Ysio Max

Basic Planning Information

SIEMENS Healthineers

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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

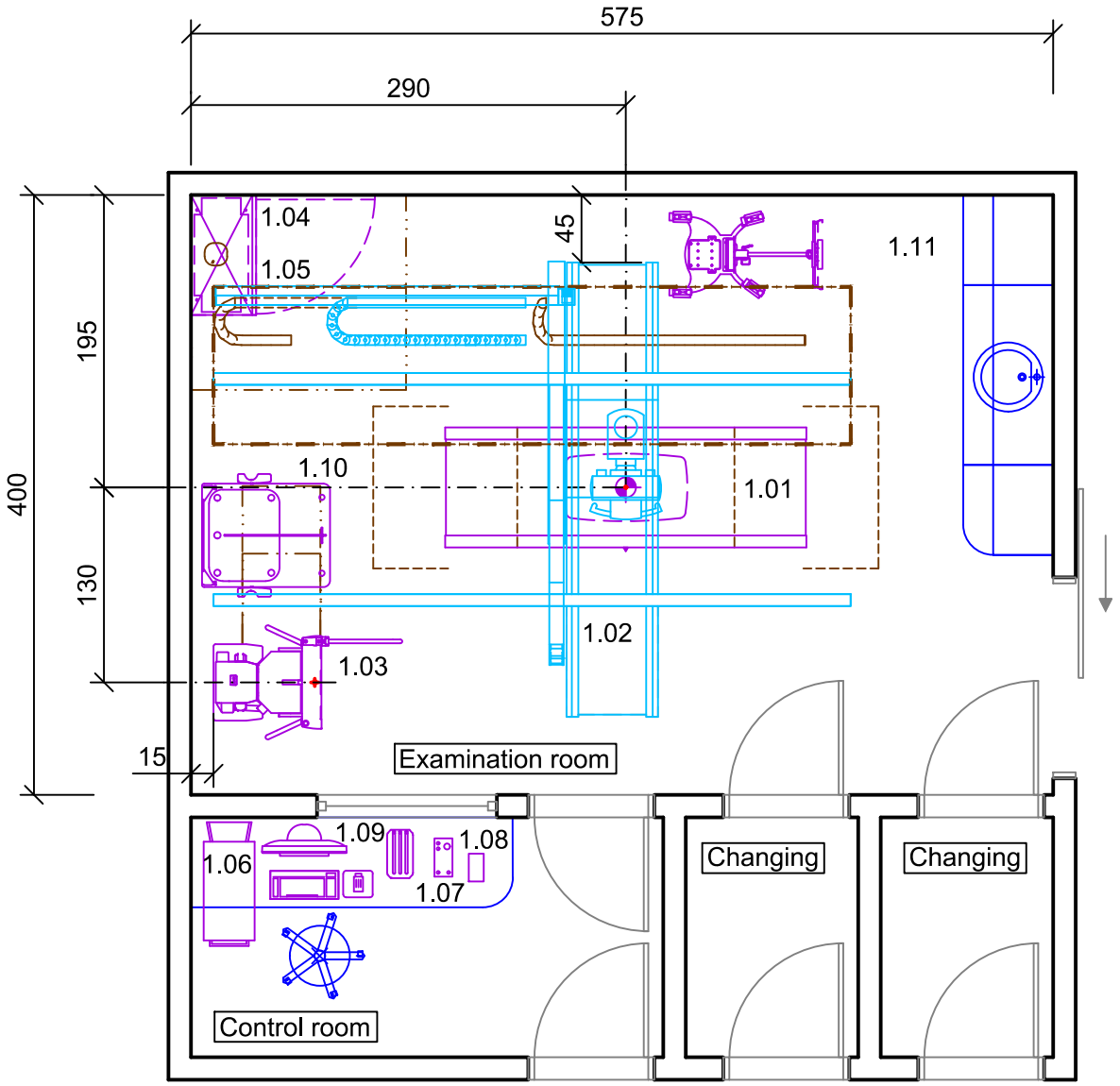
Dimensioning

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

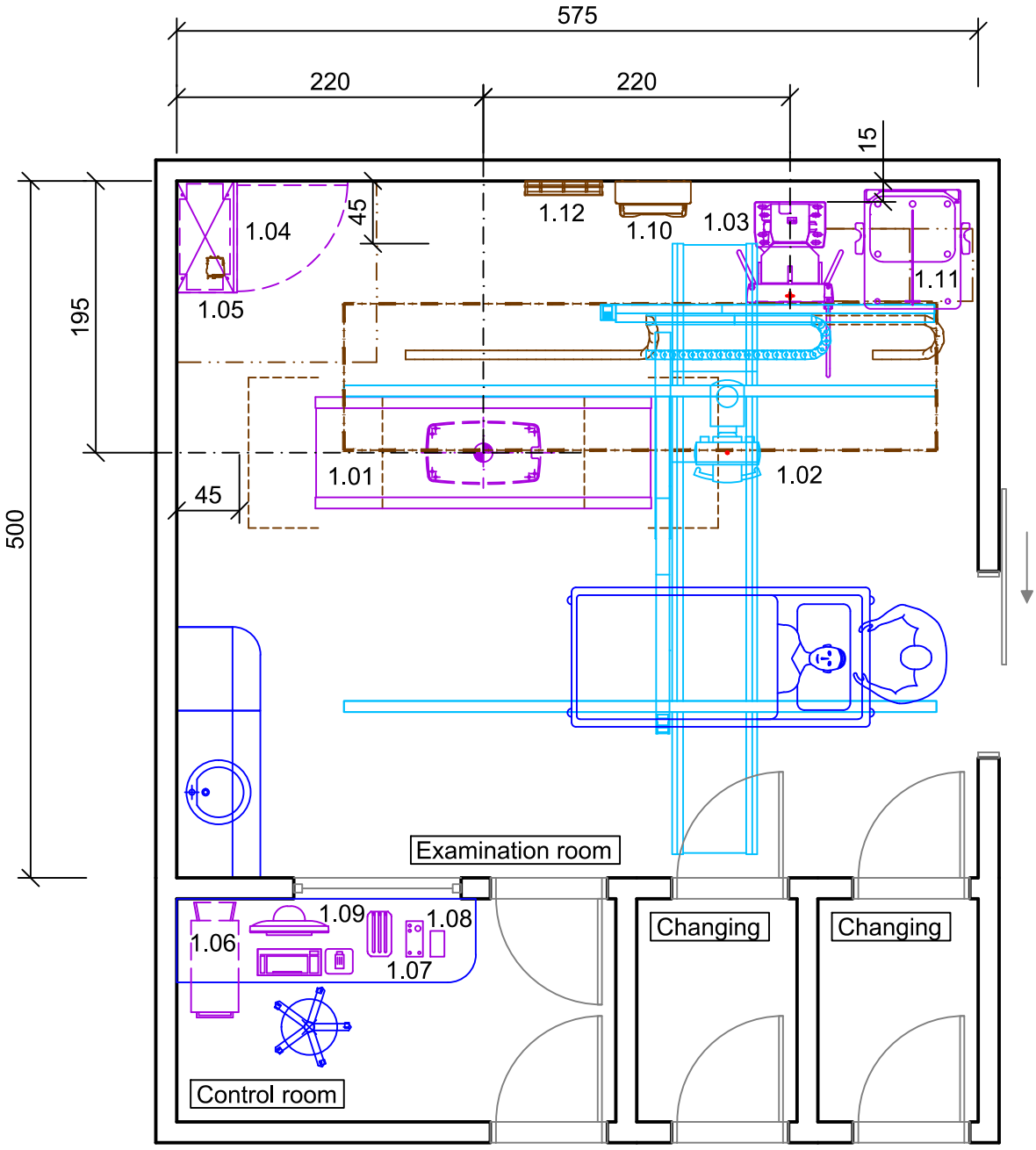
Orientation point = reference point of the Siemens Healthineers unit for planning and installation

Please note: The drawing parts in this document are not to scale!

Planning Example

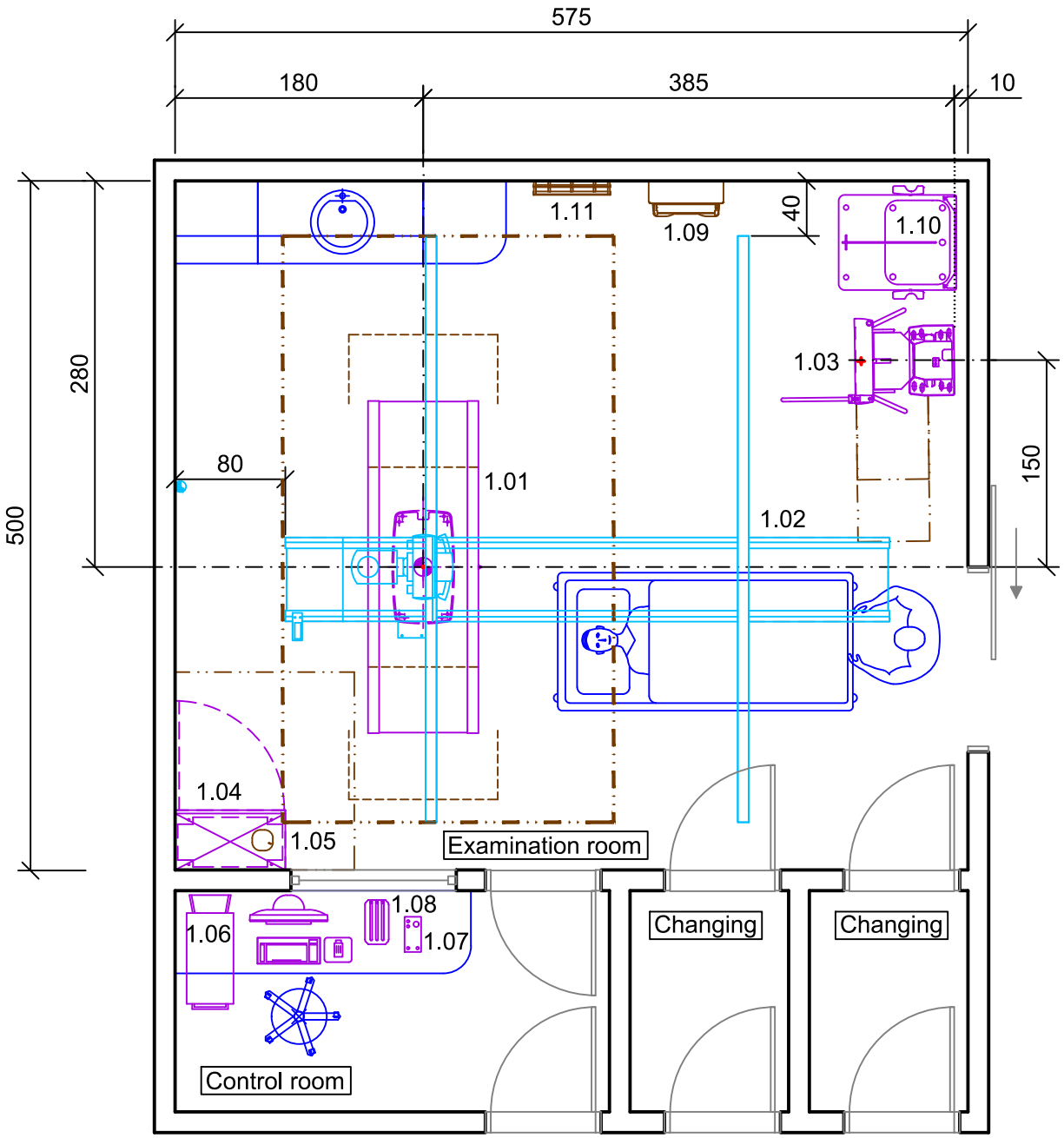


Ysio Max - Equipment Legend				
		Weight (kg), Heat dissipation to the air (W)		
Pos.	Description	kg	W	Remark
1.01	Table with MAX static	440	750	
1.02	Ceiling-mounted stand with transverse bridge 3 m Aim FAST	364	900	50 W standby
1.03	Bucky wall unit with MAX static	250	220	30 W standby
1.04	Generator R65	428	600	350 W standby
1.05	Access Point			
1.06	Image system FLUOROSPOT Compact (incl. Keyboard and Monitor)	60	510	
1.07	Control Room Module	1		
1.08	Wireless remote-control	1		
1.09	Detector batterie charger	2		optional
1.10	Ortho Support	112		optional
1.11	Detector holder, moveable	55		optional



Ysio Max - Equipment Legend

		Weight (kg), Heat dissipation to the air (W)		
Pos.	Description	kg	W	Remark
1.01	Table for MAX wi-D	440	750	
1.02	Ceiling-mounted stand with transverse bridge 4 m Aim FAST	384	900	50 W standby
1.03	Bucky wall unit with MAX static	250	220	30 W standby
1.04	Generator R65	428	600	350 W standby
1.05	Access Point			
1.06	Image system FLUOROSPOT Compact (incl. Keyboard and Monitor)	60	510	
1.07	Control Room Module	1		
1.08	Wireless remote-control	1		
1.09	Detector batterie charger	2		optional
1.10	MAX wi-D wall charger			optional
1.11	Ortho Support	112		optional
1.12	Wall mount (Grid)			optional



Ysio Max - Equipment Legend

		Weight (kg), Heat dissipation to the air (W)		
Pos.	Description	kg	W	Remark
1.01	Table for MAX wi-D	440	750	
1.02	Ceiling-mounted stand with transverse bridge 4 m	370	250	40 W standby
1.03	Bucky wall unit with MAX static	250	220	30 W standby
1.04	Generator R65	428	600	350 W standby
1.05	Access Point			
1.06	Image system FLUOROSPOT Compact (incl. Keyboard and Monitor)	60	510	
1.07	Control Room Module	1		
1.08	Detector batterie charger	2		optional
1.09	MAX wi-D wall charger			optional
1.10	Ortho Support	112		optional
1.11	Wall mount (Grid)			optional

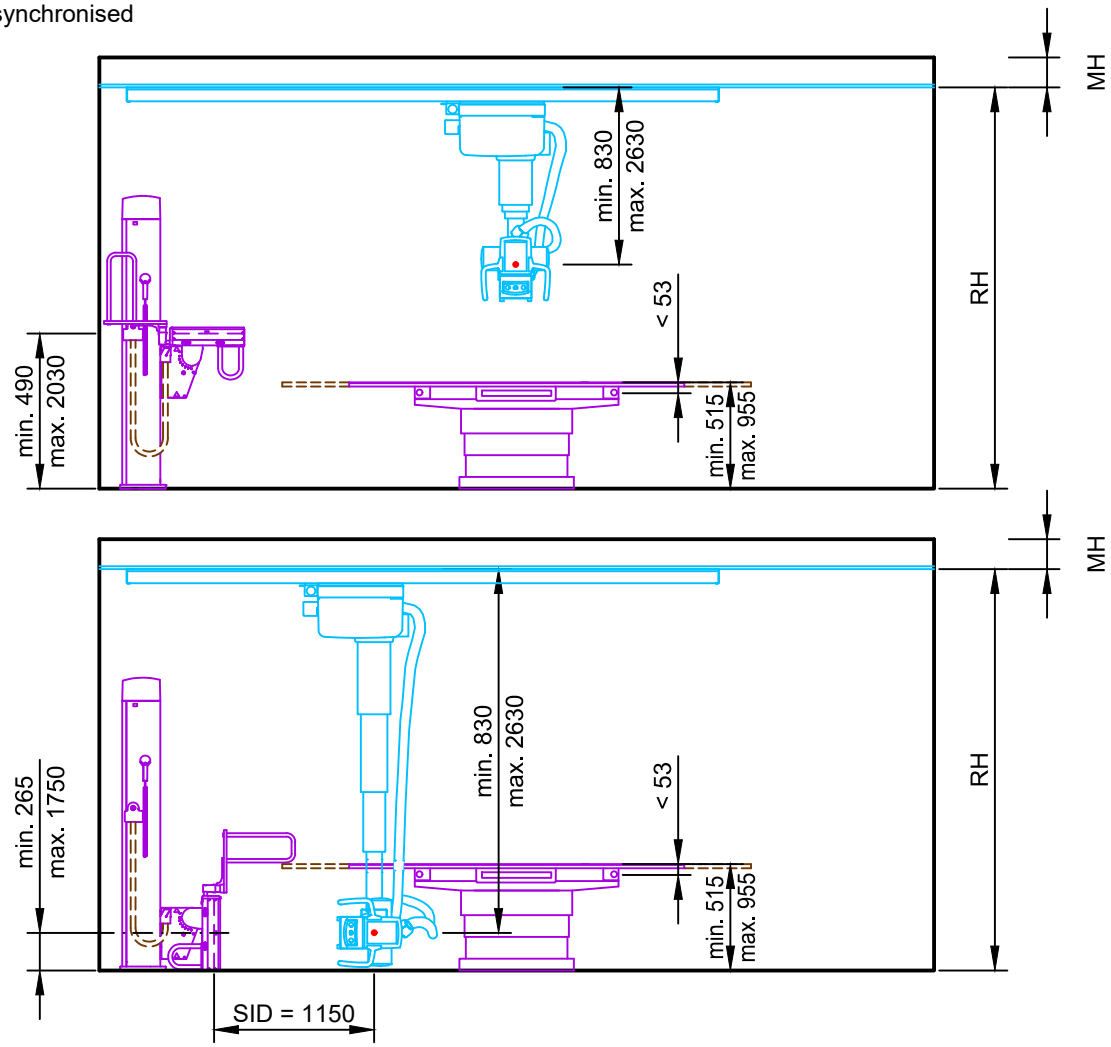
Room Dimensioning

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.

Technical Minimum Room Height
System View (Illustration contains optional equipment)

not to scale

Fully synchronised



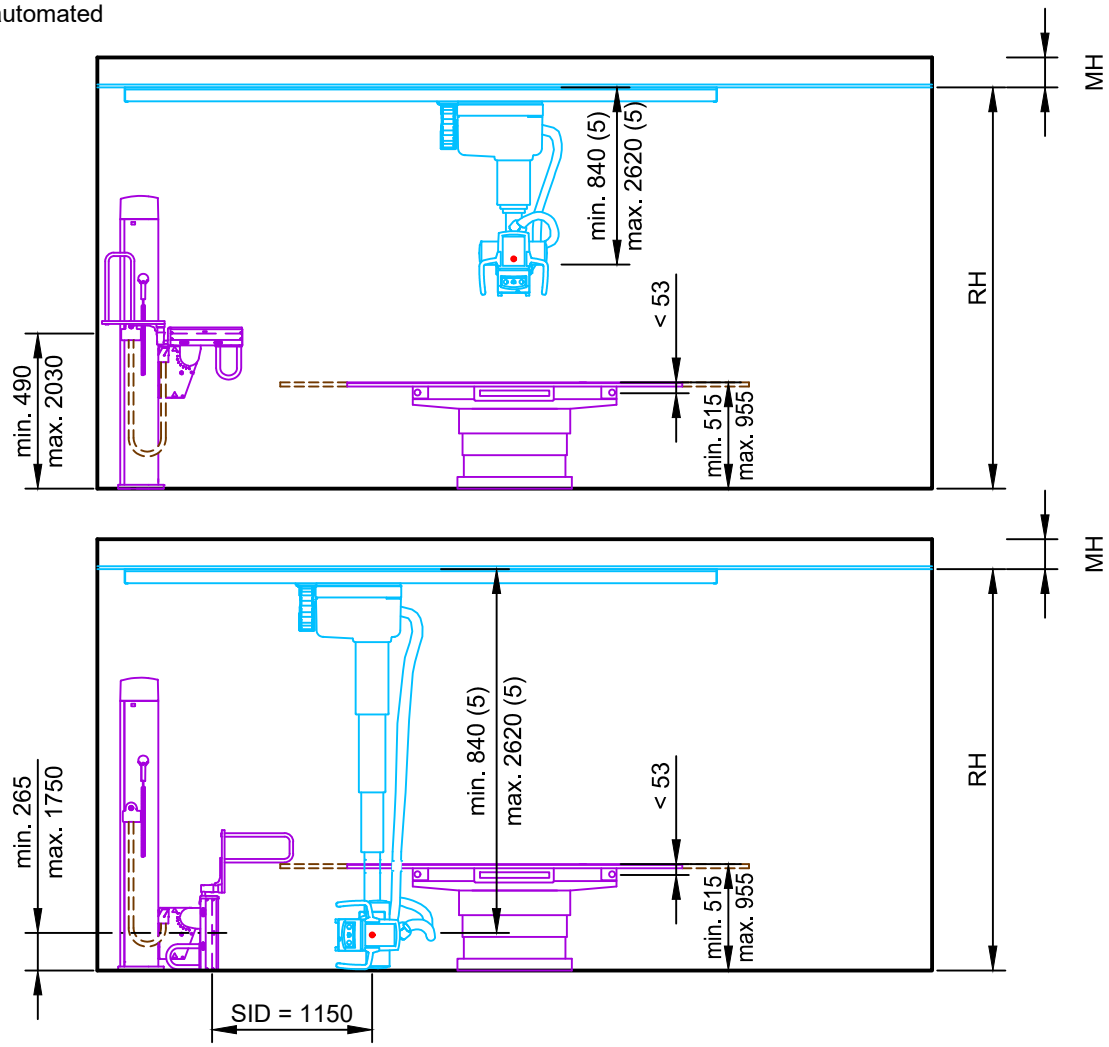
RH Room Height MH Mounting Height (100 mm recommended) SID Source Image Distance	Room Height (RH)	Table Height SID 1150 mm	Notes
Minimum Room Height	2650 mm	725 mm	(1) / (3)
Optimum Room Height	2885 mm	955 mm	(2) / (3)
Maximum Room Height **without** Telescopic extension	2900 mm < RH < 3020 mm	955 mm	(2) / (4)
With telescopic extension (200 mm)	2900 mm < RH < 3020 mm	720 mm - 840 mm	(1) / (3)
Optimum Room Height with Telescopic extension	3085 mm	955 mm	(2) / (3)
Maximum Room Height **with** Telescopic extension	3100 mm < RH < 3220 mm	955 mm	(2) / (4)
Recommended minimum Room Height **with optional Smart Ortho** at the table: 2800 mm (SID = 1500 mm)			

(1) Table lift restricted
(2) Table lift without restriction
(3) Horizontal exams to Wall Stand with 0° in lowest position are possible
(4) Horizontal exams to Wall Stand with 0° in lowest position are **not** possible

Technical Minimum Room Height
System View (Illustration contains optional equipment)

not to scale

Fully automated



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Maximum Room Height **with** Telescopic extension	3100 mm < RH < 3220 mm	955 mm	(2) / (4)
Recommended minimum Room Height **with optional Smart Ortho** at the table: 2800 mm (SID = 1500 mm)			

(1) Table lift restricted
(2) Table lift without restriction
(3) Horizontal exams to Wall Stand with 0° in lowest position are possible
(4) Horizontal exams to Wall Stand with 0° in lowest position are not possible
(5) Automatic movement; With manual movement min. 830mm and max. 2630mm

Statics and Transport

Static

Minimum Load Bearing Capacity:

The ceiling must ensure sufficient load distribution in transverse direction (e.g., steel-reinforced concrete ceiling) and need to be designed for an evenly distributed live load as defined below:

- Live load at least 3.5 kN/m² for component installation on the ceiling, e.g. wall stand.
- Live load at least 2.5 kN/m² for component installation below the ceiling, e.g. tube stand.

Patient table:

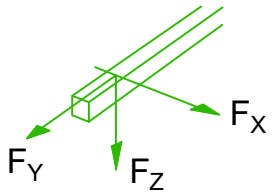
Max. compressive force: 4,68 kN
Max. compressive stress: 0,193 kN/cm²

Wall Stand:

Max. compressive stress: 0,165 kN/cm²

Ceiling stand:

Holding Forces per mounting point:
F_X max.: 2,7 kN
F_Y max.: 2,1 kN
F_Z max.: 5 kN
The listed load also include the dynamic loads up to a movement speed of 0.6 m/sec. in Y-direction. They are planned for the improbable situation in which if there is only one mounting point, it can handle the entire load. Safety margin values are thus not included.



Transport

	Weight	Dimensions B x T x H
Transverse Bridge 3 m	190 kg	320 x 80 x 25 cm
Transverse Bridge 4 m	232 kg	440 x 80 x 25 cm
Tube Unit Stand (fully automated)	384 kg	170 x 103 x 135 cm
Tube Unit Stand (fully synchronized)	375 kg	170 x 103 x 135 cm
Ysio Table	471 kg	158 x 89 x 82 cm
Wall Stand (fixed Detector)	392 kg	88 x 235 x 105 cm
Wall Stand (mobile Detector)	407 kg	88 x 235 x 105 cm
Minimum Door Opening 105 cm, Minimum Corridor Width 210 cm		
Special solution: Minimum Door Opening 90 cm, Minimum Corridor Width 170 cm (Extra Transport cart required, orderable via CSML)		
The door must have a final clearance of 125 cm if bed entrance is requested.		

Air-conditioning

Environmental conditions			
	Operation	Transport	Storage
Temperature	18 to 28 °C	-20 to 55 °C	-20 to 55 °C
Relative humidity	20 to 75 %	10 to 95 %	10 to 95 %
Air pressure	700 to 1060 hPa	500 to 1060 hPa	500 to 1060 hPa
If the mobile detector is transported / stored separately, a temperature of -10°C to +55°C has to be observed.			

Electrical Installation

Power requirements for generator 65 kW			
Power Line:	3/N/PE AC, 50/60 Hz ± 1 Hz	Connection Value	34.6 kVA
Line Voltage:	400 V ± 10 %	Power Consumption:	
Line Impedance:	≤ 170 mΩ	Radiography	110 kVA
Cable cross section to be determined by calculation, min. 16 mm²		Fluoroscopy	2,5 kVA
Do not connect external components to the power line !			

Power requirements for generator 80 kW			
Power Line:	3/N/PE AC, 50/60 Hz ± 1 Hz	Connection Value	34,6 kVA
Line Voltage:	400 V ± 10 %	Power Consumption:	
Line Impedance:	≤ 110 mΩ	Radiography	126 kVA
Cable cross section to be determined by calculation, min. 16 mm²		Fluoroscopy	2,5 kVA
Do not connect external components to the power line !			

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

Notes to Wireless Detector

Operation of the mobile detector can be disturbed by other WLAN devices in the vicinity of the installation.
To prevent this during the planning phase, it is necessary to inquire about the installation environment regarding any existing WLAN devices.

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 (minimum 4 MBit/s down- and 768 kBit/s upstream, optimum 30 MBit/s down- and 2 MBit/s upstream) without time or volume limitations
- Router (for exclusive use with SRS)

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

Network Integration

The Siemens Healthineers 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 scope of 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.

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).

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 DIN EN ISO 13854.

It is the customer's responsibility to ensure the above requirements are followed. This is to avoid the risk of injury.

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 Healthineers prepare radiation protection calculation and radiation protection plan.

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