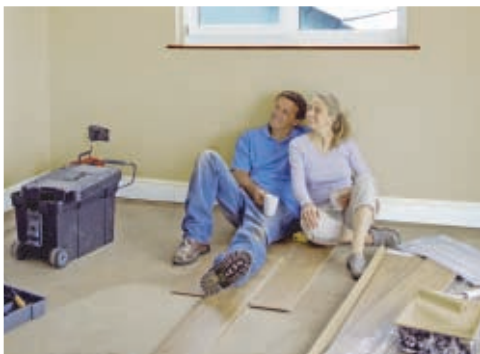




portamouldings

working with mouldings



an easy "how to" guide on porta's mouldings

why timber?

Sustainable and responsible building essentially requires less consumption - particularly of energy - to minimize any adverse environmental impacts. In this regard, timber is one of the most environmentally friendly of all the building materials, providing significant benefits:

- A natural product, timber is generally not toxic, and is safe to work and handle. It ages naturally and does not break down into environmentally damaging materials
- Timber is a renewable source
- Timber is low in production energy. It takes less energy to convert trees to logs and components therefore producing less carbon dioxide and acid rain
- As a great insulator in buildings, energy requirements reduce
- It is easy to work. Being lightweight, yet strong, timber requires minimal energy to install
- Timber has a surprising quality of fire resistance. Is valued for its thermal stability, low conductivity and totally predictable fire endurance

environmental policy



Porta Enterprises Pty Ltd is committed to the use of timbers within its operation that are sourced from forests which are managed sustainably and meet the following criteria:

1. Porta Enterprises Pty Ltd will at all times source timbers from environmentally sustainable forest resources.
2. Porta Enterprises Pty Ltd will give preference to timbers sourced from certified forests, and/or forests compliant with international standard ISO 14001. Only certification systems with international credentials and scientifically supported standards such as the PEFC, FSC or equivalent, will be recognised by Porta.
3. Porta Enterprises Pty Ltd will work towards the implementation of 'Chain of Custody' (CoC) practices within the enterprise and require its suppliers to adopt CoC systems in order to provide our customers with assurance of the environmental sustainability of our products.

what goes where?

: room "map"	pg 1
: architraves & skirting trim	pg 2
: ceiling trim	pg 3
: wall trim	pg 4

working with mouldings

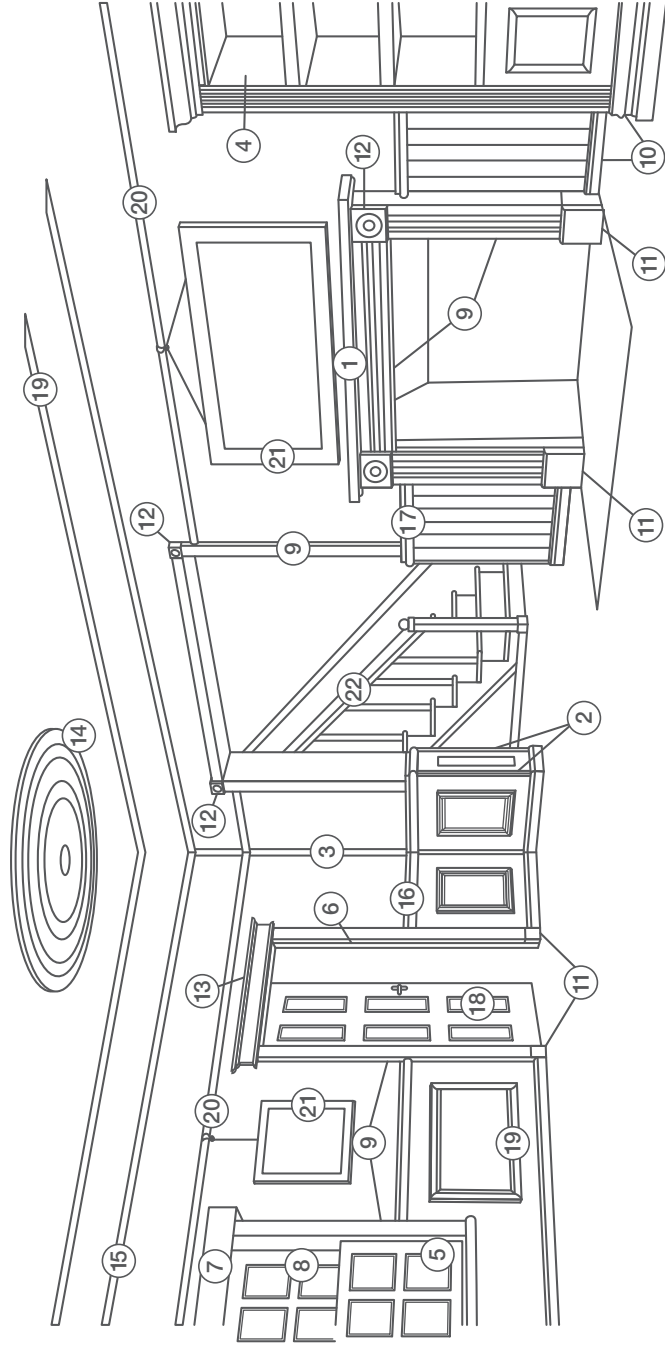
preparation	: removing old mouldings	pg 5
	: measuring requirements	pg 5
cutting	: mitres for internal/external corners	pg 5/6
	: mitres for cornice	pg 7
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what goes where?



Core Building

1. Edging & Coverstrap
2. External Corners
3. Ovolo / Quad / Tri Quad
4. Square Dressed (DAR)

Window & Door

5. Beading
6. Doorstop
7. Pelmet
8. Parting / Staff Bead

Architrave & Skirting

9. Architrave
10. Skirting
11. Base Blocks
12. Corner Blocks
13. Doorway Headers

Ceiling Trim

14. Ceiling Roses
15. Crown / Cornice / Scotia

Wall Trim

16. Chair Rail
17. Dado Rail
18. Insert Mould
19. Panel Mould
20. Picture rail

Specialist

21. Picture Frame
22. Hand Rail

architrave and skirting trim:



Architraves (aves/casing)

Serves as trim around door frames, windows or wall openings in which no doors are hung; hides the gap between wall lining and door-jamb/window frames.

Architrave corner blocks (corner rosettes, bullseye blocks)

Corner blocks are traditionally a decorative feature positioned where architraves meet at the head of doors/windows, eliminating the need for mitre cuts.

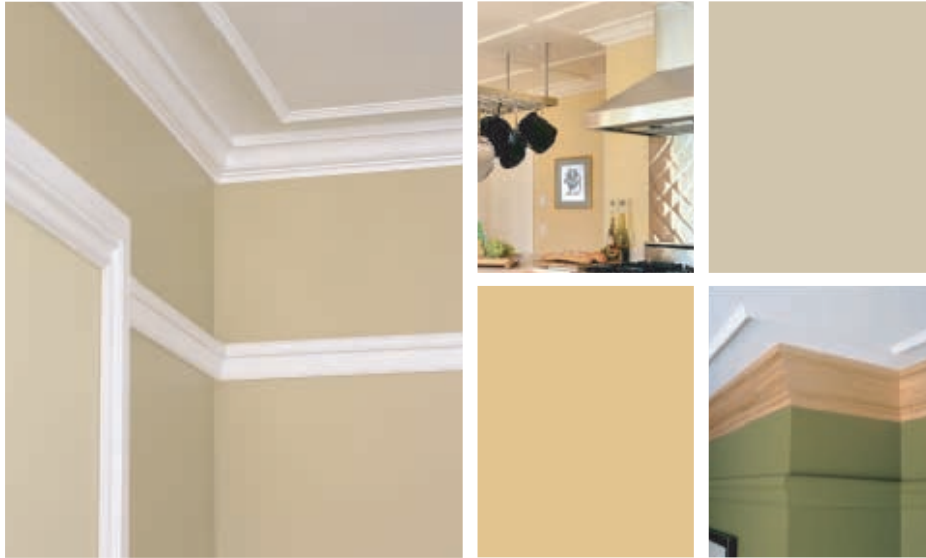
Architrave base blocks (plinth, bottom or base blocks)

Base blocks are positioned at the foot of the architraves and abutt the skirting.

Skirting (base boards)

Serves as a trim between walls and floors which hides any gaps between the two surfaces.

ceiling trim:



Cornice

The name often given to mouldings which conceal the uppermost corner between the wall and the ceiling.

Scotia

A "cornice" with a simple concave profile.

Crown

A "cornice" with a more decorative profile than the scotia.

Insert mould (inlay)

Designed with a pronounced 90 degree corner in order to "insert" into internal corners, insert mouldings are often used in ceiling-, wall- and door- trim applications.

Panel mould (bolection)

Designed to be fixed to flush surfaces such as walls, ceilings and doors, panel mouldings are used for a purely decorative effect and to hide joins or seams.

wall trim:



Chair rail

Originally designed to protect walls from “chair back” damage, chair rail is now used primarily decoratively. It is generally affixed at a height of 900mm – 1000mm.

Dado rail (dado cap)

Dado rail is generally affixed between 900mm – 1500mm in height to cover the exposed top edges of timber panelling boards fitted vertically to the lower portion of a wall.

Picture rail

Fixed horizontally and running high around the perimeter of a room, the “hanging” function is facilitated by means of a formed metal hook which securely locates over the uppermost rounded surface of the picture rail.

External corner moulds

These moulds protect or guard external corners & cover/ decorate any joint in timber paneling or sheet material.

the speed and ease with which mouldings can be installed is amazing and especially so with the right know how

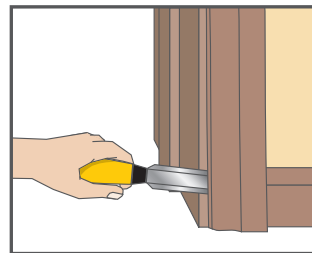
Tools often used / required

- mitre box and fine tooth saw
- tape measure
- pencil
- hammer
- nails and finishing nails (pins)
- wood filler
- coping saw
- g-clamp



Removing old mouldings

Most often the old moulding has been nailed on. To remove, find a gap between the moulding and wall and gently pry open using, for example a screwdriver or the claw end of a hammer. Work from one end to the other, loosening the nails until the old moulding can be removed. It is advisable to protect the door jamb from accidental damage by using a piece of corrugated cardboard or cloth.



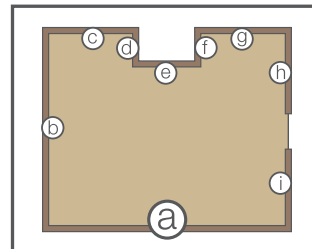
Measuring moulding requirements

For skirting, picture rail, dado or chair rail

Measure the width of each wall in the room to be decorated. Round up each measurement to allow for cutting and joining, and total. Purchase in lengths most suitable for your project.

For architraves and picture frames

Measure the perimeter of the area to be decorated, making sure to add the width of the moulding to allow for mitred joints around corners.



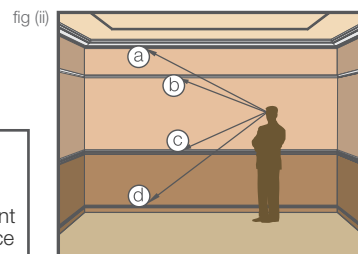
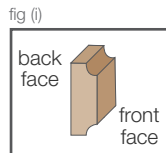
Mitre-cutting mouldings (45 deg)

excluding cornice (see hints for mitre-cutting cornice)

Before we begin, lets clarify terms for:-

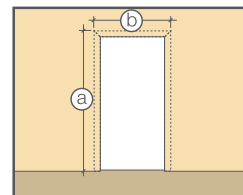
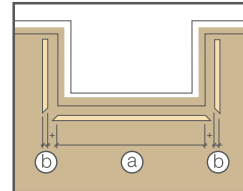
“front” face and “back” face: refer to fig (i)

“visible edges/visible face”: refer to fig (ii)
From eye level the lower edges of “a” (cornice) and “b” (picture rail) are visible, however it’s the upper edges of “c” (chair rail) and “d” (skirting) which are visible.

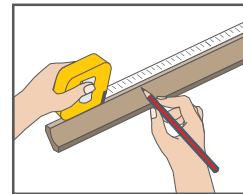


mitre-cutting continued...

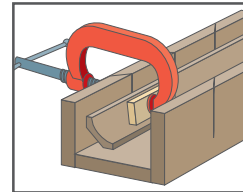
Measure the length of the wall from corner to corner. For an external (outer) corner, or around door and window measurements, remember to add the width of the moulding to the length in order to allow for the longest point of the 45 degrees angle.



Mark required measurements on the visible face edge of the moulding with a pencil.

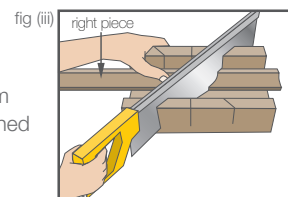


Place the moulding visible face edge uppermost in the mitre box. This ensures a smooth saw cut on the visible surface and that any "break-out" will be on the "non-visible" surface. For a neat result it is best to keep the moulding firmly in position, so do try to clamp if possible to avoid movement and also apply a cushioning pad or mat so that the clamp does not mark the moulding.



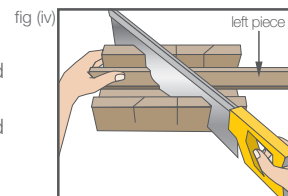
External corners

For the left hand piece, the saw should be positioned 45 degrees from right to left (fig iii). For the right hand piece, the saw should be positioned 45 degrees from left to right (fig iv).



Internal corners

When cutting for internal corners, however, this procedure is reversed as follows: For the left hand piece, the saw should be positioned 45 degrees from left to right. For the right hand piece, the saw should be positioned 45 degrees from right to left.



Visuals illustrate cutting for external corners

hints for mitre-cutting cornice

You will need a mitre box large enough to house the size of your cornice comfortably.

Measure the length of the wall for which the cornice piece is required.

Place the cornice piece in the mitre box with the ceiling edge (a) of the cornice at the bottom of the box & the wall edge (b) of the cornice against the upright side of the mitre box, which is closest to you as per fig. 1
 Hint: If the ceiling (a) and wall (b) edges of the cornice are similar in design, you may wish to make a few pencil marks (eg. x's) along the ceiling edge of the cornice so that you can check you have located the cornice piece correctly in the mitre box before cutting.

Mark your required measurements on the wall edge (bottom edge) of the cornice, allowing enough "waste" on each side to allow for easy handling & the 45 degree mitre cut/s required.

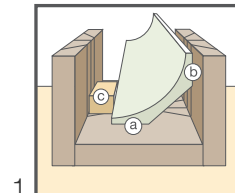
Use the appropriate diagram from figs. 2 - 5 following, as a guide for getting the correct mitre angle for the particular piece required. It is important to double check before cutting, especially when one end of the cornice is cut for an internal corner and the other for an external corner.

Hint: For a good result, please ensure that:-

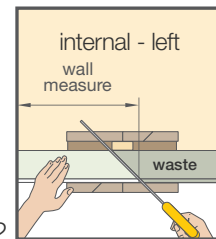
Longer lengths of cornice are supported so that they do not flex during cutting.

The cornice is firmly held in the mitre box and won't move during cutting
 A "brace" piece, see "c" fig 1, can help.

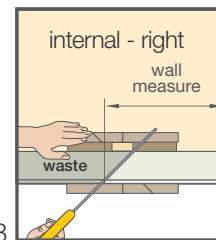
There are various hardware/glue options available for fixing cornice to the wall/ceiling. Consult your local hardware store for advice on the options best suited to your particular wall/ceiling type.



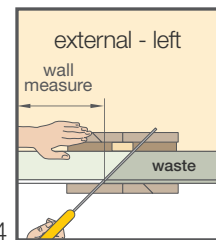
1



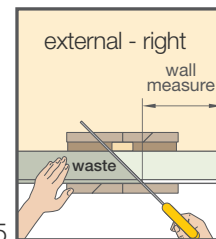
2



3



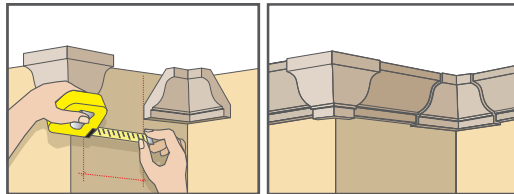
4



5

Speed up the process: Use mitre-less corners

Mitre-less Corners eliminates the need to mitre join! Position and affix the external and internal corners where needed. Moulding lengths only need to be butt joined to the corners and affixed in the usual manner.

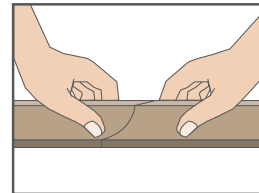


Splicing a moulding

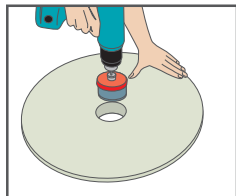
This is a neat method to join two lengths of straight moulding. Position the moulding with the visible face edge uppermost in the mitre box (this ensures the saw cut on the visible face is clean and that any break-out will appear on the non visible face of the moulding) with the back of the moulding against the back wall of the mitre box.

Mitre the joining ends at 45 degrees. The two pieces overlap making a diagonal joint.

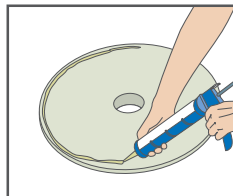
For a stronger joint, position spliced moulding ends in front of a stud so that the joining pieces can be nailed into the stud.



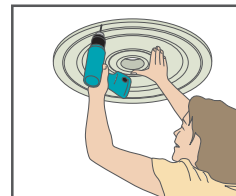
hints for installing a polyurethane ceiling rose



1. Drill centre hole wide enough to take required fittings.



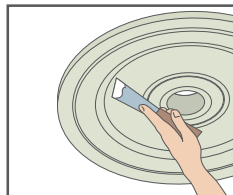
2. Apply bead of adhesive to 'bedding' perimeter of rose.



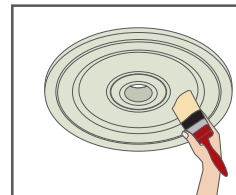
3. Position & affix with screws (just like wood).



4. Fill any gaps with sealant & then wipe away excess.



5. Fill screw-holes with non-shrinkable filler. Sand smooth.

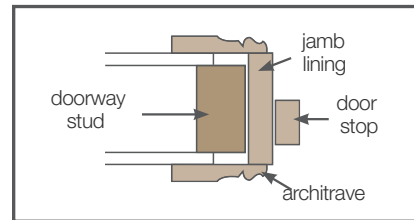


6. Paint / stain as per manufacturer's instructions.

installing new doorway architraves

The doorway in cross-section

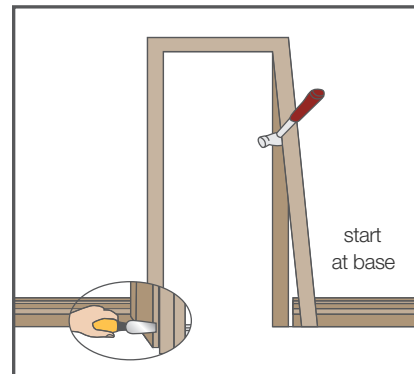
This is how a doorway in framed construction looks in cross-section. The door stop can either be planted onto the jamb, commonly referred to as a flat jamb (illustrated) or be part of a simple one piece moulding, referred to as a rebated jamb.



Removing old architraves

In most cases the old architrave has been nailed on. To remove, starting at the base of the doorway, find a gap between the architrave and wall and gently pry open using for example a screwdriver or the claw end of a hammer.

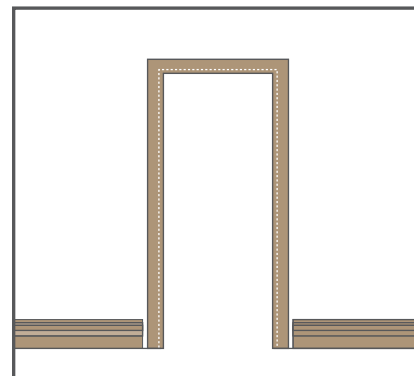
** It is advisable to protect the door jamb from accidental damage by using a piece of corrugated cardboard or cloth.*



Marking the new architrave location

Mark a pencil line, as indicated by the dotted line, 5mm back from the face of the door jamb*. This will form the location reference for the inner edge of the new architrave.

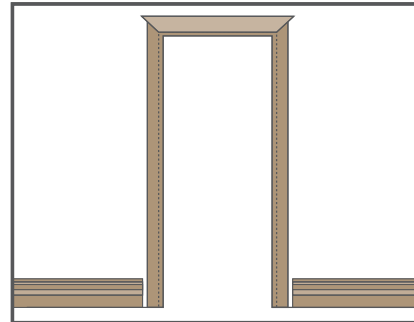
** The use of a combination square is helpful here.*



installing new doorway architraves

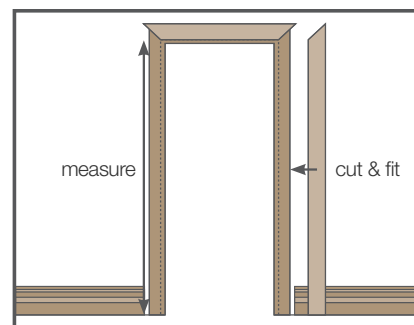
Locating the “head” architrave

Mitre the corners of the head (upper-most architrave) using the horizontal “inner” dimension as previously marked*. Then nail the head into position, but don’t drive the nails all the way home.



Locating the “side” architraves

Now measure down the jamb to the floor to determine the inner dimensions for the side architraves and mark for length. Carefully mitre cut the upper ends leaving the bottoms square. Again, locate the side architraves against the marked lines on the jamb and secure with partially driven nails.

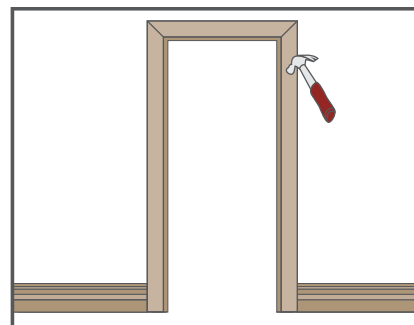


Final fixing & finishing

Once satisfied with the fit of the upper mitred joints, drive the nails home securing the architraves to the jamb, the vertical door studs and the door head framing*.

Fill any holes/gaps with filler. When dry, sand & apply water or oil based paint of your choice, following the manufacturer’s instructions.

* Special masonry fixings will be needed to secure trim to brickwork or block-work walls. Consult your hardware outlet.



install a porta cypress fir “flat set” door jamb

Tools required:

Saw, mitre box (optional), hammer & nails, tape measure, spirit level, shims (packing material)

Contents: Flat Set

2 doorway styles: 112mm x 18mm x 2.1m
 1 doorway header: 112mm x 18mm x 0.9m
 2 doorstop styles: 30mm x 12mm x 2.1m
 1 doorstop header: 30mm x 12mm x 0.9m

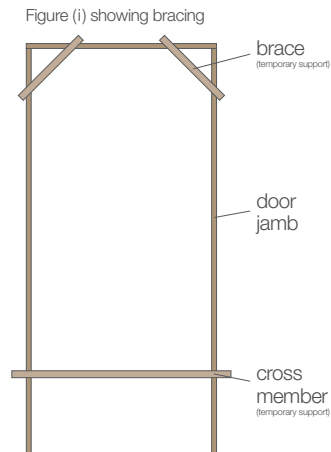
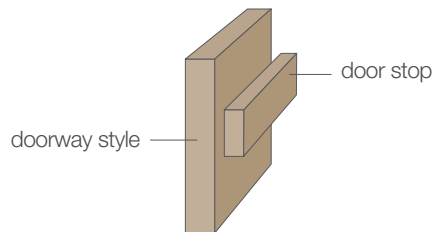
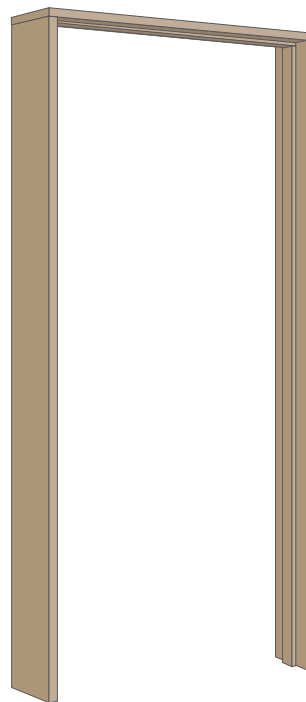


Figure (ii) showing assembled door jamb



Installation hints:

Measure head & style dimensions of opening. Check.

Choose method of joining (mitre/butt) and mark relevant measurements on components. Check and then cut if required.

Nail head to styles & check for square:

HINT: If a novice DIY'er you may choose to brace temporarily to ensure square – see figure (i)

Position assembled jamb in opening, ensuring it is lined up correctly. It may be necessary to use packing material to ensure that the installation is square and level. Check again and then nail.

Position the door stop on the jamb.

Fit the hinged door in the jamb. When it opens & shuts freely, fix the door-stop securely to the jamb.

Fill all nail holes and sand smoothly.

Finish (paint, stain etc.) according to the paint manufacturers instructions

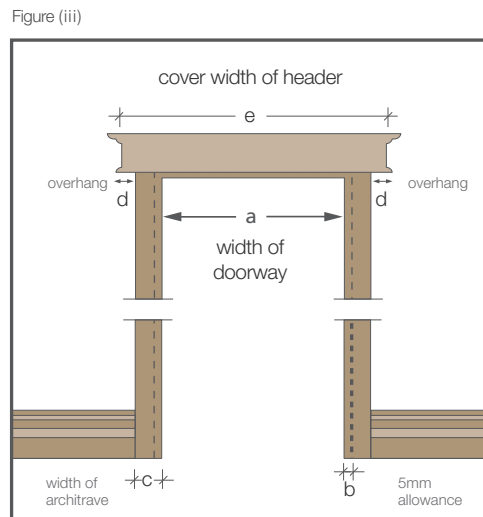
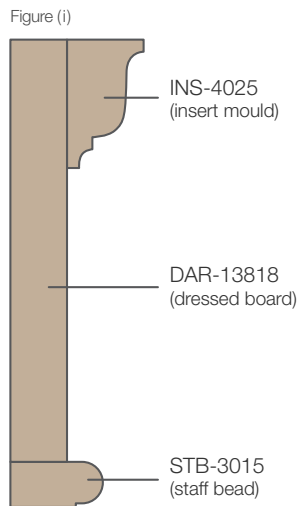
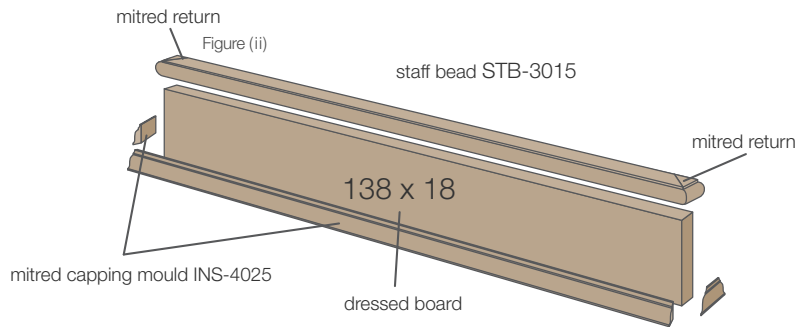
how to build up a decorative doorway header

A classically styled header can easily be made from dressed board (DAR) and moulding trim. Best suited with architraves of 90mm or wider, the made up head merely sits astride the square cut tops of the side architraves. Many variations in trim and board size are possible to suit your taste.

Fig (i) illustrates the cross-section of a header using Porta's insert mould and staff bead.

Mitre and affix the mouldings to the header with panel pins and/or adhesive as illustrated in fig (ii) - the assembly is depicted upside down for clarity - and then affix in position astride the architraves with nails and/or board adhesive to suit.

Completed doorway example shown in fig (iii).



Using pre cut dowels

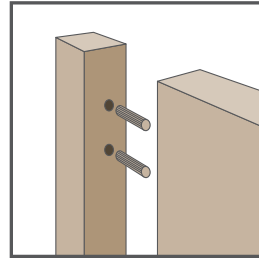
Pre-cut grooved dowels provide joints of exceptional structural strength in furniture and related components.

Pre-drill mating surfaces.

Apply adhesive to both dowel ends and mating joint surfaces.

Insert the grooved dowels into mating surfaces.

Clamp the joint firmly and leave to bond.

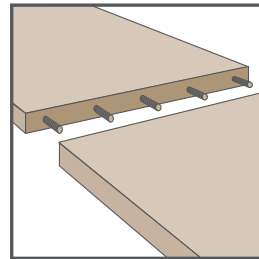


Dowel size guidelines

Generally the length of a dowel should be 1.5 times the thickness of the wood or 6mm less than the combined thickness of the holes drilled (for eg. a 20mm thick component, the dowel length should be approximately 30mm)

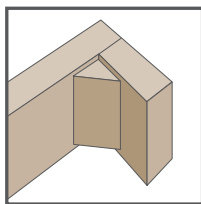
The diameter of a dowel should be approximately one third of the thickness of the timber into which it is to be inserted (for an 18mm thick component, the dowel diameter would be approximately 6mm)

When using dowels to join carcasing panels, there should be a minimum of 3 dowels per joint or they should be approximately 100 mm apart. A minimum of 2 dowels per joint is required for doors and frames, however they should not be more than 25-50mm apart.

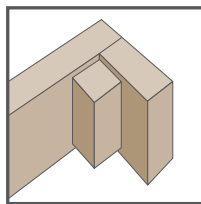


Other joining ideas

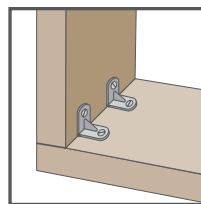
Glue block
Porta Ref: TQD-19



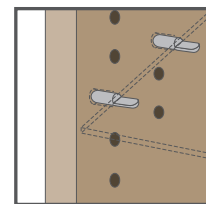
Rectangular block
Porta Ref: DAR-1818



Angle irons
(for fixed shelves)



Bracket pins
(for adjustable shelves)



Storage and handling

As a natural product, timber can absorb moisture from the surrounding atmosphere. It is therefore advisable to “acclimatize” the timber mouldings in the room in which they will be installed by laying them flat and separated (in order to allow maximum air circulation) for approximately 48 hours prior to installation.

Treated pine in particular, tends to warp or bow naturally. The timber can often be brought back into shape by using more nails, or, where short lengths are required, by cutting it where the timber distorts, to relieve most of the tension.

How to “apply filler”

To fill any nail holes, repair scratches or dents, sand *lightly* first with fine/extra fine sandpaper & then apply a non-shrinkable filler

When a CLEAR COAT is to be applied, use a quality filler such as **Timbermate**® that best matches the colour of your timber. When a STAIN is to be applied, use the natural coloured filler, as **Timbermate**® will “take” the stain like the timber does.*

Allow filler to dry and then lightly sand to ensure a smooth surface.

How to “sand mouldings”

Always sand *with* the grain of the wood with a *fine* grit sandpaper or sponge.

If using a natural unfinished timber, e.g. finger-jointed pine, prime before painting. It is advisable to give a light sand between coats.*

To paint or stain?

Generally speaking, timbers with a pronounced grain are best suited to staining or varnishing as this enhances the grain.

Painting is recommended for pre-primed mouldings.

Please see table for general guideline.

Species	Stain	Varnish	Paint
Tasmanian Oak	●	●	○
Clear Pine	●	●	○
Finger-jointed Pine	○	○	●
Treated Pine	●	●	●
Cypress Fir	○	○	●

Handy hint

Removing barcodes/stickers: To remove a barcode or sticky label safely from timber (or, in fact, most other surfaces), simply apply **un-du**™ adhesive remover. Your timber will then be ready to use.

Masking tape for painting: It is easier to paint/stain prior to installation, however when working with installed mouldings, protect the surrounding area by masking it off with a suitable tape.

Remove tape immediately after finishing to prevent the tape from drying to the finish

* follow the manufacturer's instructions



Tasmanian Oak

Clear Pine

Finger Jointed Pine

Treated Pine

Cypress Fir Pre Coated

Tasmanian Oak (Select Grade)

Sometimes referred to as Victorian Ash

Botanical name: Eucalyptus delegatensis, E. Obliqua and E. regnans.

Visual features: Light in colour varying from straw to reddish brown with shades of cream and pink. Uniform and smooth texture and straight even grain. Please note, natural variations in grain, colour and texture are a characteristic of the species rather than a defect.

Technical features: Dense & resilient hardwood which holds nails and screws easily. Glues with common adhesives and stains well allowing ready matching with other timbers/finishes.

Radiata Pine

Also known as Monterey Pine

Botanical name: Pinus radiata

Visual features: Cream to light straw in colour with a fine but uneven texture.

Technical features: Low density timber which is soft, easy to drill, nail and glue. Stains readily and finishes adhere very well.

Radiata Pine is supplied by Porta in the following grades;

Clear Pine (PICL): A knot-free product which is easier to work than knotty pine. It can be successfully stained, painted, waxed or colour-washed.

Finger Jointed Pine (PIFJ): A knot-free paint grade comprising lengths of clear wood joined end to end utilizing a micro-sized finger joint

Treated Pine (ACQ): Impregnated with ACQ preservatives increasing the longevity outdoors, above ground and against termite attack for 30+ years.

Cypress Fir Pre Coated

Botanical Name: Cunninghamia Lanceolata

Visual features: Pre-coated with a specially developed water-based primer in a matt white finish, In most cases only one coat of oil or water based paint is needed to attain a very professional finish.

Technical features: Easy to work and naturally resistant to termite attack.

projects or d.i.y. plans



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