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| Traveler Title | C75 Pair Components Preparation | | | |
| Traveler Abstract | This document captures the degreasing and flange etching of serialized C75 components, other than a cavity, in preparation for a pair build. | | | |
| Traveler ID | C75-CHEM-COMP-DEGR | | | |
| Traveler Revision | R2 | | | |
| Traveler Author | Ashley Mitchell | | | |
| Traveler Date | 3-Nov-20 | | | |
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| Approval Dates |  |  |  |  |
| Approval Title | Author | Reviewer | 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. | | | |
| [CP-STP-CAV-CHEM-DEGR-R3](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-132364/CP-STP-CAV-CHEM-DEGR-R3.pdf)  Standard Cavity, Components, or Parts Degreasing Procedure | [CP-C75-CAV-BCP-ER](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-150777/CP-C75-CAV-BCP-ER-R1.pdf)  BCP Etch Rate measurement | [CP-STP-CAV-CHEM-BAKE](https://jlabdoc.jlab.org/docushare/dsweb/ServicesLib/Document-212608/Routing) | CP-C75-CPR-DEGR-HOM |  |
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| Revision Note |  |
|  | Initial release of this Traveler. |
| R1 | Updated Step 1 |
| R2 | Added more components, made data fields more unique |

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| Step No. | Instructions | Data Input |
| 1 | Select component type and Serial Number | [[C75PairComponent]] {{INAD,ENDD,HOME,HOML,DGLG,FPFT,HOM,VALVE}} <<SELECT>>  [[INADSN]] <<INADSN>>  [[ENDDSN]] <<ENDDSN>>  [[HOMESN]] <<HOMESN>>  [[HOMLSN]] <<HOMLSN>>  [[DGLGSN]] <<DGLGSN>>  [[FPFTSN]] <<FPFTSN>>  [[HOMSN]] <<HOMSN>>  [[VALVESN]] <<HOMSN>>  <<NOTE: Please have the serial number show in the drop down list “DropSN” like R1>> |
| 2 | Inspect the component, particularly the flanges and select whether defects are found. Add comments and upload any necessary photos or files. If it does not pass inspection submit an NCR. | [[PreInspectionOK]] <<YESNO>>  [[PreInspectedBy]] <<SRF>>  [[TimeAndDatePreInspection]] <<TIMESTAMP>>  [[PreInspectionComment]] <<COMMENT>>  [[PreInspectionDocs]] <<FILEUPLOAD>> |
| 3 | Has the component been degreased?  Record Process, Operator, and Date/Time.  Add comments and upload any necessary photos or files. | [[Degreased/USC]] <<CHECKBOX>>  [[DegreaseTech]] <<SRF>>  [[TimeAndDateDegr]] <<TIMESTAMP>>  [[DegreaseComment]] <<COMMENT>>  [[DegreaseFile]] <<FILEUPLOAD>> |

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| **Step No** | **Instructions** | **Data Inputs** |
| 4 | Do the flanges need to be etched by BCP?  Enter Operator and Date/Time of completion  Select whether the old acid mixture was used or a new one was mixed for this process.  Enter the date the acid mixture was prepared.  Measure the etch rate of the BCP 1:1:1 solution to be used at **15-17 C**. If the etch rate is **< 3 microns /min** for BCP 1:1:1 the acid should not be used and a fresh solution should be mixed.  Enter the temperature of the acid during etch rate test [it should be between 15-17 C (59-63 F)].  Enter the average value of the etch rate from the measurement by weight loss.  Enter the etch rate measured by thickness reduction.  If the etch rate values determined by both methods differ by more than 20%, the measurement should be repeated.  Click in the box to calculate the etching time to remove 25 microns.  Etch each flange for the calculated duration as per “C75 flange BCP” procedure. Check the acid temperature before etching each flange to assure it is maintained below 20 C (68 F).  Please indicate which flanges have been etched by BCP, if not all of them. | [[BCP]] <<CHECKBOX>>  [[OperatorBCP]] <<SRF>>  [[TimeAndDateBCP]] <<TIMESTAMP>>  [[BCPState]] {{Old,Fresh}} <<RADIO>>  [[BCPAcidDate]] <<TIMESTAMP>>  [[AcidTemperature]] <<FLOAT>> C  [[Etch\_Rate\_Weight]] <<FLOAT>> microns/min  [[Etch\_Rate\_Thickness]] <<FLOAT>> microns/min  [[AvgEtchRate: Please add code to calculate average etch rate = (EtchRateWeight + EtchRateThickness)/2. Please limit to 1st decimal value]] << NOTE>>  [[Etch\_Rate\_Meas\_Tech]] <<SRFCVP>>  [[EtchTime]] <<FLOAT>> min  [[25/(AvgEtchRate). Please limit to 1st decimal value]] <<NOTE>>  [[Flange\_BCP\_Comment4]] <<COMMENT>> |

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| **Step No** | **Instructions** | **Data Inputs** |
| 5 | Select if Q-tip HF cleaning, Stainless Steel etch, Nitric, or any other acid was applied to the flanges.  Specify in the Comment box to which flanges each process was applied to. | [[HF]] <<CHECKBOX>>  [[S/S]] <<CHECKBOX>>  [[NitricSoak] <<CHECKBOX>>  [[OtherAcid]] <<COMMENT>>  [[Flange\_Acid\_Comment]] <<COMMENT>>  [[OtherAcidTech]] <<SRF>>  [[TimeAndDate\_OtherAcid]] <<TIMESTAMP>> |
| 6 | Select if the component has been baked according to the nitrogen oven baking procedure | [[Baked]] <<CHECKBOX>>  [[BakeTech]] <<SRF>>  [[BakeTimeAndDate]] <<TIMESTAMP>>  [[BakeComment]] <<COMMENT>> |
| 7 | Perform a final inspection of the flanges.  Add comments and upload any necessary photos or files. If it does not pass inspection submit an NCR. | [[FinalInspectionOK]] <<YESNO>>  [[FinalInspectionTech]] <<SRF>>  [[FinalInspection\_TimeAndDate]] <<TIMESTAMP>>  [[Final\_Inspection\_Comment]] <<COMMENT>>  [[FinalInspection\_File]] <<FILEUPLOAD>> |
| 8 | Final Location of component | [[Cleanroom]] <<YESNO>> |