

Worksheet 3-050: PVC camel set and 90° bend

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

Technical data

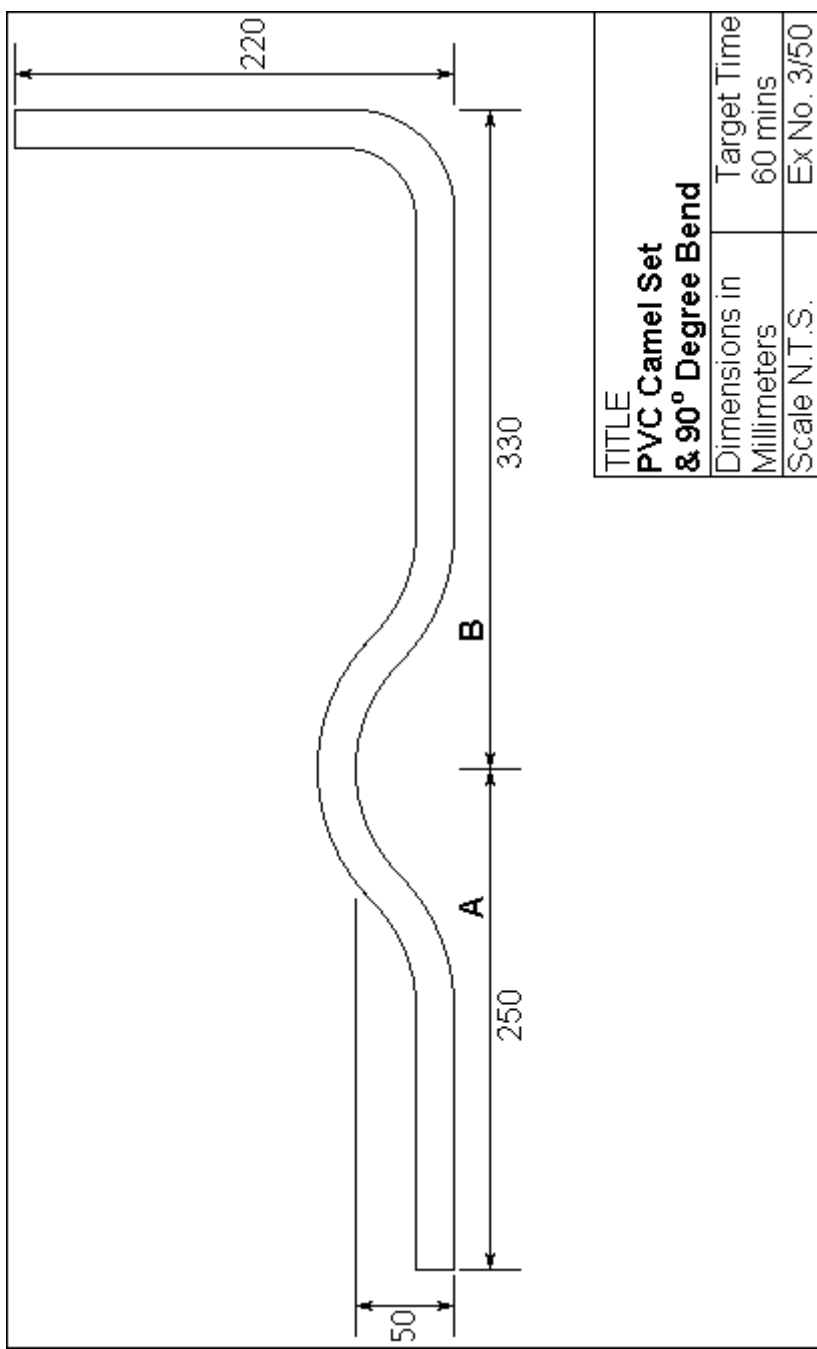
- Care must be taken when using PVC conduit in cold conditions to prevent fracture of the tube.
- In order to carry out this exercise, specialist tools are required.
- You are to make sure that all your work conforms to the requirements of the Health and Safety at Work Act.

Material required

1 off PVC conduit 20mm diameter x 850mm long

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. Ensure that both ends of the conduit are cut square and all burrs removed.
6. Place a pencil mark on the conduit 225mm from one end.
7. Insert the conduit-bending spring into the conduit so that the middle of the spring is approximately in line with the pencil mark on the conduit.
8. Place the conduit in the bending machine so that this mark coincides with the heel of the former or bend by use of the knee.
9. Bend the conduit to the correct predetermined angle.
10. From the centre of the inside of this, measure 50mm vertically and, using a straight edge, place a mark on to the conduit at points 'A' and 'B'.
11. **Have the work checked before proceeding.**
12. Using these two marks as reference points, place the conduit into the bending machine and bend to form the required set.
13. Remove the bending spring from the conduit.
14. **Have the work checked before proceeding.**
15. Place a pencil mark on the conduit 250mm from the centre line of the above set in preparation for the 90° bend.
Before bending, ensure that you are certain of the direction of this 90° bend – left or right with respect to the crank (bubble) set.
16. Insert the conduit-bending spring into the conduit so that the middle of the spring is approximately in line with the pencil mark on the conduit.
17. By use of the bending machine or across the knee, bend the tube on the pencil mark to an angle slightly greater than 90° angle.
18. Remove the bending spring from the conduit.
19. Cut both legs of the tube in order to form the required overall length.
20. Ensure both ends are square and all burrs removed.
21. **Hand the work to the Lecturer for marking and assessment.**
22. Enter the finish time on the assessment sheet.



TITLE	
PVC Camel Set & 90° Degree Bend	
Dimensions in Millimeters	Target Time 60 mins
Scale N.T.S.	Ex No. 3/50

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

		YES	NO
1.	Material requisition correct first time	<input type="checkbox"/>	<input type="checkbox"/>
2.	Method statement completed	<input type="checkbox"/>	<input type="checkbox"/>
	Assessed by:		
3.	Crank set 1 st bend in tube at correct position	<input type="checkbox"/>	<input type="checkbox"/>
4.	Crank set point 'A' 50mm from inside of set	<input type="checkbox"/>	<input type="checkbox"/>
5.	Crank set point 'B' 50mm from inside of set	<input type="checkbox"/>	<input type="checkbox"/>
	Assessed by:		
6.	Crank set depth correct dimension	<input type="checkbox"/>	<input type="checkbox"/>
7.	Crank set overall length correct	<input type="checkbox"/>	<input type="checkbox"/>
8.	Crank set in correct position	<input type="checkbox"/>	<input type="checkbox"/>
9.	Crank set formed in correct plane (no twists)	<input type="checkbox"/>	<input type="checkbox"/>
10.	Conduit undamaged	<input type="checkbox"/>	<input type="checkbox"/>
	Assessed by:		
11.	Used only the given length of conduit	<input type="checkbox"/>	<input type="checkbox"/>
12.	Overall length correct dimension	<input type="checkbox"/>	<input type="checkbox"/>
13.	Formed right angle 90°	<input type="checkbox"/>	<input type="checkbox"/>
14.	Bends formed in the correct plane (no twists)	<input type="checkbox"/>	<input type="checkbox"/>
15.	Conduit ends cut square	<input type="checkbox"/>	<input type="checkbox"/>
16.	Conduit undamaged	<input type="checkbox"/>	<input type="checkbox"/>
17.	Burrs removed	<input type="checkbox"/>	<input type="checkbox"/>
18.	Work area conformed to the Health & Safety at Work Act	<input type="checkbox"/>	<input type="checkbox"/>
19.	Correct safety procedures observed at all times	<input type="checkbox"/>	<input type="checkbox"/>
20.	Overall appearance to a commercially acceptable standard	<input type="checkbox"/>	<input type="checkbox"/>

Assessed by:

Start Date & Time: Finish Date & Time:

Target Time: 60 minutes Time Taken: