



SAS doors

SAS International offers a range of stocked architectural specification grade standard doors and a bespoke door manufacturing service.

The range of door facings includes natural wood veneers, FSC / PEFC approved CPLs (Continuous Pressure Laminate), paint grade veneers and high pressure laminates.

An extensive stock of doors is held at our Apollo Park facility resulting in short lead times on finished goods.

Standard Door Service

Eight natural wood veneers, four CPL finishes and paint grade doors are stocked in various standard sizes. Doors can be customised from three days to meet project requirements, including:

- Door re-sizing
- Incorporation of standard vision panels to comply with Approved Document M
- Upgrades to FD30 or FD60 with fitted intumescent strip, in combination with cold smoke or acoustic seals
- Fitting automatic threshold seals
- Pre-mortising for locks and or hinges
- Full compliance with DDA regulations

Bespoke Manufacturing Process

SAS International also offers a comprehensive bespoke service for door sizes up to 3000 x 1200mm.

Doors can be specified fully finished with a 3 coat UV stable clear lacquer, applied during manufacture, which enhances the natural features of the veneer. Bespoke SAS doors can be supplied with a high grade finish.

The bespoke service enhances the standard service with:

- Fully finished non-standard door sizes
- Bespoke vision panels and bead styles
- Range of speciality veneer species and cuts
- Range of veneers with inlays
- Range of laminate finishes
- Pre-primed or fully finished paint grade doors





Fire resistance

Door cores from stock are available as 44mm thick cellular core (non fire rated), 44mm thick solid core (30 minutes fire rated) and 54mm thick solid core (60 minutes fire rated), all subject to individual installation conditions.

To achieve full fire performance doors must be installed with all necessary intumescent materials and an approved self-closing device fitted.

Doorsets that demand higher levels of fire resistance are available, please contact our technical department for further information.

Acoustic performance

Acoustic attenuation can be achieved to meet the requirements of Approved Document E of the Building Regulations 2003. A sound reduction index of up to R_w 33dB can be achieved when doors are fitted with appropriate perimeter and threshold seals.

For further information please contact our technical department.

Door Sizes

Our range of finished doors sizes available from stock includes:

1981 x 762mm	1981 x 838mm
2040 x 726mm	2040 x 826mm
2040 x 926mm	2700 x 838mm
2700 x 926mm	

The full range of sizes may not be available in all standard veneer finishes.

Bespoke doors can be manufactured to all sizes up to a maximum size of 3000mm high x 1200mm wide.

Ironmongery

All doors supplied by SAS can be pre-morticed for locks and hinges. When used in conjunction with SAS door-frames, door leaves can be supplied un-handled to suit SAS standard hinges for ease of ordering. This minimises on-site finishing.

Hi-Load hinges, both fixed pin or lift off are supplied with all SAS door frame sets. The maintenance free hinges are tested to BS EN 1935, Class 11 and are guaranteed for 25 years.



veneer production and cutting

Veneer Production

Producing veneer is the most effective way of developing high quality, genuine wood facing materials. It is both economical and environmentally sustainable. Using the latest production technology maximises the output of veneer; between 800 and 1,000 square meters can be produced from one cubic metre of lumber. No other timber process gives such a high yield.

Slicing

There are various methods of slicing which give different surface effects to the veneer, this is taken into consideration in processing the log. For the slicing operation the flitches are planed on one or both sides to ensure the flitch lies perfectly flat on the slicing bed. There are two types of veneer slicing machines:

- Slicing machine, horizontal or vertical.
- Peeling machine, rotary cutting, eccentric peeling or stay-log.

Different results are achieved depending on the machine and slicing method used. Exact knife and pressure bar settings are very important for the quality of the slicing.

Crown Cut

The first bundles from a log when sliced over the heart. Produces the so-called cathedral structure, which is the most sought after veneer.

Quarter Cut

The slicing is made perpendicular to the annual growth rings of the tree. This creates a straight grain appearance.

True Quarter Cut

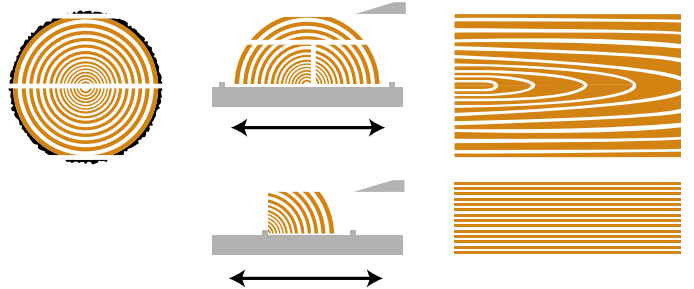
The cutting of the log into four quarters. In the case of Oak this gives a higher portion of veneers with fine flakes. However, the yield is generally smaller than when converting in other ways.

Rotary Cut

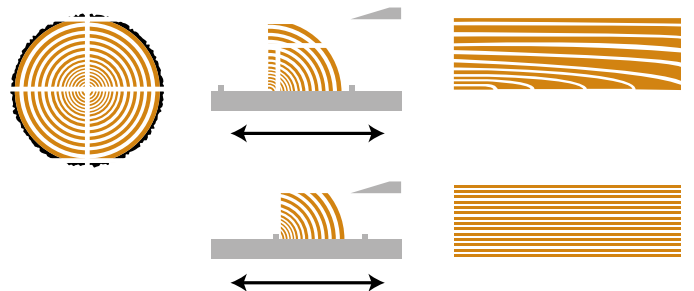
Veneer cutting machine on which the log is clamped centrally when brought up to the knife while rotating so that the veneer leaves are peeled off spirally. Used for almost all burr veneers, Birdseye Maple or Birch.



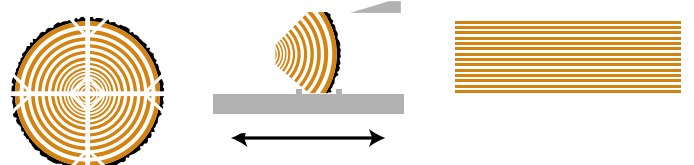
Crown Cut



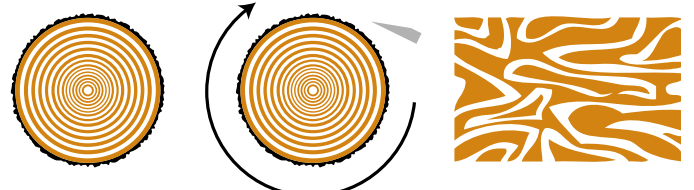
Quarter Cut



True Quarter Cut



Rotary Cut





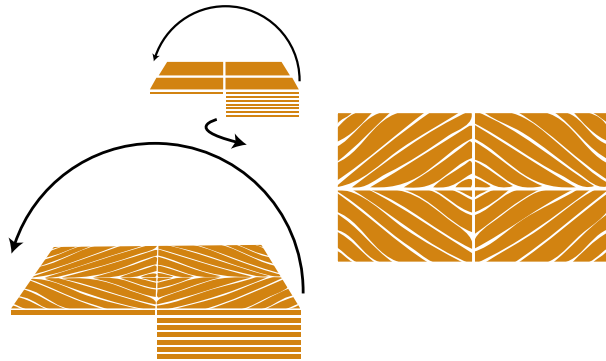
Book Matching Veneers

This traditional method of matching is achieved by taking successive leaves of veneer and reversing each alternate leaf so as to bring corresponding opposite edges together in a mirrored effect. This produces a symmetrical balanced pattern of grain and figure.



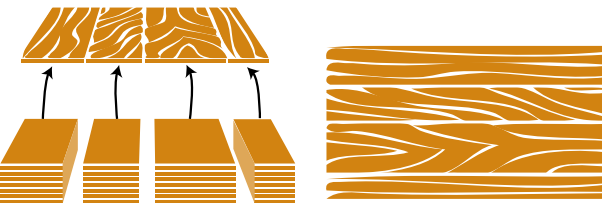
Slip matching

Successive leaves are taken from the same stock or flitch of veneer and jointed without turning alternate leaves over as in book matching. This produces a repeat pattern which varies gradually across the panel. Most effective when straight grain veneers are used.



Quarter Matching

A traditional way of jointing veneers based on the nature of the growth of the tree from which the veneers are cut. A veneered panel is made up from four pieces which are book matched both from side to side and from top to bottom. This method is useful in making up larger panels and when using species where only small leaves are available. It would normally be applied to butts, burrs and curls.



Random Matching

Veneers of the same species, but not necessarily from the same log, are deliberately mixed and mismatched to produce an overall grain effect with no particular pattern. Butt or end grain jointing may be introduced in some leaves to add to the planking effect.



veneer finishes

Veneer Finishes

Doors in a range of standard sizes are available in the following natural wood veneers:

Sapele	Oak
Ash	Koto
Steamed Beech	Maple
American Cherry	American Black Walnut

As with all natural materials our standard stock veneered doors are not sold as matching sets. Variations in shade and grain are a common feature. Pairs of some veneer species can be matched to commercial standards on one face only upon request.

CPL finishes

CPL (Continuous Pressure Laminate) faced doors provide a durable, easy to clean product which also has consistent colour and uniformity of grain. They can provide an economical solution for areas with several doors or double door sets. Unaffected by sunlight they do not suffer from shading or fading.

CPL doors are available with an Ash, Steamed Beech, Maple or Oak wood grain effect finish.

Bespoke manufacturing services

A further much wider range of natural wood veneers are available for use through our bespoke door manufacturing service. This service offers the specifier much greater flexibility in the selection of veneer species, the veneer cut and the assembly of the lay-on.

These techniques can create a variety of visual effects. By using two different cuts of the same veneer a subtle contrast effect can be achieved. Alternatively using two differing veneers species can create an expressive statement.

This bespoke service provides doors manufactured in sizes specific to individual requirements, with a further option of closely matching veneers where doors are in pairs or are adjacent to each other in installation.

The range of facings is not restricted to veneers but also includes laminate facings and painted finishes, offering an extended range of colours and textures.

The use of laser cut inlays can enable logos and other motifs to be incorporated into the door finish.

Paint finishes can be applied, from priming coats through to fully finished RAL colours or British Standard ranges.



CPL finishes



Ash



Oak



Steamed Beech



Maple

The above CPL samples are a representation only, samples are available on request.

standard veneer finishes



The above veneer samples are a representation only, samples are available on request.
As a natural product no guarantees can be given for exact match or shade.

standard veneer finishes



The above veneer samples are a representation only, samples are available on request.
As a natural product no guarantees can be given for exact match or shade.

special veneer finishes



The above veneer samples are a representation only, samples are available on request.
As a natural product no guarantees can be given for exact match or shade.

special veneer finishes

Crown Santos Rosewood



Otd Wenge



Figured Crown Maple



Bird's Eye Maple



Ebony



Alder



Bamboo



Etimoe



The above veneer samples are a representation only, samples are available on request.
As a natural product no guarantees can be given for exact match or shade.

vision panels

Vision Panels

Glazed apertures in a variety of shapes and sizes can be included within the door specification.

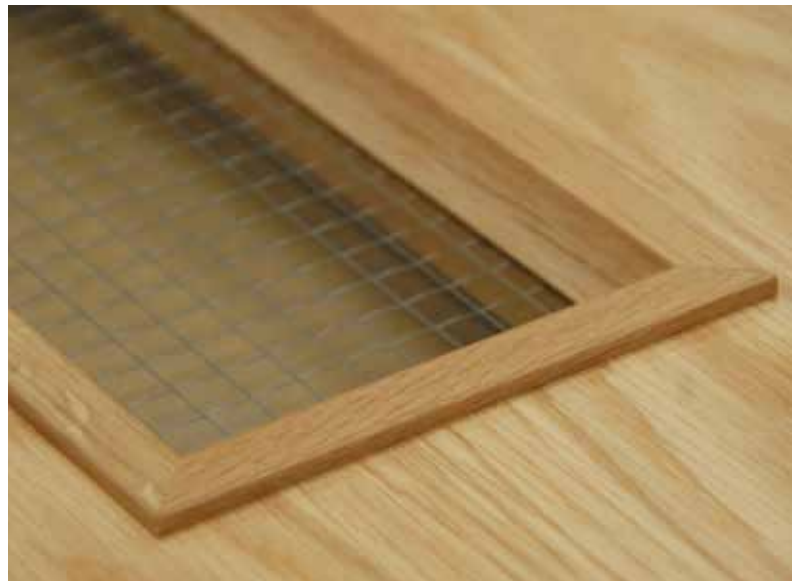
Selecting from a range of standard or bespoke vision panels the specifier has a further opportunity to create a unique effect. This includes glass retaining beads, matching hardwood bolection beads, flush quirked hardwood beads, and stainless or painted steel.

Vision panel options meet fire performance (30 minute or 60 minute fire resistance) if required. To ensure quality and performance standards, doors with fire resistant vision panels will only be supplied factory pre-glazed.

Part M of the Building Regulations 2004 (Access to and use of buildings) requires that all entrance doors and internal doors, where the door leaf or side panel is wider than 450mm (other than for reasons of security) include a vision panel. The vision panel should be installed towards the leading edge of the door, and its vertical dimensions should include the minimum zone or zones of visibility.

Guidance to this requirement of Part M can be found on the following pages.

Bespoke vision panel options can be accommodated, please contact the technical department for further details.



1) Standard Bead
(shown in Oak)

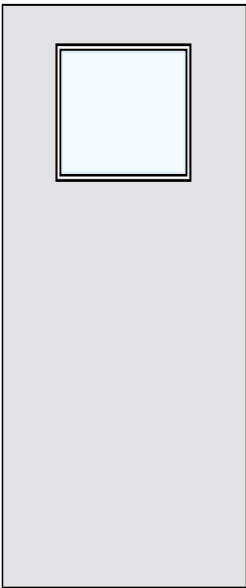


2) 1/2 Hour Rated Bead
(shown in Sapele)



3) 1 Hour Rated Bead
(shown in Beech)

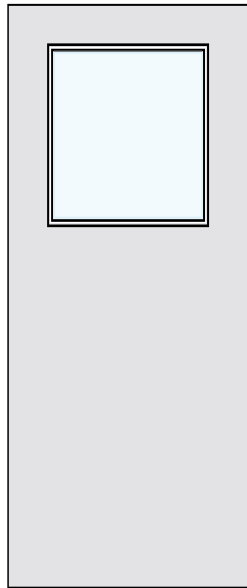
vision panels



Vision panel 1

450 x 450mm aperture

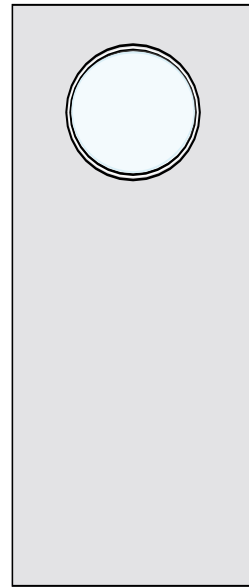
Position:
150mm down from the top of the door to the edge of the cut-out and centrally positioned in the door leaf.



Vision panel 2

600 x 538mm aperture

Position:
150mm down from the top of the door to the edge of the cut-out and centrally positioned in the door leaf.

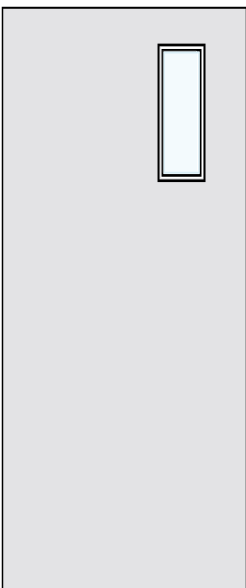


Vision panel 3

450mm dia. aperture

Position:
150mm down from the top of the door to the edge of the cut-out and centrally positioned in the door leaf.

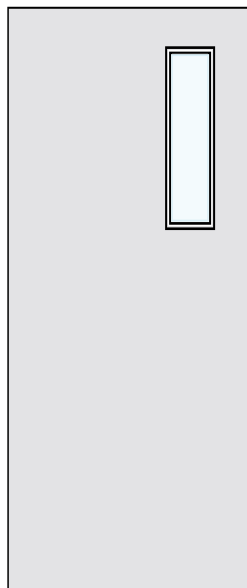
Fitted to solid core doors only.



Vision panel 4

450 x 150mm aperture

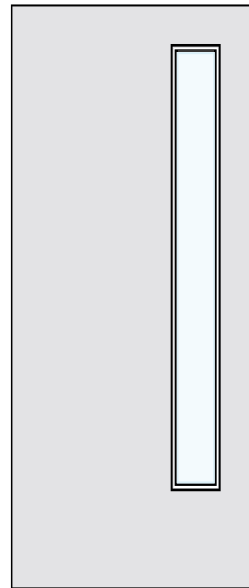
Position:
150mm down from the top of the door, and 150mm in from the side of the door both to the edge of the cut-out in the door leaf.



Vision panel 5

600 x 150mm aperture

Position:
150mm down from the top of the door, and 150mm in from the side of the door both to the edge of the cut-out in the door leaf.



Vision panel 6

1500 x 150mm aperture

Position:
150mm down from the top of the door, and 150mm in from the side of the door both to the edge of the cut-out in the door leaf.

DDA requirements and Part M

DDA requirements & Part M

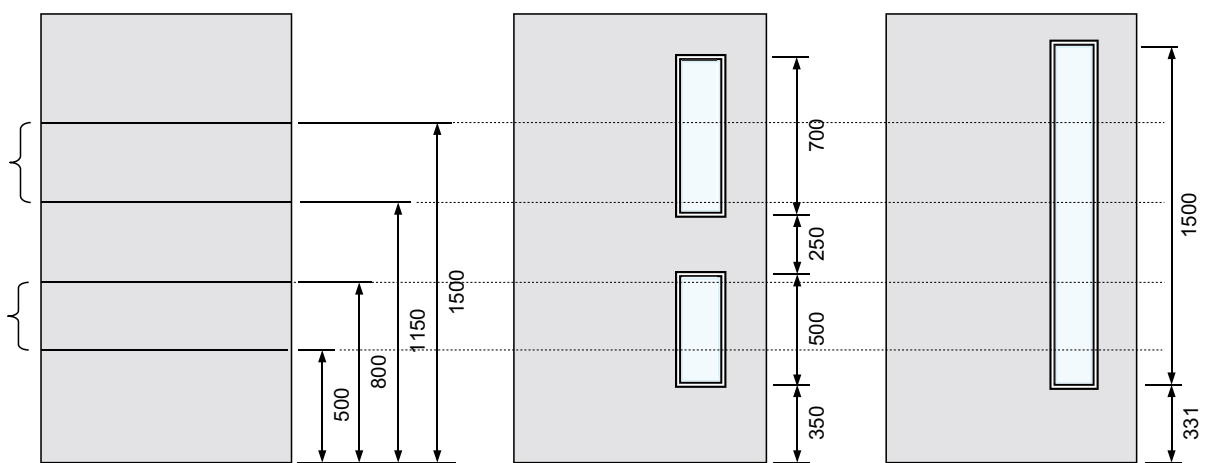
Approved Document Part M of the Building Regulations 2004 (Access to and use of buildings) and Code of Practice BS 8300 : 2001 (Design of buildings and their approaches to meet the needs of disabled people) set out provisions which must be made in both domestic and non-domestic accommodation.

The provisions include the following:

- Widths of access routes and doorways
- Visual contrasts between doors, door frames and the surrounding structure, and between door faces and door edges, which is defined by the document as a difference in light reflectance values exceeding 30 points
- All entrance doors and internal doors other than for reasons of security, where the door leaf or side panel is wider than 450mm, must include a vision panel. The vision panel should be installed towards the leading edge of the door, and its vertical dimensions should include the minimum zone or zones of visibility (see details)
- Limiting door opening forces allowing independent access through a building
- Ironmongery design, colours, sizes, positions and fixing methods.



Approved Document M, vision panel requirements & solutions



Minimum zones of visibility

As it indicates, a single vision panel or two vision panels must include these zones. Width is not specified.

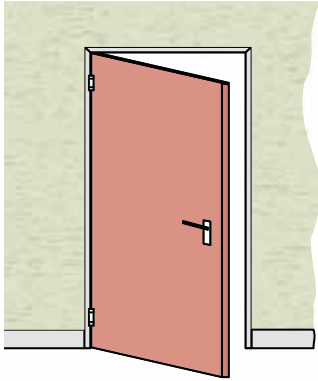
Two vision panels

700 x 150mm plus 500 x 150mm vision panels positioned to cover zones of visibility, this will allow use by all levels of ability.

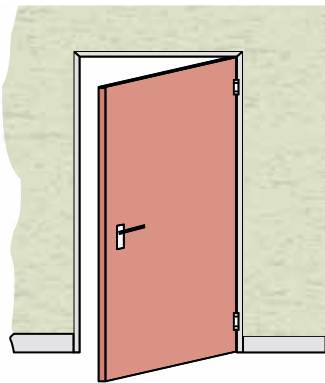
One vision panel

1500 x 150mm vision panel positioned to cover both zones of visibility, this also will allow use by all levels of ability.

1 Single doors

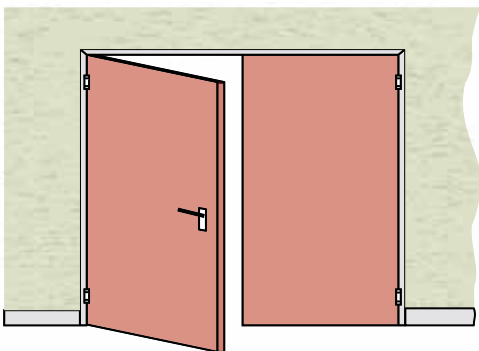


Left hand

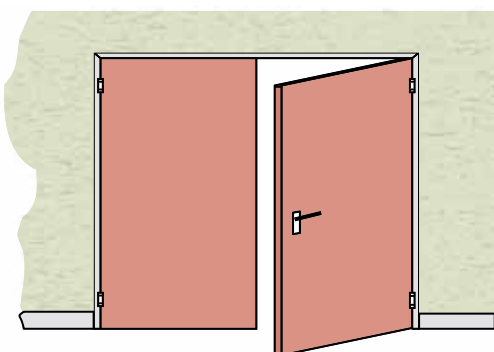


Right hand

2 Double doors (equal or unequal pairs)



Left hand opens first



Right hand opens first

Door handing

Door handing needs to be specified for all single doors in excess of 838mm wide or in excess of 2040mm high where a third or fourth hinge is required.

Handing is required for all pairs of doors when the doors have rebated meeting edges, either vertically or horizontally (door and over panel sets).

A range of aluminium door frames are available from SAS International to integrate with 50mm, 75mm and 100mm partitioning systems. Door frames are available in non-fire rated and 30 minute fire rated.

Door frames are available in a range of standard sizes and are normally supplied in White (RAL 9010), Grey (BS00A05), Silver (RAL 9006) and Standard Satin Anodised finish. Bespoke sizes and other RAL or BS finishes are available on request.



Material Sourcing – FSC and PEFC

SAS International purchases all timber and wood based products from sources that have a commitment to supply material which originates from sources which offer either FSC (Forestry Stewardship Council) chain of custody, PEFC (Programme for the Endorsement of Forest Certification schemes) chain of custody or complies with the FSC standard for Non FSC-Certified Controlled wood.

It is our policy to avoid using any timber based materials that have been improperly harvested or derived from genetically modified trees, or from uncertified high conservation value old-growth forests.

As holders of both FSC and PEFC certification, with supply of the appropriate materials, we are able to provide full chain of custody upon request.

Quality Standards

SAS International has a committed programme to obtain ISO 9001, ISO 14001 and OHSAS 18001 across the entire group's facilities: Apollo Park, Bridgend, Maybole and Reading.

ISO 9001 (Quality Management System) accreditation has been achieved throughout SAS International. It ensures that quality procedures are met and maintained. The system ensures consistency and improvement of working practices.

ISO 14001 (Environmental Quality System) accreditation has been achieved at all SAS manufacturing facilities. An Environmental Management System ensures that we reduce our environmental impact of manufacturing processes with regular management reviews.

OHSAS 18001 (Occupational Health and Safety Management System) is currently being accredited at our Apollo Park facility. It promotes a safe and healthy working environmental, confirming that our existing practices are the key to ensuring product quality.



FM 504171 FM 23840 FM 54954 ISO 9001
EMS 504170 EMS 508066 ISO 14001

metal ceilings | partitioning | doors | room comfort | architectural metalwork

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