204: Installation of wiring systems and enclosures  
**Worksheet 1-130: Thread gauge**

**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.

**Material required**

|  |  |
| --- | --- |
| 1 off | Mild steel strip 145 x 50 x 3mm |

**Procedure**

1. Enter the start time on the assessment sheet.
2. Complete the material requisition.
3. **Have the requisition checked before proceeding.**
4. Obtain the material from the stores.
5. Clean face of metal in preparation for marking out.
6. Apply marking blue to one face and allow to dry.
7. Square off one end using a square and scriber.
8. Cut and file this end square to be used as the **datum**.
9. Identify the work with your initials using letter stamps.
10. **Have your work checked before proceeding.**
11. From the datum end, measure and mark out the position of the two angles of 135° and 22.5°.
12. Mark out the six holes and angled slot, as shown on the diagram.
13. **Have your work checked before proceeding.**
14. Drill the eight holes at the position indicated to the correct size (if in doubt **ask** – do not guess!).
15. **Have your work checked before proceeding.**
16. Tap the two holes to the correct size in the positions shown.
17. Cut out the angled slot between the 8mm holes.
18. Cut and file the angled section.
19. Ensure all burrs and sharp edges have been removed.
20. Clean work to give a bright finish.
21. **Hand the work to the Lecturer for marking and assessment.**
22. Enter the finish time on the assessment sheet.

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| Exercise 01-130 Thread Gauge.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.** | Datum end square | | **□** | **□** |
| Assessed by: ………....………….. | | |  | |
| **4.** | 100mm and 110mm measurements marked out correctly | | **□** | **□** |
| **5.** | 135° angle marked out correctly | | **□** | **□** |
| **6.** | 22.5° angle marked out correctly | | **□** | **□** |
| **7.** | Position of the ‘six’ holes marked correctly | | **□** | **□** |
| **8.** | Position and angle of the angled slot marked correctly | | **□** | **□** |
| Assessed by: ………....………….. | | |  | |
| **9.** | ‘Six’ holes correct size | | **□** | **□** |
| **10.** | 8mm angled slot correct size | | **□** | **□** |
| Assessed by: ………....………….. | | |  | |
| **11.** | Tapped holes correct position, size and square to face | | **□** | **□** |
| **12.** | Angled slot correct angle and parallel to angled edge | | **□** | **□** |
| **13.** | 135° angled edge formed correctly | | **□** | **□** |
| **14.** | 22.5° angled edge formed correctly | | **□** | **□** |
| **15.** | All burrs and sharp edges removed | | **□** | **□** |
| **16.** | Work identified correctly on final presentation | | **□** | **□** |
| **17.** | Work area conformed to requirements of HASAWA | | **□** | **□** |
| **18.** | Correct safety procedures observed at all times | | **□** | **□** |
| **19.** | Overall appearance to a commercially acceptable standard | | **□** | **□** |
| Assessed by: ………....………….. | | |  | |
| Start Date & Time: ………………........………….. | | Finish Date & Time: ……...…...........…………… | | |
| Target Time: 6 hours | | Time Taken: …………………….........…………… | | |