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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(2).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   |  |  |  | | --- | --- | --- | | **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 tube  Upload 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(2).pdf) Acid Etching Proceedure  Upload 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(2).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 brazement  Engrave 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 Procedure  Upload 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>> |