

# Proposal for Modification of PD Cable Supports

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FD1 Technical Board Meeting

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# Outline

- Modification to PDS cable containment bracket
- Addressing cable slack concerns with new cable tie clip standoffs

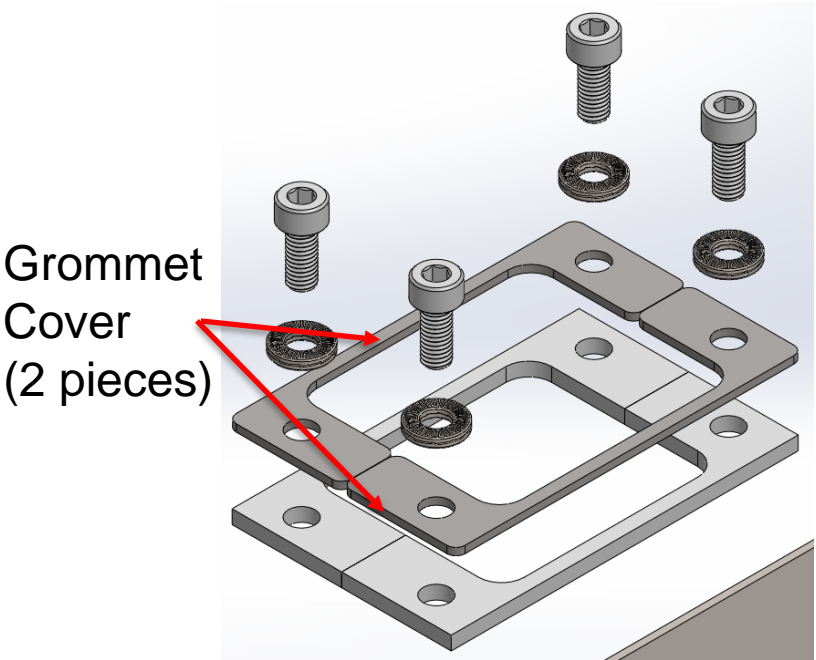
# Teflon Cable Grommet

- A Teflon grommet is used to prevent PD cables rubbing against the APA frame edge where the cables pass through the APA foot tube.
- Experience at Daresbury and Chicago show that the grommet is deformed during installation.

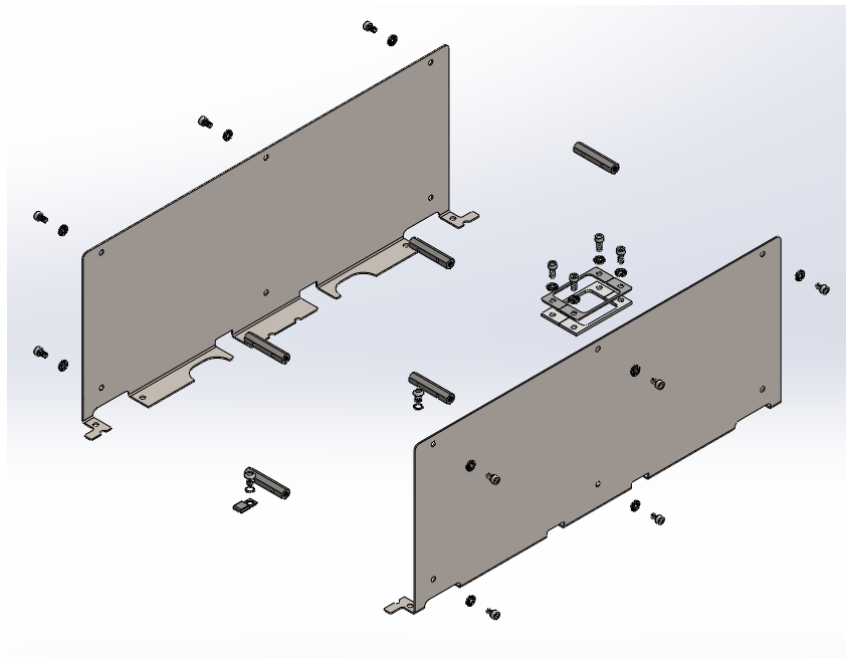


Cables entering APA foot tube  
Showing grommet deformation

# Proposed Stainless Steel Grommet Cover (i)

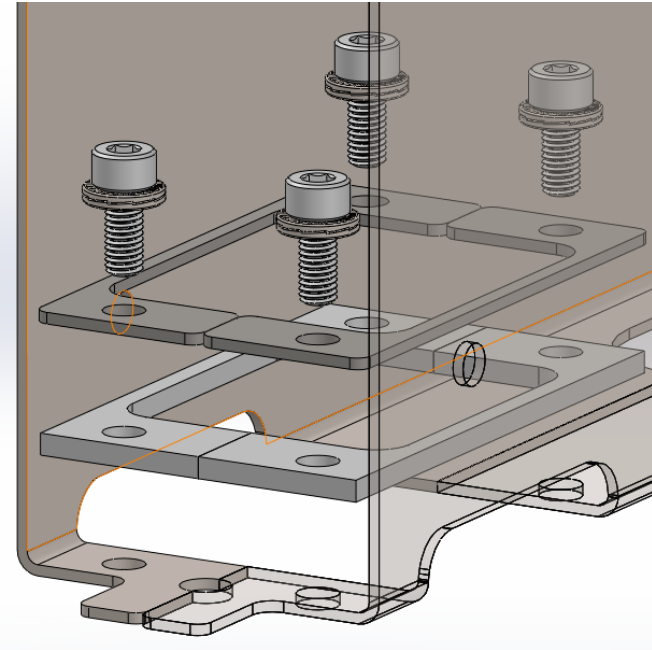


New grommet cover detail

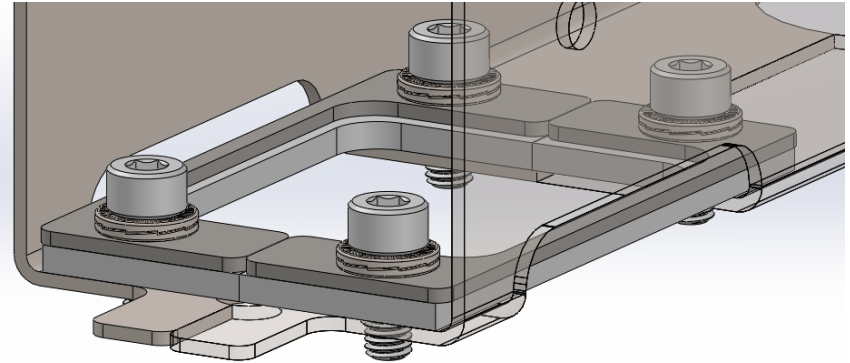


Grommet cover inside cable containment bracket

# Proposed Stainless Steel Grommet Cover (ii)



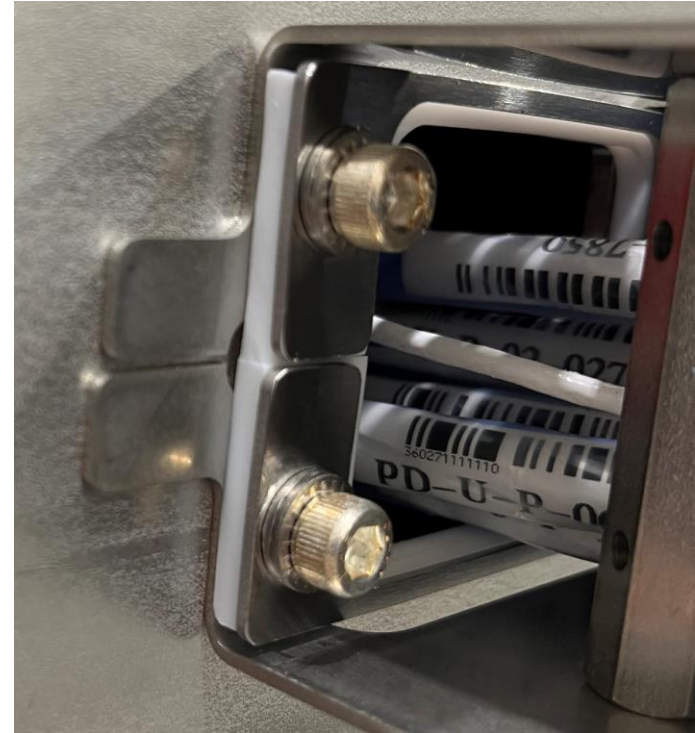
Closeup of grommet cover assembly



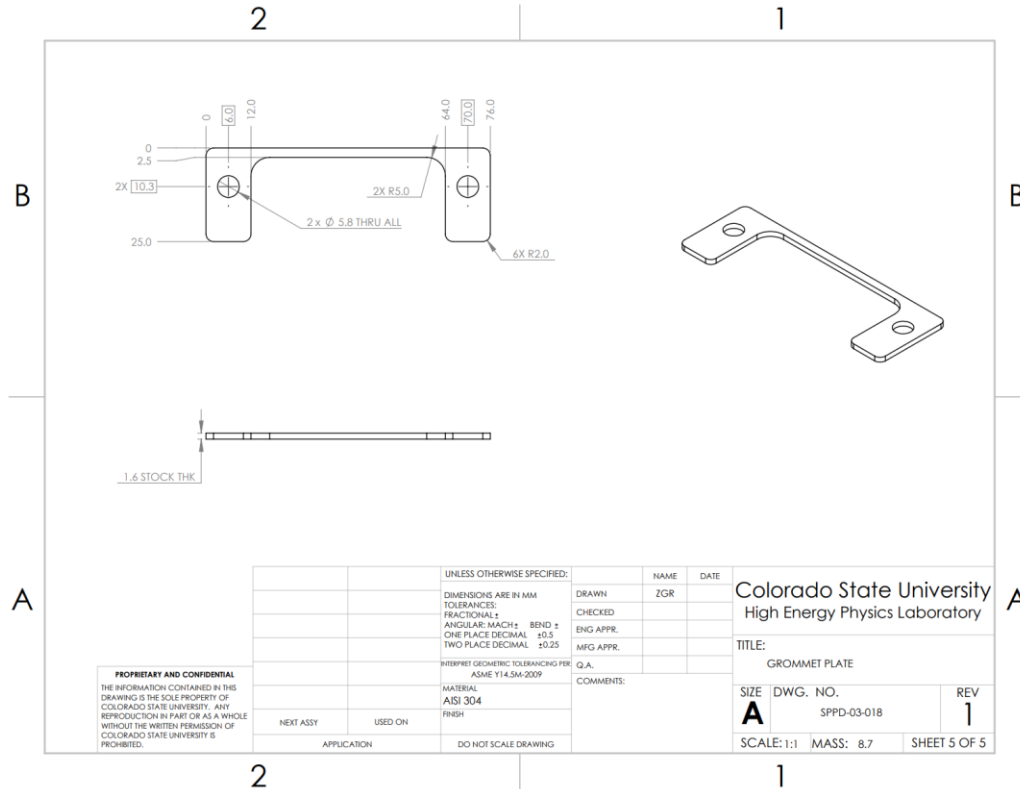
Note existing screws extend 4.8mm (nominal) into 3mm thick foot tube wall

# Grommet Cover Installed in APA (Chicago)

- Sample pieces fabricated and tested in Chicago APA 1.
- Did not have a negative impact on cable motion.
- Simplified installation of cable containment bracket.
- Very low cost (~\$50/APA, \$3,750 total).



# Stainless Steel Grommet Cover Drawing



# Cable slack concerns with new cable tie clip standoffs



- New 15mm cable tie clip support posts result in less slack for thermal contraction for pass-through cables.
- Confirmed at CSU still >2% slack, meeting requirements. No design change required.