Quality Alert

MORGAN SINDALL CONSTRUCTION

Un-Crimped Copper Elbow

What happened:
A 15 mm copper press-fit elbow had not been crimped. The joint separated and released water overnight. The flooding was discovered the following morning by the Facilities Manager.

The impact:
Extensive water damage affected electrical installations, ceilings, walls, floor finishes and occupied areas across the school. Without discovery and isolation, the affected area and consequential damage would have increased.

Root cause:
- Poor installation: the fitting was left un-crimped.
- Insufficient supervision and quality assurance of completed work.
- Pressure testing was completed at first fix only and did not verify the completed second-fix installation.

Remedial action:
- Water removed and dehumidifiers installed to dry the building.
- Electrical and fire-safety systems checked; damaged components replaced.
- The elbow was crimped, and all second-fix fittings were inspected and verified.
- Reinstatement will continue while the school remains open.

Required Learning / Prevention:
1. Introduce a formal hold point before pipework is concealed or brought into service.
2. Visually inspect and record every press-fit joint as crimped.
3. Pressure test the fully completed installation, including second-fix connections.
4. Retain signed QA checklists, marked-up drawings and pressure-test certificates.
5. Supervisors must verify completion and close-out before handover.

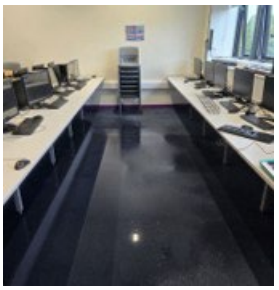
Photographic Evidence

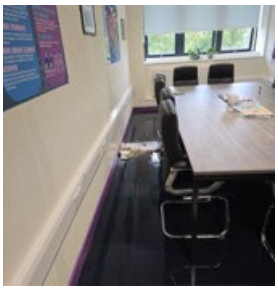


Un-crimped 15mm copper elbow



Flooding and ceiling damage to circulation area





Water affected teaching and staff areas

Key message:

- Every press-fit joint must be visibly confirmed as crimped, then verified by final pressure testing before handover
- Morgan Sindall Building Service Managers must ensure the contractors have provided 100% proof of compliance in accordance with the design and specifications

☐	Brickwork / Blockwork	☐	Design	☐	DFMA (Offsite Manufacture)	☐	Doors & Windows	☒	Drainage	☐	Electrical	☒	FFE (Furnishings, Fixing & Equipment)
☐	Fire & Lightening	☐	Floor Coverings	☐	Frames & Superstructure	☐	Internal Walls, Partitions & Ceilings	☐	Joinery & General Carpentry	☐	Miscellaneous	☐	Painting
☐	Public Health (Water)	☐	Roads, Paths, Paving & Surfacing	☐	Roof	☒	Services & Systems	☐	Site Preparation Works	☐	Substructure	☐	Walling (Tiling & Finished)