is a compact facility that fits into a 20ft shipping container.

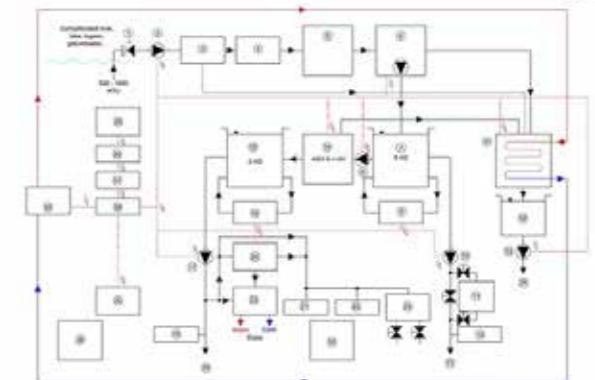
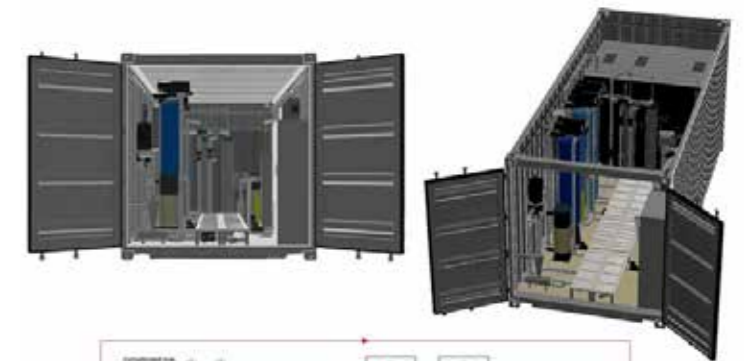
RCS (Remote Control Supervision) system and all other features are installed. Optionally, it is possible to use the energy of solar panels.

NUCLEAR City

The NUCLEAR City model used for the production of clean water in agglomerations has a capacity of 50 or more cubic meters of water per day. Water is also needed.

NUCLEAR Village is a compact facility that fits into a 40ft container and can be modularly increased in capacity according to the required output above 50 m³.

The RCS (Remote Control Supervision) system and all other functions are installed. Optionally, it is possible to use the energy of solar panels





Desalination system:

The water from the wells (salty, sweet and brackish) is filtered to the level of drinking water and the level of process water. Drinking water is bottled and sold under a private label in the resort. Process water is piped to all connecting devices (washbasin, sink, shower, bathtub, swimming pool, dishwasher, kitchen, laundry, pools, whirlpools, etc.). Raw water is filtered and purified based on physical principles, without the use of chemicals, including ozone sterilization. Comprehensive delivery incl. biological wastewater treatment plants, purification of this water and its recycling for further use in the resort. Daily adjustment min. 150 m³ of water. It can be used for manufacturing, industrial and food industries.



Treatment rooms can be located in a technical room, or we deliver them in custom-made containers. We approach each treatment individually and calculate the claims separately for each treatment plant, technical support and warranty and post-warranty service are a matter of course.

Seawater desalination solutions

Technical description of a municipal drinking water treatment plant that uses reverse osmosis to desalinate seawater.

Pretreatment:

Seawater is first pumped from the ocean and pre-cleaned to remove larger particles such as sand, dirt and seaweed. This is usually done using a cascade of mesh filters. It is important to choose the right filter material, which should be top quality stainless steel.

Reverse osmosis:

The pre-purified seawater is then fed to a series of reverse osmosis (RO) membranes. Each membrane consists of a thin film of composite material that acts as a semi-permeable barrier. Water molecules pass through the membrane, but salts and other minerals are blocked. A high-pressure pump is used to force the seawater through the RO membranes to increase the pressure on the seawater. The pressure usually ranges from 40 to 80 bar. This high pressure forces the seawater through the RO membranes, leaving behind a highly concentrated salt solution.



Brine treatment:

The highly concentrated brine is usually discharged back into the ocean or further treated to remove minerals and other contaminants.

Follow-up:

The fresh water that has passed through the RO membranes is then sent to a post-treatment process where it is further treated with disinfectants such as chlorine, ultraviolet (UV) light or ozone to kill any remaining bacteria or viruses. This is important to ensure the safety of water for human consumption. Alternatively, the demineralized water can be re-enriched with calcium and magnesium ions using filling filters.



Reference

Basic technical elements:
nano membrane separation
sterilization/oxidation by ozone and UV-C radiation
100% non-chemical solution!

SELECTED AREAS AND PROJECTS

- manufacturing industrial operations
- hotels/resorts/water tanks
- food industry

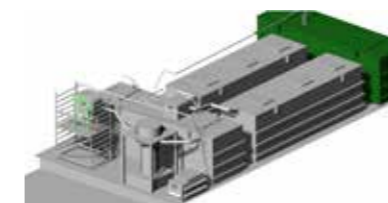


System Implementation: Zuri Zanzibar: Water Management and Sustainability

The Zuri Zanzibar project was a complex implementation in which it supplied drinking and waste water technology, disinfection technology for hot tubs and swimming pools, sumps and systems for measurement and regulation. The water management of the entire resort was awarded the first Gold. EarthCheck certification for sustainable design worldwide. No chemical treatment was used and all water is recycled to save energy and resources.

HOTEL RESORT (e.g. Horel Zuri)

The water from the wells (salty, sweet and brackish) is filtered to the level of drinking water and the level of process water. Drinking water is bottled and sold under a private label in the resort. Process water is piped to all connecting devices (washbasin, sink, shower, bathtub, swimming pool, dishwasher, kitchen, laundry, pools, whirlpools, etc.). Raw water is filtered and purified based on physical principles, without the use of chemicals, including ozone sterilization. Comprehensive delivery incl. biological wastewater treatment plants, purification of this water and its recycling for further use in the resort. Daily treatment of min. 150 m³ of water.



WATER TANK

The water from the drill hole is pumped and treated for iron and manganese using ozone oxidation. Subsequently, the water is treated in the scope of nanomembrane separation and stored in a water tank with a volume of 25 m³. The daily water production capacity is 75m³ of water. It is the only Czech public reservoir that is treated 100% non-chemically, only on the basis of filtration and ozonation! Scope of supply – design, complete production of technological units, subcontractor supply of prefabricated concrete parts; concreting and other terrain modifications by own efforts.

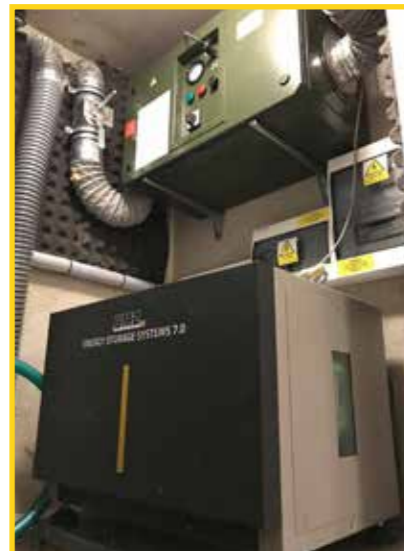


A backup power supply is an integral part of each of TEBRIX shelters. In the case of idle mode, the shelter is powered by electricity network and in the event of a failure, it is immediately replaced by the battery array, which supplies electricity using a voltage converter. energy in sufficient power for the necessary technologies. At the moment when the voltage level in the battery array drops to 10%, the diesel generator automatically starts, which charges the battery array to 100% within 1-2 hours. Photovoltaics can serve as a supporting charging element, which also recharges the battery array.



Diesel tanks and refueling assemblies

Mobile diesel tank of various volumes with dispensing device and submersible electric pump with 12V power supply and high flow rates. The supply cables are always of sufficient length and are equipped with battery terminals. Dispensing hoses are at least 4 meters long and are terminated with an automatic dispensing gun. The functions of refueling guns at mobile tanks are the same as refueling guns at gas stations. Mobile diesel tanks are double-skinned and made of high-quality high-density polyethylene.



Battery arrays

We offer stationary storage for your underground fallout shelter, Panic room, Security Checkpoint or even your house.

Diesel aggregates

See catalog

The choice of diesel generators is justified by their high durability of up to 2 years without degradation compared to gasoline. In addition, to ensure the necessary circulation of diesel in the tanks, you will use these deposits for your own home refueling of the car, thus extending the quality of the diesel.

Diesel aggregates ensuring recharging of battery fields. TEBRIX chooses according to the complexity of the construction from 5 kW to 1 MW. They switch on automatically when the battery capacity drops below 10 percent.





The main entrances, emergency exits (escapes) and technological openings are closed with type anti-pressure, pressure gas-tight or gas-tight elements, which are designed with regard to pressure wave loads. These elements include anti-pressure and gas-tight doors, wall and ceiling hatches, steel doors with concrete filling and ballistic steel.

Door:

- With ballistic resistance
- Anti-pressure doors with ballistic resistance from 200 to 1800 KPa
- Security safe doors. class I – V
- Vault door safe class I - V with grid
- Camouflage

Class 3	according to the ČSN ENV 1627 standard	resistance to mechanical hand tools such as longer screwdriver, crow-bar, pliers, hammer, knife, tweezers, wedge, wire, hook
Class 4	according to the ČSN ENV 1627 standard	anticipated attack by an experienced thief, security as in class 3 + resistance to tools such as hacksaw, axe, heavier hammer, sheet metal shears, battery electric drill
Class 5*	according to the ČSN ENV 1627 standard	anticipated attack by an experienced thief, security as in class 4 + resistance to tools such as electric drill, straight saw, angle grinder with a maximum disc diameter of 125 mm
Class 6*	according to the ČSN ENV 1627 standard	anticipated attack by an experienced thief, security as in class 5 + resistance to tools such as an angle grinder with a maximum disc diameter of 230 mm

* safety doors of class 5 and 6 according to the ČSN ENV 1627 standard correspond in their safety to class I and II safe doors according to the ČSN EN 1143-1 standard.

Security doors are designed to provide high protection for you and your property not only against breaking or being knocked over, but also against bullet penetration. The durability of the door is ensured thanks to the all-steel construction, the basis of which is a steel frame with an inner grid coated on both sides. This highly durable construction, in conjunction with safety fittings, certified mechanical or electronic locks and locking points protecting the door against dropping, is the reason for their use not only in civil protection shelters, but also wherever the protection of people and property is taken seriously, i.e. in buildings with a special regime (for example, military and prison facilities, embassies, computer centers), in hospitals, in family homes or in rooms intended for personnel protection and securing valuables.

Pressure, gas-tight doors, hatches and closures are designed with a pressure resistance of 0.18 MPa and higher. We mostly focus on combined doors, as they meet all the parameters for SCP.



SAFETY HATS

Safety hatches are made bi-directional for entry from both sides, but also only one-way with opening only inward or only outward. We also produce sliding flaps in case of being overwhelmed by material during an earthquake, or when there is a lack of space for opening.

CENTRAL ENTRANCE

The TEBRIX team has developed a special safety door that meets all safety and radiation protection requirements. The main entrance to each shelter is a complex project. Each input-output is one of the weak links of your cover, because many parameters have to be taken into account. The doors must not only be solid but must also be installed in a special way to maintain the optimal geometric distribution to reduce radioactive absorption of particles in the event of a nuclear attack.

EMERGENCY EXIT

When the structure of the shelter is located in close proximity to your house, TEBRIX makes a connection between the shelter and the house so that you have direct access to the shelter. Subject to venue availability TEBRIX will try to hide access to the central entrance. A good cover sometimes does more work than the most sophisticated security systems and combined with them makes the cover a little strong. Each enclosure has more than one exit for safety reasons. When the debris piles up in front of the exit, if you don't have an alternate exit, you'll be locked out. Therefore, TEBRIX assumes that more exits will be cleverly disguised. The external exit from the garden will also be unrecognizable to the eyes. When the main entrance is filled with rubble, we use the side emergency exits. Emergency exits are always masked on the surface.

All our doors and hatches go through stress tests, including ballistic tests.

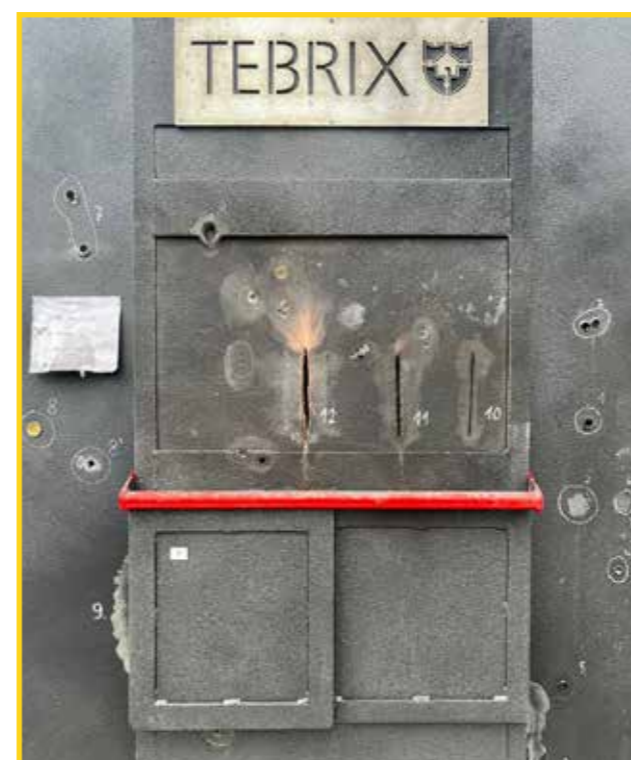
Ballistics Door Tests - Used Weapons and Ammunition

Tikka T3AX	ammunition 308 Win
SVD Dragunov	Core ammunition 7,62 x 54 mm R
CZ Scorpion EVO 3	ammunition 9 mm Luger
AK 47	Core ammunition 7,62 x 39 mm
AR 15 Aero Precision	Core ammunition 223 Rem
Glog 19X	ammunition 9 mm Luger
DTA 338 LM,	ammunition 338 Lm Lapua SCENAR 250 grain
HAMMER 50 cal	ammunition 50 cal MONOLIT 750 grain
HAMMER 50 cal	ammunition 50 cal FMJ 750 grain

Ballistic door tests - used explosives

Plastic explosive Semtex 1A	Weight 250g
Plastic explosive Semtex 1A	Weight 250g
Semtex®RAZOR 10	Cumulative charge of plastic explosive PI SEM for cutting constructions with performance on steel sheet min. 10 mm
Semtex®RAZOR 20	Cumulative charge of plastic explosive PI SEM for cutting constructions with performance on steel sheet min. 20 mm
Semtex®RAZOR 30	Cumulative charge of plastic explosive PI SEM for cutting constructions with performance on steel sheet min. 30 mm

Conducted door and hatch tests.





FIRE IS IMPOSSIBLE IN THE SHELTER!!!

The HYPOXIA oxygen reduction technology leads to a reduction of the oxygen concentration below the flammability limit value of the materials placed in the shelter and is the only system that prevents the occurrence of fire and guarantees zero fire risk in the protected space. The HYPOXIA system is a complex of devices designed for the generation and controlled supply of hypoxic air (reduced oxygen content) to the target rooms of the shelter. The system is completely safe for the human organism, it fully replaces the usual stable fire extinguishing equipment. Thanks to this, there is no damage caused by burning and therefore no damage caused by extinguishing.



**HAVE FINANCIAL CASH,
SECURITIES, WORKS OF ART
AND OTHER VALUABLES
SAFE FROM FIRE.**

The hypoxic air generated and supplied by HYPOXIA units is obtained by automatic separation of gases from atmospheric air directly at the installation site.

Technical solution HYPOXIA for shelters

- all individual rooms of the shelter are equipped with at least three oxygen sensors that continuously monitor the current oxygen concentration
 - the HYPOXIA control system collects and evaluates the current oxygen concentration from all individual sensors and automatically decides whether hypoxic air supply is necessary
 - hypoxic air is composed of 90% nitrogen and 10% oxygen to ensure personal safety
- The system is equipped with several levels of protection against the risk of oxygen falling below the specified level



HYPOXIA Modes:

1. FIRE PREVENTION REGIME

- 100% fire protection of the premises during the absence of people
- maintained oxygen concentration at the level of 13% - 15% (depending on the materials in the housing)
- ventilation of the shelter spaces and maintenance of temperature and humidity takes place through a combination of controlled and continuous start-up of recovery and the HYPOXIA system so that the required oxygen concentration is not exceeded
- when a person enters the shelter, the signal from the door magnets automatically deactivates the HYPOXIA system and immediately starts recuperation so that the oxygen concentration in the shelter equalizes to the normal level of 20.9% within minutes

2. FIRE SUPPRESSION MODE

- in the event of a fire during people's stay (Prevention mode deactivated), the smoke detectors will send a signal to the HYPOXIA system, which will immediately start flooding the given room with hypoxic air
- a fire-fighting concentration is created in the order of tens of minutes so that there is no re-ignition or spread of the fire
- recuperation will immediately close the air supply and automatically start the exhaust, which will lead to the removal of smoke

3. MANUAL MODE FOR IMPROVING PEOPLE'S PHYSICAL AND HEALTH CONDITION

- the possibility of creating an atmosphere with a reduced oxygen content (simulation of an alpine environment) in any area of the shelter without impacting the surrounding rooms (e.g. fitness or bedroom)
- the user selects his own parameters with the possibility of simulating a high-altitude environment from 1,000 to 3,500 m.a.s.l.
- recuperation switches to Prevention mode for the given room

The reduced amount of oxygen within the system cannot be „felt“, it does not limit the comfort of breathing and natural bodily sensations. The devices are located in the technical room and the hypoxic air is then distributed using pipes to the premises of the shelter, where monitoring sensors are installed.

Hypoxic technology, which simulates an environment at a higher altitude without the need to reduce pressure, accelerates the burning of fats and makes the oxygenation of the body more efficient, which has a positive effect on sports and physical performances and prevents a whole range of civilizational diseases (better and deeper sleep, cardio protection, prevention of diabetes, qualitative/quantitative mitochondrial changes, weight loss, better body regeneration and, last but not least, improved mental concentration).





SPECTRASOL

BIODYNAMIC HUMAN SOLUTIONS

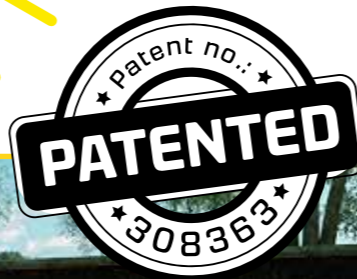


Biodynamic circadian LED lighting system from SPECTRASOL that simulates natural sunlight in TEBRIX underground shelters.

- In underground interiors, it will create lighting conditions with the biological effectiveness of natural sunlight and thus take care of the necessary functions of the human organism
- With its spectral composition, it affects the NIF system (non-image formation) of our eyes, preserves the functions of the circadian rhythm and thus supports physical and mental health and resistance when staying underground
- Daylight, evening relaxation and night orientation lighting modes Improves individual and collective emotional attunement and reduces stress
- Provides prevention against depression
- It supports cognitive functions during the day and the quality of sleep at night
- Ensures perfect visual comfort
- Regenerates the retina of the eye
- Regeneruje sítnici oka



spectrasol.eu



Detector of biological and chemical warfare substances

This device is able to detect the concentration of harmful chemical warfare substances outside the cover, so we are not forced to wear gas masks or anti-chemical suits in the event of detecting stable uncontaminated air

KEY FEATURES

- Highly sensitive stationary detector of chemical substances
- Detection of poisonous and dangerous substances
- Environmental protection, emission monitoring
- Designed for integration into industrial operations



TECHNICAL DATA

Measurement principle	Iontový mobilní spektrometr (IMS)
Ionization source	Tritium (3H) <100MBq
Sensitivity	ppb to ppm range e.g. phosgene: <50ppb / TDI: <10ppb
Detection ability	identification of substances classification of substances concentration determination <±15%
Alarm level	freely programmable
Operator interface	8" touch screen (inside) configurable for different applications
Dimensions (approximate)	500 x 210 x 500mm (L x W x H)
Weight (approx.)	23 kg
Interface	LAN Ethernet 10/100 Base-T interface, RJ45 connector 4 to 20 mA current loops (self-powered) USB 2.0 RS232 / RS422 / RS485 / Modbus connectors Status transfer to the external PLC interface
Remote access	Fully configurable via remote maintenance access
Operating Temperature	-10 až 50 °C (14 až 122 °F)
Storage temperature	-20 až 60 °C (-4 až 140 °F)
Operating humidity	0 to 85% relativní vlhkost, nekondenzující
Power supply	110 až 230 V AC / 50 až 60 Hz / 150 W
Degree of protection	IP 42





BASIC SHELTER AMENITIES

Air - protective gas masks, filters, respirators, masks

Water - water purification and filtration is the only possible way to have an unlimited amount of water. Using filtration, you can drink water from any polluted source (ponds, rivers, wells, reservoirs, etc.)

Food - Ready meals from the American company Ready Wise with a shelf life of 25 years - main meals, breakfast, fruit and vegetables in various packages such as buckets and waterproof containers.

Medicines - First aid kit complete with medicines for pain, intestinal problems, antibiotics, potassium iodide against radiation, etc.

Survival - everything needed in a crisis situation. The basis is a backup light source, fire making, fishing, sewing, radio with dynamo and solar, binoculars, repellent, knives, machetes, rain suits, etc.

Tools - construction of emergency shelters, entry into certain objects (axe, wood-steel saw, crowbar, multifunctional screwdriver, pliers, etc.)

Sleeping - sleeping in nature, even in winter (sleeping bags, blankets, tents, bivouacs, sails)

Radio communication - always stay connected even without mobile phones. Radio stations (UHF-VHF) can communicate with each other, but also with Integrated rescue system

Orientation - to get to the designated place, detailed maps, compass, GPS navigation can help you with this.



Electricity - a spare source of energy, which is necessary to recharge lights, radios, radios, GPS navigation can be obtained using the sun, a dynamo, but also car batteries. (Solar chargers, voltage converters)

Protective equipment - gloves, eye and hearing protection, anti-chemical suits.

Material - when building temporary shelters, pumping gasoline from cars, repairing various equipment, etc. Ropes, wires, hoses, cords, nails, adhesive tapes, etc. will help you with this.

Storage and Transport - a suitcase that guarantees that everything you hide inside will always be ready for use.





Food supplies for shelter

TEBRIX delivers ready meals from Czech and American companies with a shelf life of 25 years - main meals, breakfast, fruit and vegetables in various packages such as buckets and waterproof packaging.

Production

The food is dried using a unique technology with a shelf life of 25 years

The basis is 100% natural raw materials. The meat and vegetables used are supplied only from local suppliers, always fresh and chilled. No blanks are used! Everything is processed by hand according to traditional recipes. All meals are first cooked in the classic way, and in order for the finished meal to last, really anything goes through vacuum drying or sterilization. In both cases, the unique thing is that the food retains its taste and nutritional value and is the same as freshly cooked even after X years. Selected dishes are also gluten-free, made from a unique mixture of corn and rice flour.

An example of a menu:

- 2 bags Cheesy Lasagna (8 servings total)
- 3 bags of creamy pasta (12 servings in total)
- 2 bags Pasta Alfredo (8 servings total)
- 2 bags Chili Mac (8 servings total)
- 3 bags of chicken noodle soup (12 servings total)
- 3 bags Savory Stroganoff (12 servings total)
- 2 bags of hearty tortilla soup (8 servings total)
- 2 bags of potato cake (serves 8 total)
- 1 bag Teriyaki and rice (4 total servings)
- 2 bags Baked Potato Casserole (8 servings total)
- 3 bags Tomato Basil Soup (12 servings total)
- 3 bags Southwestern Beans and Rice (serves 12 total)
- 2 bags of Cheesy Macaroni (8 servings total)

TEBRIX delivers meals from companies:

READY WISE



ADVENTURE MENU



EXPRESS MENU



Bioponics

This is the cultivation of vegetables in underground shelters. You will get a quality harvest on small areas and the grown plants will be guaranteed to be organic. Bioponics is based on the concept of liquid soil. The soil solution, which is intended for bioponics, acts as a suitable nutrient that supplies the plant with part of the soil humus and contains a wide range of large organic molecules. The performance of the product is improved by the micro-organisms of the bioponics mix, which enable good decomposition of organic elements. As a result, the bioponics mix ensures much better growing results.

Bioponics is based on sustainable organic farming. The plant is enhanced with a small number of nitrates to improve flowering. At the same time, unnecessary vegetative growth is reduced. For the same yield, you will have a much smaller volume of leaves and stems when growing in bioponics than if you were growing with conventional hydroponics. Thanks to this, bioponics is considered a very economical way of growing, as you use much less water and nutrients.





PARTNERS

TEBRIX cooperates with partners with many years of experience. Some construction companies try to cover design, construction and installation without working with subcontractors. TEBRIX team considers this approach wrong. If you do not cooperate experts who are strictly profiled in specific area, many mistakes could occur. This is unacceptable when we talk about the construction of shelters, because any installation must work flawlessly. That is why TEBRIX cooperates not only with team of specialists from the companies of the Czech Republic, but also with colleagues from many other countries. TEBRIX imports some systems and equipment from Switzerland, Finland, Israel and many other countries, but for most of the equipment and technologies TEBRIX cooperates with partners from the Czech Republic who have their own know-how, many of them also patents and they have already implemented a number of projects in the Czech Republic and abroad as well.



Security Bunkers Alliance

The Security Bunkers Alliance (SBA) was created in 2022 as a response to geopolitical events related to the war in Ukraine. It is an association of industry professionals who are comprehensively technologically capable of solving CBRN disasters, both for the civilian and military sectors. The goal of SBA is to make visible, promote, offer and supply both complete bunkers and individual equipment of companies that are part of the group, especially their specific products and technologies for the needs of not only Czech but also foreign customers (individuals, private and state sectors and especially defence sector).

Thanks to the long-term know-how of our members, and TEBRIX as well, TEBRIX is able to:

- Implement the construction of new small-capacity and large-capacity underground shelters and bunkers resistant to explosions, chemical, radiation and biological threats
- Renovate existing civil defense shelters
- Equip shelters and bunkers with appropriate filter ventilation systems
- Equip these places with water filtration systems and energy backups
- Equip sites with security ballistic and anti-pressure doors and other closures
- To supply technologies for measuring radiation, hazardous and combat substances in the air
- Equip the space with a decontamination room
- Provide protective clothing and respiratory protection
- Many of TEBRIX products have been tested and certified according to international standards, and our development departments are also able to adapt solutions to your needs.

For more information visit:
<https://www.securitybunkersalliance.cz/>



TEBRIX Safety Home s.r.o.
1. máje 863
460 07 Liberec
www.TEBRIX.cz



Vzduchotechnik s.r.o.
Tovární 548
463 31 Chrastava
www.vzduchotechnik.cz



DELBAG s.r.o.
Slovanská 781463 12
Liberec XXV-Vesec



IBIPC - Institute of Blast & Impact Proof Concrete
Jihlavská 2512/34
591 01 Žďár nad Sázavou
www.ibipc.com

