Equipment Specifications
C-arm
[VISN 20/Portland VAHCS]
[648-B98032]

A. REQUIREMENT OVERVIEW

The VA Portland Health Care System (648) located in Portland, OR., requires one R&F C Arm. The application is for a GI "Super Suite" that will be used to perform higher level patient procedures in the GI suite. Critical patient procedures requiring fluoroscopy include, but are not limited to: the performance of ERCP (Endoscopic Retrograde Cholangio Pancreatoscopy) and placement of stents in the treatment of malignant strictures of the esophagus and bowel.

Facility	Quantity
Portland – 648	1

B. TECHNICAL REQUIREMENTS

1. Unit physical specifications

a. Minimum detector size [cm]	31x31
b. Minimum central resolution [lp/mm]	2.7
c. Minimum range of motion [deg]	360 Lateral (55 Overscan) 141 Orbital
d. Minimum c-arm depth [in]	33
e. Minimum generator output power [kW]	15
f. Minimum monitor size (if single) [in]	32
g. Maximum system dimensions [cm]	220x100x200
h. Maximum system weight [kg]	Cart:288

2. Additional specifications

☒	a.	Flat detector technology
☒	b.	Flat surface beneath detector to allow for efficient table-top positioning
☒	c.	Image magnification with a minimum of 3 settings
☒	d.	Consistent field of view during rotation
☒	e.	Low profile tube housing – Vendors are encouraged to propose the smallest housing available.
☒	f.	Tube head controls for use by clinician
☒	g.	Foot pedal
☒	h.	Centering/alignment light for tube head

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☒	i.	Flat panel monitor(s) workstation on a cart with either dual or single high-resolution monitors
☒	j.	Reference monitor – 4K definition color monitor
☒	k.	Integrated keyboard on workstation allowing back-up functionality to touch screen control system
☒	l.	Motion and metal detection
☒	m.	Digital image rotation, reversal, and image invert
☒	n.	Easy positioning of the c-arm – ability to "rainbow" (over-scan) 180° without moving away from the patient
☒	o.	Audible/visual x-ray on warning
☒	p.	CMOS flat detector technology
☒	q.	Continuous fluoroscopy
☒	r.	Capability of powering up the c-arm and the workstation separately
☒	s.	Wireless capability
☒	t.	Wireless foot pedal
☒	u.	Laser guide for positioning
☒	v.	Wireless DICOM transmission
☒	w.	Hybrid graphic printer

3.   Generator specifications

☒	a.	High-frequency
☒	b.	Automatic dose rate control
☒	c.	Ability to power from a standard wall outlet
☒	d.	Pulse and continuous fluoroscopy modes

4.   Advanced applications

☒	a.	Roadmap technology for vascular imaging, to include Increased frame rate from base model 30fps or greater Real-time digital subtraction Roadmapping Increased image storage (1000 images or greater) Bolus tracking Vessel measurement tools and calculations Catheter/guidewire visualization enhancement Preset vascular provfiles
☒	b.	Orthopedic, to include Metallic edge suppression Bone visualization optimization (soft tissue suppression) On-screen measurement tools (distance, angle, etc.) Image comparison tools (side-by-side display, image overlay) Preset orthopedic profiles
☒	c.	Automatic acquisition parameters for anatomy of interest

☒	d. Stent positioning guide
☒	e. Up to 4x live zoom

5.   Security/Connectivity requirements

☒	a. OEM-supported operating system
☒	b. Latest DICOM print, store, commit, radiation dose structured report (RDSR), and modality worklist
☒	c. Wireless connectivity to VA network – Compatible with 802.11b/g/n and FIPS 140-2 compliant
☒	d. Encrypted hard drive
☒	e. PACS compatibility – [AGFA and CareStream]

6.   Added Value

Specifications listed below are not required, but preferred. Vendors who do not include the below specifications in the submitted offer will not be docked or excluded from consideration. Specifications listed below will be evaluated based on added value.

☒	a. Additional year(s) of warranty
☒	b. Post-warranty remote diagnostic service program

C. TRAINING REQUIREMENTS

1.   Clinical Training

☒	a. On-site clinical applications training for [4] technologists during go-live
☒	b. On-site follow-up clinical applications training for [4] technologists once technologists have hands-on experience with the system
☒	c. Technologists who complete the clinical applications training shall receive continuing education credits (CMEs).
☒	d. Vendors shall be responsible for accommodating different personnel shifts for clinical applications training during go-live.

2.   Biomedical Technician Training

Please reference the "Instructions to Offers" section 2.8.g for further information about the type of information to provide by equipment type not by specific request. Please also reference the "Instructions to Offers" section 7.3.3. for response format.

Technical training information to include detailed information about the curriculum and length of the biomedical technical training required for each equipment type.

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Although the NAC will not award this training along with the equipment, it is imperative that the customer is informed that this training is available. Vendors must demonstrate that they can provide any required off-site training, therefore off-site training should be quoted as an optional item. Off-site training will be purchased at the time of need via a modification (if the original order remains open) or via a separate order. No travel expenses for any VA employees will be included in any HTME equipment or training order.

D. SERVICE REQUIREMENTS

1. VPN/Remote Access – The vendor shall provide any and all equipment service programs, such as remote diagnostics, during the warranty period. The vendor shall provide post-warranty remote diagnostic service program as an "Add Option" with the offer. The system shall provide vendor remote diagnostics via VPN. The vendor shall either utilize the VA national site-to-site VPN or work with the Office of Cyber and Information Security and the VAMC Information Systems Security Officer to establish a client-based VPN.
2. Service and Operator Manuals – The vendor shall provide the following documentation for the proposed systems:
   a. Two (2) copies of operator instruction manuals (one (1) electronic and one (1) physical copy)
   b. Two (2) copies of a service manuals (one (1) electronic and one (1) physical copy)
      *Vendors can include the physical copy as a priced line item in their quote as applicable.
3. Minimum Warranty – The system and accessories shall be covered under the manufacturer's warranty and shall include all parts and labor for one year following acceptance by the VAMC. This warranty must include PMs as required by the manufacturer. The manufacturer's factory-trained field service representatives shall perform installation and maintenance during the warranty period.

Vendors are encouraged to include any offerings for service, warranty, and training that may exceed the minimum requirements, to include information on their service support structure during and after the warranty period. Vendors who do not include any added value offerings for service, warranty, and training will not be docked or excluded from consideration. However, any such offerings will be evaluated based on added value.

E. INFORMATION AND OTHER DOCUMENTATION REQUIRED

Please reference the "Instructions to Offers" section 2.8a-h for further information about the type of information to provide by equipment type not by specific request. Please also reference the "Instructions to Offers" section 7.3.3. for response format.

1. Completed pre-procurement assessment form (6550 Appendix A)
2. Completed Manufacture Disclosure Statement for Medical Device Security (MDS2) form
3. Federal Information Processing Standard (FIPS) 140-2 certification
4. Product brochures
5. Technical specification sheets, to include dimensions and weight of the system
6. Typical drawings (pdf version of the CAD drawings)
7. Technical training- Biomedical: information to include detailed information about the curriculum and length of the biomedical technical training required for each equipment type.
   - Although the NAC will not award this training along with the equipment, it is imperative that the customer is informed that this training is available. Vendors must demonstrate that they can provide any required off-site training, therefore off-site training should be quoted as an optional item. Off-site training will be purchased at the time of need via a modification (if the original

order remains open) or via a separate order. No travel expenses for any VA employees will be included in any HTME equipment or training order.

8. Support information to include your company's support structure during and after the warranty period
    - On-line or telephonic applications support and availability (include third party coverage)
    - A listing of field service engineer locations and availability
    - A listing of part depots

F. TRADE-IN

☒	a. VA has no trade-in units to offer.

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