



Republic of the Philippines
Department of Education
National Capital Region
Schools Division Office – Muntinlupa City

SPECIAL PROGRAM IN TECHNICAL VOCATIONAL EDUCATION (SPTVE)
SHIELDED METAL ARC WELDING 10 Quarter 3: Week 3 Module

- I. Topic: Perform depositing straight bead in horizontal position (2F)
- II. Objectives:
 - 1. identify the procedures in depositing straight bead in horizontal position (2F)
 - 2. draw the working drawing of depositing straight bead in horizontal position (2F)
 - 3. appreciate the importance of following the procedures in depositing straight bead in 2F.
- III. Brief Introduction of the Lesson

Welding procedure information can be determined by means of the carbon equivalent formula. Carbon equivalent should be calculated for the exact composition. When the carbon equivalent is 40% or lower, the material is already weldable. Above 40%, special controls are required.

The fillet weld is the most common weld used in the industry. It is triangular in its cross-sectional shape, indicated by a triangle placed on the reference line of the welding symbol. It may require a little or no edge preparations.

Some welding tasks are not possible in the flat position particularly in fixed or heavy structures which will require welding in the horizontal position. Horizontal position refers to the welding position wherein the joint is on a vertical plane and the line of weld runs parallel with the horizon.

Activities:

Activity 1.

Directions: Arrange the procedures into the correct order in depositing straight beads in horizontal position (2F)

- A. _____ Adjust welding machine to correct current setting.
- B. _____ Draw four (4) parallel lines to the plate, 12mm apart.
- C. _____ Wear appropriate Personal Protective Equipment (PPE).
- D. _____ Deposit beads on the lines provided, maintaining 20 degrees electrode position, slanted in the direction of the weld.
- E. _____ Prepare materials and tools needed.





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Activity 2

Directions: Express what you have learned in this lesson by completing the sentences below.

The procedures on how deposit straight bead in horizontal position (2F) are the following:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Activity 3

Directions: Draw the illustration/working drawing of depositing straight bead in horizontal position (2F).





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IV. Assessment:

Directions: Fill in the missing word/words to complete the sentence, procedures in depositing straight bead in horizontal position (2F).

1. Wear appropriate _____ (PPE).
2. _____ materials and tools needed.
1
2
3. Draw four (4) _____ to the plate, _____ apart.
3 4
4. _____ the base metal/plate with the laid out lines in a _____.
5 6
5. Adjust _____ to _____ current setting.
7 8
6. _____ beads on the lines provided, maintaining _____
9 10
electrode position, slanted in the direction of the weld.





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VI. Reflection:

Direction: Answer the following question.

1. How do you weld horizontal position?
2. Why does welding rod keeps sticking?

References:

- *K12 Basic Education Curriculum, Grade 10 SMAW LM Final Check and verified page 49-50*
- Public Technical Vocational High Schools, Competency-Based Learning material, SMAW NCI, (Department of Education 2008)

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