

The Reuse of Doors

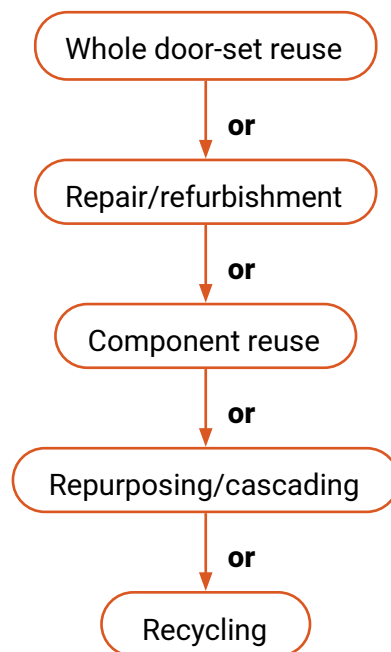
Deconstruct for Reuse: A summary for auditors, strip-out and demolition contractors

Don't demolish what can be deconstructed

The value of a reusable door can be lost in minutes if it is removed as though it were waste. Doors are often removed during the refurbishment or demolition process with significant useful life remaining.

Approximately, 470,000 doors are removed from offices each year in England and Wales. Even if only 10% were reused, the potential avoided A1–A3 emissions could be approximately 6,570–24,220 tCO₂e per year, depending on the mix of door types.

Careful deconstruction is paramount. Removal methods, handling, storage and logistics can determine whether a door remains reusable. There are several possible reuse pathways:



Ironmongery should be recovered wherever possible - it can represent a significant proportion of the carbon associated with a door-set. Glazing may also have reuse potential even where the complete door cannot be reused.

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1. Audit early

A reuse focused audit should take place before strip-out or demolition begins. This can be part of a pre-refurbishment/deconstruction audit.

A high-level survey should use a simple triage process considering age, value, condition, door type, performance requirement and likely repair burden. This can establish which doors should be retained in situ, potentially reused elsewhere - either with the same building, elsewhere in the client's portfolio or for moving on to a third party for use on another project - further inspected, recovered for components, repurposed or recycled.

For doors potentially available for reuse, a detailed survey should record the door reference and location, manufacturer and product code, dimensions, door type, fire rating, condition and repair requirements, age, frame, glazing, ironmongery, labels and certification (particularly fire specific ones), maintenance information, photographs and proposed reuse route.

Currently the reuse of non-fire doors, the repurposing of fire doors and the reuse of ironmongery are the most viable options.

2. Plan the deconstruction

Do not leave the deconstruction plan until the day of strip-out. Before work starts, confirm which doors are being reused, whether frames are required, access routes, door size and weight, lifting and manual handling requirements, goods lift capacity, temporary protection, storage, transport arrangements, system for labelling, destination and responsibilities.

Large glazed doors and oversized panels may be particularly difficult to remove and transport. Logistics therefore need to be considered alongside technical suitability.

3. Deconstruct carefully

A reuse-focused removal sequence should begin with photographing both faces of the door, recording its condition and capturing labels, certification marks and manufacturer information. The unique door or reference number should be confirmed and the intended route (retention, reuse, recycling etc) marked.

Ironmongery should be removed carefully before the door itself, with components, screws and fixings packaged together and labelled against the door reference.

The door should then be protected immediately and never placed directly onto a bare floor. Dragging or leaning should be avoided where it could cause damage.

Frames should be removed with equal care. Architraves should be removed carefully to expose fixings and, where frames are back-fixed, plasterboard or finishes should be cut back rather than pulling the frame through the wall. Frames should be removed in one section where possible, with components dismantled and secured where practical. If a frame cannot be dismantled, it should be braced for transport.

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4. Protect what you have recovered

A reusable door can become waste if it is damaged during handling or storage. Use appropriate corner and surface protection, soft protection between doors, suitable supports and secure bracing for frames. Storage should be dry and protected, with appropriate stacking arrangements.

Storage and packaging should be considered part of the reuse process, with both financial and environmental costs accounted for.

5. Keep information

The physical door and its information need to stay together. Every recovered door should have a unique reference linked to the data gathered in the audit process and include storage location and final destination.

Digital passports can allow information to follow the product and be enriched over time. Manufacturer data can be supplemented by installation, maintenance, inspection and reuse information.

6. Fire doors: stop and assess

Fire doors are safety-critical systems. Do not assume that a fire label means a door can automatically be reused. Assessment may need to consider the door leaf, frame, glazing, ironmongery, intumescent seals, condition, damage or distortion, previous modifications, installation, maintenance history, original test evidence and the proposed new location and performance requirement.

Reuse of fire doors requires an evidence based process and competent, independent assessment, with involvement from fire specialists and Building Control. Where information is missing, reuse as a fire door may not be possible without further assessment.

7. Build reuse into your method statement

A reuse-focused strip-out package should clearly establish which doors are reusable, how they are to be removed, who is responsible, how they will be labelled and protected, where they will be stored, who will collect them, what information must be captured and what happens to components that cannot be reused.

Where possible, agree the reuse route before removal rather than removing doors first and trying to find a destination later – the chance of reuse will be substantially higher.

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Site-ready reuse checklist

- ✔ **Before strip-out:** Complete the reuse and door schedule audit, identify doors for retention, reuse or recovery, confirm destinations, agree removal methods, plan storage and transport, and establish the labelling system.
- ✔ **During removal:** Photograph and record condition, capture labels and certification, remove ironmongery carefully, keep fixings with the door, protect doors immediately, remove frames without unnecessary damage and label every component.
- ✔ **After removal:** Update the inventory, record any damage, separate repair and inspection requirements, move products into protected storage, transfer products to the agreed recipient or reuse route and ensure the information trail is maintained.

The measure of success

The demolition industry is key to significantly increasing what materials and products are reclaimed for reuse. Successful deconstruction means retaining as much value as possible while preventing avoidable damage and loss.

If it can be reused, remove it like it has value and treat it with respect. The different between a reusable product and waste is often simply intent.



Image credits:
H Mansell