Unit 6 - Making Enclosures with Sheet Metal

Week 5 Assessment

The due date for submitting this assignment has passed. **Due on 2017-08-30, 23:59 IST.**

Submitted assignment

1) Which of these statements is true in the case of an electronics enclosure made from sheet metal?

- Sheet metal is well suited for making one-off pieces
- Sheet Metal is well suited for mass manufacture
- Both statements are true
- Neither of the statements are true

**No, the answer is incorrect.**
**Score: 0**

**Accepted Answers:**
Both statements are true

2) What is a “development drawing”, in the context of a sheet metal enclosure?

- A drawing to scale, of the enclosure as a flat sheet just before it is bent.
- Using a hydraulic press to form the enclosure from a flat sheet
- A drawing showing the step by step design process from concept stage
- None of these

**No, the answer is incorrect.**
**Score: 0**

**Accepted Answers:**
A drawing to scale, of the enclosure as a flat sheet just before it is bent.

3) Which of these processes is used in making enclosures from sheet metal?

- Stamping
- Moulding
- Fused Deposition Modeling
- Casting

**No, the answer is incorrect.**
**Score: 0**

**Accepted Answers:**
Stamping

4) In the making of the sheet metal enclosure by bending, why were notches made?

- To ensure that the corners after bending don't overlap and push each other out of plane
- To impart strength to the edges after bending

**Score: 0**

**Accepted Answers:**
To ensure that the corners after bending don't overlap and push each other out of plane
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0) All of the above
   - To prevent sharp edges which could cause cuts to the user

   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - *To ensure that the corners after bending don't overlap and push each other out of plane*

5) In the bending of sheet metal, it is always bent to an angle which is a little more than what is required. Why is this done?
   - Because of the “spring-back” of sheet metal
   - Because it can be finely changed to the correct angle by hand after removing from the machine
   - Because in a one-off piece, the machine will not be tuned to that exact angle
   - All of the above

   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - *Because the “spring-back” of sheet metal*

6) When sheet metal is bent - the innermost surface is compressed and the outermost surface is in tension. In between, inside the thickness, is a sheet of material that is neither in compression or in tension. This “sheet” is known as
   - K Factor
   - Neutral Grain orientation
   - Neutral Axis
   - Zero stress Axis

   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - *Neutral Axis*

7) The K-Factor can migrate to a value greater than 0.5, in a direction towards the outer surface. This statement is
   - False
   - True

   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - *False*

8) Which of these features is given to impart stiffness to a ninety degree bend in a sheet metal component
   - Hole
   - Notch
   - Gusset

   **No, the answer is incorrect.**
   **Score: 0**
   **Accepted Answers:**
   - *Gusset*

9) The difference between bottoming and coining is
   - In coining, compressive stress is applied to the bending region
   - The work piece bottoms out on the die in coining
   - There is an air gap on the bottom of the piece in coining
   - There is more springback in bottoming

   **1 point**
No, the answer is incorrect.
Score: 0
Accepted Answers:
In coining, compressive stress is applied to the bending region

10. Which is the only process among these, which enables a sheet metal enclosure to have closed, well defined corners?

- Stamping
- Deep drawing
- Bending
- Milling

No, the answer is incorrect.
Score: 0
Accepted Answers:
Deep drawing

You were allowed to submit this assignment only once.