204: Installation of wiring systems and enclosures  
**Worksheet 1-120: Cable tray support bracket**

**NB**: Students must not attempt this exercise before the correct use of all tools and materials has been demonstrated.

**Technical data**

* You are to make sure that your work area is clear and safe for work to proceed.
* You are to make sure that all your work conforms to the requirements of the Health and Safety at Work Act.
* All scribed lines, centre dot and other marks must be removed from the finished surfaces.

**Material required**

|  |  |
| --- | --- |
| 1 off | Mild steel bar 600 x 15 x 3mm |

**Procedure**

The procedure below (Steps 5 to 13) applies to **both** pieces of mild steel bar, after cutting in step 6, which should be completed simultaneously

1. Enter the start time on the assessment sheet.
2. Prepare the material requisition for the required materials.
3. **Have the requisition checked before proceeding.**
4. Obtain the material from the stores.
5. Clean the surface of the bar to ensure that it is grease-free in preparation for marking out.
6. Mark and cut the strip in half.

**NB** The procedures below (Steps 7 to 14) apply to **both** pieces of material.

1. Letter stamp your initials on to the material for identification.
2. Mark out, as detailed on the drawing.
3. **Have your work checked before proceeding.**
4. Centre punch the hole centres and drill pilot holes.
5. **Have your work checked before proceeding.**
6. Bend the material to the dimensions shown in the diagram, taking care to keep them symmetrical.
7. Open the holes up to the sizes shown on the diagram and adjust as necessary the two tray fixing holes by slotting to fit the tray holes.
8. Remove all burrs, sharp edges and vice marks.
9. **Hand the work to the Lecturer for marking and assessment.**
10. Enter the finish time on the assessment sheet.

|  |
| --- |
| Exercise 01-120 Cable Tray Bracket.png |

Assessments are based on **observed** safety procedures, and the **quality** and **accuracy** of the completed exercise.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | | **YES** | **NO** |
| **1.** | Material requisition correct first time | | **□** | **□** |
| **2.** | Method statement completed | | **□** | **□** |
| Assessed by: ………....………….. | | |  | |
| **3.** | Material correctly identified on first visit | | **□** | **□** |
| **4.** | Both bars marked out correctly | | **□** | **□** |
| Assessed by: ………....………….. | | |  | |
| **5.** | Pilot holes drilled in correct locations | | **□** | **□** |
| Assessed by: ………....………….. | | |  | |
| **6.** | Bends made to correct dimensions | | **□** | **□** |
| **7.** | Bends formed true with no twist | | **□** | **□** |
| **8.** | 5mm hole correct size | | **□** | **□** |
| **9.** | 5mm hole correct square to the face | | **□** | **□** |
| **10.** | 6.5mm hole correct size | | **□** | **□** |
| **11.** | 6.5mm hole correct square to the face | | **□** | **□** |
| **12.** | All scribed lines, centre dot and other marks removed | | **□** | **□** |
| **13.** | Overall dimensions correct | | **□** | **□** |
| **14.** | Work area conformed to requirements of HASAWA | | **□** | **□** |
| **15.** | Correct safety procedures observed at all times | | **□** | **□** |
| **16.** | Overall appearance to a commercially acceptable standard | | **□** | **□** |
| Assessed by: ………....………….. | | |  | |
| Start Date & Time: ………………........………….. | | Finish Date & Time: ……...…...........…………… | | |
| Target Time: 90 minutes | | Time Taken: …………………….........…………… | | |