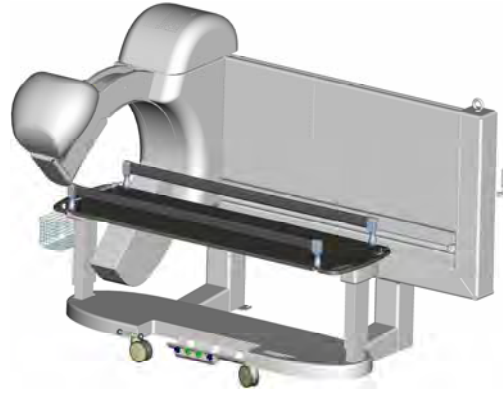




AP Imaging Position








Oblique Imaging Position



Lateral Imaging Position

[Statscan[®] VE1 Critical Imaging System - Product Specifications and Physical Dimensions](#)

Image Quality					
Contrast Resolution	>16000 grey levels (14 bits) - After log compression				
Fundamental pixel size.	60 μm (1x1 binning)				
Maximum Size	1800 mm * 680 mm (full body size, measured at lowest table height)				
Minimum Size	100mm * 100mm				
Resolution	Resolution (lp/mm)	Binning	Pixel Size (μm)	Contrast (Grey Levels)	Image Size (Pixels/Area)
Ultra high resolution mode	5.0 (8.33)	1x1	60	6000	12283 x 8000 / 480 mm * 680 mm
Very High resolution mode	4.2	2x2	120	12000	6141 x 8000 / 900 mm * 680 mm
High resolution mode	2.1	4x4	240	24000	3070 x 8000 / Full Body size
Standard resolution mode	1.4	6x6	360	36000	2048 x 8000 pixels / Full body Size
Base resolution mode	1.1	8x8	480	48000	1536 x 8000 pixels / Full body Size
Scanner throughput					
Linear scanning rate or speed (3 settings)	35mm/s, 70mm/s, and 140mm/s ± 5%				
Beam Width (FWHM @ 1000mm from focal spot)	1.4 - 2.8 mm ± 5%				
Instantaneous frame rate (X-Ray exposure duration at any one point)	11 - 80 milliseconds ± 5%				
Time to complete a full field scan	<13 seconds (nominally 12.98s at normal speed)				
Time from "end-of-scan" until a diagnostic image becomes available on the DVS screen	<15 seconds (normal resolution image on a stand-alone 100 Mbits/s Ethernet Base-T network)				
Best case time between two successive x-rays on the same patient.	28 seconds (provided heat capacity of X-ray tube < 20%)				
Compliance					
US FDA Pre- Market Clearance (510k) No. K013999 Accession # 0310920 EU CE-Mark, ISO 13485:2003, ISO 9001:2000 Japan Marketing Certificate #220AIBZX00001000 QMS Conformity Certificate #S080212		    			

These specifications are current and subject to change, Lodox Systems reserves the right to revise these specifications to ensure a well-engineered product.

Image flexibility	
Radial angles	0 to 90 degrees. The supine or prone patient can be x-rayed in any radial angle from AP (or PA) to the supine lateral positions.
Caudal-cranial / Crano-caudal angles	0 to 10 degrees. Projections can easily be accomplished by angling imaging tabletop as needed.
Longitudinal angles	The trolley (gurney) top height can be adjusted vertically by 0 to 340 mm, by adjusting only one side of the trolley gives Trendellenburg angles up to +/- 10 degrees.

X-Rays Output																						
Radiation Type	This equipment emits ionized x-radiation through an adjustable width narrow slit thereby producing fan-beam scanning across the patient. This slit set to 0.4 mm (typically) or 1mm for large patients																					
Direct Absorbed dose	Maximum direct dose absorption is 1 mGy. For typical procedures approximately 25%, on average, of equivalent conventional doses is needed.																					
Leakage Radiation	The maximum leakage radiation measured 1 meter from the X-ray focal spot in any direction is less than 20 µGy per hour @ 130kV 25mA																					
X-ray Tube	Rotating Anode "CT" type. 2000kHU with increased cycle capacity. Upgradeable to 3500kHU																					
X-ray Generator	<table border="0"> <tr> <td>Peak Power</td> <td>64kW</td> <td></td> </tr> <tr> <td>Voltage Range</td> <td>50kVp - 145 kVp</td> <td>$\pm(3\%+1\text{ kVp})$</td> </tr> <tr> <td>Voltage Rise Time</td> <td>2mS (10 to 90%)</td> <td></td> </tr> <tr> <td>Current Range</td> <td>32mA to 400mA</td> <td>$\pm(4\%+1\text{mA})$</td> </tr> <tr> <td>Voltage Ripple</td> <td>0.5%</td> <td></td> </tr> <tr> <td>Exposure Time</td> <td>0.6 s to 16 s</td> <td>$\pm(2.5\% + 10\text{ms})$</td> </tr> <tr> <td>Operating frequency</td> <td>40kHz</td> <td></td> </tr> </table>	Peak Power	64kW		Voltage Range	50kVp - 145 kVp	$\pm(3\%+1\text{ kVp})$	Voltage Rise Time	2mS (10 to 90%)		Current Range	32mA to 400mA	$\pm(4\%+1\text{mA})$	Voltage Ripple	0.5%		Exposure Time	0.6 s to 16 s	$\pm(2.5\% + 10\text{ms})$	Operating frequency	40kHz	
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Flexible-Format Image Information	
Image size range	680mm x 1800mm maximum for full body. Adjustable from 100mm x 100mm to maximum in any area on the patient without moving the patient
Image Storage & Backup	120 GB Hard disk (minimum); includes a standard DVD writer for archiving and backup purposes.
Detector System	
Detector	Proprietary ultra low noise TDI CCD detector (similar to spiral MDCT).
X-ray to light conversion	Rarex Green Fast ("Gadox" = GdOS ₂ :Tb)

Trolley / Gurney - This patient imaging table is designed to double as a resuscitation table.	
Weight Capacity & Positioning	220kgs/440Lbs; Height can be adjusted from 0 to 340mm. Allows Trendelenburg angles +/- 10 degrees. Radiolucent Carbon Fiber Rails may be left "Upright" during lateral imaging procedures.
Dimensions:	LxWxH : 2200mm x 740mm x 810mm / 87" x 30" x 32" (inches)
Maximum Height :	Height adjustable to 1150 mm / 45" (inches)

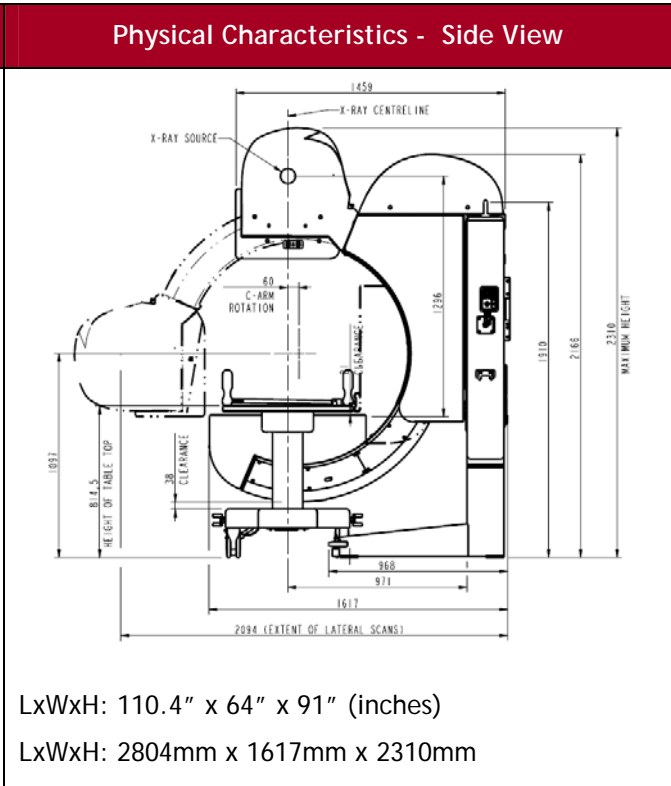
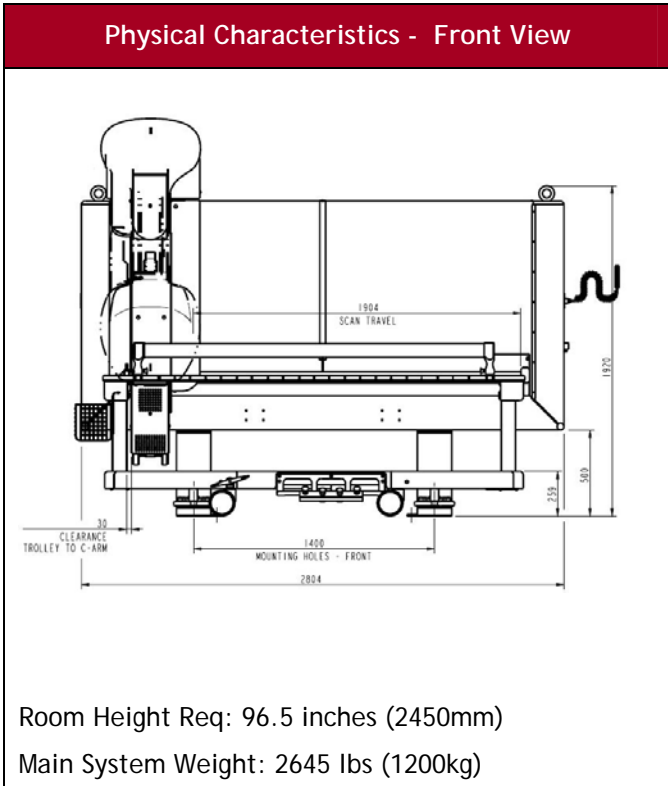
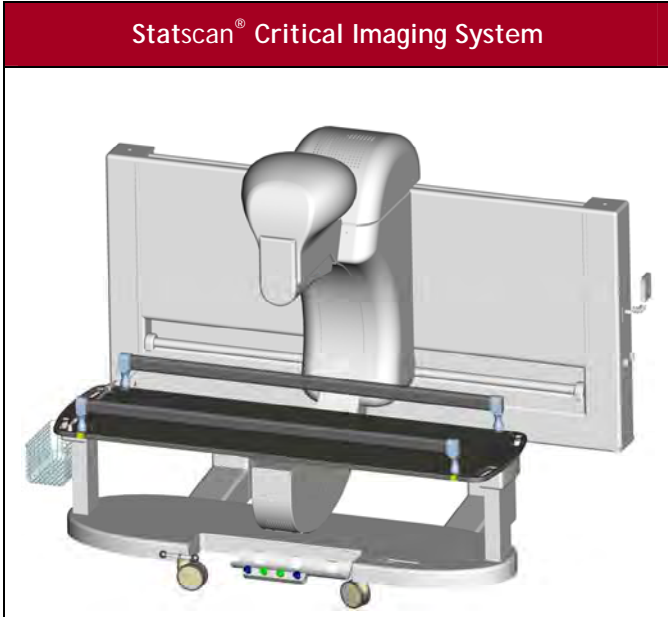
Machine Dimensions	
Weight :	1200 kg / 2645 Lbs
Dimensions:	LxWxH: 2804mm x 1617mm x 2310mm / 110.4" x 64" x 91" (inches)
Room height Requirement:	2450 mm / 96.5" (inches)
Operating Envelope:	LxWxH: 2834mm x 2322mm x 2322mm / 112" x 91.4" x 91.4" (inches)
Required Minimum Area:	LxW: 3798 mm x 2808 mm / 150" x 110" (inches)

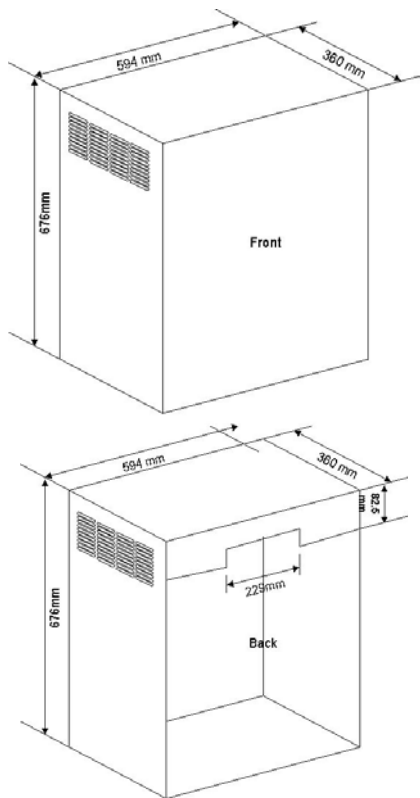
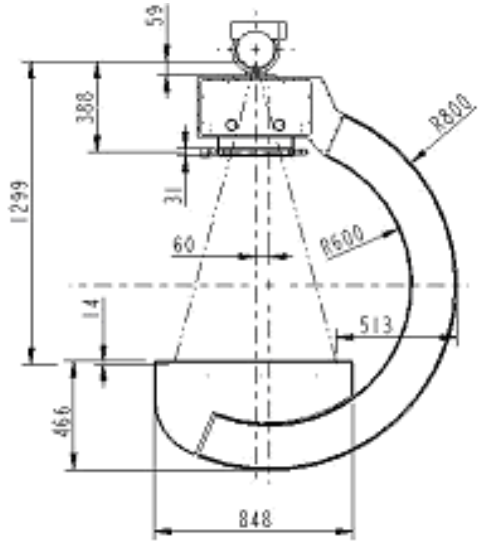
These specifications are current and subject to change, Lodox Systems reserves the right to revise these specifications to ensure a well-engineered product.

Diagnostic viewing system (DVS) software	
Monitor	High Luminance ($\geq 280\text{Cd/m}^2$) High Contrast (700:1) / 1600 x1200 pixels Size (20"). Flexible orientation (portrait vs landscape). Medically rated DICOM Compliant LCD available as optional extra.
Type	DVS software is functionally integrated into the Operator's workstation. (Optional standalone viewing workstations can be installed at multiple convenient viewing locations)
Image Viewing - Landscape or Portrait Image display capabilities	
Image recall	Images viewed by Previous, Next, Latest, Patient name, Referring doctor, Hospital number etc.
Database	Images in the database belonging to a study or patient can be easily retrieved.
Zoom / Pan / Rotate / Aspect	Real time "Mouse wheel" zoom, pan, rotate, and aspect adjustment all standard.
Image Manipulation / lucid [®] image enhancement	Windowing and leveling of grey scales automatically adjusted for optimal viewing. Initial "best view" with lucid [®] enhanced image processing simultaneously adjusts for soft tissue and bone.
Anatomical Measurement Capability	Straight line and angle (i.e. Cobb angles) measurements of any body part in any 2D projection.
Palette Function (Auto/Manual)	Allows the user to independently select the range of grey scales that can be displayed.
Invert Function	Changes the view from a "black bone" to a "white bone" image.
Image Size	Variable dependant on exposure area, as well as resolution e.g. Full-body, normal resolution requires approximately 30Mbyte. Largest possible image requires approximately 188Mbyte. Average capacity approx. 3000 images on a 120Gb disk.

Power requirements		
Statscan [®] ASP	1 Phase / N / PE ~ 200-250 Vac \pm 5 % (15A) 50 Hz \pm 1 Hz	
Statscan [®] Gurney	1 Phase / N / PE ~ 200-250 Vac \pm 5 % (15A) or ~ 120 Vac \pm 5 % (15A) 50/60 Hz \pm 1 Hz	
Statscan [®] HVG	Option 380	Option 480
	3 Phase / PE 380/400 Vac \pm 5 % 50 Hz \pm 1 Hz	3 Phase / PE 480 Vac \pm 5 % 60 Hz \pm 1 Hz
HVG maximum power	64 kW	
Minimum KVA required	76.8kVA	
RMS line current during exposure	130 A	
Three phase circuit breaker rating	60 A	
Single phase circuit breaker rating	20 A	
Maximum power line impedance	0.135 Ω	
HVG standby consumption	500 W	

Ambient Environment	
Operating ambient temperature range	+10°C ... +25°C
Relative humidity	40 % - 75 %
Atmospheric pressure	700hPa - 1060hPa
Ambient conditions	Dust free Non-corrosive atmosphere



Physical Characteristics - X-ray Generator Cabinet	Physical Characteristics - C-Arm
 <p>The X-ray Generator Cabinet is shown in two views. The front view shows a rectangular cabinet with a height of 676 mm, a depth of 360 mm, and a width of 594 mm. The back view shows the same cabinet with a height of 676 mm, a depth of 360 mm, and a width of 594 mm. A small rectangular cutout on the back panel has a width of 229 mm and a height of 82.5 mm.</p>	 <p>The C-Arm is shown in a side view. The total height of the assembly is 1299 mm. The distance from the top of the C-arm to the center of the X-ray tube is 388 mm. The X-ray tube is 59 mm high. The distance from the center of the X-ray tube to the center of the C-arm is 31 mm. The distance from the center of the X-ray tube to the center of the C-arm is 60 mm. The radius of the C-arm is 860 mm. The distance from the center of the C-arm to the center of the X-ray tube is 513 mm. The distance from the center of the C-arm to the center of the X-ray tube is 14 mm. The distance from the center of the C-arm to the center of the X-ray tube is 46.6 mm. The distance from the center of the C-arm to the center of the X-ray tube is 848 mm.</p>

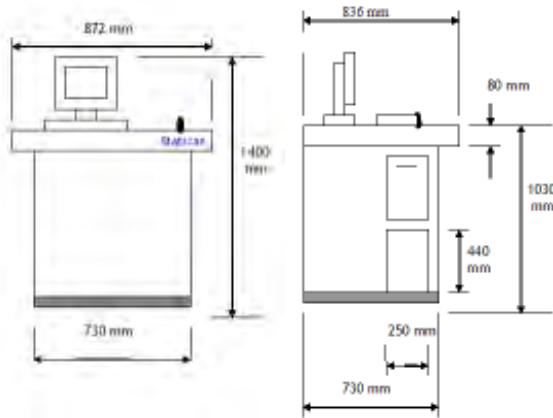
Statscan[®] Diagnostic Viewing Station (DVS)



Statscan[®] Operator Console (OC)



OC Physical Characteristics - Front / Side View



This OC Configuration May Also Be Used To House the X-ray Generator Cabinet

OC - Functional Description



OC Graphic User Interface (GUI)



OC Graphic User Interface (GUI)

