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| Traveler Title | Dog Bone Field Probe Fabrication Traveler |
| Traveler Abstract | Outlines the inspection and fabrication steps for the Dog Bone Field Probe Assembly for the EIC 197MHz Crab Cavity Prototype |
| Traveler ID | EIC197-FAB-FPWA-ASSY |
| Traveler Revision  | R1 |
| Traveler Author | JACQUESB |
| Traveler Date | 28-Aug-24 |
| NCR Informative Emails | AREILLY, GEORGED, MOSBY, KDAVIS |
| NCR Dispositioners | HUQUE, JACQUESB, BUTTLES |
| D3 Emails | HUQUE, JACQUESB, BUTTLES, KDAVIS, GEORGED, MOSBY, AREILLY |
| Approval Names | J. BARSIMANTOV | A. O'BRIEN | 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. |
| [JL0132256](https://misportal.jlab.org/jlabDocs/documents/186505/download) | [JL0140270](https://misportal.jlab.org/jlabDocs/documents/175650/download) | [JL0146295](https://misportal.jlab.org/jlabDocs/documents/183865/download) | [JL0140269](https://misportal.jlab.org/jlabDocs/documents/175540/download) | [11141-S-0033](https://misportal.jlab.org/jlabDocs/documents/70285/download) |
| [Fabrication Plan](https://jeffersonlab.sharepoint.com/%3Ap%3A/r/sites/EICPartnerProject-TJNAF/Accelerator/RF%20Systems/Cryomodules/197%20MHz%20DVC/Cavity%20Fabrication%20Files/Fabrication%20Plans/Dogbone%20Field%20Probe%20Fabrication%20Plan.pptx?d=we2f77b80a09a4c9db5787a243e2a8fea&csf=1&web=1&e=jXJ27c) |  |  |  |  |
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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 | MACHSHOP | Part creation |
| 2 | CHEM | DEGR |
| 3 | INSP | CMM |
| 4 | CHEM | BCP |
| 5 | EBW | EBW |
| 6 | CMA | Leak Check |
| 7 | CHEM | DEGR |
| 8 | INSP | CMM |

 | [[FPWASN]] << FPWASN >> |

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| Step No. | Instructions | Data Input |
| MACHINING |
| 1 | Include job number.  | [[MachTech]] <<SRF>>[[MachTime]] <<TIMESTAMP>>[[MachJobNumber]] <<INTEGER>>[[MachComm]] <<COMMENT>> |

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| Step No. | Instructions | Data Input |
| CHEMISTRY |
| 2 | Degrease [JL0132256](https://misportal.jlab.org/jlabDocs/documents/186505/download)Upload any relevant photos and/or comments | [[ChemTech1]] <<SRF>>[[ChemTime1]] <<TIMESTAMP>>[[ChemComm1]] <<COMMENT>>[[ChemFile1]] <<FILEUPLOAD>> |

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| Step No. | Instructions | Data Input |
| DIMENSIONAL INSPECTION |
| 3 | Verify dimensions in red. May use any surface as datum | [[SurfaceInspTech1]] <<SRF>>[[SurfaceInspDate1]] <<TIMESTAMP>>[[SurfaceInspComment1]] <<COMMENT>>[[SurfaceInspFile1]] <<FILEUPLOAD>> |

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| Step No. | Instructions | Data Input |
| CHEMISTRY |
| 4 | BCP weld region to a depth of 15 microns [JL0132256](https://misportal.jlab.org/jlabDocs/documents/186505/download)What is your Weld Region? Chem will need to know.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>> |
| BCP weld region to a depth of 15 microns [JL0140270](https://misportal.jlab.org/jlabDocs/documents/175650/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 | [[ChemTech3]] <<SRFCVP>>[[ChemTime3]] <<TIMESTAMP>>[[ChemComm3]] <<COMMENT>>[[ChemFile3]] <<FILEUPLOAD>> |

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| Step No. | Instructions | Data Input |
| EBW |
| 5 | Using fixture [JL0146295](https://misportal.jlab.org/jlabDocs/documents/183865/download), EBW [JL0146295](https://misportal.jlab.org/jlabDocs/documents/183865/download) to [JL0132256](https://misportal.jlab.org/jlabDocs/documents/186505/download) to create part [JL0140269](https://misportal.jlab.org/jlabDocs/documents/175540/download) | [[PUGWSN]] << PUGWSN >>[[InsTech1]] <<SRF>>[[InsTime1]] <<TIMESTAMP>>[[InsComm1]] <<COMMENT>>[[InsFile1]] <<FILEUPLOAD>> |

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| **Step No** | **Instructions** | **Data Inputs** |
| LEAK CHECK |
| 6 | Leak check the assembly [JL0140269](https://misportal.jlab.org/jlabDocs/documents/175540/download) 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]] {{jacquesb}} <<EMAIL>>[[VacMail]] {{Leak check on [JL0140269](https://misportal.jlab.org/jlabDocs/documents/175540/download) has finished}} <<EMAILSUBJ>> |

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| Step No. | Instructions | Data Input |
| CHEMISTRY |
| 7 | Degrease [JL0140269](https://misportal.jlab.org/jlabDocs/documents/175540/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 | [[ChemTech4]] <<SRF>>[[ChemTime4]] <<TIMESTAMP>>[[ChemComm4]] <<COMMENT>>[[ChemFile4]] <<FILEUPLOAD>> |

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| Step No. | Instructions | Data Input |
| CMM |
| 8a | Verify parallelism of flange with respect to datum B  | [[ParallelismInspTech2]] <<SRF>>[[ParallelismInspDate2]] <<TIMESTAMP>>[[ParallelismInspComment2]] <<COMMENT>>[[ParallelismInspFile2]] <<FILEUPLOAD>> |
| 8b | Verify perpendicularism of flange with respect to datum A | [[PerpendicularismInspTech3]] <<SRF>>[[PerpendicularismInspDate3]] <<TIMESTAMP>>[[PerpendicularismInspComment3]] <<COMMENT>>[[PerpendicularismInspFile3]] <<FILEUPLOAD>> |
| 8c | Verify locations of holes of flange | [[FlangeInspTech4]] <<SRF>>[[FlangeInspDate4]] <<TIMESTAMP>>[[FlangeInspComment4]] <<COMMENT>>[[FlangeInspFile4]] <<FILEUPLOAD>> |

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| **Step No** | **Instructions** | **Data Inputs** |
| TECHNICAL REPRESENTATIVE |
| 9 | Enter SRF OPS Shipping form number and Purchase Requisition number for ultrasonic testing. | [[TechRep]] <<SRF>>[[ShippingFormNumber]] <<INTEGER>>[[PurchaseRequestNumber]] <<INTEGER>> |