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<tr>
<td>15/11/06</td>
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Module 4 – General Sheet Metalwork

Unit 6 – Blow Cap, Stock and Apron

Duration – 10.5 Hours

Learning Outcome:

By the end of this unit each apprentice will be able to:

- Produce blowcap, stock and apron using the radial and parallel line method of development
- Organise the production sequence
- Assemble a pop riveted joint
- Produce weather apron using nuts, bolts and sealant
- Produce and install blowcap brackets
- Swage apron and blowcap for added strength
- Cost a component based on time and material

Key Learning Points:

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Training Resources:

- Toolkit
- Job card
- Nuts, bolts
- 0.6mm galvanised mild steel
- Tools and machinery/equipment
- Work samples
- Sealant
- Notepad
- 20 x 3 mild steel
- Conical bench stake
- Rivets/Gun
- Safety equipment and protective clothing

Key Learning Points Code:

M = Maths   D = Drawing   RK = Related Knowledge  Sc = Science
P = Personal Skills  Sk = Skill  H = Hazards
Figure 1 – Blow Cap, Stock and Apron
Blow Cap, Stock and Apron

1. A is the blow cap, B is the stock and C is the apron.

2. The blowcap is always twice the size of the stock. Hence A = 300 mm and B = 150 mm.

3. The height of the blowcap A above the stock B is always 1/2 the diameter of the stock B. Hence 75mm is the distance between A and B.

4. The angle of the blow cap is nearly always 30°.

5. It is necessary to mark out 1/2 of pipe B and blow cap A to obtain the length of the stays and the angle they should be bent at.

6. The stays are positioned equally around the blow cap. This divides the blow cap into three equal parts.
Radial Line Method to Develop Cones

If we put the stays at points 2, 6, 2 we have spaced them out evenly.

Volume of cone \[ = \frac{1}{3} \pi r^2 H \]

Volume of pyramid \[ = \frac{1}{3} \text{area of base} \times \text{perpendicular height} \]

Surface area of pyramid \[ = \text{find area of one triangle and multiply by four} \ (\frac{1}{2} \text{base} \times \text{P.H.}) \]
Self Assessment

Questions on Background Notes – Module 4.Unit 6

1. What is the angle of the blow cap?

2. If the diameter of the blow cap is 300mm, what is the diameter of the stock pipe and the distance between blow cap and stock?
Answers to Questions 1-2. Module 4.Unit 6

1.

30° is nearly always the angle of the blow cap.

2.

Diameter of stock = 150mm

Distance between the two = 75mm or ½ diameter of stock.
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