BS5454 - Recommendations for the storage of archival documents

BS5454:2000 makes recommendations for the storage of archival documents mainly concerning traditional materials, i.e. paper and parchment.

The standard is intended for use by archivists, librarians, conservators, museum curators, architects and designers.

The key points from the standard are shown below and a full copy can be purchased from BSI.

Static Shelving

- Shelving should be designed in such a way as to provide adequate ventilation, allowing free movement of air around the stock to ensure pockets of stale air or humidity do not pose a threat to the stored material.
- The lower shelf level should be at least 150mm from the ground.
- Shelving systems should have clear unobstructed apertures, ensuring that all shelf clips are concealed within the shelving structure and do not protrude through the frame to cause the snagging of valuable items.
- Shelf frames should not impede the clear aperture available for storage to avoid snagging or damage.



- Each shelf aperture should have a 50mm gap from the top of the stored material to the underside of the shelf above.
- Ideally, shelves should be easily adjustable on a 25mm pitch, to accommodate units of varying size and shape.
- The front edge of each shelf should be rounded or turned so that there is no sharp or angular edge to damage documents, injure people, or obstruct the withdrawal or replacement of documents.
- All shelves should have provision for labelling to clearly identify materials stored.
- Open frames are the preferred means of construction to ensure through flow of air.
- Solid side walls with perforations are suitable if loose items are to be stored.
- Solid back sheets to the shelving units should be avoided, although open-mesh back sheets are acceptable to allow the through flow of air.
- Lighting should be at least 300mm above the top of stored material, as exposure to light and heat can damage documents.





Mobile Shelving

- For mobile shelving, there should be a minimum gap of 25mm between the mobile shelving runs, allowing (i) good air circulation; and (ii) fire suppression systems to effectively circulate gas in an emergency.
- When mobile bases close against one another, they should be designed in such a way as to ensure that all stock is contained within the shelving and not crushed by an adjacent mobile run.
- BS5454 states that methods of operation should predominately be mechanically or hand cranked systems to reduce any risk of fire associated with powered electric mobile systems.
- Push-lock handwheels should ideally be fitted to the operating end of the system to ensure personnel have the ability to lock off a run of shelving for access, without fear of harm from an adjacent mobile run closing the aisle.
- Anti-tip devices should be incorporated within the mobile base, where the height to depth ratio is greater than 5:1, to prevent any possible tipping of a shelving unit.
- Mobile shelving aisles should be no less than 750mm wide and a typical aisle would be 900mm to ensure there is adequate space to manoeuvre when accessing the lower shelf levels.
- Main gangways should be no less than 1100mm from the handwheel to an adjacent wall or obstruction, providing adequate means of escape in the event of a fire.



