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| Traveler Title | Field Probe Port Fabrication Traveler |
| Traveler Abstract | Outlines the inspection and fabrication steps for the Field Probe Port Assembly for the EIC 197MHz Crab Cavity |
| Traveler ID | EIC197-FAB-FPPA-ASSY1 |
| Traveler Revision  | R1 |
| Traveler Author | BLUMER |
| Traveler Date | 9-Jul-24 |
| NCR Informative Emails | AREILLY,GEORGED,GROSE,KDAVIS |
| NCR Dispositioners | BLUMER,BUTTLES,HUQUE |
| D3 Emails | AREILLY,GEORGED,GROSE,KDAVIS,BLUMER,BUTTLES,HUQUE |
| Approval Names | J. COX | G. GROSE | J. BUTTLES | N. HUQUE |
| Approval Signatures |  |  |  |  |
| Approval Dates |  |  |  |  |
| Approval Title | Author | Reviewer | Group Leader | Project Manager |

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| References | List and Hyperlink all documents related to this traveler. This includes, but is not limited to: safety (THAs, SOPs, etc), drawings, procedures, and facility related documents. |
| [JL0119121](https://misportal.jlab.org/jlabDocs/documents/175657/download) | [JL0150085](https://misportal.jlab.org/jlabDocs/documents/185430/download) | [JL0139908](https://misportal.jlab.org/jlabDocs/documents/175651/download) | [JL0140270](https://misportal.jlab.org/jlabDocs/documents/175650/download) | [11141-S-0033](https://misportal.jlab.org/jlabDocs/documents/70285/download) |
| [FieldProbePortFabricationPlan](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-287594/Field%20Probe%20Port%20Fabrication%20Plan.pptx)  | [EIC-BPS-JL0140270](https://misportal.jlab.org/jlabDocs/documents/201698/download) | [CP-AUP-CAV-CHEM-ACID](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260914/CP-AUP-CAV-CHEM-ACID-R2%282%29.pdf) |  |  |
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| Revision Note |  |
| R1 | Initial release of this Traveler. |

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| Step No. | Instructions | Data Input |
| PART IDENTIFICATION |
| 0 | Enter Serial Number of Finished Part

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| **STEPS** | **WORK CENTER AREAS** | **ACTIONS** |
| 1 | INSP | Initial Dimensional Inspection  |
| 2 | CHEM | BCP and DEGR |
| 3-4 | FURN | Heat Treat and Braze |
| 5 | INSP | Verify **perpendicularity** |
| 6 | MACHSHOP | Slug Removal |
| 7 | CMA | Leak Check |
| 8 | TR | Shipping and PR |

 | [[FPPASN]] <<SN>> |

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| Step No. | Instructions | Data Input |
| DIMENSIONAL INSPECTION |
| 1 | Verify dimensions in red on [JL0119121](https://misportal.jlab.org/jlabDocs/documents/175657/download) (END GROUP 1 PICK UP PORT FLANGE)Enter serial number of flange Upload inspection report | [[PUPFSN]] <<SN>>[[InsTech]] <<SRF>>[[InsTime]] <<TIMESTAMP>>[[InsComm]] <<COMMENT>>[[InsFile]] <<FILEUPLOAD>> |
| Verify dimensions in red on [JL0150085](https://misportal.jlab.org/jlabDocs/documents/185430/download) (BRAZE TESTING 3.375 FLANGE SLUG)Upload inspection report | [[InsTech2]] <<SRF>>[[InsTime2]] <<TIMESTAMP>>[[InsComm2]] <<COMMENT>>[[InsFile2]] <<FILEUPLOAD>> |
| Verify dimensions in red on [JL0139908](https://misportal.jlab.org/jlabDocs/documents/175651/download) (END GROUP 1 PICK UP TUBE)Enter serial number of tubeUpload inspection report | [[PUTSN]] <<SN>>[[InsTech3]] <<SRF>>[[InsTime3]] <<TIMESTAMP>>[[InsComm3]] <<COMMENT>>[[InsFile3]] <<FILEUPLOAD>> |

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| Step No. | Instructions | Data Input |
| CHEMISTRY |
| 2a | Degrease [JL0119121](https://misportal.jlab.org/jlabDocs/documents/175657/download), [JL0150085](https://misportal.jlab.org/jlabDocs/documents/185430/download) and [JL0139908](https://misportal.jlab.org/jlabDocs/documents/175651/download)According to [CP-AUP-CAV-CHEM-ACID](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260914/CP-AUP-CAV-CHEM-ACID-R2%282%29.pdf) Acid Etching ProceedureUpload any relevant photos and/or comments | [[ChemTech]] <<SRFCVP>>[[ChemTime]] <<TIMESTAMP>>[[ChemComm]] <<COMMENT>>[[ChemFile]] <<FILEUPLOAD>> |
| 2b | BCP to a depth of 15 microns [JL0119121](https://misportal.jlab.org/jlabDocs/documents/175657/download), [JL0150085](https://misportal.jlab.org/jlabDocs/documents/185430/download) and [JL0139908](https://misportal.jlab.org/jlabDocs/documents/175651/download)According to [CP-AUP-CAV-CHEM-ACID](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260914/CP-AUP-CAV-CHEM-ACID-R2%282%29.pdf) Acid Etching Proceedure | [[ChemTech2]] <<SRFCVP>>[[ChemTime2]] <<TIMESTAMP>>[[ChemComm2]] <<COMMENT>>[[ChemFile2]] <<FILEUPLOAD>> |

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| Step No. | Instructions | Data Input |
| FURNACE |
| 3 | Heat Treat JL0119121 2 hours at 950C [JL0119121](https://misportal.jlab.org/jlabDocs/documents/175657/download)Heat Treat JL0150085 2 hours at 950C [JL0150085](https://misportal.jlab.org/jlabDocs/documents/185430/download)Upload relevant photos and/or comments | [[BrazeTech]] <<SRF>>[[BrazeComm]] <<COMMENT>>[[BrazeFile]] <<FILEUPLOAD>> |
| 4 | Braze as per JLab [EIC-BPS-JL0140270](https://misportal.jlab.org/jlabDocs/documents/201698/download)Enter serial number of brazementEngrave serial number on the OD of the brazement flange: JL0140270-A-### Upload relevant photos and/or comments | [[FPPASN2]] <<SN>>[[BrazeTech2]] <<SRF>>[[BrazeComm2]] <<COMMENT>>[[BrazeFile2]] <<FILEUPLOAD>> |

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| Step No. | Instructions | Data Input |
| **DIMENSIONAL INSPECTION** |
| **5** | **Verify perpendicularity on** [JL0140270](https://misportal.jlab.org/jlabDocs/documents/175650/download)**Upload inspection report** | [[InsTech4]] <<SRF>>[[InsTime4]] <<TIMESTAMP>>[[InsComm4]] <<COMMENT>>[[InsFile4]] <<FILEUPLOAD>>[[InsMail]] {{BLUMER}} <<EMAIL>>[[InsMail]] {{Pansophy: Field Probe Port Assy has finished preliminary inspection.}} <<EMAILSUBJ>> |

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| Step No. | Instructions | Data Input |
| MACHINING |
| 6 | Remove slug and machine tube to final ID as per [JL0140270](https://misportal.jlab.org/jlabDocs/documents/175650/download)Include job number.  | [[MachTech]] <<SRF>>[[MachTime]] <<TIMESTAMP>>[[MachJobNumber]] <<INTEGER>>[[MachComm]] <<COMMENT>> |

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| **Step No** | **Instructions** | **Data Inputs** |
| LEAK CHECK |
| 7 | Leak check the assembly in accordance with [11141-S-0033](https://misportal.jlab.org/jlabDocs/documents/70285/download) Vendor Standard Helium Leak Check ProcedureUpload any relevant images/comments | [[VacTech]] <<SRF>>[[VacTime]] <<TIMESTAMP>>[[VacPass]] <<YESNO>>[[VacComm]] <<COMMENT>>[[VacFile]] <<FILEUPLOAD>>[[VacMail]] {{BLUMER}} <<EMAIL>>[[VacMail]] {{Pansophy: Field Probe Port Assy has finished preliminary leak check.}} <<EMAILSUBJ>> |

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| **Step No** | **Instructions** | **Data Inputs** |
| TECHNICAL REPRESENTATIVE |
| 8 | Enter SRF OPS Shipping form number and Purchase Requisition number for ultrasonic testing. | [[TechRep]] <<SRF>>[[ShippingFormNumber]] <<INTEGER>>[[PurchaseRequestNumber]] <<INTEGER>> |