



# **SOMATOM Scope**

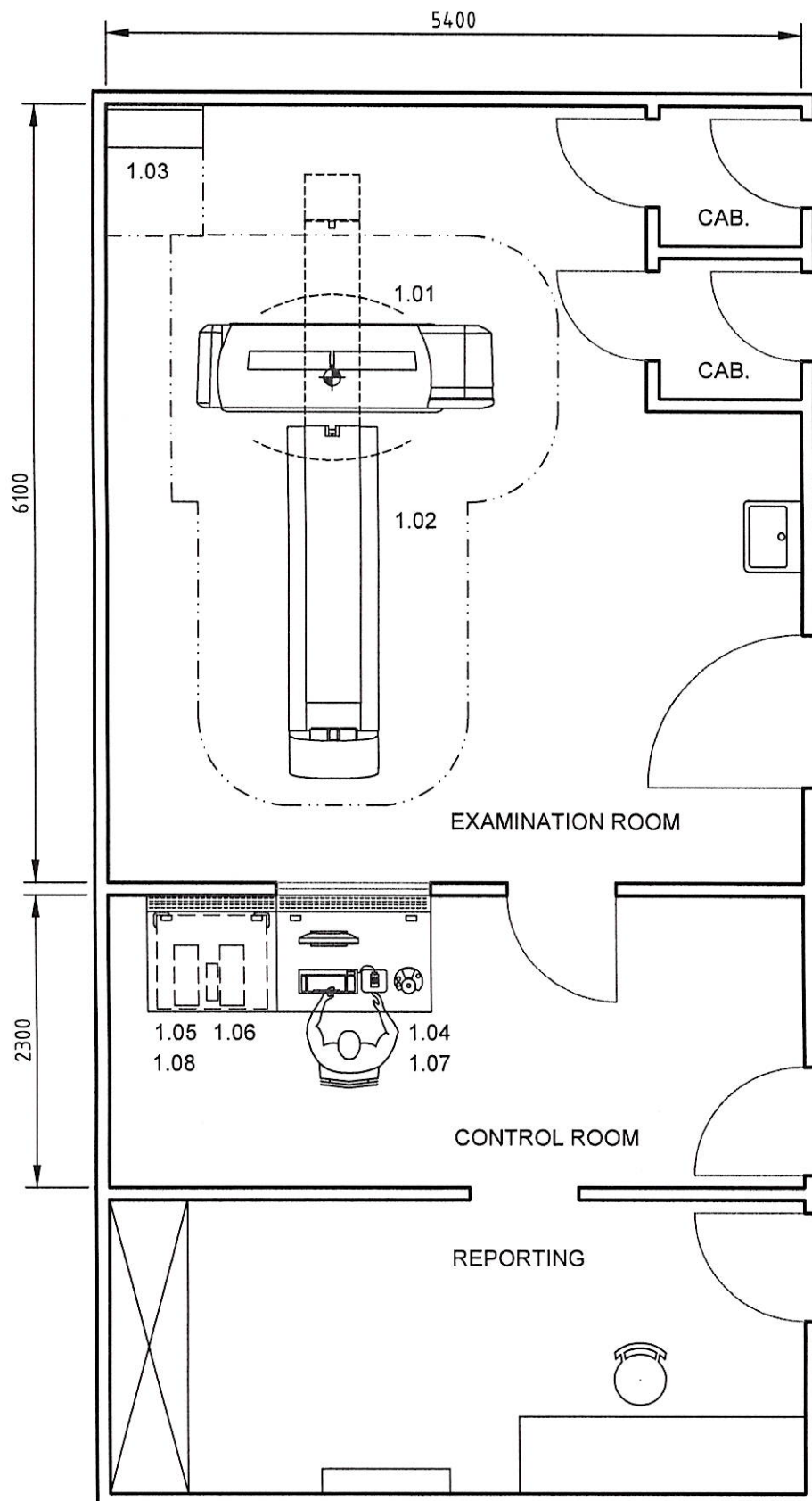
## **Basic Planning Information**

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Legend	
-----	Motion area / Swivelling range / Minimal room size / Safety distance
- - - - -	Service area
—————	Floor mounted
—————	Ceiling mounted
—————	Wall mounted
—————	Additional equipment
—————	Demolition

Dimensioning
All installation measurements apply to finished wall/floor/ceiling and are to be checked prior to assembling the unit.

 Orientation point = reference point of the Siemens unit for planning and installation
Please note: The drawing parts in this document are not to scale!

## Planning Example



SOMATOM Scope / Scope Power - Equipment Legend				
Pos.	Description	Weight (kg), Heat dissipation to the air (W)		
		kg	W	Remark
1.01	Gantry Scope	1204	5300	#1
1.01	Gantry Scope Power	1204	6800	#1
1.02	Patient table	431		
1.03	Line Connection Box LCB	48		
1.04	Control unit with TFT monitor, control box, keyboard			
1.05	ICS and IRS Tower 12	<25	<700	
1.06	Power Switch Box	4	*	* incl. in 1.05
1.07	Operating console (for control units)	31		optional
1.08	Container table with container for Tower PC	73		optional
	#1 1000 W in stand-by mode, isocentre at 912 mm			

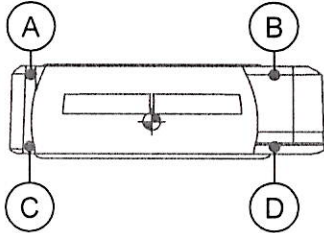


## Room Dimensioning

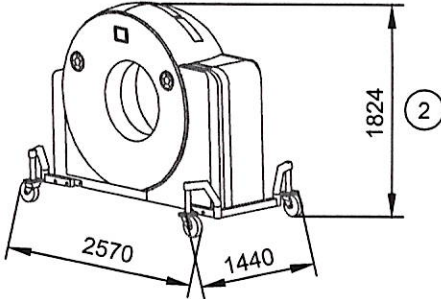
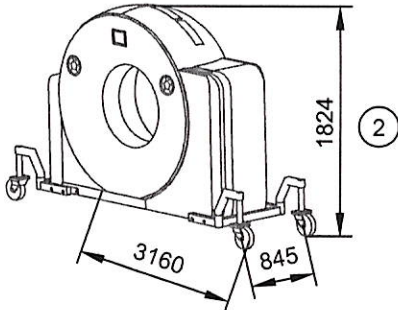
Room dimensioning
The indicated room dimensions have to be checked on site. The planning department has to be informed about possible deviations. Otherwise we cannot assume any guarantee for the accurate implementation of the dimensions indicated in the planning documents.

Room height
Technically required minimum room height 2300 mm Measured from the highest point of the finished floor (with covering) to the lowest point of the ceiling
Required room height when using a CARE Vision ceiling system must be observed!

## Statics and Transport

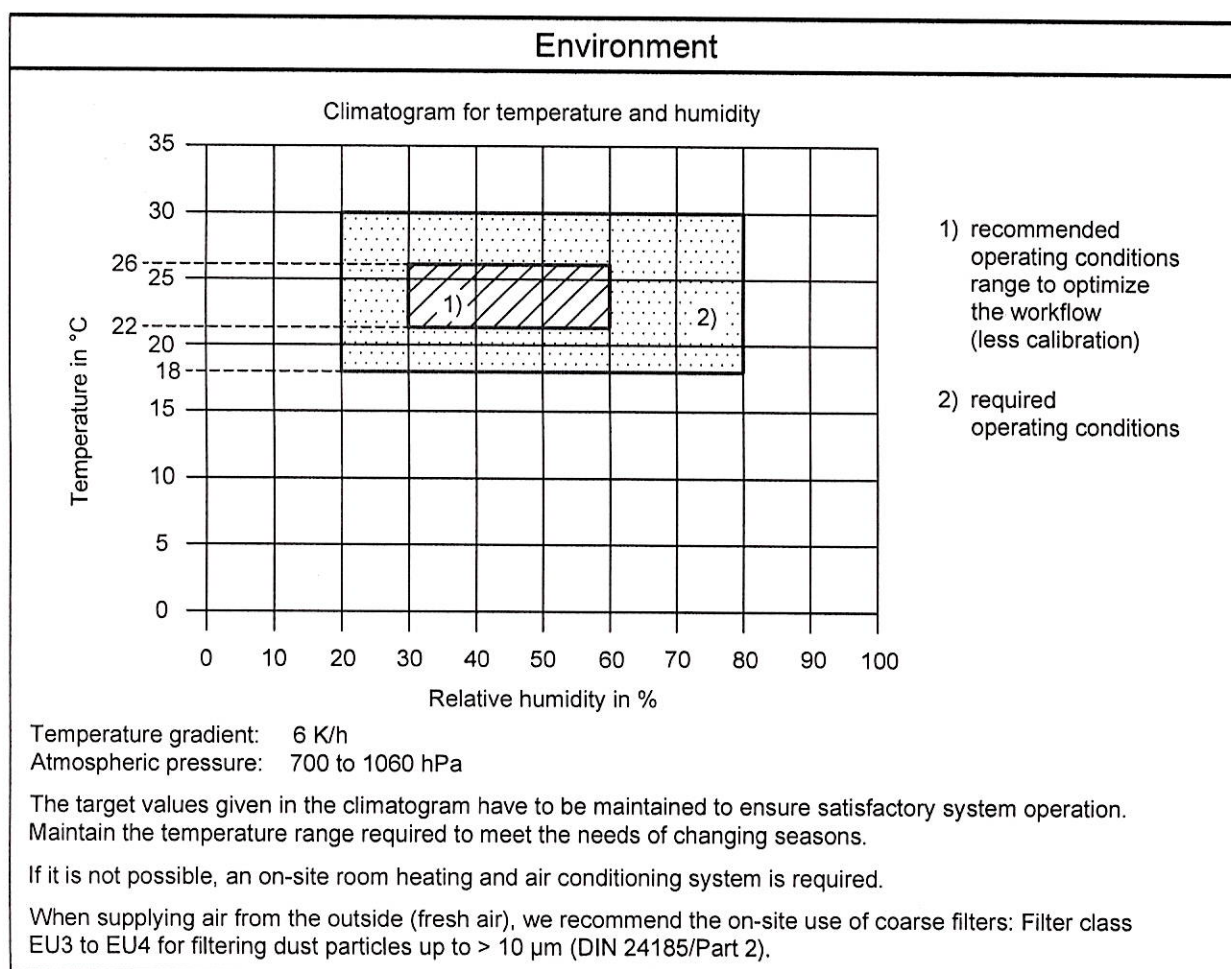
Statics
 <p>The floor construction has to be performed solid and free of vibration, e.g. concrete flooring C20/25 to C50/60 corresponding to DIN EN 206-1, according to the maximum values as specified in the text block "Floor and building vibrations".</p> <p>It is recommended to test the weight capacity of the concrete or composite flooring by a stress analyst.</p> <p>The gantry needs to be bolted to the floor only if mandated by local ordinances; for example in areas prone to earthquakes.</p> <p>Securing the patient table to the floor is mandatory.</p> <p>The maximum static floor load on the measuring points A to D due to the gantry's own weight is each 5995 N. For a static interpretation, a maximum value of 5995 N (3 point surface) has to be factored in.</p> <p>The amplitude for the dynamic floor load (gantry-rotation) is each <math>\pm 250</math> N. The bearing surface is each 13 cm<sup>2</sup>.</p>

Floor and building vibrations	
In principle, the gantry and the patient table as well as the on-site sub-constructions have to be installed free of vibrations. It is the customer's responsibility to contract a qualified specialist. The specialist must implement site modifications to meet the specific limits, and to design structural solutions in case of deviations. External vibrations or shocks through the building or through the floor that affect the gantry may degrade image quality.	
Permitted vibration sensitivity	Vibrational speed: $V_{\max} = 25 \mu\text{m/s}$
	Frequency range: 1 to 120 Hz

Transport (not to scale)	
<p>Standard transport transport rollers swiveled out</p> 	<p>Transport through narrow passages transport rollers swiveled in ①</p> 
① Transport device set to minimum floor clearance (7 mm)	
② <b>TIPPING HAZARD</b> Transport with the rollers swivelled in is permissible only when narrow passages make it impossible to transport the system with the rollers swivelled out. As soon as the system has passed through narrow passages, the transport rollers have to be swivelled out again.	
Gantry with transport device : 1329 kg, Transport device : 125 kg If there is false floor in transportation route please check bearing capacity of this floor on-site!	
The door must have a final clearance of 1250 mm if bed entrance to the CT examination room is requested.	

## Air-conditioning

Climatic conditions for transport and storage		
Transport / storage all components	Temperature Rel. humidity Barometric pressure Temperature gradient Max. storage time	-20 to +50 °C 10 to 95 % 700 to 1060 hPa 6 K/h (non-condensing) 2 months
<p>The data for transporting and storing the CT system apply only if the system is shipped free of damage in the transport packaging provided by the manufacturer. All components have to be stored in the original transport packaging. If the original packaging is no longer available, you have to use an equivalent packaging for intermediate storage. After moving the CT system from a cold environment into a warm room, make sure that the entire CT system is dry before switching it ON.</p>		





## Electrical Installation

Power requirements for SOMATOM Scope			
Power line: TN-S System	3/N/PE AC 50/60 Hz $\pm$ 10 %	Connection value:	34.6 kVA
Line voltage:	400 V $\pm$ 10 %	Power consumption:	
Loop impedance:	$\leq$ 270 m $\Omega$	Stand-by:	$\leq$ 3.3 kVA
		for the time up to 10 s:	$\leq$ 40 kVA
Residual current device RCD 63 A / 30 mA Type B SIEMENS 5SM3 3464			
Cable cross section is to be determined by country regulation and calculation, min. 16 mm <sup>2</sup> Size of connector terminals in the LCB is 16 to 35 mm <sup>2</sup>			

Power requirements for SOMATOM Scope Power			
Power line: TN-S System	3/N/PE AC 50/60 Hz $\pm$ 10 %	Connection value:	55.4 kVA
Line voltage:	400 V $\pm$ 10 %	Power consumption:	
Loop impedance:	$\leq$ 220 m $\Omega$	Stand-by:	$\leq$ 3.7 kVA
		for the time up to 4 s	$\leq$ 68 kVA
Residual current device RCD 80 A / 30 mA Type B SIEMENS 5SM3 3474			
Cable cross section is to be determined by country regulation and calculation, min. 16 mm <sup>2</sup> Size of connector terminals in the LCB is 16 to 35 mm <sup>2</sup>			

Room lighting	
Ambient lighting in rooms with diagnostics or with workstations must comply with the respective local and national regulations. General requirements like the needed intensity of illumination - adjustable, reproducible, flicker-free or a limitation of dazzlings and reflections etc. have to be observed (EN 12464-1, DIN 5035-7).	



## General Information

### Display screen workstations

For setting up display screen workstations, take account of the guidelines in the Display Screen Workstation directive as well as any national regulations (e.g. EN ISO 9241-5).

### Smart Remote Services (SRS)

Smart Remote Services (SRS) is used for remote diagnostics as well as remote service to provide highest system availability.

Requirements:

- Broadband connection (min 2 Mb/s download, 512 kb/s upload) without time or volume limitations
- Router (for exclusive use with SRS, a router can be obtained by Siemens for free)

Data protection and security is defined in the Smart Remote Services security concept.

### Network Integration

The Siemens components are using TCP/IP Protocol, a 100/1000 Mbit/s switched Ethernet network and static IP addresses.

The required network cabling (min. CAT 5 TP) has to be provided on site.

Media converters, which are needed for using fibre optic cabling, are not in the scope of Siemens delivery.

To prepare the implementation of the new system into the existing network environment, the availability of the needed network data at least two weeks before starting the installation is mandatory.

This is the only way to ensure a seamless integration of the new system into the workflow of the department.

### Notes on preparations for installation

Contracts for performing and supervising on-site installation preparations should be concluded with technically competent companies by the customer. The customer is responsible for timely and proper completion and supervision of all preparations for installation at the construction site in observance of all applicable legal regulations (e.g. X-ray regulations, radiation protection regulations) and all applicable general recognized rules of technology (e.g. VDE regulations, DIN standards).

Execution and supervision of installation preparations at the construction site and later observance of the standard operating conditions are not included in our duties. The customer is responsible for checking the static calculations and, where applicable, the air conditioning in the building to be equipped.

### Safety distances

Distances from moving parts of the medical device to walls, furniture and other equipment have to be kept to avoid injuries by crushing in compliance with local regulations, e.g. a minimum distance of 50 cm according to EN 349.

It is the customer's responsibility to ensure the above requirements are followed.

This is to avoid the risk of injury.

If safety distances are not maintained appropriate on-site safety measures have to be put in place. Clear visible markings according to national guidelines, e.g. crushing warning signs, hazard warning tape, hazard area cordon, safety mats, may be required.



### Radiation protection

The structural radiation protection depends on the location of the unit and the function of the surrounding rooms. By order, the planning departments of Siemens Healthcare prepare radiation protection calculation and radiation protection plan.

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The information in this document contains general technical descriptions of specifications and options as well as standard and optional features which do not always have to be present in individual cases.

The statements by Siemens' customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g. hospital size, case mix, level of IT adoption), there can be no guarantee that other customers will achieve the same results. The customers cited are employed by an institution that might provide Siemens product reference services, R&D collaboration or other relationship for compensation pursuant to a written agreement.

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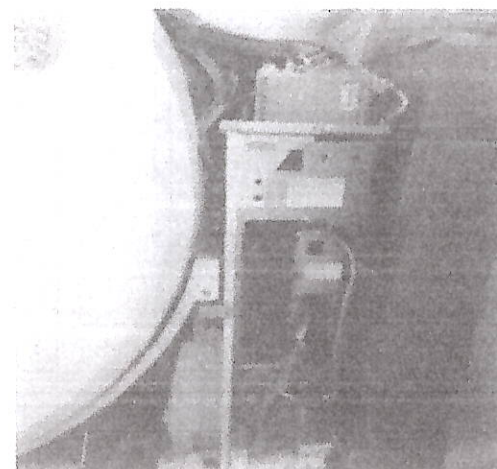
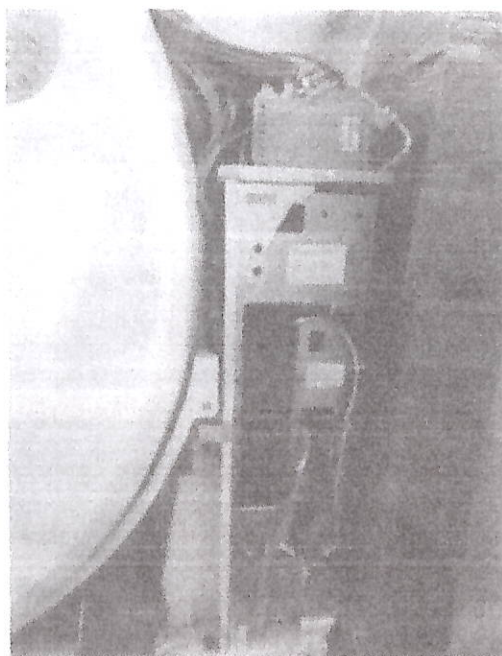
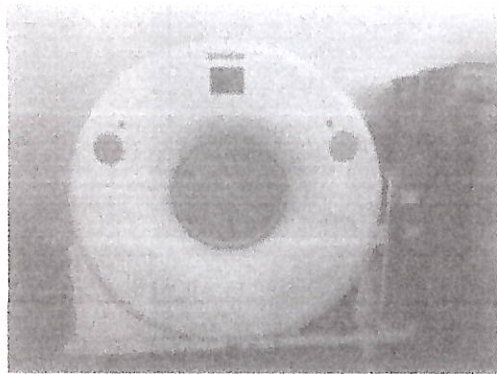
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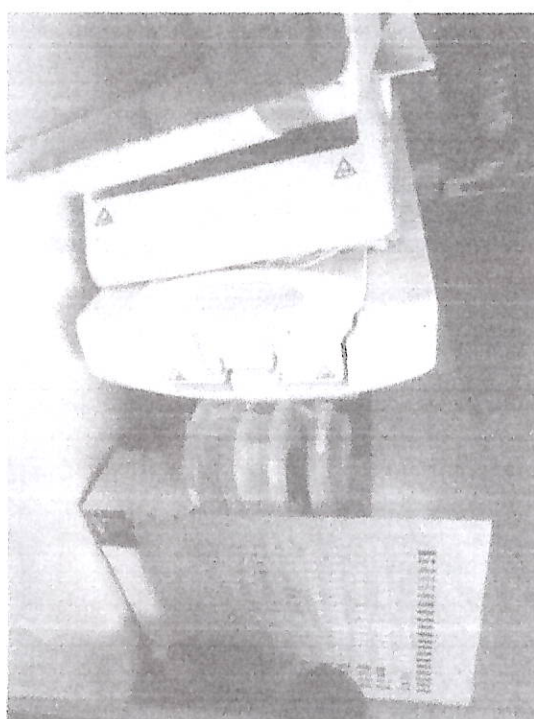
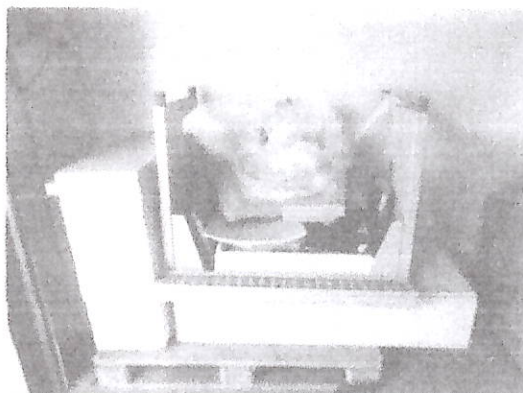
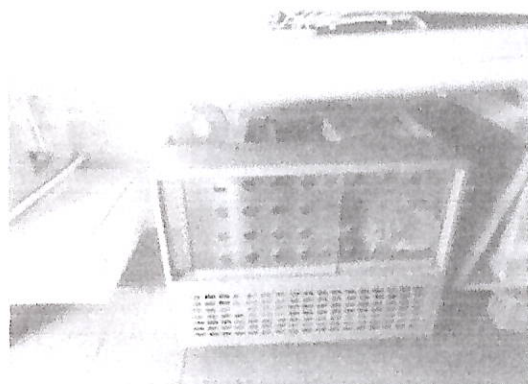
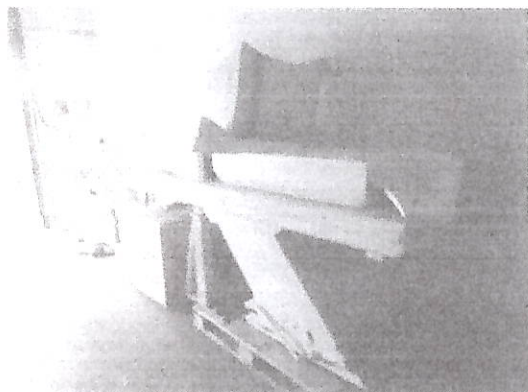
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SP ZAKŁAD OPIEKI ZDROWOTNEJ MSW W KATOWICACH IM. SIERŻANTA G. ZAŁOGI

WYCENIANY APARAT DO TOMOGRAFII KOMPUTEROWEJ  
SOMATOM SCOPE POWER NR 92551





URZĄDZENIE	
Nazwa:	Aparat do tomografii komputerowej SOMATOM Scope Power nr 92551
Rok budowy:	2015
Nr inwentarzowy:	15/2346/T

#### Charakterystyka techniczna-funkcjonalna

Aparat do tomografii komputerowej SOMATOM Scope Power jest tomografem z 24 rzędownym detektorem, umożliwiającym uzyskanie 16 warstw submilimetrowych. Urządzenie produkcji firmy SIEMENS służy do badania klatki piersiowej, kręgosłupa, jamy brzusznej, miednicy, naczyń mózgowych wewnątrzczaszkowych, dużych naczyń obwodowych oraz obrazowania niewielkich struktur anatomicznych.

Urządzenie składa się z następujących elementów:

1. Systemu SomatomScope Power, w skład którego wchodzi: lampa rtg Dura 422 MV, przyłącze elektryczne LCB, stół pacjenta PHS1A, gantra P15S/T, komputer ICS Tower 12B, komputer IRS G2, panel sterujący Control Box, monitor color19" DSC1913-D 2 szt.
2. Stacji opisowej Syngo.via Standalone Workstation, w skład której wchodzi: a.via WS based Server ML 310 VA30A, monitor Eizo MX242W col. 2.3MP 2 szt.
3. Automatyczny wstrzykiwacz kontrastu Bracco CT Expres 4D w skład którego wchodzi: Control Unit Bracco CT Expres 3D, Komplet osłon radiologicznych dla operatora i pacjenta, zdalna diagnostyka serwisowa, zestaw fantomów do kalibracji i kontroli jakości obrazowania, UPS do zasilania stacji akwizycyjnej 1 500VA, 230V, UPS do zasilania stacji opisowej syngo.via 1,5kVA, 230V.

Tomograf komputerowy SOMATOM Scope Power jest obecnie rozebrany, odpowiednio zabezpieczony i przechowywany w magazynie na terenie szpitala.



