204: Installation of wiring systems and enclosures  
**Worksheet 4-030: Forming an internal 90° bend in cable tray**

**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.
* Ensure that the cable tray is not cut across the slots.
* Ensure that all edges are deburred.
* Use only pencil to mark dimensions on the cable tray.
* Tray bending bars are required to be used on this exercise.
* The work area must be restored to a satisfactory condition on completion.

**Material required**

|  |  |
| --- | --- |
| 400mm | Metal cable tray 100mm wide |

**Procedure**

1. Enter the start time on the assessment sheet.
2. Prepare the material requisition.
3. **Have the requisition checked before proceeding.**
4. Obtain the material from the stores.
5. Mark square and cut both ends of the cable tray, taking care to meet the requirements of the technical data and ensuring that the finished length is greater than or equal to 350mm.
6. Measure and mark a centre line across the full width of the tray.
7. **Have work checked before proceeding.**
8. Using the tray bending bars and starting from the marked centre line, insert corrugations into the flanges of the tray equally on both sides of the centre line so as to form a 90° with dimension ‘X’, as shown on the diagram, of equal length.
9. Check the tray dimensions and remove any burrs and sharp edges.
10. **Hand the work to the Lecturer for assessment.**
11. Enter the finish time on the assessment sheet.
12. Restore the work area to a satisfactory condition.

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| --- |
| Task 04-030 Cable Tray Internal 90 Degree Bend.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.** | Wore appropriate PPE | | **□** | **□** |
| **4.** | Acquired the correct materials and equipment | | **□** | **□** |
| **5.** | Both ends of cable tray straight and secure | | **□** | **□** |
| **6.** | Overall length greater than or equal to 350mm | | **□** | **□** |
| **6.** | Centre line halfway along tray | | **□** | **□** |
| Assessed by: ………....………….. | | |  | |
| **8.** | Used only the given length of cable tray | | **□** | **□** |
| **9.** | Used wood blocks/other suitable tray protection | | **□** | **□** |
| **10.** | Measurement ‘X’ equal both sides | | **□** | **□** |
| **11.** | Corrugations equal both sides of the centre line | | **□** | **□** |
| **12.** | Slots on both tray section ends intact | | **□** | **□** |
| **13.** | Cable bearing surface undamaged | | **□** | **□** |
| **14.** | Overall appearance to a commercially acceptable standard | | **□** | **□** |
| **15.** | Work area conformed to requirements of HASAWA | | **□** | **□** |
| **16.** | Correct safety procedures observed at all times | | **□** | **□** |
| **17.** | Work area restored to a satisfactory condition on completion | | **□** | **□** |
| Assessed by: ………....………….. | | |  | |
| Start Date & Time: ………………........………….. | | Finish Date & Time: ……...…...........…………… | | |
| Target Time: 90 minutes | | Time Taken: …………………….........…………… | | |