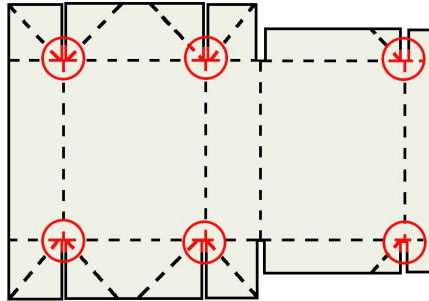


Recommendations for creasing/cutting on the corners of the box

This recommendation can help to avoid cracking of high grammage board on the corners when folded, especially in the designs when there are 3 and more creasing lines join forming an angle of the box like on the marked areas below:



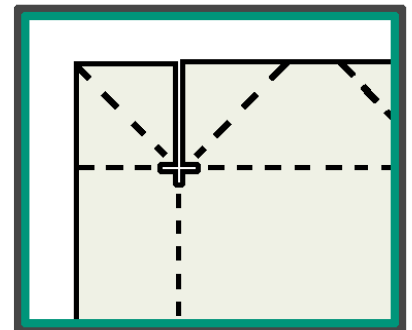
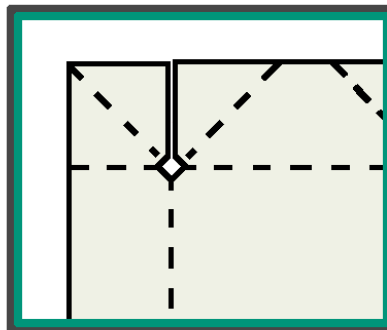
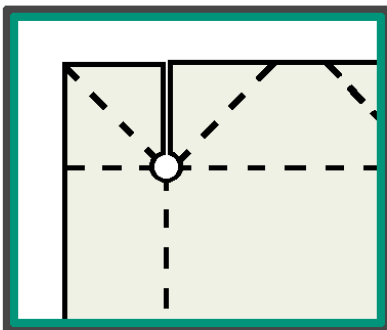
The problem appears because of the high pressure in the board on the corners of the box.
The higher thickness of the board - higher probability of cracking on the angles/corners.

To eliminate the cracking there are 3 simple ways to modify a cutting/creasing tool*. These tips are aimed to reduce stressful areas in the corners of the boxes.

1. A circle "cut out" at the end of the creasing lines:

2. A rhombic "cut out" at the end of the creasing lines:

3. Cutting lines at the end of the creasing lines:



Additional Tips:

- Always adjust creasing/cutting tool dimensions to the material to be used
- When design a creasing tool, pay more attention to the board thickness rather than to the grammage
- Try to have more creasing lines parallel to the CD of the board rather than to the MD
- Control the warehouse climate to keep the board moisture content unchanged
- Higher the board grammage – wider the groove width. (Groove width = 1,5x board thickness + creasing rule thickness)

* There are number of special ways to improve creasing quality, e.g. double/multi creasing, scoring, perforation, 2-level embossing. Please refer to your cutting tool manufacturer for more details.