ASDA

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What every installer must know about Aluminum, Glass Systems & Products

- How can we weatherproof the system?
  - ALWAYS seal mechanical joints.
  - ALWAYS consult your system supplier for the correct gaskets & weather seals designed for the system.
- How should we lock the opening stashes?
  - ALWAYS consult your system supplier for the correct locking devices designed for the system
- How should we fix the system?
  - ALWAYS consult your system supplier for the correct fixing methods designed for the system.
- What must we know about glazing?

General: Glazing shall be executed in strict conformance with glass manufacturer's recommendations & all in accordance with the National Building Regulations.
A warranty is to be provided that the manufacturer if the laminated safety glass and/or the hermetically sealed glazing units warrants the product against delamination & colour degradation for a period of not less than 5 years.

Structural glazing: In case of structural glazing written proof is to be provided that all stages of fabrication & installation have been executed with disciplined quality assurance in accordance with the relevant parts of SANS 9000.

Written confirmation of compatibility of structural with extrusion surface, glazing tape & glass is to be supplied by the structural sealant manufacturer together with the regular relevant test reports regarding the adhesion of the sealant to the aluminium frame in accordance with ASTM/C 792-80.

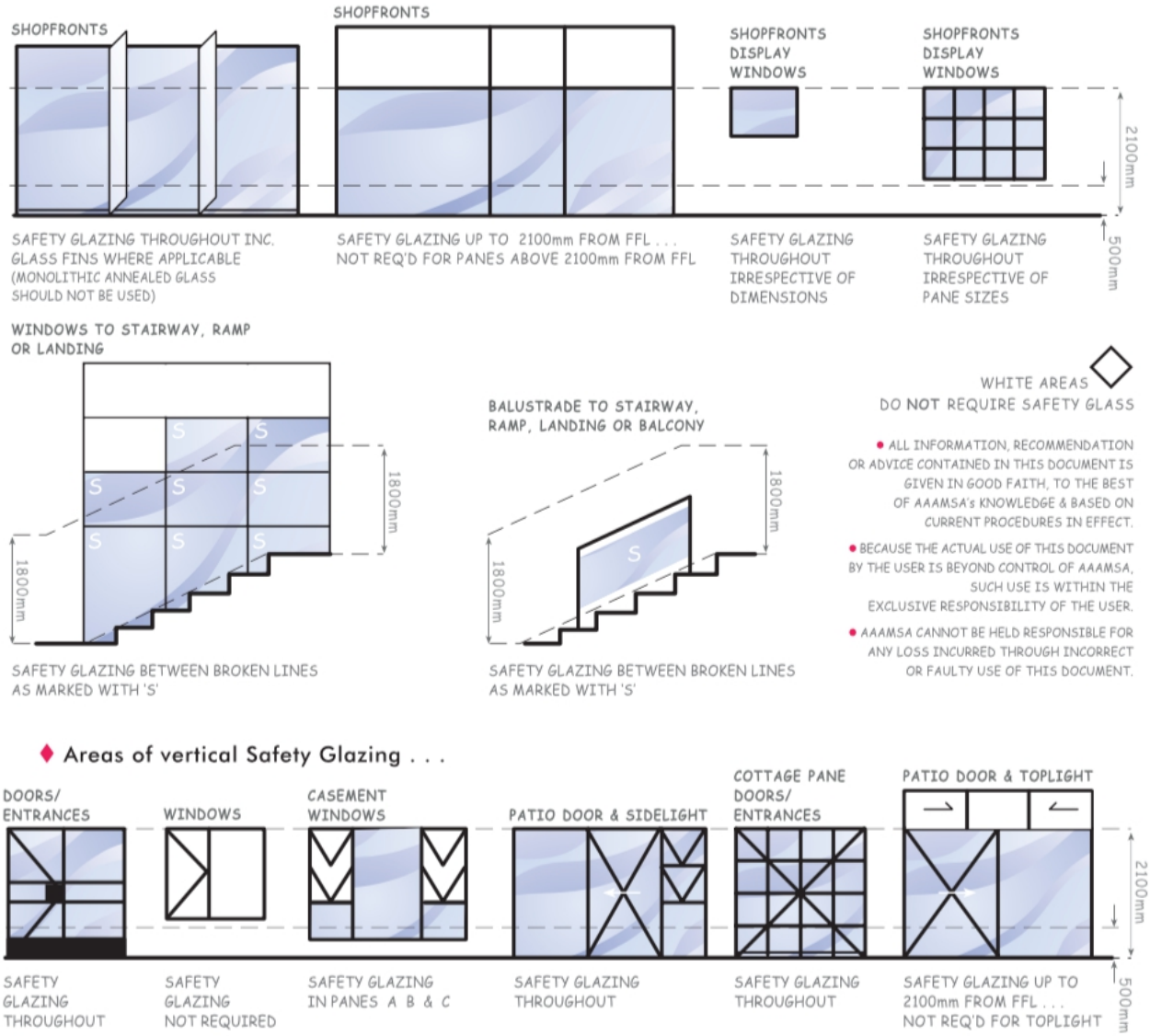
Safety Glazing: All safety glazing materials (individual panes) shall be permanently marked - Such marking to be visible after glazing.

"If it's not marked - It's not safety glass"

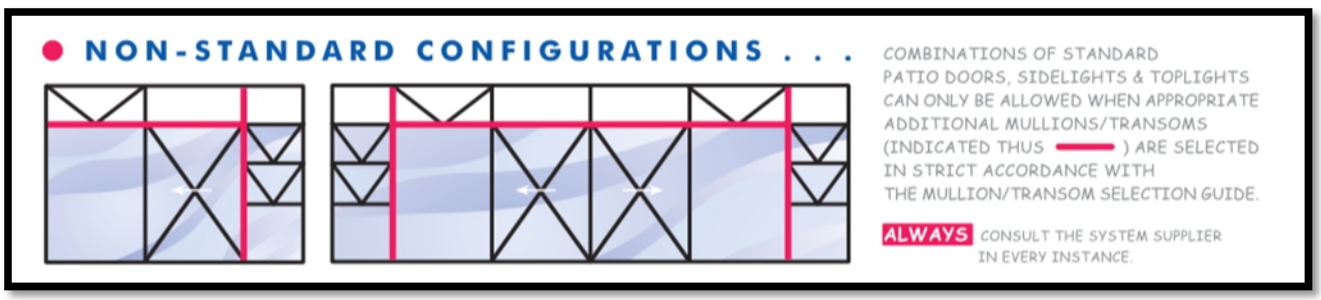
Where must we install safety glazing materials?

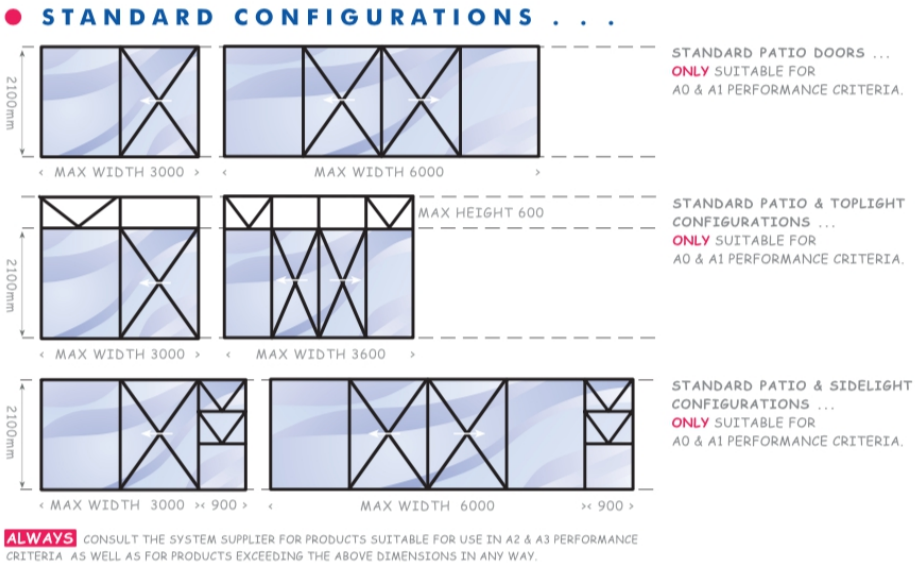
- All safety glazing materials (individual panes) shall be permanently marked. Such marking to be visible after glazing
- All skylights, overhead and sloped glazing shall be of Safety Glazing materials.

Areas of vertical Safety Glazing



What maximum size can we make patio doors & sides?





Hardware & Fixings

The selection of the appropriate hardware is of paramount importance to ensure quality architectural aluminium products. The golden rule is to use the hardware recommended by the Architectural Aluminium Systems suppliers at all times. TO deviate from this principle is tantamount to providing such standard end products.

Door Controls

a Door control (door closer or floor spring) is used to control the closing movement of a hinged door.

There are three basic types of door control:

- Overhead door closer
- Floor spring
- Transom concealed door closer

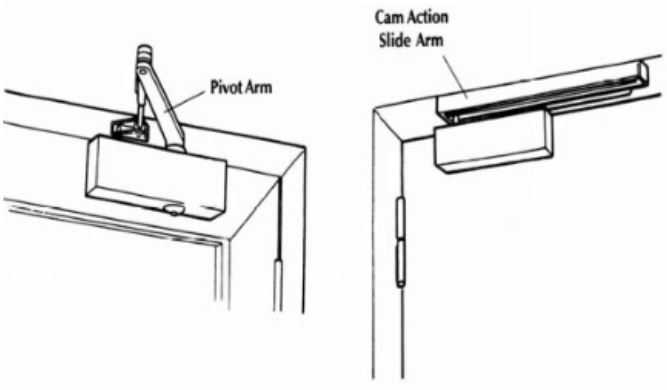
Where door controls are used:

- On any internal door which is required to be kept closed when unattended (e.g. doors in kitchens, toilets)
- On any main entrance door which needs to be kept closed for reasons of wind and weather
- On any fire door, internal or external, this must be closed in the event of a fire

a. **Main types of door controls:**
Overhead surface mounted door closers

An overhead door closer compromises of:

- Door closer unit
- Arm (pivot arm or slide arm)



b. **Factors to consider when selecting an overhead door closer:**

Door closers mounted on the 'pull-side' of the door (regular arm)

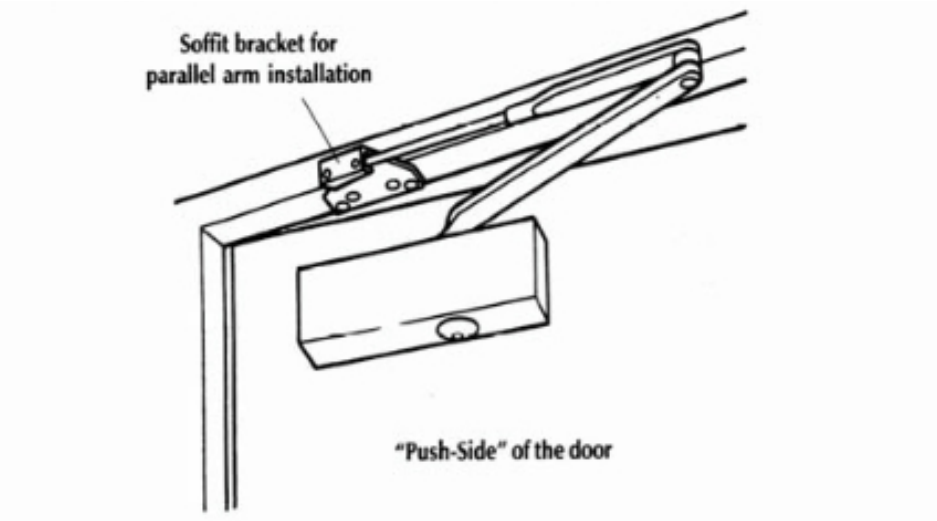
- Most common application for interior doors
- Closer mounted to the door with the arm fixed to the frame

Provide:
Space behind the door (*avoid the closer hitting the adjacent wall*)
Specify:
Regular arm door closer

Door closer mounted on the 'push-side' of the door:

- For doors opening to the exterior
- There are two methods of fixing

Parallel arm mounting:
Closer mounted to the door and the arm to the frame via a soffit bracket.
Specify:
Parallel arm door closer

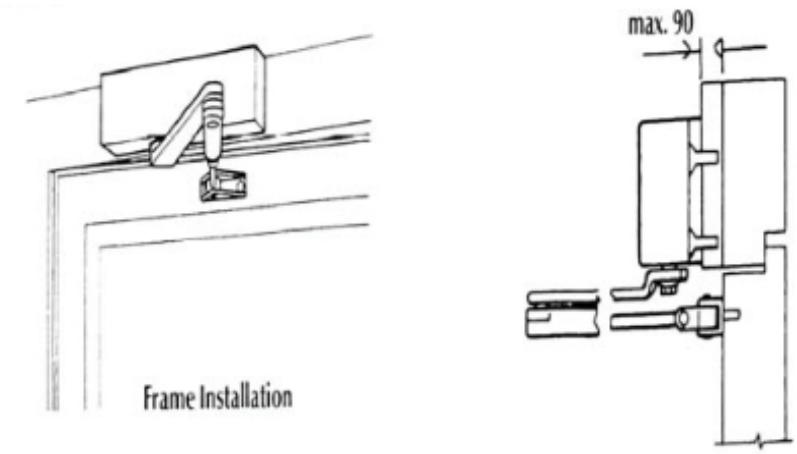


Frame mounted closer (regular arm)

- Closer mounted directly to the frame or on a drop plate, with arm fixed to door

Note: The limit of 0-95mm frame reveals depth, depending on the type of door closer used

Specify:
Regular arm door closer (for frame mounting)

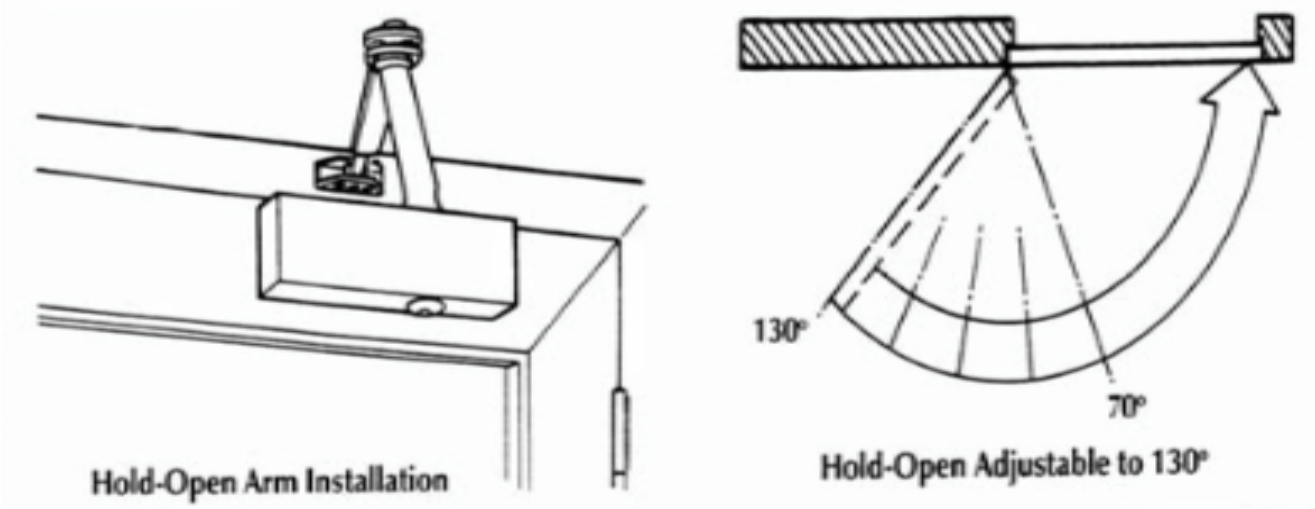


Hold Open Requirement (Mechanical Hold Open arm)

- For door requiring to be held open, such as for goods loading
- Hold open arm is adjustable to hold open from 70 to 130 degrees

Note: Do not fit a hold open closer to a fire door, as all fire doors must be self-closing

Specify:
Regular arm or parallel arm closer with 'Hold Open'

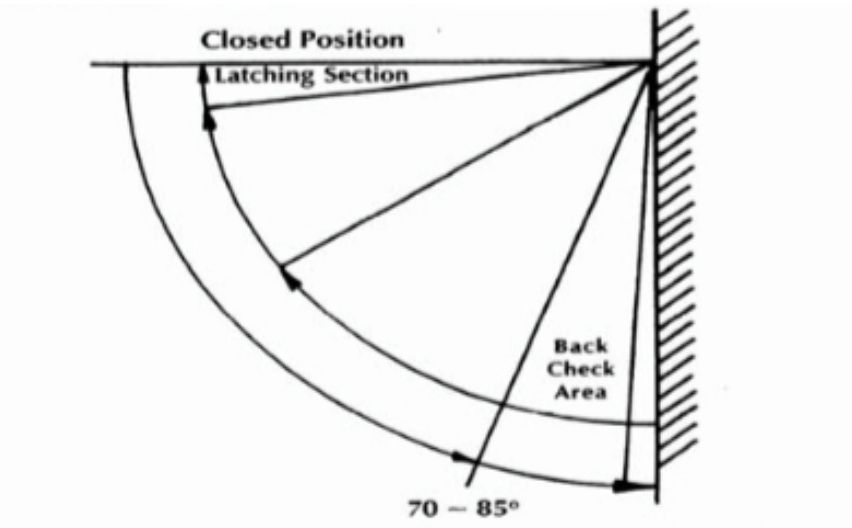


Back check requirement (Check opening action)

- To stop the door hitting an adjacent wall or obstruction.
- To control a door opening into a windy environment.
- Back check adjustable from 70 degrees
- Can be adjustable, but may be preset)

Specify:

Regular arm or parallel arm closer with 'back check'

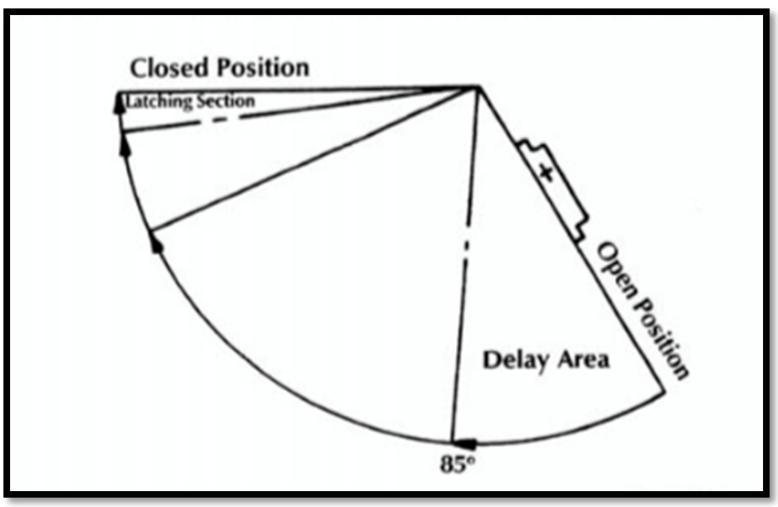


Delayed closing (automatic hold open for up to 2 minutes)

- For doors used by handicapped people in wheel chairs
- For doors in loading areas which must stay open for short periods of time

Specify:

Regular arm or parallel arm closer with delayed opening

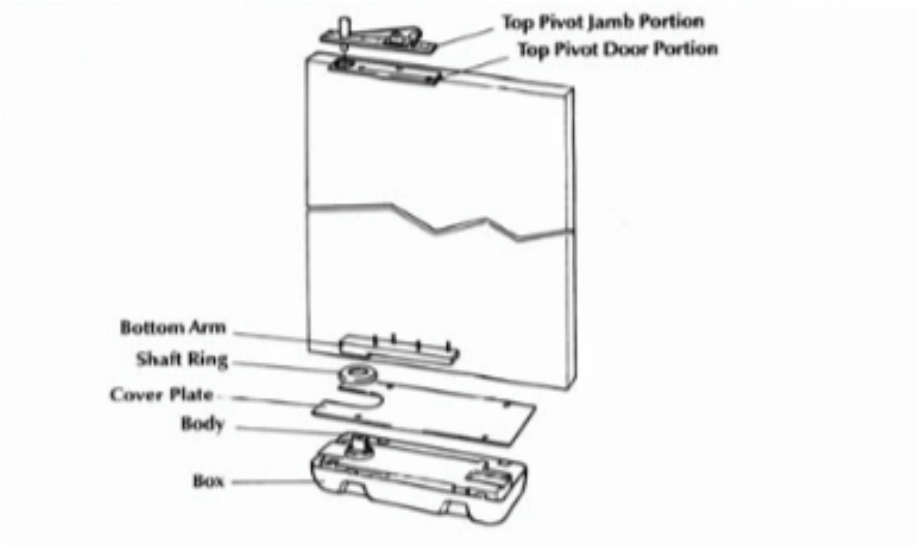


Floor Springs

A floor spring compromises

- Floor spring unit set into the floor
- Bottom door strap
- Top door strap
- Top center with retractable pin

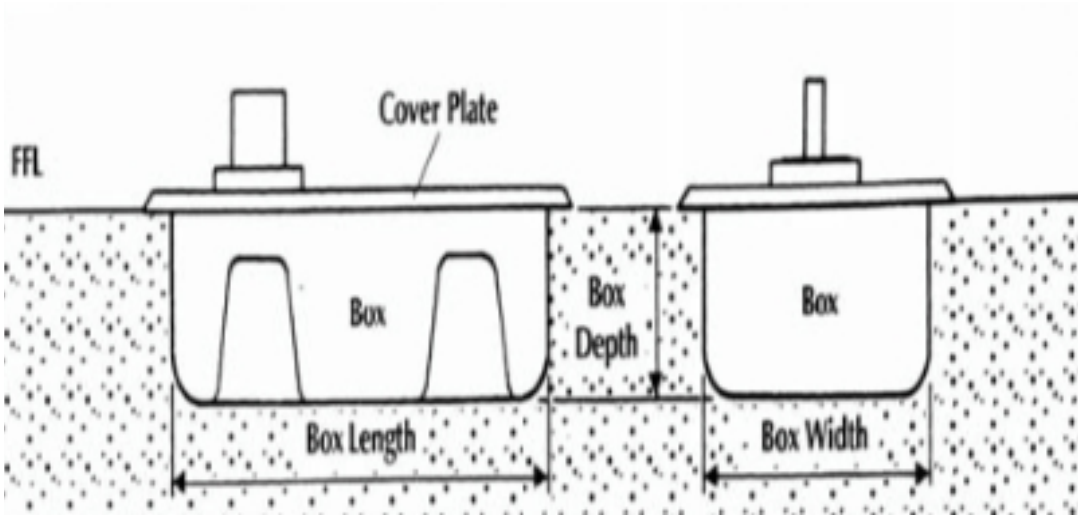
A door on a floor spring does not require hinges



Factors to consider when selecting a floor spring

Floor detail and finish

- Floor spring bow depth up to 75mm must be set into the floor, flush with finished floor level (FFL)
- Weather-strips, steps or ramps may interfere with floor spring fixing
- Reinforcing in the floor, electrical conduits or timber floors may not allow floor spring to be fitted



Narrow Doors

- For doors narrower than those shown in the table, the floor spring may make the door 'too heavy' to open. A special light action floor spring may be required

Specify:

Lower strength floor spring for specified door size and weight

Exposed locations

For doors exposed to abnormally windy conditions, a stronger floor spring may be required. But consideration of the type of building and the people likely to operate the doors should be given before specifying a stronger floor spring.

Back check requirement

- To stop the door hitting an adjacent wall or obstacle
- To avoid the abuse of the door in high traffic areas

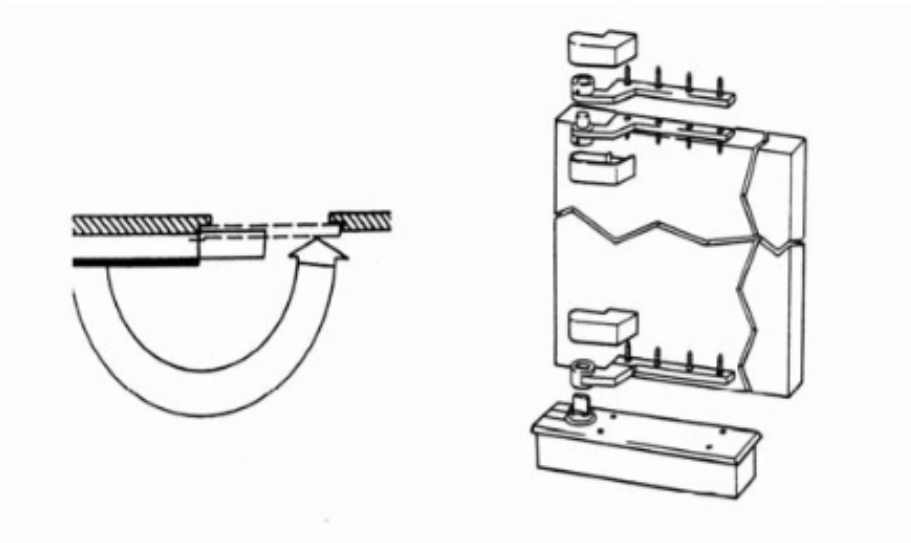
Door opening actions

Single action

- Door opens one way only
- Door hangs on cranked fittings which close the door into a rebated frame

Note: For fire exit doors, do not specify single action opening inwards

Specify:
Single action floor spring for specific door weight, size, construction and opening angle

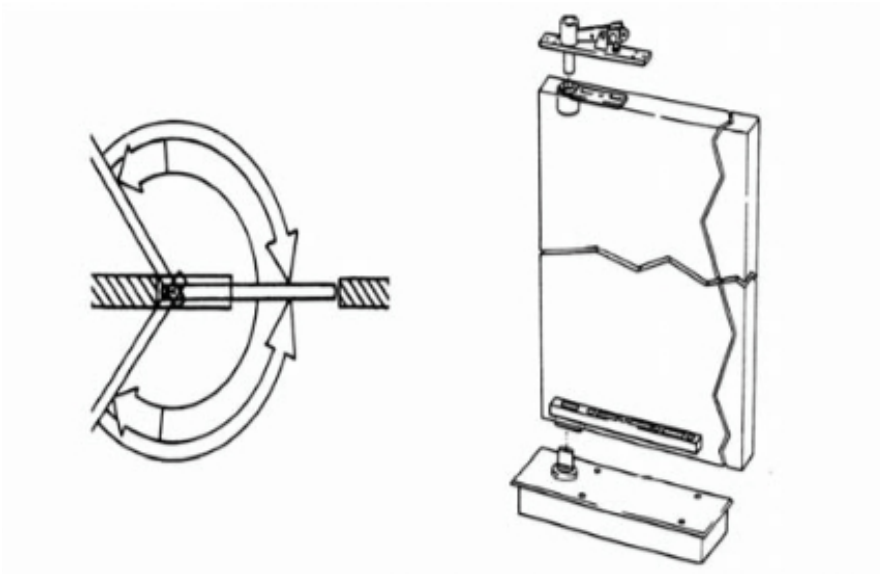


Double action

- Door is center pivoted
- Door opens 90degrees both ways
- Because door swings both ways, the door should be fully glazed or have a glazed view panel

Note: Double action floor spring must be used for fire control doors, but may be used for smoke check doors under certain circumstances, with the approval of the Fire Prevention Officer. All approved doors must have rebates

Specify:
Double action floor spring for specific door weight, size, construction and maximum opening angle



Transom Concealed Closers

Used

- Where threshold details prevent the use of the floor spring (E.g. modern buildings where floor slabs and screeds may be thin)
- In hygienic environments where the mechanism is best completely concealed

Closer compromises

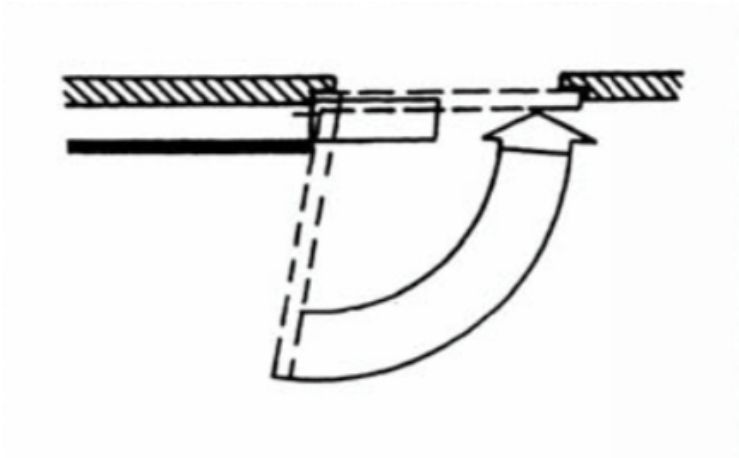
- Transom closer fitted into a standard aluminum transom
- Top door strap/arm
- Bottom door strap (for double action)
- Bottom pivot (for double action)

Factors to consider when selecting a transom concealed door

Door opening action

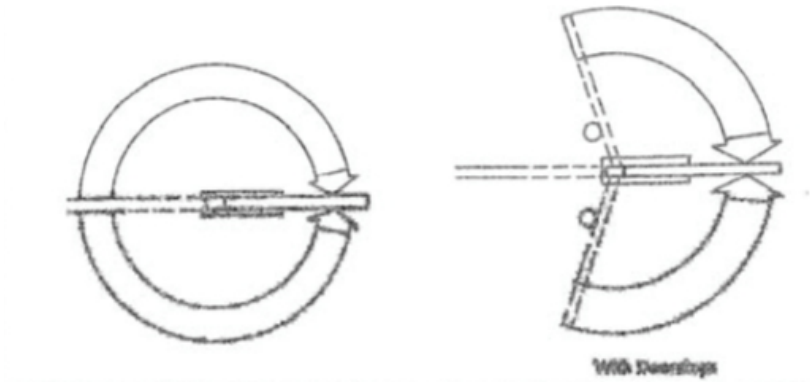
Single action

- Door opens one way only
- Door closes into rebated frame
- No hinges are needed with this application
- Offset arm with slide channel is fitted into the door



Double action

- Door opens both ways
- No hinges are needed



Fire Doors

Fire doors are covered under the National Building Regulations and all require to be fitted with closers.

Regulations also lay down the following criteria for specifying closers for fire doors:

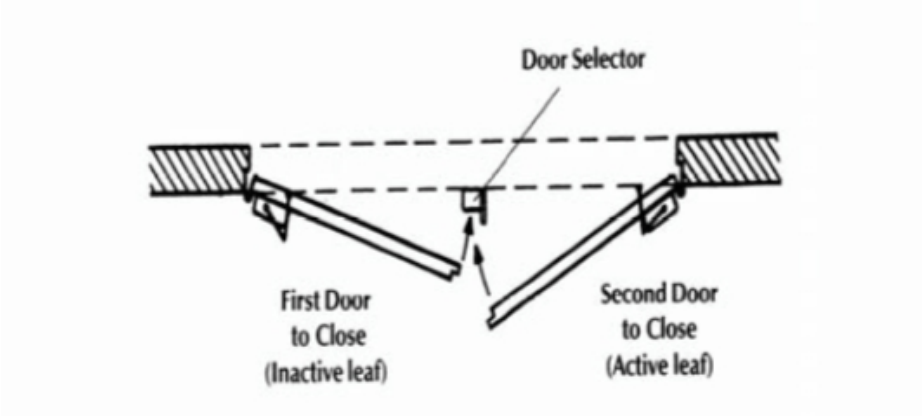
- Closers should be firmly fixed and not able to be easily removed
- The closer should not have a mechanical hold-open facility (if the door requires to be held open, it should be fitted with an electromagnetic catch which releases in the event of fire and allows the door to close)

- The closer must have a positive latching action to overcome to possible resistance of door latches
- The closer must close the door effectively from any angle

NOTE: The majority of fire doors have overhead door closers

Specify:
Overhead door closer with electromagnetic hold-open device of required

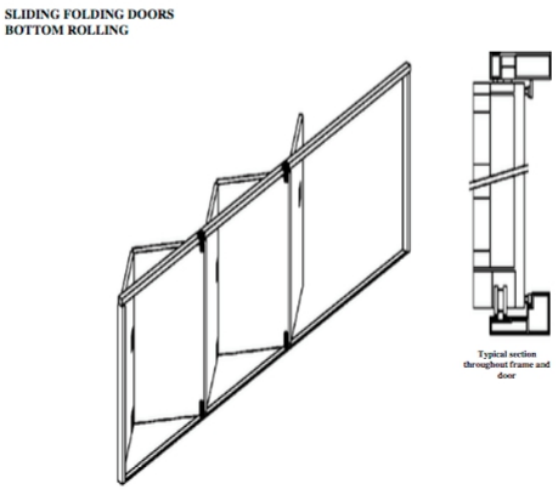
Double doors with door selector
Double doors normally have rebated meeting stiles or a metal overlapping seal. If they are fitted with the door closers, a door selector must be specified to enable the doors to close in the correct sequence.
Specify: Overhead door closers or floor springs with door selector.

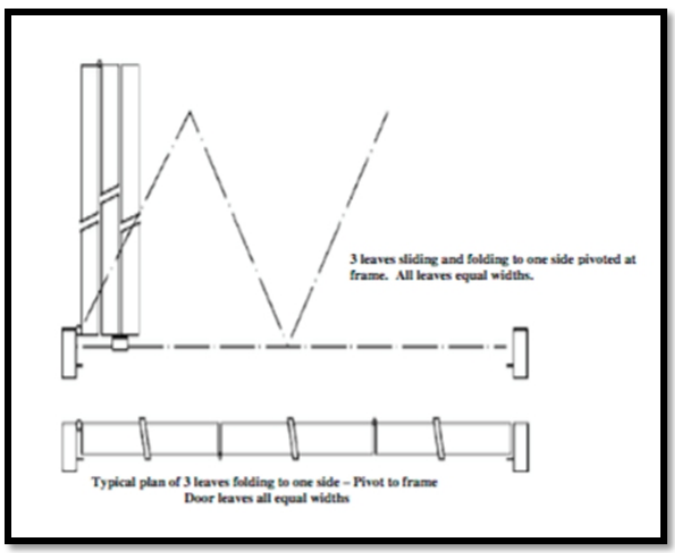


Sliding Folding Doors – Bottom Rolling

- Bottom rolling doors (Fold Side)
- Maximum practical door width: 900mm (up to 2100mm high) 750mm (up to 2700mm high)
- Maximum practical door height: 2700mm
- Maximum practical number of door hinged together and to frame or end pivot: 5 Maximum mass per door leaf: 70kg

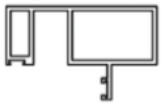
This guide is based on standard available shopfront profiles using available hardware and fittings. These systems are designed for internal and external use. Certain frames may be waterproof.





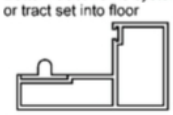
Recommended aluminium profiles for sliding/folding doors

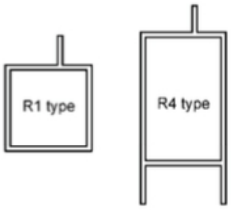
Top guide frame system designed



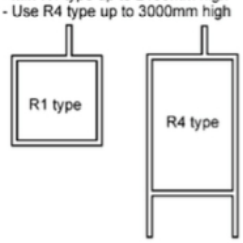
Side frame - Min 26 series
or system designed

Bottom tract frame system designed
or tract set into floor

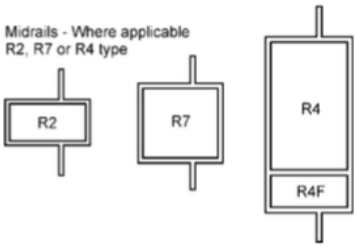




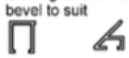
Door Stiles
- Min R1 type up to 2100mm high
- Use R4 type up to 3000mm high

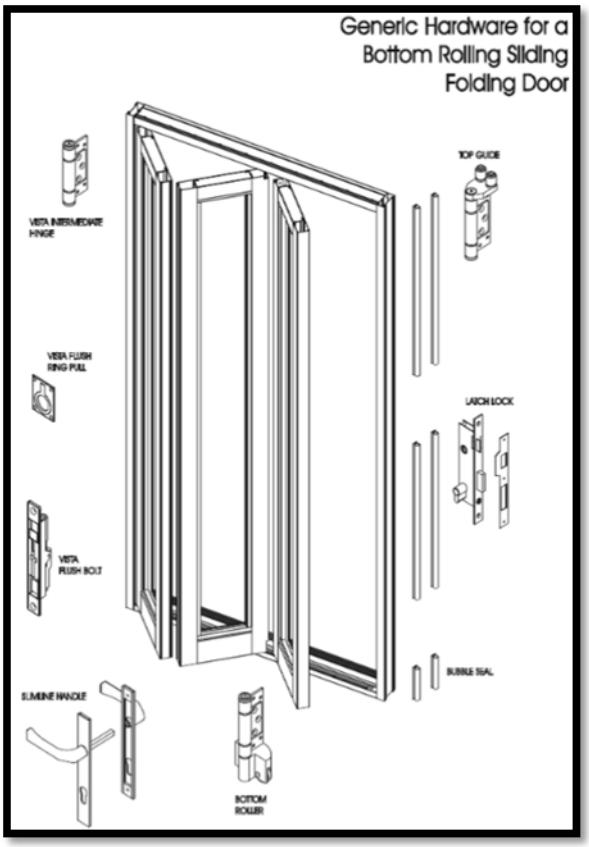


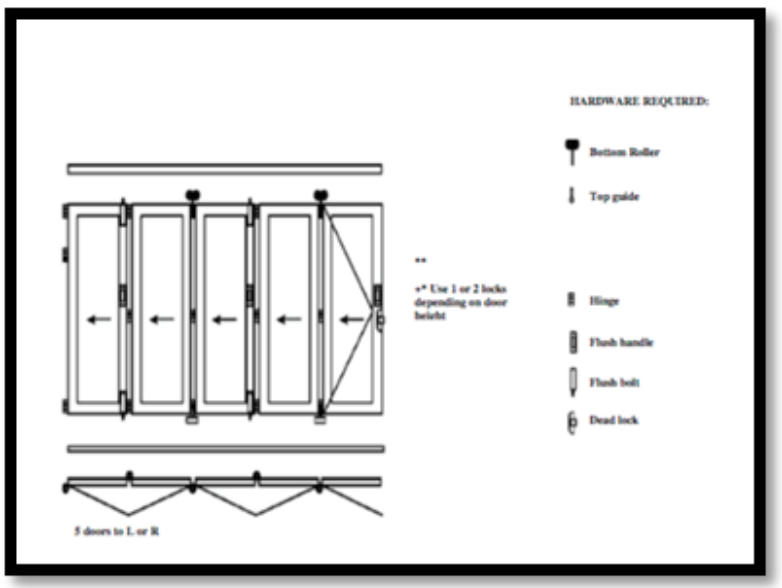
Midrails - Where applicable
R2, R7 or R4 type



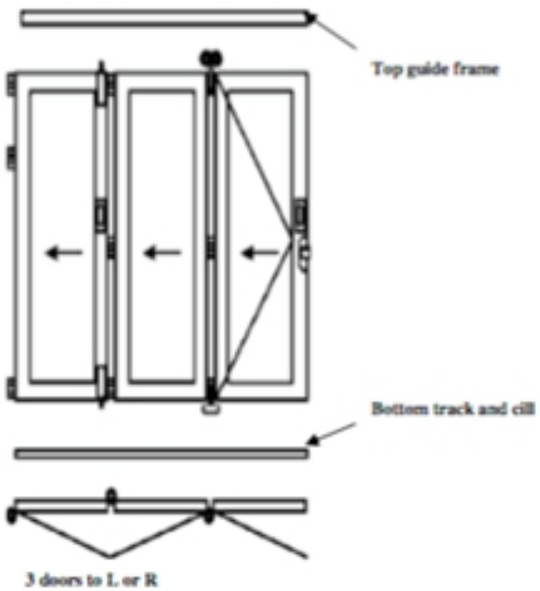
Glazing Beads - Square or
bevel to suit

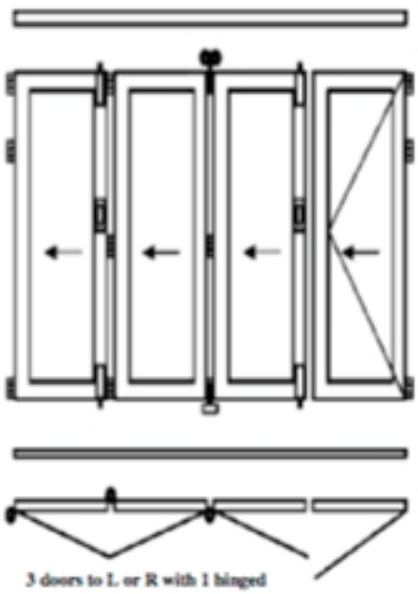






SLIDING FOLD DOORS – BOTTOM ROLLING
WHERE TO FIT THE HARDWARE

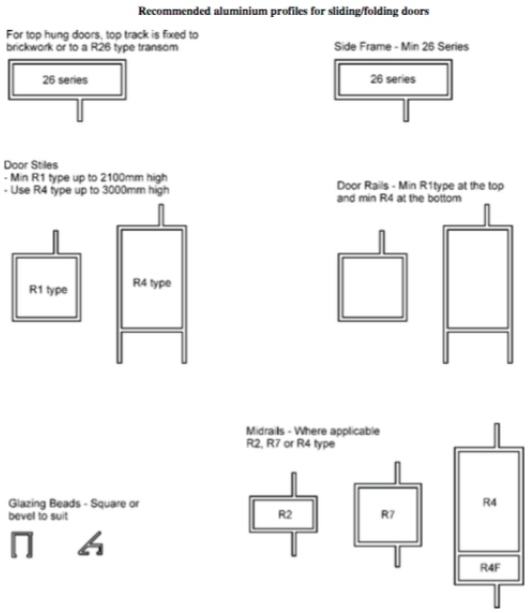


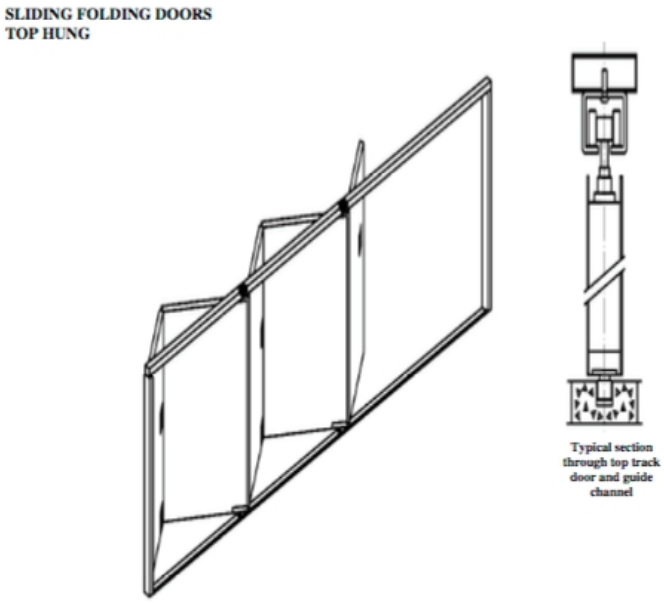


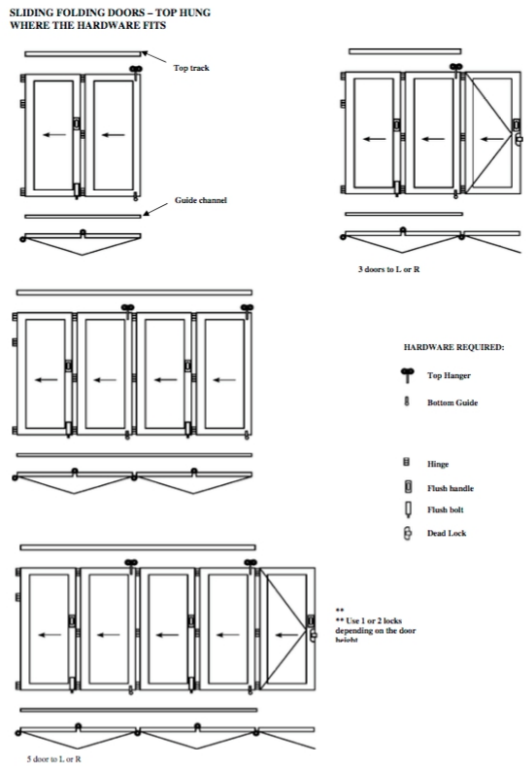
Sliding Folding doors – Top hung

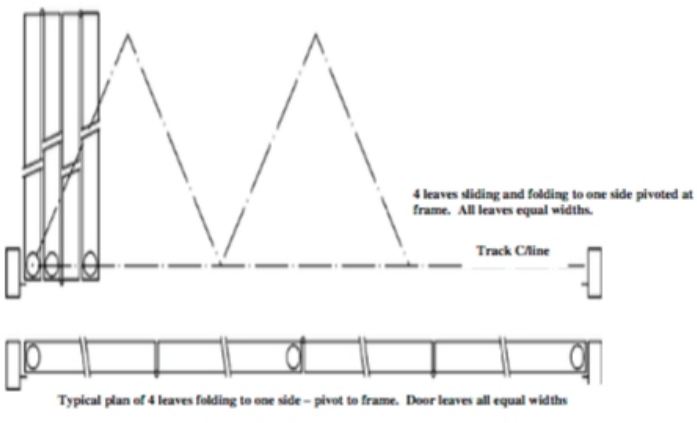
- Top hung doors (fold-aside)
- Maximum practical door width: 900mm (up to 2100mm high) 750mm (up to 2700mm high)
- Maximum practical door height: 2700mm
- Maximum practical number of door hinged together and to frame or end pivot: 5 Maximum mass per door leaf: 50kg

This guide is based on standard available shopfront profiles using available hardware and fittings. These systems are designed for internal and external use





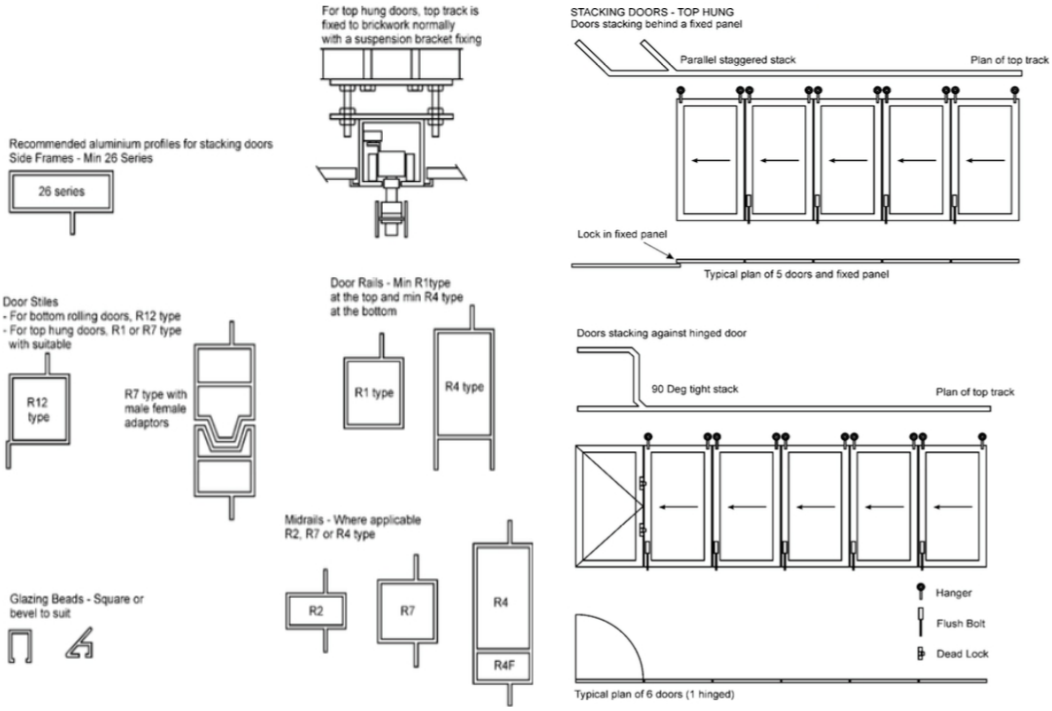




Stacking Doors

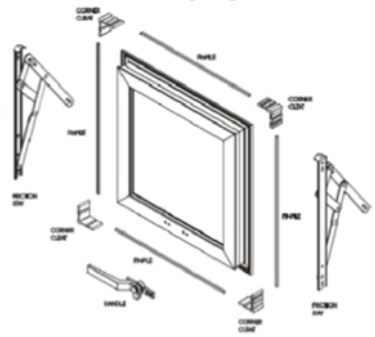
- (Stack-Away) Top Hung Doors
- (Stack-Away) Top Hung doors
- Maximum practical door width: 1200mm Maximum practical door height: 3000mm Maximum No. of doors in **System:**
  UNLIMITED Maximum mass per door leaf: 150kg

This guide is based on standard available aluminium shopfront profiles using available hardware and fittings. These systems are designed for internal use only and are not designed to be fully weather-proof.



6.6 GENERIC FENESTRATION HARDWARE

Generic Hardware for a Top Hung Casement Window



Generic Hardware for a Side Hung Casement Window