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Title	Design, Fabrication and Supply of Torus Cryo Pump Housing (TCPH) with Bellows and Other Loose items
Sub-title	MANDATORY APPENDIX : II-TCPH-APB3_14 MOCK-UP REQUIREMENTS

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	Mandatory Appendix Appendix-II-TCPH-APB3_14 Mock Up Requirements	INDUS Ref. No. R34VABP
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1. SCOPE

This appendix covers the requirements for Mock Up activities. Bidder may propose to add extra requirements based on criticality. Mock-up shall remain the property of the Bidder after successful completion and acceptance by ITER-India.

2. MOCK-UP REQUIREMENTS:

I-I recommends typical mock-up of at least half equipment (from Cryopump Flange) to established for manufacturing. Bidder may propose to add extra requirements based on criticality.

- 1) Material for Mock-up shall be of ASME Grade 304 or 304 L or dual mark 304/304L.
- 2) Tolerance shall be target based on requirement as per assembly drawings
CR_LC_TCP_HOUSING_TYPE_A_DET.
- 3) End Plate shall be closed to ensure Helium Leak test and NDE feasibility.
- 4) Welding and NDE finalization for all weld configurations including end plate.
- 5) Handling feasibility of component.

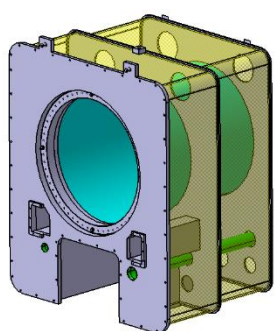


Figure 2 Proposed Mock Up

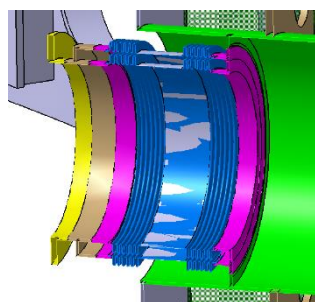



Figure 1 Bellow Flange Welding & NDE Configuration

3. OBJECTIVE OF MOCK-UP

- 1) Finalization of suitable Weld Edge Preparation, NDE procedures and its feasibility for implementation on Job along with identification of Production Proof Sample if any.
- 2) Establish the methodology for Helium Leak Testing of welds (Local) and if possible by closing a section to accomplish Global Leak test.
- 3) Finalize and Establishment of manufacturing sequence.
- 4) Establishment of dimension measurement methodology along with achievement of relevant tolerance.
- 5) Implementation and Demonstration of document methodology in compliance with Quality Plan/Quality Management system of performing organization.

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4. DOCUMENTATION REQUIREMENT:

1. All Applicable documents for Mock-Up shall be prepared separately.
2. Detailed Mock-Up report shall be submitted to I-I containing details of methodologies, sketches and observations.
3. Bidder shall report any discrepancy and Non-Conformity or design change requirement observed during mock-up.