

購買（英文）規格書

COMMODITY DESCRIPTION

關稅分類番號 H.S. NO.	品目番號 ITEM NO.	品目及規格 DESCRIPTION	單位 UNIT	數量 QUANTITY
		O-Arm Imaging System	SYS	1

A. Features :

1. The O-arm Imaging System is a mobile x-ray system designed for 2D fluoroscopic and 3D imaging and is intended to be used where a physician benefits from 2D and 3D information of anatomic structures and objects with high x-ray attenuation such as bony anatomy and metallic objects.
 - 1) SEE MORE
 - 2D and 3D intraoperative imaging. Your options, your clinical imaging needs achieved.
 - 2) CONFIRM WITH CONFIDENCE.
 - Visualize screw placement while patient is on the table, potentially reducing revisions due to misplaced hardware.
 - 3) NAVIGATE WITH EASE
 - Navigation enabled by O-arm 3D data. Real-time procedure support.
 - Seamless precision. Automatic registration with navigation tracks both patient and O-arm simultaneously to calculate registration.
 - 4) SEE CLEARLY
 - Confidence in multiple spine procedures.
 - 5) DESIGNED FOR SURGERY.
 - Breakable gantry. Robotic positioning. System mobility. Flexibility to complement your OR and surgical workflow demands, while maintaining your surgical preferences.
2. The Navigation system creates a translation map between all points in the patient image data and the corresponding points on the patient anatomy. After establishing this map, whenever the operator touches a particular point on the patient using a special tracked instrument or pointing

device, the computer uses the map to identify the corresponding point on the images.

3. The system determines the position of the instrument and patient in the operating room by using a camera to track the position of optical markers affixed to them.
4. To maintain registration accuracy, the system must continuously track the position of anatomy during registration and navigation.
5. The system camera uses two lenses to geometrically triangulate the spatial coordinates of each optical marker on the instrument and Reference Frame.
6. The laser positioning system (located between the camera lenses) helps approximate the correct camera aim by projecting a low-power laser beam along the center for the camera's field of view.
7. The system has DICOM QR function is able to import and export patient's radiological images to the system directly by using PACS. It also has EMR worklist feature which makes easier to find patient's image information.
8. Camera and Main monitor has the capabilities of multi-touch screen interface.
9. The system has the network security appliance proving the ability to utilize active wired optical localization.

B. Specification :

1. General Specifications for Image Acquisition Station (IAS)

(1) Physical Dimensions, 0-arm IAS

250 cm (98.3in) long x 81.3 cm (32.0 in) wide x 202 cm (79.6 in) high and is 'docked' with door open

Weight: Approximately 885kg (1950 lb)

Gantry Opening: 69.8 cm (27.5 in) at telescoping door when open

Center of Bore Diameter: 96.5cm (38 in)

(2) Imaging Modality Performance

Single Plane 2D: 15 and 30 frames per second

Multi 2-D: Up to 4 2D images from pre-set positions

3D/Volumetric: ~13 seconds to acquire data over 360° for a standard 3D scan.
~ 20 seconds to reconstruct volume at 512 x 512 x 192 voxels (0.833 mm slice thickness).

Less than 10 seconds for standard 3D to read 0.833 mm slice thickness

(3) 3D Imaging Volume

For 20 cm field of view, the cylinder has a diameter of 212 ± 1 mm and a length of 160 ± 1 mm.

For 40 cm field of view, the cylinder has a diameter of 397 ± 1 mm and a length of 160 ± 1 mm.

The cylindrical volume (diameter): 1516 cm (high) X 2021.2 cm
512 x 512 x 192 voxels resolution.

For 3D mode with 360 degree rotation, the lowest current time product (mAs) is 40 mAs.

(4) 2D Image Enhancements

Edge Detection (3 settings)

Recursive Noise Reduction (automatic)

Auto-Brightness Control: ± 3 kV

Auto Window/Level

(5) Dose Report Accuracy

Indicates dosimetric values for Dose Area Product (DAP) are accurate to within $\pm 35\%$ when DAP is greater than 2.5 Gycm².

Indicates dosimetric values for Dose Length Product (DLP) are accurate to within $\pm 40\%$ when DLP is greater than 10 mGycm.

(6) X-ray Tube

Varian® Model B100 (rotating anode) with A132 insert

(7) X-ray Detector

Varian® Model Paxscan® 4030D; 2.0K x 1.5K, pixel pitch of 0.194mm; amorphous silicon

(8) Laser Alignment Lights

Wavelength: 635nm

Optical output power: 3.5 mW

Laser Class: 1M

(9) Collimation

X-Y Shutters

Electronically controlled by user

(10) Power-assisted Transport

2.4 km (1.5 miles) per hour power drive system

Independent rear wheel drive

Handle controlled

(11) Robotic Motion Controls (movement speeds)

Linear gantry motion (X,Y,Z): 5cm (2in) per sec

Rotational Wag: 4 ° per second

Rotational Tilt: 8° per second

Gantry Door (open/close): 9° per second

Gantry rotor (internal): 60° per second (max.)

Note: gantry linear movement speed can be slowed ten-fold by pressing the [M] button on the pendant.

(12) Expected Duty Cycle X-ray Operation

Fluoroscopy: 0.14% (5 seconds/hour)

Pulsed exposure: 0.6% (60 seconds/3hours)

(13) Expected Duty Cycle for Motor Operation

0.9% of a case

(20 cycles x 5 seconds per cycle)/3 hours per case

2. General Specifications for Mobile View Station (MVS)

(1) Physical Dimensions

Depth x Width x Height: 90.42 cm x 75.7 cm x 182.9 cm
(35.6 in x 29.8 in x 72 in)

Weight: 159 kg (350 lbs)

(2) Display

76 cm (30in) diagonal, ultra-high resolution color; 16:9 aspect ratio; 2560 x 1600 pixels

(3) Storage

DVD R/W Drive

(4) Outputs

Ethernet

USB

DVI-I

3. Power Specifications

(1) Voltage : 240 VAC

(2) Frequency: 50/60 Hz

(3) Power Requirements : 1440 VA

4. Detector Specifications

Amorphous silicon based with a 600um thick film of thallium-doped CsI scintillator

(1) Image Matrix* : 2048 x 1536

(2) Pixel size (um) : 194

(3) Framerate (fps) : 30

(4) FOV (cm) : 39.7 x 29.7

5. Tube and Housing Specifications

(1) Tube Type : Varian A132 (rotating Anode)

(2) Housing Type : B100

(3) Tube Rating : 150 kV

(4) Focal Spot :

Dual: The nominal focal spot values according IEC 60336 are:

- For small focal spot: Width = 0.60 mm to 0.90 mm;

Length = 0.90 mm to 1.30 mm.

- For large focal spot: Width = 1.20 mm to 1.70 mm;

Length = 1.7 mm to 2.4 mm.

(5) Inherent Filtration : 0.7mm Al

(6) Added Filtration : Additional filtration added to beam for a total of greater than 4mm Al

(7) Leakage Technique Factors : 150 kV, 3.3 mA

(8) Housing Heat Storage Capacity : 1,250 kHU (926 kJ)

6. X-ray Generator Rating

(1) Parameters : RAD Mode , Fluoro Mode

(2) Peak Power: 32 kW , 3.25 kW

(3) Average Power: 9.6 kW, 0.98 kW

(4) kV Range: 40 kVp to 140 kVp, 40 kVp to 125 kVp

(5) mA Range: 10 mA to 100 mA, 4 mA to 26 mA

(6) Highest Constant Electric Power at 100 kV : 10 kW, 10 kW

7. SPINE SOFTWARE

8. Spine Instruments

9. Disposable

C. Configurations :

1	O-ARM O2 BASE	lea
2	O2 SYSTEM NAVIGATION INTERFACE	lea
3	O2 REMOTE PENDANT	lea
4	O2 HIGH DEFINITION 3D - HD3D	lea
5	O2 ADVANCED VIEWING	lea
6	O2 ISO-WAG™ ROTATION	lea
7	O2 COLLIMATED AXIAL 3D	lea
8	O2 MULTIPLE VIELD OF VIEW	lea
9	O2 4.2.0 LNG FLM UPGD	lea
10	O2 O-ARM SW 4.2.0 OUS	lea
11	STEALTHSTATION™ SPINE SOFTWARE	lea
12	Spine Renferencing Set	1set
13	Perc Pin Upgrade Set	1set
14	100mm Disposable Pin	lea
15	150mm Disposable Pin	lea
16	Stealth Care™ Package	2 years

D. Remarks :

1. The equipment should be installation by contractor.
2. Three years warranty after the installation and correct operation.
3. The business company is responsible for network installation and PACS interface.
4. Disposable are excluded from the warranty.
5. A 1-year warranty applies to the instrument.

(Instrument : Spine Renferencing Set, Perc Pin Upgrade Set)

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