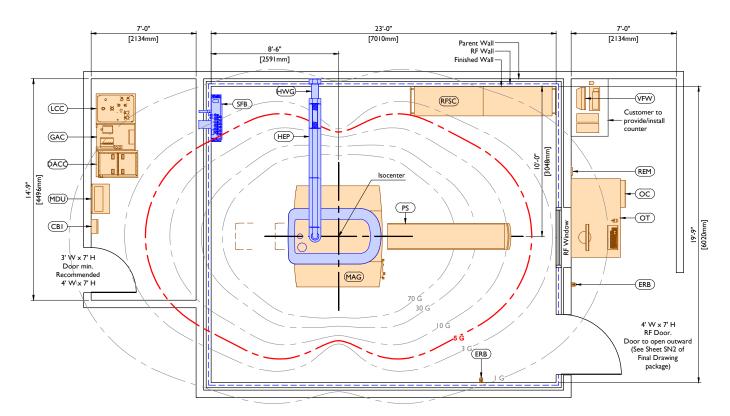
## Multiva I.5T

## Preferred Room Layout

The layout shown below is based upon a typical equipment configuration and should be considered as a general design guideline. Site conditions, application requirements, customer preferences, and/or equipment configuration may significantly impact suite design and equipment layout. It is recommended to request site-specific drawings from a Philips representative early in the design process.



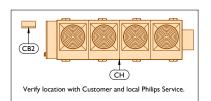
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# **Equipment Layout**

Equipment Room:	10' - 6" 9' - 2"	(3200mm) Recommended (2795mm) <b>Minimum*</b>
Exam Room Suspended Ceiling:	8' - 3 1/4"	(2520mm) Required
<u>Exam Room RF Ceiling</u> : Helium Waveguide Through RF Wall Helium Waveguide Through RF Ceiling	9' - 9" 10' - 0 1/2"	(2970mm) <b>Minimum*</b> (3060mm) <b>Minimum*</b>
Control Room	9' - 10" 7' - 3"	(3000mm) Recommended (2200mm) <b>Minimum</b>
<ul> <li>Ceiling Heights outside the minimum dime Heights must be reviewed and approved.</li> </ul>	ensions may b ª	e possible. These Ceiling

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AOTOperator's Table220 [100]DERBEmergency Run-Down Button (Qty. = 2)3 [1]JMAGMagnet Assembly10210 [4630]6800 [1993]APSPatient Support (MT)365 [165]4AHEPHelium Gas Exhaust Pipe (exam room only)4/ft [6/m]4CHWGHelium Gas Exhaust Wave Guide10 [5]4AGACGradient Amplifier 781 Single Cabinet1030 [467]14000 [4103]AACOData Acquisition and Control Cabinet585 [265]23900 [7004]DLCCLiquid Cooling Cabinet605 [275]1700 [498]ASFBSystem Filter Box with Covers175 [79]3400 [996]BCB1Circuit Breaker (for system)t.b.d.t.b.d.BCB2Circuit Breaker (for Chiller) [not shown]2600 [1180]188000 [55097]DREMChiller Remote Controller1 [0.5]10.5	Equipment Legend						
VDescriptionWeight Ibs [kg]Heat Load Btu/hr [W]AOCOperator's Console145 [65]1700 [498]AOTOperator's Table220 [100]100DERBEmergency Run-Down Button (Qty. = 2)3 [1]10210 [4630]6800 [1993]JMAGMagnet Assembly10210 [4630]6800 [1993]APSPatient Support (MT)365 [165]100AHEPHelium Gas Exhaust Pipe (exam room only)4/ft [6/m]10CHWGHelium Gas Exhaust Wave Guide10 [5]14000 [4103]AGACGradient Amplifier 781 Single Cabinet1030 [467]14000 [4103]ADACCData Acquisition and Control Cabinet585 [265]23900 [7004]DLCCLiquid Cooling Cabinet660 [300]3400 [996]DMDUMains Distribution Unit605 [275]1700 [498]ASFBSystem Filter Box with Covers175 [79]3400 [996]BCBCircuit Breaker (for System)t.b.d.t.b.d.BCB2Circuit Breaker (for Chiller) [not shown]2600 [1180]188000 [55097]DREMChiller Remote Controller1 [0.5]1000 [293]GRFSCRF Coil Storage Cabinett.b.d.t.b.d.	B       Furnished by customer/contractor and installed by customer/contractor         C       Installed by customer/contractor         D       Furnished by Philips and installed by contractor         E       Existing         F       Future         G       Optional item furnished by Philips         H       Furnished by RF Enclosure Supplier and installed by RF Enclosure Supplier						
VVDescriptionIbs [kg]Btu/hr [W]AOCOperator's Console145 [65]1700 [498]AOTOperator's Table220 [100]1DERBEmergency Run-Down Button (Qty. = 2)3 [1]1JMAGMagnet Assembly10210 [4630]6800 [1993]APSPatient Support (MT)365 [165]1AHEPHelium Gas Exhaust Pipe (exam room only)4/ft [6/m]1CHWGHelium Gas Exhaust Wave Guide10 [5]1AGACGradient Amplifier 781 Single Cabinet1030 [467]14000 [4103]ADACCData Acquisition and Control Cabinet585 [265]23900 [7004]DLCCLiquid Cooling Cabinet660 [300]3400 [996]DMDUMains Distribution Unit605 [275]1700 [498]ASFBSystem Filter Box with Covers175 [79]3400 [996]BCBICircuit Breaker (for system)t.b.d.t.b.d.BCB2Circuit Breaker (for System)t.b.d.t.b.d.DCHDimplex MEDKOOL 15000 AC Chiller [not shown]2600 [1180]188000 [55097]DREMChiller Remote Controller1 [0.5]1000 [293]GRFSCRF Coil Storage Cabinett.b.d.t.b.d.			— Equipment Designation				
AOTOperator's Table220 [100]DERBEmergency Run-Down Button (Qty. = 2)3 [1]JMAGMagnet Assembly10210 [4630]6800 [1993]APSPatient Support (MT)365 [165]4AHEPHelium Gas Exhaust Pipe (exam room only)4/ft [6/m]4CHWGHelium Gas Exhaust Wave Guide10 [5]4AGACGradient Amplifier 781 Single Cabinet1030 [467]14000 [4103]ADACCData Acquisition and Control Cabinet585 [265]23900 [7004]DLCCLiquid Cooling Cabinet660 [300]3400 [996]DMDUMains Distribution Unit605 [275]1700 [498]ASFBSystem Filter Box with Covers175 [79]3400 [996]BCB1Circuit Breaker (for System)t.b.d.t.b.d.DCHDimplex MEDKOOL 15000 AC Chiller [not shown]2600 [1180]188000 [55097]DREMChiller Remote Controller1 [0.5]1000 [293]GRFSCRF Coil Storage Cabinett.b.d.t.b.d.	$\downarrow$	$\downarrow$	Description	U U			
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CHWGHelium Gas Exhaust Wave GuideIO [5]AGACGradient Amplifier 781 Single CabinetIO30 [467]I4000 [4103]ADACCData Acquisition and Control Cabinet585 [265]23900 [7004]DLCCLiquid Cooling Cabinet660 [300]3400 [996]DMDUMains Distribution Unit605 [275]I700 [498]ASFBSystem Filter Box with Covers175 [79]3400 [996]BCB1Circuit Breaker (for system)t.b.d.t.b.d.BCB2Circuit Breaker (for chiller) [not shown]t.b.d.t.b.d.DCHDimplex MEDKOOL 15000 AC Chiller [not shown]2600 [1180]188000 [55097]DREMChiller Remote ControllerI<[0.5]	Α	PS	Patient Support (MT)	365 [165]	-		
AGACGradient Amplifier 781 Single Cabinet1030 [467]14000 [4103]AOACCData Acquisition and Control Cabinet585 [265]23900 [7004]DLCCLiquid Cooling Cabinet660 [300]3400 [996]DMDUMains Distribution Unit605 [275]1700 [498]ASFBSystem Filter Box with Covers175 [79]3400 [996]BCB1Circuit Breaker (for system)t.b.d.t.b.d.BCB2Circuit Breaker (for chiller) [not shown]t.b.d.t.b.d.DCHDimplex MEDKOOL 15000 AC Chiller [not shown]2600 [1180]188000 [55097]DREMChiller Remote Controller1<[0.5]	А	HEP	Helium Gas Exhaust Pipe (exam room only)	4/ft [6/m]	-		
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DLCCLiquid Cooling Cabinet660 [300]3400 [996]DMDUMains Distribution Unit605 [275]1700 [498]ASFBSystem Filter Box with Covers175 [79]3400 [996]BCB1Circuit Breaker (for system)t.b.d.t.b.d.BCB2Circuit Breaker (for system)t.b.d.t.b.d.DCHDimplex MEDKOOL 15000 AC Chiller [not shown]2600 [1180]188000 [55097]DREMChiller Remote Controller1[0.5]GVFWViewforum Workstation125 [57]1000 [293]GRFSCRF Coil Storage Cabinett.b.d.t.b.d.	Α	GAC	Gradient Amplifier 781 Single Cabinet	1030 [467]	14000 [4103]		
DMDUMains Distribution Unit605 [275]1700 [498]ASFBSystem Filter Box with Covers175 [79]3400 [996]BCBICircuit Breaker (for system)t.b.d.t.b.d.BCB2Circuit Breaker (for Chiller) [not shown]t.b.d.t.b.d.DCHDimplex MEDKOOL 15000 AC Chiller [not shown]2600 [1180]188000 [55097]DREMChiller Remote Controller1<[0.5]	Α	(ACC	Data Acquisition and Control Cabinet	585 [265]	23900 [7004]		
ASFBSystem Filter Box with Covers175 [79]3400 [996]BCBICircuit Breaker (for system)t.b.d.t.b.d.BCB2Circuit Breaker (for Chiller) [not shown]t.b.d.t.b.d.DCHDimplex MEDKOOL 15000 AC Chiller [not shown]2600 [1180]188000 [55097]DREMChiller Remote ControllerI[0.5]GVFWViewforum Workstation125 [57]1000 [293]GRFSCRF Coil Storage Cabinett.b.d.t.b.d.	D	(LCC)	Liquid Cooling Cabinet	660 [300]	3400 [996]		
B       CBI       Circuit Breaker (for system)       t.b.d.       t.b.d.         B       CB2       Circuit Breaker (for Chiller) [not shown]       t.b.d.       t.b.d.         D       CH       Dimplex MEDKOOL 15000 AC Chiller [not shown]       2600 [1180]       188000 [55097]         D       REM       Chiller Remote Controller       1       [0.5]         G       VFW       Viewforum Workstation       125 [57]       1000 [293]         G       RFSC       RF Coil Storage Cabinet       t.b.d.       d.	D	MDU	Mains Distribution Unit	605 [275]	1700 [498]		
B       CB2       Circuit Breaker (for Chiller) [not shown]       t.b.d.       t.b.d.         D       CH       Dimplex MEDKOOL 15000 AC Chiller [not shown]       2600 [1180]       188000 [55097]         D       REM       Chiller Remote Controller       1       [0.5]         G       VFW       Viewforum Workstation       125 [57]       1000 [293]         G       RFSC       RF Coil Storage Cabinet       t.b.d.	Α	SFB	System Filter Box with Covers	175 [79]	3400 [996]		
D       CH       Dimplex MEDKOOL 15000 AC Chiller [not shown]       2600 [1180]       188000 [55097]         D       REM       Chiller Remote Controller       1       [0.5]         G       VFW       Viewforum Workstation       125 [57]       1000 [293]         G       RFSC       RF Coil Storage Cabinet       t.b.d.	в	CBI	Circuit Breaker (for system)	t.b.d.	t.b.d.		
D       REM       Chiller Remote Controller       I [0.5]         G       VFW       Viewforum Workstation       I 25 [57]       I 000 [293]         G       RFSC       RF Coil Storage Cabinet       t.b.d.       I 25 [57]	в	CB2	Circuit Breaker (for Chiller) [not shown]	t.b.d.	t.b.d.		
G     VFW     Viewforum Workstation     125 [57]     1000 [293]       G     RFSC     RF Coil Storage Cabinet     t.b.d.	D	СН	Dimplex MEDKOOL 15000 AC Chiller [not shown]	2600 [1180]	188000 [55097]		
G RFSC RF Coil Storage Cabinet t.b.d.	D	REM	Chiller Remote Controller	I [0.5]	-		
	G	VFW	Viewforum Workstation	125 [57]	1000 [293]		
G FC Flex Caddy Coil Cart t.b.d.	G	RFSC	RF Coil Storage Cabinet	t.b.d.	-		
	G	FC	Flex Caddy Coil Cart	t.b.d.	-		

## **Environmental Requirements for General Equipment Locations**

Heating, ventilation, air conditioning requirements concern all rooms (equipment room, magnet room, and control room) and must be maintained 24 hours a day, 7 days a week.

#### Examination Room:

Temperature: 65° to 71° (18° to 22° C)

- The temperature of the conditioned air that enters the room must not be less than 42° F (6° C) below the mean room temperature

Maximum Temperature Rate of Change: 9° F (5° C) per 10 minutes

Humidity: 40% to 70%, non-condensing

Air Conditioning Capacity: 6800 BTU / hr (2 kW)

- Energy dissipated in the examination room will be removed from the room by an additional air exhaust system.
- Gradient coil heat dissipation (3400 to 51200 BTU / hr [1 to 15 kW] will be removed via liquid cooling of the gradient coil.)
- Exam room temperature and humidity specifications are critical for the MR and must be met at all times. No exceptions are allowed.

#### Equipment Room:

Temperature: 59° to 75° (15° to 24° C)

- The temperature of the conditioned air that enters the room must not be less than 42° F (6° C) below the mean room temperature

Maximum Temperature Rate of Change: 9° F (5° C) per 10 minutes

Humidity: 30% to 70%, non-condensing

Air Conditioning Capacity:

- At Standby: 6800 BTU / hr (2 kW)
- Peak Dissipation Scanning: 23900 BTU / hr (7 kW)

#### Control Room:

Temperature: 64° to 75° (18° to 24° C) Maximum Temperature Rate of Change: 9° F (5° C) per 10 minutes Humidity: 30% to 70%, non-condensing Air Conditioning Capacity: **1700 BTU** / hr (0.5 k₩)

### **Power Requirements**

Supply Configuration:	3 phase, 3 wire power, unity ground, and bonded ground
Nominal Line Voltage:	400VAC, 50/60 Hz or 480 VAC, 60 Hz
Branch Power Requirement:	60 kVA
Circuit Breaker:	3 pole, 80 Amps (480 VAC)

### **Remote Service Diagnostics**

Remote Service Diagnostics - Medical imaging equipment to be installed by Philips Medical is equipped with a service diagnostic feature which allows for remote and on site service diagnostics. To establish this feature, a RJ35 type ethernet 10/100/1000 Mbit network connector must be installed as shown on plan. Access to customer's network via their remote access server is needed for Remote Service Network (RSN) connectivity. All cost with this feature are the responsibility of the customer.



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