



Davit arm and anchor systems on flat roofs—the importance of maintaining the System Technical File



Davit arm system installed on a flat roof.

Davit arm and anchor systems can provide safe access, rescue and lifting support in demanding work-at-height environments, including confined-space and façade-access applications. However, where these systems are fixed through or below a flat roof waterproofing system, the long-term safety of the installation depends not only on the physical condition of the equipment, but also on the availability of a complete and accurate system technical file.

The system technical file is critical because it records how the system was designed, specified, installed, inspected and handed over. **BSI Technical Bulletin¹** makes clear that the technical file should be compiled by the system designer, passed to the dutyholder, and retained for the design life of the installed anchor system. It should be available to those responsible for inspection, maintenance and future decision-making.

Why this matters on flat roofs

On flat roofs, key elements of the davit arm or anchor system may be hidden beneath the waterproofing. This can include the fixing method, bolts, base plates, backing plates, and structural connection.

Where this information is missing from the system technical file, the competent person carrying out an inspection may not be able to verify whether the system remains safe for use without further investigation. *BSI Technical Bulletin* highlights that missing information relating to design considerations, system specification, fixing variations and hidden elements can result in a 'Conditional Fail' status.

In practical terms, this can lead to intrusive investigation, supplementary inspection, exposure of fixings or pull testing. On a flat roof, this may require local removal of finishes, waterproofing, or insulation to access the bolts or structural connection. This is undesirable because it can compromise the continuity of the waterproofing system, introduce a leak risk, affect thermal performance, and may invalidate or prejudice the waterproofing manufacturer's guarantee.

Therefore, davit arm or anchor systems should not be viewed as standalone items of access equipment, they are part of a wider roof, structure and safety system. Without a complete up-to-date technical file future inspectors, dutyholders and roofing contractors may be forced to prove the integrity of hidden fixings by intrusive means.

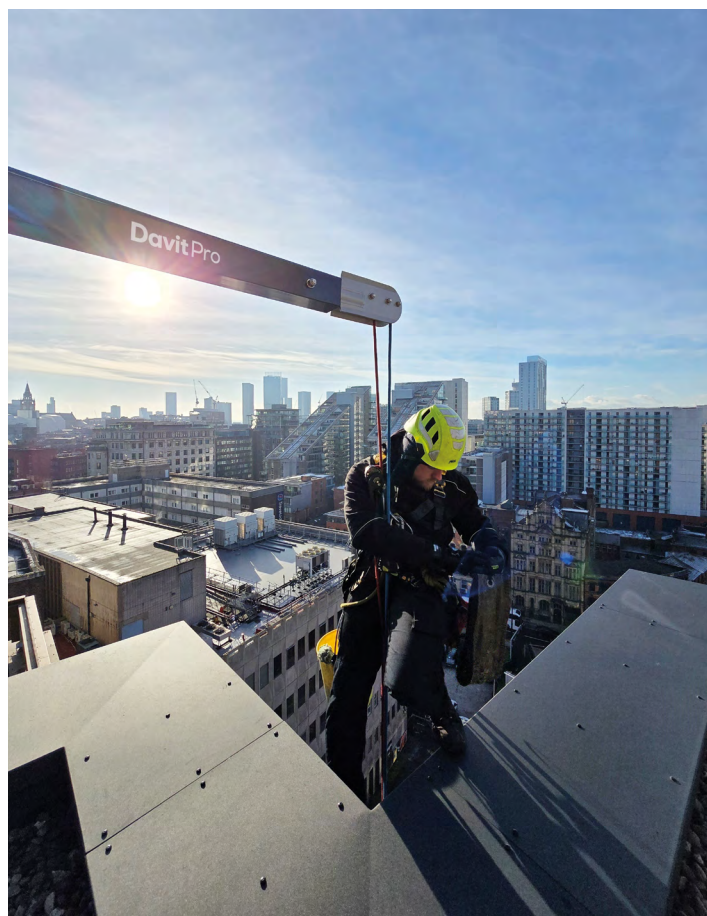
What information is stored in the technical file?

As a minimum, it should include:

- project information and the original design brief;
- details of the dutyholder, designer, manufacturer, installer and inspector;
- design considerations, including the substrate, fixing method, structural calculations and intended use;
- the complete system design specification;
- as-built drawings showing the full installation and fixing arrangement;
- details of any changes from the manufacturer's standard fixing detail;
- photographs taken before, during and after installation, especially of hidden fixings before they are covered by the roof system;

- commissioning certificates, inspection records and test reports;
- declarations of conformity, product data, batch numbers and serial numbers;
- current instructions for use, operation and maintenance manuals;
- an examination scheme for future periodic inspection.

BSIF's technical folder template² emphasises the importance of keeping design information, calculations, as-built drawings, installation photographs, commissioning certificates, inspection records, product data and O&M information together in a retrievable project file.



The photographs used within the guidance were kindly supplied by Safety Engineering Products: [safety-sep.com](https://www.safety-sep.com).

Legacy installations

For existing or legacy davit arm or anchor systems where the technical file is missing or incomplete, the dutyholder should arrange for a competent person to carry out an installation review. BSI's technical bulletin states that this review should consider the method of installation, fixing method, base material, anchor rating, documentation, signage, inspection history and whether alternative access methods may be more appropriate.

Where the system cannot be verified without intrusive works, the dutyholder should understand that opening-up the roof may affect the waterproofing system. Any such work should be planned with the roofing contractor and waterproofing manufacturer so that the roof can be reinstated correctly, and guarantee implications are understood before work starts.

Summary

For new installations, the system technical file should be treated as a required handover document, not an optional extra. The file should be completed before the system is brought into use and retained by the dutyholder for the life of the system.

For flat roof installations, particular care should be taken to photograph and record all hidden fixing details before they are covered. Failure to maintain the technical file can turn a safe and serviceable davit arm installation into a difficult and costly problem. A complete technical file protects the dutyholder, supports future inspection and maintenance, and helps avoid unnecessary disruption to the flat roof waterproofing system.



For further information:

¹ BSI Technical Bulletin:
<https://pages.bsigroup.com/bs7883/technicalbulletin>

² BSIF's technical folder template:
<https://bsif-heightsafetygroup.org/wp-content/uploads/2025/11/BSIF-HSG-Technical-Folder-Template-and-Explanation.pdf>

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