LCLS Linac Coherent Light Source Stanford Synchrotron Radiation Laboratory Stanford Linear Accelerator Center

Issue Date: 12/14/07

# INSPECTION / ACCEPTANCE REPORT OF COMPONENTS FOR LCLS ASSEMBLIES

VENDOR: ATLAS PART NAME: LCLS Vacuum Chamber Bi-metal flange

DRAWING #: L1440202-200050-01 SERIAL #: 37

P.O. #: 8A-00803 DATE: 12/18/07

## ACCEPTANCE CRITERIA

| | |
|---|---|
| 1. Visually inspect for shipping damage. | Accept/Reject |
| 2. Obtain manufacturers certification data delivered with flange. | Accept/Reject |
| 3. Verify the upstream and downstream flanges fit snugly on the chamber weld locations. | Accept/Reject |
| 4. Leak check flange per section 3.4 and 3.5 of ESD 1.4-118 | Accept/Reject |

## CRITICAL DIMENSIONS (mm)

| FEATURE | TARGET | TOLERANCE | MEASURED VALUE | |
|---|---|---|---|---|
| Slot thickness | 7.00 | ± .08 | 7.19 | Accept/Reject OK NTE |
| Overall length | 24.71 | + 0 / -.10 | 24.62/24.62 24.63/24.63 | Accept/Reject |
| Flatness | </= .03 | N/A | < .03 | Accept/Reject |
| Angle | 15° | ± 0.3° | Re-Machined at Hi-tech to 15° | Accept/Reject |
| Perpendicularity to A (2X) | </= .03 | N/A | < .03 | Accept/Reject |

INSPECTOR: MB & DN QA Supervisor: NTE

TEST EQUIPMENT USED: DIGITAL HT. GAUGE

COMMENTS:

Sealed @ 45 in lb torque; < $4.0 \times 10^{-10}$ mbl/s LR RXO 12-28-07

polished I.D. of aperture for finish check

Inside surface polished with 60+30 micron polishing paper. NTE.

Outside surface polished w/15 m paper RXO