BARBARA GOLDSMITH CONSERVATION LAB

New York University Libraries
Enclosure Making Manual:

CORRUGATED CLAMSHELL BOXES

ONE-PIECE FOUR-FLAP PHASE BOXES
CORRUGATED CLAMSHELL BOXES

I. General information

- Always measure book at the widest or largest point—the shoulder areas can be significantly bigger than the fore-edge. The book should fit snugly, but not too tightly. The lid of the box should close completely. Once the book is measured it is set aside and the box dimensions are calculated.

- Used for books from special collections and for oversized or fragile circulating materials.

- The corrugation should run parallel to the spine. The box works best for items at least ¾” thick.

II. Tools and materials

E-Flute corrugated board  Straightedge
Bone folder  PVA
Board shear  Hammer and curved chisel
Scalpel  Pencil

III. Procedure

1. Mark the height (H), width (W) and depth (D) of the book on a strip of paper. Mark out about four additional board thicknesses (BT) from each measurement as shown in the drawing below. For E-flute board, the BT should equal 1/16”.

2. Cut one piece of corrugated board with an overall width of (2W + 3D + 1”) and an overall height of (H + 2D + 1”).

3. Lay out the box pattern on the board according to the diagram on the following page. IMPORTANT: Begin layout with the larger (outer) tray measurements on the left-hand side and work toward the smaller (inner) tray on the right.
4. Score all folds along dashed lines. Score firmly but lightly so as not to tear the top paper layer of the board.

5. Cut away shaded areas with scalpel or Olfa knife and straightedge. Use a hammer and curved chisel to punch out a thumb notch on the fore-edge wall of the outer tray.

6. Create tabs from the triangles at each corner of the box by carefully separating the upper and lower paper layers of the board from the corrugated inner layer. You may use a fine bone folder, microspatula, tweezers, or other small tool you find useful. Once the three layers are separated, carefully tear or cut out the corrugated layer, leaving two triangular tabs.

7. Firmly crease the box along the scored lines to shape it.

8. Use straight PVA to glue the corner tabs onto the fore-edge walls. Take care to work the inner tab into the corner for a crisp joint.

[These directions were modified from the original by Andrea Krupp and can be found in Abbey Newsletter (Oct. 1991, v. 15, no. 6, pp.97-98).]
ONE-PIECE FOUR-FLAP PHASE BOXES

I. General Information

- Always measure book at the widest or largest point—the shoulder areas can be significantly bigger than the fore-edge. The book should fit snugly, but not too tightly. The lid of the box should close completely. Once the book is measured it is set aside and the box dimensions are calculated.

- Used for smaller books from special collections and fragile circulating materials.

- Grain direction of the board is not critical for this box; grain may run parallel or perpendicular to the spine. The box works best for items as small as 1/4” thick.

II. Tools and materials

<table>
<thead>
<tr>
<th>High-quality 20-point folder stock</th>
<th>Straightedge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bone folder</td>
<td>Scalpel</td>
</tr>
<tr>
<td>Board shear</td>
<td>Pencil</td>
</tr>
</tbody>
</table>

III. Procedure

1. Mark the height (H), width (W) and depth (D) of the book on a strip of paper. Mark out two additional board thicknesses (BT) from the D measurement and one additional board thickness from the W measurement, according to the drawing. For 20-point board, the BT should equal about 1/32”, 1mm, or just “a hair.”

2. Cut one piece of 20-point board with an overall width of \((3W + 3D + \frac{1}{2}”)\) and an overall height of \((H + 6D + \frac{1}{2}”)\).

3. Lay out the box pattern according to the drawing on the following page.

4. Score all folds along dashed lines. A fine bone folder (rather than Teflon) works well with this type of board.
5. Cut away shaded areas with scalpel and straightedge (don’t forget to cut the corresponding closure slit opposite the tab). Trim the top and bottom flaps and four small corner flaps at slight angles to prevent bulking.

6. Firmly crease the box along the scored lines, bone the folds, and assemble around the book, tucking the tab into the slit.

[These directions were adapted from the article “A One-Piece Box With Corner Flaps for Small Books,” by Richard Horton, originally published in Conservation Administration News No.39.]