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| Traveler Title | P100 Cavity String Evacution and Leak Check |
| Traveler Abstract | This traveler collects the data for starting a slowpumpdown on the P100 string and the data collection of string pumpdown and leak check. |
| Traveler ID | P1-CST-EVAC-LEAK |
| Traveler Revision  | R1 |
| Traveler Author | C. Dreyfuss |
| Traveler Date | 8-Sep-20 |
| NCR Informative Emails | T. Ganey |
| NCR Dispositioners | T. Ganey |
| D3 Emails | T. Ganey |
| Approval Names | C. Dreyfuss | D. Forehand | T. GAney |  |
| Approval Signatures |  |  |  |  |
| 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. |
| [Clean Room Slow Pump Cart Procedure](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-136323/CP-L2PRD-CLN-PUMP.docx) | [Leak testing with an RGA procedure](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-27678/CP-C100-CAV-LKTS.pdf) |  |  |  |
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| Revision Note |  |
| R1 | Initial release of this Traveler. |

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| Step No. | Instructions | Data Input |
| 1 | At this point the cavity string is fully assembled and torqued and ready for the slow pump-down and leak check. * Record cavity string serial number.
* Ensure turbo pump cart is bled up and nitrogen is shut off so N2 is not purging into the string while attaching string to pump cart.
* Remove the temporary blank off the right angle valve of the cavity string. Spray with ionized nitrogen until inside of valve until the particle counter reads all zeros.
* Remove 2 ¾ blank from the turbo pump cart and wipe the lip of the bellows on the down pipe with an alcohol soaked wipe.
* Using clean vacuum practices, to connect the turbo pump cart to the cavity string.
* Install two bolts and nuts and snug down. Ensure the copper 2 ¾ gasket is correctly in place. Install the rest of the bolts and evenly tighten down the flange.
 | [[CSTSN]] <<CAVSN>>[[Technician]] <<SRFCVP>>[[Technician]] <<SRFCVP>>[[Comment1]] <<COMMENT>> |
| 2 | **Pump Down of Cavity String:*** Follow the slow pump down procedure to evacuate the cavity. [Clean Room Slow Pump Cart Procedure](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-136323/CP-L2PRD-CLN-PUMP.docx)
* Record the day/time of the pump down start.
 | [[Technician]] <<SRFCVP>>[[PumpdownStartTime]] <<TIMESTAMP>>[[PumpDwn]] <<FILEUPLOAD>> |
|  | **Cavity String Leak Check**:* Ensure cavity string is bagged, should have nine bags for leak checking.
* After cavity string has reached 1.4E-06Mbar start the RGA filament.
* After cavity string is at 2.0E-07Mbar start the elctron multiplier, and after you can see the calibrated leak rates you can leak test cavity string.
* Spray Helium into each bag waiting ten minutes between bags.
* There shall be no detectable leak on any joints. If cavity string is leaking in a bag continue to spray helium so we can see the amount of leak rate.
* After the ten minutes purge the leaking bag with N2 and wait for your scan to level back out and then move on to next bag.
* After you have leaked check all nine bags if there are any leaks inform the supervisor for further instruction.
* After a leak tight leak check set up RGA for an analog scan looking at mass 2 thru 100.
* Upload Analog scan and Meta file.
* Leak tight string is ready to roll into garage door and turned over to Cryomodule group.
 | [[Technician]] <<SRFCVP>>[[CavityMETA]] <<FILEUPLOAD>>[[Cavity AnlogScan]] <<FILEUPLOAD>> [[FieldName]] <<COMMENT>>[[Bag1Start]] <<TIMESTAMP>>[[Bag2Start]] <<TIMESTAMP>>[[Bag3Start]] <<TIMESTAMP>>[[Bag4Start]] <<TIMESTAMP>>[[Bag5Start]] <<TIMESTAMP>>[[Bag6Start]] <<TIMESTAMP>>[[Bag7Start]] <<TIMESTAMP>>[[Bag8Start]] <<TIMESTAMP>>[[Bag9Start]] <<TIMESTAMP>>[[FieldName]] <<TIMESTAMP>>[[FieldName]] <<COMMENT>>[[LeakTight]] <<YESNO>> |