SAMPLE HOLDERS FOR POWDERS

HB2a Instrument Team
High Flux Isotope Reactor
August 2016
Types of Powder Cans

Vanadium Cans with Aluminum Flange and Lids, SS or Al screws [Measurements at T<300K] (V-can is glued to Al flange using low temperature Stycast epoxy)

- **Small**:
  - OD: 0.25" (6.35 mm)
  - ID: 0.232" (5.90 mm)
  - Length: 1" (25.4 mm)

- **Medium**:
  - OD: 0.300" (7.62 mm)
  - ID: 0.260" (6.60 mm)
  - Length: 2.0" (50.8 mm)

- **Large**:
  - OD: 0.300" (7.62 mm)
  - ID: 0.260" (6.60 mm)
  - Length: 2.5" (63.5 mm)

Vanadium Cans with Titanium Flange and Copper (SS screws) or Boron-Nitride Lids (Molybdenum screws)

- **Small**
  - OD: 0.292" (7.40 mm)
  - ID: 0.231" (5.87 mm)
  - Length: 1.75" (44.45 mm)

- **Medium**
  - OD: 0.300" (7.62 mm)
  - ID: 0.260" (6.60 mm)
  - Length: 2.287" (58.12 mm)

- **Large**
  - OD: 0.300" (7.62 mm)
  - ID: 0.260" (6.60 mm)
  - Length: 2.87" (72.39 mm)

[Cu Lid: Measurements at T<800K]
[BN Lid: Measurements at T<1200C]
# TYPES OF POWDER CANS

Aluminum Cans with Aluminum Flange and Lids, SS or Al screws  [Measurements at T<300K]

<table>
<thead>
<tr>
<th>Size</th>
<th>Length (L)</th>
<th>Inner Diameter (ID)</th>
<th>Lid Diameter (D)</th>
<th>Screws</th>
<th>Lid thread size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xsmall</td>
<td>2”</td>
<td>0.188”</td>
<td>0.75”</td>
<td>4-40 UNC</td>
<td>¼-28</td>
</tr>
<tr>
<td>Small</td>
<td>2”</td>
<td>0.250”</td>
<td>0.75”</td>
<td>4-40 UNC</td>
<td>¼-28</td>
</tr>
<tr>
<td>Medium</td>
<td>2.5”</td>
<td>0.345”</td>
<td>0.75”</td>
<td>4-40 UNC</td>
<td>¼-28</td>
</tr>
<tr>
<td>Large</td>
<td>3”</td>
<td>0.600”</td>
<td>1.0”</td>
<td>4-40 UNC</td>
<td>¼-28</td>
</tr>
</tbody>
</table>
SPECIALTY SAMPLE HOLDERS

Aluminum Annular Cans [Measurements at T<300K]

Copper Cans with Copper Lid [Measurements in $^3$He and Dilution Insert T<300K]

Aluminum Can for Gas pressure Cell [Measurements at T<300K]

Quartz glass for ILL Air Furnace [Measurements at T<1200C]