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Equipment and Accessories
Specially for all HAMACO-RF shielded enclosures

Equipment





Equipment

Equipment and accessories according to your wishes

You can select and individually combine the equipment for all HAMACO-shielded enclosures series according to your wishes. A wide material and colour selection is available for all equipment elements. Beyond that, you can supplement your RF shielded enclosures with further accessories from our extensive product range. Ask us.

You can also order swivelling doors, double doors, sliding doors, as well as windows with fixed glazing, or as opening swivelling window in standard or special dimensions. Open coil shelves with high weight-bearing capacity for storage of all system-required coils are also available with doors, drawers, and lighted worktop.

Light systems and stereo equipment

HAMACO-cabins can be equipped with special MRI-compatible light domes that create a pleasant, coloured light effect in the room. In interaction with the integrated stereo equipment this has a calming effect on the patient, and creates a positive feeling and a relaxed atmosphere during the examination.

Air conditioning and electric installation

The air conditioning with integrated chilling of the MRI system belongs to the most important accessory equipment for shielded rooms and cabins. After comprehensive consulting we will provide you with an air conditioning unit adapted to the conditions on location.

The basic equipment includes air conditioning of examination, operating, and installations room as well as machine cooling. An expansion to additional rooms is also possible.

An integrated emergency system guarantees operating reliability for the avoidance of downtimes.

Active magnetic field compensation unit

Next to high frequency interferences, magnetic field fluctuations at the MRI system site are mainly responsible for the quality of the images. Our high frequency shielding cabins provide ideal protection against interferences in the radio range, and reduce the disturbing frequencies on a broad range from 1 to 500 MHz by the factor 100,000. The lower frequency magnetic field fluctuations in the range 0.1 to 20 Hz are caused by mobile metal masses in the direct surroundings of the magnet (1-10 m) on the one hand, for example vehicles, trucks, or elevators, and on the other hand by electrical cables of streetcars and subways in the further surroundings up to 300 metres. Added to that are steel-cored aluminium conductors, power consuming devices, and cables in the 50 Hz network like for example transformers, ventilation and air conditioning units, and USV units and electric motor controls.

In self-development we offer active magnetic field compensation for the suppression of the magnetic field fluctuations through electrical units, vehicles, trains, streetcars, and subways for these lower frequency interferences. The magnetic field fluctuations at the location of installation of an MR system are recorded with a highly sensitive Fluxgate-sensor. Based on this measurement data, an opposing field is built up in the ISO-core of the magnet over compensation coils. This drastically reduces the magnetic field fluctuation in the magnet. This way we are able to reduce the interferences of the magnetic field by the factor 10 to 100, depending on the cause in the entire frequency range from 0.01 to 1000 Hz with our active compensation. Especially high far field interferences can be distinguished as DC, Bahn 16 2/3 Hz and network interferences 50 Hz due to the integrated filters, which allows us to set a differentiated interference suppression.

Video-supervision

We offer integrated video systems for the permanent supervision and control of the patient during examination. The HAMACO-TMS-Video-supervision system is developed for the magnetically sensitive area close to the tomograph. In order to achieve good shielding characteristics and high operating reliability with easy installation, image transmission takes place via optical fibres. The high-grade video camera produces high-quality recording due to the automatic lighting control. The double-shielded monitor provides an interference and disturbance-free image even in direct vicinity of extremely strong magnetic fields. All system components are equipped with easy-to-assemble plug connections.

Oxygen control

The oxygen control system HAMACO OMS is entirely pre-fabricated, and specially intended for operation under influence of strong magnetic fields.

Up to four oxygen sensors, for which we give three years warranty, can be connected in parallel. The alarm parameters are preset ex factory and can be adjusted at will. The system produces acoustic and optical warning signals, and can be connected to further technical devices like for example exhaust fans.

Short description

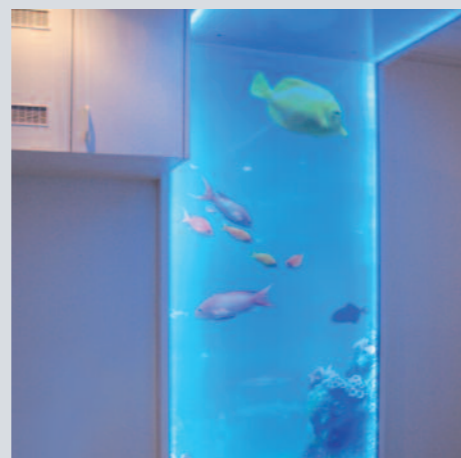
- Air conditioning units for machine cooling of the tomograph
- Room air conditioning
- Doors and windows optional
- Coil, filter, and electric cabinets
- Light dome and light box
- Filters and components
- Amagnetic fire extinguishers
- Intercoms
- Stereo systems
- Video supervision devices
- Oxygen control systems
- Oxygen sensors
- Video camera and video monitor

HAMACO-Service

- Individual consulting
- Custom-made project planning
- High product quality
- One-stop shop



Coloured light dome, ceiling moulding with light effect



Light box aquarium has calming effect



Active magnetic field compensation



Video-supervision-set for control and safety



Oxygen guard