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| Traveler Title | Horizontal HOM Damper Fabrication |
| Traveler Abstract | This traveler defines the steps for fabricating HHOMs for the AUP RFD Cavity |
| Traveler ID | AUPPS-FAB-HHOM-ASSY |
| Traveler Revision  | R2 |
| Traveler Author | N. HUQUE |
| Traveler Date | 9-Aug-22 |
| NCR Informative Emails | AREILLY,AOBRIEN,SCOTT,MCEWEN,WILDESON |
| NCR Dispositioners | HUQUE,DOBRENZ |
| D3 Emails | HUQUE,DOBRENZ,AREILLY,AOBRIEN,SCOTT,MCEWEN,WILDESON |
| Approval Names | Naeem Huque | Adam OBrien | Scott Williams | Tony Reilly |
| Approval Signatures |  |  |  |  |
| Approval Dates |  |  |  |  |
| Approval Title | Author | Reviewer | Reviewer | Department Head |

|  |  |
| --- | --- |
| 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. |
| [**11141S0029**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260915/11141S0029_Rev_B%281%29.pdf) | [**AUP-PR-LEAK-CMA-LN2**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260916/AUP-PR-LEAK-CMA-LN2-R1%282%29.pdf) | [**CP-AUP-CAV-CHEM-ACID**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260914/CP-AUP-CAV-CHEM-ACID-R2%282%29.pdf) | [**CP-AUP-CAV-CHEM-DEGR**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260913/CP-AUP-CAV-CHEM-DEGR-R2%282%29.pdf) | [**HHOM\_Qualification\_Procedure**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260920/HHOM_Qualification_Procedure_V2%282%29.docx) |
| [**JL0083868**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260892/JL0083868_A_HOM%20TEE.pdf) | [**JL0086007**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260893/JL0086007_B_AUP%20RFD%20HOM%20DAMPER.pdf) | [**JL0086009**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260894/JL0086009_A_HOMS%20H%20EXTERNAL%20PIPE.pdf) | [**JL0086010**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260895/JL0086010_A_NIOBIUM%20CAN%20LID.pdf) | [**JL0086021**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260878/JL0086021_B_HHOM%20NB%20HOOK.pdf) |
| [**JL0086025**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260879/JL0086025_C_HHOM%20FLANGE%20DN100.pdf) | [**JL0086026**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260880/JL0086026_A_HHOM%20INNER%20TUBE.pdf) | [**JL0088266**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260881/JL0088266_A_HOOK%20AND%20TEE%20WELDMENT.pdf) | [**JL0088271**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260882/JL0088271_C_OUTER%20CAN%20LID.pdf) | [**JL0088272**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260883/JL0088272_A_DN100%20MACHINING.pdf) |
| [**JL0088274**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260884/JL0088274_A_DN100%20BRAZE%20ASSY.pdf) | [**JL0088326**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260885/JL0088326_B_NIOBIUM%20CAN%20LID.pdf) | [**JL0088328**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260886/JL0088328_A_NIOBIUM%20LID%20BRAZING%20ASSY.pdf) | [**JL0088598**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260887/JL0088598_A_OUTLET%20TUBE.pdf) | [**JL0088600**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260888/JL0088600_B_NIOBIUM%20CAN%20LID%20MACHINIG%20ASSY.pdf) |
| [**JL0088602**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260889/JL0088602_A_INNER%20CAN%20ASSY.pdf) | [**JL0093253**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260890/JL0093253_B_AUP%20RFD%20CAVITY%20DAMPER%20ASSY.pdf) | [**JL0115790**](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-260891/JL0115790_B_HHOM%20DAMPER%20SHIPPING%20ARRANGEMENT.pdf) | AUP-PR-ASSY-DAMP-FPREP-RF |  |

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| Revision Note |  |
| R1 | Initial release of this Traveler. |
| R2 | Changed HHOOKSN to HOOKSN, incorrect acronym |

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| Step No. | Instructions | Data Input |
|  | Serial Number of top assembly | [[HHOMSN]] <<HHOMSN>> |
| PART INSPECTION |
| 1a | Serial number of JL0086021 – Hook | [[HOOKSN]] <<HOOKSN>> |
| 1b | Upload Material Certificates, along with any relevant photos and/or comments | [[Doc1Tech]] <<SRF>>[[Doc1Time]] <<TIMESTAMP>>[[Doc1Comm]] <<COMMENT>>[[Doc1File]] <<FILEUPLOAD>> |
| 1c | Machine the component as per drawing JL0086021.Upload any relevant photos and/or comments | [[Mach1Tech]] <<SRF>>[[Mach1Time]] <<TIMESTAMP>>[[Mach1Comm]] <<COMMENT>>[[Mach1File]] <<FILEUPLOAD>> |
| 1d | Verify dimensions on JL0086021Upload inspection report along with any relevant photos and/or comments. | [[CMM1Tech]] <<SRF>>[[CMM1Time]] <<TIMESTAMP>>[[CMM1Comm]] <<COMMENT>>[[CMM1File]] <<FILEUPLOAD>> |
| 1e | Acid-Etch JL0086021 30 microns as per CP-AUP-CAV-CHEM-ACID. Upload report | [[BCP1Tech]] <<SRF>>[[BCP1Time]] <<TIMESTAMP>>[[BCP1Comm]] <<COMMENT>>[[BCP1File]] <<FILEUPLOAD>> |
|  |  |  |
| 2a | Serial number of JL0083868 – Tee | [[TEESN]] <<TEESN>> |
| 2b | Upload Material Certificates, along with any relevant photos and/or comments | [[Doc2Tech]] <<SRF>>[[Doc2Time]] <<TIMESTAMP>>[[Doc2Comm]] <<COMMENT>>[[Doc2File]] <<FILEUPLOAD>> |
| 2c | Machine the component as per drawing JL0083868.Upload any relevant photos and/or comments | [[Mach2Tech]] <<SRF>>[[Mach2Time]] <<TIMESTAMP>>[[Mach2Comm]] <<COMMENT>>[[Mach2File]] <<FILEUPLOAD>> |
| 2d | Verify dimensions on JL0083868Upload inspection report along with any relevant photos and/or comments. | [[CMM2Tech]] <<SRF>>[[CMM2Time]] <<TIMESTAMP>>[[CMM2Comm]] <<COMMENT>>[[CMM2File]] <<FILEUPLOAD>> |
| 2e | Acid-Etch JL0083868 30 microns as per CP-AUP-CAV-CHEM-ACID. Upload report.  | [[BCP2Tech]] <<SRF>>[[BCP2Time]] <<TIMESTAMP>>[[BCP2Comm]] <<COMMENT>>[[BCP2File]] <<FILEUPLOAD>> |
|  |  |  |
| 3a | Serial number of JL0088326 – Nb Can Lid | [[NBLIDSN]] <<NBLIDSN>> |
| 3b | Upload Material Certificates, along with any relevant photos and/or comments | [[Doc3Tech]] <<SRF>>[[Doc3Time]] <<TIMESTAMP>>[[Doc3Comm]] <<COMMENT>>[[Doc3File]] <<FILEUPLOAD>> |
| 3c | Machine the component as per drawing JL0088326.Upload any relevant photos and/or comments | [[Mach3Tech]] <<SRF>>[[Mach3Time]] <<TIMESTAMP>>[[Mach3Comm]] <<COMMENT>>[[Mach3File]] <<FILEUPLOAD>> |
| 3d | Verify dimensions on JL0088326Upload inspection report along with any relevant photos and/or comments. | [[CMM3Tech]] <<SRF>>[[CMM3Time]] <<TIMESTAMP>>[[CMM3Comm]] <<COMMENT>>[[CMM3File]] <<FILEUPLOAD>> |
| 3e | Acid-Etch JL0088326 30 microns as per CP-AUP-CAV-CHEM-ACID. Upload report | [[BCP3Tech]] <<SRF>>[[BCP3Time]] <<TIMESTAMP>>[[BCP3Comm]] <<COMMENT>>[[BCP3File]] <<FILEUPLOAD>> |
|  |  |  |
| 4a | Serial number of JL0088271 – Outer Can Lid | [[OLIDSN]] <<OLIDSN>> |
| 4b | Upload Material Certificates, along with any relevant photos and/or comments | [[Doc4Tech]] <<SRF>>[[Doc4Time]] <<TIMESTAMP>>[[Doc4Comm]] <<COMMENT>>[[Doc4File]] <<FILEUPLOAD>> |
| 4c | Machine the component as per drawing JL0088271.Upload any relevant photos and/or comments | [[Mach4Tech]] <<SRF>>[[Mach4Time]] <<TIMESTAMP>>[[Mach4Comm]] <<COMMENT>>[[Mach4File]] <<FILEUPLOAD>> |
| 4d | Verify dimensions on JL0088271Upload inspection report along with any relevant photos and/or comments. | [[CMM4Tech]] <<SRF>>[[CMM4Time]] <<TIMESTAMP>>[[CMM4Comm]] <<COMMENT>>[[CMM4File]] <<FILEUPLOAD>> |

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| BRAZING |
|  | Serial Number of Lid Assembly – JL0088328 | [[LDBRZSN]] <<LDBRZSN>> |
| 5a | Fabricate sacrificial SS slugs for machining | [[Mach5Tech]] <<SRF>>[[Mach5Time]] <<TIMESTAMP>>[[Mach5Comm]] <<COMMENT>>[[Mach5File]] <<FILEUPLOAD>> |
| 5b | Degrease and Acid-Etch components of JL0088328 as per CP-AUP-CAV-CHEM-ACID and CP-AUP-CAV-CHEM-DEGR | [[Chem1Tech]] <<SRF>>[[Chem1Time]] <<TIMESTAMP>>[[Chem1Comm]] <<COMMENT>>[[Chem1File]] <<FILEUPLOAD>> |
| 5c | Braze assembly as per JL0088328. Upload brazing report and photos. Include any applicable comments | [[Brz1Tech]] <<SRF>>[[Brz1Time]] <<TIMESTAMP>>[[Brz1Comm]] <<COMMENT>>[[Brz1File]] <<FILEUPLOAD>> |
| 5d | Visual Inspection after Brazing. Upload visual inspection report | [[Vis1Tech]] <<SRF>>[[Vis1Time]] <<TIMESTAMP>>[[Vis1Comm]] <<COMMENT>>[[Vis1File]] <<FILEUPLOAD>> |
| 5e | Leak Test the assembly as per 11141S0029. Upload leak test report (PS-7 form) | [[Leak1Tech]] <<SRF>>[[Leak1Time]] <<TIMESTAMP>>[[Leak1Comm]] <<COMMENT>>[[Leak1File]] <<FILEUPLOAD>> |
| 5f | Inform SRF Inventory that the assembly location is the Machine Shop. Machine out the sacrificial SS slugs. Upload images of finished parts and any other notable features | [[Mach6Tech]] <<SRF>>[[Mach6Time]] <<TIMESTAMP>>[[Mach6Comm]] <<COMMENT>>[[Mach6File]] <<FILEUPLOAD>> |
| 5g | Inform SRF Inventory that the assembly will be shipped to the testing vendor. Perform Ultrasonic Testing of the braze. Upload test report. Does the braze pass? | [[UT1Tech]] <<SRF>>[[UT1Time]] <<TIMESTAMP>>[[UT1Comm]] <<COMMENT>>[[UT1File]] <<FILEUPLOAD>>[[UT1Pass]] <<YESNO>> |
| 5h | Verify dimensions on JL0088328Upload inspection report along with any relevant photos and/or comments. | [[CMM5Tech]] <<SRF>>[[CMM5Time]] <<TIMESTAMP>>[[CMM5Comm]] <<COMMENT>>[[CMM5File]] <<FILEUPLOAD>> |
| 6a | Inform SRF Inventory that the assembly location is the Machine Shop. Machine the assembly as per JL0088600. Upload images of finished parts and any other notable features | [[Mach7Tech]] <<SRF>>[[Mach7Time]] <<TIMESTAMP>>[[Mach7Comm]] <<COMMENT>>[[Mach7File]] <<FILEUPLOAD>> |
| 6b | Verify dimensions on JL0088600Upload inspection report along with any relevant photos and/or comments. | [[CMM6Tech]] <<SRF>>[[CMM6Time]] <<TIMESTAMP>>[[CMM6Comm]] <<COMMENT>>[[CMM6File]] <<FILEUPLOAD>> |
| 6c | Engrave JL0088600-XXX on the OD of the Stainless Steel cylinder, where XXX is the last three digist of the corresponding HHOMSN |  |
| 6d | Return the assembly to the SRF Inventory |  |

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| PART INSPECTION |
| 7a | Serial number of JL0086026 – Inner Tube | [[ITUBESN]] <<ITUBESN>> |
| 7b | Upload Material Certificates, along with any relevant photos and/or comments | [[Doc5Tech]] <<SRF>>[[Doc5Time]] <<TIMESTAMP>>[[Doc5Comm]] <<COMMENT>>[[Doc5File]] <<FILEUPLOAD>> |
| 7c | Machine the component as per drawing JL0086026.Upload any relevant photos and/or comments | [[Mach8Tech]] <<SRF>>[[Mach8Time]] <<TIMESTAMP>>[[Mach8Comm]] <<COMMENT>>[[Mach8File]] <<FILEUPLOAD>> |
| 7d | Acid-Etch JL0086026 30 microns as per CP-AUP-CAV-CHEM-ACID. Upload report | [[BCP4Tech]] <<SRF>>[[BCP4Time]] <<TIMESTAMP>>[[BCP4Comm]] <<COMMENT>>[[BCP4File]] <<FILEUPLOAD>> |
| 7e | Verify dimensions on JL0086026Upload inspection report along with any relevant photos and/or comments. | [[CMM7Tech]] <<SRF>>[[CMM7Time]] <<TIMESTAMP>>[[CMM7Comm]] <<COMMENT>>[[CMM7File]] <<FILEUPLOAD>> |
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| 8a | Serial number of JL0086025 – Flange DN100 | [[DN100SN]] <<DN100SN>> |
| 8b | Upload Material Certificates, along with any relevant photos and/or comments | [[Doc6Tech]] <<SRF>>[[Doc6Time]] <<TIMESTAMP>>[[Doc6Comm]] <<COMMENT>>[[Doc6File]] <<FILEUPLOAD>> |
| 8c | Machine the component as per drawing JL0086025.Upload any relevant photos and/or comments | [[Mach9Tech]] <<SRF>>[[Mach9Time]] <<TIMESTAMP>>[[Mach9Comm]] <<COMMENT>>[[Mach9File]] <<FILEUPLOAD>> |
| 8d | Verify dimensions on JL0086025Upload inspection report along with any relevant photos and/or comments. | [[CMM8Tech]] <<SRF>>[[CMM8Time]] <<TIMESTAMP>>[[CMM8Comm]] <<COMMENT>>[[CMM8File]] <<FILEUPLOAD>> |

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| BRAZING |
|  | Serial Number of JL0088274 – DN100 Braze Assembly | [[DNBRZSN]] <<DNBRZSN>> |
| 9a | Fabricate sacrificial SS slugs for machining | [[Mach10Tech]] <<SRF>>[[Mach10Time]] <<TIMESTAMP>>[[Mach10Comm]] <<COMMENT>>[[Mach10File]] <<FILEUPLOAD>> |
| 9b | Degrease and Acid-Etch components of JL0088274 as per CP-AUP-CAV-CHEM-ACID and CP-AUP-CAV-CHEM-DEGR | [[Chem2Tech]] <<SRF>>[[Chem2Time]] <<TIMESTAMP>>[[Chem2Comm]] <<COMMENT>>[[Chem2File]] <<FILEUPLOAD>> |
| 9c | Braze assembly as per JL0088274. Upload brazing report and photos. Include any applicable comments | [[Brz2Tech]] <<SRF>>[[Brz2Time]] <<TIMESTAMP>>[[Brz2Comm]] <<COMMENT>>[[Brz2File]] <<FILEUPLOAD>> |
| 9d | Visual Inspection after Brazing. Upload visual inspection report | [[Vis2Tech]] <<SRF>>[[Vis2Time]] <<TIMESTAMP>>[[Vis2Comm]] <<COMMENT>>[[Vis2File]] <<FILEUPLOAD>> |
| 9e | Leak Test the assembly as per 11141S0029. Upload leak test report (PS-7 form) | [[Leak2Tech]] <<SRF>>[[Leak2Time]] <<TIMESTAMP>>[[Leak2Comm]] <<COMMENT>>[[Leak2File]] <<FILEUPLOAD>> |
| 9f | Inform SRF Inventory that the assembly location is the Machine Shop. Machine out the sacrificial SS slugs. Upload images of finished parts and any other notable features | [[Mach11Tech]] <<SRF>>[[Mach11Time]] <<TIMESTAMP>>[[Mach11Comm]] <<COMMENT>>[[Mach11File]] <<FILEUPLOAD>> |
| 9g | Inform SRF Inventory that the assembly will be shipped to the testing vendor. Perform Ultrasonic Testing of the braze. Upload test report. Does the braze pass? | [[UT2Tech]] <<SRF>>[[UT2Time]] <<TIMESTAMP>>[[UT2Comm]] <<COMMENT>>[[UT2File]] <<FILEUPLOAD>>[[UT2Pass]] <<YESNO>> |
| 9h | Verify dimensions on JL0088274Upload inspection report along with any relevant photos and/or comments. | [[CMM9Tech]] <<SRF>>[[CMM9Time]] <<TIMESTAMP>>[[CMM9Comm]] <<COMMENT>>[[CMM9File]] <<FILEUPLOAD>> |
| 10a | Inform SRF Inventory that the assembly location is the Machine Shop. Machine the assembly as per JL0088272. Upload images of finished parts and any other notable features | [[Mach12Tech]] <<SRF>>[[Mach12Time]] <<TIMESTAMP>>[[Mach12Comm]] <<COMMENT>>[[Mach12File]] <<FILEUPLOAD>> |
| 10b | Verify dimensions on JL0088272Upload inspection report along with any relevant photos and/or comments. | [[CMM10Tech]] <<SRF>>[[CMM10Time]] <<TIMESTAMP>>[[CMM10Comm]] <<COMMENT>>[[CMM10File]] <<FILEUPLOAD>> |
| 10c | Sand off the JL0086025-XXX serial number from the flange OD |  |
| 10d | Return the assembly to the SRF Inventory |  |

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| EBW |
|  | Inform SRF Inventory that the assembly location is EBW (HHOMSN) |  |
| 11a | Degrease and Acid-Etch components of JL0088266 as per CP-AUP-CAV-CHEM-ACID and CP-AUP-CAV-CHEM-DEGR. Upload BCP report. | [[Chem3Tech]] <<SRF>>[[Chem3Time]] <<TIMESTAMP>>[[Chem3Comm]] <<COMMENT>>[[Chem3File]] <<FILEUPLOAD>> |
| 11b | EB weld as per JL0088266 (W010/W020). Upload images | [[EBW1Tech]] <<SRF>>[[EBW1Time]] <<TIMESTAMP>>[[EBW1Comm]] <<COMMENT>>[[EBW1File]] <<FILEUPLOAD>> |
| 11c | Visual Inspection after EBW. Upload visual inspection report | [[Vis3Tech]] <<SRF>>[[Vis3Time]] <<TIMESTAMP>>[[Vis3Comm]] <<COMMENT>>[[Vis3File]] <<FILEUPLOAD>> |
| 11d | Leak Test the assembly as per 11141S0029. Upload leak test report (PS-7 form) | [[Leak3Tech]] <<SRF>>[[Leak3Time]] <<TIMESTAMP>>[[Leak3Comm]] <<COMMENT>>[[Leak3File]] <<FILEUPLOAD>> |
| 11e | Verify dimensions on JL0088266Upload inspection report along with any relevant photos and/or comments. | [[CMM11Tech]] <<SRF>>[[CMM11Time]] <<TIMESTAMP>>[[CMM11Comm]] <<COMMENT>>[[CMM11File]] <<FILEUPLOAD>> |

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| EBW |
|  | Inform SRF Inventory that the assembly location is EBW (HHOMSN) |  |
| 12a | Degrease and Acid-Etch (EBW Prep) components of JL0088602 as per CP-AUP-CAV-CHEM-ACID and CP-AUP-CAV-CHEM-DEGR. Upload BCP report. | [[Chem5Tech]] <<SRF>>[[Chem5Time]] <<TIMESTAMP>>[[Chem5Comm]] <<COMMENT>>[[Chem5File]] <<FILEUPLOAD>> |
| 12b | EB weld as per JL0088602 (W030). Upload images | [[EBW2Tech]] <<SRF>>[[EBW2Time]] <<TIMESTAMP>>[[EBW2Comm]] <<COMMENT>>[[EBW2File]] <<FILEUPLOAD>> |
| 12c | Visual Inspection after EBW. Upload visual inspection report | [[Vis4Tech]] <<SRF>>[[Vis4Time]] <<TIMESTAMP>>[[Vis4Comm]] <<COMMENT>>[[Vis4File]] <<FILEUPLOAD>> |
| 12d | Leak Test the assembly as per 11141S0029. Upload leak test report (PS-7 form) | [[Leak4Tech]] <<SRF>>[[Leak4Time]] <<TIMESTAMP>>[[Leak4Comm]] <<COMMENT>>[[Leak4File]] <<FILEUPLOAD>> |
| 12e | Verify dimensions on JL0088602Upload inspection report along with any relevant photos and/or comments. | [[CMM12Tech]] <<SRF>>[[CMM12Time]] <<TIMESTAMP>>[[CMM12Comm]] <<COMMENT>>[[CMM12File]] <<FILEUPLOAD>> |
| 12f | Sand off the JL0088272-XXX serial number from the flange OD |  |
| 12g | Inform SRF Inventory that the assembly will be shipped out to the testing vendor. Perform Radiographic testing on JL0088602 EB welds (W030). Upload RT report and films | [[RTTech]] <<SRF>>[[RTTime]] <<TIMESTAMP>>[[RTComm]] <<COMMENT>>[[RTFile]] <<FILEUPLOAD>> |
| 12h | Return the assembly to the SRF Inventory |  |

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| PART INSPECTION |
| 13a | Serial number of JL0086009 – HHOM External Pipe | [[EXPIPSN]] <<EXPIPSN>> |
| 13b | Upload Material Certificates, along with any relevant photos and/or comments | [[Doc7Tech]] <<SRF>>[[Doc7Time]] <<TIMESTAMP>>[[Doc7Comm]] <<COMMENT>>[[Doc7File]] <<FILEUPLOAD>> |
| 13c | Machine the component as per drawing JL0086009.Upload any relevant photos and/or comments | [[Mach13Tech]] <<SRF>>[[Mach13Time]] <<TIMESTAMP>>[[Mach13Comm]] <<COMMENT>>[[Mach13File]] <<FILEUPLOAD>> |
| 13d | Verify dimensions on JL0086009Upload inspection report along with any relevant photos and/or comments. | [[CMM13Tech]] <<SRF>>[[CMM13Time]] <<TIMESTAMP>>[[CMM13Comm]] <<COMMENT>>[[CMM13File]] <<FILEUPLOAD>> |
|  |  |  |
| 14a | Serial number of JL0088598 – Outlet Tube | [[OTUBESN]] <<OTUBESN>> |
| 14b | Upload Material Certificates, along with any relevant photos and/or comments | [[Doc8Tech]] <<SRF>>[[Doc8Time]] <<TIMESTAMP>>[[Doc8Comm]] <<COMMENT>>[[Doc8File]] <<FILEUPLOAD>> |
| 14c | Machine the component as per drawing JL0088598.Upload any relevant photos and/or comments | [[Mach14Tech]] <<SRF>>[[Mach14Time]] <<TIMESTAMP>>[[Mach14Comm]] <<COMMENT>>[[Mach14File]] <<FILEUPLOAD>> |
| 14d | Verify dimensions on JL0088598.Upload inspection report along with any relevant photos and/or comments. | [[CMM14Tech]] <<SRF>>[[CMM14Time]] <<TIMESTAMP>>[[CMM14Comm]] <<COMMENT>>[[CMM14File]] <<FILEUPLOAD>> |

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| ASSEMBLY |
|  | Inform SRF Inventory that the assembly location is Cryomodule Assembly |  |
| 15a | Clean JL0088602 and components of JL0086007 as per CP-AUP-CAV-CHEM-DEGR | [[Chem6Tech]] <<SRF>>[[Chem6Time]] <<TIMESTAMP>>[[Chem6Comm]] <<COMMENT>>[[Chem6File]] <<FILEUPLOAD>> |
| 15b | TIG Weld as per JL0086007 (W010/W020/W030) | [[TIGTech]] <<SRF>>[[TIGTime]] <<TIMESTAMP>>[[TIGComm]] <<COMMENT>>[[TIGFile]] <<FILEUPLOAD>> |
| 15c | Visual Inspection after EBW. Upload visual inspection report | [[Vis5Tech]] <<SRF>>[[Vis5Time]] <<TIMESTAMP>>[[Vis5Comm]] <<COMMENT>>[[Vis5File]] <<FILEUPLOAD>> |
| 15d | Pressure test the Stainless Steel space to 38 psig. Upload pressure test report (PS-7 form). | [[PT1Tech]] <<SRF>>[[PT1Time]] <<TIMESTAMP>>[[PT1Comm]] <<COMMENT>>[[PT1File]] <<FILEUPLOAD>> |
| 15e | Leak Test the Stainless Steel space as per 11141S0029. Upload leak test report (PS-7 form) | [[Leak5Tech]] <<SRF>>[[Leak5Time]] <<TIMESTAMP>>[[Leak5Comm]] <<COMMENT>>[[Leak5File]] <<FILEUPLOAD>> |
| 15f | Pressure test the Niobium space to 38 psig. Upload pressure test report (PS-7 form). | [[PT2Tech]] <<SRF>>[[PT2Time]] <<TIMESTAMP>>[[PT2Comm]] <<COMMENT>>[[PT2File]] <<FILEUPLOAD>> |
| 15g | Leak Test the Niobium space as per 11141S0029. Upload leak test report (PS-7 form) | [[Leak6Tech]] <<SRF>>[[Leak6Time]] <<TIMESTAMP>>[[Leak6Comm]] <<COMMENT>>[[Leak6File]] <<FILEUPLOAD>> |
| 15h | Verify dimensions on JL0086007.Upload inspection report along with any relevant photos and/or comments. | [[CMM15Tech]] <<SRF>>[[CMM15Time]] <<TIMESTAMP>>[[CMM15Comm]] <<COMMENT>>[[CMM15File]] <<FILEUPLOAD>> |

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| RF TESTING AND FINAL ASSEMBLY |
|  | Inform SRF Inventory that the assembly location is Structures Lab |  |
| 16a | Assemble JL0086007 and JL0124776 as per JL0093253 | [[Assy1Tech]] <<SRF>>[[Assy1Time]] <<TIMESTAMP>>[[Assy1Comm]] <<COMMENT>>[[Assy1File]] <<FILEUPLOAD>> |
| 16b | Install the assembly on the RF Test Box and measure the notch as per JL0059276-RF. Upload the test file.Are the results acceptable? | [[RFTech]] <<SRF>>[[RFTime]] <<TIMESTAMP>>[[RFComm1]] <<COMMENT>>[[RFTest]] <<FILEUPLOAD>>[[RFOk]] <<YESNO>> |
| 16c | Send the test results to CERN and AUP for concurrence that the assembly has met RF requirements | [[RFHold]] {{huque}} <<HOLDPOINT>> |
| 16d | Disassemble JL0093253 | [[Assy2Tech]] <<SRF>>[[Assy2Time]] <<TIMESTAMP>>[[Assy2Comm]] <<COMMENT>>[[Assy2File]] <<FILEUPLOAD>> |

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|  | Inform SRF Inventory that the assembly location is Chemistry |  |
| 16e | Degrease and Chemical Polish the **Niobium Space** of JL0086007 to a depth of 30µm as per CP-AUP-CAV-CHEM-ACID. Degrease the **Stainless Steel Space** as per CP-AUP-CAV-CHEM-DEGRUpload any relevant photos and/or comments | [[BCP5Tech]] <<SRF>>[[BCP5Time]] <<TIMESTAMP>>[[BCP5Comm]] <<COMMENT>>[[BCP5File]] <<FILEUPLOAD>> |
| 16f | Degrease the HHOM Feedthrough (JL0124776) as per CP-STP-CAV-CHEM-DEGR | [[Chem7Tech]] <<SRF>>[[Chem7Time]] <<TIMESTAMP>>[[Chem7Comm]] <<COMMENT>>[[Chem7File]] <<FILEUPLOAD>> |
| 16g | Degrease JL0115808, JL0114065 and the hardware shown in JL0115790 as per CP-STP-CAV-CHEM-DEGR | [[Chem8Tech]] <<SRF>>[[Chem8Time]] <<TIMESTAMP>>[[Chem8Comm]] <<COMMENT>>[[Chem8File]] <<FILEUPLOAD>> |
| 16h | Assemble the following parts in the cleanroom as per JL0093253 and JL0115790:JL0086007JL0093243JL0115808JL0114065MDC-110025 (6” CF Blank Flange) | [[Assy3Tech]] <<SRF>>[[Assy3Time]] <<TIMESTAMP>>[[Assy3Comm]] <<COMMENT>>[[Assy3File]] <<FILEUPLOAD>> |
| 16i | Leak Test the Niobium space as per 11141S0029. Upload leak test report (PS-7 form) | [[Leak7Tech]] <<SRF>>[[Leak7Time]] <<TIMESTAMP>>[[Leak7Comm]] <<COMMENT>>[[Leak7File]] <<FILEUPLOAD>> |
| 16j | Inform FNAL and CERN that the leak check has been completed | [[LCHold]] {{huque}} <<HOLDPOINT>> |
| 16k | Install the assembly into the shipping crate and return to inventory | [[ShipTech]] <<SRF>>[[ShipTime]] <<TIMESTAMP>>[[ShipComm]] <<COMMENT>>[[ShipFile]] <<FILEUPLOAD>> |