ATOS Q 12M Scanner Specification
Specification # 25-23-6625

1. Abbreviated Description: The statement of work defines the requirements for one (1) ATOS Q 12M scanner, including shipping, rigging, installation, and training. All stated requirements are for a single system only. This project is classified as a "turnkey" system with the contractor being responsible for all costs and work associated with the installation unless otherwise stated. All software shall function offline. All installation shall be in person.

2. Base System Requirements: The base system for this requirement shall be one (1) GOM ATOS Q 12M measurement systems with a 7820 workstation. The sensor shall have one measuring volume of 500mm x 320mm and include the following features:

A. System: Feature blue light equalizers and triple scan principles operating with two 12-mega pixel measuring cameras providing 12-million PPS (points per scan) packed in a durable travel case. Each high-quality optical camera shall work independently capturing accurate 3D scans from left, right, and both cameras with high-resolution feature detail. Each scan shall be automatically aligned within the software.
B. Workstation: Complete Industrial Dell 7820 Workstation Controller with 24" TFT monitor: 64 Bit Intel Xeon 2 x 3.0 GHz 12-Core CPU, 128 GB RAM, NVIDIA Quadro P4000 8GB OpenGL, 1 TB SSD hard disk HDD, External USB system backup hard disk for incremental backups, keyboard, mouse, Windows 10 (64 bit) operating system.
C. Software: ATOS Q sensor driver with GOM Inspect Pro line. The software offers complete rapid 3D scanning, mesh editing, and parametric inspection. Other features include industry specific inspection features, creating measurement plans, templates, teaching by doing, trend analysis, GD&T, online tracking, reverse projection, and more.
D. Accessories: 10M cable, set of tools, uncoded targets, ATOS user manual, and certification of accuracy according to VDI/VDE 2634 Part 3. One-year all-inclusive hardware and software support. Installation with 3 days of onsite training by an Engineer.

3. Calibration Panels: The system shall come with a 270 mm x 200mm measuring volume calibration panel and a 170mm x 130mm measuring volume calibration panel.

4. ScanBox: The system shall come with a ScanBox 4105, an automated solution for small parts that combines accuracy and repeatability for increased throughput. It shall have the following:

A. Industrial robotic solution that integrates with an ATOS Core or Capsule or Q.
B. Engineered to scan parts with a max diameter of 500mm and max height of 500mm
C. Combined Robot/Rotation table module with robot and controller, additional driver with motor for 7th axis
D. Sensor adapter, D300 rotation table
E. Encapsulated housing with integrated workstation
F. Hardware and software for robot safety and communication
G. Documentation of the mechanical and electrical components, operating manual, and maintenance manual
H. VMR (Virtual Measurement Room) Software license

I. Delivery, installation, and two (2) days of start up support and initial operation of ATOS ScanBox 4105 by a technician.
J. One year of hardware and software support
K. ScanBox dimensions:1.6M width x 1.2M depth x 2.1M height.
L. The holding device for the ScanBox shall be removed.

5. Software: The system shall include a single seat of GOM Inspect Professional VMR software with one year of software support with updates. It shall have the following features:

A. Creation and processing of polygon meshes
B. Element construction
C. Alignment
D. Inspection
E. Stage management with timeline
F. Digital assembly
G. Report module
H. Workflow automation with GOM's parametric concept
I. Software module VMR - Virtual Measuring Room for automation

6. Power Kiosk Package: Shall be a Human Machine Interface (HMI) which provides graphics-based visualization for simplified interaction with Automated ATOS Inspection Systems. Kiosk shall automatically handle the complete measurement and inspection workflow providing easy-to-use shop floor operation eliminating the need for users to access Windows. Kiosk shall be easily job-task programmable for different departmental roles and can be configured for touch-screen operation. Installation shall be in person. Shall include a touch panel and Power KIOSK Mode Consulting with the following features:

A. Consulting and programming with a Capture 3D Automation Specialist
B. Provides programming for basic customization including custom project keywords for report pages and additional export formats, standard menu option exports (PDF and .ginspect are standard).
C. Bar Code Scanner - project templates automatically open
D. Provides comprehensive customization and automation of an entire measurement process, including mimicking a legacy workflow.
E. Topics included are:
  1. Custom export options. Previously created scripts integrated into Kiosk Interface.
  2. Communication with peripheral Ethernet based devices (printers, scales, network drives)
  3. RFID system integration (RFID device is not included)
  4. Approved user login IDs
  5. Instructions for loading parts
  6. Part images
  7. Web page for measured parts (results from post processed parts)
  8. Setup script (ensures a project template is ready to run in the Kiosk environment)

Enclosure A – Environmental Protections Requirements

1. Compliance with Environmental Laws and Regulations:
Contractor shall comply with all applicable federal, state, and local environmental laws, statutes, regulations, executive orders, permits, Army regulations (with supplements), as well as Major Subordinate Command (MSC) and installation regulation, policy, Host Tenant Agreement, Interagency Service Support Agreement, or Status-of-Forces Agreement. Contractor shall immediately report any conflicts between applicable federal, state, local environmental laws, statutes, executive orders, and provisions of Army Regulation 200-1, and any specifications within this contract to the Contracting Officer Representative (COR).

2. Compliance with Green Procurement Requirements:
Contractor shall follow Federal EPA Comprehensive Procurement guidelines (www.epa.gov/cpg) and Army Contracting Command Quick Guide (https://acc.aep.army.mil/accapps/ACCMAP/Documents/Quick-Guide-for-Sustainable-Procurement.docx) for acquisition of building materials and products and select materials that have a long life cycle; the least toxic materials; recyclable materials; materials that are resource-efficient; materials with the maximum recycled content; materials harvested on a sustained yield basis; and products causing the least pollution during their manufacture, use, and reuse.

3. Compliance with License and Certification Requirements:
Contractor shall obtain all license and certification required by Federal, State, and Local environmental laws and regulations necessary to adhere to the specifications of this contract. The Contractor shall submit all plans, notifications, reports, submittal documents, and fees required by Federal, State, and Local environmental laws and regulations to the appropriate Federal, State, and Local authority and/or agency as necessary to adhere to the specification of this contract. All required licenses and certifications required by Federal, State, and Local environmental laws and/or regulations shall be considered a contract deliverable upon award.

4. Notification of Federal and State Regulators:
Contractor shall immediately notify the Designated Government Representative (DGR) and COR of the arrival on site of any Federal, State, and/or DoD environmental regulator or enforcement agent and/or the receipt of any correspondence from a Federal or State environmental agency.

5. Inspections of Work Sites:
Contractor shall submit to potential Federal, State, Army and installation work site environmental regulatory inspections and/or investigations into noncompliance, and fully cooperate with such inspections/investigations by providing the appropriate records and documentation. Environmental regulatory agencies are authorized by law to inspect any work site for environmental compliance with regulatory requirements. If an inspection is conducted, it will not stop or disrupt ongoing contract activities. The inspection will only require the work site environmental officer, or supervisor/manager to answer questions and/or escort the inspector to specific work site areas with the potential to affect environmental quality.

6. Reporting Noncompliance:
Contractor shall immediately report any nonconformance and/or noncompliance with applicable Federal, State or Local environmental laws, Army and installation environmental regulations or policies to the COR and DGR.

7. Verification of National Environmental Policy Act Documents:
Contractor shall obtain from the COR or DGR, a copy of AMC's National Environmental Policy Act Policy and 32 CFR 651 which addresses actions to be taken by contractor. These documents include but is not limited to the analysis-associated decision document of an Environmental Impact Statement and Record of Decision; Environmental Assessment and Finding of No Significant Impact or Notice to Proceed; or Record of Environmental Consideration on the proposed contract actions prior to commencement of such actions.

8. Conformance with Environmental Management System:
Contractor shall take the necessary actions to identify, monitor, and control those contract operations and activities that pose risk of contamination, or can negatively impact the natural and/or human environment.

9. Assignment of Environmental Compliance Designee (ECD):
Contractor shall appoint an ECD for all contract work periods exceeding 180 consecutive days. Contractor shall appoint a primary and alternate ECD for each production, shop or work area that uses and/or stores hazardous materials and/or generates hazardous wastes. Contractor ECDs shall monitor implementation of all environmental regulatory requirements, report all environmental noncompliance to the work site supervisor, correct all environmental noncompliance, and verify implementation of directed actions to correct identified environmental noncompliance. Contractor shall have at least one ECD on duty at all times at each shop or work area. Contractor shall require all personnel designated as ECDs to complete the initial ECD training through the installation or Major Subordinate Command (MSC) environmental compliance point of contact within 15 days of the start of contract performance. Contractor personnel appointed as ECDs may perform other duties provided they do not prevent the performance of ECD duties. Contractors may request a waiver of this requirement through the COR and DGR, if using and/or storing very small quantities of hazardous materials.

10. Competency Training for Contractor Personnel:
Contractor shall not allow personnel to perform any activities and/or tasks on AMC installations without proper and adequate qualifications or job competency training. In the event of any identified noncompliance, the Contractor shall, if requested, provide proof of contract personnel training or qualification (individual name, training/qualification type, training/qualification certificate, and date of training/qualification) to perform those contract activities associated with the identified noncompliance.

11. Generation of Solid Waste:
Contractor shall remove from the installation and dispose of all solid waste generated, which cannot be recycled to an approved and permitted off-post disposal facility.

11.1. Contractor shall make every effort to divert construction, demolition debris, and all other solid waste to comply with the Army Integrated Solid Waste Management Policy.

11.2. The Contractor shall establish a program to promote cost-effective waste reduction in all operations and facilities covered by the contract. This includes collection, separation, and processing products or other materials recovered from solid waste streams for use in the form of raw materials.

11.3. The Contractor shall make maximum effort to reduce and prevent waste.

12. Segregation of Hazardous Waste:

A. All hazardous waste generated on this contract must be segregated and kept physically separate from any other waste items and materials. All wastes must be properly containerized and labeled. Waste containers are to be supplied by the Contractor and must be designed for the waste type being disposed of according to all Federal, State and Local laws. In the event the waste classification is unknown prior to containerization, the container must be marked "under analysis, treat as hazardous waste". All waste must be properly sampled and characterized at the Contractors expense, with copies of all analytical results submitted to the Environmental Department within 24 hours of receipt. Any waste characterized as Hazardous Waste must be properly labeled and will be stored at the WVA RCRA Storage Area.

B. All waste items must be so marked, that they are readily identified to this contract throughout the process. In addition, the contractor must ensure that there is a clear audit trail for all items until final treatment/disposal is accomplished.

C. The Contractor is responsible for proper disposal of all excess samples, they shall be added to the corresponding waste container.

12.1. Treatment of Hazardous Waste on Government Facility:

A. Treatment of hazardous waste (including solidification) on Government facilities is not permitted. Treatment is defined as any process which meets the definition of treatment as set forth in applicable local, state, and Federal (including 40 CFR 260.10) laws and regulations.

B. The contractor shall not drain and/or flush PCB items at Government installations. Draining will be allowed only to prevent leaking and to meet DOT regulations.

C. Treatment, disposal, or release of gas (other than inert) to the atmosphere on Government premises is not permitted by this contract. The contractor may perform gas extraction for other than inert gas cylinders at the pickup location using self-contained apparatus. This apparatus shall emit no gas into the atmosphere, and purge the entire cylinder contents into a closed receiver for transport to a recycling or disposal site.

12.2. Waste Disposal Requirements and Documentation:

A. The Contractor is responsible for the proper disposal of any Hazardous Waste generated during the project, in accordance with all applicable Federal, State, and Army regulations. Disposal shall only be through licensed/permitted Treatment Storage and Disposal Facilities (TSDF), utilizing properly permitted waste transporters. Waste profiles will be provided to

the WVA Environmental Office for review prior to the removal of any waste. All Hazardous Waste Manifests MUST be signed only by a representative of the WVA Environmental Office. The Contractor may NOT sign hazardous waste manifests on behalf of the Generator. Non-RCRA regulated (Non-Hazardous) waste will be properly disposed of by the Contractor, at the Contractor's expense. The contractor shall, without additional expense to the Government, be responsible for paying all fees, preparing or obtaining any necessary licenses, permits, notifications, waste profiles, or reports, which result from a contractor's transportation, recycling, or disposal decision of such wastes.

B. The Contractor shall pay any and all fees, surcharges, fines or civil penalties resulting from errant or illegal waste profiling, packaging, labeling, documentation, transport or disposal of any waste from the project. The Contractor shall contact the Environmental Department immediately upon learning of any of the above.

C. All references to manifests in this provision relate to the "appropriate shipping paper" as required. The Contractor shall obtain and prepare all manifests, required for acceptance of waste into a Qualified Facility, and any other shipping documents. The contractor shall provide the COR with a copy of the completed form(s), for review by the appropriate Government official **at least five (5) business days prior to removal**. Prior to removal from the site, completed copies of all manifests shall be furnished to the Environmental Office. Disposal receipts, weight slips and/or recycling receipts shall be submitted to the Environmental Office within 24 hours of receipt by Contractor. Each manifest, as well as all other documentation required herein, shall be clearly and distinctly marked with the generator and the contract and task order number, as applicable. Emergency response information and twenty-four hour emergency phone numbers shall be listed on the manifest as well. If blocks are not provided, this information shall be placed in the upper, right-hand corner of each document.

D. The contractor shall notify the Environmental Department at least **five (5) business days** BEFORE attempting analysis or pickups of any waste for disposal.

E. The Government reserves the right to take appropriate action, such as the pursuit of monetary consideration and/or annotation of negative past performance if the contractor fails to meet the above applicable notification of waste removal from the pick-up location.

F. Contractor may not ship waste outside of the United States to circumvent Environmental Protection Agency (EPA) land disposal restrictions.

13. <u>Use of Hazardous Materials:</u>

Contractor shall assign all hazardous materials management responsibilities to the appointed ECD. Contractor shall contact the DGR or COR to obtain technical assistance from Environmental Office for assisting the ECD with achieving and maintaining compliance with hazardous material storage, issue, use, and disposal requirements. Contractor shall submit to the COR and/or DGR a hazardous material inventory. The hazardous material inventory will be submitted 30 days prior to commencement of work for contracts that exceed 180 consecutive days. The inventory list will contain the hazardous material type and maximum quantities of materials anticipated to be stored on-site. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. The Contractor shall maintain copies of Safety Data Sheets for all hazardous materials used and stored on-site during performance of the contract. Contractor shall not supply or deliver

any hazardous materials or chemicals to an installation that are listed on EPA toxic chemical list without prior written approval from DGR and/or COR.

14. <u>Prevention of Storm Water Pollution:</u>

The Contractor shall perform, track, participate, implement, and comply with storm water pollution prevention minimum control measures, protocols, and best management practices (BMP) and ensure that water quality standards are not violated in accordance with all regulations and policies as applicable to the Pollutant Discharge Elimination System general permit requirements. Applicable permits include:

1) The Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activities (MSGP); and,
2) All Construction Activity Storm Water permits minimum control measures include, but not limited to:

- Public Education and Outreach on Storm Water Impacts
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Run-off Control
- Post Construction Storm Water Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations Contractors will comply with the MSGP permit when the activity is identified as a permitted industrial activity. BMPs include, but are not limited to:
- Practicing spill prevention and good housekeeping.
- Installing and managing erosion and sediment control.
- Contractors will obtain permit coverage for construction activities disturbing over one acre of land (total acreage is cumulative across all portions of the project). BMPs include, but are not limited to:
- Preparing and implementing a site-specific Storm Water Pollution Prevention Plan (SWPPP) as outlined in the permit and prior to any soil disturbance.
- Installing and managing erosion and sediment control.
- Make available, upon request, permit associated documentation.
- Practicing spill prevention and good housekeeping.
- Schedule inspections and provide corrective actions for noted deficiencies.

15. <u>Storm Water Management Low Impact Design/Development (LID):</u>

The Contractor shall perform, track, participate, implement, and comply with Section 438 of the Energy Independence and Security Act; Executive Order 13514; and the DOA memorandum (2010) for full implementation of low impact design/development (LID) techniques to restore predevelopment hydrology to the maximum extent technically feasible for both new and renovation construction projects regardless of size. In support of LID, Contractors will adhere to installation landscape codes and the guidance found in the Installation Design Guide concerning

Low Impact Design/Development for storm water management. The following LID practices include, but are not limited to:

- Restoring predevelopment hydrology to the maximum extent technically feasible
- Promoting natural removal of pollutants such as nutrients, oil and grease, and sediments from storm water
- Managing rainfall at the point where it falls
- Meeting the requirements of the MS4 permit
- Important Note: Utilization of permanent retention/detention ponds is prohibited without authorization from the Installation Planning Division.

16. Protection of Work Site Resources:

Contractor shall confine all activities to areas defined by the drawings and specifications. Prior to the beginning of any work, the Contractor shall identify any land resources to be preserved within the work area. Except in areas indicated on the drawings or specified to be cleared, the Contractor shall not remove, cut, deface, injure, or destroy land resources including trees, shrubs, vines, grasses, topsoil, and landforms. The Contractor shall provide effective protection for land and vegetative resources at all times. Prior to site clearing and grubbing, the Contractor shall coordinate harvesting of saleable timber with the DGR and/or COR. Contractor shall notify the DGR and/or COR if any trees are required to be disposed or removed. The Contractor is not authorized to remove or dispose of any tree greater than 6 inches in diameter unless permission has been granted in writing by the DGR or COR.

17. Prevention of Spills:

Contractor shall adopt the installation's Spill Prevention Control and Countermeasures Plan (SPCC) if transporting, processing, storing, or in any way managing hazardous waste, hazardous material, petroleum-oils-lubricants, or other restricted items. In case of a spill, the person in control of the spill site or their designated representative shall take appropriate action to protect workers and bystanders; contain the spill (if it can be done safely); secure the spill site; restrict ignition sources; and immediately contact the installation Fire and Emergency Services (Fire Department).

18. Protection of Sensitive Areas:

Contractor shall comply with all installation designated sensitive and/or off-limit area restrictions. Sensitive areas are generally demarked indicating what activities (e.g., driving, digging, foot traffic) are prohibited. The Contractor shall also adhere to the following installation sensitive areas requirements:

18.1. Cultural Resources Sites:

Do not excavate, remove, damage, or otherwise deface any archeological resource located on public lands.

19. Corrective Action for Noncompliance:

Contractor shall when given a verbal and/or written notice of environmental noncompliance or nonconformance by the COR, take immediate corrective action. Failure or refusal to comply promptly may be grounds for the Contracting Officer to invoke the appropriate contractual

remedies. This may cause all or part of the work to be stopped immediately until satisfactory corrective action has been taken.

20. Noise:
Make the maximum use of low-noise emission products, as certified by the EPA. Blasting or use of explosives will not be permitted without written permission from the Contracting Officer, and then only during the designated times. Pile-driving operations shall be coordinated through the DGR and COR.

21. Mercury:
Mercury is prohibited, unless specified otherwise, and with the exception of mercury vapor lamps and fluorescent lamps. Dumping of mercury-containing materials and devices such as mercury vapor lamps, fluorescent lamps, and mercury switches, in rubbish containers is prohibited. Remove without breaking, pack to prevent breakage, and transport out of the activity in an unbroken condition for disposal as directed. Immediately report to the DGR and COR instances of breakage or mercury spillage. Clean mercury spill area to the satisfaction of the Contracting Officer. Cleanup of a mercury spill shall not be recycled and shall be managed as a hazardous waste for disposal.

22. Universal Waste / e-Waste Management:
Universal waste and e-wastes including but not limited to some mercury containing building products such florescent lamps, mercury vapor lamps, high pressure sodium lamps, CRTs, batteries, aerosol paint containers, electrical equipment containing PCBs, and consumed electronic devices, shall be managed in accordance with applicable environmental law and installation instructions.

23. Pollution Prevention / Hazardous Waste Minimization:
Minimize the use of hazardous materials and the generation of hazardous waste. Consult with the Environmental Office for suggestions and to obtain a copy of the installation's pollution prevention/hazardous waste minimization plan for supporting waste minimization goals.