

Fabrication of vacuum components for the APS-Upgrade Storage Ring Vacuum System

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The APS-Upgrade's (APS-U) new storage ring vacuum system is an assembly of over 2400 custom vacuum chambers and photon absorbers. A number of vacuum component vendors were contracted to fabricate the majority of these components including NEG-coated vacuum chambers, photon absorbers, beam position monitor vacuum chambers. In addition, APS-U leveraged in-house aluminum welding expertise to fabricate over 160 2-meter length 'L-bend type' aluminum vacuum chambers. This presentation will discuss the fabrication timeline and results for all of the various chambers as well as challenges and solutions found along the way and how the high-quality production of vacuum components helped lead to a successful vacuum system installation.

Summary

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