

Monaframe Doors

Entrance Door System

The Monaframe Entrance Door System creates single or double door assemblies. They can be directly combined with other Monaframe system windows, fixed lights, glazed facades, glazed roofs and conservatories. The system provides specifiers with a comprehensive, co-ordinated, range of options. The system fulfils security criteria, is fully weatherstripped and all component profiles incorporate thermal barriers.

Monarch is a member of Granges Building Systems Limited; its systems are fabricated and installed through a nationwide network of specialists. Monarch systems have been used successfully on many commercial and residential projects.



ADVANTAGES

- *Single or double doors, inward or outward opening.*
- *High security - and safety - designed into system and hardware options*
- *Monalock® multi-point security locking system*
- *Meets BS 6375 : Part 1 air permeability 300Pa, water penetration 300Pa.*
- *Virtually maintenance-free*
- *Wide choice of colour finishes*
- *Monaframe compatible*

OPTIONS

- *Trickle ventilators to meet Building Regulations needs*
- *4mm to 6.4mm single glazing or 20mm to 26mm double glazing units*
- *Mid-rails or spandrel panels can be incorporated*
- *Adaptors ensure correct alignment of glazing lines for adjacent screens or windows*

APPLICATIONS

Versatile and comprehensive, the Moniframe Entrance Door System has a wide range of applications :

- New-build or refurbishment projects
- Retail, commercial or domestic schemes
- Incorporated, as a single component, into structural openings, or
- Combined with other Moniframe window or fixed light assemblies at the sides or head.

The system includes the Monalock® multi-point security locking system.

STANDARDS AND QUALITY CONTROL

Monarch's quality control procedures have been approved under BS EN ISO 9001. Monarch is a member of the Glass and Glazing Federation and the Council for Aluminium in Building.

The Moniframe Entrance Door System has been independently tested to BS 5368 Parts 1-3: 1985.

The precise weather performance of assemblies of doors, windows and fixed glazing will, of course, depend on the door (or window) types actually incorporated.



THE MONAFRAME SYSTEM

The Moniframe System is a comprehensive suite of thermally broken aluminium sections, 75mm in depth, which has been designed and developed not only to be configured into individual window, door, roof glazing and facade glazing applications, but also to be fully co-ordinated one with another.



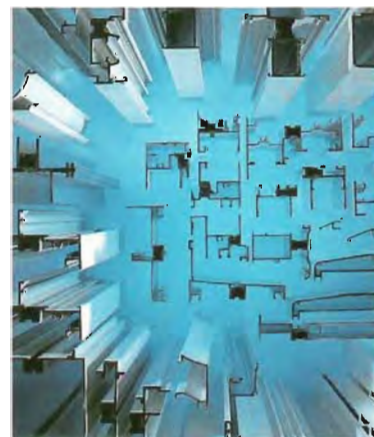
Specifiers have complete freedom to evolve fenestration designs with the confidence that adjacent elements will correctly and neatly couple together.

Moniframe Entrance Doors are an integrated part of the Moniframe System, fully compatible with other components and assemblies.

COMPOSITION

Extruded aluminium to BS 1474: 1987, specification 6063 T6 with a high strength 2-part polyurethane resin thermal barrier.

Aluminium has been tried and tested over many years in building projects, has a known long life and is inherently durable when used in building situations exposed to temperature differences, moisture and sunlight.





COMPONENTS

Because of aluminium's inherent strength advantages, Moniframe profiles and assemblies are slim and neat in appearance.

Unlike some other materials no additional reinforcement is needed on structural elements.

Outer Framing Elements

Outer frames (which are directly fixed into openings) use 75mm deep profiles at head, jambs and foot.

Trickle ventilators can be provided through the head frame, using an outer 'hood' profile, integral flyscreen and a draughtstripped inner flap.

The door cill detail can use :

- a) a separate sub-cill (A992, A993 or A994) under the cill frame, or
 - b) a drainage tray sub-cill (A988).
- Both of these may be also used for adjoining windows, ensuring a neatly co-ordinated appearance.

Alternatively, a double ramped low threshold cill and weatherseal (A998) is available which is particularly suitable for disabled access. Because this fitting option avoids waterbars and similar 'upstand' rebates, specifiers should include other suitable measures according to weather risk.

A range of adaptor profiles is available to link Moniframe entrance doors to other Moniframe assemblies, including :

A983 - hidden coupling mullion or transom which links door frames to other perimeter frames

CKA11 - as A983, with load bearing capabilities

CKF13 - mirror adaptor, which effectively converts door frames into intermediate mullions or transoms

The use of certain profile combinations will ensure alignment of overall appearance where doors form part of glazed screens :

CKTR6 (transom) and CDA15 (adaptor) at foot of screen. [CKTR6 also matches the height of 100mm flat profile door mid-rail] - see detail H

CKTR1, CKTR4, CKTR7 or CKTI1 (transom) and CDA15 at head - see detail G

Door Leaves

Door leaf frames use particular 34mm deep profiles to suit head, foot or stile conditions. A weatherbar profile is fitted to the door leaf bottom rail.

Doors can be glazed to suit requirements or a wide range of Monarch insulated residential entrance door panels are available in a selection of styles. Entrance doors using these panels are highly secure, resistant to attack and require minimal maintenance.

Standard hinges allow doors to open to 90° or, optionally, offset 'cathedral' (or 'parliament') hinges allow full 180° opening giving a 54mm clearance from frame face.

Mid-rails and Spandrels

Door leaves can incorporate :

- 100mm high 'flat profile' mid-rail (suitable for letterplates)
- or
- Spandrel in obscured or patterned glass or as a solid/insulated sandwich panel.

Construction

Perimeter framing elements have mitred junctions, incorporating mechanically crimped corner cleats and silicone sealants. Door leaves are mechanically butt jointed; the rails being positively located into, and screwed to, the stiles.

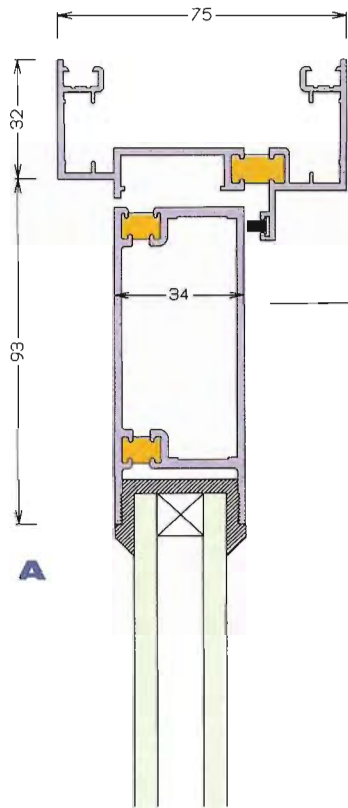
Cover Trims

A comprehensive range of colour coated cover trim options is available, of various sizes, and in convex, concave, angled and flat profiles.





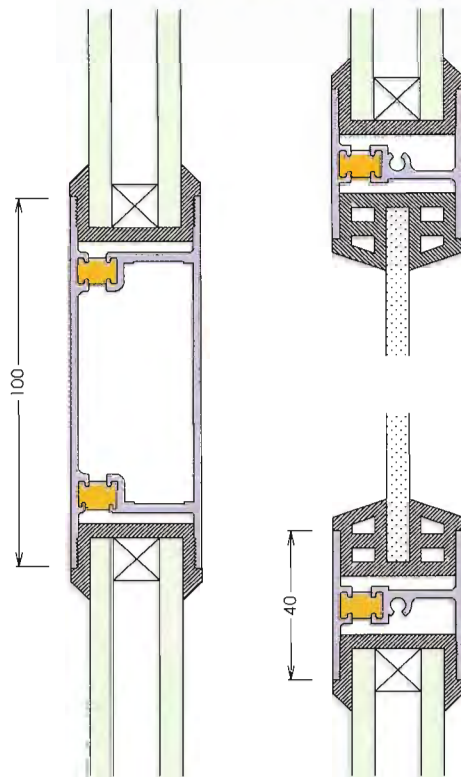
Entrance Doors



Monoframe Entrance Door head frame profile - can incorporate integral trickle vent

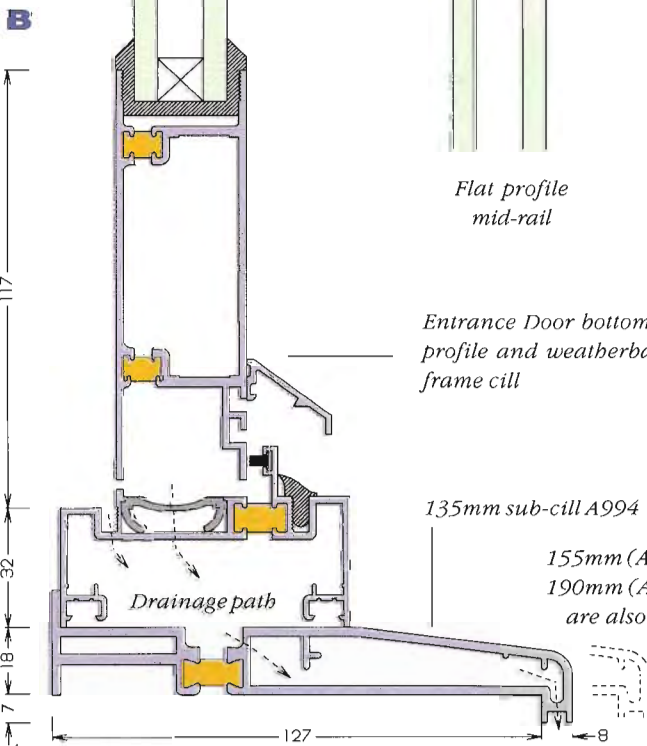
Monoframe Entrance Door top rail profile

Mid-Rail and Spandrel



Spandrel assembly - Monarch standard spandrel is 187mm high, but can be sized to suit requirements -

Vertical Section (Door opens in)



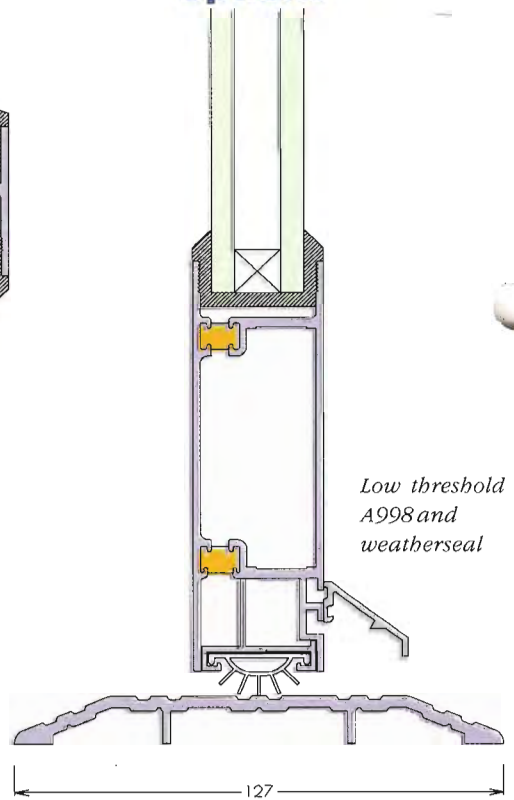
Entrance Door bottom rail profile and weatherbar over frame cill

135mm sub-cill A994

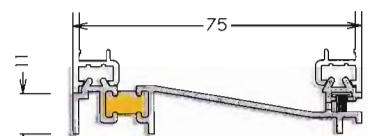
155mm (A993) and 190mm (A992) cills are also available

Drainage path

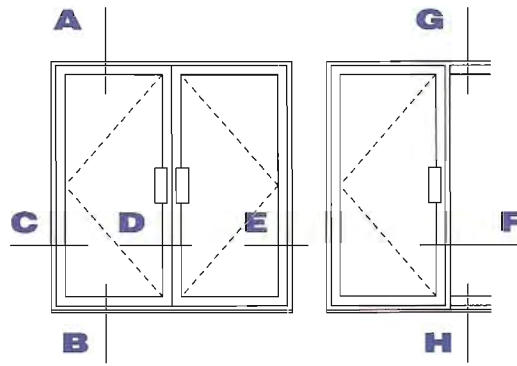
Door Cill Options



Low threshold cill A998 and weatherseal



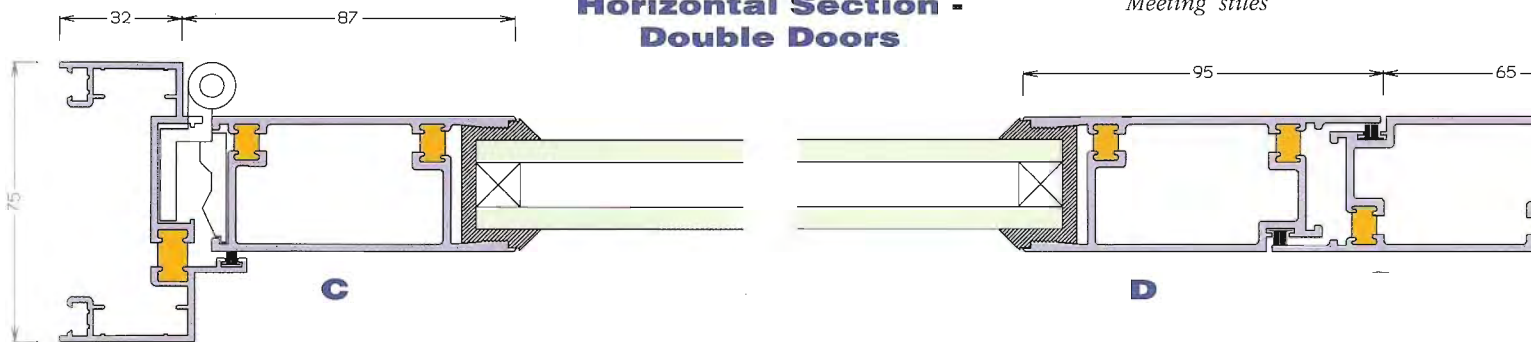
Drainage tray A988



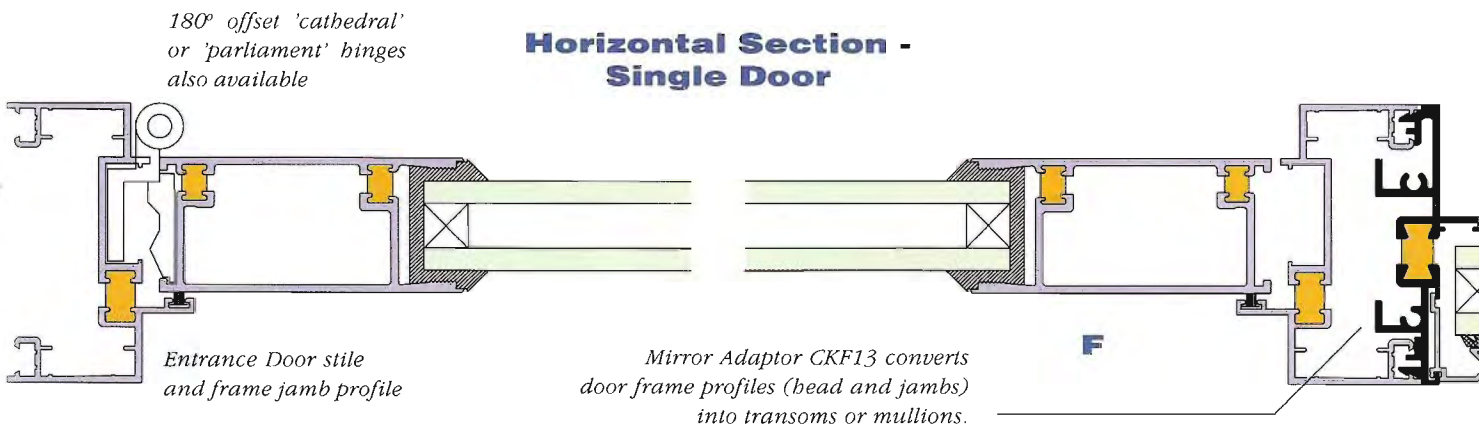
Key Elevations

Frames are infilled with closed-cell foam insulation

Horizontal Section - Double Doors



Horizontal Section - Single Door

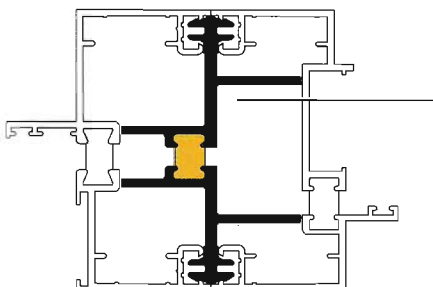


180° offset 'cathedral' or 'parliament' hinges also available

Entrance Door stile and frame jamb profile

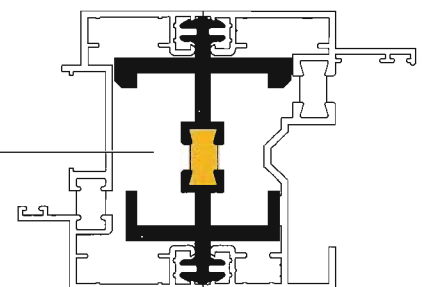
Mirror Adaptor CKF13 converts door frame profiles (head and jambs) into transoms or mullions.

Coupling Adaptors

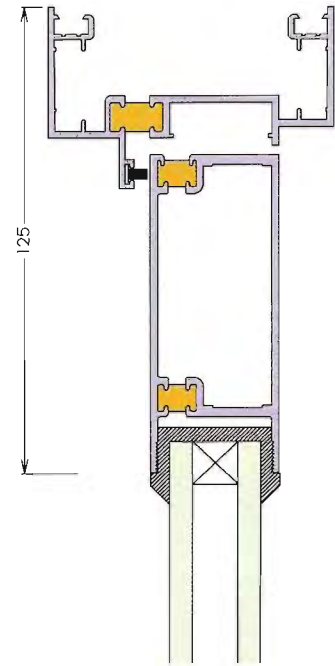
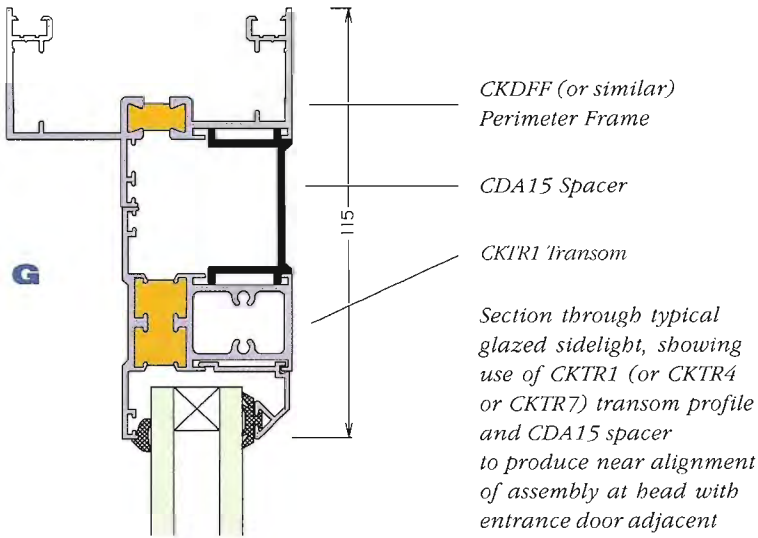


Coupling Adaptor A983 links Moniframe Casement Window and door frame profiles 'back to back'

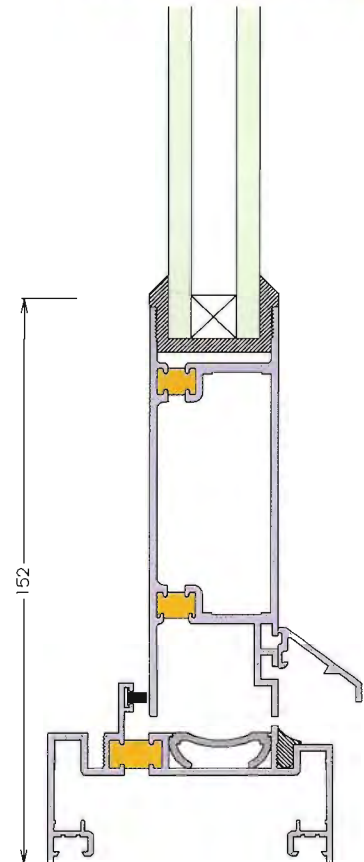
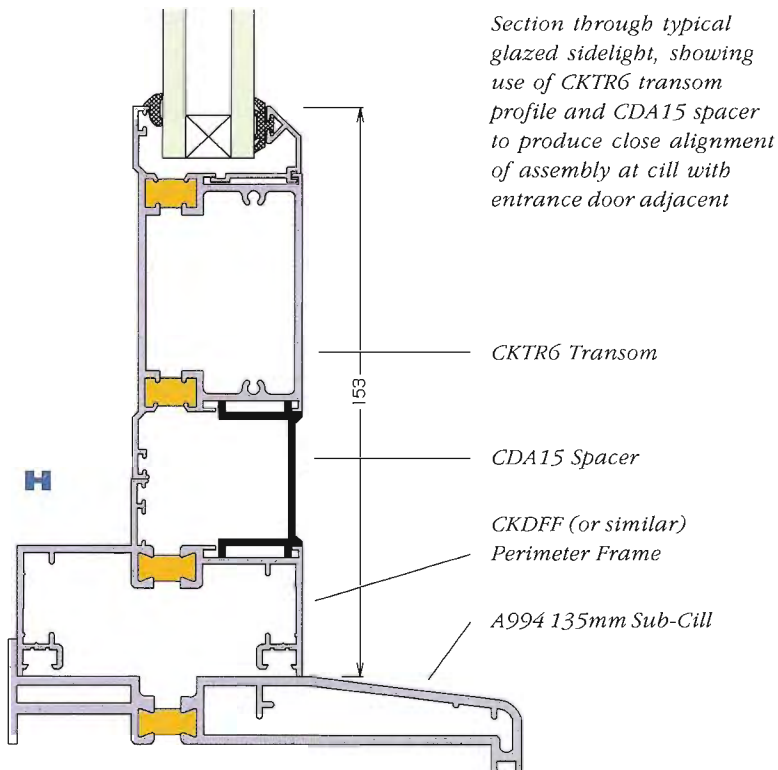
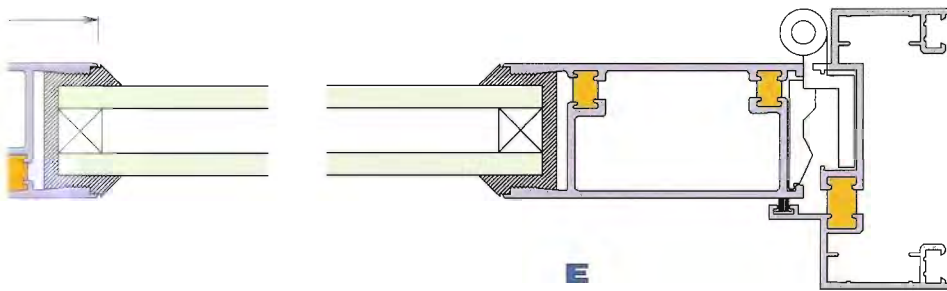
Coupling Adaptor CKM20 links Moniframe Reversible Window and door frame profiles 'back to back'



Entrance Doors



**Vertical Section
(Door opens out)**



Entrance Doors



LIMITATIONS

Monaframe Entrance Doors can be manufactured to any size from the following standard kits :

Single door assemblies -

961mm maximum width,
2163mm maximum height

Double door assemblies -

1837mm maximum width,
2163mm maximum height

Refer to Monarch for other sizes.

GLAZING

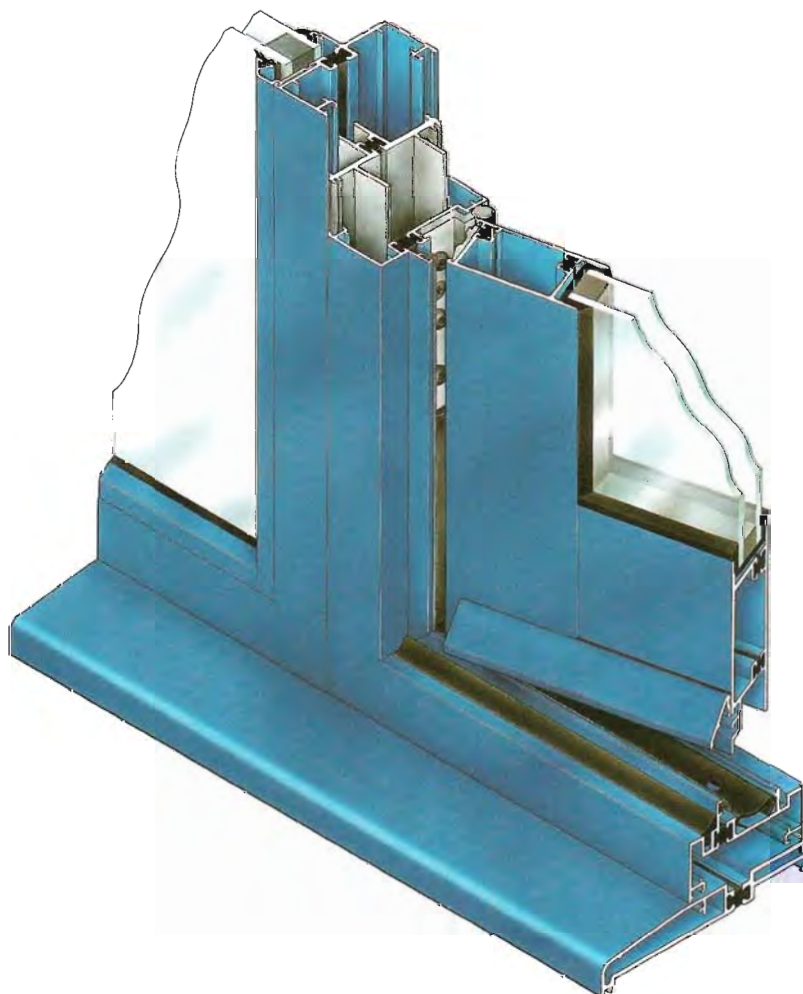
The system can be glazed with single glass (4mm to 6.4mm) or double glazing units, in accordance with BS 6262.

Double glazing or other glass thicknesses accommodated are from 20 to 26mm.

A suite of wrap-around synthetic rubber sealing gaskets (black or white) is available to accommodate this range of thicknesses.

Thermal insulation, impact safety and security considerations will often dictate the use of laminated or toughened sealed double glazing units.

Alternatively, Monarch insulated residential door panels are available in a wide range of styles, either fully-glazed, half-glazed or full-panel.





Entrance Doors

OPERATION AND FITTINGS

Standard hinges allow doors to open to 100° or, optionally, offset 'cathedral' (or 'parliament') hinges allow full 180° opening giving a 54mm clearance from frame face.

SECURITY AND SAFETY

The Moniframe Entrance Door System offers particular security and safety related features.

All doors are fitted with a Monalock® security system which locks the door in four places. At mid-height the door is secured at two points - by a snib operated spring bolt and by a separate deadbolt. The system also throws two hook bolts into keeps at upper and lower points in the door frame.

The 5-pin cylinder lock used may be suited or master keyed, operated from inside or outside and meets Association of British Insurers requirements when the anti-drill pin version is used.

Optionally, for increased security beyond this already very high level, additional top and bottom shoot bolts may be specified, as may a 5-lever deadbolt meeting BS 3621.

ENVIRONMENTAL PERFORMANCE

Thermal Insulation and Condensation Control

All relevant Moniframe Entrance Door aluminium sections are thermally broken using a high strength 2-part polyurethane resin barrier between internal and external components. The use of closed-cell foam infill in jambs and heads of the outer frame enhances the thermal insulation of the door system.

The absence of cold bridges inhibits condensation formation on door frames. All head assemblies can neatly incorporate trickle vents complying with 1995 standard Building Regulations (Part F) requirements for background ventilation.

Weather Performance

The Moniframe Entrance Door System has been independently tested to BS 5368, and has met the following levels according to BS 6375: Part 1:

Air Permeability	-	300 Pa
Water Penetration	-	300 Pa

Assemblies include high quality resilient closing seals and gaskets to ensure full weatherstripping.

A flexible perimeter 'flipper' section is available to provide a background for mastic pointing and to accommodate structural opening variations.

APPEARANCE

Aluminium profiles are polyester powder coated to BS 6496: 1991. Application, using the Syntha Pulvin or Interpon processes, is stringently quality controlled. Full gloss white (9910) and semi-gloss dark brown (BS 08B29) are available as standard.

Alternatively, to order, Monarch can supply profiles in a comprehensive range of 389 RAL, BS and metallic colour options, including matt, satin or gloss finishes. Anodised finishes can also be supplied.

Please refer to separate Monarch publications for further details. Colour cards and samples are available.

MAINTENANCE

At the time of installation the operating fittings are thoroughly cleaned and lightly lubricated with vaseline, silicone lubricant or acid free oil. Monarch recommends that this action is repeated at least annually to ensure satisfactory operation.

The finished appearance of Moniframe Doors is easily maintained through regular cleaning.

SPECIFICATION

Monarch recommends the use of the National Building Specification, parts L2- (Doors) and L1-710 (Protection of Components).

Monarch's policy is one of continual system development and we reserve the right to incorporate design improvements and changes. All details were correct at time of publication.

Detailed advice, backup and up-to-date information, on all systems and products and their applications, is freely available from: