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<tr>
<td>13/11/06</td>
<td>First draft</td>
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<td>09/04/14</td>
<td>2.0</td>
<td>SOLAS transfer</td>
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Module 4 – General Sheet Metalwork

Unit 4 – Tee-Piece

Duration – 7 Hours

Learning Outcome:

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

- Organise production sequence unassisted
- Read and interpret drawing for tee-piece
- Calculate circumference, material required and production sequence
- Produce half-elevation, half-plan and development of hole of penetration
- Cut, deburr, roll, groove, swage and braze/assemble tee

Key Learning Points:

<table>
<thead>
<tr>
<th>D</th>
<th>Drawing and development of tee-piece.</th>
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<tr>
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<td>Fit up of tee-piece/hole of penetration.</td>
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<td>M</td>
<td>Inside diameters, male and female.</td>
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Training Resources:

- Toolkit
- Work sample
- Safety equipment and protective clothing
- Tools and machinery/equipment
- Job card
- 0.8mm galvanised mild steel
- Book – The Geometry of Sheet Metal Work

Key Learning Points Code:

M = Maths    D = Drawing    RK = Related Knowledge    Sc = Science
P = Personal Skills    Sk = Skill    H = Hazards
Figure 1 - Tee-Piece
Pattern & Elevation of T-Piece

It is important to note that pipe A has to fit on the outside of pipe B. We may reduce the diameter of pipe B to 149 mm and increase A to 151 mm.

When fabricating in the workshop we need only draw pipe A for our elevation with pipe A marked out we sit it on pipe B and trace around it.
Self Assessment

Questions on Background Notes – Module 4.Unit 4

1. What is the outside dimension of pipe B and how does it affect pipe A.

Figure 2
Answer to Question 1. Module 4.Unit 4

1.

It is important to remember the difference between inside and outside dimensions. Pipe B will be 152mm outside and pipe A 150mm inside. This means pipe B is distorted if 150 mm is to fit over 152mm, so we make pipe B 1mm smaller in diameter and pipe A 1mm larger in diameter.
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