

Statement of Work – 12 GeV Vacuum Vessel Assembly  
115070-1005S Rev. A

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**1.0 SCOPE**

1.1 Purpose

This Statement of Work (SOW) defines the requirements for the fabrication of Vacuum Vessel Assemblies that will provide support for the cryounits.

1.2 Deliverables to JLAB

1.2.1 Assembled Vacuum Vessels in accordance with JLAB drawing 115500-1001E. Delivery of 1 assembly within 6 months of award and 1 more within 3 months of the first. There is an intention to purchase an additional 2 per year (pending funding) for a total of 12.

1.2.2 Material data sheets in the form of Certified Mill Test reports (CMTRs).

1.3 Vendor Furnished Materials, Services and Equipment

1.3.1 All raw and finished parts and materials.

1.3.2 All consumables, machinery, tools & facilities used in the course of manufacturing.

1.3.3 All labor, including materials associated with the labor, such as data sheets processing and Quality Control Sheets.

1.3.4 The Seller shall submit an outline of the schedule for producing the first Vacuum Vessel Assembly.

**2.0 APPLICABLE DOCUMENTS**

The following drawings, specifications, and standards form an integral part of this SOW. They have been copied, reduced and appended for this text.

2.1 Dimensional Control Drawing Baseline Design

No material substitutions for changes in fit or form are allowed without the specific written authorization of JLAB

2.1.1 Vacuum Vessel Assembly 115500-1001E rev. A

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2.2 Reference Drawings

To be used for planning and drawing control purposes only.

None.

2.3 JLAB Government Furnished Material

The following drawings delineate material to be furnished by JLAB.

None.

2.4 Specifications

The following JLAB specifications are an integral part of this Statement of Work.

2.4.1 Welding Specification for UHV Components 22633-S-001 Rev A

2.4.2. Stainless Steel Cleaning and Handling 11141S0034 Rev -

2.4.3 Fabrication of UHV Equipment 22631-S-001 Rev B

2.4.4 QA Specification 91790-S-200 Rev A

2.4.5 Vacuum Leak Test 11141S0033 Rev A (Paragraph 4.4 not required)

2.5 Standards

The following standards form an integral part of this SOW.

2.5.1 ASTM Standards for materials as called out on the applicable drawings.

**3.0 REQUIREMENTS**

3.1 Inspection

Visual inspection shall show that the Vacuum Vessel is structurally sound and free of scale, cracks, splits, caps, inclusion porosity or any defect which could be considered a source of structural failure. All welding shall be in accordance with the above specifications.

3.2 Conflicts

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Any and all conflicts about the drawings are to be brought to the attention of JLAB for resolution prior to the commencement or continuation of work. Under no circumstances is the Seller to take any initiation without this resolution.

3.3 Weld Qualifications

All welders shall be qualified to the ASME B & PV Code, section IX. In addition to the standard ASME procedure qualifications, a qualification weld shall be cold shocked at the weld with liquid nitrogen (LN<sub>2</sub>) prior to the required ASME testing.

3.4 Marking

All parts shall be inscribed with sequential traceable numbers. The Seller shall maintain records traceable to the CMTRs. The System and details for these requirements shall be disclosed at the time of submitting the proposal.

3.5 Materials

The materials shall be as specified in the drawings.

**4.0 QUALITY ASSURANCE**

4.1 Quality Assurance Requirements

4.1.1 The Seller shall prepare a quality assurance program for the Buyer's approval and shall furnish such documentation as the Buyer may require. The Seller shall conduct quality control procedures and tests, which will guarantee that the product to be furnished by the Seller hereunder is in full conformance with these specifications.

4.1.2 The consistent quality of the items defined by the specification is to be ensured by a continuing surveillance program that shall be carried on by the Seller for the full term of the work associated with these specifications.

4.1.3 This program shall contain (when applicable) the mechanism for:

- a. Inspection of all materials received from the Seller's suppliers and subcontractors and the recording of this information.
- b. Obtaining and recording of all material certifications and analyses.
- c. The calibration and identification of standards and instrumentation used; the intervals between calibrations are also to be defined.

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- d. Establishment of inspection points during the production process, which will measure critical parameters.
- e. The recording of all inspection data in such a manner so that the history of an item can be readily traced.
- f. The submittal to the Buyer of all data related to the above.

N.B. The Buyer shall have unannounced access to the Seller's plant, during regular business hours, for the purpose of conducting Quality Assurance Audits.

**5.0 PREPARATION FOR DELIVERY**

5.1.1 The Seller shall prepare a production schedule, which shall meet the delivery dates specified in the order, for the Buyer's approval and shall supply 5 copies thereof to the Buyer.

5.1.2 Upon approval of the schedule by the Buyer, the Seller shall meet the approved schedules.

5.1.3 The Seller shall assign to the work sufficient forces, plant and equipment, as may be necessary, to insure prosecution of the work and delivery.

5.2 Shipping Requirements

The Seller shall ship the specified equipment properly packed, to ensure that damage is not incurred during shipment, in accordance with transportation industry standards.

5.2.1 Packaging

Packaging shall be such as to properly support and contain the equipment and further protect against the elements. Sizing shall be such that handling is facilitated and weight limitations imposed by the transportation industry can readily be met.