# ana <br> Jefferson Lab Alignment Group Data Transmittal 

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## DETAILS:

Below are the results of the recent Torus Hub inspection. A coordinate system was established using the inside diameters of the upstream and downstream circles to define the $Z$ axis. A line through the large holes on the upstream end was used to define the $Y$ axis and the face of the upstream circle to define the origin. Each of the six planes is composed of thirty points to define both orientation and flatness. Values are in degrees and inches.

|  |  |  |
| :--- | ---: | ---: |
| Plane | Angle |  |
| A-B | 59.999 |  |
| B-C | 60.002 |  |
| C-D | 59.997 |  |
| D-E | 60.010 |  |
| E-F | 60.004 |  |
| A-F | 59.987 |  |
| SUM | 359.999 |  |
|  |  |  |
| A-D | 179.998 |  |
| B-E | 179.990 |  |
| C-F | 179.988 |  |
|  |  |  |
|  | Flatness | RMS |
| A | 0.0037 | 0.0007 |
| B | 0.0024 | 0.0007 |
| C | 0.0022 | 0.0007 |
| D | 0.0016 | 0.0004 |
| E | 0.0026 | 0.0007 |
| F | 0.0033 | 0.0008 |



