

Level 1/2 Plumbing Competition Brief & Marking Scheme



OVERVIEW: The Plumbing Competition will see the competitors **constructing the copper frame** together using **Endfeed Fittings** and **Pulling Bends**.

SCENARIO: You are a plumbing apprentice working for a small, local plumbing company. Your supervisor has tasked you with completing a plumbing project involving the installation of a copper pipe frame. This frame will be used to support a variety of plumbing fixtures, including a sink, toilet, and shower.

LOCATION: Colchester Institute Braintree Campus BR- 104

DURATION: 2 hours

TIMINGS	ACTIVITY
10:00-10:15:	Setting up/Setting in period
10:15-10:30:	Briefing of competition criteria
10:30-12:30	Competition phase
12:30-13.30	Lunch
13:30-14:00:	Judging and Prizes
14:00-15:00:	Feedback & Networking

JUDGING: Dewalt, Lawton tubes, Monument tools

EQUIPMENT: Pipe Cutters, Hacksaws, Blowtorch, Pipe Benders/Spring Benders, Heat mat, flux (All equipment will be provided by CI)

HEALTH & SAFETY:

Mandatory PPE: Safety Goggles, Work Gloves, Steel-Toe Safety Boots

Optional PPE: Ear Protection, Respiratory Masks

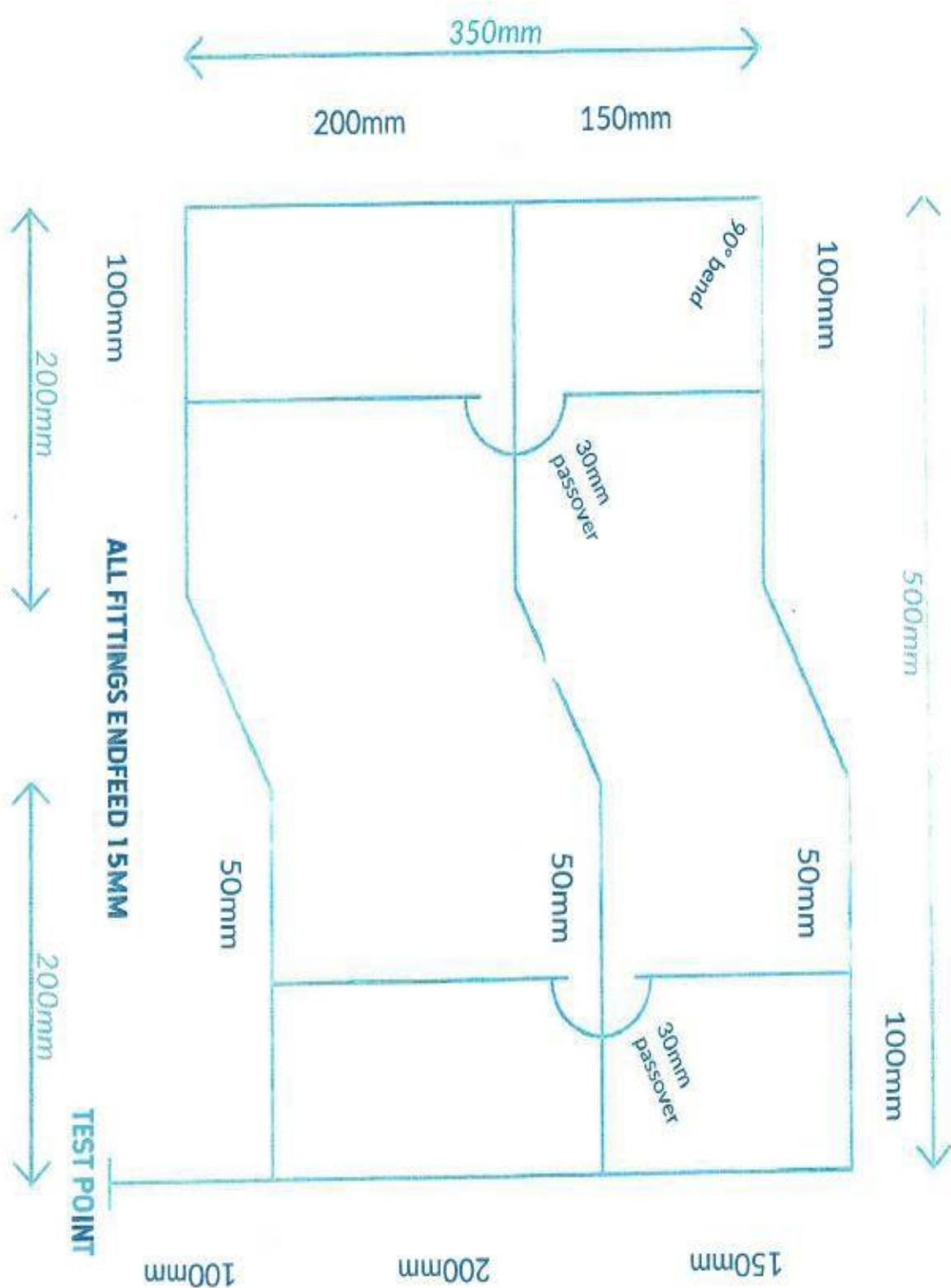
Blowtorch Use:

- Never leave a lit blowtorch unattended and you should turn it off immediately after use.
- All flammable materials (paper, cloths, plastic, etc.) should be kept away from the

- work area when soldering or bending copper with heat.
- Use heat-resistant mats or surfaces beneath the working area to prevent accidental burns to the workspace.
- After soldering, allow sufficient time for copper pipes and fittings to cool down before handling them. Use heat-resistant gloves if immediate handling is necessary.

Safe Tool Use: Please ensure that all essential Health & Safety is followed with the use of all tools; Pipe Cutters, Hacksaws, Blowtorch, Bending Tools

Workstations: Keep the workspace clean and free from obstructions, such as stray tools or off cuts.



COMPETITOR NAME:
Plumbing Competition Marking Scheme

Construction of Copper Frame					
Assessment Criteria	M/J	3 Marks	2 Marks	1 Mark	0 Marks
Accuracy of construction	M	Frame is constructed accurately +/- 3mm	Slight inaccuracies in construction +/- 6mm	Major inaccuracies in construction +/- 10mm	Poor understanding of construction > 10mm
Sturdiness and stability of the frame	M	Frame is clipped and stable	Some minor instabilities with 1 clip inappropriately placed or missing	Significant instabilities with 2 clips inappropriately placed or missing	Frame is highly unstable with > 2 clips inappropriately placed or missing
Quality of Endfeed joints	M	Endfeed joints made without using excessive solder and no leaks	Endfeed joints made with upto 2 joints showing excessive solder and one leak.	Endfeed joints made with multiple joints showing excessive solder and 2 leaks	Endfeed joints made with multiple joints showing excessive solder and > 2 leaks
Pulled bends		Pulled bends to within +/- 3 degrees. Clearances within +/- 3mm	Pulled bends to within +/- 6 degrees. Clearances within +/- 6mm	Pulled bends to within +/- 10 degrees. Clearances within +/- 10mm	Pulled bends to within > 10mm degrees. Clearances within > 10mm
Attention to safety precautions	J	Competitor wore all mandatory PPE (safety goggles, work gloves, and steel-toe safety boots) throughout the task, handled tools correctly, maintained a safe working environment, and followed all blowtorch safety rules (e.g., turning it off immediately after use).	Competitor wore all mandatory PPE but failed to follow one safety precaution, such as leaving the blowtorch briefly unattended or not maintaining a clean workspace.	Competitor omitted one piece of mandatory PPE during the task or failed to follow multiple safety precautions, such as unsafe handling of tools or improper use of the blowtorch.	Competitor repeatedly failed to adhere to safety precautions, including not wearing mandatory PPE, unsafe use of tools, or creating hazards in the workspace.
Safe Disposal of Waste	J	All waste is sorted and disposed of in accordance with regulations, with	Most waste is sorted and disposed of correctly, with	Waste is partially sorted and disposed of, with significant amounts left in the	Waste is not sorted or disposed of, leaving the workspace cluttered and unsafe.

		the workspace left completely clean.	small amounts of material left behind or misplaced.	workspace or improperly handled.	
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Competitor Name	
Judges overall score/18 (Level 1 an 2)	
Additional comments/feedback	