|  |  |
| --- | --- |
| Traveler Title | C100R Cavity Field Probe Feedthrough Inspection Traveler |
| Traveler Abstract | This traveler covers the necessary steps to perform incoming inspection on C100R cavity field probe feedthroughs. Incoming inspection includes visual, dimensional, leak test (in a separate traveler), and cold shock (in a separate traveler). |
| Traveler ID | C100R-INSP-FPFT |
| Traveler Revision  | R2 |
| Traveler Author | L. Zhao |
| Traveler Date | 26-Jun-24 |
| NCR Informative Emails | areilly,overtonr |
| NCR Dispositioners | lzhao,forehand,ganey |
| D3 Emails | lzhao,forehand,ganey,areilly,overtonr |
| Approval Names | Liang Zhao | Aaron DeKerlegand | Anne McEwen | Tony Reilly |
| Approval Signatures |  |  |  |  |
| Approval Dates |  |  |  |  |
| Approval Title | Author | Reviewer 1 | Reviewer 2 | Project Representitive |

|  |  |
| --- | --- |
| 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. |
| [C100R Field Probe Modification](https://jlabdoc.jlab.org/docushare/dsweb/Get/Document-286029/C100R%20Field%20Probe%20Modification%20R18982619703843440141.pdf)  |  |  |  |  |

|  |  |
| --- | --- |
| Revision Note |  |
| R1 | Initial release of this Traveler. |
| R2 | Responding to latest field probe purchase practice. Drawing link in References updated. Dimensional check added. Leak test and cold shock are moved to separate travelers. |

|  |  |  |
| --- | --- | --- |
| Step No. | Instructions | Data Input |
| 1 | Visual inspectionEnter the field probe feedthrough serial number from the dropdown menu.Enter the inspector name and date.Visually inspect the feedthrough for:* Cleanliness – should be free of dust, oil, finger prints, or brazing irregularities;
* Sealing surface – should be smooth, free of scratches, burrs, or nicks;
* Ceramic – should be free of cracks and excess of braze material;
* Probe – should be free of scratches or stain.

Bolt pattern, connector, and pin checks:* Put the feedthrough up to a cavity mating flange and ensure the bolt pattern is correct.
* Make sure the N-Type electrical connections have no damage or are not loose.

Provide comments and pictures if needed. Generate NCR if the part does not pass visual inspection. | [[FPFTSN]] <<FPFTSN>>[[VisualInspectionName]] <<SRF>>[[VisualInspectionTime]] <<TIMESTAMP>>[[PassVisual]] <<YESNO>>[[VisualInspectionComments]]<<COMMENT>>[[VisualPhoto]] <<FILEUPLOAD>> |
| 2 | Dimensional checksEnter inspector name and date.Check the following dimensions of feedthrough using CMM, appropriate gauges, or other designated tools. C:\Users\lzhao\Downloads\C100R Field Probe Modification_1.JPG C:\Users\lzhao\Downloads\C100R Field Probe Modification_6.JPG | [[DimInspectionName]] <<SRF>>[[DimInspectionTime]] <<TIMESTAMP>> |
|  | Description | Specified Dimensions (unit in inches) |  |
|  | Flange seal surface to probe tip | 1.090 ± .005 | [[Dim\_seal\_to\_tip]] <<FLOAT>> |
|  | Probe tip diameter | 0.137 ± .005 | [Dim\_probe\_dia]] <<FLOAT>> |
|  | Provide comments and pictures if any | [[DimPass]] <<YESNO>> [[DimInspectionComments]]<<COMMENT>>[[DimPhoto]] <<FILEUPLOAD>> |
| 3 | Pre-cold shock leak checkPerform leak check use traveler C100R-CMA-FPFT-LEAK-R1 |  |
| 4 | Cold Shock the feedthrough. Perform in the VTA – use traveler C100R-VTA-FPFT-CSHK-R1 |  |
| 5 | Post-cold shock leak checkPerform leak check use traveler C100R-CMA-FPFT-LEAK-R1 |  |