SCANDINAVIAN MEDICAL SOLUTIONS

SIEMENS MAGNETOM SOLA 1.5T

RELOCATABLE MRI BUILDING PLANNING GUIDE MR 14

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Rental Solutions from Scandinavian Medical Solutions

At Scandinavian Medical offer solutions that differ from other rental solutions on the market, providing a flexible, cost-effective solution tailored to your requirements, timeline, and budget.

Our team has developed a unique and flexible rental concept, which provides you with a wide selection of customized alternatives to high-cost OEM equipment at a fixed monthly rate. There are no heavy investments, no risks, and no residual value.

We offer short – and long-term rental solutions - from fixed-site to trailers and modular rental solutions. Regardless of the challenges you face - be it replacement of equipment, breakdowns, bridging periods, or back-locks - we offer excellent solutions that ensure you can avoid downtime and optimize your scan capacity.

System Specifications

- **Brand:** Siemens
- **Model:** MAGNETOM Sola 1.5T BioMatrix system 70cm Open Bore Design
- **YOM:** 2022
- **Channels:** 48 Channels
- **Gradients:** XJ Gradients
- **Coils:** Spine 32ch, Body 18ch, UltraFlex L 18ch, UltraFlex S 18ch, Head/Neck 20, Tx/Rx Knee 18
- **Software Version:** XA31
- **Software Options:** N11TGSE, RoW, AdvFunctNeuro, WholeBody, Diffusion, Perfusion, TimApplication, N11Adv3D, SECURITY_PRIVACY_BASIC, InlineComposing, Expert_i, InlineDIS3D, SWI, N_BLADE, MRI_CV_MAIN, Dynamic3D, PhoenixZIP, AutoAlign_Head_LS, STEREOTACTIC, AutoAlign_Knee, Channels_48, Extended_Cardiac, WF_Brain, WF_Knee, WF_Basic, MR_Neuro_Local_AIF, XJ_Gradients, MR_Tools, SYANATOMY_REGISTER, SY_REGION_GROWING, SY_SPINE_LABELS, MR_MotionCorrection_NR, N_WF_Spine, N_WF_Hip, N_WF_Shoulder, AutoAlign_Spine_LS, AutoAlign_Vertebras, AutoAlign_Shoulder, AutoAlign_Hip, RESOLVE, Morpho_QC, MR_Image_Registration, SEMAC SAG, Reduced_Motion_Sens_tse, MR_Basic, Multi_Contrast, FastView, Respiratory_Sensor, Soft_Tissue_MoCo, General_Routine, Cardiac_Reader, Composing, TX_Channels_1, Pilot_Tone_Cardiac, Coil_Shim, Turbo_Suite_Essentials, Prostate_Biopsy_Support, Prostate_Segmentation, MAGNETOM_Sola, SLICE_ADJUST


SIEMENS
Healthineers
MAGNETOM Sola


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THE FUTURE OF
HEALTHCARE IS FOR
EVERYONE
POWERED BY SCANDINAVIAN MEDICAL SOLUTIONS
MRI UNIT
SMS
SCANDINAVIAN MEDICAL SOLUTIONS

Inventory

General

- Magnetic shielding - fringe field not exceeding 0,5 mT outside of building.
- Chiller incl. cooling water installation.
- Air-conditioning with temperature control
- Housing – sandwich panels with stone wool, color white

Operator Room

- 2 Doors in operator room with interior blinds
- Operator chair
- Changing Room
- Radio/Bluetooth Player
- Waveguide to MRI room (for contrast injector)

MRI Room

- MRI Siemens Sola
- RF room in accordance with the system requirements
- Shelf for local RF coils and accessories

Technical Room

- RF room in accordance with the system requirements
- 4 lifting eyes incl. Allen key
- 1 aluminum Fire Extinguisher (in technical room)
- 1 ladder (in technical room)
- Patch panel (Network)
- Patient bed transportation kit
- Shimplates
- Ramping cable
- Hydraulic system power cable (CEE 3P 32A)

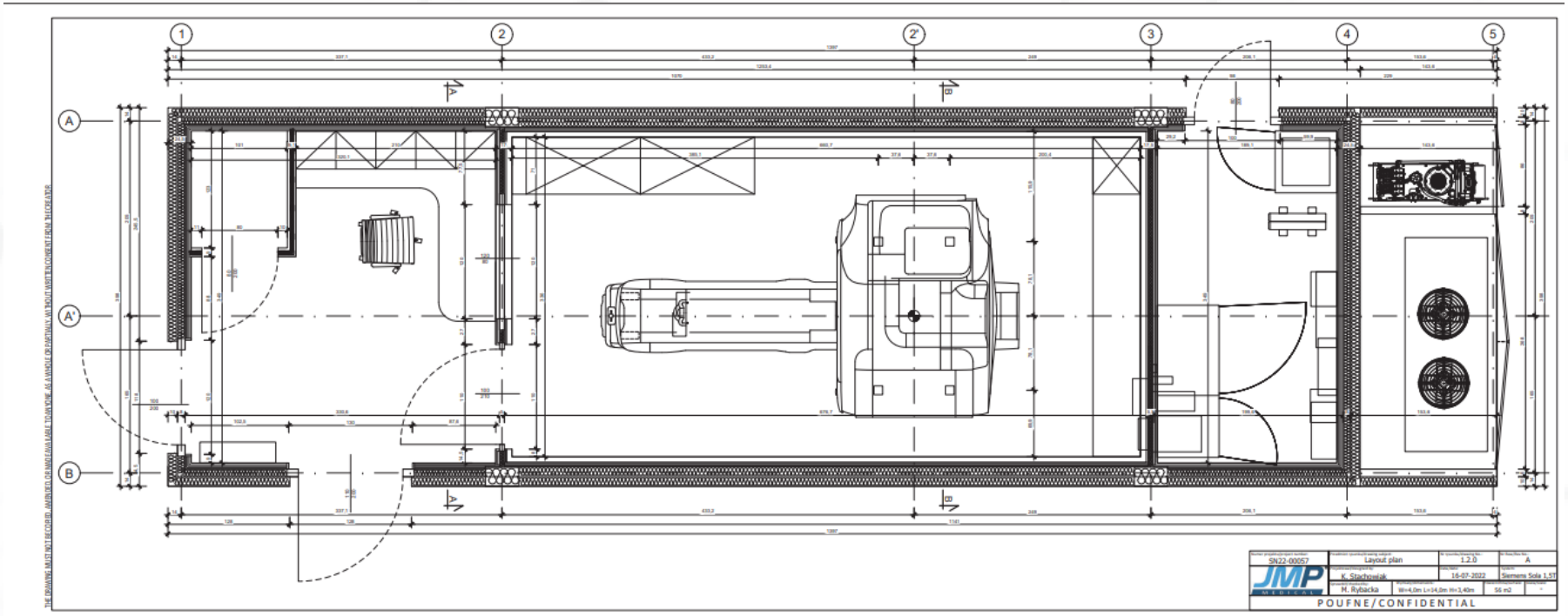
Chiller Area (outside)

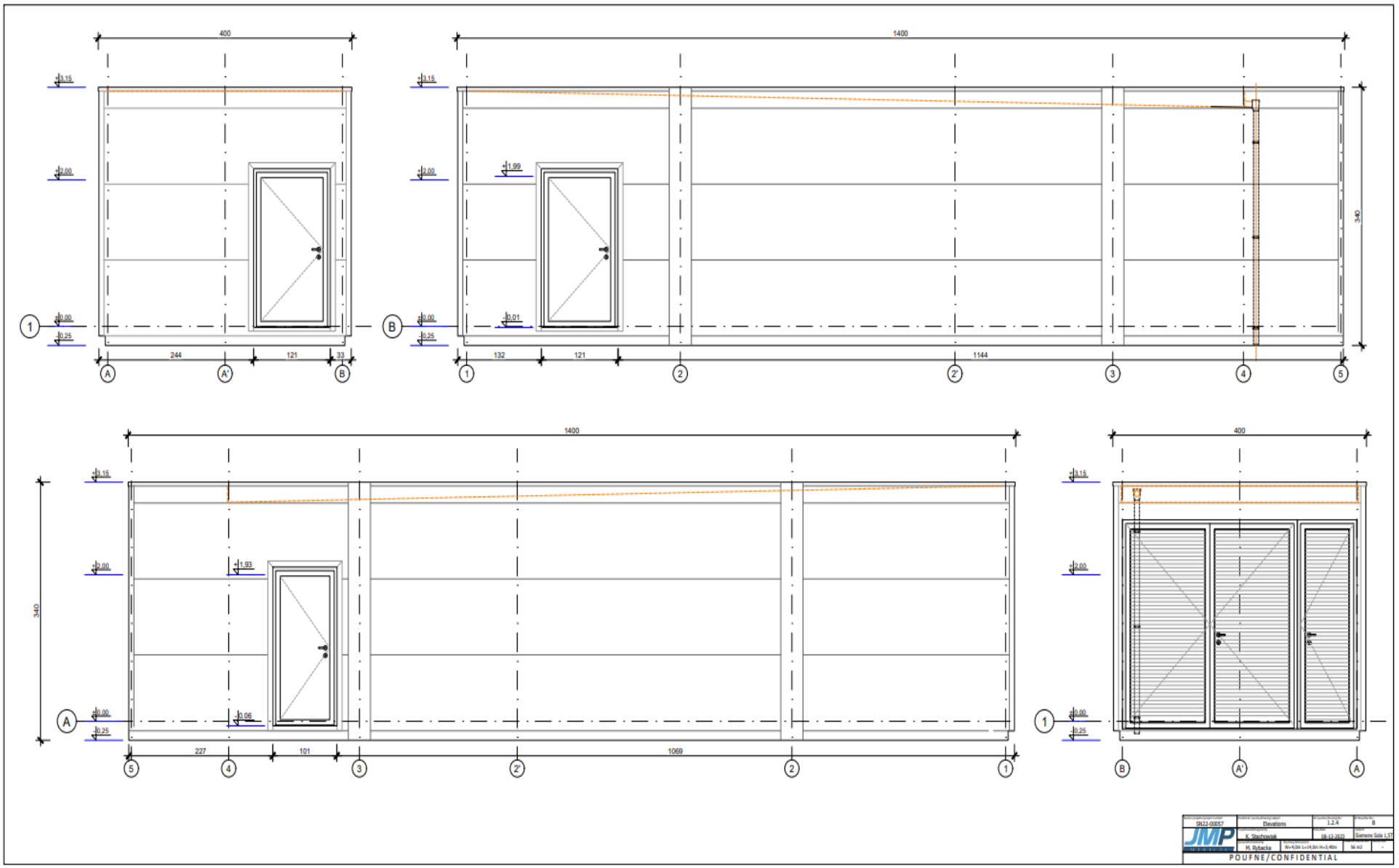
- Hydraulic system
- Chiller system
- Quench pipe
- Power cable 12m with 250A Marechal connector

Dimensions & Weight

MRI building with its dimensions you can see in Figure 1.

Dimensions 14,00m long x 4,00m wide x **3,40m** high The total weight of a building including the MRI Siemens Sola 1.5T system is about **38 tons.**

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3
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1400
1.93
0.06
227
101
1069
400
POUFNE/CONFIDENTIAL

Access to The Building

There are 2 doors to Operator room.

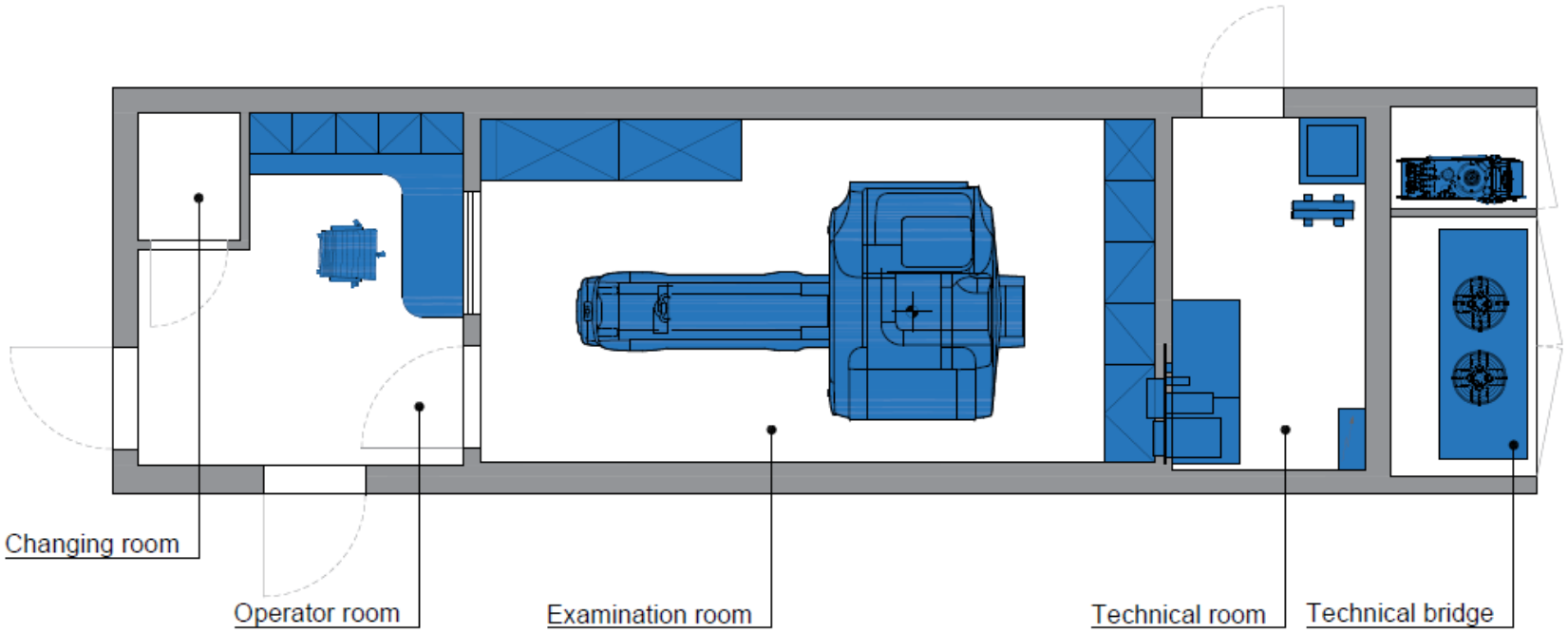
- At the front
- On the right side

There are 1 door to the technical room.

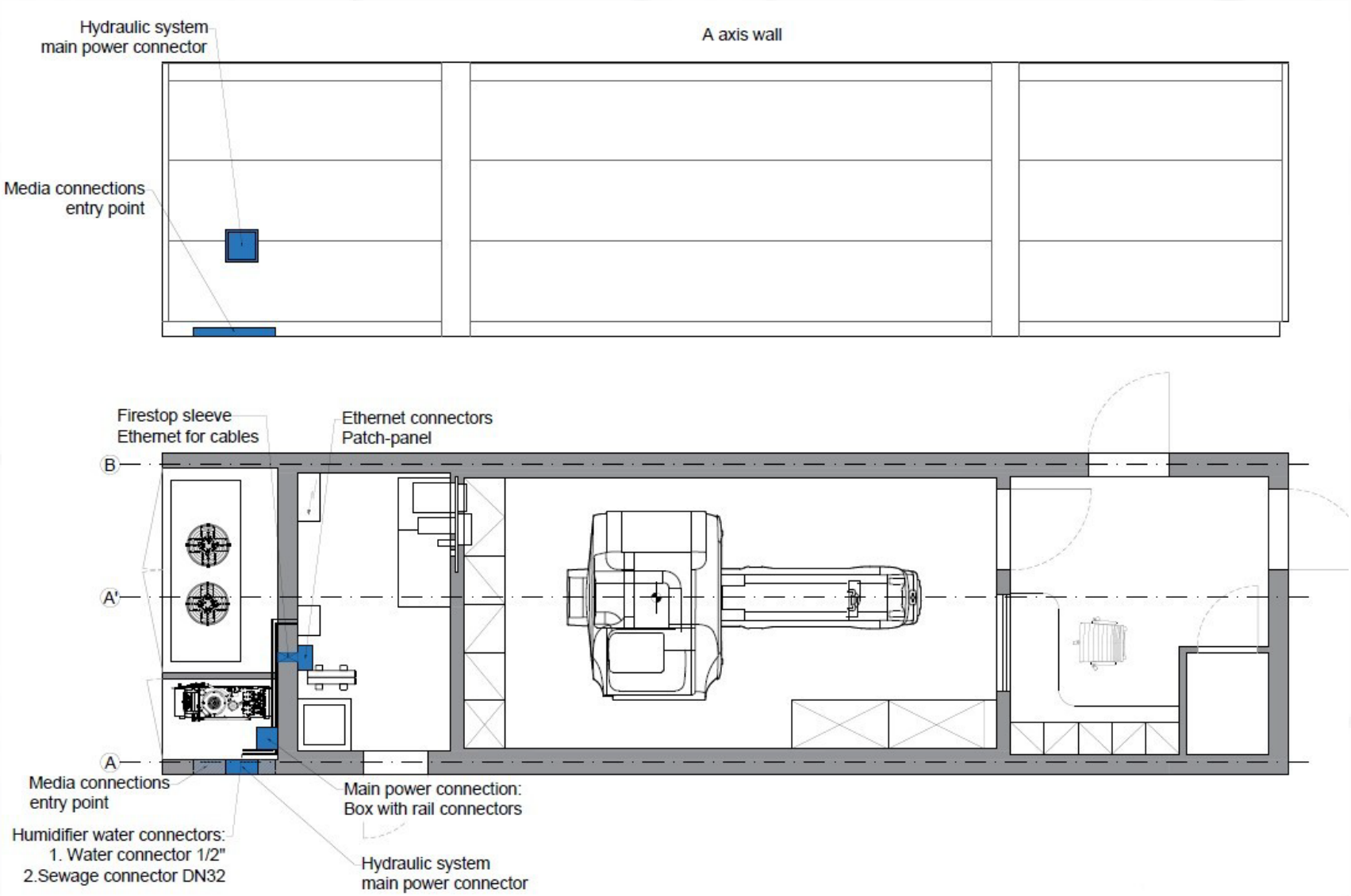
- On the left side

There are 2 doors to the rear side.

- One double door, which gives access to the chiller system.
- One single door to the technical bridge

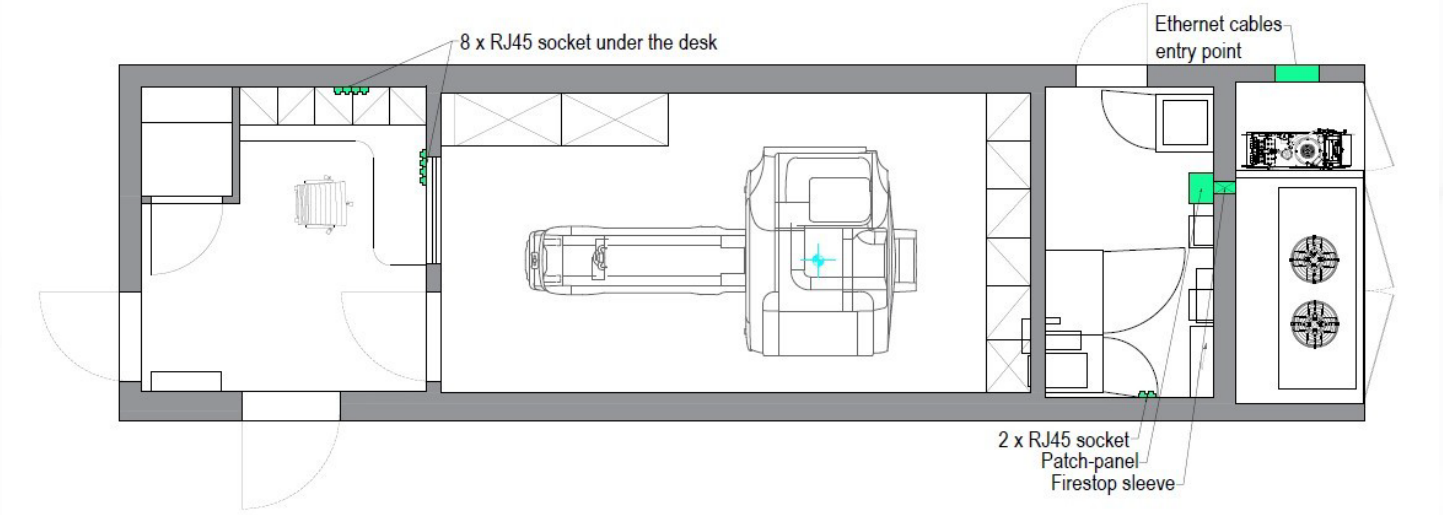


Connection Point General


Hydraulic system
main power connector
A axis wall
Media connections
entry point
Firestop sleeve
Ethernet for cables
Ethernet connectors
Patch-panel
B
A'
A
Media connections
entry point
Main power connection:
Box with rail connectors
Humidifier water connectors:
1. Water connector 1/2"
2.Sewage connector DN32
Hydraulic system
main power connector

The unit can be connected to the local LAN network. The Ethernet connection is a patch-panel located. in the junction box located in the technical room. On the *Figure 6* can be found a photo of Ethernet connection. The location of the patch-panel is shown on the *Figure 7*.

Figure 6 ***Patch-panel box***



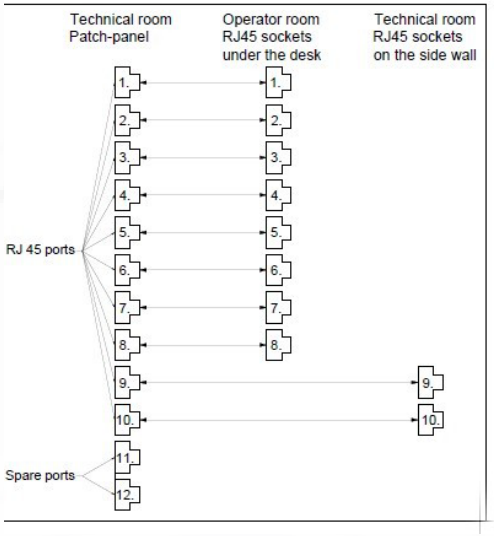


Figure 7 External patch-panel location

Water Connection

To enable the humidifier to function, water must be supplied.
to the unit, as well as sewage drained away.
For the water there is 1/2” water connector **(1)** and for the drain there is DN32 connector **(2)**.
Both are in the technical bridge.
On the *Figure 8* can be found a photo of water and sewage connectors. To prevent freezing of the water when the temperature drops below 0 degrees Celsius, on the water pipe **(3)** there is mounted heating cord **(4)**.
To use the cord, it is needed to connect the heating cord plug to the socket **(5)** on the technical bridge.

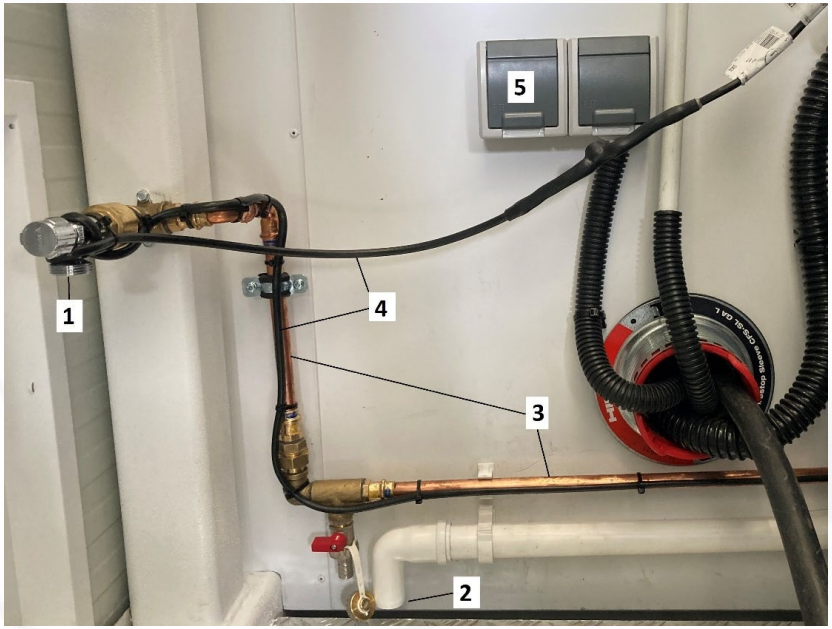
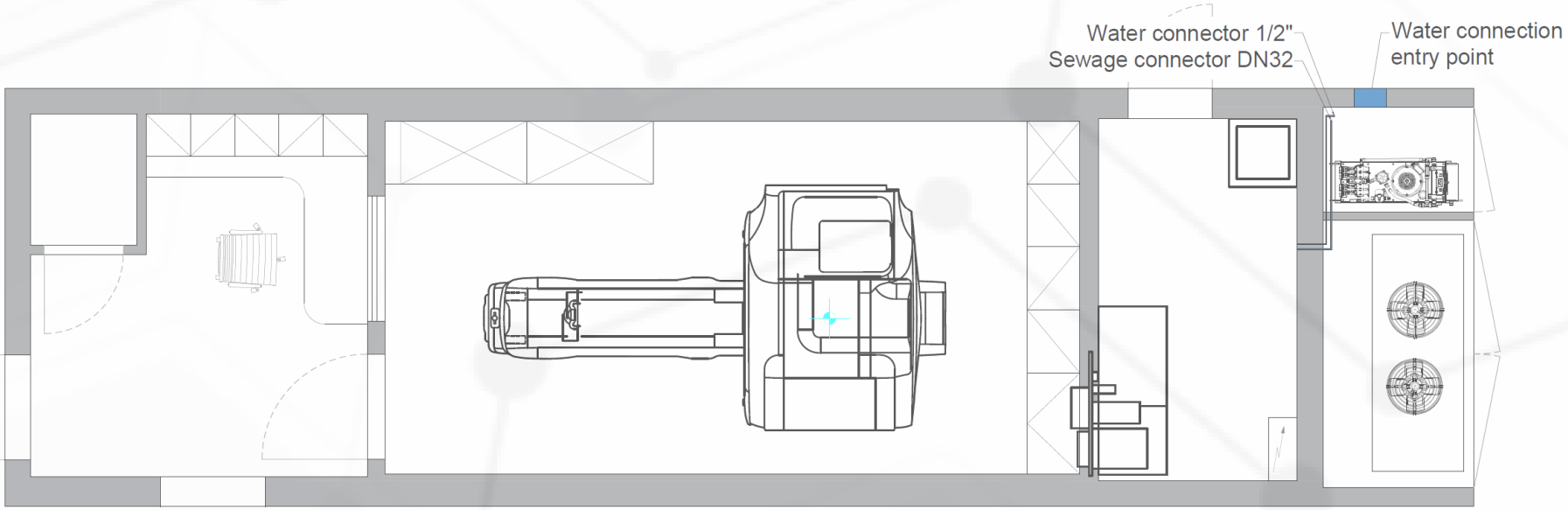


Figure 8 Water and sewage connections with heating cord

Figure 9 Location of water and sewage connections with heating cord



Main Power Connection

Applying power to the main power connection (Figure 4), connecting the building to electricity, and performing protective measurements after connecting the power supply are the responsibility of the user. These activities must be performed by a person with appropriate qualifications.

Connecting the building should take place within 2 hours from setting up the building.

Power connection details:

Building with MRI system: 200A

Mains supply: 400V

Frequency: 50/60Hz

There are 2 Options of the main power connection.

Option1 : Connecting the main power cable directly to the connection box.
(Cable provided by the customer)

Option 2 : Connection the system main power with the included 12m long main power cable with the MARACHEL 3P N PE 250A connector.
(Cable is included with the unit)

After delivery and setting up, the unit must be immediately connected to the power supply. The main power connection is box on the technical bridge with rail connectors 5x70mm2, see *Figure 4*

Connection box with rail connectors

MARECHAL-DS2 3P N PE - 250A Connector

Environmental Requirements

All necessary administrative consents needed for the unit installation in the indicated area and for entry and unloading should be provided. Also, permission to enter and work the crane from 6am to 6pm must be provided.

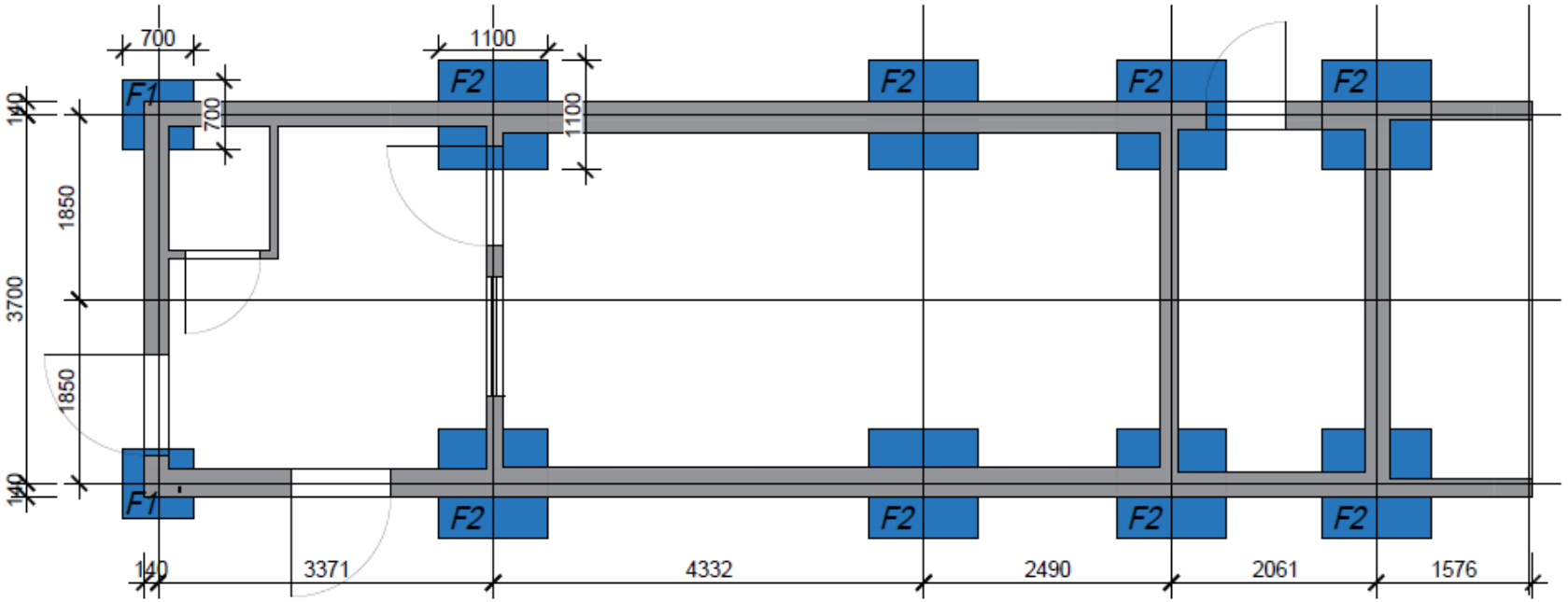
It is necessary to prepare and secure the access road to the entry of heavy equipment and the foundation of the unit. Moreover, maximum 1 % terrain deferral. If more, site preparation with ground levelling is to be handled prior to installation.

Minimum Required Area

To enable access to all parts of the MRI building you need to provide suitable area.
Required area for the unit is: 16,70 m x 5,70 m and is shown in Figure 6. The height of container is 3,40m.
Contact our technical department for the detailed minimum required area.

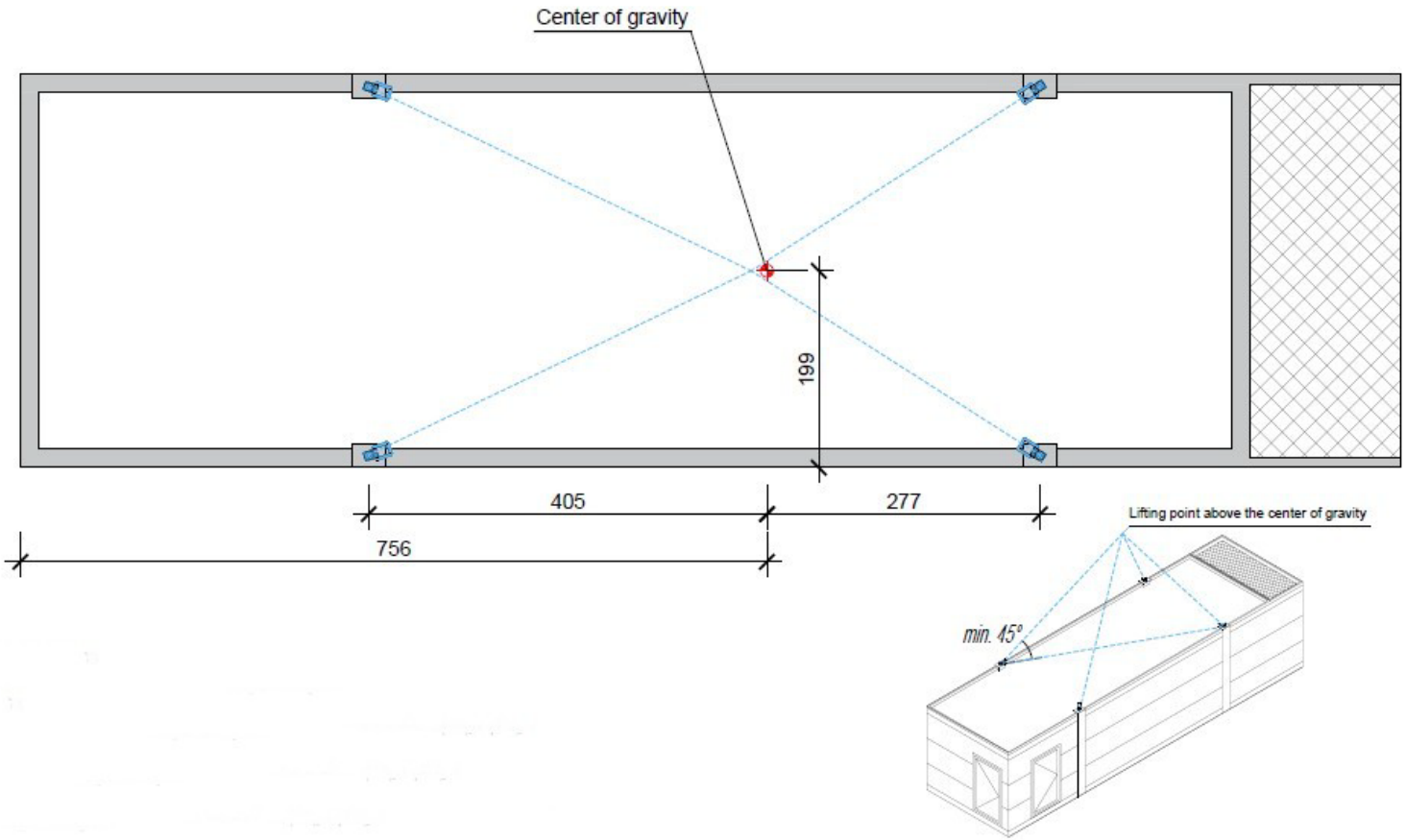
Minimum Container Sitting Conditions

A level ground should be prepared for unit installation with an accuracy of 10mm. Typical foundation is shown in Figure 7. Detailed information about preparing the ground can be found in the technical documentation. Figure 8 shows example of building foundation.



Conditions of Container Lifting Guidelines

The unit should be lifted by 4 lifting brackets mounted on the upper frame. The lifting scheme you can see in the Figure 10. The crane selection is considered individually for each project.



Conditions of Modular Lifting

GUIDELINES:

- the modular must be lifted by 4 lifting brackets 20T mounted on the upper frame
- Acceleration value while modular lifting should be insignificant
- four-lifting slings of modular lifting should be adjusted according to the center of gravity of construction location
- countersink angle between slings must not be bigger than 90°
- Before lifting, the modular's roof should be cleared of snow.
- Modular lifting should be carried out freely - the construction must not be covered with ground, frozen or jammed.
- Modular should not be lifted when wind exceeds 10m/s

IT IS PROHIBITED TO:

- Be inside or on the upper layers of modular for people
- lift the modular under the high-voltage lines
- be under the jib while lifting and moving the construction hanging on the hooks
- carry the construction above people and driver's compartment
- leave the hanging modular without supervision after work finishing or during the breaks
- lift the modular with the equipment unprotected inside.

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