

DOKUMEN B

RINGKASAN ADVIS PERKAPALAN

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PERKHIDMATAN PENGHANTARAN BAGI TAWARAN MEMBEKAL, MEMASANG, MENGUJI DAN MENTAULIAH PERALATAN
PERUBATAN *MAGNETIC RESONANCE IMAGING (MRI)* DAN KERJA-KERJA BERKAITAN DI HOSPITAL PULAU PINANG DAN HOSPITAL
TENGGU AMPUAN AFZAN, KUANTAN – 2 SISTEM

NO. SEBUT HARGA: 5/2016

Bil.	Perihal Barangan	Tarikh Jangkaan Kesediaan Barangan	Tarikh Barangan Diperlukan	Kaedah Pengangkutan / Penghantaran	Pengkala Memuat (Port of Loading)	Pengkalan Punggah (Port of Discharge)	Destinasi Akhir	Arahan Khas
NO. KONTRAK PEMBEKAL: KKM-244/2015(E)(GABUNGAN MAJUMAS SDN. BHD.) & KKM-162/2015(E) (METRO JENDELA SDN. BHD.)								
1.	SIEMENS MAGNETOM AERA XQ ENGINE / CHINA [SIEMENS AG, Shenzhen] Kuantiti: 14 kotak @ 1 Sistem Berat Kasar = 10,475 kg Dimensi = 46.98 M ³ *Sila rujuk Borang Disc 1 BUTIRAN PEMBEKAL TEMPATAN: 1. <u>Penghantaran ke HPP</u> Gabungan Majumas Sdn. Bhd. Cik Nur Syafiqah binti Zaini T: 03-7931 9928 / 03-7960 8828 (Magna) E: syafiqah.zaini@magna.com.my 2. <u>Penghantaran ke HTAA</u> Metro Jendela Sdn. Bhd. Pn. Azlin / Pn. Noor Haryati binti Ibrahim T: 03-7772 0220 E: admin@metroj.com.my BUTIRAN PENGIMPORT: 1. Siemens Healthcare Sdn. Bhd. Cik Lizana binti Rahim T: 03-7952 5136 E: lizana.rahim@siemens.com En. Jesinderan T: 03-7952 5143 E: jesinderan.subramaniam@siemens.com	16 Mei 2016	23 Mei 2016 Tempoh serahan termasuk T&C oleh pembekal: 20 minggu dari tarikh serah tapak pada 22 Februari 2016	FOB Udara	Hong Kong Airport, CHINA	KLIA, MALAYSIA	Hospital Pulau Pinang Pn. Hazlina binti A Majid Pegawai Sains Fizik (C44) Jabatan Pengimejan dan Diagnostik T: 04-222 5469 E: hazlinaam@gmail.com	Bahaya, sensitif dan memerlukan penjagaan rapi <i>(Medical Equipment)</i> HELIUM UN NO.1963. UN 2800 / UN3090 / UN3480. <i>Normally Unrestricted by Air (Appendix A,B,C,D)</i> *Sila rujuk lampiran: 1. Arahan Khas untuk MTO 2. <i>MSDS Liquid Helium (Appendix A,B,C,D)</i> 3. <i>Magnetom Aera Transport & Storage Condition / Specification</i> 4. <i>MRI Delivery Route Drawing *(HPP sahaja)</i>
		22 Julai 2016	30 Julai 2016 Tempoh serahan termasuk T&C oleh pembekal: 35 minggu dari tarikh serah tapak pada 16 Februari 2016				Hospital Tengku Ampuan Afzan, Kuantan, Pahang Cik Liom Sui Lien Pegawai Aset, Jabatan Pengimejan dan Diagnostik T: 09-557 2222 ext. 2063 H: 012-959 7068 E: jpdhtaa@gmail.com	

BORANG DISC 1

Diisi Oleh Penender/Pembekal

MAKLUMAT BERHUBUNG BARANGAN IMPORT YANG DITAWARKAN DALAM

KONTRAK BAGI MEMBEKAL, MENGHANTAR, MEMASANG, MENGUJI DAN
TENDER : **MENTAULIAH PERALATAN PERUBATAN MAGNETIC RESONANCE IMAGING**
(MRI) DI HOSPITAL PULAU PINANG – 1 UNIT (KKM – 244/2015 (E))

(MAKLUMAT INI PERLU UNTUL URUSAN SEBUT HARGA BAGI TAWARAN KOS PENGANGKUTAN/PENGHANTARAN DARIPADA MULTIMODAL TRANSPORT OPERATOR MTO). SILA ISIKAN MAKLUMAT BERIKUT DENGAN TEPAT DAN BETUL. SEKIRANYA MAKLUMAT YANG DEKEMUKAN DALAM BORANG INI TIDAK TEPAT, PIHAK TUAN DIKEHENDAKI MENANGGUNG PERBEZAAN KOS PENGANGKUTAN/PENGHANTARAN BAGI PEROLEHAN BARANAGAN INI):

1. Nama Barangan : Siemens Magnetom Aera
dan diskripsi

2. Kuantiti Barangan : 1 UNITS

3. Jenis Baranagan : BAHAYA / SENSITIF & MEMERLUKAN
JAGAAN RAPI / LAIN-LAIN nyatakan

BAHAYA, SENSITIF DAN MEMERLUKAN JAGAAN RAPI
(MEDICAL EQUIPMENT)

(Jika Barangan BAHAYA sila nyatakan kelas IMO UN
HELIUM UN No.1963.

UN 2800/ UN 3090/ UN3480. Normally Unrestricted by Air

Sila Rujuk Appendix A, B, C, D yang disertakan bersama dokumen ini.

4. Butir-butir terperinci mengenai KONSAINAN :

4.1 a. Bilangan KOTAK bagi
satu UNIT alat : Anggaran 14 Kotak

b. Ukuran setiap kotak :-

Kotak No.	Dimensi (H x L x W)	Berat Kasar (kg.)
1	<u>Sila Rujuk: Page2_Borang DISC1 No.8</u>	
2		
3		
4		
5		

4.2 Bagi KESELURUHAN unit :

JUMLAH KOTAK	DIMENSI (M3)	BERAT KASAR
Anggaran	46.9802488	10475 (kg)

potong yang tidak berkenaan/tambah di mana berkenaan.

5. Negara Asal Barangan : Shenzhen, China
6. Pelabuhan memuat : Hong Kong Airport
7. Kaedah Pengangkutan : DARAT / LAUT / UDARA
8. Destinasi Akhir : Pulau Pinang Airport dan seterusnya barangan perlu diangkut ke Hospital Pulau Pinang

PENERIMA (TAPAK PENGGUNA)	KUANTITI (BILANGAN KOTAK)	BERAT (KG)	DIMENSI (L X W X H) (Meter)
Hospital Pulau Pinang	1	5670	3.56 x 2.16 x 2.3
	2	112	1.6 x 0.95 x 0.7
	3	420	0.8 x 0.8 x 2.08
	4	1900	2 x 2 x 2.22
	5	139	1.6 x 1.1 x 0.89
	6	300	1.5 x 1 x 2.5
	7	399	1.65 x 0.96 x 1.1
	8	350	1.71 x 0.84 x 1.5
	9	200	0.1 x 0.8 x 0.94
	10	150	0.8 x 1 x 1
	11	138	1.3 x 0.8 x 0.8
	12	316	1.96 x 0.146 x 1.53
	13	100	1.02 x 1.5 x 3
	14	281	1.52 x 0.98 x 1.39
		Anggaran berat 10,475 kg	Anggaran Dimensi (M ³) 46.9802488
<i>*Remarks: These measurement are for one (1) unit equipment ESTIMATION ONLY (due to different configuration) MTO is advised to top up slightly additional gross weight & dimension before Tender. The actual Packing list will only be available upon Ex-factory.</i>			

(Jika ruangan tidak mencukupi, sila gunakan lampiran tambahan)

9. Perhatian yang perlu diambil semasa penghantaran :

Bahaya, Sensitif dan memerlukan jagaan rapi

10. Disertakan bersama ini 'contoh packing list' barangan berkenaan.
Tiada

Tandatangan : 
 Nama Pengawai : Datuk Voon Thien Soong
 Syarikat : Gabungan Majumas Sdn Bhd
 Tarikh : 07-Apr-16

Diisi Oleh Penender/Pembekal

MAKLUMAT BERHUBUNG BARANGAN IMPORT YANG DITAWARKAN DALAM

TENDER : KKM-162/2015 (E)

(MAKLUMAT INI PERLU UNTUL URUSAN SEBUT HARGA BAGI TAWARAN KOS PENGANGKUTAN/PENGHANTARAN DARIPADA MULTIMODAL TRANSPORT OPERATOR MTO). SILA ISIKAN MAKLUMAT BERIKUT DENGAN TEPAT DAN BETUL. SEKIRANYA MAKLUMAT YANG DEKEMUKAN DALAM BORANG INI TIDAK TEPAT, PIHAK TUAN DIKEHENDAKI MENANGGUNG PERBEZAAN KOS PENGANGKUTAN/PENGHANTARAN BAGI PEROLEHAN BARANAGAN INI):

1. Nama Barangan : Siemens Magnetom Aera
dan diskripsi

2. Kuantiti Barangan : 1 UNITS

3. Jenis Baranagan : BAHAYA / SENSITIF & MEMERLUKAN
JAGAAN RAPI / LAIN-LAIN nyatakan

BAHAYA, SENSITIF DAN MEMERLUKAN JAGAAN RAPI
(MEDICAL EQUIPMENT)

(Jika Barangan BAHAYA sila nyatakan kelas IMO UN
HELIUM UN No.1963.

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Sila Rujuk Appendix A, B, C, D yang disertakan bersama dokumen ini.

4. Butir-butir terperinci mengenai KONSAINAN :

4.1 a. Bilangan KOTAK bagi
satu UNIT alat : Anggaran 14 Kotak

b. Ukuran setiap kotak :-

<u>Kotak No.</u>	<u>Dimensi</u> <u>(H x L x W)</u>	<u>Berat Kasar</u> <u>(kg.)</u>
1	<u>Sila Rujuk: Page2_Borang DISC1 No.8</u>	
2		
3		
4		
5		

4.2 Bagi KESELURUHAN unit :

JUMLAH KOTAK	DIMENSI (M3)	BERAT KASAR
Anggaran	46.9802488	10475 (kg)

6. Pelabuhan memuat :

Hong Kong Airport

7 Kaedah Pengangkutan : DARAT / LAUT / UDARA

8. Destinasi Akhir : KLIA Airport dan seterusnya barangan perlu diangkut ke Hospital Tuanku Ampuan Afzan

PENERIMA (TAPAK PENGGUNA)	KUANTITI (BILANGAN KOTAK)	BERAT (KG)	DIMENSI (L X W X H) (Meter)
Hospital Tuanku Ampuan Afzan	1	5670	3.56 x 2.16 x 2.3
	2	112	1.6 x 0.95 x 0.7
	3	420	0.8 x 0.8 x 2.08
	4	1900	2 x 2 x 2.22
	5	139	1.6 x 1.1 x 0.89
	6	300	1.5 x 1 x 2.5
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	14	281	1.52 x 0.98 x 1.39
			Anggaran berat 10,475 kg

**Remarks: These measurement are for one (1) unit equipment ESTIMATION ONLY (due to different configuration) MTO is advised to top up slightly additional gross weight & dimension before Tender. The actual Packing list will only be available upon Ex-factory.*

(Jika ruangan tidak mencukupi, sila gunakan lampiran tambahan)

9. Perhatian yang perlu diambil semasa penghantaran :

Bahaya, Sensitif dan memerlukan jagaan rapi

10. Disertakan bersama ini '**contoh packing list**' barangan berkenaan.
Tiada

Tandatangan : 
Nama Pengawai : Noor Haryati Binti Ibrahim
Syarikat : METRO JENDELA SDN BHD
Tarikh :
(Co. No. 910001 M)
No. 2A, Jalan Tandan SA, Seksyen 51,
46050 Petaling Jaya, Selangor Darul Ehsan.
Tel: +6 (03) 7772 0220 Fax: +6 (03) 7773 1000
Email: admin@metroj.com.my

ARAHAN KHAS UNTUK MTO

ARAHAN KHAS UNTUK MTO

- 1 Pastikan lawat tapak sebelum sebut harga.
- 2 FCA Hong Kong Airport (Incoterm 2010)
- 3 Agen MTO di Hong Kong perlu mengurus dengan Siemens di China, untuk penghantaran barang dari tarikh EX-Fac (tarikh Ex-Factory akan dimaklumkan oleh Siemens Malaysia kepada MTO)
- 4 Kos urusan Kastam dan penghantaran Kargo kepada agen MTO FCA Hong Kong ditanggung oleh Siemens AG.
- 5 Kos urusan Kastam di Malaysia dan penghantaran ke tapak dan seterusnya kedalam bilik hospital ditanggung oleh MTO.
- 6 MTO perlu membekalkan dokumen untuk pembukaan akaun dengan pihak Siemens 10 hari sebelum tarikh EXF.
- 7 MTO perlu membekalkan dokumen untuk satu kali perlantikan sebagai kastam agen Siemens 10 hari sebelum tarikh EXF.
- 8 ~~MTO perlu bayar GST terlebih dahulu kepada pihak kastam dan invoice kepada Siemens Healthcare Malaysia.~~
- 9 ~~Pihak Siemens akan menguruskan pembayaran GST dalam 7 hari bekerja~~
- 10 Pastikan crane atau cargo lift yang perlu digunakan mengikut tingkat pemunggahan barang semasa lawat tapak. Bina platform yang sesuai sekiranya diperlukan.
- 11 Untuk mengelakkan kebarangkalian daripada dituduh merosakkan jalanraya, tebing, harta benda hospital dan sebagainya Siemens mencadangkan pihak MTO mengambil gambar persekitaran semasa melawat tapak.
- 12 Skop penghantaran ke tapak termasuk :- 'unloading dari truck', 'uncrating', 'move-in' dan posisikan peralatan di dalam bilik hospital yang ditetapkan.
- 13 Mohon permit dari pihak berkuasa sekiranya perlu jalan ditutup.
- 14 Bekal dan gunakan tenaga buruh secukupnya seperti 'forklift', 'crane', 'pallet truck', 'moving tools' yang sesuai. Sekiranya menggunakan 'moving tools' dari Siemens Malaysia, sila punggah dan kembalikan dalam keadaan baik selepas digunakan ke gudang Siemens.
- 15 Pastikan langkah-langkah keselamatan awam serta keselamatan dan harta benda hospital diutamakan. Sediakan 'Thick Metal Protection' untuk mengelakkan "Road Damage and Sinking" sekiranya menggunakan crane. Sediakan floor protection dan wall protection yang bersesuaian ie : Metal plate ataupun plywood untuk laluan peralatan. Pastikan label dan tanda-tanda keselamatan ditempatkan dan laluan dihadang dengan sesuai. Pastikan sekurang-kurangnya ada Insurance melindungi pihak ketiga untuk mengelakkan keadaan tidak diingini berlaku.
- 16 Pastikan 'crate' dan sampah di lupuskan di tempat yang sesuai dan tidak dibenarkan menggunakan pelupusan dalam kawasan hospital.
- 17 Sediakan 'contingency cost' sekiranya kerja dilakukan di waktu petang, malam, hari minggu, mengikut kehendak hospital. 'Contingency' masa dan perubahan cuaca juga perlu diambil perhatian.
- 18 Perlu berbincang dan kemaskini maklumat dengan jurutera kami dari semasa ke semasa.
- 19 Peralatan ini sangat BAHAYA DAN SENSITIF dan perlu penjagaan rapi.
- 20 Peralatan ini mengandungi barangan "DG Goods" atau Lithium Bateri

Vote : (Jika peralatan adalah MRI)

- 21 Perhatian: Hanya pengangkutan melalui Udara sahaja dibenarkan. Pengangkutan laut (kapal laut) tidak dibenarkan.
 - 22 MRI mengandungi barangan "DG Goods" -Helium UN No.1963 (Minta MSDS dari Siemens Malaysia)
 - 23 Sediakan crane di Airport Malaysia dan di tapak untuk kerja pemunggahan
 - 24 "Low loader " mesti digunakan untuk pemunggahan magnet dan penghantaran ke tapak
 - 25 Penghantaran ke tapak mengambil masa 3 hari dari "ETA" - sediakan 'temporary storage'
 - 26 Selepas Magnet dialihkan dari 'metal frame', lupuskan "Metal Base Frame" dengan cara yang sesuai
- 27 Sekiranya memerlukan keterangan lanjut, sila hubungi :
- i) Cik Lizana Rahim (03-7952 5136) - lizana.rahim@siemens.com
 - ii) En. Jesinderan (03 7952 5143) - jesinderan.subramaniam@siemens.com

MAGNETOM AERA TRANSPORT & STORAGE SPECIFICATIONS

6.1 Transport and storage specifications



Damage to the magnet system will occur through incorrect handling or being exposed to excessive loads. The magnet must only be transported and handled under the conditions specified in this procedure.

- » The magnet can be shipped and transported worldwide with or without liquid helium. Maximum helium level during shipping: 95%.
- » The magnet is classified as "Dangerous goods" as defined by the ADR, IMDG and IATA codes and their requirements. Liquid helium is classified under UN1963 (Helium, refrigerated liquid).
- » Transportation of the system containing liquid helium must be in accordance with the appropriate national and international codes.

6.1.1 Mechanical transport conditions

Using an air-ride truck with or without a shipping pallet the following maximum peak acceleration measured at the magnet mounting points during transportation shall not exceed:

- 5.0g vertical shock load applied to the cryostat mounting points.
- 2.0g horizontal shock load applied to the cryostat mounting points in any direction.



Shock is defined as a dynamic force with duration of no more than 0.5 seconds.



Transportation of the system containing liquid helium must be in accordance with the appropriate national and international codes.

6.1.1.1 Road Transport

- » Road transport is allowed up to 15.000 miles.
- » Road transport may be with or without an approved shipping pallet. Without NO shipping pallet, the magnet must be supported using transport beams.
- » Road vehicles must be fitted with air ride suspension, whether or not a shipping pallet is used.

! CAUTION**Transportation vibration and fatigue**

Failure to observe the following may result in permanent internal damage being caused to the MRI magnet.

- » Always transport a magnet using vehicles fitted with air ride suspension.
- » Road vehicles must be suitable for the intended usage, be properly maintained at all times, and comply with all local laws and regulations.
- » Relevant requirements of the ADR code shall be satisfied.
- » The vehicle and operator must be approved by Siemens.

! CAUTION**Transportation for Mobile MRI magnets**

Failure to observe the following may result in permanent internal damage being caused to the MRI magnet.

- » This specification does not constitute acceptance for use as part of a mobile system.
- » Mobile magnets require a specific trailer design for continuous road transportation.

6.1.1.2 Air transport

Air transport is allowed up to 30.000 miles.

- » If air transport is used for any section of the route, an approved shipping pallet must be used for the entire transportation process.
- » Relevant requirements of the IATA code must be satisfied.

6.1.1.3 Sea shipment

Sea transport is allowed up to 30.000 miles.

- » If sea shipment is used for any section of the route, an approved (magnet system related) shipping pallet must be used for the entire transportation process.
- » Relevant requirements of the IMDG code must be satisfied.

6.1.1.4 Rail Transportation



Rail transportation is not allowed!

- » Transportation through the channel tunnel (UK to France) is permissible if:
- » The system is mounted on an approved air ride truck. The air ride suspension may be inactive.

6.1.1.5 Magnet specifications

Transport and storage specifications - magnet	
Acceleration amplitude	2 m/s ² (2 - 100 Hz)
Peak acceleration	5 g vertical, 2 g horizontal (20 ms time period)
Ambient temperature	-25 °C to +60 °C
Relative humidity	10% to 95% non-condensing
Atmospheric pressure	20 kPa to 106 kPa

6.1.1.6 System components Specifications

Transport and storage specifications for the system components	
Acceleration amplitude	2 m/s ² (2 - 100 Hz)
Peak acceleration	5 g vertical, 2 g horizontal (20 ms time period)
Ambient temperature	-25 °C to +60 °C
Relative humidity	10% to 95%
Atmospheric pressure	70 kPa to 105 kPa

6.1.1.7 Lifting and Handling



Lifting the magnet must always be conducted by personnel who are trained in handling components and medical equipment of this size and weight.

Lifting during transportation including the final movement onto the installed site must be performed using a suitable sized crane or forklift capable of lifting the full magnet weight.

Suitable straps or chains capable of lifting the full magnet weight must be used. The straps or chains must be secured to the magnet lifting points using the four shackles supplied and fitted to the magnet.

6.2 Transport route



All transport activities including delivery of the magnet and the system components to the MR suite may be performed by a licensed carrier only.

6.2.1 Requirements for the transport route

- Before requesting the services of a licensed carrier the project manager, the architect and construction engineer have to determine the floor loading.
This has to be done for the transport routes and the temporary storage areas.
- The architect or construction engineer has to confirm in writing that the floor loading of the transport routes or storage areas will be sufficient. This is required for moving the magnet and system components.
- It is the responsibility of the carrier to obtain information concerning the various transport routes before the actual transport.

6.2.1.1 Issuing the order

- The order for transport has to be issued in writing to the licensed carrier selected and has to contain the following data and documentation:
 - Copies of the transport routes/storage areas selected
 - A copy of the certificate attesting to the weight capacitance of the floor
 - Final destination of transport (to give the carrier enough time to obtain information regarding methods of transport and transport routes)
 - The weight and dimensions of the components to be transported
 - General information such as a list of the components to be shipped
- Actual transport
 - The project manager is responsible for the availability of the transport equipment to be used
 - The carrier is responsible for the type of transportation and auxiliary tools used

6.3 Transport dimensions

6.3.1 MAGNETOM Aera

The following illustrations and examples indicate the minimum distances for transporting the magnet.



All transport dimensions are shown with transport devices!

6.3.1.1 Standard transport

Physical dimensions of the magnet	
	Minimum transport dimensions
Height	2279 mm +/- 10 mm
Width	2310 mm +0 mm / - 5 mm
Length without support	1551 mm +0 mm / -3 mm
Length with support	1829 mm +0 mm / -3 mm

The picture below is showing the system with removed top right cover.

Fig. 251: Aera Transport dimensions (front view)

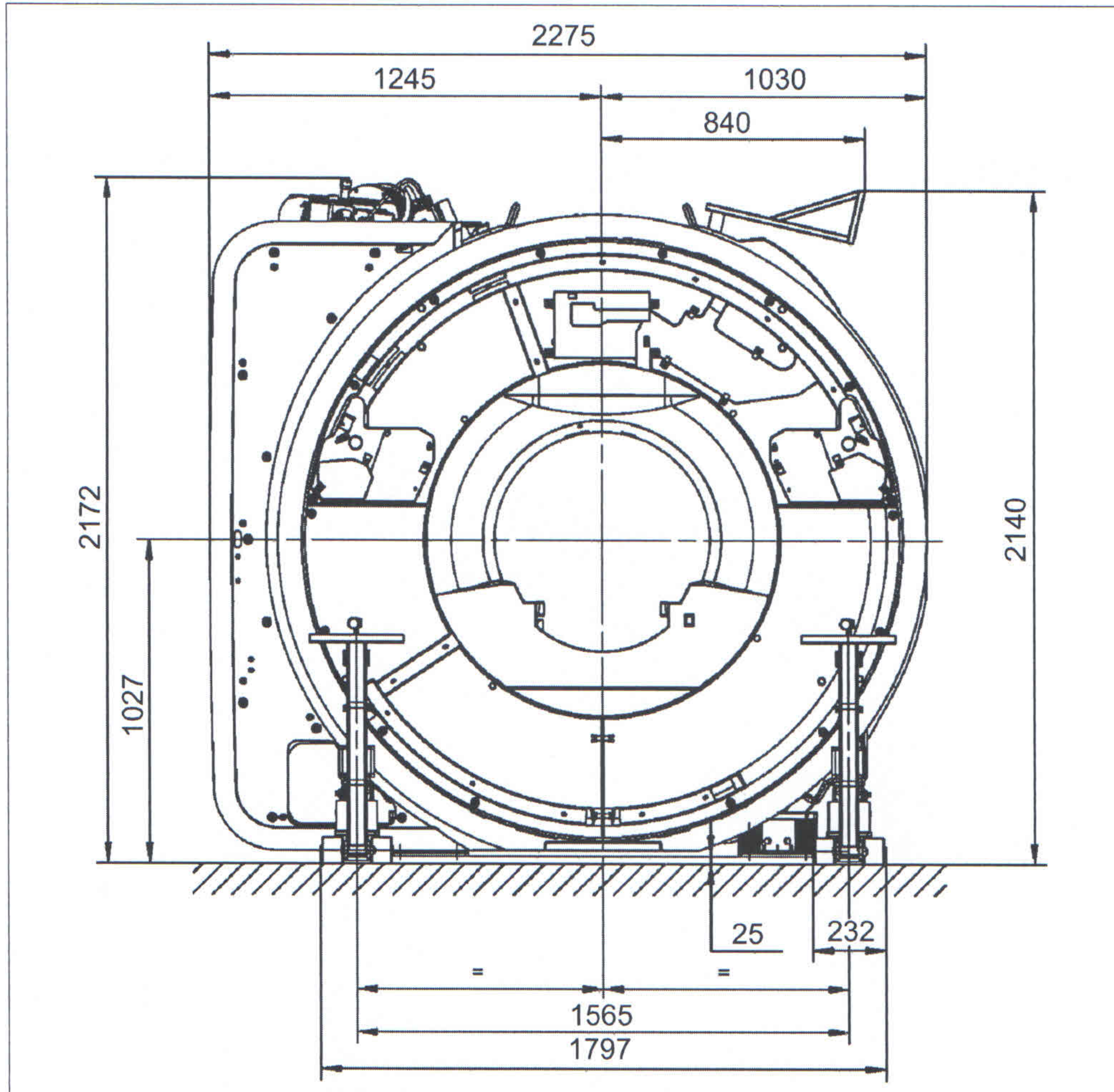


Fig. 252: Aera Transport dimensions (left side view)

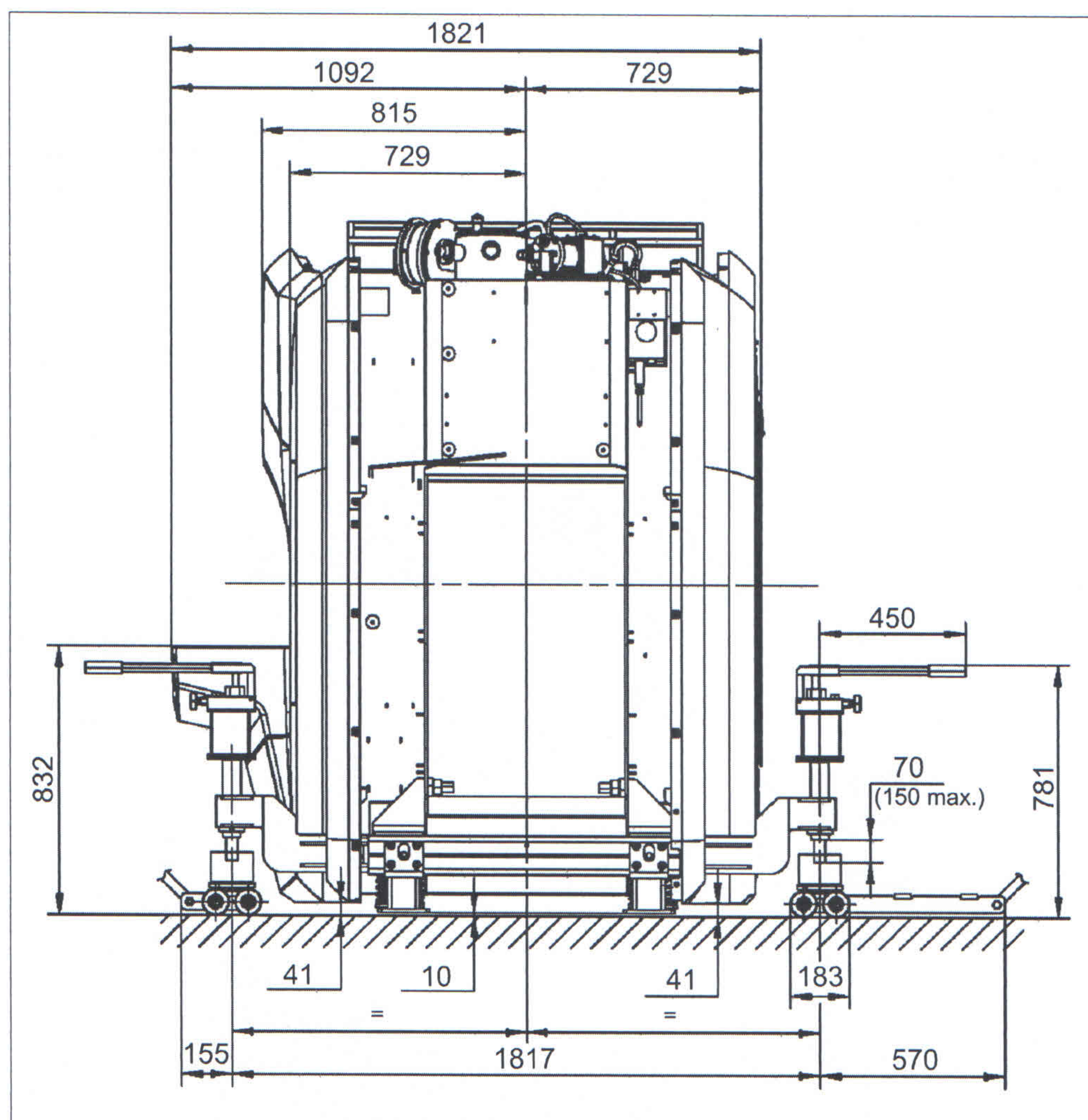
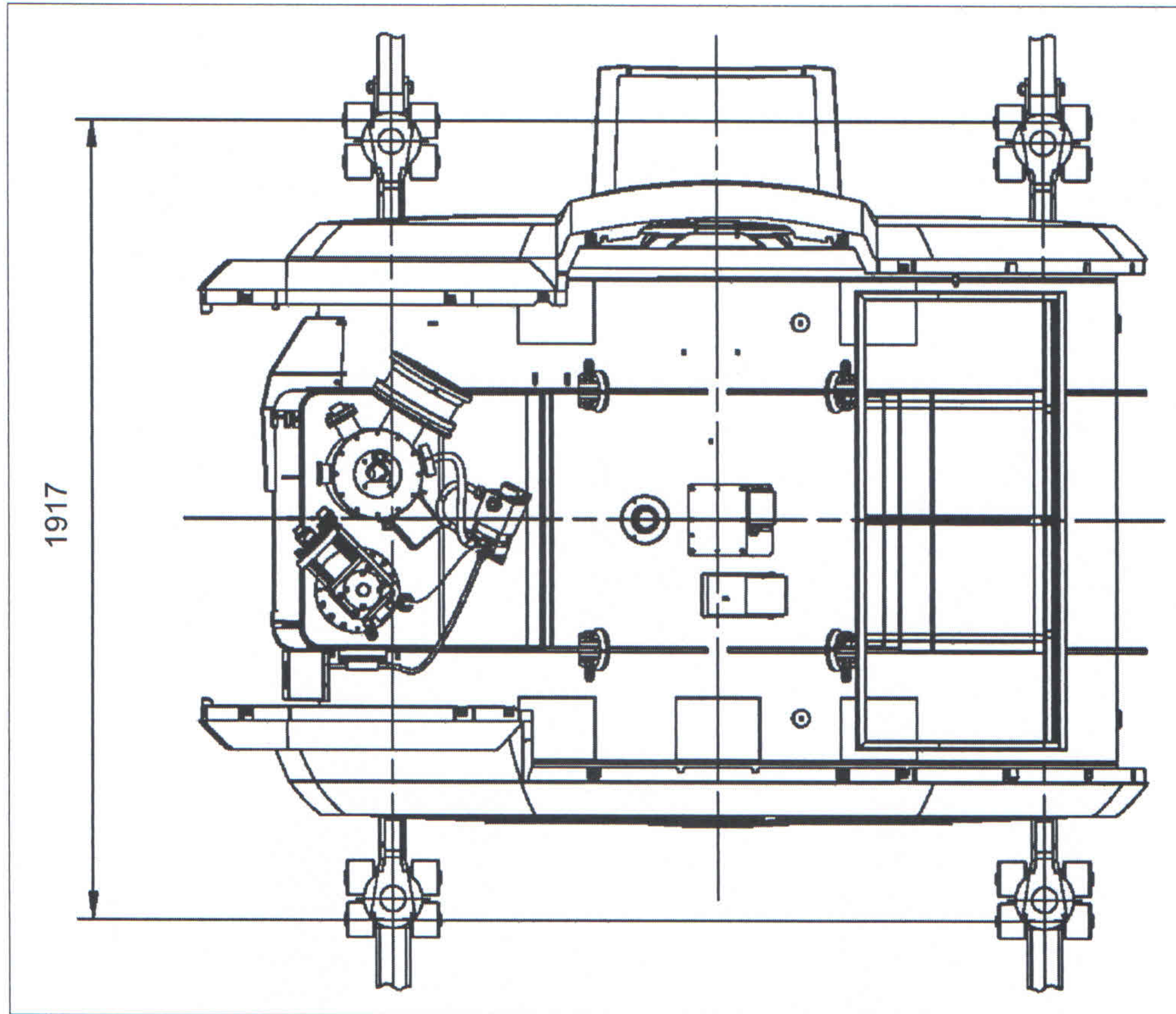


Fig. 253: Aera Transport dimensions (top view)



6.3.1.2 Transport under box-section

The picture below is showing the system with removed top right cover.

Fig. 254: 1.5 Transport unter Boxsection 1

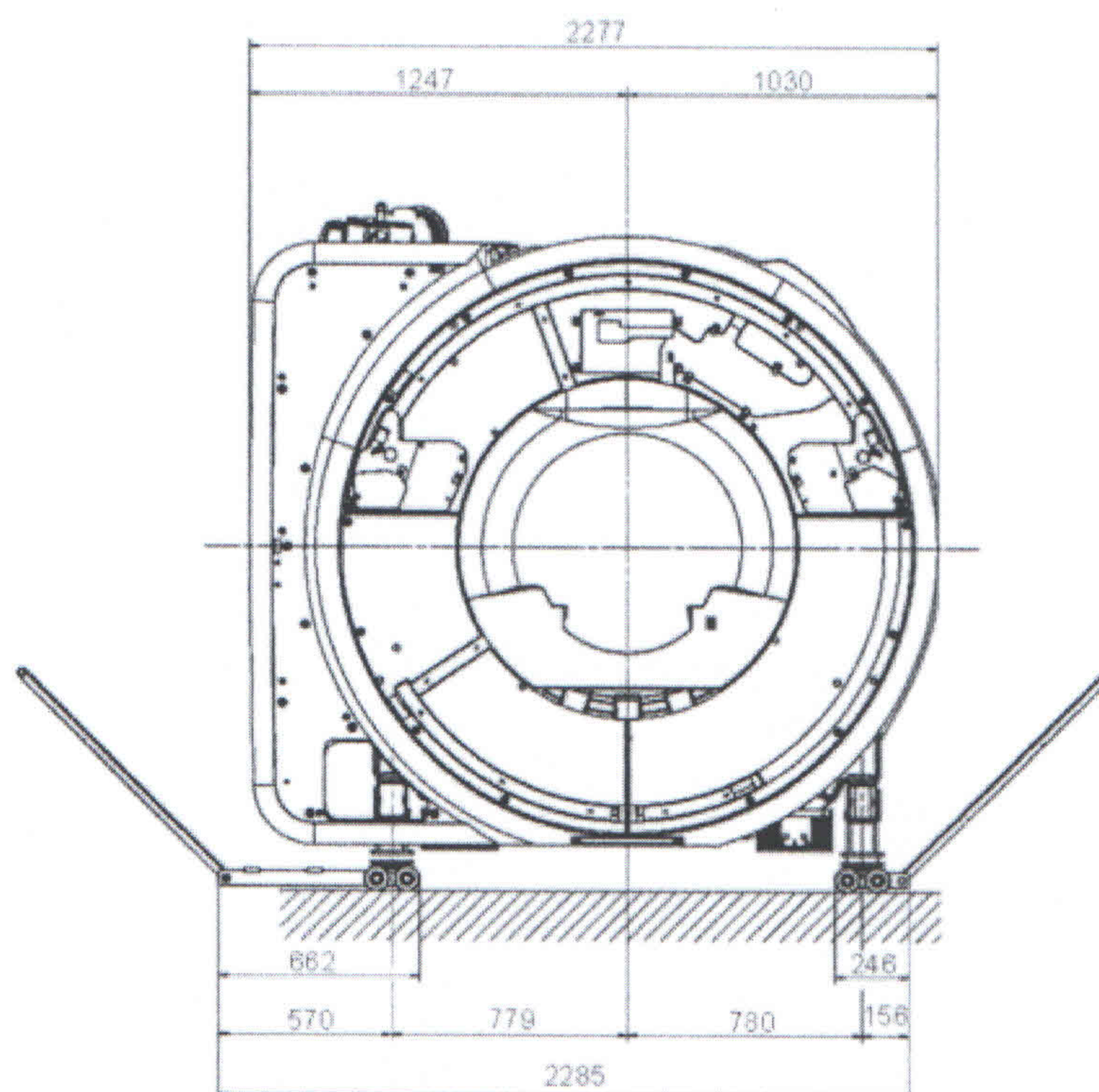


Fig. 255: 1.5 Transport unter Boxsection 2

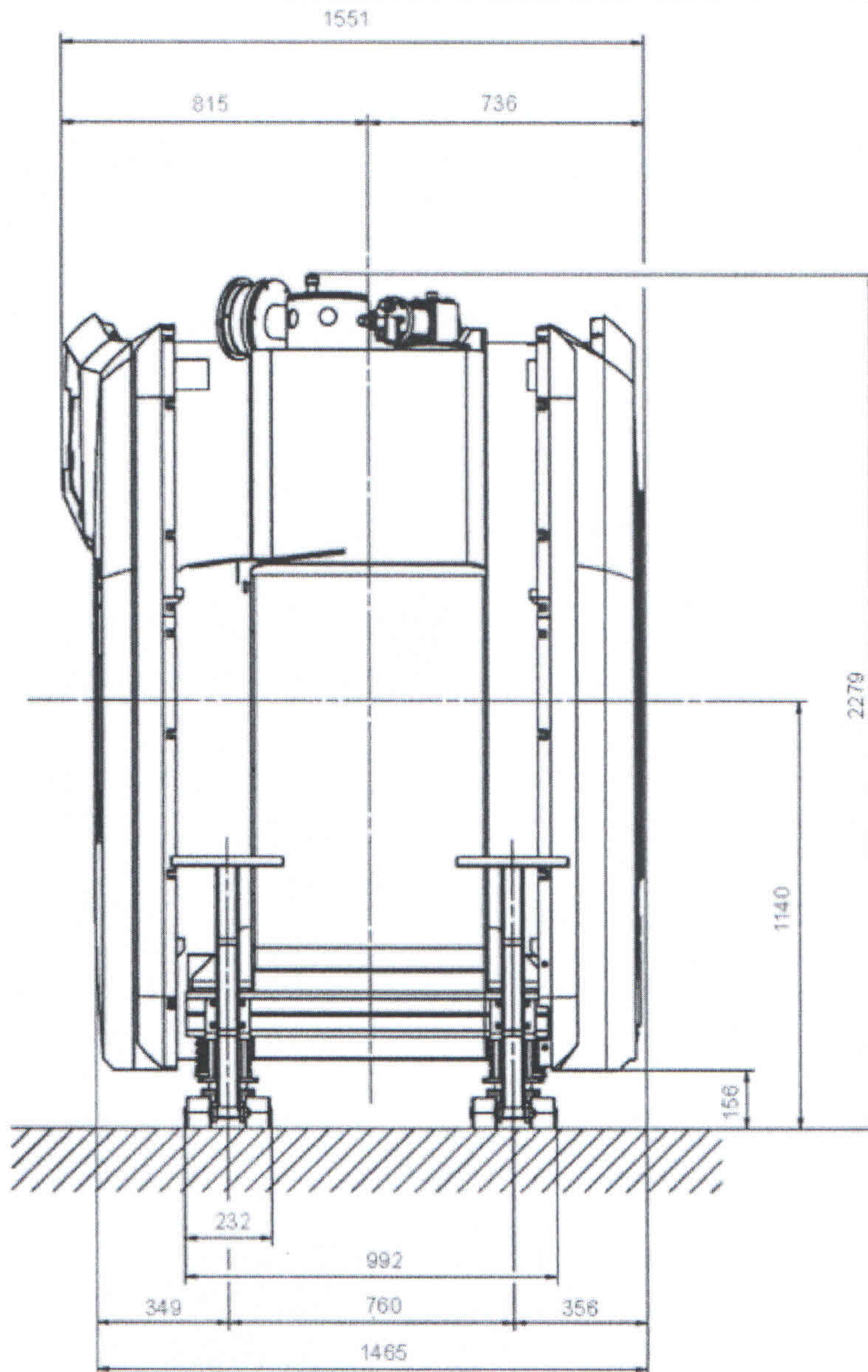


Fig. 256: 1.5 Transport unter Boxsection 4

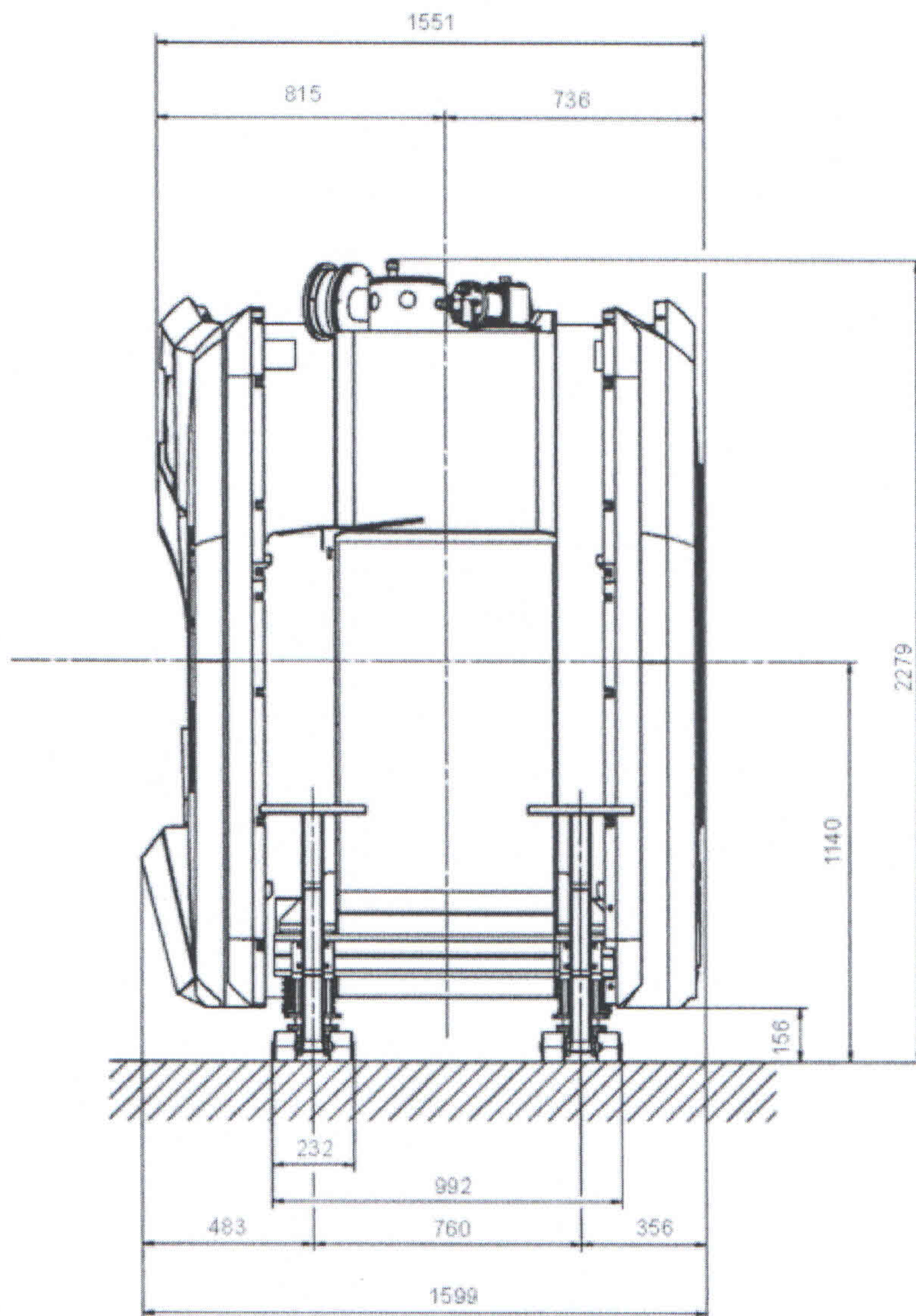


Fig. 257: 1.5 Transport unter Boxsection 5

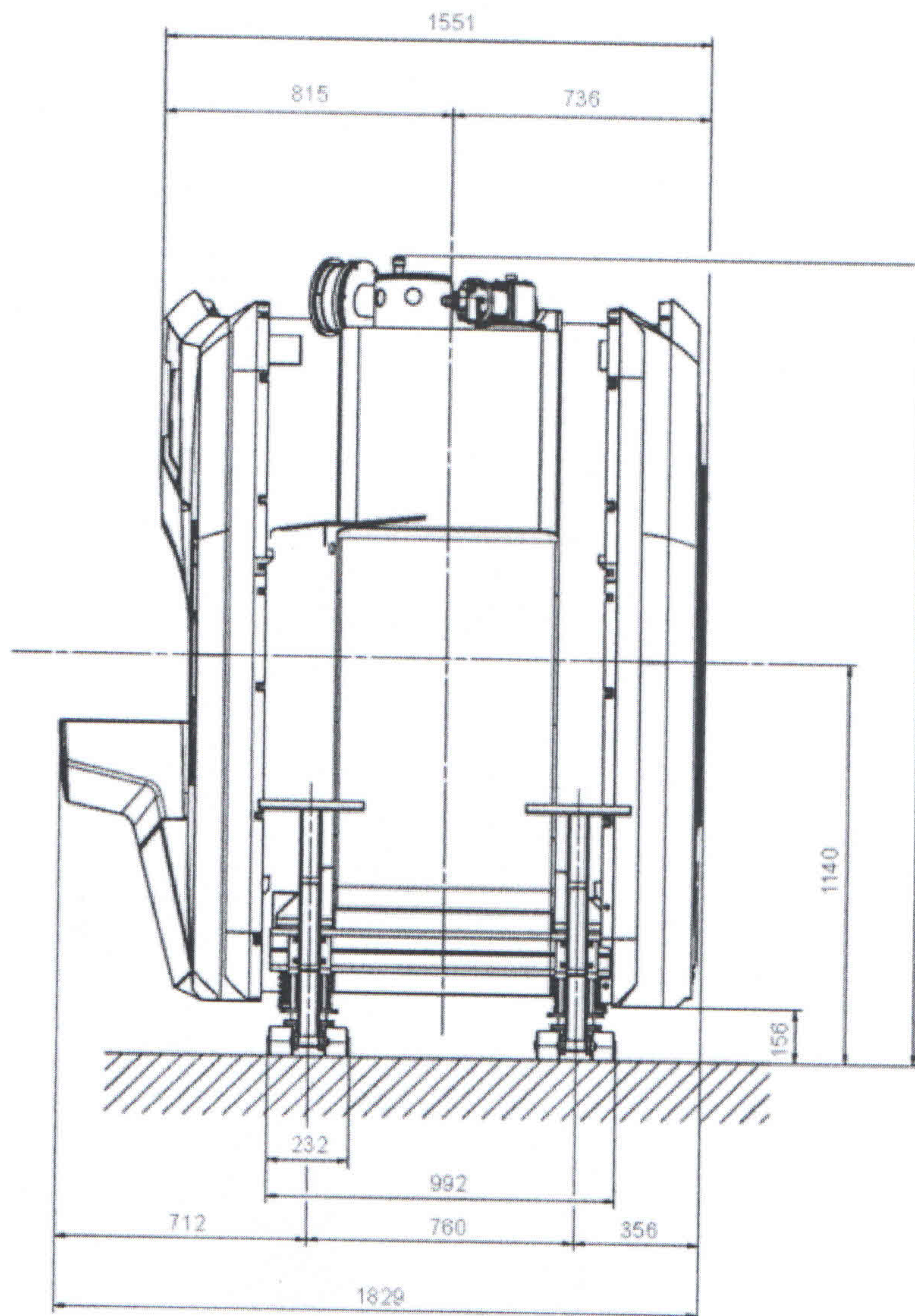
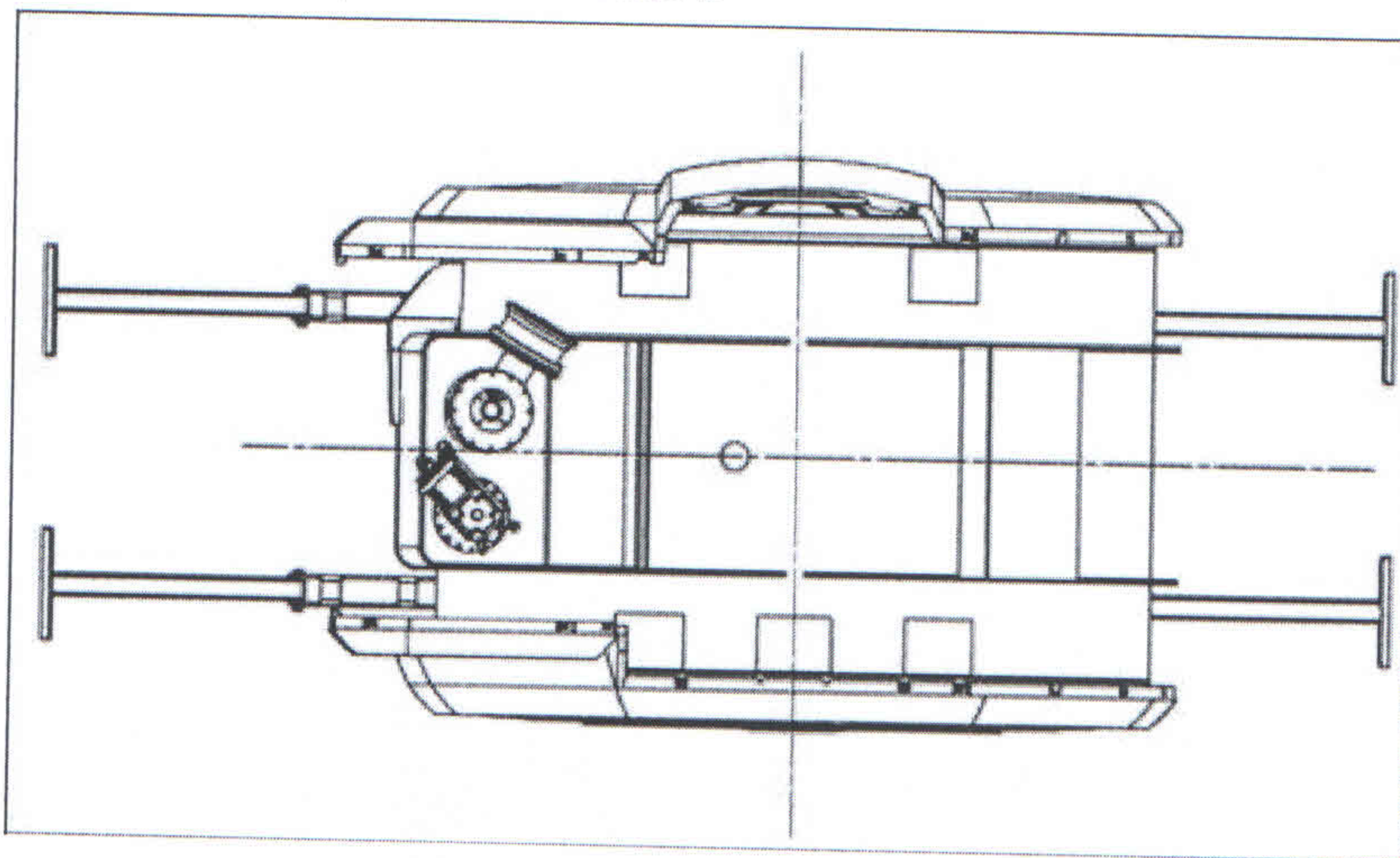


Fig. 258: 1.5 Transport unter Boxsection 3



6.3.2 Roof hatch size



The roof hatch/opening size should be minimum 100 mm larger than the transport dimension.

6.3.3 System components

To transport the GPA/EPC cabinet, the minimum finished room height must be **1972 mm**.

Transport dimensions of the GPA/EPC			
	GPA/EPC as delivered from the factory.	GPA/EPC removed wheels	GPA/EPC removed wheels and mains box
Height	1972 mm	1890 mm	1850 mm
Depth	650 mm		
Length	1560 mm		



The transport dimensions are without transport devices.

6.4 Weights and Dimensions

System components	Outside dimensions of crate/ L x W x H in [m]	Gross weight/ net weight in [kg]/t
Magnet	230 x 230 x 230	4700 / 4700
GPA/EPC cabinet	160 x 70 x 200	1280 / 1280
Host PC	120 x 80 x 140	136 / 126
SEP cabinet	70 x 70 x 195	332 / 332
RF-filter panel	125 x 90 x 80	152 / 122
Patient table	265 x 90 x 110	334 / 240
SEP accessories	120 x 80 x 90	96 / 86
Cable kit	120 x 80 x 105	262 / 250
Cover	170 x 100 x 150	186 / 86
Magnet accessories	162 x 95 x 70	142 / 90
System components	120 x 80 x 115	122 / 110
Docking station accessories	120 x 80 x 130	185 / 175

Options		
In-Room MRC	140 x 70 x 74	120 / 80

APPENDIX A

Effective January 2010 Part 1 PI 965-970 IATA-DGR was transferred to Section II of PI 965-970.
Siemens AG, January 2010

Manufacturer's or Supplier's Certification for Lithium-Battery
concerning the transport according to the dangerous goods regulations of the
different transport modes as in force since January, 1st 2003 and changes effective from 2009¹

Subject to SP 188 UN Recommendations on the transport of dangerous goods, as adopted in SP 188 ADR/RID/IMDG CODE; Part 1 PI 965 or 968⁴ IATA-DGR as applicable	Subject to all applicable requirements given for UN 3090 LITHIUM BATTERIES² or UN 3480 LITHIUM BATTERIES² (SP 188 as on the left column can not be used)
Battery model name: CR1025,CR1216,CR1220,CR1612,CR1616, CR1620,CR1632,CR2012,CR2016,CR2025, CR2032,CR2330,CR2354,CR2412,CR2450, CR2477,CR3032	Battery model name:
☒ Lithium metal / lithium alloy battery ☒ non-rechargeable ☐ rechargeable ☐ Lithium ion (polymer) battery	☐ Lithium metal / lithium alloy battery ☐ non-rechargeable ☐ rechargeable ☐ Lithium ion (polymer) battery
Lithium content or equivalent lithium content, Watt-hour rating ☒ ≤ 2 g (lithium metal / lithium alloy battery) ☐ ≤ 8 g (lithium ion (polymer) battery) ☐ ≤ 100 Wh (lithium ion (polymer) battery)	Lithium content or equivalent lithium content, Watt-hour rating ³ _____ g (lithium metal / lithium alloy battery) _____ g (lithium ion (polymer) battery) _____ Wh (lithium ion (polymer) battery)
with	with
Cell model name: CR1025,CR1216,CR1220,CR1612,CR1616, CR1620,CR1632,CR2012,CR2016,CR2025, CR2032,CR2330,CR2354,CR2412,CR2450, CR2477,CR3032	Cell model name:
☒ Lithium metal / lithium alloy cell ☒ non-rechargeable ☐ rechargeable ☐ Lithium ion (polymer) battery	☐ Lithium metal / lithium alloy cell ☐ non-rechargeable ☐ rechargeable ☐ Lithium ion (polymer) battery
Lithium content or equivalent lithium content, Watt-hour rating ☒ ≤ 1 g (lithium metal / lithium alloy cell) ☐ ≤ 1.5 g (lithium ion (polymer) cell) ☐ ≤ 20 Wh (lithium ion (polymer) cell)	Lithium content or equivalent lithium content, Watt-hour rating ³ _____ g (lithium metal / lithium alloy battery) _____ g (lithium ion (polymer) battery) _____ Wh (lithium ion (polymer) battery)
Number of cells per battery: <u>1</u>	Number of cells per battery: _____

☒ We certify that each cell or battery is of the type proved to meet the requirements of each applicable test in the UN Manual of Tests and Criteria, Part III, sub-section 38.3

Name and address of manufacturer or supplier: Supplier: Panasonic Industrial Europe GmbH, Winsbergring 15, D-22525 Hamburg Manufacturer: Panasonic Corporation, Energy Company	
Place: Hamburg	Date: 15.06.2009
Responsible Person: Helmut Siegmann	
Signature: 	

¹ Fill in either the left or the right column as applicable and the complete parts after the columns

² If packed with or contained in equipment as applicable Part 1 PI 965, 967, 969 or 970 IATA-DGR or requirements for UN 3091/UN 3481

³ Fill in the values as applicable for the battery or the cell

Comment:
 certification is valid for all batteries and their special Plus and Minus connector PIN-TAB cable etc.

APPENDIX B

**Manufacturer's or Supplier's Certification for UN 2800 Batteries,
wet, non-spillable**

Concerning the transport according to the dangerous goods regulations of the
different transport modes

Battery model name: RBC94-2U

The battery is non-spillable because it fulfills¹

SP 238 a) UN Recommendations on the transport of dangerous goods, as adopted in

SP 238 a) ADR/RID/IMDG CODE; PI 872 IATA-DGR:

☒ Vibration test

☒ Pressure differential test

The battery fulfills also²

SP 238 b) UN Recommendations on the transport of dangerous goods, as adopted in

SP 238 b) ADR/RID/IMDG CODE; A67 IATA-DGR:

☒ At a temperature of 55° C the electrolyte will not flow from a ruptured or cracked case
and there is no free liquid to flow

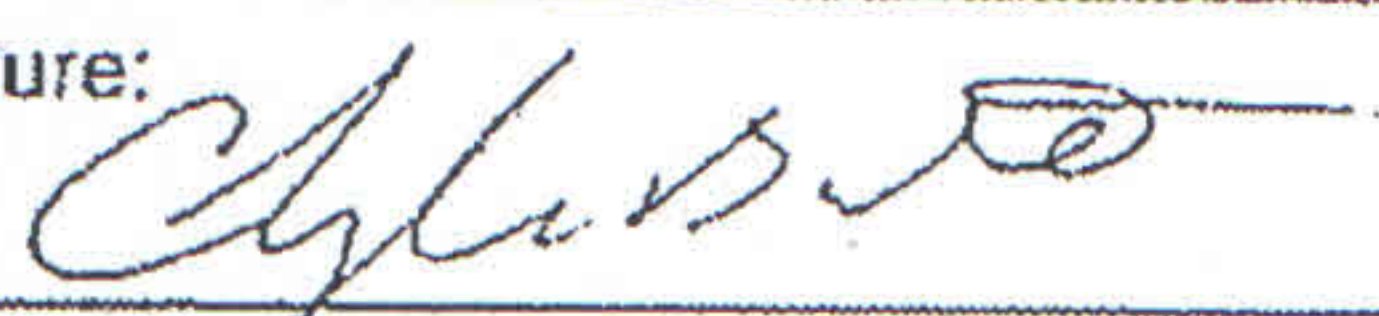
Name and address of manufacturer or supplier: Tripplite, Div of Tripple MFG., Co.,

Place: U.S.A.

Date: 2/23/2012

Responsible Person: Cheryle Balestri

Signature:



¹ Necessary for the classification as non-spillable.

Only for road and railway transport: If the conditions of SP 598 are fulfilled, the battery is not subject for the
other regulations of ADR/RID.

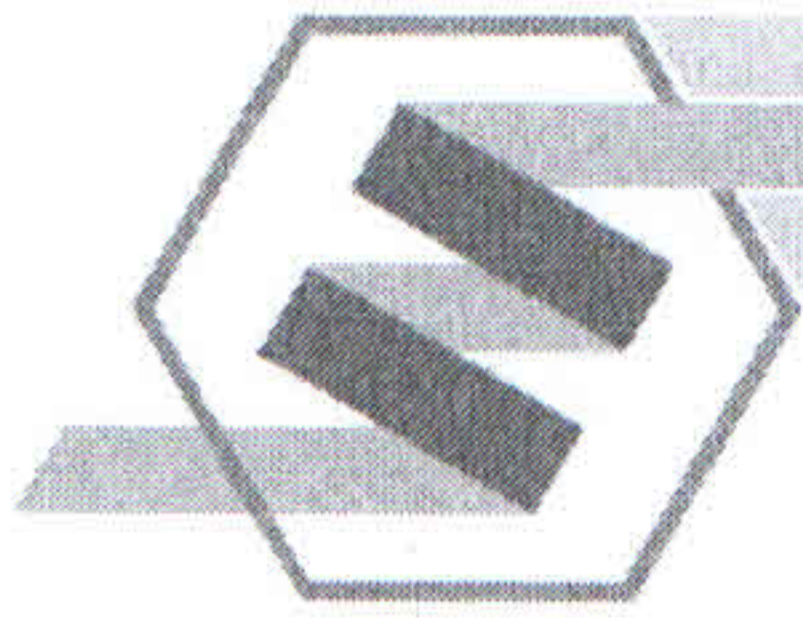
² If this condition is also fulfilled: The battery is not subject to the dangerous goods regulations if the terminals
are protected from short circuit when packed for transport (strong outer packagings).

Additional state variations have to be met.

Hint: For air transport the following declaration must be given in the Air Way Bill:

"Not restricted, as per Special Provision A67"

APPENDIX C



Gefahrgut-Begleitdokument für Lithium-Metall/Ionen-Batterien

Rittigfeld 1, 91301 Forchheim Tel.: +49 9191 7205-0

Gefahrguthinweis für den Spediteur/ Dangerous Goods Advice for Freight Forwarder

freigestellte Lithium-Metall/Ionen Batterien einzeln/in Ausrüstung/mit Ausrüstung verpackt.
Lithium-Metall/Ionen Batterien, not restricted Batteries only/packed in/packed with equipment

SAP Kundenauftrag: 5721572

Lieferung: BE 101836275

☐	Colli: N.A. UN 3090 Lithium metal batteries , PI 970 , IB Labeled according to PI 970 , IB		CAUTION! Lithium-Metall-Batterien/Lithium metal batteries Das Versandstück ist mit Sorgfalt zu behandeln. Es besteht Entzündungsgefahr falls das Versandstück beschädigt wird. The package must be handled with care. A flammable hazard exists if the package ist damaged.
☐	Colli: N.A. Lithium metal batteries in compliance with Section II of PI 970 /SP 188 Labeled according to PI 970 Part II/SP188		
☒	nicht gekennzeichnet gemäß PI 970 Teil II/SP188 da nicht mehr als 4 Zellen/ 2 Batterien oder Knopfzellen enthalten. Keine Angabe auf dem AWB notwendig! Not labeled according to PI 970 Part II. The package contains no more than 4 cells/2 batteries or button cells. No statement on the AWB required!		Wird das Versandstück beschädigt, muss es isoliert, überprüft und neu verpackt werden If the package is damaged, it must be quarantined, inspected and repacked. Weitere Informationen unter/ For more information, call +44 (0) 1235 239 670 Not restricted, PI 970/SP188
☐	Colli: N.A. UN 3480 Lithium ion batteries , PI 967 , IB Labeled according to PI 967 , IB		CAUTION! Lithium-Ionen-Batterien/Lithium ion batteries Das Versandstück ist mit Sorgfalt zu behandeln. Es besteht Entzündungsgefahr falls das Versandstück beschädigt wird. The package must be handled with care. A flammable hazard exists if the package ist damaged.
☐	Colli: N.A. Lithium ion batteries in compliance with Section II of PI 967 /SP 188 Labeled according to PI 967 Part II/SP188		
☐	nicht gekennzeichnet gemäß PI 967 Teil II/SP188 da nicht mehr als 4 Zellen/ 2 Batterien oder Knopfzellen enthalten. Keine Angabe auf dem AWB notwendig! Not labeled according to PI 967 Part II. The package contains no more than 4 cells/2 batteries or button cells. No statement on the AWB required!		Wird das Versandstück beschädigt, muss es isoliert, überprüft und neu verpackt werden If the package is damaged, it must be quarantined, inspected and repacked. Weitere Informationen unter/ For more information, call +44 (0) 1235 239 670 Not restricted, PI 967/SP188

Dieses Dokument dient der Informationsübermittlung an den Spediteur sowie als Begleitdokument nach IATA PI 965 IB, PI 968 IB und PI 965-970 Part II. - Bitte nicht an der Ware anbringen!

Version: 4.0 ID: 27019

Gültig ab: 28.02.2013

Gültig für: Zentrale, übergreifend

Prozess: Transport - Warentransport

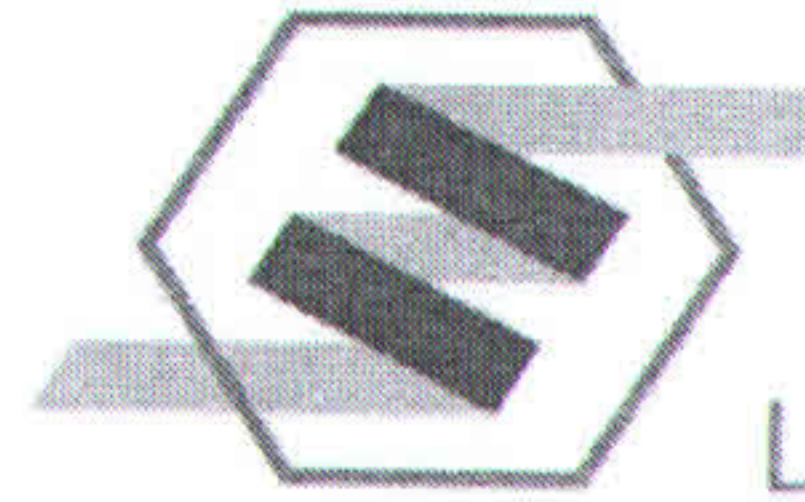
Seite 1 von 1

APPENDIX D

Arbeitsblatt für enthaltenes Gefahrgut

Datum:	12/4/2016
KD-Auftrag:	5721572
Lieferung:	BE 101836275

	See
	Luft
X	Strasse



Simon Hegele
Logistik und Service

Gefahrgut:

[illegible]

Freigestelltes Gefahrgut: Information für Freightforwarder

	5840	nimh	not restricted A123	Nickel-Metallhydridbatterien
	6370	2800	non spillable batteries, not restricted A67/SP238	USV Batterien

geprüft:

verpackt:

**MRI MAGNET SAFETY
DATA SHEET
(LIQUID HELIUM IN MRI SYSTEM)**

MRI MAGNET SAFETY DATA SHEET

Liquid Helium In MRI System

Product: Helium (Refrigerated) Liquid, MSDS NR: 300-00-0016

Identification of the Substance/Preparation and of the Company

- Hazard Name: Helium refrigerated liquid
- Chemical Formula: He
- Company Identification: Siemens Magnet Technology
- Emergency Phone No: See Footer

Composition/Information on Ingredients

- Substance/Preparation: Substance.
- Component: There are no other components or impurities, which will influence the classification of the product.
- CAS Nr: 07440-59-7
- EEC Nr (From EINECS): 231-168-5

Hazards Identification

- Helium Refrigerated Liquid.
- UN 1963, Class 2. Non Flammable Gas.
- Colourless, odourless and tasteless.
- Contact with product may cause cold burns or frostbite.
- In high concentrations may cause asphyxiation, and ultimately, death.

First Aid Measures

- Inhalation: In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Seek medical assistance.. Apply artificial respiration where appropriate.
- Skin/eye contact: Remove victim to uncontaminated area wearing self contained breathing apparatus. Immediately flush eyes with water for at least 15 minutes. In case of frostbite spray with water for at least 15 minutes. Apply sterile dressing. Seek medical assistance.

- Ingestion: Remove victim to uncontaminated area wearing self contained breathing apparatus Ingestion is not considered a potential route of exposure.
- Hypothermia: Remove victim to uncontaminated area wearing self contained breathing apparatus Seek medical assistance.

Fire Fighting Measures

- Specific Hazards: Blockage of gas escape routes may cause explosion.
- Hazardous Combustion Products: None.
- Suitable Extinguishing Media: All known extinguishants other than water can be used.
- Special Protective Equipment for Fire Fighters: In high helium concentrations use self contained breathing apparatus. Within vapour cloud wear thermally protective clothing.

Accidental Release Measures

- Minor accident: Hissing noise can be heard and small amounts of white gas is released. **DO NOT APPROACH CLOSER THAN 50m.** Ensure gas is flowing freely, and Telephone Emergency Number.
- Major accident:
 - (1) Large cloud of white gas is released. Remove all personnel from vicinity of package immediately. Telephone Emergency Number. **DO NOT APPROACH CLOSER THAN 50m** until it is clearly visible that all gas has been released and dispersed.
 - (2) No loss of white gas or very small loss of white gas being released. **DO NOT APPROACH CLOSER THAN 100m.** Remove all personnel from vicinity of package immediately. Contact Emergency telephone number.

Siemens Magnet Technology Limited

Wharf Road
Eynsham
Witney
Oxon
OX29 4BP

Tel: +44 (0)1865 880880
Fax: +44 (0)1865 850176

MRI MAGNET SAFETY DATA SHEET

Handling and Storage:

Suck back of water into the container must be prevented. Do not allow back-feed into the container. If this prevention of suck back of water is not possible stand back by at least 100m. Contact the emergency number if in doubt. Keep system between 70°C and -40°C in a dry, well ventilated place.

Exposure Controls/Personal Protection

- Personal Protection: Ensure adequate ventilation. Protect eyes, face and skin from liquid splashes. Do not touch cold components

Physical and Chemical Properties.

- Molecular weight: 4
- Melting point: Not applicable
- Boiling Point: -269°C
- Critical Temperature: -268°C
- Relative density, gas: 0.14 (air = 1)
- Relative density, liquid: 0.12 (water = 1)
- Vapour Pressure 20°C : Not applicable
- Solubility mg/l water: 1.5 mg/l water
- Appearance/colour: Colourless liquid
- Odour: None

Stability and Reactivity

Stable under normal conditions. Liquid spillages can cause embrittlement of structural materials. Very cold temperature can liquefy air, leading to enhanced oxygen concentration and greater flammability of materials.

Toxicological Information

- General: No known toxicological effects from this product.
- Ecological Information General: Can cause frost damage to vegetation.
- Disposal Considerations General: To atmosphere in a well ventilated place. Do not discharge into any place where it might accumulate. Contact supplier if guidance is required.

Transport Information

- UN Number: 1963
- Proper shipping name: Helium, refrigerated liquid.
- Class/Div: 2.2
- ADR/RID Item No: 2,3 A
- ADR/RID Hazard Nr: 22
- Labelling ADR: Label 2: Non flammable non toxic gas.
- ADR PI: P203
- IATA PI: 202
- IMDG: Competent approval number 078/03
- IMDG stowage: Category B

Regulatory Information

- Number in Annex 1 of Dir 67/548: Not included in Annex 1
- EC Classification: Not classified as dangerous substance.
- Labelling of systems: Label 2, Non flammable, non toxic gas.

Other Information

Ensure all national/local regulations are observed. Ensure all modality regulations for UN1963 dangerous goods are observed. Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, it is for guidance purposes only and no liability for loss, injury or damage howsoever resulting from its use can be accepted.

Emergency Contact:

- Telephone Number: +44 1865 880880
- Email: magnet.hsc@siemens.com

Siemens Magnet Technology Limited

Wharf Road
Eynsham
Witney
Oxon
OX29 4BP

Tel: +44 (0)1865 880880
Fax: +44 (0)1865 850176

**MRI DELIVERY
ROUTE DRAWING
(HPP SAHAJA)**

3/16/2016

HOSPITAL PULAU PINANG : MRI DELIVERY ROUTE DRAWING

HOSPITAL PULAU PINANG : MRI DELIVERY ROUTE DRAWING

Kau, C.K. Kau (HC APC ASN MAS PM) [chee-kah.kau@siemens.com]

Sent: Monday, March 14, 2016 4:39 PM

To: Abdul Rahim, Lizana Rahim (HC APC ASN MAS BA LOG1) [lizana.rahim@siemens.com]

Cc: Hor, Seer Heong (HC APC ASN MAS PM) [seer-heong.hor@siemens.com]

Attachments: HPP MRI DELIVERY ROUTE.pdf (254 KB)

DEAR LIZANA,

PLEASE FIND THE ATTACHED MRI DELIVERY ROUTE DRAWING FOR YOUR ACTION.

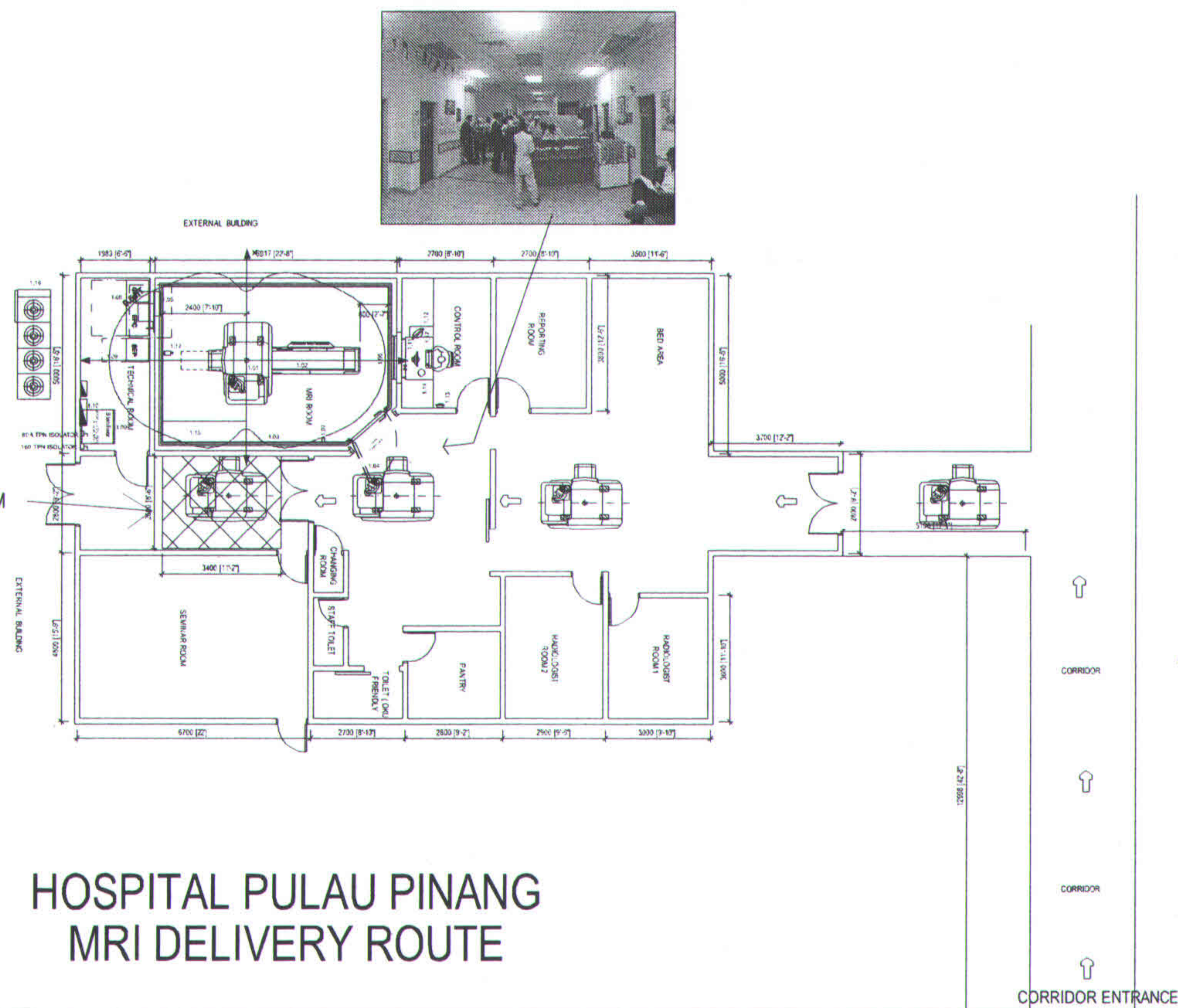
PLEASE INFORM MOVER AS BELOW :-

MOVER REQUIRE TO PROVIDE AS BELOW :-

1. MOBILE CRANE 1 UNIT FOR HOST DOWN MRI LORRY TO GROUND
2. FLOOR PROTECTION FROM ENTRANCE TO MRI EXAM ROOM
3. TEMPORARY PLATFORM SIZE : 3.6M (L) X 2.6M (W) 100MM (HIGH)
4. AS INFORMED BY HOSPITAL MOVE IN MUST BE NIGHT TIME (10PM - 6AM)

REGARDS,

CK KAU



- MOVER REQUIRE TO PROVIDE AS BELOW :-
1. MOBILE CRANE 1 UNIT
 2. FLOOR PROTECTION FROM ENTRANCE TO MRI EXAM ROOM
 3. TEMPORARY PLATFORM SIZE : 3.6M (L) X 2.6M (W) 100MM (HIGH)
 4. AS INFORMED BY HOSPITAL MOVE IN MUST BE NIGHT TIME (10PM - 6AM)