

# Mobile MRI Planning Guide

medneo

1.5T Wide Bore MRI – Siemens Aera 48

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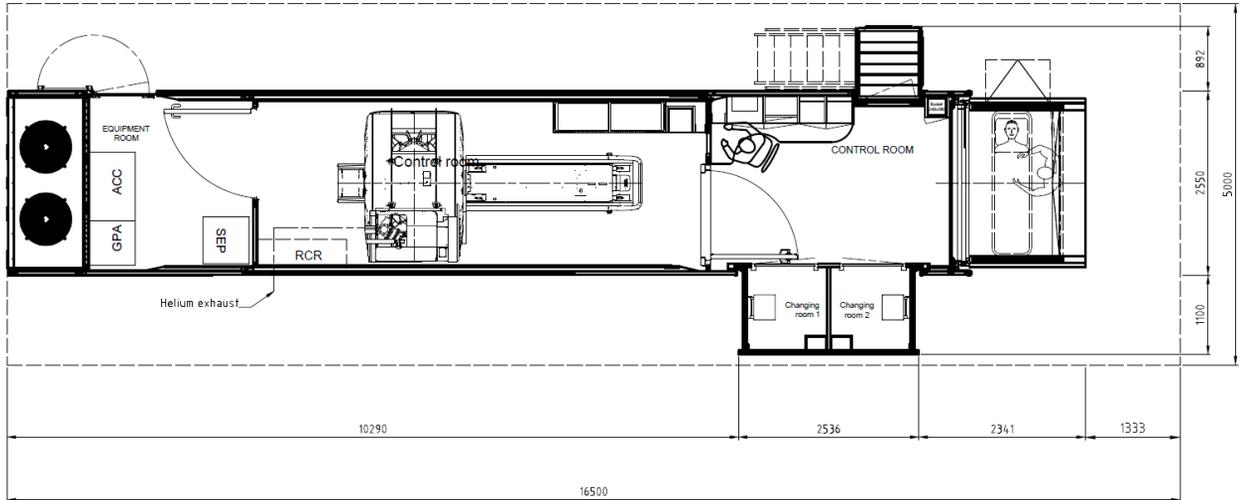
## General

This medical trailer requires specific site preparations by the operator at each desired location. This guide contains information about the necessary preparations of the site, before placement and connections of the medical trailer. The site must meet these requirements so the mobile unit can function properly.



## Ground Requirement

This medical trailer requires specific site preparations by the operator at each desired location. This guide contains information about the necessary preparations of the site, before placement and connections of the medical trailer. The site must meet these requirements so the mobile unit can function properly.



### IMPORTANT NOTICE:

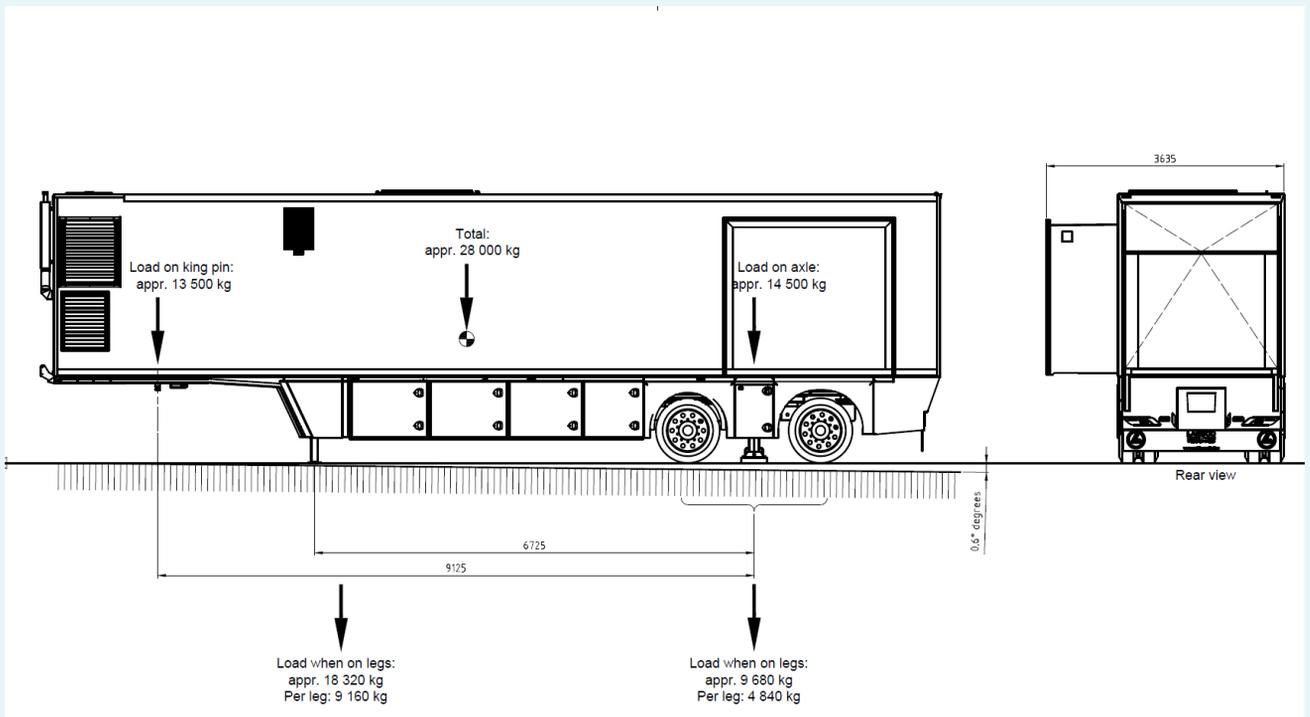
From side walls and back wall is a minimum clearance of 2,5 m required! Otherwise the imaging can be affected by metal objects.

## Support Pad Requirements

The ground and access way must be able to carry the weight of the trailer and tractor. The weight of the trailer is approximately 28,000 kg.

Under the support legs must be placed a nylon support block of 0,4 x 0,4 m (delivered with the trailer). Each position must be able to carry 9200kg

Drawing gives the positions of support legs of the trailer.

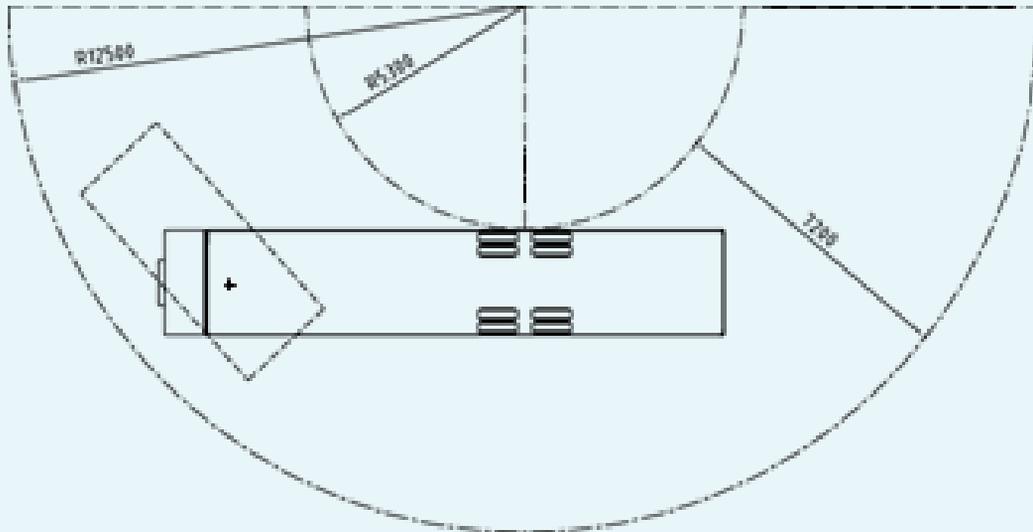


### IMPORTANT NOTICE:

In order to ensure proper operation of the stabilizing system the ground must be level and the deviation must not exceed 1% (which is 0.6 degree).

## Access Route and Turning Radius

The access way must have a minimum width of 7.2m. The radius of the turning circle should have an outer radius of 12.5m and an inner radius of 5.3m of the turning circles.



## Electrical Requirements

The trailer is equipped with a 400 volt 3 phases 50 Hz electric system according to the TN-S system.

The site shall provide a 400 V, 50 Hz, service fused at the following capacities:

1.	Siemens Aera MRI	200A

The electrical phase rotation of the supply should be L1 L2 L3

A 15 meter shoreline cable, wired directly to the trailer, is provided for connecting the mobile unit to local power.

The mains lead is not intended to withstand the wear and tear of traffic passing over it. The site shall provide necessary protective ramps, catenary systems or other means to protect the cable where it traverses roads or pathways.

The shoreline cable is provided with a with a 400 V - 250 A Marachell DS2 male connector with 2 parts:

- 1) Marechal part # 39 28 017: Inlet (male)
- 2) Marechal part # 392A 013: Handle

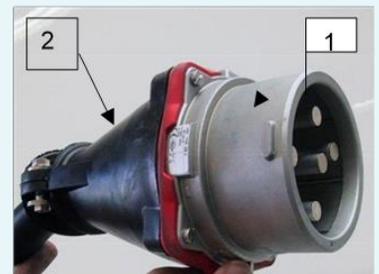
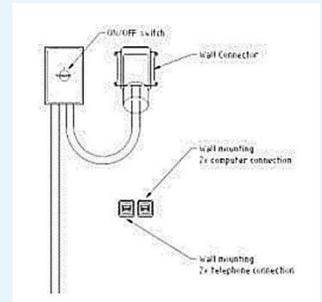
The customer facility must have the female connector to match this connector.

The electric installation must provide a dedicated medical earth terminal for connecting of the earth connection of the trailer.

This earth cable shall be connected to the trailer and the main supply outlet before the mains cable is plugged in.

### WARNING:

It's the user's responsibility to verify that the shore power is electrically compatible with the connector of the mobile trailer. Connecting the power to the wrong type of receptacle could cause serious injury or damage of the medical system.



### Magnetic Shielding

The MRI unit is equipped with magnetic shielding. The shielding will contain the magnetic field to below 0.5mT. their should be noted that the magnetic field exceeds 0.5mT immediately above the roof.. Inside the trailer, close to the magnet, the magnetic field is higher than 0.5mT . These areas are restricted for people with pacemakers and magnetic items. These areas are marked with safety signs..



## •Connectivity

### Site Planning Guide

## Connectivity

The trailer is designed to interface with the host sites' systems: 2 telephone sockets (RJ45 type) and 4 computer sockets (RJ-45) are provided as standard on the trailer. These support connections to the host sites' telephone and RIS PACS systems

The trailer is also equipped with 2 Data extension cables with a length of 20 meter.



## Water Connection

The trailer is equipped with a water tank for supply of the air humidifier.

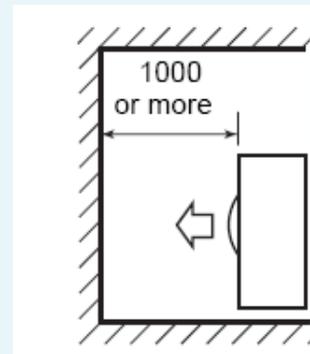
The water tank can be filled by the filler cap .



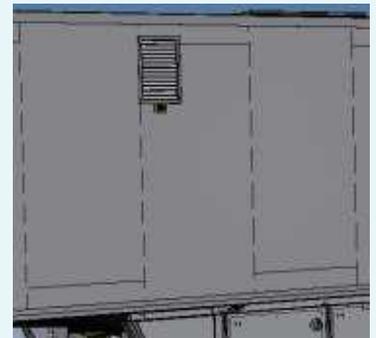
### Air Flow Considerations

The following clearances are acceptable for the airflow: 1000 mm from the grills of the outside airco unit and generator.

At the front side the condenser system is situated. The grills for the condensor need the following clearance for the airflow:  
-1000 mm for the front grills



A 0.6x0.44 m grille is located on the left side of the trailer above the landing gear. This grille is for the exhaust of the helium gas of the magnet. The vent must remain unrestricted, allowing the helium gas to dissipate.



#### WARNING:

Keep away from the grille. Extremely cold gas may be exhausted with no warning.

Do not work on the venting if the magnet is at field

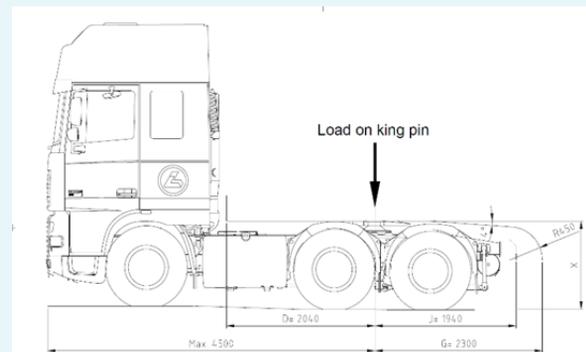
### Tractor Requirements

At the front side of the trailer are the connections points to the tractor for:

- Brake system – female coupling
- Brake system – male coupling
- ABS/EBS system
- Lights 24V ISO N
- Lights 24V ISO S



The couplings on the tractor should match the couplings of the trailer.  
The coupling height of the tractor should match the coupling height of the trailer which is 1,20 m



## Site Planning Guide

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